MEETING OF THE GROUNDWATER QUALITY COMMITTEE
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA
4040 PARAMOUNT BLVD., LAKEWOOD, CA 90712
11:00 AM, TUESDAY, DECEMBER 10, 2019

AGENDA

Each item on the agenda, no matter how described, shall be deemed to include any appropriate motion, whether to adopt a minute motion, resolution, payment of any bill, approval of any matter or action, or any other action. Items listed as "For information" or "For discussion" may also be the subject of an "action" taken by the Board or a Committee at the same meeting.

1. DETERMINATION OF A QUORUM

2. PUBLIC COMMENT
Pursuant to Government Code Section 54954.3

3. APPROVE THE MINUTES OF OCTOBER 8, 2019
Staff Recommendation: The Groundwater Quality Committee approve the minutes as submitted.

4. APPROVE THE MINUTES OF NOVEMBER 12, 2019
Staff Recommendation: The Groundwater Quality Committee approve the minutes as submitted.

5. ENVIRONMENTAL SITES REVIEW
Staff Recommendation: The Groundwater Quality Committee receive and file report.

6. NO-COST TIME EXTENSION WITH USGS TO COMPLETE GROUNDWATER MODELING AND REPORTING
Staff Recommendation: The Groundwater Quality Committee recommends that the Board of Directors authorize a no-cost time extension with the United States Geological Survey, subject to approval as to form by District Counsel, for groundwater modeling work and report preparation, with a time extension through December 31, 2020.

7. SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM UPDATE
Staff Recommendation: The Groundwater Quality Committee receive and file the report.

8. SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM OUTREACH UPDATE
Staff Recommendation: The Groundwater Quality Committee receive and file the report.
9. **DEPARTMENT REPORT**  
*Staff Recommendation:* For discussion and possible action.

10. **DIRECTORS’ REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO STAFF**

11. **ADJOURNMENT**  
*The Committee will adjourn to the next currently scheduled meeting on January 14, 2020, at 11:00 AM.*

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the meeting, please contact Deputy Secretary at (562) 921-5521 for assistance to enable the District to make reasonable accommodations.

All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 4040 Paramount Boulevard, Lakewood, California 90712.

Agendas are available at the District’s website, [www.wrd.org](http://www.wrd.org).

EXHAUSTION OF ADMINISTRATIVE REMEDIES – If you challenge a District action in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Deputy Secretary at, or prior to, the public hearing. Any written correspondence delivered to the District office before the District’s final action on a matter will become a part of the administrative record.
DATE: DECEMBER 10, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: APPROVE THE MINUTES OF OCTOBER 8, 2019

SUMMARY
A meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District Southern California was held on October 8, 2019 at 10:00 AM at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Vera Robles DeWitt called the meeting to order and presided thereafter.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Groundwater Quality Committee approve the minutes as submitted.
A meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District Southern California was held on October 8, 2019 at 10:00 AM at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Vera Robles-Dewitt called the meeting to order and presided thereafter.

1. DETERMINATION OF A QUORUM

A quorum was present, which included:
Committee: Director Vera Robles-Dewitt; President John D. S. Allen
Staff: Lawrence Chiu; Brian Partington; Ted Johnson; Angie Mancillas; Charlene King; Tenisha Simeon
Public: Maria Kennedy – Kennedy Communications

2. PUBLIC COMMENT

Pursuant to Government Code Section 54954.3
None

3. APPROVE THE MINUTES OF JULY 9, 2019

<table>
<thead>
<tr>
<th>First: Allen</th>
<th>Second: Dewitt</th>
<th>Discussion: None</th>
<th>Vote: DeWitt, Yes; Allen, Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: The Groundwater Quality Committee approved the minutes as submitted.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. APPROVE THE MINUTES OF AUGUST 13, 2019

<table>
<thead>
<tr>
<th>First: Allen</th>
<th>Second: Dewitt</th>
<th>Discussion: None</th>
<th>Vote: DeWitt, Yes; Allen, Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: The Groundwater Quality Committee approved the minutes as submitted.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. CONTRACT AMENDMENT NO. 3 WITH BUTIER ENGINEERING INC. FOR CONSTRUCTION MANAGEMENT SERVICES FOR THE SAFE DRINKING WATER PROJECTS: CITY OF HUNTINGTON PARK, CALIFORNIA AMERICAN WATER AND CITY OF LYNWOOD

Associate Engineer of Construction and Operations Charlene King provided an overview on this item.

<table>
<thead>
<tr>
<th>First:</th>
<th>Allen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second:</td>
<td>Dewitt</td>
</tr>
<tr>
<td>Vote:</td>
<td>DeWitt, Yes; Allen, Yes</td>
</tr>
<tr>
<td>Result:</td>
<td>The Groundwater Quality Committee recommended that the Board of Directors approve execution of Contract Amendment No. 3 with Butier Engineering Inc. for construction management services for three Safe Drinking Water Approved projects for an additional amount not to exceed $100,620 through February 29, 2020 subject to approval as to form by District Counsel.</td>
</tr>
</tbody>
</table>

This will be a regular item for review and approval on the agenda of the Board of Directors meeting agenda.

6. ENVIRONMENTAL SITES REVIEW
Manager of Hydrogeology Brian Partington provided handouts and a review of the environmental sites of the Ashland Chemical facility (Santa Fe Springs, Central Basin) and the Powerine Oil Company (Santa Fe Springs, Central Basin).

No action was taken.

7. SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM UPDATE
Ms. King provided handouts and an overview on the Safe Drinking Water Disadvantaged Communities Program.

No action was taken.

8. SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM OUTREACH UPDATE
Manager of External Affairs Angie Mancillas presented this item. Ms. Mancillas stated that her department is trying to arrange a meeting with Senator Lena Gonzalez to update her on the District’s happenings.

Additionally, Governor Newsom had recently signed SB 109 as well as SB 519.

No action was taken.

9. DEPARTMENT REPORT
None.
10. **DIRECTORS’ REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO STAFF**
President Allen inquired about how Mr. Partington’s promotion would affect his monthly environmental sites reviews.

11. **ADJOURNMENT**
There being no further business to come before the Committee, the meeting was adjourned at 10:53 AM.

___________________________
Chair

ATTEST:

___________________________
Member

___________________________
Approved in minutes of:
DATE: DECEMBER 10, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: APPROVE THE MINUTES OF NOVEMBER 12, 2019

SUMMARY
A meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District Southern California was held on November 12, 2019 at 10:10 AM, at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Vera Robles-Dewitt called the meeting to order and presided thereafter.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Groundwater Quality Committee approve the minutes as submitted.
A meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District Southern California was held on November 12, 2019 at 10:10 AM, at the District Office, 4040 Paramount Boulevard, Lakewood, California 90712. Committee Chair Vera Robles-Dewitt called the meeting to order and presided thereafter.

1. DETERMINATION OF A QUORUM

A quorum was present, which included:
Committee: Director Vera Robles-Dewitt; President John D. S. Allen
Staff: Ted Johnson; Charlene King; Eric Owens; Brian Partington; Lawrence Chiu; Angie Mancillas; Maria Kennedy; Dina Hidalgo; Tracey Burke
Public: Maria Kennedy – Kennedy Communications

2. PUBLIC COMMENT

Pursuant to Government Code Section 54954.3 Assistant General Manager/Chief Administrative Officer Ted Johnson introduced Dina Hidalgo, the District’s new Manager of Administration and Human Resources.

3. APPROVE THE MINUTES OF SEPTEMBER 10, 2019

Staff Recommendation: The Groundwater Quality Committee approve the minutes as submitted.

| First:  | Allen |
| Second: | Dewitt |
| Discussion: | None |
| Vote: | DeWitt, Yes; Allen, Yes |
| Result: | The Groundwater Quality Committee approved the minutes as submitted. |

4. ENVIRONMENTAL SITES REVIEW

Staff Recommendation: The Groundwater Quality Committee receive and file the report.

Manager of Hydrogeology Brian Partington provided a quarterly update on the Perchlorate Remediation Project in the City Of Vernon. Discussion followed.

The Groundwater Quality Committee received and filed the report.
5. APPROVE ACCESS AND LICENSE AGREEMENT WITH THE CITY OF VERNON (OWNER OF REAL PROPERTY 6302-013-900)

Staff Recommendation: The Groundwater Quality Committee recommends that the Board of Directors enter into an Access and License Agreement with the City of Vernon (owner of real property parcel 6302-013-900), subject to approval as to form by District Counsel, for an amount not to exceed $540,000.

Mr. Partington provided an overview.

| First:   | Allen     |
| Second:  | Dewitt    |
| Discussion: | None     |
| Vote:    | DeWitt, Yes; Allen, Yes |
| Result:  | ITEM 5 PASSED |

This will be a regular item on the Board of Directors meeting agenda.

6. APPROVE ACCESS AND LICENSE AGREEMENT WITH PPF INDUSTRIAL (OWNER OF REAL PROPERTY 6302-006-025)

Staff Recommendation: The Groundwater Quality Committee recommends that the Board of Directors enter into an Access and License Agreement with PPF Industrial (owner of real property parcel 6302-006-025), subject to approval as to form by District Counsel, for an amount not to exceed $24,000.

Mr. Partington provided an overview.

| First:   | Allen     |
| Second:  | Dewitt    |
| Discussion: | None     |
| Vote:    | DeWitt, Yes; Allen, Yes |
| Result:  | ITEM 6 PASSED |

This will be a consent item on the Board of Directors meeting agenda.
7. APPROVE ACCESS AND LICENSE AGREEMENT WITH M&R SACO LLC
(OWNER OF REAL PROPERTY PARCEL 6302-010-003)

*Staff Recommendation:* The Groundwater Quality Committee recommends that the Board of Directors enter into an Access and License Agreement with M&R Saco LLC (owner of real property parcel 6302-010-003), subject to approval as to form by District Counsel.

| First: | Allen |
| Second: | Dewitt |
| Discussion: | None |
| Vote: | DeWitt, Yes; Allen, Yes |
| Result: | ITEM 7 PASSED |

This will be a consent item on the Board of Directors meeting agenda.

8. APPROVE ACCESS AND LICENSE AGREEMENT WITH BRILLIANT CO. LLC AND FENG YUEN LEE (OWNER OF REAL PROPERTY PARCEL 6302-016-027)

*Staff Recommendation:* The Groundwater Quality Committee recommends that the Board of Directors enter into an Access and License Agreement with Brilliant Co. LLC and Feng Yuen Lee (owner of real property parcel 6302-016-027), subject to approval as to form by District Counsel.

| First: | Allen |
| Second: | Dewitt |
| Discussion: | None |
| Vote: | DeWitt, Yes; Allen, Yes |
| Result: | ITEM 8 PASSED |

This will be a consent item on the Board of Directors meeting agenda.

*Staff Recommendation:* The Groundwater Quality Committee recommends that the Board of Directors enter into an Access and License Agreement with PPF Kane Industrial Properties LLC and Lonnie and Karen Kane, Trustees of the Lonnie and Karen Kane Family Trust (owner of real property parcel 6302-006-021, 6302-006-022, and 6302-010-011), subject to approval as to form by District Counsel, for an amount not to exceed $8,500.

Mr. Partington provided a brief overview.

| First:     | Allen       |
| Second:    | Dewitt      |
| Discussion:| None        |
| Vote:      | DeWitt, Yes; Allen, Yes |
| Result:    | ITEM 9 PASSED |

This will be a consent item on the Board of Directors meeting agenda.

10. **CONTRACT AMENDMENT WITH INTERA GEOSCIENCE & ENGINEERING SOLUTIONS, INC FOR WELL PROFILING SERVICES**

*Staff Recommendation:* The Groundwater Quality Committee recommends that the Board of Directors approve execution of Contract Amendment No. 2 with Intera Geoscience & Engineering Solutions Inc. for professional services related to the Well Profiling Program, subject to approval as to form by District Counsel, for an amount not to exceed $175,000 through June 30, 2020.

Associate Engineer of Construction and Operations Charlene King described this item. Discussion followed.

| First:     | Allen       |
| Second:    | Dewitt      |
| Discussion:| None        |
| Vote:      | DeWitt, Yes; Allen, Yes |
| Result:    | ITEM 10 PASSED |

This will be a regular item on the Board of Directors meeting agenda.
11. **CONTRACT AMENDMENT WITH GANNETT FLEMING INC. FOR THE SAFE DRINKING WATER – DISADVANTAGED COMMUNITIES**  
*Staff Recommendation:* The Groundwater Quality Committee recommends that the Board of Directors execute a contract amendment with Gannett Fleming Inc. for professional services related to the Safe Drinking Water Program & Disadvantaged Communities, subject to approval as to form by District Counsel, for an amount not to exceed $300,000 through June 30, 2020.

| First:    | Allen    |
| Second:  | Dewitt   |
| Discussion: | None   |
| Vote:     | DeWitt, Yes; Allen, Yes |
| Result:   | ITEM 11 PASSED |

This will be a regular item on the Board of Directors meeting agenda.

12. **CONTRACT AMENDMENT WITH TETRA TECH INC. FOR THE SAFE DRINKING WATER – DISADVANTAGED COMMUNITIES**  
*Staff Recommendation:* The Groundwater Quality Committee recommends that the Board of Directors execute a contract amendment with Tetra Tech Inc. for professional services related to the Safe Drinking Water Program & Disadvantaged Communities, subject to approval as to form by District Counsel, for an amount not to exceed $300,000 through June 30, 2020.

Ms. King provided information on this item. Discussion followed.

| First:    | Allen    |
| Second:  | Dewitt   |
| Discussion: | None   |
| Vote:     | DeWitt, Yes; Allen, Yes |
| Result:   | ITEM 12 PASSED |

This will be a regular item on the Board of Directors meeting agenda.

13. **SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM UPDATE**  
*Staff Recommendation:* The Groundwater Quality Committee receive and file the report.

Ms. King updated the Committee on various projects in the Disadvantaged Communities Program.

The Groundwater Quality Committee received and filed the report.
14. SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM OUTREACH UPDATE

**Staff Recommendation:** The Groundwater Quality Committee receive and file the report.

Manager of External Affairs Angie Mancillas provided the update, stating that a meeting had been held with Senator Lena Gonzalez highlighting projects. Additionally, the District had sponsored a Well UnTapped workshop with various elected officials.

Finally, the District will sponsor a Well UnTapped workshop at the Albert Robles Center in January 2020.

The Groundwater Quality Committee received and filed the report.

15. DEPARTMENT REPORT

**Staff Recommendation:** For discussion and possible action.

None.

16. DIRECTORS’ REPORTS, INQUIRIES AND FOLLOW UP OF DIRECTIONS TO STAFF

None.

17. ADJOURNMENT

There being no further business to come before the Committee, the meeting was adjourned at 11:00 AM.

__________________________________________
Chair

ATTEST:

__________________________________________ Member

Approved in minutes of:

__________________________________________
MEMORANDUM
ITEM NO. 5

DATE: DECEMBER 10, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: ENVIRONMENTAL SITES REVIEW

SUMMARY
WRD has and continues to take an active role in groundwater quality protection, cleanup, and investigation. As part of its Groundwater Contamination Prevention Program, WRD established the Central and West Coast Basin Groundwater Contamination Forum, a data-sharing and discussion forum with key stakeholders that include various cities, water purveyors, the United States Environmental Protection Agency (EPA), California Department of Toxic Substances Control (DTSC), Los Angeles Regional Water Quality Control Board (RWQCB), State Water Resources Control Board Division of Drinking Water (DDW), United States Geological Survey (USGS), and California Department of Water Resources (DWR).

In 2005, the stakeholders drafted and signed a Memorandum of Understanding (“MOU”) agreeing to meet regularly and share data on major groundwater contaminated sites within the Central Basin and West Coast Basin. WRD acts as the meeting coordinator and data repository/distributor, helping stakeholders to characterize the extent of contamination to identify pathways for contaminants in shallow aquifers to reach deeper drinking water aquifers and develop optimal methods for remediating contaminated groundwater. The overall purpose of the Forum is to expedite the cleanup of these major contaminated sites in the basins.

With the cooperation and support of all stakeholders in the Groundwater Contamination Forum, WRD developed a list of high-priority groundwater contaminated sites (“environmental sites”) located within the District. This list is a living document, subject to cleanup and “closure” of sites, as well as discovery of new sites warranting further attention. Currently, the list includes 46 sites located throughout the Central Basin and West Coast Basin. The list was developed based on the following criteria:

- Site location and hydrogeology;
- Distance to nearest drinking water well;
- Depth to shallowest water-supply aquifer beneath site;
- Concentration of detected contaminants;
• Fate and transport of detected contaminants;
• Presence of contamination in nearby drinking water wells;
• Status of site characterization with respect to groundwater contamination;
• Status of site remediation with respect to groundwater contamination; and
• Stage of regulatory agency involvement.

WRD works in close consultation with the lead regulatory agencies for each of these sites to provide data and technical support to facilitate site characterization and expedite cleanup. An update is provided below for Barken’s Hard Chrome, Inc. in the Central Basin (City of Compton) and Industrial Polychemical Service (IPS) Company in the West Coast Basin (City of Gardena).

**BARKEN’S HARD CHROME (CITY OF COMPTON, CENTRAL BASIN)**

The ~0.43-acre property has operated as a chrome plating facility since 1942. The primary constituents of concern in soil and groundwater include metals (mainly total chromium and hexavalent chromium [Cr+6]) and chlorinated solvents (mainly tetrachloroethylene [PCE], trichloroethene [TCE], and 1,1-dichloroethene [1,1-DCE]). Regulatory oversight is provided by the RWQCB.

The reported groundwater flow direction varies from southwest to southeast based on the four existing groundwater monitoring wells screened in the Shallow Zone (~30 to 60 feet below ground surface [ft bgs]). The nearest active public water supply wells are owned and operated by the City of Compton (Well #13 and #15) and California Water Service Company (Well #290-01). Site constituents have not been detected above regulatory levels in the production wells with the closest one located approximately 0.4-miles northeast of the Site.

In November 2017, RWQCB required additional delineation and remediation as outlined in Cleanup and Abatement Order (CAO) No. R4-2017-0183. The only remediation performed at the site was the limited excavation of surficial soil impacts in November 1984. WRD has met with agency staff multiple times over the past couple years, most recently on October 31, 2019. The RWQCB indicated the responsible party lacks the financial resources to implement the entire scope outlined in the CAO.

In March 2018, Barken’s applied for and is waiting to receive state funding available from the Site Cleanup Subaccount Program (SB445 or SCAP). However, Barken’s agreed to implement a portion of the work (phased approach) starting with the installation of four out of the seven monitoring wells, installation of vapor monitoring probes, and redeveloping / sampling groundwater monitoring wells with reports due late 2019 / early 2020.

In October 2019, the RWQCB also issued an order to evaluate the potential presence of per- and polyfluoroalkyl substances (PFAS) under Order WQ 2019-0045-DWQ. Work plans are due to the board no later than January 31, 2020.
IPS COMPANY (CITY OF GARDENA, WEST COAST BASIN)
The IPS Company facility is located across eight individual parcels with various commercial / industrial uses since the 1950s. IPS operations consist of manufacturing adhesive cement, cleaners, and primers for polyvinyl chloride (PVC). The primary constituents of concern include chloropicrin, chloroform, TCE, and tetrahydrofuran (THF). Regulatory oversight is provided by the DTSC.

Groundwater impacts have been identified in an east-northeast flowing Shallow Aquifer (stratified with impacts ranging from ~30 to 75 ft bgs). The nearest downgradient active public water supply well is owned and operated by the City of Compton (Well #11). Site constituents have not been detected above regulatory standards in the production well (approximately 2.2-miles east of the Site).

Multiple treatment systems have been installed across the site with operations reportedly commencing in 1999. The primary remedy for soil and groundwater includes a combination of air sparging and soil vapor extraction (AS/SVE). DTSC issued a no further action determination for vadose zone soils and soil vapor in a letter dated February 17, 2016. An in-situ chemical oxidation process using zero valent iron was proposed to treat groundwater in a removal action work plan approved by DTSC on April 23, 2018. The remedial design and remedy implementation are anticipated in 2020.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Groundwater Quality Committee receive and file the report.
Environmental Sites Review - Tables

**Barken’s Hard Chrome (City of Compton, Central Basin)**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>MCL</th>
<th>Shallow Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Chromium</strong></td>
<td>50</td>
<td>150,000 in MW1 (historically 810,000 in MW1, February 2000)</td>
</tr>
<tr>
<td>Cr+6</td>
<td></td>
<td>261,000 in MW1 (historically 673,000 in MW1, June 2002)</td>
</tr>
<tr>
<td>PCE</td>
<td>5</td>
<td>83 in MW1 (historically 1,390 in MW2, June 2004)</td>
</tr>
<tr>
<td>TCE</td>
<td>5</td>
<td>130 in MW1 (historically 725 in MW3, June 2004)</td>
</tr>
<tr>
<td>MTBE</td>
<td>13</td>
<td>2,500 in MW2 (Started testing in December 2017)</td>
</tr>
</tbody>
</table>

Maximum detection with results in µg/L. Asterisk (*) indicated state repealed the MCL (2017).


**IPS Company (City of Gardena, West Coast Basin)**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>MCL</th>
<th>Shallow Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chloropicrin</strong></td>
<td></td>
<td>1,300,000 in MW-28</td>
</tr>
<tr>
<td>Chloroform</td>
<td>80</td>
<td>1,300 in MW-28</td>
</tr>
<tr>
<td>TCE</td>
<td>5</td>
<td>920 in MW-4</td>
</tr>
<tr>
<td><strong>THF</strong></td>
<td></td>
<td>24,000 in MW-16</td>
</tr>
</tbody>
</table>

Maximum detection with results in µg/L. Tetrahydrofuran – THF.


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**Common Acronyms:**

- **PCE** = Tetrachloroethene
- **TCE** = Trichloroethene
- **DCE** = Dichloroethene
- **DCA** = Dichloroethane
- **TCA** = Trichloroethane
- **Cr+6** = Hexavalent Chromium
- **MTBE** = Methyl Tertiary Butyl Ether
- **TBA** = Tertiary Butyl Alcohol
- **LNAPL** = Light Non-Aqueous Phase Liquid
- **TPH** = Total Petroleum Hydrocarbons
- **µg/L** = Micrograms per Liter
- **Estimated values labeled “J”**
- **ND** = Not Detected
- **FT** = Feet
- **MCL** = Maximum Contaminant Level
- **Ft BGS** = Feet Below Ground Surface
- **NL** = Notification Level
MEMORANDUM
ITEM NO. 6

DATE: DECEMBER 10, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: NO-COST TIME EXTENSION WITH USGS TO COMPLETE GROUNDWATER MODELING AND REPORTING

SUMMARY

The United States Geological Survey (USGS) is finalizing work on a multi-year, major effort to update and improve the complex, three-dimensional geologic and groundwater flow model developed for the Los Angeles Coastal Plain, including the Central Basin and the West Coast Basin. The data collection and model construction and calibration efforts have greatly enhanced the understanding of the workings of the groundwater basins, and has increased our ability to forecast future groundwater conditions under various scenarios, such as climate change, storage, recycled water movement, new pumping patterns, and other potential activities. The detailed, individual water flow budgets calculated by the model has provided new information on the inflows and outflows of the groundwater to various parts of the WRD service area.

The final reports documenting the extensive work performed is under USGS internal review and expected to be published soon. During the development of the model, which started numerous years ago, advancements in modeling software and graphics displays have been made and incorporated into the latest model. In addition, new hydrogeologic data have been collected and incorporated into the new model. Conversion of the current model, which is built on a software package called Modflow - Unstructured Grids, is being updated to the latest software version, which is called Modflow 6, which will allow the linking of multiple models into a single simulation and is the preferred software in the industry. Conversion to Modflow 6 will benefit WRD by having our model in the newest format to perform future simulations, and can link to contaminant transport codes and more commercially available graphical user interfaces so that WRD, our consultants, and the general public will have better access to utilize the model. Conversion to Modflow 6 is requiring significant and careful re-programming, including transposing the layering from the old model (unstructured grids) to the new format (structured grids), updated layering based on the latest geologic interpretations, conversion of hydrogeologic properties such as vertical hydraulic gradients, and re-calibration to make sure the new Modflow 6 model matches the original unstructured grids model.
The current contract with the USGS expires on December 31, 2019. However, due to the complexities of the model updates and re-programming, and the detailed review of the final report and preparation of graphics, the work will not be completed by the end of the year. Therefore, a no-cost time extension is needed to allow the USGS to complete the work, and in case there are any unexpected delays or contingencies needed, the date will be extended one year to December 31, 2020.

**FISCAL IMPACT**

None. The dollar amounts listed in the attached no-cost time extension amendment are provided for information only and are based upon previously authorized funding for this work.

**STAFF RECOMMENDATION**

The Groundwater Quality Committee recommends that the Board of Directors authorize a no-cost time extension with the United States Geological Survey, subject to approval as to form by District Counsel, for groundwater modeling work and report preparation, with a time extension through December 31, 2020.
December 4, 2019

Mr. Ted Johnson, Chief Hydrogeologist
Water Replenishment District of Southern California
4040 Paramount Boulevard.
Lakewood, California 90712

Dear Mr. Johnson:

As a follow-up to discussions between our staffs, this letter requests a no-cost extension (NCE) Joint funding agreement (JFA) be signed between the Water Replenishment District of Southern California (WRD) and the U.S. Geological Survey (USGS). The requested NCE would extend the end date of the Geohydrology of the Central and West Coast Basins Study, from December 31, 2019 to December 31, 2020.

Enclosed are two originals of amended Joint Funding Agreement (JFA) 17WSCA60096310_03, for your approval. Work performed with funds from this agreement will be conducted on a fixed-price basis. If you are in agreement with this proposed NCE, please return one signed JFA to our office. The other JFA is for your records.

If you have any questions concerning this program, please contact Scott Paulinski or Claudia Faunt, in our San Diego Project Office, at (619) 225-6125 or (619) 225-6142, respectively. If you have any administrative questions, please contact Irene Rios at (619) 225-6156.

Sincerely,

Anke Mueller-Solger
Acting Director, USGS California WSC

Enclosures
cc: Claudia Faunt USGS CA WSC
    Scott Paulinski, USGS CA WSC
THIS AGREEMENT is entered into as of the, 4th day of December, 2019 by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA (WRDSC), party of the second part.

1. The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation study of the Geohydrology of the Central and West Coast Basins herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50; and 43 USC 50b.

2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program: 2(a) includes In-Kind Services in the amount of $50.00

   (a) by the party of the first part during the period

   Amount Date to Date
   $50.00 October 1, 2016 December 31, 2020

   (b) by the party of the second part during the period

   Amount Date to Date
   $50.00 October 1, 2016 December 31, 2020

   USGS DUNS is 1761-38857. Total funding for this agreement, including this amendment is $476,835. The total USGS portion (2a) of this agreement, including this amendment is $73,374. Total WRDSC portion of this agreement, including this amendment is $403,461.

   (c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of: $0.00

   Description of the USGS regional/national program:
   No additional contribution

   (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.

   (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.

4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.

5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.

6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.
7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program, and if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties. The Parties acknowledge that scientific information and data developed as a result of the Scope of Work (SOW) are subject to applicable USGS review, approval, and release requirements, which are available on the USGS Fundamental Science Practices website (https://www2.usgs.gov/fsp/).

9. Billing for this agreement will be rendered QUARTERLY.

Invoices not paid within 60 days from the billing date will bear Interest, Penalties, and Administrative cost at the annual rate pursuant the Debt Collection Act of 1982, (codified at 31 U.S.C. § 3717) established by the U.S. Treasury.

<table>
<thead>
<tr>
<th>U.S. Geological Survey</th>
<th>Water Replenishment District of Southern California</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of the Interior</td>
<td>Customer Point of Contact</td>
</tr>
<tr>
<td>USGS Print of Contact</td>
<td>Name: Ted Johnson</td>
</tr>
<tr>
<td>Name: Irene A. Rios, Budget Analyst</td>
<td>Address: 4040 Paramount Blvd Lakewood CA 90712</td>
</tr>
<tr>
<td>Address: 4166 Spruce Rd, Ste 200 San Diego, CA 92101</td>
<td>Telephone: 562-275-4240</td>
</tr>
<tr>
<td>Telephone: 619-225-6136</td>
<td>Email: <a href="mailto:tjohnson@wrd.org">tjohnson@wrd.org</a></td>
</tr>
<tr>
<td>Email: <a href="mailto:iarios@usgs.gov">iarios@usgs.gov</a></td>
<td></td>
</tr>
</tbody>
</table>

Signatures and Date

Signature: [Signature] Date: 12-4-2019
Name: Anne Meier-Soliger Title: Acting Director, USGS CA Water Science Center

https://webforms.usgs.gov/_layouts/15/Print.FormServer.aspx
MEMORANDUM
ITEM NO. 7

DATE: DECEMBER 10, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM UPDATE

SUMMARY
The District administers the Safe Drinking Water Program (SDWP) which provides grant or loan assistance to basin pumpers for wellhead treatment to remove contaminants and improve water quality. The Grant Program provides treatment for removing groundwater contaminants from man-made sources (e.g. Volatile Organic Compounds); whereas the Loan Program provides 10-year, zero-interest loans for providing water treatment to remove unacceptable levels of contaminants from natural sources (e.g. iron, manganese, and arsenic).

The District approved three wellhead treatment projects as part of the Safe Drinking Water Program: California American Water Arlington Well, Huntington Park Well 15, and Lynwood Well 11. The wellhead treatment system at all three wells will consist of a complete granular activated filtration system built within the boundaries of the existing well sites owned and operated by the water systems. All three projects are currently under construction.

Safe Drinking Water DAC Program
As an extension of the District’s Safe Drinking Water Program, the District approved the creation of the Safe Drinking Water Disadvantaged Communities (DAC) Program. The goal of this program is to assist water systems located in disadvantaged communities within the District’s service area with state and federal funding to address the issues related to their drinking water wells. The focus of the program is to provide technical assistance and extensive outreach to help the systems secure funding that is set aside specifically for disadvantaged communities. Currently there are eleven water systems participating in the program and receiving assistance: City of Bell Gardens, City of Compton, City of Huntington Park and City of Lynwood, Maywood Mutual Water Company No. 1, Maywood Mutual Water Company No. 2, Maywood Mutual Water Company No. 3, Sativa LA County Water District, Tract 180 Mutual Water Company, Tract 349 Mutual Water Company and Walnut Park Mutual Water.
The Maywood Avenue Wellhead Treatment DAC Project is currently in the construction phase. This project will be funded through Prop 84 and Prop 1 funding and the District will be reimbursed.

Safe Drinking Water Program Outreach Efforts

Outreach efforts continue as staff is preparing follow-up outreach to cities, particularly disadvantaged communities, to schedule presentations for upcoming city council meetings to further explain WRD’s programs.

FISCAL IMPACT

None

STAFF RECOMMENDATION

The Groundwater Quality Committee receive and file the report.
MEMORANDUM
ITEM NO. 8

DATE: DECEMBER 10, 2019
TO: GROUNDWATER QUALITY COMMITTEE
FROM: ROBB WHITAKER, GENERAL MANAGER
SUBJECT: SAFE DRINKING WATER PROGRAM AND DISADVANTAGED COMMUNITIES PROGRAM OUTREACH UPDATE

SUMMARY
The District administers an ongoing Safe Drinking Water Outreach Program aimed at providing cities, pumpers, and local legislators information about WRD’s grant and loan assistance programs for wellhead treatment to protect and improve water quality. District staff participate in outreach activities and education campaigns to inform the public and elected representatives about the efforts WRD takes to ensure safe drinking water and to provide necessary resources to interested parties.

FISCAL IMPACT
None

STAFF RECOMMENDATION
The Groundwater Quality Committee receive and file the report.