



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 Board of Directors' Study Session will be held at the Yakima City Hall, City Council Chambers on Thursday, July 14, 2016 at 1:30pm to discuss the regulatory hierarchy established pursuant to the Federal Clean Air Act (FCAA) and the Washington Clean Air Act (WCAA). The Regular Meeting will follow at 2:00pm to discuss the following Agenda.

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, stating your name for the record. The Chair has the right to place a time limit on each person asking to be heard.

STUDY SESSION @ 1:30 p.m.

1. Regulatory hierarchy established pursuant to the Federal Clean Air Act (FCAA) and Washington Clean Air Act (WCAA)

Gary Pruitt

AGENDA

REGULAR MEETING @ 2:00 p.m.

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

*Board Chair
Quatandra Jarvis
Board Chair*

CONSENT AGENDA

4. Consider Approving the Consent Agenda, Items for action 4.1 through 4.2. The Board may approve the Consent Agenda by single motion in whole or in part, with or without further discussion.
 - 4.1 By consent, approve June, 2016 Board Meeting Summary; and
 - 4.2 By consent accept and file, YRCAA June, 2016 Monthly Activity Report.

Action Requested: Approve Consent Agenda Items 4.1 through 4.2.



REGULAR AGENDA

5. Receive YRCAA Director's Report. *Gary Pruitt*
Action Requested: Accept and file Director's Report - No Action Required.

ACTION ITEMS

6. Approve the Repeal and Replacement of Administrative Code Part B, Subsection 10.15 –Reserve Funds. *Gary Pruitt*
Action Requested: Approve Resolution 2016-05
7. Appoint Gary Pruitt Custodian, Auditing and Investment Officer and Christa Owen Alternate Custodian, Auditing and Investment Officer. *Quatandra Jarvis*
Action Requested: Approve Resolution 2016-06
8. Accept Fiscal Reports. *Christa Owen*
 - Approve Fiscal Vouchers and Payroll Authorization Transfers;
 - BVA(s) – FYI;
 - Supplemental Income Status Report for CY 2016; and**Action Requested:** Approve Fiscal Vouchers, Payroll Authorization Transfers, Accept and File Fiscal Reports.
9. Uncollectable Debts. *Keith Hurley*
Dismiss uncollectable debts owed to the YRCAA;
Action Requested: Approve Resolution 2016-07.

DIVISION REPORTS

10. Engineering and Planning Division *Hasan Tahat*
Accept Engineering and Planning Division Report
Action Requested: Accept and file Report – No action required
11. Compliance and Enforcement Division *Keith Hurley*
Accept Compliance and Air Monitoring Division Report
Action Requested: Accept and file Report - No Action Required
12. Executive Division *Mark Edler*
Accept Executive Division Report
Action Requested: Accept and file Report – No action required

OTHER BUSINESS

13. Other Business and Adjournment *Board Chair*

The Next Board of Directors Meeting is scheduled for Thursday, August 11, 2016 at the City of Yakima Council Chambers, 129 N Second Street, Yakima.



Summary of the Governing Board of Directors Meeting

Location, Date and Time:

Yakima City Hall Council Chambers, June 9, 2016 Time: 2:00 p.m.

1. Jon DeVaney, Board Chair, called the Meeting to order at 2:00 p.m.
2. Quatandra Jarvis, Clerk of the Board, conducted roll call. There was a quorum

PRESENT WERE:	
BOARD MEMBERS: Jon DeVaney, Representative-At-Large Norm Childress, Small Cities Representative Bill Lover, Largest City Representative	STAFF: Gary Pruitt, Executive Director Quatandra Jarvis, Clerk of the Board Hasan Tahat, Engineering/Planning Division Keith Hurley, Compliance/ Enforcement Division Mark Edler, Executive Division
LEGAL COUNSEL: Gary Cuillier, Board Counsel	MEDIA: Mike Brown, YPAC

3. Additions and Deletions to Agenda –There were none

Public Comment

Kathleen Rogers, Sunnyside/Grandview: Ms. Rogers shared several issues: 1. She passed around a booklet of pictures from 2015 to 2016 of dust complaints; 2. Ms. Rogers would like an air monitor at her house consistent with a monitor that was mentioned in a newspaper article; and 3. Ms. Rogers could not find itemized amounts of the budget on the YRCAA website and shared a comment letter from her husband.

Sandy Braden- Ms. Braden wanted to know if there were any updates regarding her question of whether Dr. Jones's position on the Board of Directors is a conflict of interest. Jon DeVaney answered no, that although the request has been submitted to the Attorney General's Office, the Agency does not yet have an answer from them.

FY 2017 Budget Hearing

Time: 2:05

Gary Pruitt advised that the Agency received one written comment. There were no additions or deletions made to the draft budget as a result of that comment.

An account by account itemization of expenditures and revenues of the Draft Budget was posted to the Agency's website.

FY2017 Budget Hearing closed at 2:27pm.

Regular Meeting

Time 2.27

4. Consent Agenda
- 4.1 By consent, accepted May 12, 2016 Board Meeting Summary; and
- 4.2 By consent accepted May, 2016 Monthly Activities Report.

Motion to approve with typo in May's Summary corrected, moved by Norm Childress and seconded by Bill Lover. Motion passed.

AGENDA ITEM NO 4.1

REGULAR AGENDA

5. Director's Report

1. Board Members-Conflict of Interest.

The Agency has contacted the office of State Representative Norm Johnson and requested he obtain an answer from the Attorney General's Office. Mr. Pruitt requested the answer to three questions regarding RCW 70.94.100 (6) and WAC 173-400-220(2): Does the statute or regulation: 1. Prevent a member from holding a position on your Board? 2. Prevent a member from participating in a discussion about the industrial sector? and 3. Prevent the member from voting if, in the opinion of a majority of the Board, the member can vote objectively on a matter involving the industrial sector?

2. FY2017 Budget

The Agency received one public comment. There were no changes to the draft budget as a result of that comment.

3. Dairy Compliance and Enforcement

The Board of Directors' have received comments implying that the Department of Ecology's Air Program is regulating and enforcing on Dairies that the Yakima Regional Clean Air (YRCAA) is not. YRCAA has taken enforcement actions against dairies. Mr. Pruitt asked Keith Hurley to contact the Department of Ecology regarding this issue. Mr. Hurley continued the discussion advising that he spoke with the Department of Ecology Headquarters and the Department of Ecology's Eastern Regional Office. Mr. Hurley found that the Department of Ecology regulates and enforces on CAFOs, Feedlots and Heifer Replacement lots. They do not regulate and enforce on dairies because they are working on determining emission factors they can use for the cows. The Department of Ecology Eastern Region Office took action against in the Wallula Case, a beef cattle feedlot, for failure to follow their permit.

4. Statutory Authority

Mr. Pruitt continued his report by educating the Board and public on the fact that YRCAA derives its statutory authority from the Federal Clean Air Act (FCAA) and the Washington Clean Air Act (WCAA). There is a study session planned for the July Board Meeting that will explain and discuss the resulting hierarchy established pursuant to the FCAA and WCAA. The Study Session will go from Act to policy.

5. Ecology's Clean Air Rule

The Department of Ecology updated their Clean Air Rule on June 1, 2016 and has re-opened it for study sessions and workshops. A link to the updated rule, study sessions and workshops were included in Mr. Pruitt's report.

ACTION ITEMS

6. Approve Proposed FY 2017 Budget

Mr. Pruitt believes this budget reflects a strategic approach to the budget planning process, looking toward the future rather than simply reacting to it. He advised it relies on a workforce focused on programs, policies and regulations that matter to public health and the environment. The Agency has reshaped its workforce and work output to best meet current and future challenges by building on strengths and focusing on strategic goals. Mr. Pruitt continued that it makes long-term fiscal sense to invest in the workforce and improved technology to work smarter and more effectively. The Budget includes a planned appropriation of \$754,994 for staff salaries and benefits; \$23,541 for supplies; \$254,793 for services; and no capital outlay. Salient factors in the Budget include a 0.8% increase in salaries and benefits from the FY2016 budget; 27.9% increase in total supplies from the FY2016 budget; 7.2% decrease in total services; \$100% decrease in capital outlay; no increase in the Supplemental Income per capita rate; and no increase in permit fees.

Mr. DeVaney asked Mr. Pruitt to address the comment regarding whether the Agency is at an adequate staffing and enforcement level and the general health expertise of the staff. Mr. Pruitt believes the Agency is adequately staffed. It's the workload that cannot be anticipated that's the issue. In addition, the comment refers to data analysis; there is some data analysis involved in issuing Order of Approvals, however, beyond that, there is no data to analyze.

Mr. DeVaney asked if the Agency has an estimate of dollar cost and/or staff hours of complying with record requests on a fiscal basis. Mr. Pruitt answered that the Agency does have a line item of the subsets for specific work areas in relation to public records but does not have a line item specific to public records requests. The Agency will try to give the Board a breakdown of the cost of processing records within the next few months. Mr. DeVaney believes it would be a good idea to have a better estimate of the cost of public records as it's not a budgeted. Mayor Childress asked if the Agency had access to legal help. The answer was yes, the Agency has an Agency Attorney and another attorney who specializes in public records request when needed. In addition, the Agency has access to MRSC (Municipal Research and Services Center).

Mayor Childress wanted to know what the mandates were for the Assessments to the Cities. RCW 70.94.092 and RCW 70.94.093 allows the Agency to assess by land valuation, per capita or both. YRCAA's Board elected to assess based on per capita at \$0.40 per capita.

Finally, Mr. Pruitt gave a summary of Resolutions 2016-02 through 2016-4.

Motion to adopt one or all three, Norm Childress moves to adopt all three resolutions, Bill Lover seconded. Motion passed.

7. Fiscal Report

Quatandra Jarvis advised that Payroll for May was \$62,627.37. A/P was \$25,930.91 out of this amount, Wood Stove Change-out was \$14,848.49 and Enterprise expenses were \$1,684.41.

Motion to approve made by Bill Lover, Seconded by Mayor Norm Childress. Motion approved.

DIVISION/PROGRAM REPORTS
(See written reports for complete details.)

8. Engineering and Planning Division Report

Hasan Tahat, Ph. D advised that he is working on the second 10-year maintenance plans for CO and PM10 which will be submitted to Department of Ecology and they will forward it to EPA. There were no exceedances for May.

9. Compliance and Enforcement Division Report

Mr. Hurley stated that the Board has the monthly recap of his division, subject to any questions, that concluded his report.

10. Executive Division Report

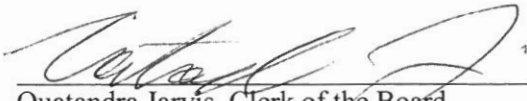
Mark Edler shared that all of the six (6) wood stoves that were switched out were switched to either gas or electric versus another solid fuel burning device.

Mr. Edler's division did an Outreach video with Benton County Clean Air in Spanish.

11. Other Business and Adjournment

There was no other business. Motion to adjourn made by Mayor Norm Childress, seconded by Bill Lover. Meeting adjourned.

Jon DeVaney, Board Chair



Quatandra Jarvis, Clerk of the Board

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

Date of Release: July 7, 2016
Date of Consideration: July 9, 2016
To: Board of Directors
From: Office of the Executive Director
Subject: Monthly Activity Report

Activity	FY15	Mar.16	Apr.16	May. 16	Jun16	FY15	FY16
Minor Source Inspections	220	8	19	10	10	220	107
Complaints Received	228	17	13	12	25	228	201
NOVs Issued	92	5	2	1	23	92	85
Warning Notices Issued	43	0	0	0	0	43	7
NOPs Issued	67	11	3	4	3	67	60
SEPA Reviews	274	24	16	15	19	274	245
AOP Applications Received	2	1	0	0	0	2	1
AOPs Issued or Renewed	3	1	0	0	1	3	3
Deviations/Upsets Reported	12	1	1	1	1	12	12
AOP Inspections	5	0	2	0	0	5	8
Public Workshops	4	0	0	0	0	4	0
Media Events	0	0	0	0	0	0	0
Media Contacts	19	0	0	0	0	19	19
Education Outreach Events	9	1	2	2	1	9	8
Sources Registered	333	26	34	12	7	333	381
NSR Applications Received	33	0	2	1	1	33	10
NSR Approvals Issued-Temporary	2	0	0	0	0	2	1
NSR Approvals Issued-Permanent	23	0	1	1	0	23	13
NODRs Received	233	20	3	21	27	233	189
Agricultural Burn Permits Issued	220	48	21	8	4	220	206
Conditional Use Permits Issued	8	3	3	3	1	8	11
Residential Burn Permits Issued	1349	61	512	38	42	1349	240
Burn Ban Days	39	0	0	0	0	39	90
Public Records Requests Fulfilled	34	3	5	3	2	34	26

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

AGENDA ITEM

4.2



Date of Release: July 7, 2016
Date of Consideration: July 14, 2016
To: Board of Directors
From: Office of the Executive Director
Subject: Director's Report

1. Public Comment

Citizens who participate in the privilege to provide comment to your Board frequently wish to engage in back-and-forth conversations with your Board or staff during their comments. The meeting is not the proper venue for such conversations. With that in mind, this office, barring any objections from your Board, intends to reactivate the Community Air Quality Forum where such conversations would be welcomed and encouraged.

2. Ecology DRAFT CAFO Permit

Washington's CAFO (water quality) permit expired in 2011. Since, Ecology has been meeting with producers, environmental groups, agencies, legislators and tribes to solicit their concerns and input on an updated permit. The draft permit is a result of that engagement. It has been inferred by some that the draft permit prohibits wintertime land application of manure. It does not. The enclosed excerpt from the draft permit contains the permit requirements for soil testing and land application.

AGENDA ITEM NO 5

S4.A. Soil Sampling and Nutrient Analysis

The Permittee must take soil samples of all land application fields to which they will apply manure, litter, process wastewater, or other sources of nutrients and have the soil samples analyzed for nutrient content according to permit condition S5.C.

All land application fields that the Permittee controls which will receive manure, litter, process wastewater, or other sources of nutrients must be sampled and analyzed for their soil nutrient content. Each land application field must have a unique field ID that matches the maps in the Permittees MPPP and that will be used on the Permittees yearly field nutrient budget. Soil sampling and analysis must follow the requirements of permit condition S5.C. Soil samples must be taken and analyzed:

1. Prior to the beginning of the land application season in the spring. The Permittee's yearly field nutrient budgets (permit condition S7.D) must be based upon the results of this sampling and analysis.
2. In the fall after harvest and before **winter** precipitation begins or before a second crop is planted. The results of this sampling and analysis must be submitted to Ecology as part of the Permittee's annual report (permit conditions S7.C).

S4.B. Land Application

The Permittee must land apply manure, litter, process wastewater, and other sources of nutrients in accordance with a yearly field nutrient budget that accounts for the nutrients in the soil based on sampling and analysis (permit condition S5.C), manure, litter, process wastewater, and other sources of nutrients sampling and analysis (permit condition S5.B), crop, estimated crop yield, volatilization, irrigation, and adaptive management (permit condition S4.A-Q)

Land application must account for the form of manure being applied, the nutrient needs of the crop at the time the application will occur, and the environmental conditions (e.g. precipitation) present in order to prevent discharges.

1. The yearly field nutrient budget for each field the Permittee controls as well as the individual land applications which take place must be based the Permittee's yearly field nutrient budget (Appendix C). A nutrient budget worksheet that incorporates these requirements is available here: [WEB ADDRESS](#). If the Permittee chooses to use their own form, it must at a minimum contain the same information as the Ecology form.

The amount of nitrogen from all sources must be no greater than:

- a. Year the nutrient budget applies to.
- b. Field ID that is the same as the field ID used on maps in the Permittee's MPPP and acreage.
- c. Spring soil test values (permit conditions S4.B.10 and S5.C) for nitrogen from ammonia, nitrate/nitrite, and mineralization of nitrogen. Phosphorus test values must also be included.
- d. Chemical fertilizer sources of nitrogen and phosphorus.
- e. Irrigation water nitrogen.

- f. Other sources of nitrogen and phosphorus.
 - g. Crop to be planted.
 - h. Crop yield goal for the field based upon (in order of use depending on availability): average of the last 3 years of yields from that field, average the last 3 years or yields from similar field in the area, land grant university guidance, commercial chemical fertilizer guides, and national data sources.
 - i. Nitrogen and phosphorus required by the crop to reach the yield goal.
 - j. Spring manure, litter, process wastewater, and other source of nutrient (excluding chemical fertilizers) test values (permit conditions S4.H and S5.B) for nitrogen from ammonia, nitrate/nitrite, and mineralization of nitrogen. Phosphorus test values must also be included.
 - k. Nitrogen volatilization.
2. The Permittee must follow its annual field nutrient budgets submitted as required by permit condition S7.C to Ecology unless it submits updated field nutrient budgets to Ecology because of changes in cropping for the season.
 3. The Permittee must use the adaptive management actions specified in permit condition S4.K or L based on the field's action level and depending on location within the state to modify its land application of manure, litter, process wastewater, and other nutrients to minimize leaching of nitrogen to groundwater.
 4. During land application the Permittee must not cause direct, indirect, or precipitation related discharge to surface waters and must follow at least the minimum Field Run-off Prevention practices required by permit condition S4.N.
 5. The Permittee must have written permissions from the landowner or controller of the land if leased to another party to apply manure, litter, or process wastewater to land not owned, leased, or controlled by the Permittee.
 6. Equipment used for land application of manure and other material that can have a variable application rate (e.g. pumps, injectors, sprinklers, splash plate applicators) must be calibrated so that the Permittee has an accurate measure of how much manure is applied per unit of time (e.g. x gallons per hour).
 7. No land application of manure, litter, process wastewater, or other sources of crop nutrients may occur:
 - a. To fields with a frozen surface crust or deeper, or the soil is at or below 32 degrees F.
 - b. To fields that are snow covered.
 - c. To fields with saturated soil (including surface ponding) or with soil moisture content $\geq 90\%$.
 - d. If the water table is within 12 inches or less of the surface.
 - e. If significant precipitation (≥ 0.5 inches) is forecast in the next 72 hours by WSU AgWeatherNet or NOAA for the Permittee's location.

AgWeatherNet: <http://weather.wsu.edu>

NOAA Forecasts: <http://www.wrh.noaa.gov/forecast/wxtables/index.php>

- f. During precipitation events large enough to cause field run-off in the Permittee's location.
 - g. When crop nutrient utilization has stopped or is limited (e.g. no application to perennial grass crops before spring green-up)
 - h. To fields that are bare (no perennial crop) for the non-growing season until the Permittee is preparing the bare field for the current year's seasonal crop (planting within 30 days of land application). Permit condition S4.N applies to fields that are being prepped.
8. If the Permittee land applies manure, litter, process wastewater, or other sources of crop nutrients in the fall (after harvest or October 1 whichever comes first) the Permittee must have a fall soil test showing that the current soil nutrients will not provide the nutrients the crop needs before land application begins again in the spring.

Soil sampling and testing must be performed according to permit conditions S4.I and S5.C.

The Permittee must submit an updated yearly field nutrient budget to Ecology showing that the nutrients from fall land application are necessary within 30 days of land application taking place.

Fall land applications must still comply with the land application timing and conditional limitations in permit condition S4.J.g

If the Permittee must land apply due to an emergency situation (permit condition S4.B.11.i) they are not required to follow this permit condition.

9. An emergency situation is the probable failure of facility infrastructure that would result in a discharge of manure, litter, feed, or process wastewater not allowed by this permit such as overflows, flooding, lagoon over-topping, or liquid storage structure failure.

Exceptions to the land application restrictions in permit condition S4.J are allowed when an emergency situation occurs. Permittee must request and receive approval from Ecology before beginning emergency application.

In the event that the Permittee determines that an emergency application is necessary the Permittee must evaluate their manure handling and storage system and determine if the system has enough capacity to remain in compliance with the permit.

In the event that the Permittee does not have enough capacity, the Permittee must make facility changes within 12 months of the emergency application so that they will have adequate capacity to prevent future emergency applications.

For the complete DRAFT permit and other information, go to:

<http://www.ecy.wa.gov/programs/wq/permits/cafo/publicinvolvement.html>



Executive Memorandum

Date of Release: July 7, 2016
Date of Consideration: July 14, 2016
To: Board of Directors
From: Office of the Executive Director
Subject: Administrative Code, Part B Subsection 10.15 - Reserve Funds

Issue

Repeal and replace Subsection 10.15.

Background

Establishment and maintenance of adequate reserve levels are a necessary component of sound financial management. Your Agency has maintained reserves for operating and capital expenditures. However, the current Subsection 10.15 does not adequately classify Agency reserves, nor does it prescribe for what purposes reserves may be spent or address replenishing reserves.

Recommendation

By adoption of Resolution Number 2016-05, approve the repeal and replacement of Administrative Code, Part B Subsection 10.15 – Reserve Funds

AGENDA ITEM NO. 6

10.15 Reserve Funds

Adequate reserve levels are a necessary component of the Agency's overall financial management strategy. The Board of Directors will determine the level of reserves it deems necessary, essential and fiscally prudent as well as the level of reserves required by law, ordinance and/or bond covenants to ensure service levels, sufficient cash flow, financial stability, and protection against economic downturns and emergencies. Prudent use of reserve funds enables the Agency to address future unanticipated costs, changing revenue levels, take advantage of matching grant funds and to exercise flexible financial planning.

This Policy provides parameters to enhance the Agency's ability to meet its financial obligations. Agency reserves must be fully funded, as defined by policy. When the reserve policy funding requirements are met, as determined by the Board of Directors, the remaining budgetary impacts, whether positive or negative, will be distributed according to the funding priorities of the Agency.

10.15.1 Reserve Classification

Agency reserves are classified in compliance with the Governmental Accounting Standards Board (GASB) to identify specific purposes for which these reserves have been established:

- a. *Non-Spendable*: Reserves that cannot be spent because of their form as they are not liquid (not in spendable form such as inventories, prepaid items, etc), or they are legally or contractually earmarked for a specific use. Examples include petty cash and imprest funds.
- b. *Restricted*: Reserves that include amounts constrained to specific purposes by the provider, either externally imposed or mandated by law. Examples include funds collected for a specific purpose in State statute or fees that are collected that have a required use.
- c. *Committed*: Reserves that carry self-imposed limitations that can only be used for certain purposes by a formal action imposed by the Board of Directors. Examples include:
 - i. Computer Equipment Replacement Reserves: these funds are dedicated to fund the replacement of computer equipment and printers. Use of these funds requires the removal of a like equipment item from a department's inventory.
 - ii. Contingency Reserves: these funds are dedicated and their use defined by Subsection 10.15.5 of this Policy. This reserve may fluctuate by month and year.
 - iii. Prior Year Unspent Appropriations: these funds are dedicated to account for the timing differences that occur between fiscal years where funds may not be spent in a prior year but will be spent in the next fiscal year.

- iv. Capital Replacement: these funds are dedicated to fund unanticipated and unbudgeted replacement of capital assets such as Agency vehicles.
- d. *Assigned*: Reserves that are spendable or available for appropriation, but have been earmarked for some specific purpose by the Board of Directors but are neither restricted nor committed. Examples include matching funds for certain identified grants.
- e. *Unassigned*: Also known as “Cash Flow” reserves, these reserves are available for any legal purpose, generally available to finance operating expenditures. Unassigned reserves must be used to achieve the minimum reserve levels as determined by the Board of Directors. They may only be used as determined by the Board of Directors for one-time funding needs and cannot be used for annually re-occurring funding expenses (e.g. salary and benefit increases).

10.15.2 Minimum Reserves

In order for the Agency to be in a fiscally responsible position, the Board of Directors will establish and maintain a minimum Unassigned Reserve level of 25% of the current operating budget which the Board believes is fiscally necessary, essential and prudent. However, depending on the Board of Directors’ assessment of the Agency’s fiscal situation, the Board may choose to adjust the levels up or down by future resolution action. This budgetary minimum reserve level is essential to protect cash flow and other stated reserve objectives in offsetting significant financial revenue fluctuations.

In the event the minimum reserve level as determined by the Board of Directors is exceeded, these additional funds will be deemed as surplus reserves and may be designated for any purpose as deemed appropriate by the Board of Directors.

10.15.3 Replenishing Minimum Reserves

The Board of Directors shall determine the necessary budgetary actions through prudent management of revenue, expenditures, and/or contributions from the annual budget to keep the minimum level of reserves at the appropriate level. If, at any time, the level of minimum reserves is projected to drop below the adopted reserve levels, the Board of Directors will institute budgetary actions necessary to bring these minimum reserves up to the established level of reserves within the following two (2) subsequent annual budget cycles.

10.15.4 Resource Allocation

Upon completion of the preliminary annual budget allocation review process, the Board of Directors will exercise its final budgetary authority to allocate all revenues (gains or losses) within the agency funding priorities.

Each year, the Executive Director and department heads jointly work towards an estimate of anticipated revenues for the following year’s annual budget. This estimate creates a baseline point of reference for the budget process. It is clearly understood by the Executive Director

and department heads that this is only an estimate. Therefore, the Board of Directors must evaluate fiscally responsible levels of reserves to reasonably address unanticipated funding shortfalls, expense overruns, cash flow fluctuations and/or any other similar issues.

Accordingly, this Policy provides parameters to enhance the Agency's ability to meet its financial obligations. Reserves must be fully funded, as defined by policy. When the reserve policy funding requirements are met, as determined by the Board of Directors, the remaining budgetary impacts, whether positive or negative, will be distributed according to the funding priorities of the Agency.

10.15.5 Contingency Reserves

The Board of Directors strives to allocate all available resources during the annual budgeting process. Agency departments are encouraged by the Board to maximize their annual budget allocations to provide services to the community. However, portions of the Agency's annual budget must often be held in reserve due to the potential for unanticipated over-expenditures before the end of the fiscal year budget. Therefore, the Board may allocate a percentage of the annual budget to be set aside as a contingency for these unanticipated over-expenditures.

When used, the Contingency Reserve category will be annually funded to a maximum 2% of the Agency's total allocated resources. All uses of Contingency Reserves require a budget amendment and shall have prior approval by the Board of Directors.

RESOLUTION NO. 2016-05
BEFORE THE GOVERNING BOARD OF THE
YAKIMA REGIONAL CLEAN AIR AGENCY (YRCAA)

Approving Administrative Code, Part B Subsection 10.15)

WHEREAS, reserve funds are critical to the Agency's sound financial management; and

WHEREAS, the YRCAA Governing Board of Directors desires to establish controls for how such reserve funds are maintained and allocated.

NOW THEREFORE, BE IT RESOLVED, that the Board hereby repeals the current Subsection 10.15 and adopts the enclosed DRAFT Subsection 10.15; and

BE IT FURTHER RESOLVED that the Executive Director and Fiscal Programs Manager shall implement the adopted Subsection 10.15.

On motion of _____, seconded by _____, the foregoing resolution is hereby PASSED AND ADOPTED by the Yakima Regional Clean Air Agency Board of Directors on this 14th day of July, 2016.

Jon DeVaney, Chair

Rand Elliott, Director

Steven Jones, Director

Bill Lover, Director

Norm Childress, Director

Quatandra Jarvis, Clerk of the Board



Executive Memorandum

Date of Release: July 7, 2016
Date of Consideration: July 14, 2016
To: YRCAA Board of Directors
From: Quatandra Jarvis, Clerk of the Board
Subject: Auditing and Alternate Auditing Officers

ISSUE

Appoint Custodian, Auditing, and Investment Officer, and Alternate Custodian, Auditing, and Investment Officer.

RECOMMENDATION

Approve Resolution 2016-06 appointing Gary W. Pruitt as Custodian, Auditing, and Investment Officer and Christa Owen, Alternate Custodian, Auditing, and Investment Officer, until June 30, 2018.

DISCUSSION

The Yakima County Treasurer requires that your Board appoint an Investment Officer and Custodian of petty cash and payroll reimbursement funds for a two-year period. RCW 42.24.080 requires your Board to appoint by resolution, an Auditing Officer. If approved, the appointment will run concurrently from July 1, 2016 through June 30, 2018, or until revised as needed.

Attachment: Resolution 2016-06

AGENDA ITEM NO 7

RESOLUTION NO.: 2016-06
BEFORE THE GOVERNING BOARD OF THE
YAKIMA REGIONAL CLEAN AIR AGENCY (YRCAA)

Appointing Gary W. Pruitt as Custodian, Auditing, and Investment Officer and
Appointing Christa Owen as Alternate Custodian, Alternate Auditing, and Alternate Investment
Officer

WHEREAS, the YRCAA is a statutorily created municipal corporation per section 70.94.081 of
the Revised Code of Washington; and

WHEREAS, the Yakima County Treasurer requires that the Board of Directors of the YRCAA
appoint the positions of Investment Officer and Custodian of petty cash funds and payroll
reimbursement; and

WHEREAS, RCW 42.24.080 requires that the Board of Directors of the YRCAA appoint by
resolution, an Auditing Officer;

NOW THEREFORE BE IT RESOLVED that:

1. Gary W. Pruitt, Executive Director and Air Pollution Control Officer of the YRCAA, shall be
appointed as Auditing Officer, Custodian of Petty Cash Funds, and Investment Officer; and
2. Christa Owen, Fiscal Programs Manager, shall be appointed as Alternate Auditing Officer,
Alternate Custodian of Petty Cash Funds, and Alternate Investment Officer; and
3. Such Officers shall be authorized to:
 - a. Receive monies and sign warrants to disburse funds;
 - b. Audit claims against the agency;
 - c. Sign authorizations to invest agency funds; and
 - d. Sign warrant registers and void warrant agreements; and
4. That these appointments shall apply from July 1, 2016 through June 30, 2018, unless revised.

BE IT FURTHER RESOLVED, that the Board of Directors authorizes and directs Gary W.
Pruitt, YRCAA Director to advise the Yakima County Treasurer of these appointments; and

On motion of _____, seconded by _____, the foregoing
resolution is hereby PASSED AND ADOPTED by the Yakima Regional Clean Air Agency
Board of Directors on this 14th day of July, 2016.

Jon DeVaney, Chair

Rand Elliott, Director

Steven Jones, Director

Bill Lover, Director

Norm Childress, Director

Quatandra Jarvis, Clerk of the Board



Executive Memorandum

Date of Release: July 7, 2016

Date of Consideration: July 14, 2016

To: YRCAA Board of Directors

From: Office of the Director

Christa Owen

Subject: Fiscal Program Report

Issue: Consider Fiscal Reports, forms, and vouchers.

Recommendation(s): Accept, and approve by minute action, June 2016 AP Fiscal Vouchers (20,745.90), and June Payroll Authorization (\$62,581.88). Out of A/P, \$10,949.99 was for Wood Stove Change-out, Expenses, and \$0.00 was for Enterprise expenses.

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

Enclosures

AGENDA ITEM NO 8



June 13, 2016

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	32812	4801	\$ 98.31	6/14/2016
Absolute Comfort Technology, LLC*	32813	4101	\$ 8,999.99	6/14/2016
Charter Communications	32814	4201	\$ 727.09	6/14/2016
Coleman Oil Company	32815	3201	\$ 120.33	6/14/2016
Crystal Springs	32816	3101	\$ 32.77	6/14/2016
Cuillier Law Office	32817	4101	\$ 224.00	6/14/2016
Dept of Ecology Cashiering Unit	32818	4902	\$ 2,488.12	6/14/2016
Five K Technologies	32819	3502	\$ 25.00	6/14/2016
KUNW-TV	32820	4401	\$ 750.00	6/14/2016
Allison Larson*	32821	4101	\$ 750.00	6/14/2016
Leaf	32822	4501	\$ 186.07	6/14/2016
Northwest Community Action Center*	32823	4101	\$ 200.00	6/14/2016
Bruce Sears*	32824	4101	\$ 1,000.00	6/14/2016
Verizon Wireless	32825	4201	\$ 328.96	6/14/2016
YRCAA	32826	4901	\$ 311.73	6/14/2016
Yakima County Printing Department	32827	3101	\$ 329.14	6/14/2016
Yakima County Sheriff's Department	32828	4101	\$ 90.00	6/14/2016
Yakima Herald Republic	32829	4401	\$ 42.20	6/14/2016

Total:

\$16,703.71

***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: **\$16,703.71**

Jon DeVaney, Board Chairman

7/14/2016

Gary W. Pruitt, Executive Director

6/14/2016



June 28, 2016

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	32830	4801	\$ 12.39	6/29/2016
Bradley A. Mellotte	32831	4501	\$ 3,480.00	6/29/2016
Daily Sun News	32832	4401	\$ 52.50	6/29/2016
KeyBank	32833	Various	\$ 189.13	6/29/2016
Splash Express	32834	4801	\$ 26.83	6/29/2016
YRCAA	32835	Various	\$ 281.34	6/29/2016

Total:

\$ 4,042.19

***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: **\$ 4,042.19**

Jon DeVaney, Board Chairman

7/14/2016

Gary W. Pruitt, Executive Director

6/29/2016

AUTHORIZATION FOR ELECTRONIC FUNDS TRANSFER

Direct Deposit Payroll & Payroll Taxes

Date: 6/29/2016

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: July 1, 2016

Transfer Amount(s): \$ 62,581.88

Total Amount of Electronic Transfer: \$ 62,581.88

Authorizing Signatures (No facsimile signatures accepted.):



Auditing Officer

Chairman Board of Directors



Alternate Auditing Officer

Date June 29, 2016

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

Telefax Number: 509-574-2801

(01-2008)

YAKIMA REGIONAL CLEAN AIR AGENCY
SUPPLEMENTAL INCOME STATUS for 2016 on June 30, 2016
CY 2016 \$.40 PER CAPITA (Rounded Amounts)

City/Town	Past Due	Assessment Amount	Total Amt Due	Date Received	Amount Received	Balance Due	Responses
Grandview	\$ -	\$ 4,468	\$ 4,468	2/1/2016	\$ 4,468	\$ -	Paid in full
Granger	\$ -	\$ 1,398	\$ 1,398	2/1/2016; 4/19/2016	\$ 699	\$ 699	1/2 paid
Harrah	\$ -	\$ 258	\$ 258	2/1/2016	9/14/1900	\$ -	Paid in full
Mabton	\$ -	\$ 924	\$ 924	1/19/2016	\$ 924	\$ -	Paid in full
Moxee	\$ -	\$ 1,488	\$ 1,488	1/19/2016	\$ 1,488	\$ -	Paid in full
Naches	\$ -	\$ 326	\$ 326	1/14/2016	\$ 326	\$ -	Paid in full
Selah	\$ -	\$ 2,958	\$ 2,958	1/20/2016	\$ 2,958	\$ -	Paid in full
Sunnyside	\$ -	\$ 6,492	\$ 6,492	1/25/2016; 4/12/2016	\$ 3,246	\$ 3,246	1/2 paid
Tieton	\$ -	\$ 502	\$ 502	2/1/2016	\$ 502	\$ -	Paid in full
Toppenish	\$ -	\$ 3,582	\$ 3,582	2/1/2016	\$ 3,582	\$ -	Paid in full
Union Gap	\$ -	\$ 2,456	\$ 2,456	2/1/2016	\$ 2,456	\$ -	Paid in full
Wapato	\$ -	\$ 2,016	\$ 2,016	1/11/2016	\$ 2,016	\$ -	Paid in full
City of Yakima	\$ -	\$ 37,232	\$ 37,232	1/20/2016; 4/12/2016	\$ 18,616	\$ 18,616	1/2 paid
Zillah	\$ -	\$ 1,256	\$ 1,256	1/22/2016	\$ 1,256	\$ -	Paid in full
Yakima Co.	\$ -	\$ 34,164	\$ 34,164	1/1/2016; 4/1/2016	\$ 17,082	\$ 17,082	1/2 paid
Totals:	\$ -	\$ 99,520	\$ 99,520		\$ 59,877	\$ 39,643	

FY 2016 Monthly Tracking

June 2016 Report Date: July 14, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
REVEUNE					
REVENUE 614 YRCAA Base Operations					
Stationary Source Permit Fees					
614-32199001	Minor Sources	\$ 155,443	\$ 3,171	\$ 166,319	107.0%
614-32199005	Synthetic Minor Sources	\$ 24,257	\$ -	\$ 23,940	98.7%
614-32199004	Complex Sources	\$ 22,437	\$ -	\$ 20,560	91.6%
614-32290001	Title V Sources	\$ 122,021	\$ -	\$ 122,891	100.7%
614-32190002	New Source Review	\$ 35,837	\$ 400	\$ 23,823	66.5%
<i>Subtotal, Stationary Source Permit Fees</i>		<i>\$ 359,995</i>	<i>\$ 3,571</i>	<i>\$ 357,533</i>	<i>99.3%</i>
Burn Permit Fees					
614-32290005	Residential Burn Permits	\$ 63,450	\$ 2,976	\$ 57,696	90.9%
614-32290007	Agricultural Burn Permits	\$ 31,428	\$ 1,010	\$ 35,397	112.6%
614-32290011	Conditional Use Burn Permits	\$ 2,329	\$ 218	\$ 2,616	112.3%
<i>Subtotal, Burn Permit Fees</i>		<i>\$ 97,207</i>	<i>\$ 4,204</i>	<i>\$ 95,709</i>	<i>98.5%</i>
Compliance Fees					
614-32190005	Asbestos Removal Fees	\$ 35,956	\$ 3,798	\$ 30,081	83.7%
614-32199007	Construction Dust Control Fees	\$ 8,608	\$ 1,601	\$ 6,990	81.2%
<i>Subtotal, Compliance Fees</i>		<i>\$ 44,564</i>	<i>\$ 5,399</i>	<i>\$ 37,071</i>	<i>83.2%</i>
<i>Subtotal, All Permit Fee Revenue</i>		<i>\$ 501,766</i>	<i>\$ 13,174</i>	<i>\$ 490,313</i>	<i>97.7%</i>
Base Grants					
614-33366001	EPA, Core Grant	\$ 105,707	\$ -	\$ 131,034	124.0%
614-33403101	DOE, Core Grant	\$ 102,405	\$ -	\$ 86,229	84.2%
<i>Subtotal, Base Grants</i>		<i>\$ 208,112</i>	<i>\$ -</i>	<i>\$ 217,263</i>	<i>104.4%</i>
Fines & Penalties					
614-35990001	Civil Penalty	\$ 2,500	\$ 600	\$ 48,989	
614-35990001	Other Fines	\$ -	\$ -	\$ -	
<i>Subtotal, Fines & Penalties</i>		<i>\$ 2,500</i>	<i>\$ 600</i>	<i>\$ 48,989</i>	
Supplemental Income					
614-33831001	Supplemental Income	\$ 99,210	\$ -	\$ 96,637	97.4%
<i>Subtotal, Supplemental Income</i>		<i>\$ 99,210</i>	<i>\$ -</i>	<i>\$ 96,637</i>	<i>97.4%</i>
Other Income					
614-36111001	Interest	\$ 1,801	\$ 235	\$ 2,337	129.8%
614-36990014	Miscellaneous Income	\$ 8,240	\$ -	\$ 3,140	38.1%
<i>Subtotal, Other Income</i>		<i>\$ 10,041</i>	<i>\$ 235</i>	<i>\$ 5,478</i>	<i>54.6%</i>
<i>Total YRCAA Base Operations Revenue</i>		<i>\$ 821,629</i>	<i>\$ 14,010</i>	<i>\$ 858,679</i>	<i>104.5%</i>
REVENUE 614 YRCAA Grant Operations					
614-33403105	Wood Stove Ed	\$ 5,300	\$ -	\$ 5,418	102.2%
614-33403108	PM 2.5	\$ 21,050	\$ -	\$ 21,050	100.0%
614-33403107	Woodstove Change-out	\$ 120,000	\$ 22,956	\$ 186,296	155.2%
<i>Total YRCAA Grant Operations Revenue</i>		<i>\$ 146,350</i>	<i>\$ 22,956</i>	<i>\$ 212,763</i>	<i>145.4%</i>
REVENUE Enterprise Operations					
614-34317001	VE Certification Fees	\$ 85,925	\$ 1,125	\$ 86,225	100.3%
614-34317002	Other Enterprise Revenue	\$ 450	\$ -	\$ 113	25.0%
<i>Subtotal, Enterprise Revenue</i>		<i>\$ 86,375</i>	<i>\$ 1,125</i>	<i>\$ 86,338</i>	<i>100.0%</i>
<i>Total Base, Grant and Enterprise Revenue</i>		<i>\$ 1,054,354</i>	<i>\$ 38,090</i>	<i>\$ 1,157,780</i>	<i>109.8%</i>

FY 2016 Monthly Tracking

June 2016 Report Date: July 14, 2016	Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
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EXPENSES

EXPENSES 614 YRCAA Base Operations

Salaries

614-1001	Salaries	\$ 508,759	\$ 43,026	\$ 512,358	100.7%
614-2002	Benefits	\$ 188,171	\$ 15,117	\$ 180,018	95.7%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
Subtotal, Salaries		\$ 696,930	\$ 58,143	\$ 692,376	99.3%

Supplies

614-3101	Office Supplies	\$ 7,340	\$ 668	\$ 7,570	103.1%
614-3101	Safety Equipment	\$ -	\$ -	\$ -	#DIV/0!
614-3201	Vehicles, Gas	\$ 3,301	\$ 120	\$ 1,596	48.4%
614-3501	Small Tools/Equipment	\$ -	\$ -	\$ 27	#DIV/0!
614-3502	Computer Network	\$ 5,466	\$ 25	\$ 10,224	187.0%
Subtotal, Supplies		\$ 16,107	\$ 813	\$ 19,417	120.6%

Services

614-4101	Professional Services	\$ 14,200	\$ 314	\$ 11,438	80.5%
614-4101	Laboratory Analyses	\$ 157	\$ -	\$ -	0.0%
614-4125	Treasurer, Yakima County	\$ 1,272	\$ 152	\$ 1,808	142.1%
614-4201	Communications, Phones/Internet	\$ 12,444	\$ 1,056	\$ 12,515	100.6%
614-4202	Postage	\$ 3,835	\$ 9	\$ 2,347	61.2%
614-4301	Travel & Transportation	\$ 4,005	\$ 97	\$ 3,553	88.7%
614-4401	Public Education	\$ 4,000	\$ 752	\$ 2,675	66.9%
614-4401	Publications, Legal Notices	\$ 499	\$ 95	\$ 343	68.7%
614-4501	Rents & Leases, Equipment	\$ 1,982	\$ 186	\$ 2,588	130.6%
614-4501	Rents & Leases, Space	\$ 41,760	\$ 3,480	\$ 41,760	100.0%
614-4601	Insurance	\$ 12,789	\$ -	\$ 13,398	104.8%
614-4801	Maintenance, Motor Vehicles	\$ 2,229	\$ 27	\$ 3,313	148.7%
614-4801	Maintenance, Equipment	\$ 1,853	\$ 111	\$ 4,243	229.0%
614-4801	Maintenance, Computers	\$ 150	\$ -	\$ -	0.0%
614-4801	Maintenance, Building	\$ 520	\$ -	\$ 65	12.5%
614-4901	Memberships	\$ 230	\$ -	\$ 537	233.5%
614-4901	Training	\$ 1,928	\$ -	\$ 2,313	120.0%
614-4901	Service Chgs & Interest	\$ 3,295	\$ 312	\$ 4,778	145.0%
614-4901	Miscellaneous Services	\$ 2,471	\$ 57	\$ 29	1.2%
614-4901	DOE Oversight Fees	\$ 5,684	\$ 2,488	\$ 4,976	87.5%
Subtotal, Services		\$ 115,303	\$ 9,134	\$ 112,681	97.7%

Capital Out-Lay & Fixed Assets

614-6401	Capital Out-Lay/Fixed Assets	\$ 4,500	\$ -	\$ -	0.0%
Total YRCAA Base Operations Expenses		\$ 832,840	\$ 68,090	\$ 824,474	99.0%

EXPENSES 614 YRCAA Grant Operations

614-33403105 Wood Stove Ed

Salaries

614-1001	Salaries	\$ 3,870	\$ -	\$ 2,402	62.1%
614-2002	Benefits	\$ 1,430	\$ 65	\$ 909	63.6%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
Subtotal, Salaries		\$ 5,300	\$ 249	\$ 3,496	66.0%

Supplies

614-3101	Office Supplies	\$ -	\$ -	\$ -	#DIV/0!
Subtotal, Supplies		\$ -	\$ -	\$ -	#DIV/0!

FY 2016 Monthly Tracking

June 2016 Report Date: July 14, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Services					
614-4139	Professional Services	\$ -	\$ -	\$ 660	#DIV/0!
614-4202	Postage	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Services</i>	\$ -	\$ -	\$ 660	#DIV/0!
	<i>Subtotal, Woodstove Grant Expenses</i>	\$ 5,300	\$ 249	\$ 4,156	78.4%
614-33403108 PM2.5					
Salaries					
614-1001	Salaries	\$ 15,365	\$ 835	\$ 13,591	88.5%
614-2002	Benefits	\$ 5,683	\$ 293	\$ 4,775	84.0%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Salaries</i>	\$ 21,048	\$ 1,128	\$ 18,367	87.3%
Supplies					
614-3101	Office Supplies	\$ 1	\$ -	\$ -	0.0%
	<i>Subtotal, Supplies</i>	\$ 1	\$ -	\$ -	0.0%
Services					
614-4101	Professional Services	\$ 1	\$ -	\$ -	0.0%
	<i>Subtotal, Services</i>	\$ 1	\$ -	\$ -	0.0%
Capital Out-Lay & Fixed Assets					
614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, PM 2.5 Grant Expenses</i>	\$ 21,050	\$ 1,128	\$ 18,367	87.3%
614-33403107 Woodstove Change-out					
Salaries					
614-1001	Salaries	\$ 16,425	\$ 2,265	\$ 21,863	133.1%
614-2002	Benefits	\$ 6,075	\$ 796	\$ 7,681	126.4%
614-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Salaries</i>	\$ 22,500	\$ 3,061	\$ 29,544	131.3%
Supplies					
614-3101	Office Supplies	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Supplies</i>	\$ -	\$ -	\$ -	#DIV/0!
Services					
614-4101	Professional Services	\$ 127,500	\$ 10,950	\$ 158,882	124.6%
	<i>Subtotal, Services</i>	\$ 127,500	\$ 10,950	\$ 158,882	124.6%
Capital Out-Lay & Fixed Assets					
614-6401	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Woodstove Change-out Grant Expenses</i>	\$ 150,000	\$ 14,011	\$ 188,426	125.6%
	<i>Total, Grant Operations Expenses</i>	\$ 176,350	\$ 15,389	\$ 210,948	119.6%
EXPENSES 141 Enterprise Operations					
Salaries					
141-1001	Salaries	\$ 2,548	\$ -	\$ 7,896	309.9%
141-2002	Benefits	\$ 942	\$ -	\$ 2,774	294.5%
141-1003	Overtime	\$ -	\$ -	\$ -	#DIV/0!
	<i>Subtotal, Salaries</i>	\$ 3,490	\$ -	\$ 10,671	305.7%

FY 2016 Monthly Tracking

June 2016 Report Date: July 14, 2016		Budget	Actual Current	Actual Year to Date	Year to Date % of Budget
Supplies					
141-3101	Office Supplies	\$ 400	\$ -	\$ 1,039	259.8%
141-3201	Vehicles, Gas	\$ 1,700	\$ -	\$ 1,048	61.6%
141-3501	Small Tools/Equipment	\$ 200	\$ -	\$ 18	8.9%
<i>Subtotal, Supplies</i>		<i>\$ 2,300</i>	<i>\$ -</i>	<i>\$ 2,105</i>	<i>91.5%</i>
Services					
141-4101	Professional Services	\$ 24,000	\$ -	\$ 12,674	52.8%
141-4202	Postage	\$ -	\$ -	\$ 30	#DIV/0!
141-4301	Travel & Transportation	\$ -	\$ -	\$ 3,222	#DIV/0!
141-4501	Rents & Leases, Space	\$ 5,218	\$ -	\$ 4,712	90.3%
141-4801	Maintenance, Motor Vehicles	\$ 2,100	\$ -	\$ 104	5.0%
141-4801	Maintenance, Equipment	\$ 505	\$ -	\$ 273	54.1%
141-4901	Miscellaneous Services	\$ -	\$ -	\$ 39	#DIV/0!
<i>Subtotal, Services</i>		<i>\$ 31,823</i>	<i>\$ -</i>	<i>\$ 21,054</i>	<i>66.2%</i>
Capital Out-Lay & Fixed Assets					
141-4500	Capital Out-Lay/Fixed Assets	\$ -	\$ -	\$ -	#DIV/0!
<i>Total Enterprise Operations Expenses</i>		<i>\$ 37,613</i>	<i>\$ -</i>	<i>\$ 33,829</i>	<i>89.9%</i>
Summary of Revenue vs Expenses:					
<i>Prior-Year Carry Over Funds</i>		<i>\$ 125,000</i>	<i>\$ -</i>	<i>\$ 125,000</i>	
<i>Total Revenue, Base, Grants & Enterprise</i>		<i>\$ 1,179,354</i>	<i>\$ 38,090</i>	<i>\$ 1,282,780</i>	<i>108.8%</i>
<i>Total Expenses, Base, Grants & Enterprise</i>		<i>\$ 1,046,803</i>	<i>\$ 83,479</i>	<i>\$ 1,069,252</i>	<i>102.1%</i>
<i>Fund Balance</i>		<i>\$ 132,551</i>	<i>\$ (45,389)</i>	<i>\$ 213,528</i>	
<i>Operating Reserves</i>		<i>\$ 7,551</i>	<i>\$ -</i>	<i>\$ -</i>	
<i>Estimated Available Fund Balance</i>		<i>\$ 125,000</i>	<i>\$ -</i>	<i>\$ 213,528</i>	



Executive Memorandum

Date of Release: July 7, 2016
Date of Consideration: July 14, 2016
To: YRCAA Board of Directors
From: Office of the Compliance & Enforcement Division Supervisor
Subject: Uncollectable Debt *K. Hurley*

Issue: Dismissing Uncollectable Debt owed to the YRCAA
Recommendation(s): Approve Resolution No. 2016-07 for the dismissal of the attached uncollectable debt.
Discussion: Under the provisions of YRCAA Administrative Code Part B, subsection 10.14.5, the attached list of debts have become uncollectable and as such should be removed from the list of Accounts Receivable. YRCAA last brought such action before the Board of Directors in March of 2016.

Uncollectable Debts are the result of debtors failing to pay legitimately assessed fees, fines or penalties. YRCAA Administrative Code Part B, subsection 10.15.5 authorizes the agency to dismiss such debts as uncollectable if one or more of the following reasons exist:

- 1) The whereabouts of the debtor are not known
- 2) The debtor owns no real or personal property subject to lien
- 3) The debtor has demonstrated an inability to pay
- 4) The debtor has filed Bankruptcy and the YRCAA has not been assigned as a creditor due payment

The most recent quarterly reconciliation of the accounts receivable revealed one uncollectable debt totaling \$1,450.00. Attached is a list of debts which have been reviewed for compliance with the above criteria. Staff requests the Board designate the listed debt as uncollectable, and to direct staff to dismiss the debt as such by Resolution No. 2016-07.

Attachments:
Uncollectable Debts Listing

AGENDA ITEM NO 9



*Yakima Regional Clean Air Agency
329 North First Street, Yakima WA 98901
(509) 834-2050 yakimacleanair.org*

Name	Type of Debt	Listed Date	Amount	Reason
Cushing, John	Penalty	5/07/2010	\$1,450.00	Past Statute Limits
TOTAL			\$1,450.00	

RESOLUTION NO: 2016-07
BEFORE THE GOVERNING BOARD OF THE
YAKIMA REGIONAL CLEAN AIR AGENCY (YRCAA)

Dismissing Uncollectable Debts

WHEREAS, the Board of Directors of the YRCAA, as a municipal corporation under RCW 70.94.081, have the right to perpetual succession, may sue and be sued, and may receive, account for and disburse funds; and

WHEREAS, pursuant to RCW 70.94.431, the YRCAA has the authority to assess civil penalties for violations of standards and procedures enforceable by law; and

WHEREAS, there exists a single assessed penalty which qualifies as uncollectable as per the YRCAA Administrative Code, Part B, Subsection 10.14.5; and

WHEREAS, this uncollectable debt is being brought before the Governing Board of Directors for consideration of dismissal as a debt owed to the YRCAA.

BE IT THEREFORE RESOLVED that the YRCAA Board of Directors dismisses the attached debt owed to the YRCAA in the amount of \$1,450.00 as uncollectable, and directs staff to remove the debt from the YRCAA's list of accounts receivable.

On motion of _____, seconded by _____, the foregoing resolution is hereby PASSED AND ADOPTED by the Yakima Regional Clean Air Agency Board of Directors on this 14th day of July, 2016.

Jon DeVaney, Chair

Rand Elliott, Director

Steven Jones, Director

Bill Lover, Director

Norm Childress, Director

Quatandra Jarvis, Clerk of the Board



Executive Memorandum

Date of Release: July 7, 2016
Date of Consideration: July 14, 2016
To: Board of Directors
From: Office of the Engineering and Planning Division
Subject: June Engineering and Planning Division Report

Issue:
Monthly activities report to the Board of Directors of YRCAA.

Recommendation(s):
Accept and File.

Discussion:
The following summarizes some of the activities for the months of June including some additional related information:

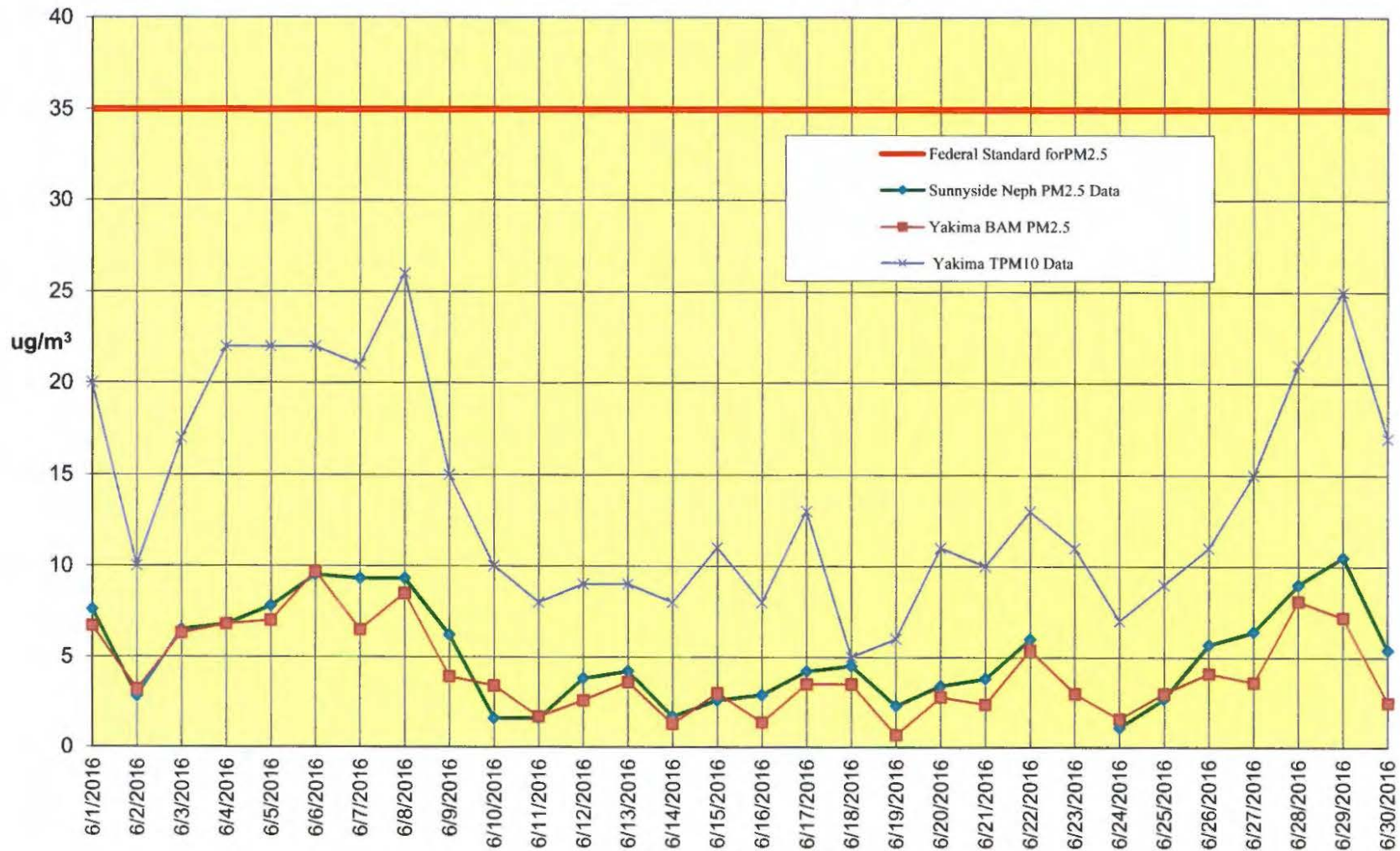
- Working on the 2nd 10 years Maintenance Plans.
- Issued two New Source Review Orders of Approval.
- Worked on Title V Air Operating Permit renewal.
- Issued 1 conditional use permit.
- Registered 7 sources.
- Issued 62 residential burn permits.
- Reviewed/responded to 44 SEPA projects.
- Issued 4 Agricultural burn permits.
- Had several technical assistance meetings with industry.
- Worked on the daily weather forecasts for the burn status and agricultural allocation.
- No burn ban was called during the month of June.
- No exceedance is expected for the month of June (see attached graphs).

Attachments:
✓ *PM_{2.5} Monitor Data for the month of June, 2016 and the annual graphs.*

AGENDA ITEM NO. 10

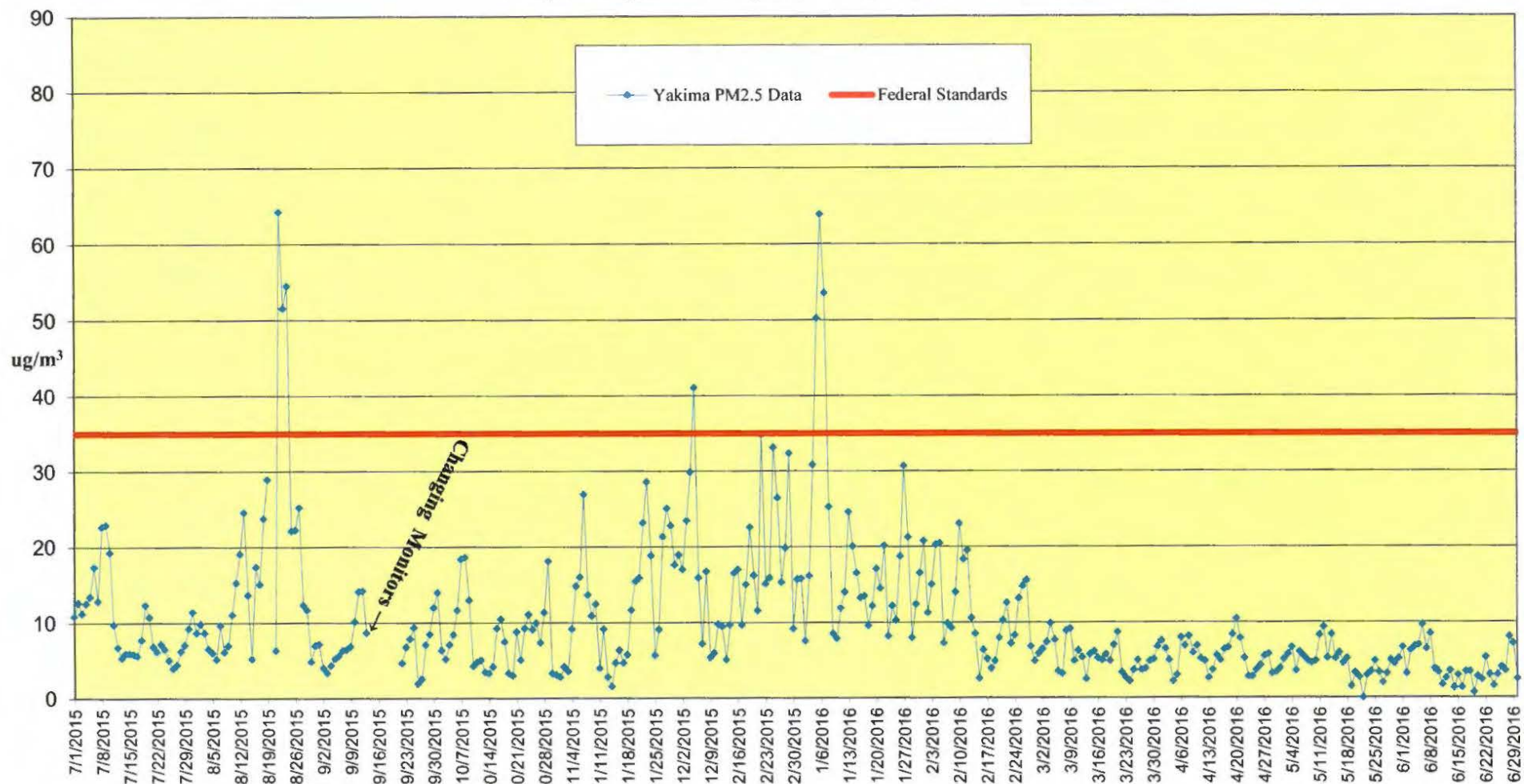
PM_{2.5} BAM_{2.5} Data and TPM₁₀ for Yakima; Neph PM_{2.5} Data for Sunnyside

Daily Averages Value from June 1, 2016 through June 30, 2016



PM_{2.5} FEM/BAM_{2.5}(starting September 15, 2015) Annual Air Monitoring Data, City of Yakima

Daily Averages from July 1, 2015 through June 30, 2016





Executive Memorandum

Date of Release: July 7, 2016
Date of Consideration: July 14, 2016
To: YRCAA Board of Directors
From: Office of the Compliance & Enforcement Division Supervisor
Subject: June 2016 Compliance & Enforcement Division Report *K. Hurley*

Issue: N/A

Recommendation(s): Accept and File

Discussion: During the month of June the Division setup, collected and shipped for analysis approximately 20 Air Monitoring Samples and completed 5 Quality Control checks on 5 Air Monitors. The division also investigated 25 Complaints, issued 26 Notices of Violation (NOV) and also issued 1 Notices of Penalty (NOP) for a previously issued NOV. In addition, the Division reviewed and processed 27 Notifications of Demolition / Renovation (NODR), 7 Dust Control Plans, and completed 10 Air Pollution Source Site Visits.

The following table itemizes, by type, the complaints received and the number of NOVs issued for the month of June 2016:

<u>Type of Complaint</u>	<u>Number of Complaints</u>	<u>Number of NOVs</u>
Residential Burning	3	0
Agricultural Burning	1	0
Other Burning	0	0
Fugitive Dust	10	0
Agricultural Dust	4	0
Agricultural Odor	2	0
Surface Coating	2	1
Odor	2	0
Asbestos	1	1
Other	0	24
<u>TOTALS</u>	<u>25</u>	<u>26</u>

- DOE 2015 Air Monitoring Data Quality Assessment Report
- Jill Schulte Email and accompanying Sunnyside E-Bam/Nephelometer Data for 2015
- Uncollectable Debt Dismissal Memo
- Resolution 2016-07



DEPARTMENT OF
ECOLOGY
State of Washington

2015 Air Monitoring Data Quality Assessment Report

Prepared by

**Anna Ya-Chun Tai
Air Quality Program**

Contents

Acronyms and Abbreviations	1
Introduction.....	2
Data Quality.....	3
Automated Data	4
Data Quality Indicators for Gaseous Pollutants.....	4
Ozone.....	5
Carbon Monoxide (CO).....	6
Sulfur Dioxide (SO ₂).....	8
Nitrogen Dioxide (NO ₂).....	9
Nitric Oxide (NO).....	10
Data Quality Indicators for Particulate Pollutants	10
Fine Particulate Matter (PM _{2.5} FEM - Continuous)	11
Particulate Matter (PM ₁₀ FEM - Continuous).....	12
Manual Data.....	12
Fine Particulate Matter (PM _{2.5} FRM - Daily)	13
PM _{2.5} Chemical Speciation Network	14
Meteorological Data	15
Washington Air Quality Advisory Data	16
Light Scattering of Fine Particulates (Nephelometer)	16

List of Tables

Table 1. DQI Results for Ozone Analyzers in Percentage.....	5
Table 2. Performance Evaluation Results for Ozone Analyzers in Percent Difference from Assessment Concentration	6
Table 3. DQI Results for CO Analyzers in Percentage	7
Table 4. Performance Evaluation Results for CO Analyzers in Percentage.....	7
Table 5. DQI Results for SO ₂ Analyzers in Percentage.....	8
Table 6. Performance Evaluation Results for SO ₂ Analyzers in Percentage.....	8
Table 7. DQI Results for NO ₂ Analyzers in Percentage.....	9
Table 8. Performance Evaluation Results for NO ₂ Analyzers in Percentage	9
Table 9. DQI Results for NO Analyzers in Percentage	10
Table 10. Performance Evaluation Results for NO Analyzers in Percentage.....	10
Table 11. DQI Results for Continuous FEM PM _{2.5} Monitors in Percentage.....	11
Table 12. DQI Results for Continuous FEM PM ₁₀ Monitors in Percentage	12
Table 13. DQI Results for FRM PM _{2.5} Samplers in Percentage.....	14
Table 14. Precision Estimates for Collocated Samplers	14
Table 15. Audit Results for Speciation Samplers in Percentage	15
Table 16. Data Capture for Meteorological Parameters	15
Table 17. Completeness Results for Nephelometers	16

List of Figures

Figure 1. Graph illustrating how flows impact actual concentrations	13
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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

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 that are needed in order to determine compliance with the National Ambient Air Quality Standards (NAAQS), that checks are included to assess data quality, and corrective actions are in place to improve quality systems when needed. 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 year 2015 describes the quality of the data collected from January 1 through December 31, 2015.

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 specify 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 through the use of 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 bias being 5 percent $\pm$ 10% 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.

Sampling Methods

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 FRM or FEM.

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 caution when using non FRM/FEM data to make decisions as there can be a greater degree of error inherent in the data.

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 (or wiggle) in the precision is 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. 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 nearing 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 collected compared to what was expected. The percentage of valid data is the measure of data (averaged in hours) obtained from a monitoring instrument (that meets the MQOs) calculated against the

total number of hours in the calendar quarter and may include specific months or number of months in the year that must include valid data to determine if the DQOs were met. The AQP data completeness goal is that at least 80 percent of the expected data be collected each calendar quarter.

Loss of data occurs on occasion and may be a result of a calibration error, malfunction, power loss, telemetry communications, or operator error.

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.

Ozone

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	1.20	± 0.99	92
Cheeka Peak	530090013	1.22	± 0.99	98
Cheney	530630001	1.65	+ 3.04	82
Custer	530730005	0.54	- 0.59	97
Enumclaw	530330023	1.23	+ 2.24	97
Greenbluff	530630046	1.18	- 1.30	97
Issaquah	530330010	1.56	± 1.31	93
Kennewick, S. Clodfelter	530050003	3.04	± 2.42	85
Mt. Rainier, JVC	530530012	1.24	± 1.03	87
North Bend	530330017	0.92	+1.93	97
Seattle, Beacon Hill (BH)	530330080	1.19	± 0.79	88
Spokane, Augusta Ave.	530630021	1.55	± 1.21	81
Vancouver	530110011	2.57	± 2.00	85
Yelm	530670005	0.63	- 1.26	97

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 between the actual ozone concentrations (generated by the QA personnel equipment) is compared 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 and 2.

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	*	- 6.98	*	- 3.35	*	- 1.60
Cheeka Peak	*	- 4.09	*	0.18	*	2.11
Cheney	*	6.67	*	2.00	*	0.88
Custer	*	- 3.53	*	- 3.75	*	- 3.38
Enumclaw	*	8.85	*	3.55	*	2.16
Greenbluff	*	- 6.67	*	- 4.00	*	- 2.61
Issaquah	*	0.33	*	- 0.73	*	- 1.00
Kennewick, S. Clodfelter	*	4.33	*	- 1.55	*	- 1.64
Mt. Rainier, JVC	*	- 2.94	*	- 2.00	*	- 1.82
North Bend	*	3.18	*	0.20	*	0.69
Seattle, BH	*	3.33	*	1.00	*	0.45
Spokane, Augusta	*	- 6.67	*	- 2.00	*	- 0.87
Vancouver	*	- 0.33	*	- 0.46	*	- 3.86
Yelm	*	1.47	*	- 1.00	*	- 1.82
* No evaluation performed at this level.						

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 and Spokane), 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	6.43	± 5.69	79*
Seattle, 10th & Weller near-road	530330030	4.53	± 4.22	95
Seattle, BH (NC)	530330080	4.95	± 4.12	92
Spokane, 3rd & Washington	530630049	2.77	± 2.11	94
* Equipment problems/QC check failures.				

Annual Performance Evaluation 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 between the actual CO concentrations (generated by the QA personnel equipment) is compared 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 Spokane monitor is challenged at higher levels (Levels 5–8) due to the type of instrument being used.

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 and 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)	*	10.89	- 1.24	- 0.52	*	*	*	*
Seattle, BH (NC)	*	8.67	- 7.16	- 8.98	*	*	*	*
Seattle, near-road	*	*	8.13	5.33	2.81	*	*	*
Spokane, 3 rd & Washington	*	*	*	*	0.00	2.60	*	3.38
* No evaluation performed at this level.								

Sulfur Dioxide (SO₂)

The MQO for the measurement of SO₂ is the relative precision (CV%) and bias be within ± 15 percent.

Table 5. DQI Results for SO₂ Analyzers in Percentage

Location	AQS Number	CV%	Bias	% Valid Data
Anacortes	530570011	3.72	+ 3.48	81
Cheeka Peak	530090013	2.67	± 2.09	78*
Seattle, BH	530330080	3.23	- 4.90	68*†
* Failed QC checks.				
† Analyzer failure.				

Annual Performance Evaluation Audits 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 between the actual SO₂ concentrations (generated by the QA personnel equipment) is compared 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	- 4.15	*	- 10.94	*	- 2.65	*
Cheeka Peak	- 7.49	*	- 10.00	*	- 0.73	*
Seattle, BH	- 8.00	*	- 1.45	*	- 2.04	*
* No evaluation performed at this level.						

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 near-road	530330030	4.44	± 3.51	91
Seattle, BH	530330080	5.67	± 5.74	67*
* Analyzer failure.				

Performance Evaluations Audits 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 between the actual NO₂ concentrations (generated by the QA personnel equipment) is compared 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 3–6 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	*	*	*	*	2.04	1.23	0.85
Seattle, BH	*	*	*	- 7.69	- 5.00	- 1.25	*
* No evaluation performed at this level.							

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	530090013	1.62	± 1.24	83
Seattle, BH (NC)	530330080	4.27	- 6.27	97

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	*	*	- 2.2	*	10.2	*	3.3
Seattle, BH	*	*	1.3	*	- 2.2	*	- 3.4

* No evaluation performed at this level.

Data Quality Indicators for Particulate Pollutants

Bias Estimate (Bias)

The bias estimate is the systematic difference of the expected flows and the measured flows over time. 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. A one-point flow rate verification (QC check) of the instrument is performed, at a minimum, 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. The difference between the two is calculated (in percentage) to determine how close to “true” the indicated flow is. 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 “ $\pm$ ” 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.

One-Point Flow QCs 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.

Semi-Annual Flow Rate Audits (Audit % D)

In addition to monthly QC checks, an independent flow rate audit is performed by QA personnel on a semi-annual basis. 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.

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 (8500 TEOM)	530570011	0.05	± 1.19	- 3.55	98
Bellingham (1405F TEOM)	530730015	0.64	± 1.13	- 2.28	85
Bremerton (8500 TEOM)	530350007	0.67	+ 0.96	- 0.64	98
Darrington (8500 TEOM)	530610020	0.05	± 0.61	- 0.15	92
Ellensburg (1405F TEOM)	530370002	2.05	+ 2.55	1.35	83
Kent (8500 TEOM)	530332004	- 0.35	± 0.86	- 2.91	87
Lynnwood (8500 TEOM)	530610005	- 0.66	- 1.14	- 1.48	98
Marysville (8500 TEOM)	530611007	0.31	± 0.96	- 0.32	96
Marysville (collocated) (8500 TEOM)	530611007	0.41	± 0.88	0.17	98
Seattle, 10th & Weller near-road (8500 TEOM)	530330030	0.17	± 0.84	- 0.48	98
Seattle, BH (NC) (8500 TEOM)	530330080	- 0.68	± 1.29	0.51	97
Seattle, Duwamish (8500 TEOM)	530330057	0.68	± 1.01	- 0.17	96
Spokane, Augusta (BAM 1020)	530630021	0.62	± 5.11	- 0.60	95
Tacoma, South L St. (8500 TEOM)	530530029	- 0.10	± 0.70	0.00	91

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

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Vancouver 84th (1405 TEOM) discontinued 11/25/2015	530110024	- 1.92	- 2.26	- 1.96	62 [†]
Vancouver 84th (BAM 1020) established 11/25/2015	530110024	- 1.18	- 1.18	*	100
Wenatchee, Fifth St. (1405F TEOM)	530070011	- 0.58	- 0.96	- 0.15	85
Yakima S. 4th (BAM 1020)	530770009	- 0.80	± 2.95	0.60	99

* No evaluation performed after monitor was established in 2015.
[†] Out of control shelter temperatures.

Particulate Matter (PM₁₀ FEM - Continuous)

The MQO for the measurement of PM₁₀ using an FEM instrument is bias and precision (% D) be within ± 10 percent. Audit results (Audit % D) must be within ± 10 percent.

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

Location	AQS Number	Average % D	Bias	Audit % D	% Valid Data
Colville	530650004	- 0.09	± 2.98	2.84	99
Kennewick	530050002	0.12	± 1.28	0.10	92
Spokane, Augusta	530630021	0.21	± 2.30	1.34	81
Yakima S. 4th	530770009	- 1.54	± 5.71	- 1.32	99

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 Flow Rate Bias Estimate (Signed 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.

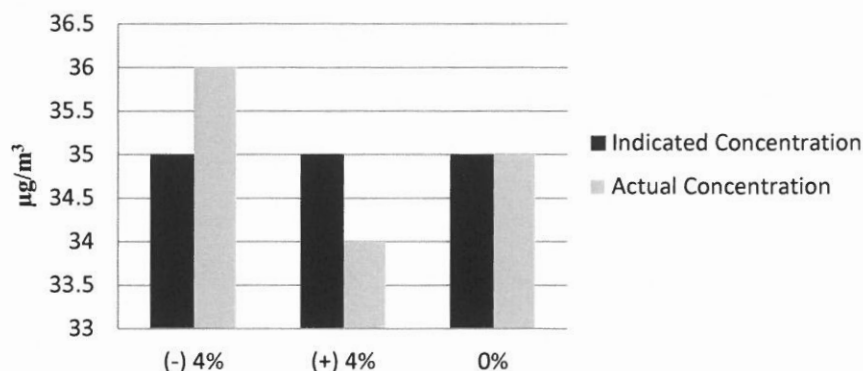


Figure 1. Graph illustrating how flows impact actual concentrations

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.

One-Point QC Precision Estimate for Particulate Pollutants (% 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.

Semi-Annual Flow Rate Audits (Audit % D)

In addition to monthly QC checks, an independent flow rate check is performed by QA personnel on a semi-annual basis. 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.

Fine Particulate Matter (PM_{2.5} FRM - Daily)

The MQO for the measurement of PM_{2.5} using FRM method sampling is that bias, precision (% 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	- 2.06	- 2.53	- 1.85	98
Spokane, Augusta	530630021	0.79	± 1.65	1.24	78*†
Sunnyside	530770005	- 1.04	- 2.71	0.06	83
Tacoma, South L St.	530530029	0.08	± 1.59	0.30	97
Tacoma, South L St. (collocated)	530530029	0.15	± 1.58	- 0.42	100
Toppenish	530770015	- 3.25	- 3.61	- 0.48	68‡
Yakima S. 4th	530770009	0.67	+ 1.35	0.41	89
* Monitor down for extended period due to roof repairs. † Operator error. ‡ Filter shipment error.					

Precision Estimate for Manual and Continuous Collocated Samples (PM_{2.5}, PM₁₀)

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 %) must be within ±10 percent for the FRM and TEOM.

Table 14. Precision Estimates for Collocated Samplers in Percentage

Location	Method-Instrument	AQS Number	CV %
Marysville	181-TEOM 8500	530611007	6.51
Tacoma, South L St.	118-FRM PM _{2.5}	530530029	16.65
Seattle, BH	127-PM ₁₀ Coarse	530330080	*
* No collocation for monitoring method.			

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, an independent flow rate audit is performed by QA personnel on a semi-annual basis. 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 STN 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	1.5	0.9			1.3
Seattle, BH	530330080	- 4.2	- 4.7	- 4.1	- 4.0	0.8
Tacoma, South L St.	530530029	- 2.0	0.0			- 1.0
Yakima S. 4th	530770009	- 1.5	0.4			- 3.9

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	97	97	97	97	98
Colville	530650004	99*	99*	99*	---	---
Enumclaw	530330023	94	94	99	---	---
Kennewick	530050002	99	99	99	---	---
North Bend	530330017	99	99	99	---	---
Omak	530470013	92	95	95	---	---
Seattle, 10th & Weller	530330030	99	99	99	---	---
Seattle, BH	530330080	97	97	97	97	94
Spokane, Augusta	530630021	57†	57†	57†	---	---
Tacoma, Tower Dr.	530531016	99	99	99	---	---
Toppenish	530770015	98	98	99	---	---
Vancouver Blairmont	530110011	94	94	99	---	---
Wenatchee	530070011	98	98	98	---	---
White Swan	530770016	99	99	99	---	---

* Monitor discontinued on 8/13/2015.

† Monitor down for extended period due to the installation of a new roof.

Washington Air Quality Advisory Data

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	92
Bellevue	530330037	95
Cheeka Peak	530090013	94
Chehalis	530410004	99
Clarkston	530030004	75*
Colville	530650004	77*
Dayton	530130002	99
East Wenatchee	530170018	98
Ellensburg	530370002	93
Kennewick	530050002	98
Lacey	530670013	87
LaCrosse	530750005	84
Lake Forest Park	530330024	99
Leavenworth	530070010	99
Longview	530150015	99
Mesa	530210002	99
Moses Lake	530251002	99
Mount Vernon	530570015	87
Neah Bay	530090015	96
North Bend	530330017	97
Omak	530470013	82
Oroville (mobile)	530470015	94

Table 17. Completeness Results for Nephelometers

Location	AQS Number	% Valid Data
Port Angeles	530090009	96
Pt. Townsend	530310003	86
Pullman	530750003	62*
Puyallup, 128th Ave.	530531018	84
Ritzville	530010003	98
Rosalia	530750006	97
Seattle, South Park	530331011	95
Shelton	530450007	99
Spokane, Monroe	530630047	87
Tacoma, Alexander Ave.	530530031	87
Taholah	530270011	95
Toppenish	530770015	96
Twisp	530470009	94
Walla Walla	530710005	99
Wellpinit	530650002	98
White Swan	530770016	98
Winthrop	530470010	42*
Yacolt	530110022	76*
* Failed QC checks.		
Note: No QA evaluations are performed on nephelometers. The quality of the data is not assessed.		

Tandy Jarvis

From: Schulte, Jill (ECY) <jils461@ECY.WA.GOV>
Sent: Tuesday, June 28, 2016 5:08 PM
To: Keith Hurley; Kelsey Sanford
Cc: Lundblad, Sean (ECY)
Subject: New site-specific Sunnyside correlation
Attachments: sunnyside_ebam_npm25_waqa.png

Hi Keith and Kelsey,

Now that all the Sunnyside FRM data is validated and submitted, I was able to develop the new, site-specific Sunnyside nephelometer correlation based on winter 2015-2016. I have updated it on the logger and re-calculated the NPM25 in our database based on the new correlation. We don't ordinarily back-calculate NPM25 data based on new correlations, but since Sunnyside didn't have a site-specific correlation when the site began last fall, we decided it was warranted in this case. We will also resubmit the NPM25 data to AQS.

The new correlation is:

$$\text{NPM25} = 10 ^ { (0.77788 * \log_{10}(\text{bscat}) + 1.57809)}$$

This correlation is based on November-March data and has an R^2 of 0.87, which is a sufficiently well-fitted model. It is similar in magnitude to the Toppenish correlation that was on the logger before, so you should not see much of a change in NPM25 concentrations relative to bscat.

I also merged the re-correlated NPM25 data from last fall with the E-BAM data you collected previous to that in order to calculate a 98th percentile 24-hour concentration for calendar year 2015.

- If we include all 2015 data, the 98th percentile is 35.6 $\mu\text{g}/\text{m}^3$
- If we exclude the August 2015 wildfires as exceptional events, the 98th percentile is 23.0 $\mu\text{g}/\text{m}^3$

Based on the results with wildfire data excluded, we've concluded that Sunnyside merits continued monitoring with a correlated nephelometer and no longer needs FEM/FRM monitoring. I've also graphed the full 2015 dataset by WAQA category (attached) for your reference.

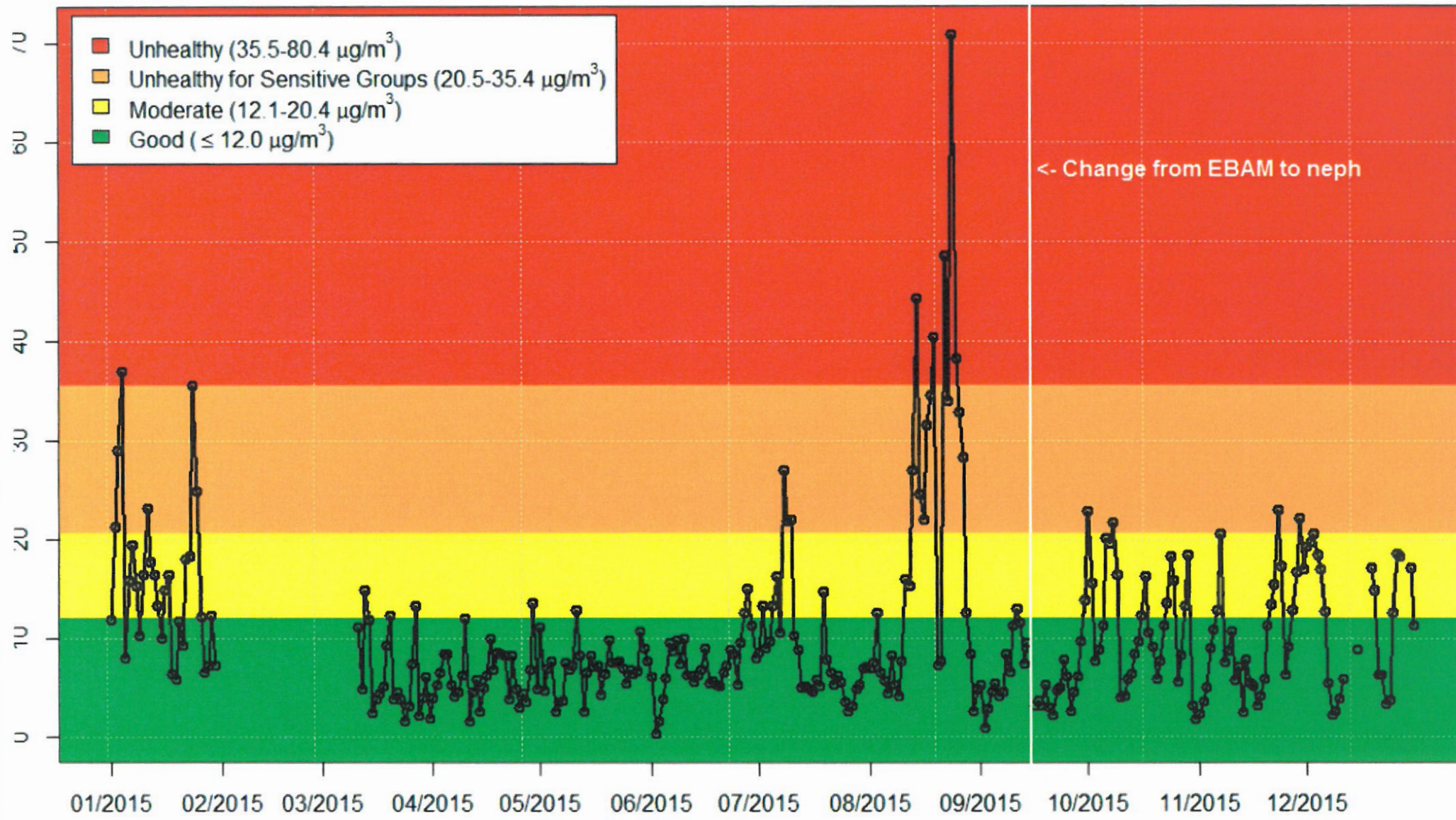
Thank you for all your work in starting up, operating, and maintaining the FRM, and staying on top of the filter shipment. It is a great asset to have such a complete and high-quality dataset from Sunnyside over a full winter season.

Please let me know if you have any questions or concerns.

Thanks,
Jill

Jill Schulte, MPH | Natural Resource Scientist
Air Quality Program | Washington Department of Ecology
jils461@ecy.wa.gov | 360-407-6374

Sunnyside E-BAM/Nephelometer Data 2015 (24-Hour)





Executive Memorandum

Date of Release: July 1, 2016
Date of Consideration: July 14, 2016
To: Board of Directors
From: Office of the Executive Division *Mark Edle*
Subject: Executive Division Report for July, 2016

WOOD STOVE CHANGE-OUT PROGRAM

- The change out program has 4 low income change outs in progress.

EDUCATION AND OUTREACH PROGRAMS

- June 29, the agency participated in an air quality presentation to elementary students at the Yakima Valley Museum, this will continue on the last Wednesday of the month for the duration of summer.

OTHER INFORMATION

- New web site under development.

AGENDA ITEM NO. 12