

STATE OF COLORADO

John W. Hickenlooper, Governor
Karin McGowan
Interim Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

August 29, 2013

Larry Berkowitz, Esq.
Spencer Fane & Grimshaw, LLP
r/e: Arapahoe County Water and Wastewater Authority
1700 Lincoln St., Suite 3800
Denver, Colorado 80203-4538

RE: Compliance Order on Consent, Number: IC-130828-1

Dear Mr. Berkowitz:

Enclosed for Arapahoe County Water and Wastewater Authority's records, you will find Arapahoe County Water and Wastewater Authority's copy, with original signatures, of the recently executed Compliance Order on Consent. Please remember that this agreement is subject to a thirty-day public comment period (paragraph 36). Upon initiation, if the Division receives any comments during this period we will contact your office to discuss. Also, please be advised that the first page of the Order was changed to place the assigned Order Number on the final document.

If you have any questions, please don't hesitate to contact me at (303) 692-3634 or by electronic mail at kelly.morgan@state.co.us.

Sincerely,

Kelly Morgan
Clean Water Compliance & Enforcement Unit
WATER QUALITY CONTROL DIVISION

Enclosure(s)

cc: Enforcement File

ec: Natasha Davis, EPA Region VIII
Tri-County Health Department
Michael Beck, Grants and Loans Unit, CDPHE
Doug Camrud, Engineering Section, CDPHE
Kelly Jacques, Field Services Section, CDPHE
Erin Scott, Permits Section, CDPHE
Tania Watson, Compliance & Enforcement Unit, CDPHE
Rachel Wilson-Roussel, DEHS, CDPHE
Barry Cress, DOLA



**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
DIVISION OF ADMINISTRATION
WATER QUALITY CONTROL DIVISION**

COMPLIANCE ORDER ON CONSENT

NUMBER: IC-130828-1

**IN THE MATTER OF: ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY
 CDPS PERMIT NUMBER: CO-0047589
 ARAPAHOE COUNTY, COLORADO**

The Colorado Department of Public Health and Environment (“Department”), through the Water Quality Control Division (“Division”), issues this Compliance Order on Consent (“Consent Order”), pursuant to the Division’s authority under §§25-8-602 and 605, C.R.S. of the Colorado Water Quality Control Act (“the Act”) §§25-8-101 to 803, C.R.S., and its implementing regulations, with the express consent of Arapahoe County Water and Wastewater Authority (“ACWWA”). The Division and ACWWA may be referred to collectively as “the Parties.”

STATEMENT OF PURPOSE

1. The mutual objectives of the Parties in entering into this Consent Order are to resolve, without litigation, the civil penalties associated with alleged violations cited herein and in the Notice of Violation / Cease and Desist Order, Number: IO-101206-1 (the “NOV/CDO”), that the Division issued to ACWWA on December 6, 2010.

DIVISION’S FINDINGS OF FACT AND DETERMINATION OF VIOLATIONS

2. Based upon the Division’s investigation into and review of the compliance issues identified herein, and in accordance with §§25-8-602 and 605, C.R.S., the Division has made the following determinations regarding ACWWA and ACWWA’s compliance with the Act and its permit.
3. At all times relevant to the violations cited herein, ACWWA was a political subdivision as defined by §29-1-202, C.R.S.
4. ACWWA is a “person” as defined by §25-8-103(13), C.R.S. and its implementing permit regulation, 5 CCR 1002-61, §61.2(73).
5. ACWWA owns and/or operates the Joint Water Purification Plant (the “Facility”) located at SW 1/4 of Section 32, Township 5 South, Range 66 West: Latitude 39 34’ 10” N, Longitude 104 48’ 17” W, near the City of Centennial, Arapahoe County, Colorado.

6. The Facility is a drinking water treatment plant that, at all times relevant to the violations cited herein, used reverse osmosis (“RO”), advanced oxidation reactors, air stripping, and chemical addition for water stabilization and disinfection. The concentrate (waste stream) from the RO process was treated by flocculation followed by coagulant aided microfiltration. This concentrate filtrate from the microfiltration equipment was then blended with reuse water. The treated and blended RO concentrate wastewater was discharged to a storm water detention pond prior to entering Windmill Creek.
7. Subsequent to the issuance of the NOV/CDO, ACWWA discontinued the use of RO for drinking water treatment, and made Facility modifications to change the drinking water treatment from RO to microfiltration. This change in drinking water treatment technique eliminated the discharge to Windmill Creek associated with the RO concentrate wastewater.
8. Although not currently discharging, the Facility remains the subject of the Colorado Discharge Permit System, Permit No. CO-0047589 (the “Permit”). The current Permit was issued and became effective on September 1, 2008. The Permit was subsequently amended and reissued with Amendment 1 (effective on October 1, 2009) and Amendment 2 (effective May 1, 2010), (collectively, the “Permit”), and is due to expire August 31, 2013.
9. The Permit authorizes ACWWA to discharge RO concentrate wastewater, after treatment and blending with reuse water, from the Facility through Outfall 001A into Windmill Creek. The Permit also requires ACWWA to monitor the treated RO concentrate wastewater, prior to blending with water from the ACWWA non-potable distribution system, at Outfall 001B.
10. Windmill Creek is a “state water” as defined by §25-8-103(19), C.R.S. and its implementing permit regulation, 5 CCR 1002-61, §61.2 (102).
11. Pursuant to 5 CCR 1002-61, §61.8, ACWWA must comply with all the terms and conditions of the Permit, and violations of such terms and conditions as specified in the Permit may be subject to civil and criminal liability pursuant to §§25-8-601 through 25-8-612, C.R.S

Failure to Comply with Permit Effluent Limitations

12. Pursuant to Part I.A.1. of the Permit, ACWWA’s permitted discharge at Outfall 001A shall not exceed the effluent limitations specified below:

Arapahoe County Water and Wastewater Authority DISCHARGE LIMITATIONS			
EFFLUENT PARAMETER	30-DAY AVG. LIMIT	7-DAY AVG. MAXIMUM	DAILY MAXIMUM
Flow, MGD	6.3	NA	Report
Total Suspended Solids, mg/l	30	45	NA
Escherichia coli, #/100 ml	126 c/	252 c/	NA
Total Residual Chlorine, mg/l	0.011	NA	0.019 d/

Arapahoe County Water and Wastewater Authority DISCHARGE LIMITATIONS			
EFFLUENT PARAMETER	30-DAY AVG. LIMIT	7-DAY AVG. MAXIMUM	DAILY MAXIMUM
pH, s.u. (minimum-maximum)	NA	NA	6.5-9.0 d/
Oil and Grease, mg/l	NA	NA	10 d/
Total Ammonia as N, mg/l			
January	3.7	NA	14
February	3.4	NA	11
March	3.4	NA	14
April	3.1	NA	14
May	2.7	NA	13
June	2.6	NA	16
July	2.3	NA	16
August	2.0	NA	13
September	2.2	NA	14
October	2.3	NA	12
November	3.0	NA	14
December	3.3	NA	12
Total Dissolved Solids, mg/l	Report	NA	3500
Whole Effluent Toxicity, Chronic	NA	NA	Statistical Difference or IC25>IWC
Total Arsenic, µg/l	100	NA	NA
PD Cadmium, µg/l	6.2	NA	19
PD Trivalent Chromium, µg/l	231	NA	1,773
PD Copper, µg/l	29	NA	50
WAD Cyanide, µg/l	Report	NA	5.0
TR Iron, µg/l	1,000	NA	NA
PD Lead, µg/l	11.0	NA	281
PD Manganese, µg/l	2,618	NA	4,738
Total Mercury, µg/l	0.010	NA	NA

Arapahoe County Water and Wastewater Authority DISCHARGE LIMITATIONS			
EFFLUENT PARAMETER	30-DAY AVG. LIMIT	7-DAY AVG. MAXIMUM	DAILY MAXIMUM
PD Nickel, µg/l	168	NA	1,513
PD Selenium, µg/l	4.6	NA	18.4
PD Silver, µg/l	3.5	NA	22
PD Zinc, µg/l	382	NA	379
Sulfide, mg/l	0.0020	NA	NA
Nitrite, mg/l	NA	NA	0.50
Boron, mg/l	0.750	NA	NA
Bromoform, ug/l	4.3	NA	NA
Chlorofom, ug/l	3.4	NA	28,900
Chlorodibromomethane, ug/l	54	NA	NA
Hexachlorobenzens, ug/l	0.00028	NA	NA
Methoxychlor, ug/l	0.030	NA	NA
Tetrachloroethylene, ug/l	0.69	NA	5,280
Toluene, ug/l	510	NA	17,500
Xylene, ug/l	10,000	NA	NA

c/ These limits are 30-day and 7-day geometric means

d/ These limits are instantaneous maximum limits

13. Pursuant to Part I.B.1. and Part I.E. of the Permit, ACWWA is required to monitor effluent parameters at specified frequencies and summarize and report the analytical results of its effluent monitoring to the Division via monthly discharge monitoring reports (“DMRs”). Each DMR is to include a certification by ACWWA that the information provided therein is true, accurate and complete to the knowledge and belief of ACWWA.
14. ACWWA’s DMRs for the months of April 2010 through April 2011 include, among other information and data, the following effluent concentration data for Boron, Copper, Iron, Sulfide, E. coli, Selenium, Chlorine (total residual), and total nitrite nitrogen (as N) which exceed the effluent limitations imposed by Part I.A.1. of the Permit:

**Arapahoe County Water and Wastewater Authority
EFFLUENT SELF-MONITORING DATA**

DISCHARGE MONITORING REPORTING PERIOD	OUTFALL NUMBER	SAMPLE MEASUREMENT	SAMPLE MEASUREMENT
COPPER, PD		DAILY MAXIMUM = 50 µg/l	30-DAY AVG. LIMIT = 29 µg/l
April 30, 2010	001A	71.5 µg/l	71.5 µg/l
June 30, 2010	001A	50.9 µg/l	29.8 µg/l
IRON, TOTAL RECOVERABLE		--	30-DAY AVG. LIMIT = 1,000 µg/l
April 30, 2010	001A	--	1,170.0 µg/l
May 31, 2010	001A	--	1,430.0 µg/l
SULFIDE, TOTAL (AS S)		--	30-DAY AVG. LIMIT = 0.0020 mg/l
April 30, 2010	001A	--	0.8 mg/l
E.COLI, THERMOTOL, MF, MTEC		7-DAY MAXIMUM GM = 252 /100 ml	30-DAY GM = 126/100 ml
May 31, 2010	001A	--	238.20/100 ml
July 31, 2010	001A	1,183.93/100 ml	151.32/100 ml
August 31, 2010	001A	260.59/100 ml	--
SELENIUM, PD		DAILY MAXIMUM = 18.4 µg/l	30-DAY AVG. LIMIT = 4.6 µg/l
May 31, 2010	001A	57.0 µg/l	57.0 µg/l
June 30, 2010	001A	78.5 µg/l	60.15 µg/l
July 31, 2010	001A	54.5 µg/l	41.5 µg/l
August 31, 2010	001A	26.2 µg/l	22.85 µg/l
September 30, 2010	001A	29.2 µg/l	28.1 µg/l
October 31, 2010	001A	33 µg/l	30 µg/l
November 30, 2010	001A	33 µg/l	32.5 µg/l
December 31, 2010	001A	41 µg/l	39 µg/l
January 31, 2011	001A	39 µg/l	35.5 µg/l
February 28, 2011	001A	33 µg/l	31 µg/l
March 31, 2011	001A	40 µg/l	37.5 µg/l
April 30, 2011	001A	28 µg/l	28 µg/l

Arapahoe County Water and Wastewater Authority EFFLUENT SELF-MONITORING DATA			
DISCHARGE MONITORING REPORTING PERIOD	OUTFALL NUMBER	SAMPLE MEASUREMENT	SAMPLE MEASUREMENT
CHLORINE, TOTAL RESIDUAL		DAILY MAXIMUM = 0.019 mg/l	30-DAY AVG. LIMIT = 0.011 mg/l
June 30, 2010	001A	0.08 mg/l	0.04 mg/l
NITROGEN, NITRITE TOTAL (AS N)		DAILY MAXIMUM = 0.50 mg/l	--
September 30, 2010	001A	2.7 mg/l	--
March 31, 2011	001A	1.5 µg/l	--
April 30, 2011	001A	1 µg/l	--

15. Boron, Copper, Iron, Sulfide, E.coli, Selenium, Chlorine (total residual), and total nitrite nitrogen (as N) are "pollutants" as defined by §25-8-103(15), C.R.S. and its implementing control regulation 5 CCR 1002-61, §61.2(76).
16. The Permit does not authorize the pollutant discharge levels identified above in paragraph 14 and ACWWA does not have any other permits authorizing such discharge into State Waters.
17. ACWWA's failure to comply with permit effluent limitations, as identified above in paragraph 14, constitutes violations of Part I.A.1. of the Permit.

Failure to Comply with Discharge Monitoring Report Requirements

18. Pursuant to Part I.B.1. of the Permit, ACWWA is required to monitor effluent parameters at specified frequencies and report the results on a DMR. Each DMR is to include a certification by ACWWA that the information provided therein is true, accurate and complete to the knowledge and belief of ACWWA.
19. ACWWA failed to monitor the following parameters and therefore failed to submit complete DMRs for the following reporting periods identified below:

REPORTING PERIOD	OUTFALL	EFFLUENT PARAMETER
4/1/2010- 4/30/2010	001A	Cadmium, dissolved (daily max), Trivalent chromium, PD (30-day avg & daily max)
5/1/2010- 5/31/2010	001A	All*
6/1/2010- 6/30/2010	001A	Nitrite (daily max), sulfide (30-day avg), methoxychlor (30-day avg), total mercury (30-day avg)
9/1/2010- 9/30/2010	001A	TSS (30-day avg), ammonia (30-day avg & daily max), nitrite (daily max)
9/1/2010- 9/31/2010	001B	TSS (30-day avg)
11/1/2010- 11/30/2010	001A	Cadmium, dissolved (daily max)

* This DMR was submitted late (8/10/2010) but also required subsequent revisions (1/12/2011 and 10/24/2011).
The data for several of the organic parameters was not submitted.

20. Pursuant to Part I.E.1. of the Permit, ACWWA is required to report all monitoring results on a monthly basis using Division approved DMRs. ACWWA is required to ensure the DMRs are mailed to the Division so that they are received no later than the 28th day of the month following the reporting period.
21. ACWWA failed to submit DMRs to the Division by the 28th day of the month following the end of the reporting periods identified below:

REPORTING PERIOD	OUTFALL	DMR RECEIPT DATE
12/1/2008- 12/31/ 2008	001B	7/15/2009
5/1/2009- 5/31/2009	001A	9/9/2009
5/1/2009-5/31/2009	001B	9/9/2009
5/1/2010- 5/31/2010	001B	8/10/2010
10/1/2010- 12/31/2010	001YX	4/8/2011
11/1/2011- 11/30/2011	001A	2/28/2012
11/1/2011- 11/30/2011	001B	2/28/2012

22. ACWWA's failure to monitor effluent parameters at the required specified frequencies and ACWWA's failure to submit complete DMRs to the Division by the 28th day of the month following each reporting period constitutes violations of Part I.B.1. and Part I.E.1. of the Permit.

ORDER AND AGREEMENT

23. Based on the foregoing factual and legal determinations, pursuant to its authority under §§25-8-602 and 605, C.R.S., and in satisfaction of the civil penalties associated with the alleged violations cited herein and in the NOV/CDO, the Division orders ACWWA to comply with all provisions of this Consent Order, including all requirements set forth below.
24. ACWWA agrees to the terms and conditions of this Consent Order. ACWWA agrees that this Consent Order constitutes a notice of alleged violation and an order issued pursuant to §§25-8-602 and 605, C.R.S., and is an enforceable requirement of the Act. ACWWA also agrees not to challenge directly or collaterally, in any judicial or administrative proceeding brought by the Division or by ACWWA against the Division:
 - a. The issuance of this Consent Order;
 - b. The factual and legal determinations made by the Division herein; and
 - c. The Division's authority to bring, or the court's jurisdiction to hear, any action to enforce the terms of this Consent Order under the Act.
25. Notwithstanding the above, ACWWA does not admit to any of the factual or legal determinations made by the Division herein, and any action undertaken by ACWWA pursuant to this Consent Order shall not constitute evidence of fault and liability by ACWWA with respect to the conditions of the Facility.

CIVIL PENALTY AND SUPPLEMENTAL ENVIRONMENTAL PROJECTS

- 26. Based upon the application of the Division’s Civil Penalty Policy (May 1, 1993), and consistent with Departmental policies for violations of the Act, the Division has determined that a penalty of Eighty Thousand Dollars (\$80,000.00) is appropriate for the violations cited herein and in the NOV/CDO.
- 27. Through the application of the criteria set forth in the Colorado Department of Public Health and Environment’s Final Agency-Wide Policy on Settling Administrative and/or Civil Penalties Against Eligible Governmental Entities, the Division has determined the entire penalty can be mitigated through the completion of the following Supplemental Environmental Project (“SEP”) identified by ACWWA and which is valued at Eighty Thousand Dollars (\$80,000.00).
- 28. ACWWA shall undertake the following SEP, which the Parties agree is intended to secure significant environmental or public health protection and improvements:
- 29. ACWWA shall make a payment of Eighty Thousand Dollars (\$80,000.00) to Arapahoe County Weatherization. The funds will be used to provide energy efficiency improvements and assistance to households with low-to-moderate incomes in Arapahoe County, as further described in Attachment A. ACWWA agrees to make the payment of Eighty Thousand Dollars (\$80,000.00) through three installment payments as outlined in the table below:

Payment	Amount	Due Date
1	\$26,667.00	Within thirty (30) calendar days of the effective date of the Compliance Order on Consent
2	\$26,667.00	August 1, 2014
3	\$26,666.00	August 1, 2015

ACWAA shall include with each payment a cover letter identifying the monies for the above-described project, as follows: “Energy Conservation Project,” to the attention of Steve Elliot, Division Manager, Arapahoe County Weatherization, 907 Salida Way, Aurora, Colorado 80011. ACWWA shall provide the Division with a copy of the cover letter and check within five (5) calendar days of each payment installment outlined in the table above. ACWWA shall not deduct the payment of the SEP donation provided for in this paragraph for any tax purpose or otherwise obtain any favorable tax treatment of such payment or project.

- 30. ACWWA hereby certifies that, as of the date of this Consent Order, it is not under any existing legal obligation to perform or develop the SEP. ACWWA further certifies that it has not received, and will not receive, credit in any other enforcement action for the SEP. In the event that ACWWA has, or will receive credit under any other legal obligation for the SEP, ACWWA shall pay Eighty Thousand Dollars (\$80,000.00) to the Division as a civil penalty within thirty (30) calendar days of receipt of a demand for payment by the Division. Method of payment shall be by certified or cashier’s check drawn to the order of the “Colorado Department of Public Health and Environment,” and delivered to:

Kelly Morgan
Colorado Department of Public Health and Environment
Water Quality Control Division
Mail Code: WQCD-CWE-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

31. The SEP must be implemented in accordance with the Project Schedule outlined in Attachment A and must be completed to the satisfaction of the Division, by no later than February 1, 2016. In the event that ACWWA fails to comply with any of the terms or provisions of this Consent Order relating to the performance of the SEP, ACWWA shall be liable for penalties as follows:
 - a. Payment of a penalty in the amount of Eighty Thousand Dollars (\$80,000.00). The Division, in its sole discretion, may elect to reduce this penalty for environmental benefits created by the partial performance of the SEP.
 - b. ACWWA shall pay this penalty within thirty (30) calendar days of receipt of written demand by the Division. Method of payment shall be as specified in paragraph 30 above.
32. ACWWA shall submit a SEP Completion Report to the Division by no later than March 1, 2016. The SEP Completion Report shall contain the following information:
 - a. A detailed description of the SEP as implemented;
 - b. A description of any operating problems encountered and the solutions thereto;
 - c. Itemized costs, documented by copies of purchase orders and receipts or canceled checks or other forms of proof of payment;
 - d. Certification that the SEP has been fully implemented pursuant to the provisions of this Consent Order; and
 - e. A description of the environmental and public health benefits resulting from implementation of the SEP (with quantification of the benefits and pollutant reductions, if feasible).
33. Failure to submit the SEP Completion Report with the required information, or any periodic report, shall be deemed a violation of this Consent Order.
34. ACWWA shall include the following language in any public statement, oral or written, making reference to the SEP: "This project was undertaken in connection with the settlement of an enforcement action taken by the Colorado Department of Public Health and Environment for violations of the Colorado Water Quality Control Act."

SCOPE AND EFFECT OF CONSENT ORDER

35. The Parties agree and acknowledge that this Consent Order constitutes a full and final settlement of the civil penalties associated with the violations alleged herein and in the NOV/CDO.

36. This Consent Order is subject to the Division's "Public Notification of Administrative Enforcement Actions Policy," which includes a thirty-day public comment period. The Division and ACWWA each reserve the right to withdraw consent to this Consent Order if comments received during the thirty-day period result in any proposed modification to the Consent Order.
37. This Consent Order constitutes a final agency order or action upon a determination by the Division following the public comment period. Any violation of the provisions of this Consent Order by ACWWA, including any false certifications, shall be a violation of a final order or action of the Division for the purpose of §25-8-608, C.R.S., and may result in the assessment of civil penalties of up to ten thousand dollars per day for each day during which such violation occurs.
38. Notwithstanding paragraph 25 above, the violations described in this Consent Order will constitute part of ACWWA's compliance history for purposes where such history is relevant. This includes considering the violations described above in assessing a penalty for any subsequent violations against ACWWA. ACWWA agrees not to challenge the use of the cited violations for any such purpose.

LIMITATIONS, RELEASES AND RESERVATION OF RIGHTS AND LIABILITY

39. Upon the effective date of this Consent Order, and during its term, this Consent Order shall stand in lieu of any other enforcement action by the Division with respect to civil penalties for the specific instances of violations cited herein and in the NOV/CDO. The Division reserves the right to bring any action to enforce this Consent Order, including actions for penalties or the collection thereof.
40. This Consent Order does not grant any release of liability for any violations not specifically cited herein.
41. Nothing in this Consent Order shall preclude the Division from imposing additional requirements in the event that new information is discovered that indicates such requirements are necessary to protect human health or the environment.
42. Upon the effective date of this Consent Order, ACWWA releases and covenants not to sue the State of Colorado or its employees, agents or representatives as to all common law or statutory claims or counterclaims arising from, or relating to, the violations of the Act specifically addressed herein.
43. Nothing in this Consent Order shall constitute an express or implied waiver of immunity otherwise applicable to the State of Colorado, its employees, agents or representatives.

NOTICES

44. Unless otherwise specified, any report, notice or other communication required under the Consent Order shall be sent to:

For the Division:

Colorado Department of Public Health and Environment
Water Quality Control Division / WQCD-CWE-B2
Attention: Kelly Morgan
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
E-mail: kelly.morgan@state.co.us

For Arapahoe County Water and Wastewater Authority:

Larry W. Berkowitz, Esq.
Spencer Fane & Grimshaw, LLP
1700 Lincoln St., Suite 3800
Denver, CO 80203-4538

MODIFICATIONS

45. This Consent Order may be modified only upon mutual written agreement of the Parties.

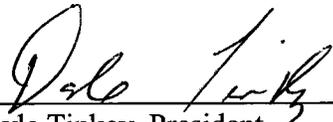
NOTICE OF EFFECTIVE DATE

46. This Consent Order shall be fully effective, enforceable and constitute a final agency action upon notice from the Division following closure of the public comment period referenced in paragraph 36.

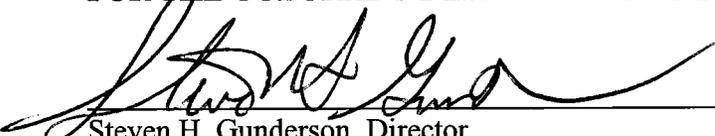
BINDING EFFECT AND AUTHORIZATION TO SIGN

47. This Consent Order is binding upon ACWWA and its elected officials, employees, agents, representatives, successors in interest, and assigns. The undersigned warrant that they are authorized to legally bind their respective principals to this Consent Order. In the event that a party does not sign this Consent Order within thirty (30) calendar days of the other party's signature, this Consent Order becomes null and void. This Consent Order may be executed in multiple counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same Consent Order.

FOR ARAPAHOE COUNTY WATER AND WASTEWATER AUTHORITY:

 _____ Date: 8/22/13
Doyle Tinkey, President

FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT:

 _____ Date: 8/28/13
Steven H. Gunderson, Director
WATER QUALITY CONTROL DIVISION

SUPPLEMENTAL ENVIRONMENTAL PROJECTS (SEP) THIRD PARTY PROPOSAL/AGREEMENT

The regulated entity, identified below, submits the following SEP application to the Colorado Department of Public Health and Environment (the department) for SEP consideration.

Enforcement Action Information	Arapahoe County Water & Wastewater Authority (ACWWA) Case No.:	
Regulated Entity Contact Information	Steven Witter, P.E. Water Resources and Engineering Manager Arapahoe County Water and Wastewater Authority 303-790-4830 ext.340 switter@arapahoewater.org	
Third Party SEP Administrator Contact	Steve Elliott, Division Manager Arapahoe County Weatherization 907 Salida Way Aurora, CO 80011 303-636-1982 selliott@arapahoegov.com	Type of organization: Non-profit* <input type="checkbox"/> Government <input checked="" type="checkbox"/> *If non-profit, please attach a copy of your 501c(3) exemption to this SEP Agreement.
CDPHE Contact Person	Rachel Wilson-Roussel Sustainability Program, 303-692-2976	
Geographical Area to Benefit Most Directly From Project	Arapahoe County	
Project Title	Energy Conservation Project	
Project Type	Third Party SEP Donation	
SEP Category	Pollution Prevention	
Project Summary	The Energy Conservation project will provide energy and water efficiency improvements to homes of low to moderate income (80% AMI) residents in Arapahoe County. Energy conservation measures reduce pollutants in the environment while conserving resources. All work will be completed in accordance with current Colorado Energy Office Weatherization Division field guidance and policies as well as the U.S. Department of Energy, Weatherization Assistance Program guidelines and standards.	

Project Description	<p>Problem Statement</p> <p>Arapahoe County Weatherization (ACG WX) presently provides weatherization assistance to households at or below 200% of Federal Poverty Guidelines (max income for family of four = \$47,100 annual gross). However, there are many low-to-moderate income households that exceed 200% of federal poverty, but do not have the resources to make energy efficiency improvements to their homes. This Energy Conservation Project will focus efforts on those low-to-moderate income households at or below 80% of AMI (max income family of four = \$62,250 annual gross).</p> <p>Project Goal</p> <p>The Energy Conservation Project will reduce pollutants and conserve resources with the provision of energy and water conservation measures to approximately eighteen (18) low-to-moderate income households in Arapahoe County. (Note: The number of homes served can be scaled up or down depending on the amount of funding awarded to Arapahoe County Weatherization for this project.)</p> <p>Project Tasks & Activities</p> <p>The Energy Conservation Project will provide energy and water efficiency services in accordance with the Colorado Energy Office's policies and guidelines. Work will be performed by Arapahoe County Weatherization employees. These services will begin with an energy audit of each income-eligible home that includes the following:</p> <ol style="list-style-type: none"> (1) Health and safety tests on combustion appliances, i.e., furnaces and water heaters, to ensure the appliances are operating safely and properly. (2) An energy efficiency assessment of both furnaces and refrigerators to determine if one or both appliances is eligible for an upgrade to a more energy efficient model (typically, standard efficient furnaces are eligible for efficiency upgrades; and refrigerators using more than 800Kwh of electricity per year are eligible for efficiency upgrades). (3) A building shell assessment, which includes an infra-red scan and visual inspection of existing insulation levels in attics, walls, and crawl spaces to determine if additional insulation is needed and can be added. (4) An assessment of existing water conservation measures, such as low-flow shower heads and faucet aerators. (5) A blower door test that depressurizes the home to identify air leakages that need to be sealed as well as determine existing building tightness limits, which may require the addition of mechanical ventilation. (6) The data gathered during the field audit is entered into the DOE National Energy Audit Tool software to determine the Savings-to-Investment Ratio (SIR) of all identified energy efficiency measures. Only those measures that result in a SIR of 1:1 or greater will be provided. <p>Based on the results of the energy audit, Arapahoe County Weatherization will provide each home with cost-effective energy and water efficiency improvements required to make the home more efficient; any identified health & safety issues will also be addressed.</p> <p>Need for the project</p> <p>We have identified several Arapahoe County households who have applied for the Weatherization Assistance Program in the last twelve months, but were denied because the household income exceeded 200% of Federal Poverty Guidelines.</p>
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Project Description (continued)	Describe availability of other similar services or projects in the area Presently the only project similar to Arapahoe County Weatherization's program is the City of Englewood's Energy Efficiency Project; we work closely with the City of Englewood to ensure that services are not duplicated and those eligible for the County's Weatherization Assistance Program are provided services.				
Expected Environmental and/or Public Health Benefits	Based on the most recent energy savings evaluation conducted in 2009, Arapahoe County Weatherization achieves an average of nearly 30% reduction in energy usage on each home weatherized. This equates to an annual savings of 183 therms (gas usage) and 750 kilowatt hours (electric usage), as well as a reduction of 2,984 pounds of carbon dioxide per home. Over the entire life of the energy conservation measures installed in a home, there is an average savings of 3,660 therms and 15,000 kilowatt hours as well as a reduction of 59,680 pounds of carbon dioxide. We anticipate that the proposed Energy Conservation Project will have similar results for the estimated 18 homes served in Arapahoe County. Additionally, there are health and safety benefits for households receiving services: (1) installation of carbon monoxide detectors; (2) improved indoor air quality for homes requiring added ventilation; (3) safety and operational tests on all combustion appliances to ensure there are no gas leaks, carbon monoxide or combustion by-products entering the home; (4) installation of vapor barrier in crawl spaces which deters possible radon; (5) replacement of faulty heating systems; and, (6) identification and mitigation of potential fire hazards related to unsafe electrical wiring.				
Project Budget	Estimating 18 homes receive services at a unit cost of \$4,444 per home:				
	Budget Category	Description	SEP Funds	Matching Funds (if any)	Total Cost
	Personnel (Salaries, Wages)	Administrative Labor - \$225/home	4,050	-	4,050
		Operations Labor - \$2,585/home	46,520	-	46,520
	Materials and Supplies	EC Materials - \$885/home	15,930	-	15,930
		Health & Safety Materials - \$125/home	2,250	-	2,250
		Operating & Safety Supplies - \$95/home	1,710	-	1,710
	Contractors/ Subcontractors	Electrical Services - \$150/home	2,700	-	2,700
	Other Direct Costs	Operations Overhead Costs, such as vehicle costs, wireless communications, office supplies, facility costs, use charge for federally-purchased equipment, etc.		-	
		\$380/home	6,840	-	6,840
Total:		\$80,000	\$0	\$80,000	

Budget Discussion

As funding for this project will be received over a three (3) year period, ACG WX is estimating the costs at our present average unit cost per home of \$4,444. If, however, material costs increase during the three year period, it is possible that the unit cost will increase and therefore result in fewer homes served.

Salaries: Administrative Labor includes preparation of administrative and fiscal reports, file closures, data entry and tracking of costs and services provided; estimated cost \$225 per home based on current budget information.

Operations Labor includes in-house labor to identify clients, determine income eligibility, schedule and conduct energy audits, install all approved energy conservation materials and equipment, mitigate and address identified health and safety issues, project coordination and supervision, and final inspections of all completed work; cost estimate based on \$2,585 per home.

Materials & Supplies: Energy Conservation (EC) Materials include all approved materials and efficiency equipment installed in customers' homes to reduce energy and water consumption; cost estimate based on \$885 average per home. **Health & Safety Materials** include all approved materials installed in customers' homes to mitigate and address identified health and safety issues; cost estimate based on \$125 average per home.

Operating & Safety Supplies include all consumable supplies used in the course of providing weatherization services to a home, such as wiping rags, batteries, protective coverings, masking tape, duct tape, etc.; and PPE such as tyvek suits, respirators and filters, eye protection, etc.; estimated costs \$95 per home.

Contract Services: Electrical Services include subcontracted electrical services to resolve health and safety issues when a licensed electrician is required. Includes repairing and replacing existing wiring, removing and running new wiring, updating out-dated and hazardous electrical systems, wiring of ventilation fans, etc. Electrical services are also used to facilitate the installation of weatherization measures when a licensed electrician is required. Includes grounding refrigerator outlets, repairing wiring to allow installation of insulation, decommissioning obsolete electrical runs, and updating electrical runs; cost estimate based on \$150 per home based on current trends.

Other Direct Costs: Operations Overhead Costs include fuel, maintenance and repair costs for vehicles; wireless communication charges; protective clothing and equipment including uniform rental and laundering service; maintenance of tools and equipment including costs for repair and adjustment of equipment and insulation machines; printing of documents and forms for customer files; postage to mail applications, correspondence, homeowner releases, etc.; office supplies needed to create and maintain customer files; facility space, telephone service, utilities for facility space include electric, gas and water; and use fee charge for use of vehicles and equipment purchased with federal grant funds (required by Code of Federal Regulations 10 CFR 600); estimated total overhead costs \$380 per home.

SEP funds are the only funds that will provide the services set forth in this proposal to the estimated 18 households in Arapahoe County.

Project Schedule and Work Plan	Activities	Staff Responsible	Date
	SEP Donation (\$26,667) from ACCWA to Third Party SEP Administrator	ACCWA	Within 30 days of the effective date of the Compliance Order on Consent.
	Project Start Date – Year 1	Steve Elliott, ACG WX	Within 30 days of receipt of 1 st Payment of \$26,667
	Identifying income eligible customers; updating applications, etc.	Donna Garrett, ACG WX	Month 1 of Project

Project Schedule and Work Plan (continued)	Begin conducting Energy Audits of Customer Homes @ 2 audits per month for the next 3 months with associated weatherization services provided – two homes per month for a total of six to seven homes for Year One.	Auditors, ACG WX	Month 2, 3, and 4 of Project
	Year 1 Completion Date – anticipate that all services to homes including final inspections of work will be completed in first year.	ACG WX employees	Six months after receipt of Payment #1
	Status Report #1 Due to CDPHE	Donna Garrett, ACG WX	No later than 7 months after receipt of Payment #1
	SEP Donation (\$26,667) from ACCWA to Third Party SEP Administrator	ACCWA	August 1, 2014
	Year 2 – Project Start Date	Steve Elliott, ACG WX	September 1, 2014
	Identifying income eligible customers; updating applications, etc.	Donna Garrett, ACG WX	Month 1 of Year 2 of Project
	Begin conducting Energy Audits of Customer Homes @ 2 audits per month for the next 3 months with associated weatherization services provided – two homes per month for a total of six to seven homes for Year Two.	Auditors, ACG WX	Month 2, 3, and 4 of Year 2 of Project
	Year 2 Completion Date – anticipate that all services to homes including final inspections of work will be completed in second year.	ACG WX employees	February 1, 2015
	Status Report #2 Due to CDPHE	Donna Garrett, ACG WX	No later than March 1, 2015
	SEP Donation (\$26,666) from ACCWA to Third Party SEP Administrator	ACCWA	August 1, 2015
	Year 3 – Project Start Date	Steve Elliott, ACG WX	September 1, 2015
	Identifying income eligible customers; updating applications, etc.	Donna Garrett, ACG WX	Month 1 of Year 3 of Project
	Begin conducting Energy Audits of Customer Homes @ 2 audits per month for the next 3 months with associated weatherization services provided – two homes per month for a total of six to seven homes for Year Three.	Auditors, ACG WX	Month 2, 3, and 4 of Year 3 of Project
	Year 3 Completion Date – anticipate that all services to homes including final inspections of work will be completed in third year.	ACG WX employees	February 1, 2016

	Final SEP Completion Report Due to CDPHE	Donna Garrett, ACG WX	No later than March 1, 2015
Other Relevant Information	<p>Arapahoe County Weatherization has been providing energy efficiency improvements to homes since the late 1970's. In 1997, Arapahoe County Weatherization assumed responsibility for providing weatherization services to Adams County in addition to Arapahoe County residents. We have weatherized 6,178 homes of low-income homeowners and renters over the past six years and over 8,600 homes of low-income homeowners and renters in the past ten years.</p> <p>Arapahoe County Weatherization Division employees possess over 250 years total combined experience with the U.S. Department of Energy's Weatherization Assistance Program. Management and mid-level supervisors have over 95 years combined Weatherization Assistance Program experience.</p> <p>In addition, all field personnel that will be providing services for this project have been accredited by the Building Performance Institute (BPI) and have met the required BPI training and certification standards for their respective positions.</p>		
Reporting Requirements	<p><u>Annual Status Reports</u> – ACG WX will submit two annual reports</p> <p>The SEP Administrator will submit a biannual project status report to the department's SEP Coordinator. Status reports will include the following information:</p> <ul style="list-style-type: none"> • A description of activities completed to date; • A budget summary table listing funds expended to date by budget category; and • A discussion of any anticipated changes to the project scope or timeline. <p><u>Final SEP Completion Report</u> – ACG WX will include Year 3 accomplishments as well as a report on the entire three year project within this final report.</p> <p>The SEP Completion report will be submitted within 30 days of project completion and contain at a minimum:</p> <ul style="list-style-type: none"> • A detailed description of the project as implemented; • A summary table identifying project deliverables and tasks along with the associated completion date; • A description of any operating problems encountered and the solutions thereto; • A full expense accounting including itemized costs, documented by copies of purchase orders, contracts, receipts or canceled checks; • Certification and demonstration that the SEP has been fully implemented pursuant to the provisions of the Settlement Agreement and this SEP Agreement; • A description of the environmental and public health benefits resulting from implementation of the SEP along with quantification of the outcomes and benefits; • Examples of brochures, educational or outreach materials developed or produced as part of the SEP; and • Photographs documenting the project. 		