

# PALMDALE WATER DISTRICT

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[www.palmdalewater.org](http://www.palmdalewater.org)

## Board of Directors

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Division 5

ALESHIRE & WYNDER LLP  
Attorneys



May 15, 2014

*Agenda for a Meeting  
of the Facilities Committee of the Palmdale Water District  
Committee Members: Joe Estes-Chair, Vincent Dino  
to be held at the District's office at 2029 East Avenue Q, Palmdale  
Wednesday, May 20, 2014  
8:15 a.m.*

NOTE: To comply with the Americans with Disabilities Act, to participate in any Board meeting please contact Dawn Deans at 661-947-4111 x1003 at least 48 hours prior to a Board meeting to inform us of your needs and to determine if accommodation is feasible.

Agenda item materials, as well as materials related to agenda items submitted after distribution of the agenda packets, are available for public review at the District's office located at 2029 East Avenue Q, Palmdale. Please call Dawn Deans at 661-947-4111 x1003 for public review of materials.

PUBLIC COMMENT GUIDELINES: The prescribed time limit per speaker is three-minutes. Please refrain from public displays or outbursts such as unsolicited applause, comments, or cheering. Any disruptive activities that substantially interfere with the ability of the District to carry out its meeting will not be permitted and offenders will be requested to leave the meeting.

Each item on the agenda shall be deemed to include any appropriate motion, resolution, or ordinance to take action on any item.

- 1) Roll Call.
- 2) Adoption of Agenda.
- 3) Public Comments.
- 4) Action Items: (The public shall have an opportunity to comment on any action item as each item is considered by the Committee prior to action being taken.)

- 4.1) Consideration and possible action on approval of minutes of regular meeting held April 16, 2014.
- 4.2) Consideration and possible action on award of contract to Calgon Carbon for replacement of F300 GAC with F400 GAC and continued reactivation services of F400 GAC. (\$1,199,588.60 - Budgeted – Operations Manager Thompson II)
- 4.3) Consideration and possible action on new digital/wireless voting system for main Boardroom. (\$30,000.00 - Non-Budgeted – Information Technology Manager Stanton)
- 5) Information Items.
  - 5.1) Status report on 2014 Engineering, Facilities, and Operations Department goals, projects, and functions. (Assistant General Manager Knudson)
  - 5.2) Update on Chromium VI. (Operations Manager Thompson II)
  - 5.3) Other.
- 6) Board members' requests for future agenda items.
- 7) Tour of Leslie O. Carter Water Treatment Plant at 700 East Avenue S, Palmdale. (Chair Estes)
- 8) Adjournment.

  
DENNIS D. LaMOREAUX,  
General Manager

DDL/dd

# PALMDALE WATER DISTRICT BOARD MEMORANDUM

<b>DATE:</b>	May 14, 2014	May 20, 2014
<b>TO:</b>	FACILITIES COMMITTEE	Facilities Committee
<b>FROM:</b>	Peter Thompson II, Operations Manager	
<b>VIA:</b>	Mr. Dennis LaMoreaux, General Manager Mr. Matthew Knudson, Assistant General Manager	
<b>RE:</b>	<i>AGENDA ITEM NO. 4.2 – CONSIDERATION AND POSSIBLE ACTION ON AWARD OF CONTRACT TO CALGON CARBON FOR REPLACEMENT OF F300 GAC WITH F400 GAC AND CONTINUED REACTIVATION SERVICES OF F400 GAC.</i>	

**Recommendation:**

Staff recommends that the Facilities Committee recommends to the full Board the approval of a 10-year contract with Calgon Carbon for the upgrade of the District's GAC (Granular Activated Carbon) from F300 to F400 GAC and continued removal, reactivation and installation services per the attached agreement.

**Financial Impacts:**

The cost of the transition to the superior F400 will be the difference between our current cost to reactivate F300 per contactor and the cost of virgin F400 installation multiplied by the 6 contactors that will be upgraded: F400 \$299,897.15 - F300R \$216,776.11 = \$83,121.04 per contactor; \$83,121.04 X 6 contactors = \$498,726.24. This cost will be spread over the course of 2 years. Due to the improved performance of the F400 GAC coupled with the effect of the localized GAC pressure vessel at Underground Booster, staff is confident that (all other parameters being equal) there will be no actual additional cost to the District during the transition phase.

Following conversion from the F300 to F400 GAC, the contract calls for a reduction in cost for the reactivation services from \$216,776.11 to \$171,953.11 for a cost savings of \$44,823.00 per reactivation. Staff is confident that (all things being equal) reactivations will be required less frequently. A typical year requires an average of 6 reactivations. It is anticipated that the transition will reduce this by 1 to 2 reactivations annually. A typical year would have been 6 contactors multiplied by \$216,776.11 for a cost of \$1,300,656.66 annually; a post transition year would be 5 contactors times \$171,953.11 for a cost of \$859,765.11 annually. This would be a projected savings of \$440,891.11 annually post transition.

Long term this would provide the District the ability to accumulate money in the Water Quality Fund as a buffer for excess expense during poor raw water quality years and, following that, consider a reduction to the Water Quality Fee.

The 2014 Water Quality Fund budget is \$1,638,000.00. In 2014, staff anticipates purchasing 4 change outs from F300 to F400. The cost of these change outs will be \$1,199,588.60.

FACILITIES COMMITTEE  
PALMDALE WATER DISTRICT

VIA: Mr. Dennis LaMoreaux, General Manager  
Mr. Matthew Knudson, Assistant General Manager

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May 14, 2014

**Background:**

The District began utilizing GAC as its primary technology for compliance with the EPA's Stage 1 and Stage 2 Disinfectant/Disinfection Byproduct Rule. GAC is critical to compliance. TOC (total organic carbon) combines with the chlorine in the water to form regulated byproducts called trihalomethanes. GAC functions by removing or reducing the dissolved total organic carbon in the water thereby preventing the formation of trihalomethanes in excess of the regulatory limit.

The District staff has engaged in extensive GAC studies since 2009. These studies have included: multi-agency research, pilot testing of a wide selection of types, gradations, and manufacturers, and full scale testing of the two best performing options from pilot studies: Calgon's F400 and Evoqua's AC1230CX. A summary of the District's GAC research can be found in the Annual GAC Report.

Quotes were requested and received from Calgon and Evoqua for 5 and 10 year term contracts to replace the District's current GAC with their respective products. Staff reviewed both of the proposals and recommends entering into a contract with Calgon Carbon. The primary reasons for the recommendation are as follows:

1. Substantially superior performance of respective virgin GAC
2. Slightly superior performance of reactivated GAC
3. Lower long term cost of transition
4. Reactivation facilities dedicated to potable water GAC reactivation

Approval of this contract will benefit the District through reduced costs and enhancing the District's ability to handle episodes of prolonged poor raw water quality.

**Supporting Documents:**

- Draft Agreement between PWD and Calgon Carbon
- Annual GAC Report
- Quote from Evoqua
- Quote from Calgon
- Summary graphs and tables

**Strategic Plan Element:**

Pursuit of a contract for optimized GAC relates to the District's Strategic Plan vision statement and core values as well as Strategic Plan Elements:

- Regulatory Compliance
- 1.7 Conduct Investigation(s) into technologies to meet water quality standards



**PALMDALE WATER DISTRICT - CALGON CARBON CORPORATION**  
**CONTRACT SERVICES AGREEMENT FOR**  
**PORTABLE WATER SERVICE CUSTOMER REACTIVATION SERVICES**

THIS CONTRACT SERVICES AGREEMENT (herein "Agreement"), is made and entered into this \_\_\_\_\_ day of \_\_\_, 2014, by and between the PALMDALE WATER DISTRICT, a public corporation organized and existing under the provisions of the California Water Code (herein "District") and CALGON CARBON CORPORATION, a Pennsylvania Corporation (herein "Contractor"). (The term Contractor includes professionals performing in a consulting capacity.)

WHEREAS, District utilizes granular activated carbon ("GAC") to accomplish one or more of the following water treatment objectives: removal of disinfection by-product ("DBP") precursor compounds, removal of taste and odor compounds, and removal of specific organic compounds (e.g. DBP's, pesticides, etc.);

WHEREAS, Contractor warrants and represents that it has the capability of supplying products and services to complete the initial conversion and subsequent operation of the filters with 12x40 mesh reactivated GAC;

WHEREAS Contractor warrants and represents that it has demonstrated expertise in the removal, installation, testing, and disposing of mesh reactivated GAC and is otherwise qualified to provide the professional services required by District and set forth in detail in this Agreement and the Exhibits thereto; and

WHEREAS, the District and Contractor desire to enter into a contract for the supply of products and services for the initial replacement of the existing 8x30 mesh reactivated GAC with virgin 12x40 mesh GAC (Calgon Carbon FITRASORB 400 granular activated carbon, referred to herein as "F400") for each filter, with reactivated F400 being supplied for all subsequent filter exchanges, and subsequent operation as set forth in greater detail in the Scope of Work attached hereto as Exhibit A, subject to the terms and conditions of this Agreement;

NOW THEREFORE, in consideration of the promises and covenants hereinafter contained, the Parties hereto mutually agree as follows:

**1.0 SERVICES OF CONTRACTOR**

1.1 Scope of Services. In compliance with all terms and conditions of this Agreement, the Contractor shall provide those services specified in the "Scope of Services" attached hereto as Exhibit "A" and incorporated herein by this reference, which services may be referred to herein as the "services" or "work" hereunder. As a material inducement to the District entering into this Agreement, Contractor represents and warrants that Contractor is a provider of first class work and services and Contractor is experienced in performing the work and services contemplated herein and, in light of such status and experience, Contractor covenants that it shall follow the highest professional standards in performing the work and services required hereunder and that all materials shall be of good quality, fit for the purpose intended. For purposes of this Agreement, the phrase "highest professional standards" shall mean those standards of practice recognized by one or more first-class companies performing similar work under similar

circumstances.

1.2 Contractor's Proposal. The Scope of Service may include the Contractor's proposal or bid which, if included, is incorporated herein by this reference as though fully set forth herein. In the event of any inconsistency between the terms of such proposal and this Agreement, the terms of this Agreement shall govern.

1.3 Compliance with Law. All services rendered hereunder shall be provided in accordance with all ordinances, resolutions, statutes, rules, and regulations of the District and any Federal, State or local governmental agency having jurisdiction in effect at the time service is rendered. Each and every provision required by law to be included in this Agreement shall be deemed to be included, and this Agreement shall be read and enforced as though they were included.

1.4 Licenses, Permits, Fees and Assessments. Contractor shall obtain at its sole cost and expense such licenses, permits and approvals as may be required by law for the performance of the services required by this Agreement. Contractor shall have the sole obligation to pay for any fees, assessments and taxes, plus applicable penalties and interest, which may be imposed by law and arise from or are necessary for the Contractor's performance of the services required by this Agreement, and shall indemnify, defend and hold the District harmless against any such fees, assessments, taxes penalties or interest levied, assessed or imposed against the District hereunder.

1.5 Familiarity with Work. By executing this Contract, Contractor warrants that Contractor (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, Contractor warrants that Contractor has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services hereunder. Should the Contractor discover any latent or unknown conditions, which shall or will materially affect the performance of the services hereunder, Contractor shall immediately inform the District of such fact and shall not proceed except at Contractor's risk until written instructions are received from the Contract Officer.

1.6 Care of Work. The Contractor shall adopt reasonable methods during the life of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and/or other components thereof to prevent losses or damages, and shall be responsible for all such damages, to persons or property, until acceptance of the work by the District, except such losses or damages as may be caused by the District's own negligence.

1.7 Further Responsibilities of Parties. Both parties agree to use reasonable care and diligence to perform their respective obligations under this Agreement. Both parties agree to act in good faith to execute all instruments, prepare all documents and take all actions as may be reasonably necessary to carry out the purposes of this Agreement. Unless hereafter specified, neither party shall be responsible for the service of the other.

1.8 Additional Services. The District shall have the right at any time during the performance of the services, without invalidating this Agreement, to order extra work beyond

that specified in the Scope of Services or make changes by altering, adding to or deducting from said work. No such extra work may be undertaken unless a written order is first given by the Contract Officer to the Contractor, incorporating therein any adjustment in (i) the Contract Sum, and/or (ii) the time to perform this Agreement, which said adjustments are subject to the written approval of the Contractor. It is expressly understood by Contractor that the provisions of this Section shall not apply to services specifically set forth in the Scope of Services or reasonably contemplated therein. Contractor hereby acknowledges that it accepts the risk that the services to be provided pursuant to the Scope of Services may be more costly or time consuming than Contractor anticipates and that Contractor shall not be entitled to additional compensation therefor.

1.9 Special Requirements. Additional terms and conditions of this Agreement, if any, which are made a part hereof are set forth in the "Special Requirements" attached hereto as Exhibit "B" and incorporated herein by this reference. In the event of a conflict between the provisions of Exhibit "B" and any other provisions of this Agreement, the provisions of Exhibit "B" shall govern.

## **2.0 COMPENSATION**

2.1 Contract Sum. For the services rendered pursuant to this Agreement, the Contractor shall be compensated in accordance with the "Schedule of Compensation" attached hereto as Exhibit "C" (the "Contract Sum"), except as provided in Section 1.8. The Contract Sum shall include the attendance of Contractor at all project meetings and Board of Director meetings reasonably deemed necessary by the District; Contractor shall not be entitled to any additional compensation for attending said meetings.

2.2 Method of Payment. Unless some other method of payment is specified in the Schedule of Compensation, in any month in which Contractor wishes to receive payment, no later than the first (1st) working day of such month, Contractor shall submit to the District an invoice for services rendered prior to the date of the invoice. Except as provided in Section 7.3, the District shall pay Contractor for all expenses stated thereon which are approved by the District pursuant to this Agreement within thirty (30) days of the date of the invoice, subject to such extensions as may be necessary to obtain any required approvals for payment from the Board of Directors.

## **3.0 PERFORMANCE SCHEDULE**

3.1 Time of Essence. Time is of the essence in the performance of this Agreement.

3.2 Schedule of Performance. Contractor shall commence the services pursuant to this Agreement upon receipt of a written notice to proceed and shall perform all services within the time period(s) established in the "Schedule of Performance" attached hereto as Exhibit "D", if any, and incorporated herein by this reference. When requested by the Contractor, extensions to the time period(s) specified in the Schedule of Performance may be approved in writing by the Contract Officer.

3.3 Force Majeure. The time period(s) specified in the Schedule of Performance for performance of the services rendered pursuant to this Agreement shall be extended

because of any delays due to unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God or of the public enemy, unusually severe weather, fires, earthquakes, floods, epidemics, quarantine restrictions, riots, strikes, freight embargoes, wars, litigation, and/or acts of any governmental agency, including the District, if the Contractor shall within ten (10) days of the commencement of such delay notify the Contract Officer in writing of the causes of the delay. The Contract Officer shall ascertain the facts and the extent of delay, and extend the time for performing the services for the period of the enforced delay when and if in the judgment of the Contract Officer such delay is justified. The Contract Officer's determination shall be final and conclusive upon the parties to this Agreement. In no event shall Contractor be entitled to recover damages against the District for any delay in the performance of this Agreement, however caused, Contractor's sole remedy being extension of the Agreement pursuant to this Section.

3.4 Term. Unless earlier terminated in accordance with Section 7.8 of this Agreement, this Agreement shall continue in full force and effect until completion of the services but not exceeding ten (10) year from the date hereof, except for the as otherwise provided in the Schedule of Performance.

#### **4.0 COORDINATION OF WORK**

##### **4.1 Representative of Contractor.**

It is expressly understood that the experience, knowledge, capability and reputation of the foregoing principals were a substantial inducement for the District to enter into this Agreement. Therefore, the foregoing principals shall be responsible during the term of this Agreement for directing all activities of Contractor and devoting sufficient time to personally supervise the services hereunder. For purposes of this Agreement, the foregoing principals may not be replaced nor may their responsibilities be substantially reduced by Contractor without the express written approval of the District.

4.2 Contract Officer. The Contract Officer shall be such person as may be designated by the General Manager of the District. It shall be the Contractor's responsibility to assure that the Contract Officer is kept informed of the progress of the performance of the services and the Contractor shall refer any decisions which must be made by the District to the Contract Officer. Unless otherwise specified herein, any approval of the District required hereunder shall mean the approval of the Contract Officer. The Contract Officer shall have authority to sign all documents on behalf of the District required hereunder to carry out the terms of this Agreement.

4.3 Prohibition Against Subcontracting or Assignment. The experience, knowledge, capability and reputation of Contractor, its principals and employees were a substantial inducement for the District to enter into this Agreement. Therefore, Contractor shall not contract with any other entity to perform in whole or in part the services required hereunder without the express written approval of the District. In addition, neither this Agreement nor any interest herein may be transferred, assigned, conveyed, hypothecated or encumbered voluntarily or by operation of law, whether for the benefit of creditors or otherwise, without the prior written approval of the District. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty five percent (25%) of the present ownership and/or control of Contractor, taking all transfers into account on a cumulative basis. In the event of any such

unapproved transfer, including any bankruptcy proceeding, this Agreement shall be void. No approved transfer shall release the Contractor or any surety of Contractor of any liability hereunder without the express consent of the District.

4.4 Independent Contractor. Neither the District nor any of its employees shall have any control over the manner, mode or means by which Contractor, its agents or employees, perform the services required herein, except as otherwise set forth herein. The District shall have no voice in the selection, discharge, supervision or control of Contractor's employees, servants, representatives or agents, or in fixing their number, compensation or hours of service. Contractor shall perform all services required herein as an independent contractor of the District and shall remain at all times as to the District a wholly independent contractor with only such obligations as are consistent with that role. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of the District. The District shall not in any way or for any purpose become or be deemed to be a partner of Contractor in its business or otherwise or a joint venture or a member of any joint enterprise with Contractor.

## 5.0 INSURANCE, INDEMNIFICATION AND BONDS

5.1 Insurance. Without limiting Contractor's indemnification obligations as set forth in this Agreement, the Contractor shall procure and maintain, at its sole cost and expense, in a form and content satisfactory to the District, during the entire term of this Agreement including any extension thereof, the following policies of insurance:

a. Comprehensive General Liability Insurance. A policy of comprehensive general liability insurance written on a per occurrence basis. If the Contract Sum is \$25,000 or less, the policy of insurance shall be written in an amount not less than \$500,000 single limit, per occurrence. If the Contract Sum is greater than \$25,000 but less than \$1,000,000, the policy of insurance shall be in an amount not less than \$1,000,000 single limit, per occurrence. If the Contract Sum is greater than \$1,000,000 but less than \$2,000,000, the policy of insurance shall be in an amount not less than \$2,000,000, single limit, per occurrence. If the Contract Sum is greater than \$2,000,000, the policy of insurance shall be in an amount not less than \$5,000,000 single limit, per occurrence.

b. Worker's Compensation Insurance. A policy of worker's compensation insurance in such amount as shall fully comply with the laws of the State of California and which shall indemnify, insure and provide legal defense for both the Contractor and the District against any loss, claim or damage arising from any injuries or occupational diseases occurring to any worker employed by or any persons retained by the Contractor in the course of carrying out the work or services contemplated in this Agreement.

c. Automotive/Vehicle Insurance. A policy of comprehensive automobile/vehicle liability (including owned, non-owned, leased, and hired autos/vehicles) insurance written on a per occurrence basis in an amount not less than \$500,000 single limit, per occurrence, for bodily injury and property damage.

d. Additional Insurance. Policies of such other insurance, including professional liability insurance, as may be required in the Special Requirements.

All of the above policies of insurance shall be primary insurance and shall name the **Palmdale Water District**, its officers, employees and agents as additional insureds. The insurer shall waive all rights of subrogation and contribution it may have against the District, its officers, officials, employees, agents, representatives, and volunteers, and their respective insurers. All of said policies of insurance shall be endorsed to:

- (1) provide that said insurance may not be amended or cancelled without providing thirty (30) days prior written notice by certified or registered mail to the District;
- (2) provide that the insurer shall waive all rights of subrogation and contribution it may have against the Palmdale Water District, its officers, officials, employees, agents, representatives, and volunteers, and their respective insurers; and
- (3) name the Palmdale Water District, its Board of Directors and all the Board of Directors appointed groups, committees, commissions, and any other Board of Directors appointed bodies, and the District's elected or appointed officers, and its officials, employees, agents, representatives, and volunteers (hereinafter "District and District Personnel") as additional insureds.

All of Contractor's insurance (i) shall contain no special limitations on the scope of protection afforded to the District and District Personnel; (ii) shall be primary insurance and any insurance or self-insurance maintained by the District or District Personnel shall be in excess of the Contractor's insurance and shall not contribute with it; (iii) shall be "occurrence" rather than "claims made" insurance; (iv) shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability; and (v) shall be written by insurers in compliance with Section 5.4.

No work or services under this Agreement shall commence until the Contractor has provided the District with Certificates of Insurance or appropriate insurance binders evidencing the above insurance coverage's and said Certificates of Insurance or binders are approved by the District. In the event any of said policies of insurance are materially modified or cancelled for any reason, the Contractor shall, prior to the cancellation date, submit new evidence of insurance, in conformance with this Section 5.1, to the Contract Officer. The Contract Officer, with the prior approval of the District Manager, shall have authority to consent to a modification of the foregoing insurance requirements, which consent may be given or withheld in the Contract Officer's and District Manager's respective sole and absolute and arbitrary discretion.

The Contractor agrees that the provisions of this Section 5.1 shall not be construed as limiting in any way the extent to which the Contractor may be held responsible for the payment of damages to any persons or property resulting from the Contractor's activities or the activities of any person or persons for which the Contractor is otherwise responsible.

In the event the Contractor subcontracts any portion of the work in compliance with Section 4.3 of this Agreement, the contract between the Contractor and such subcontractor shall require the



subcontractor to maintain the same policies of insurance that the Contractor is required to maintain pursuant to this Section 5.1.

5.2 Indemnification. Contractor agrees to indemnify the District, its officers, agents and employees against, and shall hold and save them and each of them harmless from, any and all actions, suits, claims, damages to persons or property, losses, costs, penalties, obligations, errors, omissions or liabilities, (herein "claims or liabilities") that may be asserted or claimed by any person, firm or entity arising out of or in connection with the negligent performance of the work, operations or activities of Contractor, its agents, employees, subcontractors, or invitees, provided for herein, or arising from the negligent acts or omissions of Contractor hereunder, or arising from Contractor's negligent performance of or failure to perform any term, provision, covenant or condition of this Agreement, whether or not there is concurrent passive or active negligence on the part of the District, its officers, agents or employees but excluding such claims or liabilities arising from the sole negligence or willful misconduct of the District, its officers, agents or employees, who are directly responsible to the District, and in connection therewith:

(a) Contractor shall defend any action or actions filed in connection with any of said claims or liabilities and shall pay all costs and expenses, including legal costs and attorneys' fees incurred in connection therewith;

(b) Contractor shall promptly pay any judgment rendered against the District, its officers, agents or employees for any such claims or liabilities arising out of or in connection with the negligent performance of or failure to perform such work, operations or activities of Contractor hereunder; and Contractor agrees to save and hold the District, its officers, agents, and employees harmless therefrom;

(c) In the event the District, its officers, agents or employees is made a party to any action or proceeding filed or prosecuted against Contractor for such damages or other claims arising out of or in connection with the negligent performance of or failure to perform the work, operation or activities of Contractor hereunder, Contractor agrees to pay to the District, its officers, agents or employees, any and all costs and expenses incurred by the District, its officers, agents or employees in such action or proceeding, including but not limited to, legal costs and attorneys' fees.

5.3 Performance Bond. Concurrently with execution of this Agreement, Contractor shall deliver to the District a performance bond in the sum of the amount of this Agreement, in the form provided by the Board Secretary, which secures the faithful performance of this Agreement, unless such requirement is waived by the Contract Officer. The bond shall contain the original notarized signature of an authorized officer of the surety and affixed thereto shall be a certified and current copy of his power of attorney. The bond shall be unconditional and remain in force during the entire term of the Agreement and shall be null and void only if the Contractor promptly and faithfully performs all terms and conditions of this Agreement.

5.4 Sufficiency of Insurer or Surety. Insurance or bonds required by this Agreement shall be satisfactory only if issued by companies qualified to do business in California, rated "A" or better in the most recent edition of Best Rating Guide, The Key Rating Guide or in the Federal Register, and only if they are of a financial category Class VII or better, unless such requirements are waived by the Risk Manager of the District due to unique circumstances. In the

event the Risk Manager of the District ("Risk Manager") determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the District, the Contractor agrees that the minimum limits of the insurance policies and the performance bond required by this Section 5 may be changed accordingly upon receipt of written notice from the Risk Manager; provided that the Contractor shall have the right to appeal a determination of increased coverage by the Risk Manager to the of the District within 10 days of receipt of notice from the Risk Manager.

5.5 Payment Bond for contracts over \$25,000. Concurrently with the execution of their Agreement, if the contract sum specified in Section 2.1 of this Agreement is in excess of twenty-five thousand dollars (\$25,000), Contractor shall deliver to the District a payment bond in the sum specified below, in the form provided by the Board Secretary, which secures payments to subcontractors and suppliers in the event of default by Contractor. The payment bond shall contain the original notarized signature of an authorized officer of the surety and affixed thereto shall be a certified and current copy of his power of attorney. The payment bond shall be unconditional and remain in force during the entire term of the Agreement and shall be null and void only if the Contractor completely and faithfully pays all subcontractors and suppliers that have been approved in writing pursuant to Section 4.3 of this Agreement to perform in whole or part the services required herein.

The payment bond shall be in a sum not less than that prescribed by law under California Civil Code § 3248, such that the bond shall be in the sum of:

- (a) One hundred percent (100%) of the total amount payable by the terms of this Agreement if the total amount payable does not equal or exceed five million dollars (\$5,000,000); or
- (b) Fifty percent (50%) of the total amount payable by the terms of this Agreement if the total amount payable is not less than five million dollars (\$5,000,000) and does not exceed ten million dollars (\$10,000,000); or
- (c) Twenty five percent (25%) of the total amount payable by the terms of this Agreement if the Agreement exceeds ten million dollars (\$10,000,000).

If Contractor is the provider of architectural, engineering, and land surveying services pursuant to an existing contract with the District for a public work, Contractor shall not be required to post or deliver a payment bond. Further, if the sum of the payment bond as required under California Civil Code § 3248 is different than the sum required under this Agreement, the sum specified in California Civil Code § 3248 is controlling.

5.6 Sufficiency of Insurer or Surety for Payment Bond. If Contractor must deliver a payment bond pursuant to Section 5.5 of this Agreement, Contractor shall deliver, concurrently with the execution of this Agreement and delivery of said payment bond, to the District the following documents:

- (a) A certified copy of the Certificate of Authority of the Insurer or Surety issued by the Insurance Commissioner, which authorizes the Insurer or

Surety to transact insurance in the State of California;

- (b) A certificate from the Clerk of the County of Los Angeles that the Certificate of Authority of the Insurer or Surety has not been surrendered, revoked, canceled, annulled, or suspended; or, in the event the Certificate of Authority of the Insurer or Surety has been suspended, that renewed authority has been granted; and
- (c) True and correct copies of the Insurer's or Surety's most recent annual statement and quarterly statement filed with the Department of Insurance.

Failure of Contractor to deliver these documents by the time of execution of this Agreement shall require the District to refrain from entering the Agreement, as Contractor will be deemed to have failed to ensure the sufficiency of the Insurer or Surety to the satisfaction of the District, as required by the provisions of the Bond and Undertaking Law, Code of Civil Procedure § 995.660.

## **6.0 RECORDS AND REPORTS**

6.1 Reports. Contractor shall periodically prepare and submit to the Contract Officer such reports concerning the performance of the services required by this Agreement as the Contract Officer shall require. Contractor hereby acknowledges that the District is greatly concerned about the cost of work and services to be performed pursuant to this Agreement. For this reason, Contractor agrees that if Contractor becomes aware of any facts, circumstances, techniques, or events that may or shall materially increase or decrease the cost of the work or services contemplated herein or, if Contractor is providing design services, the cost of the project being designed, Contractor shall promptly notify the Contract Officer of said fact, circumstance, technique or event and the estimated increased or decreased cost related thereto and, if Contractor is providing design services, the estimated increased or decreased cost estimate for the project being designed.

6.2 Records. Contractor shall keep, and require subcontractors to keep, such books and records as shall be necessary to perform the services required by this Agreement and enable the Contract Officer to evaluate the performance of such services. The Contract Officer shall have full and free access to such books and records at all times during normal business hours of the District, including the right to inspect, copy, audit and make records and transcripts from such records. Such records shall be maintained for a period of three (3) years following completion of the services hereunder, and the District shall have access to such records in the event any audit is required.

6.3 Ownership of Documents. All drawings, specifications, reports, records, documents and other materials prepared by Contractor, its employees, subcontractors and agents in the performance of this Agreement shall be the property of the District and shall be delivered to the District upon request of the Contract Officer or upon the termination of this Agreement, and Contractor shall have no claim for further employment or additional compensation as a result of the exercise by the District of its full rights of ownership of the documents and materials hereunder. Any use of such completed documents for other projects and/or use of uncompleted documents

without specific written authorization by the Contractor shall be at the District's sole risk and without liability to Contractor, and the District shall indemnify the Contractor for all damages resulting therefrom. Contractor may retain copies of such documents for its own use. Contractor shall have an unrestricted right to use the concepts embodied therein. All subcontractors shall provide for assignment to the District of any documents or materials prepared by them, and in the event Contractor fails to secure such assignment, Contractor shall indemnify the District for all damages resulting there from.

6.4 Release of Documents. The drawings, specifications, reports, records, documents and other materials prepared by Contractor in the performance of services under this Agreement shall not be released publicly without the prior written approval of the Contract Officer.

## **7.0 ENFORCEMENT OF AGREEMENT**

7.1 California Law. This Agreement shall be construed and interpreted both as to validity and to performance of the parties in accordance with the laws of the State of California. Legal actions concerning any dispute, claim or matter arising out of or in relation to this Agreement shall be instituted in the Superior Court of the County of Los Angeles, State of California, or any other appropriate court in such county, and Contractor covenants and agrees to submit to the personal jurisdiction of such court in the event of such action. Service of process on the District shall be made in the manner required by law for service on a public entity. Service of process on Consultant shall be made in any manner permitted by law and shall be effective whether served inside or outside of California.

7.2 Disputes. Subject to the provisions of Section 7.7, in the event of a dispute arising under this Agreement, Contractor shall comply with the provisions of this Section, and the District may, in its sole discretion, comply with the provisions of this Section. The injured party shall notify the injuring party in writing of its contentions. The injured party shall continue performing its obligations hereunder so long as the injuring party commences to cure such default within ten (10) days of service of such notice and completes the cure of such default within sixty (60) days after service of the notice, or such longer period as may be permitted by the injured party; provided that if the default is an immediate danger to the health, safety and general welfare, such immediate action may be necessary. Compliance with the provisions of this Section shall be a condition precedent to termination of this Agreement for cause by Consultant and to any legal action commenced by Consultant, and such compliance shall not be a waiver of Consultant's right to take legal action in the event that the dispute is not cured. Nothing herein shall limit District's right to terminate this Agreement with or without cause pursuant to Section 7.7.

7.3 Retention of Funds. Contractor hereby authorizes the District to deduct from any amount payable to Contractor (whether or not arising out of this Agreement) (i) any amounts the payment of which may be in dispute hereunder or which are necessary to compensate the District for any losses, costs, liabilities, or damages suffered by the District, and (ii) all amounts for which the District may be liable to third parties, by reason of Contractor's acts or omissions in performing or failing to perform Contractor's obligation under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by Contractor, or any indebtedness shall exist which shall appear to be the basis for a claim of lien, the District may withhold from any payment due, without liability for interest because of such withholding, an amount sufficient to cover such claim. The failure of the District to exercise such right to deduct or

to withhold shall not, however, affect the obligations of the Contractor to insure, indemnify, and protect the District as elsewhere provided herein.

7.4 Waiver. No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default shall impair such right or remedy or be construed as a waiver. A party's consent to or approval of any act by the other party requiring the party's consent or approval shall not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and shall not be a waiver of any other default concerning the same or any other provision of this Agreement.

7.5 Rights and Remedies are Cumulative. Except with respect to rights and remedies expressly declared to be exclusive in this Agreement, the rights and remedies of the parties are cumulative and the exercise by either party of one or more of such rights or remedies shall not preclude the exercise by it, at the same or different times, of any other rights or remedies for the same default or any other default by the other party.

7.6 Legal Action. In addition to any other rights or remedies, either party may take legal action, in law or in equity, to cure, correct or remedy any default, to recover damages for any default, to compel specific performance of this Agreement, to obtain declaratory or injunctive relief, or to obtain any other remedy consistent with the purposes of this Agreement.

7.7 Termination Prior to Expiration of Term. This Section shall govern any termination of this Agreement except as specifically provided in the following Section for termination for cause. The District reserves the right to terminate this Agreement at any time, with or without cause, upon written notice to Contractor. Contractor may terminate this Agreement only for cause and with not less than thirty (30) days prior written notice and only after following the procedures of Section 7.2 to enable the District to effect a cure of a default. Upon receipt of any notice of termination, Contractor shall immediately cease all services hereunder except such as may be specifically approved by the Contract Officer. Except where the Contractor has initiated termination, the Contractor shall be entitled to compensation for all services rendered prior to the effective date of the notice of termination and for any services authorized by the Contract Officer thereafter in accordance with the Schedule of Compensation or such as may be approved by the Contract Officer, except as provided in Section 7.3. In the event the Contractor has initiated termination, the Contractor shall be entitled to compensation only for the lesser of (i) the amount due for work completed under the Schedule of Compensation or (ii) the reasonable value of the work product actually produced hereunder. In the event of termination without cause pursuant to this Section, the terminating party need not provide the non-terminating party with the opportunity to cure pursuant to Section 7.2.

7.8 Termination for Default of Contractor. If termination is due to the failure of the Contractor to fulfill its obligations under this Agreement, The District may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor shall be liable to the extent that the total cost for completion of the services required hereunder exceeds the compensation herein stipulated (provided that the District shall use reasonable efforts to mitigate such damages), and the District may withhold any payments to the Contractor for the purpose of set-off or partial payment of the amounts owed the District as previously stated.

7.9 Attorneys' Fees. If either party to this Agreement is required to initiate or

defend or made a party to any action or proceeding in any way connected with this Agreement, the prevailing party in such action or proceeding, in addition to any other relief which may be granted, whether legal or equitable, shall be entitled to its expert witness fees and reasonable attorney's fees.

Attorney's fees shall include attorney's fees on any appeal, and in addition a party entitled to attorney's fees shall be entitled to all other reasonable costs for investigating such action, taking depositions and discovery and all other necessary costs the court allows which are incurred in such litigation. All such fees shall be deemed to have accrued on commencement of such action and shall be enforceable whether or not such action is prosecuted to judgment.

## **8.0 DISTRICT OFFICERS AND EMPLOYEES: NON-DISCRIMINATION**

8.1 Non-liability of District Officers and Employees. No officer, official, employee, agent, representative, or volunteer of the District shall be personally liable to the Contractor, or any successor in interest, in the event of any default or breach by the District or for any amount which may become due to the Contractor or to its successor, or for breach of any obligation of the terms of this Agreement.

8.2 Conflict of Interest. No officer, official, employee, agent, representative, or volunteer of the District shall have any financial interest, direct or indirect, in this Agreement nor shall any such officer or employee participate in any decision relating to the Agreement which effects his financial interest or the financial interest of any corporation, partnership or association in which he is, directly or indirectly, interested, in violation of any State statute or regulation. The Contractor warrants that it has not paid or given and shall not pay or give any third party any money or other consideration for obtaining this Agreement.

8.3 Covenant Against Discrimination. Contractor covenants that, by and for itself, its heirs, executors, assigns, and all persons claiming under or through them, that there shall be no discrimination against or segregation of, any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin, or ancestry in the performance of this Agreement. Contractor shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, color, creed, religion, sex, marital status, national origin, or ancestry.

## **9.0 MISCELLANEOUS PROVISIONS**

9.1 Notice. Unless otherwise provided herein, all notices required to be delivered under this Agreement or under applicable law shall be (i) personally delivered, or (ii) delivered by United States mail, prepaid, certified, return receipt requested, or (iii) delivered by reputable document delivery service that provides a receipt showing date and time of delivery. Notices personally delivered or delivered by a document delivery service shall be effective upon receipt. Notices delivered by mail shall be effective at 5:00 p.m. on the second calendar day following dispatch. Notices shall be delivered to the District at the following address: Palmdale Water District, 2029 East Avenue Q, Palmdale, CA 93550, Attn: Matthew Knudson, Assistant General Manager. Notices shall be delivered to Contractor at the following address: \_\_\_\_\_

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Either party may change the address for receipt of notices to that party by written notice delivered in compliance with this Section.



9.2 Interpretation. The terms of this Agreement shall be construed in accordance with the meaning of the language used and shall not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction which might otherwise apply.

9.3 Integration; Amendment. It is understood that there are no oral agreements between the parties hereto affecting this Agreement and this Agreement supersedes and cancels any and all previous negotiations, arrangements, agreements and understandings, if any, between the parties, and none shall be used to interpret this Agreement. This Agreement may be amended at any time by the mutual consent of the parties by an instrument in writing.

9.4 Severability. In the event that any one or more of the phrases, sentences, clauses, paragraphs, or sections contained in this Agreement shall be declared invalid or unenforceable by a valid judgment or decree of a court of competent jurisdiction, such invalidity or unenforceability shall not affect any of the remaining phrases, sentences, clauses, paragraphs, or sections of this Agreement which are hereby declared as severable and shall be interpreted to carry out the intent of the parties hereunder unless the invalid provision is so material that its invalidity deprives either party of the basic benefit of their bargain or renders this Agreement meaningless.

9.5 Corporate Authority. The persons executing this Agreement on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said party, (iii) by so executing this Agreement, such party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said party is bound.

9.6 Authority to Execute. The person (s) executing this Agreement on behalf of the parties hereto warrant that (i) such party is duly organized and existing, (ii) they are duly authorized to execute and deliver this Agreement on behalf of said party, (iii) by so executing this Agreement, such party is formally bound to the provisions of this Agreement, and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which said party is bound.

9.7 Warranty & Representation of Non-Collusion. No official, officer, or employee of District has any financial interest, direct or indirect, in this Agreement, nor shall any official, officer, or employee of the District participate in any decision relating to this Agreement which may affect his/her financial interest or the financial interest of any corporation, partnership, or association in which (s)he is directly or indirectly interested, or in violation of any corporation, partnership, or association in which (s)he is directly or indirectly interested, or in violation of any State or municipal statute or regulation. The determination of "financial interest" shall be consistent with State law and shall not include interests found to be "remote" or "non-interests" pursuant to Government Code Sections 1091 or 1091.5 Consultant warrants and represents that it has not paid or given, and will not pay or give, to any third party including, but not limited to, any District official, officer, or employee, any money, consideration, or other thing of value as a result or consequence of obtaining or being awarded any agreement. Consultant further warrants and represents that (s)he/it has not engaged in any act(s), omission(s), or other conduct or collusion that would result in the payment of any money, consideration, or other thing of value to any third party including, but not limited to, any District official, officer, or employee, as a result of consequence of obtaining or being awarded any agreement. Consultant is aware of

and understands that any such act(s), omission(s) or other conduct resulting in the payment of money, consideration, or other thing of value will render this Agreement void and of no force or effect.

9.86.12 Prevailing Wages. Contractor shall comply with Labor Code Section 1775. In accordance with said Section 1775, the Consultant shall forfeit as a penalty to the District, a penalty in such amount as the Labor Commissioner shall determine for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates for such work or craft in which such worker is employed for any work done under this Agreement by them or by any sub-consultant under them in violation of the provisions of the Labor Code and, in particular, Labor Code Sections 1770 to 1780, inclusive. In addition to said penalty and pursuant to said Section 1775, the difference between such stipulated prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor.

Contractor's Authorized Initials \_\_\_\_\_

[end - signature page and exhibits follow]

IN WITNESS WHEREOF, the parties have executed and entered into this Agreement as of the date first written above.

**District:**

PALMDALE WATER DISTRICT,  
a public agency

\_\_\_\_\_  
Dennis D. LaMoreaux, General Manager

**ATTEST:**

\_\_\_\_\_  
Board Secretary

APPROVED AS TO FORM:  
ALESHIRE & WYNDER, LLP

\_\_\_\_\_  
District Attorney

**CONTRACTOR:**

\_\_\_\_\_  
By: \_\_\_\_\_  
[signature to be notarized]

Name: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_  
[signature to be notarized]

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

## **SCOPE OF SERVICES**

### **I. STATEMENT OF WORK**

#### **General Information and Contacts:**

Service Provider Contact:

Telephone Number:

Telephone Number:

E-Mail Address:

E-Mail Address:

#### **Service Location:**

Site where Service Provider will perform the Services: 700 East Avenue S,  
Palmdale, CA 93550

#### **Palmdale Water District**

Leslie O. Carter Water Treatment Plant

Palmdale CA 93550

**Scope of Service:** Potable Water Service Custom Reactivation Services

### **II. INITIAL REPLACEMENT:**

1. Calgon Carbon shall remove the spent GAC from the filters at the Leslie O. Carter Water Treatment Plant.
2. Calgon Carbon shall transport the spent GAC to a Calgon Carbon NSF-certified, dedicated potable reactivation facility.
3. Calgon Carbon shall thermally reactivate the spent GAC using an NSF-approved procedure which complies with AWWA Standard B605-7.
4. Calgon Carbon shall segregate and store the custom reactivated GAC, identified and labeled as "CMR-Palmdale".
5. Calgon Carbon shall transport the CMR-Palm400 reactivated GAC (and the requisite amount of virgin F400 required for make-up purposes) to the Leslie O. Carter Water Treatment Plant.
6. Calgon Carbon shall install the CMR-Palm400 reactivated GAC and make-up virgin F400 into the filters.
7. GAC fill shall conform to a minimum depth of 8 feet in each filter following installation, with any required make-up conforming to item 8 below

In addition to meeting the requirements of AWWA Standard B604, latest edition, the virgin make-up carbon shall be F400 with a minimum Apparent Density of 0.47g/cc, a minimum Trace Capacity Number of 9 mg/cc, a maximum Tannin Value of 500 ppm as performed in accordance with Appendix B of AWWA B604-12 and a minimum Iodine Adsorption of 1000 mg/g as performed in accordance with ASTM 4607.9. Calgon Carbon shall provide a method acceptable to District staff for tracking each individual contactor media with permanent identification from virgin state through each subsequent

reactivation and provide the Contract Officer with thorough records of the reactivation process parameters.

### III. SUBSEQUENT OPERATION:

1. Calgon Carbon will perform custom NSF-certified reactivation of the GAC in each of the GAC filters/pressure vessels at **Leslie O. Carter Water Treatment Plant** on an "as-needed" basis. For any given exchange, to the extent that there is react GAC remaining above the required amount (after taking into consideration the addition of any makeup virgin GAC), such remaining react GAC shall become the property of Calgon Carbon and can be retained or disposed of at Calgon Carbon's sole discretion. Refer to Section IV, *infra*, – Carbon Reactivation Schedule, for specific information regarding quantities of GAC in each filter/vessel and estimated schedules for reactivation of each filter/vessel.
2. Calgon Carbon will supply 10% of Virgin Activated Carbon makeup for each filter exchange. Virgin Makeup carbon is F400.
3. Calgon Carbon will return the spent GAC to one of its NSF certified, dedicated potable reactivation facilities and reactivate the spent GAC according to an NSF-approved procedure. Custom reactivation of the spent GAC does require additional paperwork and water quality testing will need to be submitted (Exhibit B).
4. Calgon Carbon will provide the necessary man power and equipment to facilitate the exchange of the spent and react GAC.
5. Calgon Carbon will supply supervision during the initial fill and backwash of the filters during each exchange operation.
6. Calgon Carbon will analyze a representative sample of the GAC on a periodic basis for iodine number, ash, apparent density, mesh size, and any other parameters felt appropriate for the particular application.

### IV. RESPONSIBILITIES OF CUSTOMER

1. Customer will provide the necessary water, electricity, and suitable drainage to accomplish the transfer of the spent and reactivated GAC.
2. If a spill occurs into the source water supply for Customer, then Customer will notify Calgon Carbon of the occurrence and the type of chemicals spilled, if known by Customer.

If it is then determined by Customer that the GAC was contaminated by the spill, Customer can then request Calgon Carbon to remove and replace the GAC. Calgon Carbon will take the spent GAC back for thermal reactivation subject to spent carbon acceptance. The cost of this special reactivation service shall be in

addition to the base exchange fee. If the fouled GAC can not be reactivated, Calgon Carbon shall supply replacement virgin GAC at the price stated in Section A.2. of this Agreement. Should Customer declare the spent activated carbon hazardous, Customer then agrees to reimburse Calgon Carbon for the additional cost of removing, handling, and disposing of a hazardous material.

3. If during the term of the Agreement the GAC becomes fouled by inorganic precipitates, such as calcium carbonate or iron oxide, Customer shall have the option to clean the GAC or request Calgon Carbon to remove and, if possible, reactivate the fouled GAC. If Customer chooses to clean the GAC, the cost of cleaning the GAC will be the responsibility of Customer. If Customer chooses to have Calgon Carbon remove and reactivate the GAC, Calgon Carbon will take the spent GAC back for thermal reactivation subject to spent carbon acceptance. The cost of this special reactivation service shall be in addition to the base monthly fee. If the fouled GAC can not be reactivated, Calgon Carbon shall supply replacement virgin GAC at the price (on a per lb basis) stated in Section A.2. of this Agreement.
4. Customer will provide clear access to the site for delivery and installation of the react / virgin GAC and spent GAC removal.
5. Customer will provide all plant modifications, pre and post treatments and sterilization of the filters/pressure vessels as may be required.
6. Customer will confirm the volume of GAC in each filter in the following manner: Customer will measure and mark the top of the filter bed prior to removing any GAC. After the removal of the GAC, the Customer will then mark and measure from the top of the support media to the initial line. With these measurements, as well as the dimensions of the filter, the Customer will be able to calculate the volume of GAC being returned.

## **V. CARBON REACTIVATION SCHEDULE**

### **A. Filter / Dimensions and Volumes :**

Volume of GAC in each Filter = 7,040 cubic feet

### **B. Number of Filters**

Seven (7) filters X 7,040 cubic feet each = Total of 49,280 cu ft.

### **C. Exchange Schedule (Estimated):**

Up to Seven (7) Filters per year

The District reserves the right to utilize eighth for testing of alternate treatment methods and/or media. These strategies and/or media may or may not be sourced from Calgon Carbon at the District's discretion



Exhibit "B"

**SPECIAL REQUIREMENTS**

**A. WAIVERS AND EXEMPTIONS**

The parties agree Section 5.3 of this Agreement is inapplicable to the work specified at Exhibit

A.

**B. CRITERIA FOR RETURN FOR REACTIVATION OF NON-RCRA SPENT GRANULAR ACTIVATED CARBON (GAC)**

The following ACCEPTANCE CRITERIA **must** be met for return for reactivation:

<u>Characteristic/Property</u>	<u>Limits of Acceptability</u>
Size	Greater than or equal to 12x40 mesh
pH Range	Greater than 2.0 and less than 12.5
Ignitable (per RTM-10)	Not Acceptable
Dioxins (by testing, court decree or definition)	Not Acceptable
Polychlorinated Biphenyls (PCBs)	Not Acceptable
1,2-Dibromo-3-chloropropane (DBCP)	Not Acceptable
Radioactivity	Not to exceed Background Level
Sodium	Maximum of 0.1 wt. %
Halogenated/Aromatic Volatiles	Maximum of 2000 ug/g (Blue Lake plant only) (SW 846 - Methods 8010/8020)

Note 1: Spent Granular Activated Carbon to be returned for reactivation shall be free of any foreign debris (rock, wood, metal, etc.) or extraneous impurities, free of oil and grease, easily wetted by water, and free flowing.

Note 2: Acceptance for reactivation of spent carbon which has not been supplied by Calgon Carbon Corporation must be investigated on a case-by-case basis.

Exhibit "C"

**COMPENSATION AND PRICING**

Fees, Invoices, and Payments. For the products and services provided by the Service Provider under this scope of work, District will pay Service Provider:

1. Base Pricing, Virgin and Reactivated GAC:

The price for virgin F400 and CMR-Palmdale products, on a per filter basis, are as follows:

a. Virgin F400 Carbon

- i. One (1) filter's worth of 100% virgin F400 GAC (7,040 cu. ft.):  
\$275,135.00
- ii. This price includes the removal of spent GAC, and the supply and installation of the new GAC, and all associated transportation costs.

b. Reactivated CMR-Palmdale Carbon

- i. One (1) filter's worth of CMR-Palmdale reactivated GAC (7,040 cu. ft.):  
\$169,477.00
- ii. This price includes 10% virgin make-up F400 GAC, by weight
- iii. This price includes the removal of spent GAC, and the reactivation and installation of the reactivated GAC, and all associated transportation costs.

2. Virgin GAC Required for District Operational Losses:

Any virgin GAC required to replace District Operational Losses is \$39.08 per cubic foot of virgin F400 GAC. The Contractor shall be entitled to additional compensation associated with Virgin GAC on a unit price basis solely to the extent such Virgin GAC is required in order to make up for the District Operational GAC Losses or as otherwise directed by the District.

"District Operational GAC Loss" means (a) GAC loss occurring between the completion of any GAC Filter Exchange and the commencement of any subsequent GAC Filter Exchange; (b) degradation of the GAC during operation of the filter, such as caused by build up of calcium carbonate or other minerals on the carbon which impact the ability of the GAC to be reactivated such that yield losses are higher than 10% and require the supply of additional Virgin GAC. Above 10% by volume.

///

3. Fee Adjustment:

All fees will be firm for the first year of the Initial Term, with an annual adjustment for each successive year of the Term of the agreement (as defined below) in accordance with the Fee Adjustment provisions set forth in Exhibit V of this Agreement.

4. Taxes:

All fees and pricing indicated are exclusive of any applicable taxes

5. Conditions:

The fees in this Agreement are based upon Calgon Carbon performing the responsibilities as described in Exhibit A during normal working hours and under reasonable order processing conditions. If overtime costs are incurred solely for District's convenience, Calgon Carbon reserves the right to invoice Customer for documented overtime expenses. In addition, rush shipments (less than 3 days notice) will be subject to a surcharge on the carbon supply fee [of a certain amount or "not to exceed..."].

6. Fee Adjustment:

The fees payable pursuant hereto will be adjusted on January 1st of such calendar year by the annual percentage charge in the combined average of the Indices indicated in the schedules below:

**i. Virgin Carbon Exchange Fees:**

- (A) Producer Price Index of other Petroleum and Coal Products Manufacturing (CCWUR0400SA0)\*, (50% weight)  
and
- (B) Producer Price Index of Basic Organic Chemicals (WPU0614)\*, (50% weight)

**ii. Reactivated Carbon Exchange Fees:**

- (A) Department of Labor CPI for Urban Wage Earners and Clerical Work, specific to the West (CWUR040SA0)\*, (70% weight)  
and
- (B) The Natural Gas Adjustment Factor based upon the Platt's Gas Market Report inside FERC First of the Month Index El Paso Natural Gas Permian Basins Index. (30% weight)

*\*As published by the United States Department of Labor*

The percent adjustment shall be calculated by taking the percent difference for each index during the twelve month period from October 1st through September 30th of the last completed calendar year as compared to the twelve month period from October 1st through September 30th of the calendar year immediately preceding the last completed calendar year. These two percentages will then be averaged (based on the weights indicated) for calculating the final percent adjustment to which all U.S. manufactured materials will be subject.

7. Fuel Surcharge:

The Fuel Surcharge shall consist of a mileage charge based on the difference between the base of \$4.00/gallon and the fuel index at time of actual delivery in accordance with Table 1 in this Appendix. The mileage and surcharge amount will be established at time of delivery by the Service Provider using the average price of fuel per gallon within the County of Los Angeles.

Each Monday at 5:00pm Eastern Standard Time, the Service Provider will determine the Average Diesel Price, using the average price of diesel per gallon within the County of Los Angeles. The Non-Local Fuel Surcharge will become effective on Tuesday of that week (except if Monday is a National Holiday, then it will be Wednesday) and will be effective for the following seven (7) day period.

In computing charges, fractions of less than one-half cent will be dropped and fractions of one-half cent or more will be increased to the next whole cent.

If the Average Diesel Price is greater than \$4.50 per gallon, the Non-Local Fuel Surcharge will increase one (1) cent for every five (5) cent increase of the Average Diesel Price. **If the Average Diesel Price is less than \$4.50 per gallon**, the Company will not charge a Fuel Surcharge.

**TABLE 1**

When the Fuel Index Is:			When the Fuel Index Is:			When the Fuel Index Is:		
At Least	But Less Than	Fuel Surcharge	At Least	But Less Than	Fuel Surcharge	At Least	But Less Than	Fuel Surcharge
\$4.00	\$4.05	0 Cent per Mile	\$4.50	\$4.55	1 Cents per Mile	\$5.00	\$5.05	11 Cents per Mile
\$4.05	\$4.10	0 Cents per Mile	\$4.55	\$4.60	2 Cents per Mile	\$5.05	\$5.10	12 Cents per Mile
\$4.10	\$4.15	0 Cents per Mile	\$4.60	\$4.65	3 Cents per Mile	\$5.10	\$5.15	13 Cents per Mile
\$4.15	\$4.20	0 Cents per Mile	\$4.65	\$4.70	4 Cents per Mile	\$5.15	\$5.20	14 Cents per Mile
\$4.20	\$4.25	0 Cents per Mile	\$4.70	\$4.75	5 Cents per Mile	\$5.20	\$5.25	15 Cents per Mile

\$4.25	\$4.30	0 Cents per Mile		\$4.75	\$4.80	6 Cents per Mile		\$5.25	\$5.30	16 Cents per Mile
\$4.30	\$4.35	0 Cents per Mile		\$4.80	\$4.85	7 Cents per Mile		\$5.30	\$5.35	17 Cents per Mile
\$4.35	\$4.40	0 Cents per Mile		\$4.85	\$4.90	8 Cents per Mile		\$5.35	\$5.40	18 Cents per Mile
\$4.40	\$4.45	0 Cents per Mile		\$4.90	\$4.95	9 Cents per Mile		\$5.40	\$5.45	19 Cents per Mile
\$4.45	\$4.50	0 Cents per Mile		\$4.95	\$5.00	10 Cents per Mile		\$5.45	\$5.50	20 Cents per Mile

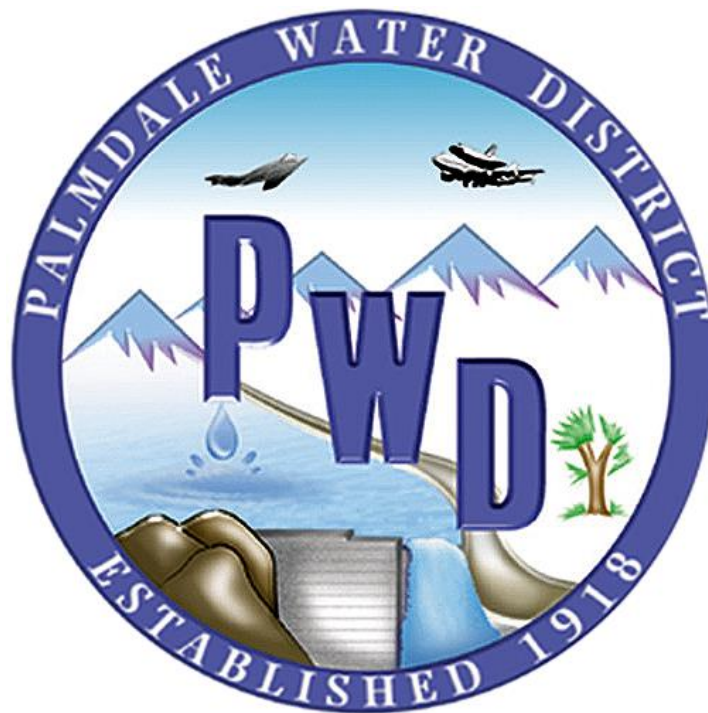
# Granular Activated Carbon

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## A Review of Operations and Testing

Prepared by PWD Water Quality and Operations Staff

5/12/14





### Introduction

The Palmdale Water District began using “Post Filtration” Granular Activated Carbon (GAC) contactors to remove Disinfection By-Product precursors in November of 2008. The Total Organic Carbon (TOC) contained in our source water has been specifically targeted for removal. This was done in an effort to reduce the concentration of Total Trihalomethanes (TTHMs) within the distribution system. Since that time, the operational protocol has been to run all treated water through the GAC contactors. *Graph 1* displays the average TTHM levels within the distribution system for the years 2008 through 2014 (1<sup>st</sup> Qtr). Beginning in April of 2010, Water Quality and Plant Operations staff began working to optimize the operation of the GAC contactors in an effort to maximize the life of each contactor while meeting the current and future TTHM regulations in the distribution system. This optimization work will continue through 2014 as we continue to collect data and refine our operational strategy.

This report is intended to provide a summary of the information the Palmdale Water District (PWD) has gained through the operation of Granular activated Carbon (GAC) contactors, as well as from extensive testing of various types of GAC. The first section will provide information about the actual operational results achieved during a 66 month period ending April 30, 2014. While the second section will discuss information gained through the two phases of a Full-Scale Comparison.

### Section I: Operational Results

#### System TTHM Levels

The PWD began collecting TTHM samples at the 16 Stage 1 Disinfection By-Products Rule (DBPR) locations in 2002. The maximum contaminant level (MCL) for TTHM is 80 ug/L and is based on a running annual average of quarterly results. The Stage 1 DBPR has given way to the Stage 2 DBPR which requires compliance to be based on a Locational Running Annual Average (LRAA) of 8 Stage 2 DBPR locations which began in April 2012. This requires all locations to have a TTHM running annual average of less than 80 ug/L. *Table 1* shows the system Running Annual Averages for TTHMs.

**Table 1**

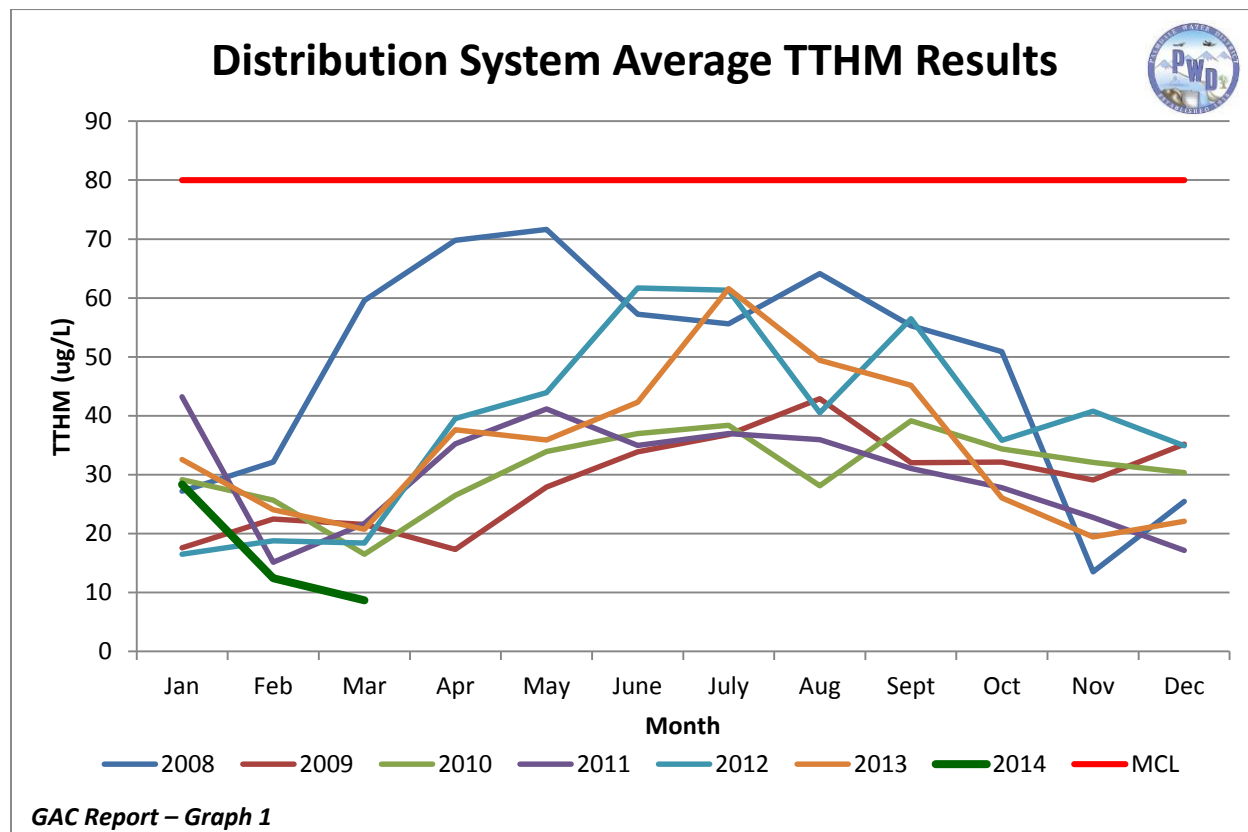
Year	Stage 1: TTHMs RAA (µg/L)	Stage 2: TTHMs RAA (µg/L)
2002	73.5	
2003	73.0	
2004	49.5	
2005	53.7	
2006	51.1	
2007	54.6	
2008*	48.5	
2009	29.1	
2010	30.9	
2011	30.4	
2012	28.2	46.1
2013	-----	34.7
2014	-----	16.5

*\*GAC effective: 4<sup>th</sup> Quarter 2008*

*\*\*2014 Results only include 1<sup>st</sup> Quarter Data*

## Review of GAC Operation and Testing

Below is a graphical representation of TTHM levels prior to operation of the GAC contactors in 2008, as well as the five years following.



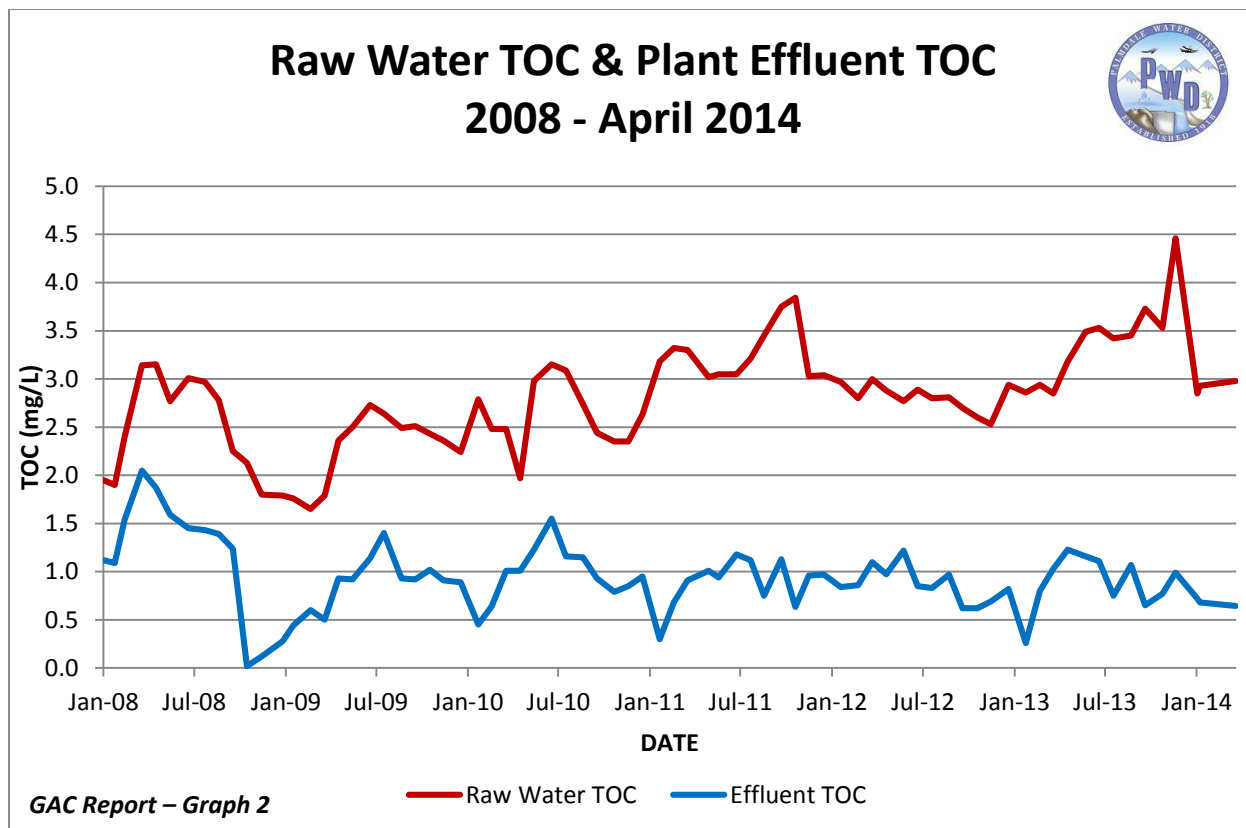
### Raw Water Quality

There are two Raw Water parameters that we are primarily concerned with as they will have an impact on the formation of TTHMs. These parameters are Total Organic Carbon (TOC) and Bromide. This is due to the fact that three of the four species of TTHMs are made up of a combination of Carbon, Bromine, Hydrogen and Chlorine. Therefore, as TOC and Bromide concentrations increase, so does the potential for TTHM formation within our chlorinated distribution system. Currently, we are not able to remove the Bromide from our source water before it undergoes a reaction with the chlorine added in the treatment process. However, we are able to remove TOC to a certain extent and thus, TOC removal is the focus in our attempt to minimize TTHM formation. *Table 2* shows that despite higher raw water TOC in recent years, the average effluent TOC has been consistently lower than in 2008.

**Table 2**

Year	Average Raw TOC (mg/L)	Average Effluent TOC (mg/L)
2008	2.7	1.3
2009	2.3	0.9
2010	2.7	1.1
2011	3.2	0.9
2012	2.8	0.9
2013	3.4	0.9
2014*	2.9	0.7

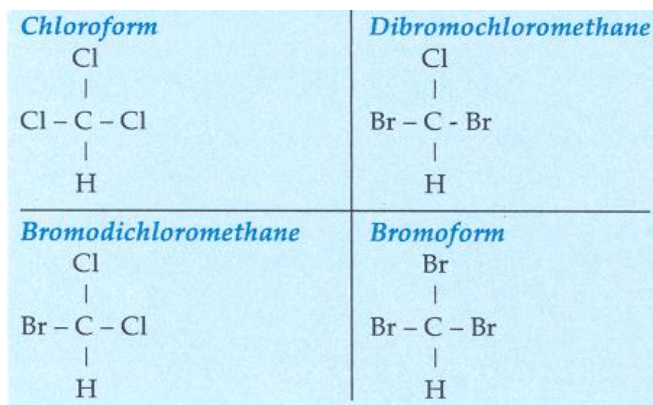
Calculated Weighted Averages  
\*Results updated through April 2014



As discussed previously, the average TOC level leaving the plant prior to bringing the GAC contactors online in November of 2008 was higher than the average TOC leaving the plant from 2009 – 2014 (1<sup>st</sup> Qtr). It must be noted that it is possible to reduce the Plant Effluent TOC to a level approaching zero mg/L as can be seen on *Graph 2* in November of 2008. It must also be noted that removal rates of this magnitude will quickly exhaust the GAC. This will greatly increase the cost of treatment using GAC and is in fact cost prohibitive. For this reason, the PWD has been working to develop an operational strategy that will reduce TOC levels to the point required for compliance with the Stage 2 DBPR, while at the same time extending the useful life of each GAC contactor. To achieve this balance, it is essential to regularly monitor treatment plant performance and GAC contactor performance for the reduction of TOC. This is achieved through the use of a TOC analyzer as well as regular grab samples from various points of the treatment process. These grab samples are analyzed by water quality staff in the PWD lab.

## Review of GAC Operation and Testing

As previously mentioned, three of the four regulated TTHM species contain Bromine. Currently, there is no cost effective way to achieve large scale removal of Bromide from our source water. Below is an illustration of the four Trihalomethane compounds which shows the contribution of Bromine to each.



### Cost Analysis

Post filtration GAC contactors have been shown to be very effective in the reduction of Total Organic Carbon. The current issue we face is that of balancing the cost of treatment with achieving our water quality goals. On the financial side of water treatment is the question, “How much does this technology cost per acre-ft of water treated?” There is not a simple answer to this question as each water source and treatment plant is unique. We have endeavored to create some “rules of thumb” that may be helpful to other water districts considering the use of GAC. Looking at the last sixty-six months of operation using GAC contactors, we were able to determine the cost per acre-ft of water treated at current market cost for GAC. The following is the summary data used to calculate treatment cost.

#### 2008 – 2014: Year Totals

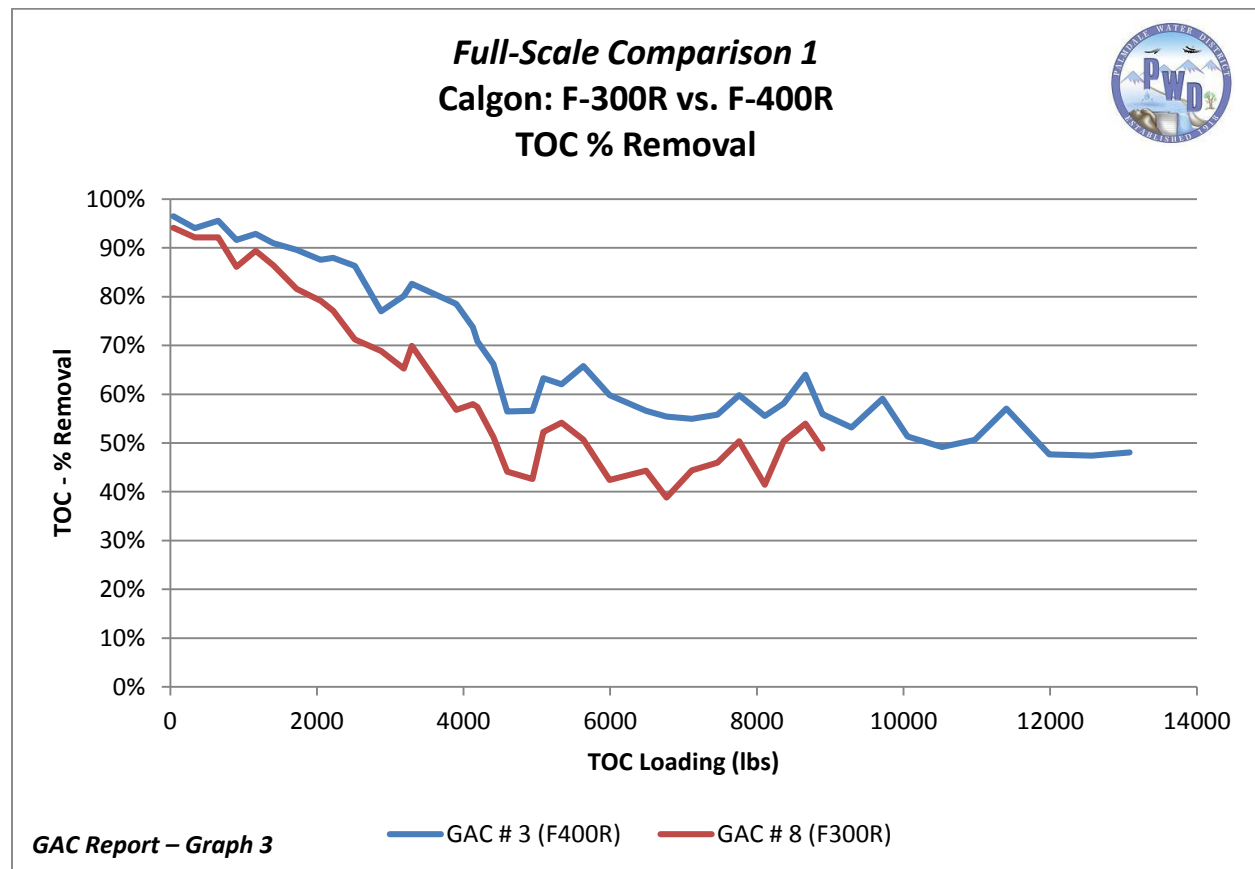
Plant Production (acre-ft)	68,006
GAC Used (lbs)	5,940,000
TOC Removed (lbs)	191,908
GAC/TOC (lbs)	31.0
Cost/acre-ft (\$)	\$90.39

The higher cost/acre-ft (\$) for this report is due to the added cost of our 2<sup>nd</sup> Phase Full-Scale Comparison of two GAC contactors (AC1230CXS & F400R) and the limited WTP production over the last few months.

## Section II: Full-Scale Comparisons

During 2012 through 2014, three different full-scale comparisons were conducted to evaluate which product will be most cost-effective for TOC reduction.

The first full-scale comparison operated from September 2012 to August 2013 and was used to evaluate the efficiency of two different varieties of bituminous coal based GAC (Calgon: F-300R and F-400R). The graph below shows that the F-400R is more effective at removing TOC than the F-300 currently in use. Over the course of this comparison, the F-400R provided 35% more production capability (ac-ft) and removed 11% more TOC (lbs) than the F-300R. In this comparison, each GAC contactor was considered to be exhausted when the percent of TOC removal stabilized below 50%.



### Full-Scale Comparison 1 - Results

#### GAC # 3 (F-400R):

GAC Production (acre-ft)    **2,410**  
GAC Used (lbs)    **220,000**  
TOC Removed (lbs)    **8,875**  
GAC/TOC (lbs)    **24.8**

#### GAC # 8 (F-300R):

GAC Production (acre-ft)    **1,781**  
GAC Used (lbs)    **220,000**  
TOC Removed (lbs)    **5,592**  
GAC/TOC (lbs)    **39.3**

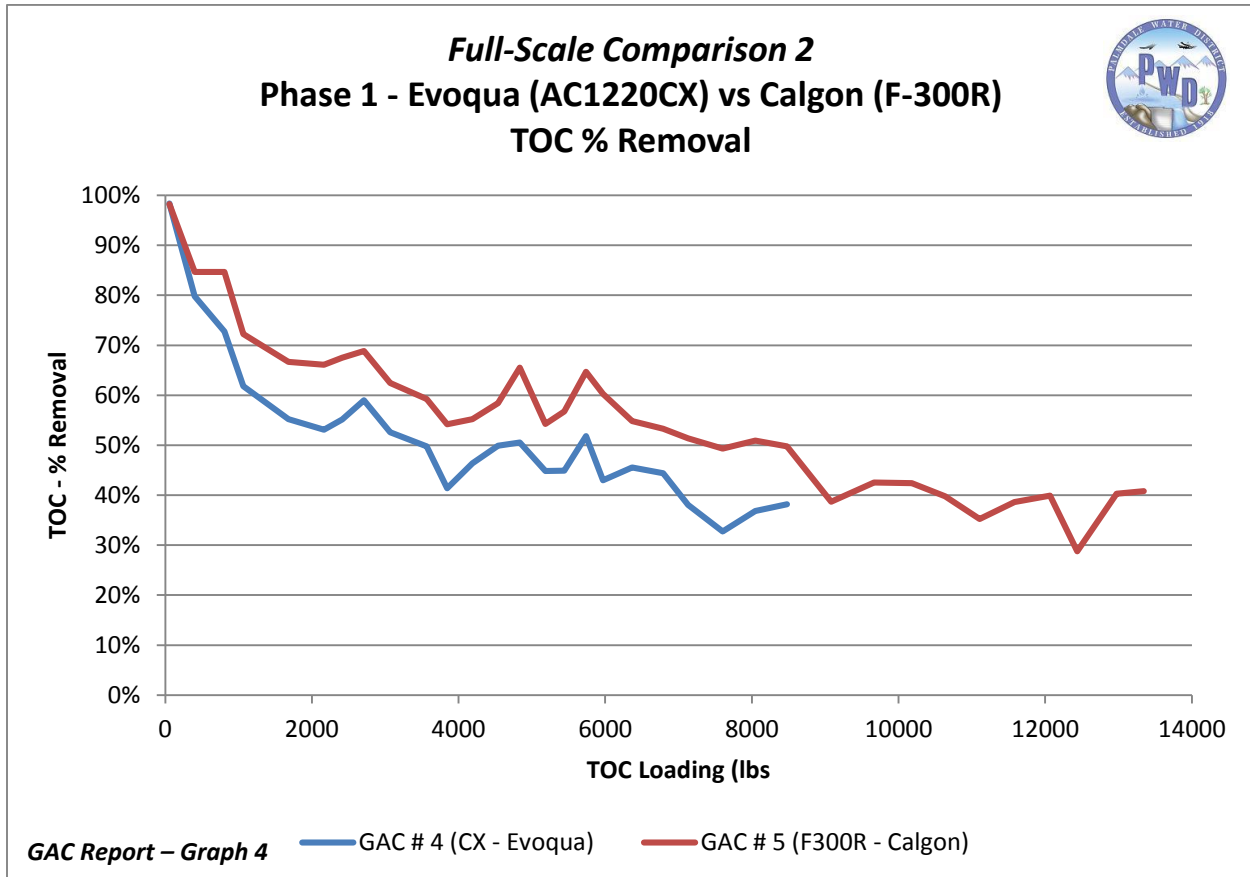
*Production capability (ac-ft) = +35%*

*TOC Removed (lbs) = +11%*

## Review of GAC Operation and Testing

The second full-scale comparison was split into two phases.

The first phase of the second full-scale comparison operated from February 2013 through August 2013 and was used to evaluate the effectiveness of virgin coconut based GAC (Evoqua AC1230CX) and reactivated bituminous coal based GAC (Calgon F-300R).



### Full-Scale Comparison 2 (Phase 1) - Results

#### GAC # 4 (Siemens-AC1230CX):

GAC Production (acre-ft)	<b>1,476</b>
GAC Used (lbs)	<b>220,000</b>
TOC Removed (lbs)	<b>4,388</b>
GAC/TOC (lbs)	<b>50.1</b>

#### GAC # 5 (Calgon F-300R):

GAC Production (acre-ft)	<b>2,203</b>
GAC Used (lbs)	<b>220,000</b>
TOC Removed (lbs)	<b>7,255</b>
GAC/TOC (lbs)	<b>30.3</b>

*Production capability (ac-ft) = +49%*

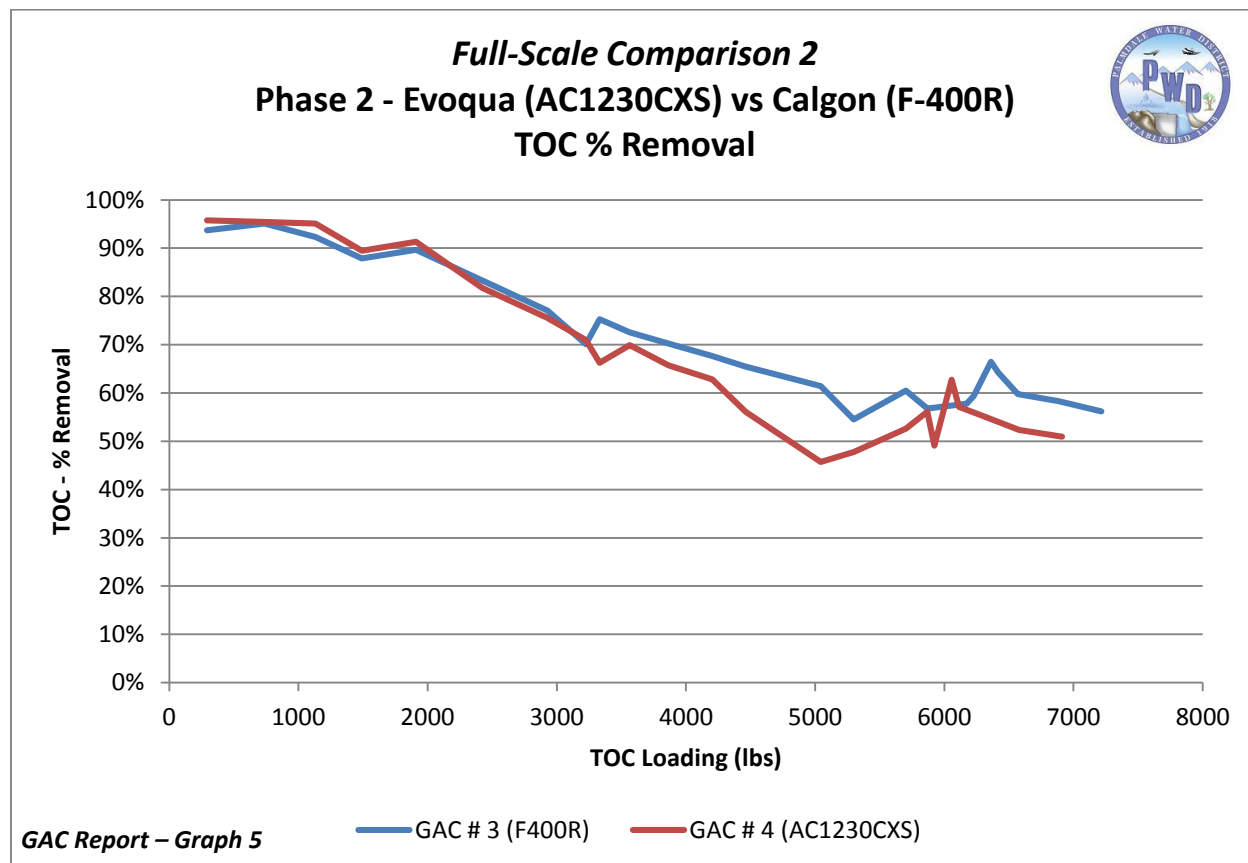
*TOC Removed (lbs) = +65%*

Based on the results, it is unlikely that we would choose to use the coconut based AC1230CX in place of the bituminous coal based F-300R (*Graph 4*). The Calgon F-300R provided 49% more production capability and removed 65% more TOC (lbs).



## Review of GAC Operation and Testing

The second phase of the second full-scale comparison is still in operation and began in September 2013. The Water Treatment Plant has been offline since February 6, 2014 due to SWP 0% Allocation and therefore the results displayed are as of February 2014. The purpose of this comparison is to evaluate the effectiveness of reactivated coconut based GAC (Siemens AC1230CXS) and reactivated bituminous coal based GAC (Calgon F-400R).



### Full-Scale Comparison 2 (Phase 2) - Results

#### GAC # 3 (Calgon F-400R):

GAC Production (acre-ft) **1,198**  
GAC Used (lbs) **220,000**  
TOC Removed (lbs) **5,142**  
GAC/TOC (lbs) **42.8**

#### GAC # 4 (Siemens-AC1230CXS):

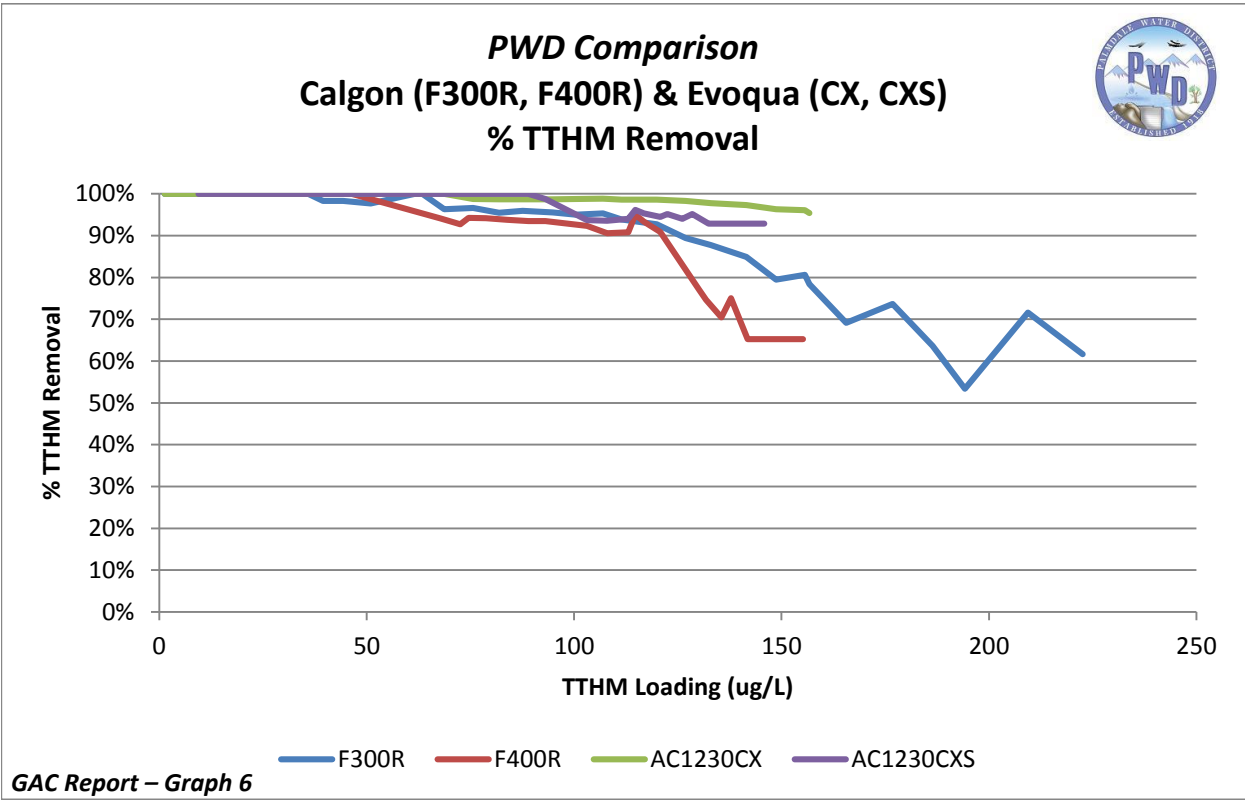
GAC Production (acre-ft) **1,138**  
GAC Used (lbs) **220,000**  
TOC Removed (lbs) **4,736**  
GAC/TOC (lbs) **46.5**

*TOC Removed (lbs) = +9%*

Based on the results, it appears that the reactivated coconut based AC1230CXS performs nearly as well as the reactivated bituminous coal-based F-400R (*Graph 5*). Currently, the Calgon F-400R has removed 9% more TOC (lbs). We are over half-way through this comparison and it will be interesting to see how each GAC contactor continues to perform.

# Review of GAC Operation and Testing

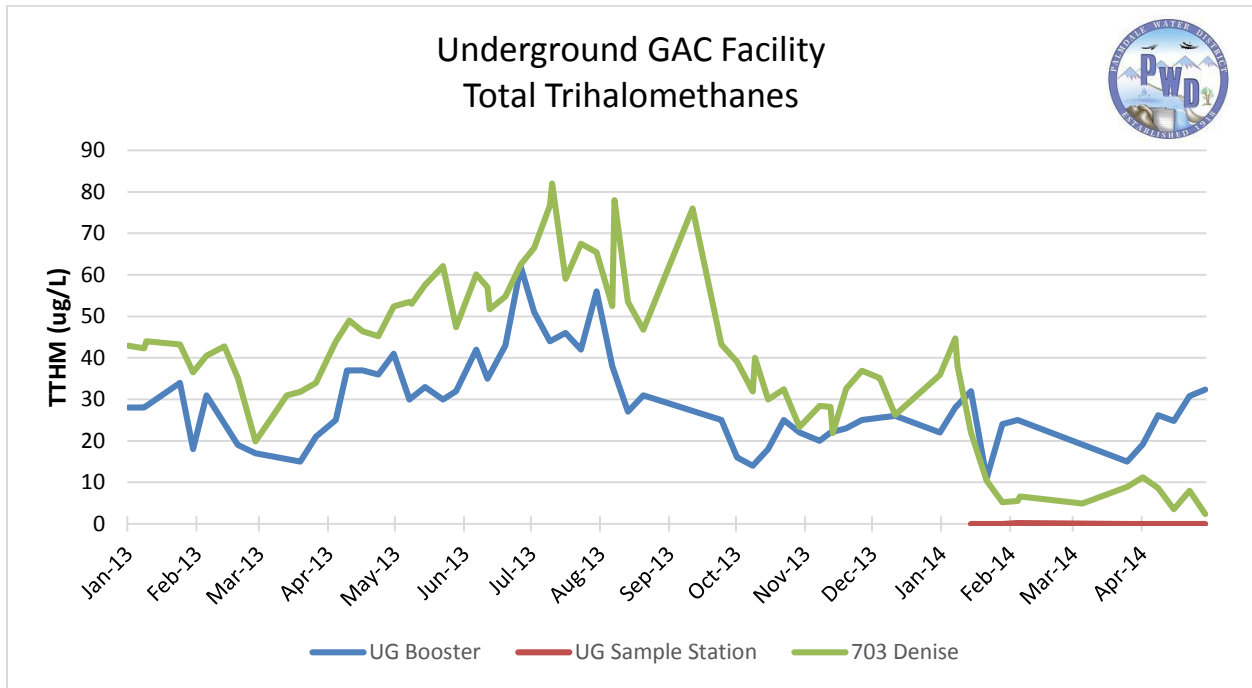
It is important to note that the coconut based GAC (AC1230CX) continues to be very efficient at TTHM reduction (*Graph 6*). This information further supports our decision to use coconut based GAC at Underground Tank for TTHM reduction.



NOTE: Data above not evaluated over the same time frame.

## Section III: Underground GAC Facility

The Underground GAC Facility was installed in November 2013. We began utilizing the GAC vessel to remove TTHMs on January 20, 2014. *Graph 7* below shows Underground Booster, Underground GAC Sample Station & 703 Denise TTHMs. For 2013, TTHMs at 703 Denise were approximately 49% higher than at Underground Booster. Post-GAC, TTHMs at 703 Denise were approximately 70% lower than at Underground Booster.



It is important to note that the water treatment plant was offline from February 6, 2014 through April 5, 2014 due to limited availability of surface water from the State Water Project (0% Allocation). During that time, Palmdale Water District was 100% dependent on groundwater, therefore the TTHM and TOC results were greatly reduced throughout the distribution system.

### Conclusions and Expectations

- The F-400R results indicate that it would be more cost effective for TOC reduction at the WTP.
- The virgin “Enhanced Coconut” product (AC1230CX) was not as efficient as our current bituminous coal based GAC (F-300R) and therefore would not likely be cost effective for TOC reduction at the WTP.
- The virgin and reactivated “Enhanced Coconut” products continued to show that it is very effective for TTHM reduction and further supports our decision to use a coconut based GAC for the Localized GAC system at Underground Tank.
- The second phase of this full-scale comparison began testing at the end of September 2013 and final results should be available mid-2014. Interestingly, the regenerated “Enhanced Coconut” appears to be nearly as effective as the F-400R at TOC removal.
- The Underground GAC Facility is performing well. TTHMs at Denise have been significantly reduced.
- Future evaluations will be made to increase the Plant Effluent TOC target at the WTP.

Please direct questions regarding this report to:

Peter Thompson II  
Operations Manager  
Palmdale Water District  
(661) 947-4111 ext. 1169  
[pthompsonII@palmdalewater.org](mailto:pthompsonII@palmdalewater.org)

Amanda Williams  
Water Quality Supervisor  
Palmdale Water District  
(661) 947-4111 ext. 1178  
[awilliams@palmdalewater.org](mailto:awilliams@palmdalewater.org)



## **COST PROPOSAL**

### **PALMDALE WATER DISTRICT**

**RFP- Carbon Supply and  
Exchange Services-  
AC1230CX  
3/7/14**

### **Confidentiality Statement**

*This document and all information contained herein are the property of Evoqua Water Technologies LLC. The design concepts and information contained herein are proprietary to Evoqua Water Technologies LLC and are submitted in confidence. They are not transferable and must be used only for the purpose for which the document is expressly loaned. They must not be disclosed, reproduced, loaned or used in any other manner without the express written consent of Evoqua Water Technologies LLC. In no event shall they be used in any manner detrimental to the interest of Evoqua Water Technologies LLC. All patent rights are reserved. Upon the demand of Evoqua Water Technologies LLC, this document, along with all copies or extracts, and all related notes and analyses, must be returned to Evoqua Water Technologies LLC or destroyed, as instructed by Evoqua Water Technologies LLC. Acceptance of the delivery of this document constitutes agreement to these terms and conditions.*

### **Terms and Conditions**

*In the event Evoqua Water Technologies LLC is the selected vendor for the products and services contemplated in the subject bid, Evoqua Water Technologies LLC desires to negotiate a mutually agreeable set of terms and conditions to govern such transaction (including issues such as warranty, indemnity, appropriate limitations of liability and other substantive terms and conditions). Evoqua Water Technologies LLC will not be obligated to supply products or services pursuant to such bid unless and until the parties have entered into an agreement with terms and conditions mutually agreed in writing by the parties.*





**Evoqua Water Technologies, LLC**  
14250 Gannet Street, La Mirada, CA 90638  
(Phone) 714-262-1560 (Fax) 714-464-2230

3/7/2014

Palmdale Water District  
Attn: Mr. Peter Thompson Jr.  
2029 E. Ave. Q  
Palmdale, CA 93550

**Re: REQUEST FOR PROPOSAL (RFP) - Carbon Supply and Exchange Services at Palmdale Water District (PWD)**

Dear Mr. Thompson,

Evoqua Water Technologies, LLC (EWT) is pleased to submit the following cost proposal in response to PWD's RFP for carbon supply and exchange services at the Palmdale Water District Water Treatment Plant. The format and content of this proposal are based on information provided by PWD via email correspondence and during an in-person meeting on 3/5/2014 at PWD.

This proposal and the request from PWD come at the (near) conclusion of the full scale pilot study that has been conducted at the plant over the course of the last 16 months. The pilot study was designed to compare EWT's enhanced coconut carbon AC1230CX to the incumbent's F400 product. Although the study is still ongoing, it is clear that both of these products would provide PWD with improved efficiency and long term operational cost reductions.

EWT is committed to working with PWD in support of your mission to provide high quality water to your current and future customers at a reasonable cost. We are aligned in both mission and values with a focus on efficiency, fiscal responsibility, natural resource management, integrity, customer service, water conservation, continuous improvement, stakeholder trust and a commitment to health and safety. We have designed this proposal based on these values.

The format and structure outlined in this proposal is based on criteria and assumptions outlined by PWD. It should be noted that the specifications, procedures, permits and quality control processes of the materials and services outlined in this proposal meet or exceed those outlined and provided during the full scale pilot study. This includes but is not limited to the carbon, reactivation facilities and processes, service equipment and personnel.

EWT appreciates the opportunity to respond to PWD's RFP and we look forward to working with PWD to continue to lead the way to more efficient and cost effective water treatment technologies and services for the City of Palmdale and the State of California.

Regards,

Jeremy Cook  
Evoqua Water Technologies, LLC  
[jon.cook@siemens.com](mailto:jon.cook@siemens.com)  
510-289-7215

### PRICE SCHEDULE

<b>5 YEAR OPTION- AC1230CX AND CXS SUPPLY AND EXCHANGE SERVICE</b>	
<b>PER (7040 FT3) CONTACTOR EXCHANGE COST</b>	
Scope of work includes: removal of material from contactor, transport of spent material to reactivation facility, reactivation of spent material, transport of material to Site, installation of material, custom segregated management of spent material throughout process	<b>\$200,000</b>
<b>Total Virgin AC1230CX Transition Cost (6 Contactors)</b>	<b>\$300,000</b>
<b>Virgin Transition Annual Payment Plan</b>	
Year 1	\$150,000
Year 2	\$100,000
Year 3	\$50,000
Year 4	\$0
Year 5	\$0

#### **Assumptions:**

- 5 year exclusive contract for carbon supply and exchange services for (7) of the (8) total 7040 cubic foot contactors at the Palmdale Water Treatment Plant.
- 10 year option under the same terms assuming agreeable cost escalation protection terms and conditions after Year 5.
- Assumes (4) change outs per year
- Assumes (1) reactivation exchange and (3) virgin installs in Year 1
- Assumes (1) reactivation exchange and (3) virgin installs in Year 2.
- Assumes (4) reactivation exchanges per year after Year 2.
- Allows for 10% virgin make up per reactivation of spent carbon load from (1) 7040 cubic foot contactor.
- Supply of virgin AC1230CX for installation into (6) of the (8) total 7040 cubic foot contactors at the Palmdale Water Treatment Plant.
- Specifications of AC1230CX will meet or exceed the specifications of the AC1230CX provided in the full scale pilot study.
- Evoqua Water Technologies standard terms and conditions (attached herein) shall apply in lieu of establishing a mutually agreeable contract.

#### **Attachments:**

- EWT Standard Terms and Conditions
- ISO 14001 Certification for Red Bluff Reactivation Facility
- NSF/ANSI 61 Certification
- OHSAS 18001 Certification for Red Bluff Reactivation Facility'
- Carbon Specification Sheet- AC1230CX
- Reactivation and Return Specification Sheet

## **Evoqua Water Technologies Terms and Conditions**

1. **Applicable Terms.** These terms, together with any quotation, purchase order or acknowledgement issued or signed by Seller (the "Seller's Documentation"), comprise the complete and exclusive statement of the agreement between the parties (the "Agreement") and supersede any terms contained in Customer's documents, unless separately signed by Seller. Whether the terms set forth herein are included in an offer, acceptance or acknowledgment by Seller, such offer, acceptance or acknowledgment is conditioned on Customer's assent to these terms. Seller rejects all additional or different terms in any of Customer's forms or documents. The Agreement governs the scope of work set forth in Seller's Documentation. For the purposes of this Agreement, goods shall include equipment, leased equipment and media goods (collectively, the "Goods").
2. **Payment.** Customer shall pay Seller the full fee as set forth in Seller's Documentation. Seller's price does not include, and Seller shall not be responsible for, any taxes, permits, tariffs, duties or fees (or any incremental increases to such taxes, permits, tariffs, duties or fees enacted by governmental agencies) unless specifically agreed in Seller's Documentation or otherwise by Seller in writing. If Seller is required to pay any such charges, Customer shall immediately reimburse Seller. All payments are due within 30 days after receipt of invoice. Customer shall be charged the lower of 1 ½% interest per month or the maximum legal rate on all amounts not received by the due date and shall pay all of Seller's reasonable costs (including attorneys' fees) of collecting amounts due but unpaid. All orders are subject to credit approval.
3. **Scope of Services.** Seller shall provide the Goods and services specifically described in Seller's Documentation during normal business hours, unless otherwise specified in Seller's Documentation. Performance by Seller that is requested or required by the Customer outside of these hours will be charged at Seller's then current schedule of rates and will be in addition to the charges outlined in Seller's Documentation. Where the Customer requests additional Goods or services which are outside of the scope of work itemized in Seller's Documentation, Seller may provide those Goods and services at standard time and material rates and conditions then in effect.
4. **Ownership of Materials.** All devices, designs (including drawings, plans and specifications), estimates, prices, notes, electronic data and other documents or information prepared or disclosed by Seller in connection with the provision of Goods and services hereunder, and all related intellectual property rights, shall remain Seller's property. Seller grants Customer a non-exclusive, non-transferable license to use any such material solely for Customer's use of the Goods at the location originally installed. Customer shall keep confidential and not disclose any such material to third parties without Seller's prior written consent.
5. **Changes.** Seller shall not implement any changes in the scope described in Seller's Documentation unless Customer and Seller agree in writing to the details of the change and any resulting price, schedule or other contractual modifications. This includes any changes necessitated by a change in applicable law.
6. **Warranty.** Seller warrants to Customer that (i) the Goods, except as otherwise set forth in this Section, shall materially conform to the description in Seller's Documentation as of acceptance testing of the Goods and shall be free from defects in material and workmanship and (ii) the services shall be performed in a good and workmanlike manner. The foregoing warranty shall not apply to any Goods that are specified or otherwise demanded by Customer and are not manufactured or selected by Seller, as to which (i) Seller hereby assigns to Customer, to the extent assignable, any warranties made to Seller and (ii) Seller shall have no other liability to Customer under warranty, tort or any other legal theory. If Customer gives Seller prompt written notice of breach of this warranty within 18 months from delivery or 1 year from acceptance of Goods or 90 days from performance of services, as the case may be, whichever occurs first (the "Warranty Period") and otherwise within thirty days of discovering such breach, Seller shall, at its sole option and as Customer's sole remedy: (i) repair or replace the subject parts or refund the price paid therefore in the event of a warranty claim for Goods and/or (ii) reperform the services in the event of a warranty claim for services. If Seller determines that any warranty claim is not, in fact, covered by this warranty, Customer shall pay Seller its then customary charges for any additionally required Goods or service. Seller's warranty is conditioned on Customer (a) operating and maintaining the Goods in accordance with Seller's instructions, (b) not making any unauthorized repairs or alterations and (c) not being in default of any payment obligation to Seller. Seller's warranty does not cover (a) media goods (such as, but not limited to, granular activated carbon media) once such media goods are installed and testing proves material conformance to Seller's Documentation; (b) damage caused by chemical action or abrasive material or misuse which has damaged the equipment serviced and (c) improper installation (unless

installed by Seller). THE WARRANTIES AND REMEDIES SET FORTH IN THIS SECTION ARE SELLER'S SOLE AND EXCLUSIVE WARRANTIES AND BUYER'S SOLE AND EXCLUSIVE REMEDIES, AND SELLER MAKES NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

7. Indemnity. Seller shall indemnify, defend and hold Customer harmless from any claim, cause of action or liability incurred by Customer as a result of third party claims for (i) personal injury, (ii) death or (iii) damage to tangible property, to the extent any of the foregoing are caused by Seller's negligence. Seller shall have the sole authority to direct the defense of and settle any indemnified claim. Seller's indemnification is conditioned on Customer (a) promptly, within the Warranty Period, notifying Seller of any claim, and (b) providing reasonable cooperation in the defense of any claim.

8. Force Majeure. Under no circumstances shall either Seller or Customer have any liability for any breach (except for payment obligations) caused by extreme weather or other act of God, strike or other labor shortage or disturbance, fire, accident, war or civil disturbance, delay of carriers, failure of normal sources of supply, change in law or other act of government or any other cause beyond such party's reasonable control.

9. Cancellation. Either party may terminate the scope of work specified in Seller's Documentation by providing reasonable notice sufficient to avoid costs incurred by the other party. If Customer cancels or suspends any such scope of work for any reason other than Seller's breach, Customer shall pay Seller for work performed prior to cancellation or suspension and any other direct costs incurred by Seller as a result of such cancellation or suspension.

10. LIMITATION OF LIABILITY. NOTWITHSTANDING ANYTHING ELSE TO THE CONTRARY AND EVEN IF ANY REMEDIES PROVIDED UNDER THE AGREEMENT FAIL OF THEIR ESSENTIAL PURPOSE, SELLER SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL, LIQUIDATED, PUNITIVE OR OTHER INDIRECT DAMAGES, AND SELLER'S TOTAL LIABILITY ARISING AT ANY TIME FROM THE SALE OR USE OF THE GOODS AND/OR SERVICES SHALL NOT EXCEED THE PRICE PAID TO SELLER THEREFOR. THESE LIMITATIONS APPLY WHETHER THE LIABILITY IS BASED ON CONTRACT, TORT, STRICT LIABILITY OR ANY OTHER THEORY.

11. Leased Equipment. Any leased or rented equipment ("Leased Equipment") provided by Seller shall at all times be the property of Seller with the exception of certain miscellaneous installation materials purchased by the Customer, and no right or property interest is transferred to the Customer, except the right to use any such Leased Equipment as provided herein. Customer agrees that it shall not pledge, lend, or create a security interest in, part with possession of, or relocate the Leased Equipment. Customer shall be responsible to maintain the Leased Equipment in good and efficient working order. Upon the expiration or termination of this Agreement, Customer shall promptly make any Leased Equipment available to Seller for removal. Customer hereby agrees that it shall grant Seller access to the Leased Equipment location and shall permit Seller to take possession of and remove the Leased Equipment without resort to legal process and hereby releases Seller from any claim or right of action for trespass or damages caused by reason of such entry and removal.

12. Miscellaneous.

- a. No part of the Agreement may be changed or cancelled except by a written document signed by Seller and Customer.
- b. No course of dealing or performance, usage of trade or failure to enforce any term shall be used to modify the Agreement.
- c. If any of these terms is unenforceable, such term shall be limited only to the extent necessary to make it enforceable, and all other terms shall remain in full force and effect.
- d. Customer may not assign or permit any other transfer of the Agreement without Seller's prior written consent.
- e. The Agreement shall be governed by the laws of the State of Delaware without regard to its conflict of laws provisions.

# Certificate of Registration

## Intertek

This is to certify that the environmental management system of

### Evoqua Water Technologies LLC

**Main Site: 2430 Rose Place, Roseville, Minnesota, 55113, USA**

*Additional site: 118 Park Road, Darlington, Pennsylvania, 16115, USA*

*Additional site: 11711 Reading Road, Red Bluff, California, 96080, USA*

*Additional site: 2523 S Mutahar Street, Parker, Arizona, 85344, USA*

*Additional site: 5375 S Boyle Avenue, Vernon, California, 90058, USA*

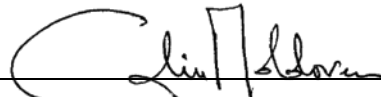
has been assessed and registered by Intertek as conforming to the requirements of

## ISO 14001:2004

The environmental management system is applicable to the management of the environmental aspects related to:

*Treatment and storage of hazardous and non-hazardous wastes, recycling and reuse of hazardous and non-hazardous materials, and laboratory support services.*

Certificate Number: EMS-0279-02  
Initial Certification Date: 28 September 2011  
Certificate Issue Date: 27 January 2014  
Certificate Expiry Date: 27 September 2014



Galin Moldovean, President  
Intertek Testing Services NA, Inc.  
70 Codman Hill Road - Boxborough, MA, USA



In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at [certificate.validation@intertek.com](mailto:certificate.validation@intertek.com) or by scanning the code to the right with a smartphone.



The certificate remains the property of Intertek, to whom it must be returned upon request.

CT-ISO14001:2004-ANAB-EN-LT-L-04.jan.12





## OFFICIAL LISTING

NSF International Certifies that the products appearing on this Listing conform to the requirements of  
NSF/ANSI Standard 61 - Drinking Water System Components - Health Effects

This is the Official Listing recorded on February 28, 2014.

**Evoqua Water Technologies LLC**  
**11711 Reading Road**  
**Red Bluff, CA 96080**  
**530-527-2664**

**Facility: Red Bluff, CA**

Process Media		Water Contact Temp	Water Contact Material
Trade Designation	Size		
<b>Reactivated Granular Activated Carbon</b>			
ACNSM(xyz) <sup>[1]</sup> <sup>[2]</sup>	[3]	CLD 23	GAC
Custom Reactivated Granular Carbon (Municipal) <sup>[1]</sup>	[3]	CLD 23	RGAC

[1] The carbon source is coal or coconut shell.

[2] (xyz) - Custom designation for specific media source

[3] Certified for the following mesh sizes: 8 x 16, 8 x 20, 8 x 30, 8 x 40, 12 x 30, and 12 x 40.

NOTE: Certified for water treatment plant applications.

This product has not been evaluated for point of use applications.



# Certificate of Registration

## Intertek

This is to certify that the occupational health and safety management system of

### **Siemens Industry Inc.**

**Main Site: 2430 Rose Place, Roseville MN 55113, United States**

***Additional site: 2523 S Mutahar St Parker, Arizona 85344,***

***118 Park Road Darlington, Pennsylvania 16115***

***11711 Reading Road Red Bluff, California 96080***

***5375 South Boyle Avenue Vernon, California 90058***

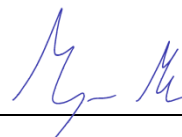
has been assessed and registered by Intertek Certification AB as conforming to the requirements of

### **OHSAS 18001:2007**

The Occupational Health and Safety Management System is applicable to the management of occupational health and safety risks associated with:

*Management of occupational health and safety hazards related to the generation and regeneration of new water treatment media used in softening and deionization of potable quality water facilities.*

Certificate Number: 1605433  
Initial Certification Date: 6 November 2013  
Certificate Issue Date: 6 November 2013  
Certificate Expiry Date: 5 November 2016



Magnus Molin, CEO  
Intertek Certification AB  
P.O. Box 1103, SE-162 22 Kista, Sweden



In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at [certificate.validation@intertek.com](mailto:certificate.validation@intertek.com) or by scanning the code to the right with a smartphone.

The certificate remains the property of Intertek, to whom it must be returned upon request.

# Westates® Enhanced Coconut Shell Carbon: AquaCarb® 1230CX

## Background

Historically, coconut shell based activated carbons have been typically limited to applications involving trace VOC removal from groundwater or where the background water was relatively high in purity. For applications such as surface water, where the water stream being treated would be relatively high in natural organic matter (NOM) or total organic carbon (TOC), bituminous coal based carbons have been predominantly used for decades. With their microporous pore structure, coconut shell carbons simply did not perform as well as coal based carbons in these applications... until now.

Siemens AquaCarb® 1230CX enhanced coconut shell carbon combines the benefits of both carbon types; an activated carbon with the high micropore structure of coconut shell, and the faster kinetics of bituminous coal. The resulting product provides excellent trace VOC removal capacity and adsorptive performance to remove taste, odor and other organic contaminants.

## Applications

Applications where AquaCarb® CX Series enhanced coconut shell carbon is a suitable, high performance alternative to coal based carbons include:

- Surface water treatment – taste and odor removal
- Surface water treatment – disinfection by product (DBP) or DBP precursor removal
- Bulk organic/TOC removal from water

## Reactivation Options

In addition to our AquaCarb® CX virgin carbon, Siemens also offers options for carbon reactivation service and AquaCarb® CXS enhanced reactivated coconut carbon. Carbon reactivation is an environmentally-friendly process that minimizes waste by recycling and reusing spent carbon. Reactivation restores the surface area and pore volume of the spent carbon to a point close to that of a virgin carbon. In fact, the process of carbon reactivation is very similar to the process of creating virgin activated carbon. Reactivated carbons provide a cost-effective alternative to virgin carbon and continue to provide excellent performance in many treatment applications.

Siemens has over 20 years experience in carbon reactivation.

To learn if AquaCarb® CX virgin-grade or CXS reactivated enhanced coconut shell carbon is right for your application, contact your local Siemens sales representative or call 866.613.5620.

## Features and Benefits:

- ANSI/NSF Standard 61 classified for use in potable water applications
- Fully conforms to physical, performance and leachability requirements established by the current ANSI/AWWA B604 (which includes the Food Chemical Codex requirements)
- Retains inherent micropore structure from base coconut carbon, providing excellent VOC adsorption capacity
- Contains superior mesopore structure, providing improved adsorption kinetics and adsorption capacity for larger molecular weight compounds
- Modified pore structure leads to longer bed life between carbon exchanges, and lower life cycle costs
- A detailed quality assurance program guarantees consistent quality from lot to lot and shipment to shipment

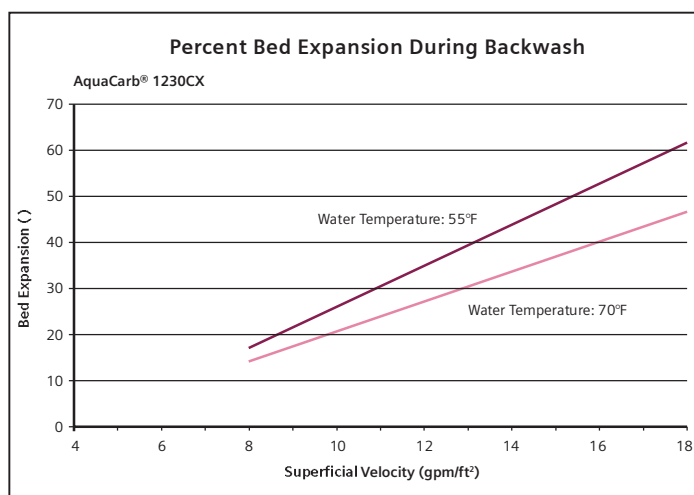
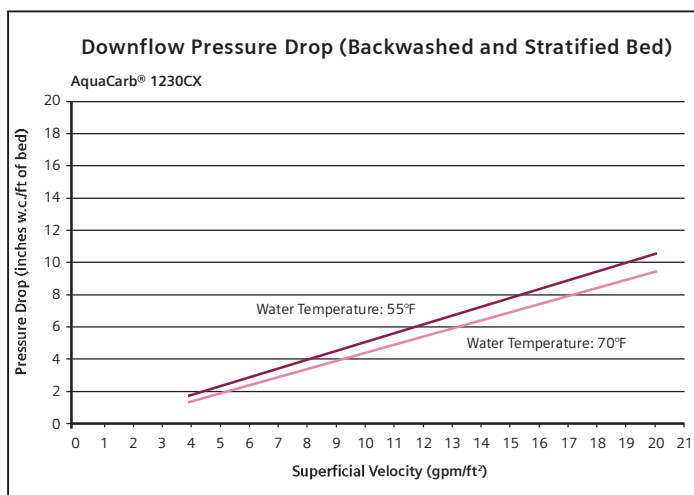


Typical Properties	
Parameter	AquaCarb® 1230CX
Mesh Size	12 x 30
Effective Size, mm	0.6 – 0.85
Uniformity Coefficient	2.0
Iodine, mg/g	1100
Hardness	95
Abrasion	85
AD, g/cc	0.40 - 0.49
Water Soluble Ash, wt%	2

**Safety Note:** Under certain conditions, some compounds may oxidize, decompose or polymerize in the presence of activated carbon causing a carbon bed temperature rise that is sufficient to cause ignition. Particular care must be exercised when compounds that have a peroxide-forming tendency are being adsorbed. In addition the adsorption of VOCs will lead to the generation of heat within a carbon bed. These heats of reaction and adsorption need to be properly dissipated in order to fully assure the safe operation of the bed.

Wet activated carbon readily adsorbs atmospheric oxygen. Dangerously low oxygen levels may exist in closed vessels or poorly ventilated storage areas. Workers should follow all applicable state and federal safety guidelines for entering oxygen depleted areas.

All information presented herein is believed reliable and in accordance with accepted engineering practices. Siemens makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Siemens assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.



Siemens Industry, Inc.  
866-613-5620

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# Carbon Reactivation Services

## Data Sheet

### A cost-effective, environmentally safe option for activated carbon

In recent years, a variety of market dynamics have driven the cost of virgin activated carbon upward. These cost increases, coupled with a greater desire for "green" processes that minimize waste and recycle raw materials, have driven many activated carbon users to reconsider a tried and true process: carbon reactivation.

Carbon reactivation is the process of utilizing elevated temperatures followed by steam in a rotating kiln or multiple hearth furnace to remove organic compounds adsorbed onto the carbon during normal service use. Furthermore, reactivation destroys 99.99% of the removed organic contaminants through a combination of chemical reactions and oxidation in the reactivation plant's afterburner. The reactivation process thus ends the liability associated with disposing and handling of the adsorbed contaminants, while restoring the surface area and pore volume of the spent carbon to near virgin-grade levels. The reactivation process recycles spent carbons into new activated carbon materials that continue to provide excellent performance in many treatment applications.

Reactivation can be applied to carbons used in both liquid phase and vapor phase applications. Spent carbons can be segregated from other spent carbons and returned to the same customer for reuse, or pooled with other spent carbons and sold into other applications as a cost-effective alternative to virgin carbon. Siemens has extensive experience with all of these types of reactivation services.

### Reactivation facilities

Siemens operates three U.S.-based carbon reactivation facilities and is the only activated carbon services supplier with RCRA- permitted reactivation capacity serving both the East and West Coasts. All three facilities are ISO 14001 certified for environmental management. We have safely reactivated more than 500 million pounds of spent carbon over the past 22 years. Whether it be custom reactivation, pool reactivation, liquid phase applications, or vapor phase applications, Siemens can cost-effectively handle your reactivation needs.

### Reactivation facilities overview

Reactivation facilities overview			
Facility	Darlington, PA	Red Bluff, CA	Parker, AZ
In Operation Since	1989	1999	1992
Type of Furnace	Rotary Kiln	Rotary Kiln	Multiple Hearth
# of Furnaces	5	1	1
Operation	24/7	24/7	24/7
Freight Access	Bulk Truck, Bulk Bag	Rail, Bulk Truck ,Bulk Bag	Bulk Truck ,Bulk Bag
Permitting	RCRA Permitted	Non-RCRA	RCRA Permitted
Custom Reactivation	Yes	Yes	No
Food Grade / Potable Reactivation	Yes*	Yes **	No
Environmental Controls	High Temperature Afterburner and Wet Scrubbing System		

\* Kiln operated in accordance with AWWA Standard B605-07 for reactivation of granular activated carbon and certified to ANSI / NSF Standard 61

\*\* Certified to ANSI / NSF Standard 61



### Spent Carbon Reactivation Programs

Siemens reactivated carbon programs utilize our network of service technicians that are trained in performing carbon exchanges from both larger hard piped adsorber vessels by vacuum and slurry exchange and smaller adsorber vessels by direct vessel exchange.

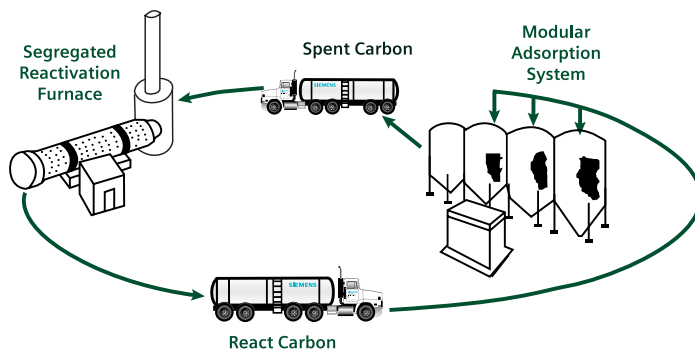
**React and Return** is a highly controlled program where the customer's spent activated carbon is removed, reactivated, and returned for reuse to the same customer. The carbon is segregated from other carbons during reactivation and storage. Virgin carbon is used to offset normal losses that occur during handling and reactivation to ensure that 100% of the original carbon volume is returned to the customer. For react and return services provided for drinking water applications at our Darlington, PA and Red Bluff, CA facilities, the reactivated carbon is certified to ANSI / NSF Standard 61 for potable water treatment.

**Pool reactivation** is where spent carbons are removed and the resulting reactivated carbons are then pooled according to application type (vapor phase/liquid phase) and mesh size. These pooled carbons can then be sold into many applications as a substitute for virgin carbons to lower operating costs. Our pool reactivated carbons provided under this program are as follows:

AquaCarb® S Series – for non-potable, liquid phase applications  
VOCarb® S Series – for vapor phase applications

#### Additional Features and Benefits of Siemens' Reactivation Programs

- Spent carbon sampling/profiling can be performed at our own certified environmental carbon testing laboratory
- Removal and packaging/labeling of spent carbon in D.O.T approved containers
- Transportation coordination of spent carbon to a Siemens reactivation facility
- Inspection and maintenance of carbon adsorber vessels
- Rebedding - either virgin grade, custom reactivated carbon, or pool reactivated carbon
- A "Certificate of Reactivation" for each shipment confirming that the spent carbon has been recycled in a manner that meets or exceeds all applicable RCRA and Benzene NESHAP regulations.
- Reactivation facilities are ISO 14001 certified. ISO 14001 is part of a series of voluntary standards for environmental management tools and systems. As part of ISO 14001, our facilities all have Environmental Management Systems which ensure that our impact on the environment is minimized, that we continuously measure against best practice standards for environmental management, and that we are positioned to manage increasingly stringent environmental regulations.



#### Markets that Use Reactivated Carbon

- Municipalities (Drinking and Wastewater)
- Refineries
- Groundwater Remediation
- Environmental Cleanup
- Chemical Processing
- Power Plants



Siemens Industry, Inc.  
Phone: 866-613-5620

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## **CALGON CARBON CORPORATION**

### **CUSTOM REACTIVATION AGREEMENT**

**For the  
Palmdale Water District  
Palmdale, California  
Ten Year Term**

#### **Contents**

- 1. Agreement**
- 2. Exhibit I: Responsibilities of Calgon Carbon Corporation**
- 3. Exhibit II: Responsibilities of Palmdale Water District**
- 4. Exhibit III: Carbon Reactivation Schedule**
- 5. Exhibit IV: Criteria for Return for Reactivation of Non-RCRA Spent GAC**
- 6. Exhibit V: Fee Adjustment / Fuel Surcharge**
- 7. Exhibit VI: General Terms and Conditions**





**CALGON CARBON CORPORATION  
POTABLE WATER SERVICE CUSTOM REACTIVATION AGREEMENT**

This Agreement is made and agreed upon as of the \_\_\_\_\_ **2014**, by and between Calgon Carbon Corporation (Calgon Carbon) and The Palmdale Water District (Customer).

**A. SCOPE**

The Customer uses granular activated carbon (GAC) to accomplish one or more of the following water treatment objectives: removal of disinfection by-product (DBP) precursor compounds, removal of taste and odor compounds, removal of specific organic compounds (e.g. DBP's, pesticides, etc.).

The Customer intends to convert the GAC in their filters from 8x30 mesh reactivated GAC to 12x40 mesh reactivated GAC. This agreement covers the supply of products and services to complete the initial conversion and subsequent operation of the filters with 12x40 mesh reactivated GAC. This conversion will require the initial replacement of the existing 8x30 mesh reactivated GAC with virgin 12x40 mesh GAC (Calgon Carbon FILTRASORB 400 granular activated carbon, referred to hereafter as "F400") for each filter, with reactivated F400 being supplied for all subsequent filter exchanges.

Calgon Carbon shall provide potable custom reactivation services to the Customer, consisting of the following:

1. Calgon Carbon shall remove the spent GAC from the filters at the Leslie O. Carter Water Treatment Plant.
2. Calgon Carbon shall transport the spent GAC to a Calgon Carbon NSF-certified, dedicated potable reactivation facility.
3. Calgon Carbon shall thermally reactivate the spent GAC using an NSF-approved procedure which complies with AWWA Standard B605-7.
4. Calgon Carbon shall segregate and store the custom reactivated GAC, identified and labeled as "CMR-Palmdale".
5. Calgon Carbon shall transport the CMR-Palm400 reactivated GAC (and the requisite amount of virgin F400 required for make-up purposes) to the Leslie O. Carter Water Treatment Plant.
6. Calgon Carbon shall install the CMR-Palm400 reactivated GAC and make-up virgin F400 into the filters.
7. GAC fill shall conform to a minimum depth of 8 feet in each filter following installation, with any required make-up conforming to item 8 below
8. In addition to meeting the requirements of AWWA Standard B604, latest edition, the virgin make-up carbon shall be F400 with a minimum Apparent Density of 0.47g/cc, a minimum Trace Capacity Number of 9 mg/cc, a maximum Tannin Value of 500 ppm as performed in accordance with Appendix B of AWWA B604-12 and a minimum Iodine Adsorption of 1000 mg/g as performed in accordance with ASTM 4607.



## **B. PAYMENTS**

### **1. Base Pricing, Virgin and Reactivated GAC:**

The price for virgin F400 and CMR-Palmdale products, on a per filter basis, are as follows:

- a. Virgin F400 Carbon
  - i. One (1) filter's worth of 100% virgin F400 GAC (7,040 cu. ft.): \$275,135.00
  - ii. This price includes the removal of spent GAC, and the supply and installation of the new GAC, and all associated transportation costs.
- b. Reactivated CMR-Palmdale Carbon
  - i. One (1) filter's worth of CMR-Palmdale reactivated GAC (7,040 cu. ft.): \$169,477.00
  - ii. This price includes 10% virgin make-up F400 GAC, by weight
  - iii. This price includes the removal of spent GAC, and the reactivation and installation of the reactivated GAC, and all associated transportation costs.

### **2. Optional Payment Plan for Difference Between Virgin and Reactivated GAC:**

To provide a method to mitigate the financial impact of the initial expense of replacing the existing reactivated 8x30 mesh GAC with the virgin F400, Calgon Carbon shall provide the option of a monthly payment plan which the Customer may elect to use on a per filter basis to spread a portion of the cost of each "per filter" virgin F400 acquisition over five (5) years of this ten (10) year agreement. This method will allow for the initial virgin F400 installations to be priced at the same rate as the subsequent reactivated GAC exchanges, with the difference between the virgin and reactivated GAC prices to be paid in installments as follows:

Per filter price difference between virgin F400 and reactivated CMR-Palmdale:

\$275,135.00 - \$169,477.00 = \$105,658.00

Annual interest rate: 6%

Number of installments: 60

Monthly payment, per filter: \$2,042.67

### **3. Virgin GAC Required for District Operational Losses:**

Any virgin GAC required to replace District Operational Losses is \$39.08 per cubic foot of virgin F400 GAC. The Company shall be entitled to additional compensation associated with Virgin GAC on a unit price basis solely to the extent such Virgin GAC is required in order to make up for the District Operational GAC Losses or as otherwise directed by the District.

"District Operational GAC Loss" means (a) GAC loss occurring between the completion of any GAC Filter Exchange and the commencement of any subsequent GAC Filter Exchange; (b) degradation of the GAC during operation of the filter, such as caused by build up of calcium carbonate or other minerals on the carbon which impact the ability of the GAC to be reactivated such that yield losses are higher than the 5-10% "normal" and require the supply of additional Virgin GAC.



4. Fee Adjustment:

All fees will be firm for the first year of the Initial Term, with an annual adjustment for each successive year of the Term of the agreement (as defined below) in accordance with the Fee Adjustment provisions set forth in Exhibit V of this Agreement.

5. Taxes:

All fees and pricing indicated are exclusive of any applicable taxes

6. Conditions:

The fees in this Agreement are based upon Calgon Carbon performing the responsibilities as described in Exhibit I during normal working hours and under reasonable order processing conditions. If overtime costs are incurred solely for Subscriber's convenience, Calgon Carbon reserves the right to invoice Customer for documented overtime expenses. In addition, rush shipments (less than 3 days notice) will be subject to a surcharge on the carbon supply fee.

### **C. DURATION OF AGREEMENT**

This Ten Year Agreement will be in effect from the date first written above to \_\_\_\_\_, **2024** (the Initial Term). Thereafter this Agreement may be extended for an additional **Five (5)** years subject to approval by both parties.

### **C. OWNERSHIP OF THE GAC**

The spent/react GAC in the filters is the property of The Customer.

At the termination of this Agreement, the GAC shall remain the property of Customer. If any GAC owned by Customer is in Calgon Carbon's possession at the time of such termination, Customer shall have thirty (30) days from the date of termination to remove such GAC from Calgon Carbon's facility, on a mutually agreeable date and time. At the end of such thirty (30) day period, the GAC shall become the property of Calgon Carbon and can be retained or disposed of in Calgon Carbon's sole discretion.

### **D. EXHIBITS**

Exhibits I through VI, attached hereto, are incorporated herein by reference as if the content of each such Exhibit was included in the body of this Agreement.

### **E. PRIOR AGREEMENTS**



This Agreement supersedes any prior agreement and all amendments thereto, either written or oral, between Customer and Calgon Carbon regarding the subject matter hereof. Payments under prior agreements shall be terminated upon execution of this Agreement by both parties. The entire agreement is contained herein, and there are no promises or representations affecting this Agreement, and any terms and conditions appearing in any purchase order, or similar documents issued or accepted in connection with the services, unless herein stated and to be rendered hereunder, shall be null and void. This Agreement may not be modified except by a writing signed by the authorized representatives of each of the parties.

The parties have mutually agreed to these terms and conditions as of the date designated above.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date written below:

**PALMDALE WATER DISTRICT**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Name**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Date**

**CALGON CARBON CORPORATION**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Name**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Date**



## EXHIBIT I

### RESPONSIBILITIES OF CALGON CARBON

1. Calgon Carbon will perform custom municipal reactivation of the GAC in each of the GAC filters/pressure vessels at **Leslie O. Carter Water Treatment Plant** on an “as-needed” basis. For any given exchange, to the extent that there is react GAC remaining above the required amount (after taking into consideration the addition of any makeup virgin GAC), such remaining react GAC shall become the property of Calgon Carbon and can be retained or disposed of at Calgon Carbon’s sole discretion. Refer to Exhibit III – Carbon Reactivation Schedule, for specific information regarding quantities of GAC in each filter/vessel and estimated schedules for reactivation of each filter/vessel.
2. Calgon Carbon will supply 10% of Virgin Activated Carbon makeup for each filter exchange. Virgin Makeup carbon is F400.
3. Calgon Carbon will return the spent GAC to one of its NSF certified, dedicated potable reactivation facilities and reactivate the spent GAC according to an NSF-approved procedure. Custom reactivation of the spent GAC does require additional paperwork and water quality testing will need to be submitted (Exhibit IV).
4. Calgon Carbon will provide the necessary man power and equipment to facilitate the exchange of the spent and react GAC.
5. Calgon Carbon will supply supervision during the initial fill and backwash of the filters during each exchange operation.
6. Calgon Carbon will analyze a representative sample of the GAC on a periodic basis for iodine number, ash, apparent density, mesh size, and any other parameters felt appropriate for the particular application.



## EXHIBIT II

### RESPONSIBILITIES OF CUSTOMER

1. Customer will provide the necessary water, electricity, and suitable drainage to accomplish the transfer of the spent and reactivated GAC.
2. If a spill occurs into the source water supply for Customer, then Customer will notify Calgon Carbon of the occurrence and the type of chemicals spilled, if known by Customer.

If it is then determined by Customer that the GAC was contaminated by the spill, Customer can then request Calgon Carbon to remove and replace the GAC. Calgon Carbon will take the spent GAC back for thermal reactivation subject to spent carbon acceptance. The cost of this special reactivation service shall be in addition to the base exchange fee. If the fouled GAC can not be reactivated, Calgon Carbon shall supply replacement virgin GAC at the price stated in Section A.2. of this Agreement. Should Customer declare the spent activated carbon hazardous, Customer then agrees to reimburse Calgon Carbon for the additional cost of removing, handling, and disposing of a hazardous material.

3. If during the term of the Agreement the GAC becomes fouled by inorganic precipitates, such as calcium carbonate or iron oxide, Customer shall have the option to clean the GAC or request Calgon Carbon to remove and, if possible, reactivate the fouled GAC. If Customer chooses to clean the GAC, the cost of cleaning the GAC will be the responsibility of Customer. If Customer chooses to have Calgon Carbon remove and reactivate the GAC, Calgon Carbon will take the spent GAC back for thermal reactivation subject to spent carbon acceptance. The cost of this special reactivation service shall be in addition to the base monthly fee. If the fouled GAC can not be reactivated, Calgon Carbon shall supply replacement virgin GAC at the price (on a per lb basis) stated in Section A.2. of this Agreement.
4. Customer will provide clear access to the site for delivery and installation of the react / virgin GAC and spent GAC removal.
5. Customer will provide all plant modifications, pre and post treatments and sterilization of the filters/pressure vessels as may be required.
6. Customer will confirm the volume of GAC in each filter in the following manner:  
Customer will measure and mark the top of the filter bed prior to removing any GAC. After the removal of the GAC, the Customer will then mark and measure from the top of the support media to the initial line. With these measurements, as well as the dimensions of the filter, the Customer will be able to calculate the volume of GAC being returned.



### EXHIBIT III

#### CARBON REACTIVATION SCHEDULE

**A. Filter / Dimensions and Volumes :**

Volume of GAC in each Filter = 7,040 cubic feet

**B. Number of Filters/Pressure Vessels:**

Seven (7) filters X 7,040 cubic feet each = Total of 49,280 cu ft.

**C. Exchange Schedule (Estimated):**

Each Filter once per year

The Customer reserves the right to utilize one (1) of their filters for testing of alternate treatment methods and/or media. These strategies and/or media may or may not be sourced from Calgon Carbon at the Customers discretion





#### EXHIBIT IV

### CRITERIA FOR RETURN FOR REACTIVATION OF NON-RCRA SPENT GRANULAR ACTIVATED CARBON (GAC)

The following ACCEPTANCE CRITERIA **must** be met for return for reactivation:

<u>Characteristic/Property</u>	<u>Limits of Acceptability</u>
Size	Greater than or equal to 12x40 mesh
pH Range	Greater than 2.0 and less than 12.5
Ignitable (per RTM-10)	Not Acceptable
Dioxins (by testing, court decree or definition)	Not Acceptable
Polychlorinated Biphenyls (PCBs)	Not Acceptable
1,2-Dibromo-3-chloropropane (DBCP)	Not Acceptable
Radioactivity	Not to exceed Background Level
Sodium	Maximum of 0.1 wt.%
Halogenated/Aromatic Volatiles	Maximum of 2000 ug/g (Blue Lake plant only) (SW 846 - Methods 8010/8020)

Note1: Spent Granular Activated Carbon to be returned for reactivation shall be free of any foreign debris (rock, wood, metal, etc.) or extraneous impurities, free of oil and grease, easily wetted by water, and free flowing.

Note 2: Acceptance for reactivation of spent carbon which has not been supplied by Calgon Carbon Corporation must be investigated on a case-by-case basis.



## EXHIBIT V

### FEE ADJUSTMENT

The fees payable pursuant hereto will be adjusted on \_\_\_\_\_ of such calendar year by the annual percentage charge in the combined average of the Indices indicated in the schedules below:

**1. Virgin Carbon Exchange Fees:**

- (A) Producer Price Index of other Petroleum and Coal Products Manufacturing (CCWUR0400SA0)\*, (50% weight)
- and
- (B) Producer Price Index of Basic Organic Chemicals (WPU0614)\*, (50% weight)

**2. Reactivated Carbon Exchange Fees:**

- (A) Department of Labor CPI for Urban Wage Earners and Clerical Work, specific to the West (CWUR040SA0)\*, (70% weight)
- and
- (B) The Natural Gas Adjustment Factor based upon the Platt's Gas Market Report inside FERC First of the Month Index El Paso Natural Gas Permian Basins Index. (30% weight)

*\*As published by the United States Department of Labor*

The percent adjustment shall be calculated by taking the percent difference for each index during the twelve month period from \_\_\_\_\_1st through \_\_\_\_\_31st of the last completed calendar year as compared to the twelve month period from \_\_\_\_\_1st through \_\_\_\_\_31st of the calendar year immediately preceding the last completed calendar year. These two percentages will then be averaged (based on the weights indicated) for calculating the final percent adjustment to which all U.S. manufactured materials will be subject.

**Fuel Surcharge:**

The Fuel Surcharge shall consist of a mileage charge based on the difference between the base of \$4.00/gallon and the fuel index at time of actual delivery in accordance with Table 1 in this Appendix. The mileage and surcharge amount will be established at time of delivery by the Company.

Each Monday at 5:00pm Eastern Standard Time, the Company will determine the Average Diesel Price. The Non-Local Fuel Surcharge will become effective on Tuesday of that week (except if Monday is a National Holiday, then it will be Wednesday) and will be effective for the following seven (7) day period.

In computing charges, fractions of less than one-half cent will be dropped and fractions of one-half cent or more will be increased to the next whole cent.

If the Average Diesel Price is greater than \$5.50 per gallon, the Non-Local Fuel Surcharge will increase one (1) cent for every five (5) cent increase of the Average Diesel Price. **If the Average Diesel Price is less than \$4.50 per gallon**, the Company will not charge a Fuel Surcharge.



**TABLE 1**

When the Fuel Index Is:				When the Fuel Index Is:				When the Fuel Index Is:		
At Least	But Less Than	Fuel Surcharge		At Least	But Less Than	Fuel Surcharge		At Least	But Less Than	Fuel Surcharge
\$4.00	\$4.05	0 Cent per Mile		\$4.50	\$4.55	1 Cents per Mile		\$5.00	\$5.05	11 Cents per Mile
\$4.05	\$4.10	0 Cents per Mile		\$4.55	\$4.60	2 Cents per Mile		\$5.05	\$5.10	12 Cents per Mile
\$4.10	\$4.15	0 Cents per Mile		\$4.60	\$4.65	3 Cents per Mile		\$5.10	\$5.15	13 Cents per Mile
\$4.15	\$4.20	0 Cents per Mile		\$4.65	\$4.70	4 Cents per Mile		\$5.15	\$5.20	14 Cents per Mile
\$4.20	\$4.25	0 Cents per Mile		\$4.70	\$4.75	5 Cents per Mile		\$5.20	\$5.25	15 Cents per Mile
\$4.25	\$4.30	0 Cents per Mile		\$4.75	\$4.80	6 Cents per Mile		\$5.25	\$5.30	16 Cents per Mile
\$4.30	\$4.35	0 Cents per Mile		\$4.80	\$4.85	7 Cents per Mile		\$5.30	\$5.35	17 Cents per Mile
\$4.35	\$4.40	0 Cents per Mile		\$4.85	\$4.90	8 Cents per Mile		\$5.35	\$5.40	18 Cents per Mile
\$4.40	\$4.45	0 Cents per Mile		\$4.90	\$4.95	9 Cents per Mile		\$5.40	\$5.45	19 Cents per Mile
\$4.45	\$4.50	0 Cents per Mile		\$4.95	\$5.00	10 Cents per Mile		\$5.45	\$5.50	20 Cents per Mile



## Exhibit VI

### GENERAL TERMS AND CONDITIONS

The following terms and conditions shall apply to the performance by Calgon Carbon Corporation ("Calgon Carbon") of all sales of products and services (defined herein as "Products") pursuant to the Agreement.

1. **Price and Payment.** Unless otherwise stated in the Agreement: (a) Products will be billed for at the time of delivery; and (b) Payment terms shall be net 30 days, or net 45 days if paid by Electronic Funds Transfer (ETF). A late payment fee of 1.25% per month, or the highest lawful rate, whichever is less, will apply to all amounts past due, and will be prorated per day.

2. **Force Majeure.** Calgon Carbon shall have no liability to Customer or its customers or users, and shall have the right to suspend shipments hereunder, in the event of war, riot, terrorism, accident, explosion, sabotage, flood, acts of God, fire, court order, strike, labor disturbance, work stoppage, national defense requirements, act of governmental authority, extraordinary failure of equipment or apparatus, inability to obtain electricity or other type of energy, raw material, labor, equipment or transportation or other causes beyond Calgon Carbon's control. It is understood and agreed that settlement of strikes, lockouts and other labor disputes shall be entirely within the discretion of Calgon Carbon and that nothing in this Agreement shall require the settlement of strikes, lockouts and labor disputes when such course is inadvisable in the sole discretion of Calgon Carbon.

3. **Warranty.** Calgon Carbon warrants that all Products provided under this Agreement shall conform to the specifications for such Products for the time period as published by Calgon Carbon from time to time during the term of this Agreement. Calgon Carbon warrants that any technical assistance will be competent and reflect the professional knowledge or judgment of its representatives. Calgon Carbon shall correct any failure to conform to either of the applicable foregoing warranties of which it is notified in writing prior to ninety (90) days after the date of delivery of the allegedly non-conforming Products by replacement of product or reperformance of services. **THE WARRANTIES SET FORTH IN THIS PROVISION ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER STATUTORY, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE).** The remedies provided above are Customer's sole remedies for any failure of Calgon Carbon to comply with its obligations. Corrections of any nonconformity in the manner and for the period of time provided above shall constitute complete fulfillment of all the liabilities of Calgon Carbon whether Customer's claims are based in contract, in tort (including negligence or strict liability) or otherwise with respect to or arising out of the Products furnished hereunder.

4. **Indemnification.** Subject to Section 5 below, each party during the term of this Agreement to the extent of its negligence or willful misconduct will indemnify and save the other party harmless at all times against any liability on account of any and all claims, damages, law suits, litigation, expenses, counsel fees, and compensation arising out of property damages or personal injuries, (including death), arising out of its performance under this Agreement. Customer will reimburse Calgon Carbon for damages to the system site or to Calgon Carbon's equipment or goods, caused by the negligence or willful misconduct of Customer, its employees, representatives, or agents. In the case of intentional or repeated damage, Calgon Carbon shall have the additional right to terminate this Agreement.

5. **Limitation of Liability.** Notwithstanding any provision to the contrary herein, the parties hereto agree that in no event shall Calgon Carbon or its contractors or suppliers of any tier be liable to Customer for any indirect, special, consequential, incidental or punitive damages as a result of a breach of any provision of this Agreement or for any other claim of any kind arising out of or relating to this Agreement, whether in contract, in tort (including negligence or strict liability) or otherwise. Notwithstanding any provision to the contrary herein, for all losses, damages, liabilities or expenses (including attorney's fees and costs), whether for indemnity or negligence, including errors, omissions or other acts, or willful misconduct, or based in contract, warranty (including any costs and fees for repairing, replacing or re-performing services or curing a breach hereof), or for any other cause of action (individually, a "Claim"; collectively, "Claims"), Calgon Carbon's liability, including the liability of its insurers, employees, agents, directors, and officers and all other persons for whom Calgon Carbon is legally responsible, shall not, to the maximum extent permitted by law, exceed in the cumulative aggregate with respect to all Claims arising out of or related to this Agreement, the lesser of (a) the total amount of compensation paid to Calgon Carbon hereunder, and (b) One Million Dollars (\$1,000,000).

6. **Taxes, Permits, Tariffs, and Licenses.** The fees do not include any Federal, state or local property, license, privilege, sales, use, excise, gross receipts or other like taxes, tariffs or duties, licenses, or other assessments which may now or hereafter be applicable to, measured by or imposed upon or with respect to the transaction, the property, its sale, value or use, or any services performed in connection therewith. Customer agrees to pay any sales and use taxes upon or measured by Calgon Carbon's services provided hereunder and for all applicable licenses, property taxes, personal property taxes and other taxes, fees, or assessments imposed on the Products or upon the installation and operation of the Products (except taxes on Calgon Carbon's income) and will prepare and submit all documents, plans, and schedules that may be required by governmental agencies with the reasonable assistance of Calgon Carbon where necessary. Customer shall provide Calgon Carbon with a direct pay permit for sales tax, an affidavit of sales tax exemption, or an affidavit that Products are exempt from sales tax, or Calgon Carbon has the right to invoice Customer for said taxes on each invoice.

7. **Title; Risk of Loss.** Calgon Carbon warrants that it is the lawful owner of and has the right to sell the products under this Agreement and will defend the same against all lawful claims and demands of all persons. The risk of loss due to casualty or destruction shall be borne by Customer upon Calgon Carbon's tender of the Products to the carrier for transportation to Customer. Notwithstanding the foregoing or the provisions of the UCC or INCOTERMS, title to the goods, and all accessions to or products of the goods, shall remain with Calgon Carbon until the later of (a) payment in full of the purchase price and of other amounts owing by the Customer and (b) delivery to the Customer, if the Customer is located outside the United States.

8. **Inspection.** Customer shall have the right to inspect the Products delivered under this Agreement and agrees promptly to notify Calgon Carbon of any nonconformity, defective condition or breach of warranty, and unless Customer gives prompt written notice to Calgon Carbon of such breach of warranty, Customer's rights and remedies under this Agreement shall be deemed to have been waived. No claim for breach of warranty may be made by Customer more than ninety (90) days after date of delivery of such Product to Customer hereunder.

9. **Termination.** Calgon Carbon may cancel this Agreement if any of the following occurs: (a) Customer becomes insolvent; (b) Customer ceases to conduct its operations in the normal course of business; (c) Customer is unable to meet its obligations as they mature, or admits in writing such inability or fails to provide adequate assurances of its ability to perform its obligations hereunder; (d) Customer files a voluntary petition in bankruptcy; (e) Customer suffers the filing of an involuntary petition in bankruptcy and the same is not dismissed within thirty (30) days after filing; (f) a receiver, custodian or trustee is appointed for Customer or for a substantial part of its property; (g) Customer fails to make payment on the terms and within the time specified in this Agreement, or breaches any other obligations under this Agreement; or (h) Customer executes an assignment for the benefit of its creditors. In the event of such cancellation, Calgon Carbon shall have all rights and remedies set forth in the UCC of any applicable jurisdiction and all other remedies available at law or in equity.

10. **Export Controls.** Customer acknowledges that the Products and related technology are subject to U.S. export controls and economic sanctions, which may include the International Traffic in Arms Regulations ("ITAR"), the Export Administration Regulations ("EAR") and regulations promulgated by the U.S. Department of the Treasury Office of Foreign Assets Control. Customer further acknowledges that the reexport of the Products and/or related technology to a third country or retransfer to an unapproved end user may require a license or other authorization from the Government of the United States. Such licenses or other authorizations may impose further restrictions on the reexport or retransfer of the Products and/or related technology. U.S. law also restricts the reexport or retransfer of U.S.-origin goods, technology, or services to countries or persons subject to U.S.



sanctions or embargoes. Customer agrees to comply with all applicable U.S. export control and economic sanctions laws and regulations. It is the sole responsibility of the Customer to apply for and obtain any necessary licenses or other authorizations prior to any reexport or retransfer of the Products and/or related technology. Calgon Carbon makes no warranty that any such licenses or other authorizations will be granted, and shall have no liability for Customer's inability to obtain such licenses or other authorization or for any violation by Customer of any applicable export control and/or economic sanctions laws and regulations. Customer will indemnify Calgon Carbon and hold it harmless from any liability resulting from Customer's violation of this provision or applicable export laws or regulations. Notwithstanding any other provision in this Agreement, Calgon Carbon shall have the right to terminate this Agreement immediately upon the determination by Calgon Carbon, in Calgon Carbon's sole discretion, that Customer has breached, intends to breach, or insists upon breaching any of the provisions in the above clauses.

11. **Confidentiality.** Other than in the performance of the terms of the Agreement, neither Customer nor its agents, employees, or subcontractors shall use or disclose to any person or entity any confidential information of Calgon Carbon (whether written, oral, electronic or other form) that is obtained or otherwise prepared or discovered in connection with this Agreement. Customer agrees that all pricing, discounts, design drawings and technical information that Calgon Carbon provides to Customer are the confidential and proprietary information of Calgon Carbon, whether or not otherwise identified as such. The obligations under this section continue perpetually and survive the termination or expiration of any underlying agreement between the parties. The provisions of this section relating to use and disclosure shall not apply to any information that: (a) is or becomes generally available to the public other than as a result of a disclosure by Customer under this Agreement; (b) becomes available to Customer from a source other than Calgon Carbon without breach of any obligation of confidentiality; (c) was independently developed by Customer without violation of Calgon Carbon's rights and without reference to the confidential information, as evidenced by written records, maintained in the ordinary course of business by Customer; (d) is used or disclosed with the prior written approval of Calgon Carbon; (e) is information previously known to Customer as evidenced by written records maintained by Customer in the ordinary course of business, and not otherwise subject to any confidentiality restrictions; or (f) Customer becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoenas, investigative demands or similar process) to disclose. If Customer becomes legally compelled (by oral questions, interrogatories, requests for information or documents, subpoenas, investigative demands or similar process) to disclose any of the confidential information, Customer shall provide Calgon Carbon with prompt written notice so that Calgon Carbon may seek a protective order or other appropriate remedy or waive compliance with the provisions of this Agreement. If such protective order or other remedy is not obtained, or if Calgon Carbon waives compliance with the provisions of this Agreement, Customer shall furnish only that portion of the confidential information which Customer is legally required to disclose and shall exercise its reasonable efforts to obtain reliable assurance that confidential treatment shall be accorded the confidential information.

12. **Assignment.** Neither party may assign this Agreement, including without limitation any of its rights or obligations hereunder, without the express written consent of the other party hereto; provided that Calgon Carbon may assign this Agreement, including without limitation any of its rights or obligations hereunder, to any of its parents, subsidiaries or affiliates or to any third party which merges with Calgon Carbon or acquires all or substantially all of its business and assets or a substantial part of its assets or business relating to the Products without Customer's consent.

13. **Governing Law.** This Agreement will be governed by, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regards to its conflict of law principles. The UN Convention on Contracts for the International Sale of Goods shall not apply to the transaction represented hereby. The parties hereto agree to the exclusive jurisdiction of any state court situated in Allegheny County, Pennsylvania or in any Federal court situated in the Western District of Pennsylvania.

14. **Management of Change.** Calgon Carbon is constantly striving to improve its products and capabilities and to provide the best product to its customers. Calgon Carbon may from time to time develop product improvements or alterations with respect to the Products hereunder (the "Product Improvements"), and Calgon Carbon may implement such Product Improvements without notice to Customer so long as the performance of the Products will not be materially diminished, as determined in Calgon Carbon's sole discretion, and so long as Calgon Carbon has not separately agreed in writing to provide such notification to Customer. In the event that Calgon Carbon has agreed in writing to provide notice of Product Improvements to Customer (the "Notice"), then Calgon Carbon shall provide such Notice in accordance with the terms set forth in the separate writing.

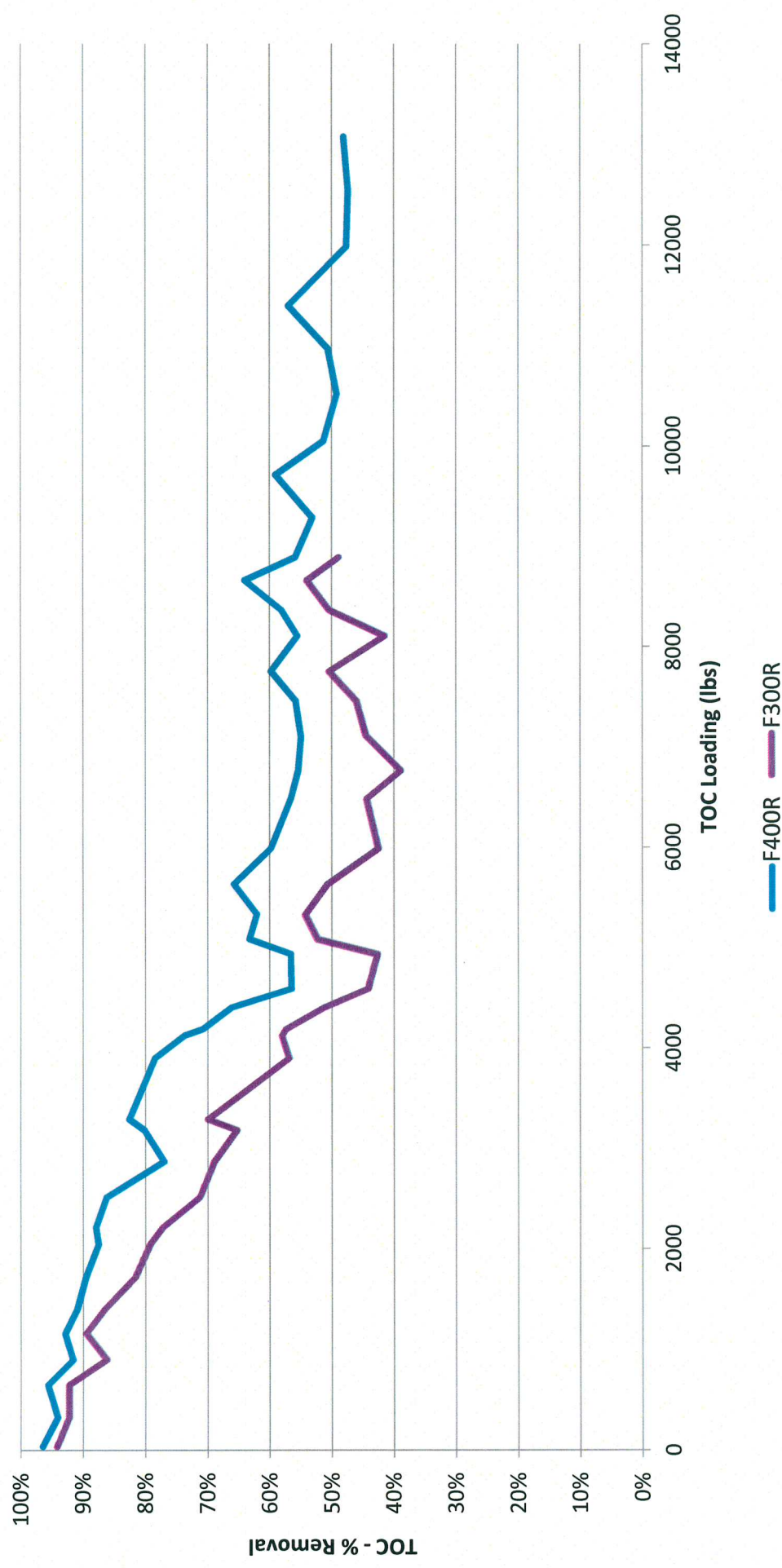
15. **Definitions.** Terms used in this Agreement that are defined by the Uniform Commercial Code of the Commonwealth of Pennsylvania shall have the meanings contained therein.

16. **Miscellaneous.**

- a) In the event of any legal proceeding between Customer and Calgon Carbon relating to the Agreement or the Products, neither party may claim the right to a trial by jury, and both parties waive any right they may have under applicable law or otherwise to a trial by jury.
- b) In the event that any one or more provisions contained herein shall be held by a court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall remain in full force and effect, unless the revision materially changes the bargain.
- c) Calgon Carbon's failure to enforce, or Calgon Carbon's waiver of a breach of, any provision contained herein shall not constitute a waiver of any other breach or of such provision.
- d) Calgon Carbon reserves the right to correct clerical, arithmetical, or stenographic errors or omissions in the Agreement, quotations, order acknowledgments, invoices or other documents.
- e) Any notice or communication required or permitted hereunder shall be in writing and shall be deemed received when personally delivered or three (3) business days after being sent by certified mail, postage prepaid, to a party at the address specified herein or at such other address as either party may from time to time designate to the other.
- f) Customer agrees that it will not use Calgon Carbon's name(s), logo(s) or mark(s) in any public communication or press release, or for any other marketing or promotional purpose, without Calgon Carbon's prior written consent.



**PWD - Full Scale GAC Study 2012 - 2013**  
**F-300R vs. F-400R**  
**TOC % Removal**







**PWD Comparison**  
**Evoqua AC1230CX vs Calgon F400 Virgin**  
**TOC % Removal**

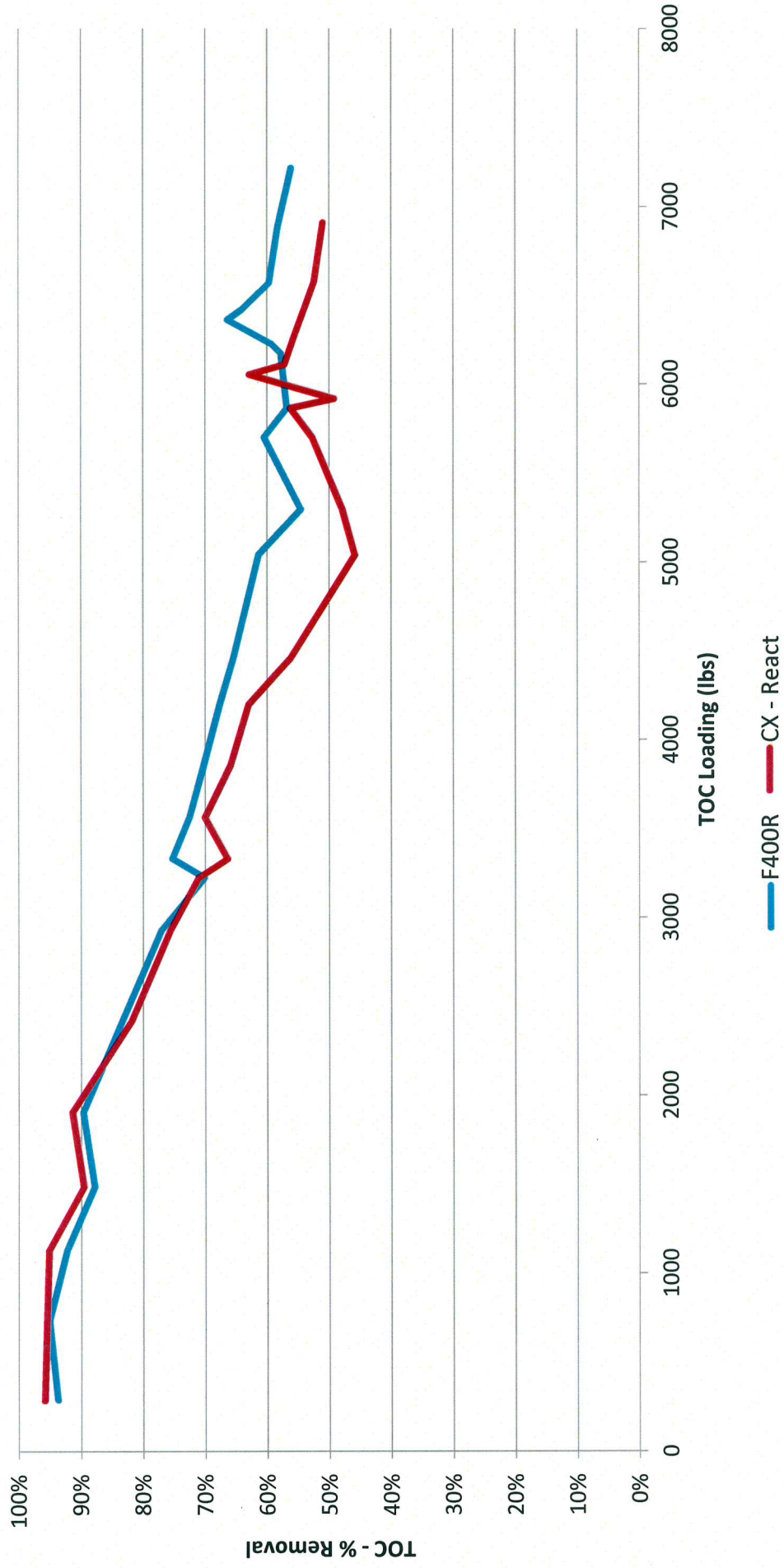


NOTE: F400V and CX-Virgin were not evaluated over same time frame.





**PWD - Full Scale GAC Study 2013**  
**Evoqua AC1230CXS vs Calgon F-400 React**  
**TOC % Removal**



**PALMDALE WATER DISTRICT**  
**Long-Term GAC Contract Proposal**

Projected Annual Cost Comparison

<b>Year</b>	<b>Calgon (F-400)</b>	<b>Evoqua (AC1230CX)</b>
<b>2014</b>	\$ 896,409	\$ 1,150,000
<b>2015</b>	\$ 945,433	\$ 1,100,000
<b>2016</b>	\$ 994,457	\$ 1,050,000
<b>2017</b>	\$ 994,457	\$ 1,000,000
<b>2018</b>	\$ 994,457	\$ 1,000,000
<b>2019</b>	\$ 945,433	\$ 1,000,000
<b>2020</b>	\$ 896,409	\$ 1,000,000
<b>2021</b>	\$ 847,385	\$ 1,000,000
<b>2022</b>	\$ 847,385	\$ 1,000,000
<b>2023</b>	\$ 847,385	\$ 1,000,000
<b>10 yr Total =</b>	<b>\$ 9,209,211</b>	<b>\$ 10,300,000</b>

*Assume: 5 contactors / year*

**PALMDALE WATER DISTRICT  
BOARD MEMORANDUM**

**DATE:** May 14, 2014 **May 20, 2014**  
**TO:** FACILITIES COMMITTEE **Facilities Committee**  
**FROM:** Jim Stanton, IT Manager  
**VIA:** Mr. Dennis D. LaMoreaux, General Manager  
**RE:** ***AGENDA ITEM NO. 4.3 – CONSIDERATION AND POSSIBLE ACTION  
ON NEW DIGITAL/WIRELESS VOTING SYSTEM FOR MAIN  
BOARDROOM***

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**Recommendation:**

Staff recommends entering into the attached proposal with CWI CAL-WEST at a cost not-to-exceed \$30,000.00 to replace and modernize the voting system in the Main Boardroom.

**Background:**

The current voting system in the Main Boardroom is approximately 15 years old and does not provide adequate viewable coverage for the room. Audience members find it difficult to see the Director votes.

The proposed solution will replace the existing voting board with a digital monitor and will include mobile applications compatible with the Apple iPads currently in use.

**Strategic Plan Element:**

This work is part of the District Strategic Plan, 7.1, Customer Communications.

**Budget:**

This item is currently not funded in the 2014 budget.

**Supporting Documents:**

- CWI CAL-WEST proposal

42323 10th. Street West  
Lancaster, Ca. 93534-7000

Date	Quotation #
5/14/2014	0127

Name / Address
Palmdale Water District 2029 East Avenue Q Palmdale, Ca. 93550 ATTN: Jim Station

Ship To
Same

Terms	Due Date	Rep	FOB
Due on receipt	6/16/2014	AS	Job Site

[illegible]

FED. # 95-2213598

Signature \_\_\_\_\_

Phone #	Fax #	E-mail	Web Site
661-945-0727	661-945-0728	al@avcwi.com	www.cwrentals.com



# CWI CAL-WEST

42323 10<sup>th</sup>. Street West  
Lancaster, CA. 93534  
661-945-0727

## PALMDALE WATER DISTRICT BOARD ROOM VOTING SYSTEM PROPOSAL

This proposed Board Member Voting System is anchored upon an AMX NetLinx Custom Software platform that will allow absolute customization of operation so it will be simple to operate and do just what the Board needs it to do.

- Voting System components, features, and details:
  - Master - AMX NetLinx NI-3000 Integrated Master Controller (existing)
    - System Master, all devices are controlled by and report to the Master
    - Has Serial, Relay, and IR Communication ports to control devices
    - Network enabled - Can control up to 200 IP Devices
    - Now controls Projector, Screens, & Video System
    - Add control of Speaker Timer Lights and new LED Countdown Timer Display(s)
    - Current Agenda and votes stored in files on memory
    - Customized software tailored to work the way it is needed
  - Custom Touch Panel Graphic User Interface (GUI) for Tablet Design & Programming
    - 2048x1536 GUI for Retinal Display iPads provided by PWD
      - TPControl AMX Touch Panel Application for iPad Device License
        - One license required per tablet, 6 total
          - 5 for Board Members
          - 1 for Clerk or Meeting Manager
        - Existing 7<sup>th</sup> 1024x768 GUI for AV Operator
      - Board Members log on licensed tablet and have just one or two pages
        - Vote only page that is view only until voting is opened
        - Possible one other page for information only
        - No AV or Voting control access
        - Simple large text displays and buttons for ease of use
      - Clerk TP has control of the Voting System (more detail below)
        - Enters all Data and Agenda items
        - Starts, monitors, confirms, or cancels all voting.
        - Controls Speaker Timer System
        - Primary or secondary control of AV Presentation System
      - All TP Tablets use existing PWD W-LAN thus security is PWD controlled
      - 800X480 GUI for existing Wired Back-up Touch Panel at AV Operator Station
    - New HD Video Character Generator to display voting results on Projector/Monitors
      - ChyTV Brand, Model HD-100, Dynamic Digital Signage System
      - Multiple Output Resolutions
        - HD DVI-I 1920x1080 Output if existing system supports digital
        - DB15 WXGA Analog Output if required (PC output often called VGA)

- SD S-Video Output for worst case
- Create Slides in Power Point
  - Create 'Vote' background slide for real time voting text overlay
  - Create 'Timer' background slide for Speaker Timer real time display
  - Future potential includes capability to load and play audio & video clips such as a welcome or silence cellphones message ending in a Logo slide (not included)
- Controlled via IP by Master
  - Real time text update and display of Agenda items
  - Real time text update and display of Vote results by Member
  - Real time control of Speaker Countdown 'Timer' video slide & text
    - Future creative idea; fixed 3 minute clip that is subtle timer with green to red ribbon then ends in more pronounced 'time is over slide'
- Speaker Countdown Timer System
  - 2.25 Inch LED display 4 Digit Up/Down Timer for mounting on the podium
    - Electronic Displays Inc, Model EDV202-4D-N1-T-KY
    - Will keep existing LED Lights and interface them to AMX
    - AMX parts to interface ST-418 and existing speaker timer LED Lamps
      - AMX EXB-REL8 IP Relay Interface Box
      - AMX EXB-IO8 IP Input Interface Box
    - Podium Timer Display, LED Lights, and the Video 'Timer' slide displayed on the projectors/monitor will be synchronized by the Master
    - Podium must have PWD provided AC power and LAN
- Installation labor for above hardware
  - Supervised by Designer/Programmer
  - Semi-Skilled wire labor for two days
- Labor to produce custom AMX NetLinx Voting System Source Code
  - Basic operation outline subject to customization to fit PWD operation needs!
    - Clerk will input all text with any one of these three methods
      - External PC Text Editor
        - Use any ASCII text editor and edit a simple text file
        - Use FTP to transfer the file to the Master
        - Push the "READ FILE" button on Clerk TP page to update Master
      - Or use text editor inside FTP program
        - Open, edit, and save right on the Master
        - Push the "READ FILE" button on Clerk TP page to update Master
      - Or Edit right from the Tablet running the Clerk TP pages using the standard tablet keyboard which will save to, and update, the Master as you edit
    - Clerk will enter Board Members names first time and each election cycle
    - Clerk will enter agenda items before each meeting
    - Clerk will indicate any absent members for the start of meeting to record and calculate that in votes
    - During meeting Clerk controls it all (many things will happen automatically when the clerk selects that function so the use of these items will be simple for the clerk to figure out)
      - AV will turn on as needed when display agenda items is selected



- Clerk will control Speaker Timer
- Clerk will start preloaded agenda items voting
  - Clerk will be able to cycle through agenda items to keep it fast and simple to make changes
  - Board Members TPs will be sent to proper page
    - YES, NO, OR ABSTAIN buttons will work now
    - Vote will close only when all members not absent vote
    - or Clerk may cancel vote with no record
    - Software will be customized to allow Clerk to re-vote if allowed by PWD needs
  - When vote closed results are parsed:
    - All TPs will be updated with results
    - A text file listing the results will be created and stored on the Master for short term back up of results
    - 'Vote' slide showing PWD Logo and members names will have text displayed in proper columns showing result sent from the Master
      - Generator will switch to 'Vote' slide with text
      - AV System will switch to proper settings on projector/monitors
    - Results display will turn off either by Clerk or fixed timer
      - or Generator will switch back to 'Timer' or standby slide
    - Ready for next vote or timer for next round of speakers
  - During meeting Clerk will be able to easily add "Pop-up Votes"
  - Clerk will be able to go to different screens and edit other items anytime except when a vote is open
  - Clerk or AV Operator can shut off whole system with two button routine
  - Software safety can shut down system if is on at off-prime hours
- Labor & Software Warranty
  - All hardware warranties are limited to Manufactures warranty only
  - One year limited software operation warranty, extended warranties available.
    - Remote WAN Access by PWD required for software maintenance
  - Software and source code will be joint property of PWD and programmer with complete rights to PWD to use with this system only
  - Continue working with PWD IT staff to assure timely back-up and archival of all software & documentation
- Disclaimers
  - Only simple graphic slides will be prepared as part of this quote. Any advanced graphics or video clips are not included herein.
  - No upgrade or hardware for the Video Display system is included in this quote and PWD is responsible for any part of existing system not working correctly.
  - PWD to provide all Tablets required for the system operation.
  - PWD to provide all LAN hardware, infrastructure, cables, wireless network hardware, and all security and management of network hardware and software.
  - Documentation will be delivered in electronic format only.



## Agenda Item 6.3

**VOTED 19:45 4/14/2014**

Approval of Pipeline Crossing Agreement with Union Pacific Railroad Company for Palmdale Water District Specification No. 1207 Railroad Crossing. (Assistant General Manager Knudson)

**DIV1: ROBERT E. ALVARADO**

**YES**

**DIV2: JOE ESTES**

**NO**

**DIV3: GLORIA DIZMANG**

**ABSTAIN**

**DIV4: KATHY MACLAREN**

**YES**

**DIV5: VINCENT DINO**

**YES**

**YEHS 3**

**NAYS 1**

**ABST 1**

**CARRIED**