

**Report to the Legislature**

**Drinking Water Treatment  
and  
Research Fund**

**Division of Drinking Water  
and  
Environmental Management**

**California Department of Health Services**

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**Drinking Water Treatment and Research Fund  
Report to the Legislature  
Calendar Year 2003**

**I. INTRODUCTION**

The California Department of Health Services herein submits its annual report to the California State Legislature and the Governor on the implementation of the Drinking Water Treatment and Research Fund (DWTRF). The completion of this report has been mandated by the enactment of Assembly Bill (AB) 2481 (Chapter 999, Statutes of 2003) and cited in Health and Safety Code Section 116367(e) as follows:

*“the department shall report annually to the Governor and to the Legislature on any money provided to a public water system pursuant to this section”*

Senate Bill (SB) 2198 (Chapter 997, Statutes of 1998) established the DWTRF. However, SB 2198 sunsetted in 2002 and the DWTRF was not reinstated until January 1, 2003, with the adoption of AB 2148.

This report identifies the DWTRF program activities completed by the Department and expenditures from the DWTRF during the period of January 1, 2003, through December 31, 2003.

**II. BACKGROUND**

On January 1, 1999, the provisions of SB 2198 became effective and the DWTRF was established. The Department was identified as the state agency responsible for the implementation and administration of the DWTRF. SB 2198 authorized the Department to provide financial assistance to public water systems for their costs incurred to (1) replace drinking water supplies contaminated by gasoline oxygenates, (2) install treatment systems to restore the use of contaminated drinking water supplies, and (3) conduct investigations to determine the person(s) responsible for the oxygenate contamination of the drinking water sources.

Additionally, SB 2198 authorized the Department to expend up to \$1 million annually for conducting research projects to develop cost-effective treatment technologies to remove gasoline oxygenates from drinking water sources and development of strategies to protect drinking water sources from contamination by gasoline oxygenates. The Department was also required to establish a Research Advisory Committee to review research project proposals submitted for funding consideration.

The sources of funding for the DWTRF included an initial \$5 million General Fund appropriation and subsequent annual transfers of \$5 million from the State Water Resources Control Board's Underground Storage Tank Cleanup Trust Fund through January 1, 2010.

In January 1999, the Department adopted a secondary drinking water standard for methyl-tertiary-butyl ether (MTBE) of five parts-per-billion (ppb), to address taste and odor considerations, and in February 2002, adopted a primary drinking water standard of 13 ppb to address human health concerns.

With the enactment of AB 2481 (Chapter 999, Statutes of 2002), the scope of financial assistance authorized under the DWTRF was expanded on January 1, 2003, to include replacement of drinking water wells threatened with imminent oxygenate contamination. This legislation also reinstated the provisions of SB 2198 which sunset on January 1, 2002.

The Department has developed the necessary administrative procedures, policies, guidelines, and forms for the effective implementation of the DWTRF program.

### **III. CORRECTIVE ACTION PROJECTS**

The Department issued funding commitments totaling \$2,512,462 to public water systems for corrective action projects during this reporting period. The scope of these projects included installation of a new drinking water well to replace drinking water supplies contaminated by MTBE, and the installation of two wellhead treatment systems to remove MTBE from the drinking water supplies. Since the inception of the DWTRF program on January 1, 1999, the Department has issued funding commitments totaling \$11,204,381 for corrective action projects.

Commensurately, the Department expended \$503,303 to public water systems in cost reimbursements for the approved corrective action projects during this reporting period. The Department has expended a total of \$5,782,203 in reimbursements to public water systems for corrective action projects since the inception of the DWTRF program.

A description of the corrective action projects approved during this reporting period, as well as previously approved ongoing and completed projects, is provided below. In addition, a summary of the DWTRF program funding commitments and expenditures is provided in Appendix A and B of this report.

#### **A. New Projects Approved in Calendar Year 2003**

##### **California Water Service Company – Salinas System (Monterey County): Well No. 1-04 Replacement Project**

The Department approved \$700,118 in funding to the California Water Service Company (CWS) for the construction of a new drinking water well to replace the drinking water supply from Well No. 1-04, which was shutdown due to contamination by MTBE from suspected leaking underground gasoline storage tanks in the surrounding area.

CWS is currently in the process of selecting an engineering consulting firm to complete the design of the new well, and is conducting an investigation to find a suitable site for the planned replacement well.

The Department did not process any cost reimbursement to CWS for this project during this reporting period.

**Riverview Water District (San Diego County): Well Nos. 1, 2, and 3 – Wellhead Treatment System**

The Department approved \$527,100 in funding to the Riverview Water District (RWD) for the installation of a wellhead treatment system for three wells contaminated by MTBE from suspected leaking underground gasoline storage tanks in the surrounding area.

Construction of the wellhead treatment system was completed in May 2003 and the wells have resumed production of drinking water to serve the customers of RWD.

The Department issued reimbursements to RWD totaling \$270,914, for the installation of the wellhead treatment system during this reporting period. Overall, the Department has approved reimbursements to RWD for this project totaling \$503,202.

**B. Previously Approved Ongoing Projects**

**Fruitridge Vista Water Company (Sacramento County): Well Nos. 1 and 2 Replacement**

The Department approved funding in the amount of \$1,477,000 to Fruitridge Vista Water Company (FVWC) for the construction of a new drinking water well to replace the drinking water supply from Well Nos. 1 and 2, which have been shutdown due to contamination by MTBE from suspected leaking underground gasoline storage tanks in the immediate area.

FVWC has retained the services of an engineering consulting firm and is currently conducting the required project planning activities. The Department did not process any cost reimbursement to FVWC for this project during the reporting period. Overall, the Department has issued reimbursements to FVWC totaling \$9,450 for this project.

**Riverview Water District (San Diego County): Well No. 1 - Alternate Water Supply Purchase**

The Department approved \$27,675 in additional funding to RWD for the incremental cost to continue purchases from an alternate drinking water supply to replace the drinking water supply from Well Nos. 1, 2, and 3, which have been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The funding approval is for continuing the purchase of an alternate water supply through May 7, 2003, when the construction of an MTBE treatment system will be completed. The Department has approved and reimbursed a total of \$973,558 in funding to RWD for the incremental costs to purchase drinking water from an alternate water supply to replace Well Nos. 1, 2, and 3.

RWD received reimbursements totaling \$136,496 from the Department for the purchase of alternate water supplies for Well No. 1, during this reporting period.

### **Yosemite Spring Park Utility Company (Fresno County): Well Nos. 37A and 40A MTBE Treatment Plant Project**

The Department approved an additional \$1,246,764 in funding to the Yosemite Spring Park Utility Company (YSPUC) for the construction of an MTBE treatment system for Well Nos. 37A and 40A, which have been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The overall funding commitment for this project totals \$1,617,764. The construction of the MTBE treatment system is ongoing and is scheduled to be completed and begin operation in June 2004.

During this reporting period, the Department issued reimbursements totaling \$95,893 to the YSPUC for the planning and design work completed on this project.

Overall, the Department has issued reimbursements to YSPUC totaling \$169,292 for this project.

### **C. Previously Approved Completed Projects**

#### **Cambria Community Services District (San Luis Obispo County): Santa Rosa Creek Well Nos. 1 and 3 Replacement Project**

The Department issued reimbursements totaling \$1,520,710 to the Cambria Community Services District (CCSD) for the construction of a new drinking water well, an associated wellhead treatment system, and distribution pipelines to replace the drinking water supply of Santa Rosa Creek Well Nos. 1 and 3, which have been shutdown due to an imminent threat of contamination by MTBE from a nearby leaking underground gasoline storage tank.

The construction of the drinking water well, treatment system, and pipeline was completed and began operation serving the customers of Cambria in June 2002.

#### **Citizen's Utilities Company – Montara District (San Mateo County): MTBE Treatment System Project**

The Department issued reimbursements totaling \$111,073 to the Citizen's Utility Company for the installation of a wellhead treatment system for a drinking water well serving the Montara District. The well has been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The treatment system installation was completed in 2000 and the well has resumed production of drinking water to serve the customers of the Montara District.

In late 2000, the California-American (Cal-Am) Water Company acquired all of the water utility assets in California that were owned by the Citizen's Utility Company.

Subsequently, in June 2003, the Department received reimbursement in the amount of \$111,073, from Cal-Am Water Company for the funds received by the Citizen's Utility Company from the DWTRF. This reimbursement was made as a result of a legal settlement between Cal-Am Water Company and Coast Wholesale Florist, Inc., the identified party responsible for the MTBE contamination of the drinking water well.

### **Fruitridge Vista Water Company (Sacramento County): Well No. 11 Replacement Project**

The Department issued reimbursements totaling \$1,375,486 to the FVWC for the construction of two new drinking water wells and the required water distribution pipeline to replace the drinking water supply of Well No. 11, which has been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The construction of the wells and distribution pipeline was completed in 2001 and the wells have provided replacement water to the customers of FVWC since that time.

### **South Tahoe Public Utility District (Nevada County): Gardner Mountain Well and Pipeline Project**

The Department issued reimbursements totaling \$457,401 for the construction of a new drinking water well and the required distribution system pipeline to replace the drinking water supply of an existing well, which has been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The construction of the new well and distribution pipeline was completed in 2001.

### **South Tahoe Public Utilities District (Nevada County): Arrowhead Well Replacement Project**

The Department issued reimbursements totaling \$370,225 for the construction of a new drinking water well to replace the drinking water supply of the Arrowhead Well, which has been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The construction of the new Arrowhead Well was completed in 2001.

### **City of Santa Monica (Los Angeles County): Charnock Well Field Contamination Source Investigation**

The Department approved \$1,631,000 in funding to the City of Santa Monica for the costs incurred from January 1, 2000, through June 30, 2001, to investigate the sources of MTBE contamination in the drinking water supply provided by the Charnock Well Field.

The Department issued reimbursements to the City of Santa Monica totaling \$291,806 for the invoiced costs of the Charnock Well Field investigative work.

## **IV. RESEARCH PROJECTS**

In September 2000, the Department sponsored a Nominal Group Technique (NGT) Workshop to identify the specific research needs in the two categories identified by SB 2198. The DWTRF Research Advisory Committee reviewed the findings of the NGT Workshop final report and made recommendations to the Department regarding the highest priority research project concepts that should be conducted under the DWTRF.



The Department developed draft Request For Proposals (RFPs) for the five highest priority projects recommended by the DWTRF Research Advisory Committee. The RFPs will be released in 2004.

### **Previously Approved Ongoing Projects**

#### **University of California Regents (Davis Campus) - Field Study of the Impact of a Gasohol Spill on Natural Attenuation of Pre-existing MTBE/benzene, toluene, ethylbenzene and xylenes (BTEX) Contamination**

The Department approved \$918,503 in funding commitments to the University of California, Davis, to conduct a field study of the impact of a gasohol spill on pre-existing MTBE/BTEX contamination sites.

This three-year research project involves a controlled release of ethanol and a tracer compound into the existing MTBE/BTEX contamination plume and comprehensive sampling and monitoring of the MTBE/BTEX plume movement and attenuation. The research will be conducted at an existing contamination site located at Vandenberg Air Force Base.

The final contract between the Department and the University of California, Davis, was executed in November 2002. The initial site characterization work and procurement of major analytical equipment was completed in November 2003. The release of the ethanol and tracer compound is scheduled to begin in January 2004 and the sampling/monitoring of the plume behavior will continue through July 2005.

#### **Contra Costa Water District (Contra Costa County) – Guidance Manual on Minimizing MTBE Contaminants in Lakes and Reservoirs**

The Department approved \$150,000 in funding commitments to the Contra Costa Water District (CCWD) for conducting a collaborative research project with the American Water Works Association Research Foundation (AWWARF) for the development of a guidance manual for minimizing MTBE and other oxygenate contamination in lakes and reservoirs. The total research project cost is \$300,000, with the balance of the project funding (\$150,000) provided by the AWWARF.

The fieldwork for this project was completed during calendar year 2001, and the final report was submitted to the Department in early December 2003. The Department received a reimbursement request from CCWD and has completed an evaluation of the request. The Department is currently awaiting the submittal of additional supporting documentation from CCWD prior to issuing payment.

A summary of funding commitments is provided in Appendix C.

**SUMMARY OF EXPENDITURES  
(Corrective Action Projects)**

| <u>Public Water System</u>                       | <u>2003 Calendar Year</u> | <u>Previous Amount</u> | <u>Total</u> |
|--------------------------------------------------|---------------------------|------------------------|--------------|
| Cambria CSD<br>(Well Replacement)                | -0-                       | \$1,520,710            | \$1,520,710  |
| Citizen's Utilities Co.<br>(Wellhead Treatment)  | -0-                       | \$ 111,073             | \$ 111,073   |
| CWS-Salinas District<br>(Well Replacement)       | -0-                       | -0-                    | -0-          |
| Fruitridge Vista WC<br>(Well #2 Replacement)     | -0-                       | \$ 9,450               | \$ 9,450     |
| Fruitridge Vista WC<br>(Well #11 Replacement)    | -0-                       | \$1,375,486            | \$1,375,486  |
| Riverview WD<br>(Wellhead Treatment)             | \$270,914                 | \$ 232,288             | \$ 503,202   |
| Riverview WD<br>(Water Purchase)                 | \$136,496                 | \$ 837,062             | \$ 973,558   |
| City of Santa Monica<br>(Charnock Investigation) | -0-                       | \$ 291,806             | \$ 291,806   |
| South Tahoe PUD<br>(Gardener Mtn. Well)          | -0-                       | \$ 457,401             | \$ 457,401   |
| South Tahoe PUD<br>(Arrowhead Well)              | -0-                       | \$ 370,225             | \$ 370,225   |
| Yosemite Spring Park UC<br>(Well #1 Treatment)   | \$ 95,893                 | \$ 73,399              | \$ 169,292   |
| <hr/>                                            |                           |                        |              |
| Total Expenditures                               | \$503,303                 | \$5,278,900            | \$5,782,203  |

**SUMMARY OF FUNDING COMMITMENTS  
(Corrective Action Projects)**

| <u>Public Water System</u>                       | <u>2003 Calendar Year</u> | <u>Previous Amount</u> | <u>Total</u> |
|--------------------------------------------------|---------------------------|------------------------|--------------|
| Cambria CSD<br>(Well Replacement)                | -0-                       | \$1,806,000            | \$1,806,000  |
| Citizen's Utilities Co.<br>(Wellhead Treatment)  | -0-                       | \$ 111,073             | \$ 111,073   |
| CWS – Salinas District<br>(Well Replacement)     | \$ 700,118                | -0-                    | \$ 700,118   |
| Fruitridge Vista WC<br>(Well #2 Replacement)     | -0-                       | \$1,477,000            | \$1,477,000  |
| Fruitridge Vista WC<br>(Well #11 Replacement)    | \$ 10,805                 | \$1,375,486            | \$1,386,291  |
| Riverview WD<br>(Wellhead Treatment)             | \$ 527,100                | -0-                    | \$ 527,100   |
| Riverview WD<br>(Water Purchase)                 | \$ 27,675                 | \$ 945,883             | \$ 973,558   |
| City of Santa Monica<br>(Charnock Investigation) | -0-                       | \$1,631,000            | \$1,631,000  |
| South Tahoe PUD<br>(Gardener Mtn. Well)          | -0-                       | \$ 564,677             | \$ 564,677   |
| South Tahoe PUD<br>(Arrowhead Well)              | -0-                       | \$ 409,800             | \$ 409,800   |
| Yosemite Spring Park UC<br>(Wellhead Treatment)  | \$1,246,764               | \$ 371,000             | \$1,617,764  |
| <hr/>                                            |                           |                        |              |
| Total Commitments                                | \$2,512,462               | \$8,691,919            | \$11,204,381 |

**SUMMARY OF FUNDING COMMITMENTS  
(Research Projects)**

| <u>Research Sponsor</u>                    | <u>2003 Calendar Year</u> | <u>Previous Amount</u> | <u>Total</u> |
|--------------------------------------------|---------------------------|------------------------|--------------|
| UC Regents (Davis)<br>(Gasohol/MTBE Study) | -0-                       | \$918,503              | \$918,503    |
| Contra Costa WD                            | -0-                       | \$150,000              | \$150,000    |
| <hr/>                                      |                           |                        |              |
| Total Commitments                          | -0-                       | \$1,068,503            | \$1,068,503  |