

**Annual Report to the Governor
and the Legislature**

**Drinking Water Treatment and Research Fund
(Health and Safety Code Section 116367)**

**Division of Drinking Water and Environmental
Management
California Department of Health Services
Sacramento, California**

EXECUTIVE SUMMARY

Drinking Water Treatment and Research Fund Report to the Governor and Legislature Calendar Year 2000

INTRODUCTION

This report describing activities of the Drinking Water Treatment and Research Fund (DWTRF) is submitted to the Governor and the Legislature in response to Health & Safety Code Section 116367(e), which states:

“Notwithstanding Section 7550.5 of the Government Code, 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.”

The California Department of Health Services (Department) is please to submit this second annual report to the Governor and the Legislature on the implementation of DWTRF. This report addresses the program status and expenditures from the DWTRF from January 1, 2000 through December 15, 2000.

PROGRAM STATUS

The Department distributed a notification letter to all public water systems in January 2000, to promote the DWTRF financial assistance program. Additionally, the Department staff attended several industry conferences and workshops during the year to provide information and exposure to the water industry regarding the availability of financial assistance from the DWTRF.

During the calendar year 2000 reporting period, the Department has issued funding commitments totaling \$3.4 million, for corrective action projects to four (4) public water systems. These public water systems have drinking water supplies contaminated by methyl-tertiary-butyl-ether (MTBE) at levels exceeding adopted drinking water standards.

Commensurately, the Department has expended \$1.27 million to provide reimbursement for eligible costs incurred by the public water systems to replace the drinking water supplies adversely impacted by MTBE contamination.

During the calendar year 2000 reporting period, the Department also issued funding commitments totaling \$150,000, for a research project to be conducted by the Contra Costa Water District.

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The Department also expended \$40,000 sponsoring a Nominal Group Technique (NGT) Workshop for the purpose of identifying research needs in the areas of developing treatment technologies to remove oxygenates from water, and developing strategies to protect drinking water sources from oxygenate contamination.

The DWTRF Research Advisory Committee reviewed the findings of the NGT Workshop final report and has recommended to the Department the research projects that should receive funding. The Department is developing Request-For-Proposals for the recommended projects. A list of the Research Advisory Committee's recommended projects is included as an attachment to this report.

**Drinking Water Treatment and Research Fund
Report to the Governor and the Legislature
Calendar Year 2000**

I. INTRODUCTION

The California Department of Health Services herein submits the second 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 Senate Bill (SB) 2198 (Chapter 997, Statutes of 1998) 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.”

This report identifies the DWTRF program activities completed by the Department and expenditures from the DWTRF during the period of January 1, 2000 through December 15, 2000.

II. BACKGROUND

DWTRF program was created under SB 2198 and identified the Department of Health Services (Department) as the state agency responsible for the administration of the DWTRF. The purpose of the DWTRF is to provide financial assistance to public water systems for (1) replacement and/or treatment of drinking water supplies contaminated by oxygenates at concentration levels exceeding drinking water standards, (2) investigations to determine the responsible party for oxygenate contamination, and (3) conducting research to develop cost-effective treatment technologies to remove oxygenates from water to meet drinking water standards and develop strategies to protect drinking water sources from contamination by oxygenates.

SB 2198 appropriated \$5 million from the General Fund to the Department and the DWTRF to provide the referenced financial assistance. Additionally, the State Water Resources Control Board (SWRCB) is required to transfer \$5 million annually from the Underground Storage Tank Cleanup Fund (USTCF) to the DWTRF through fiscal year 2001-2002.

SB 2198 also requires the Department to establish a Research Advisory Committee to review research proposals for projects to develop cost-effective treatment technologies to remove oxygenates from drinking water and develop strategies to protect drinking water sources from oxygenate contamination. The Department is authorized to expend up to \$1 million annually for research projects.

SB 989 (Chapter 812, Statutes of 1999) revised the funding mechanism for the DWTRF by requiring the SWRCB to transfer \$5 million annually from the USTCF when less than \$2 million

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of unencumbered funds are in the DWTRF. Additionally, SB 989 extended the effective date of the DWTRF to January 1, 2010.

In February 1998, the Department adopted regulations requiring public water systems to monitor drinking water sources for methyl-tertiary-butyl-ether (MTBE).

In January 1999, the Department adopted a secondary drinking water standard for MTBE of 5 parts per billion (ppb), to address taste and odor considerations, and adopted a primary drinking water standard for MTBE of 13 ppb to address human health concerns in February 2000.

In January 1999, the Department solicited recommendations for membership to the Research Advisory Committee from trade associations of public water systems, gasoline manufacturers and distributors, environmental organizations, and consumer groups.

The Department appointed the members to the Research Advisory Committee based on the recommendation received during the solicitation process. The members of the Research Advisory Committee consist of representatives from the Department, Contra Costa Water District, Orange County Water District, Santa Clara Valley Water District, City of Santa Monica, Chevron Oil Company, Exxon-Mobil Oil Corporation, Association of Gasoline Distributors, Van De Pol Oil Distribution, and Clean Water Action.

III. PROGRAM STATUS

In January 2000, the Department distributed notification letters to all public water systems regulated by the Department providing information regarding the availability of financial assistance from the DWTRF. The letter included a claim application form for public water systems to request DWTRF financial assistance. These notification letters were also distributed to the thirty-four (34) local primacy agency (LPA) counties. The 34 LPAs are delegated authority by the Department to regulate approximately 5,500 public water systems with less than 200 service connections.

The Department has completed the development of the necessary administrative procedures and forms for the implementation of the DWTRF.

Throughout the year the Department staff attended several industry conferences and workshops to provide information and promote the financial assistance available from the DWTRF. This information was also provided to the LPA counties at the Department's annual LPA meeting in October 2000.

Corrective Action Projects

During this reporting period, the Department has issued funding commitments totaling \$3.4 million to public water systems for corrective action projects to replace drinking water supplies contaminated by MTBE. Commensurately, the Department has expended \$ 1.27 million in reimbursements to the public water systems for these corrective action projects.

A brief description of the approved corrective action projects is provided below. A summary of the DWTRF Funding commitments and expenditures is provided in Appendix A to this report.

Fruitridge Vista Water Company (FVWC): Well No. 11 Replacement Project (Sacramento, CA)-

This public water system detected MTBE in one (1) drinking water well at concentrations exceeding adopted drinking water standards. The contaminated well has been taken out of service. The Department has approved funding in the amount of \$1.3 million for the construction of one (1) new drinking water well and the required pipeline to transport the new drinking water supply to the section of the service area served by the contaminated well. Reimbursements in the amount of \$573,000 have been issued to the FVWC for this project during the reporting period.

South Lake Tahoe Public Utilities District (STPUD): Gardner Mountain Well and Pipeline Project (South Lake Tahoe, CA) –

This public water system detected MTBE concentration in one (1) drinking water well that consistently exceeded an adopted drinking water standard. The contaminated well has been taken out of service.

The Department has approved funding in the amount of \$564,677 for the construction of one (1) new drinking water well and the installation of a pipeline to transport the new drinking water supply to the section of the service area previously served by the contaminated well.

South Lake Tahoe Public Utilities District (STPUD): Arrowhead Well Replacement Project (South Lake Tahoe, CA) –

This public water system detected MTBE in two (2) drinking water wells, which have been taken out of service and destroyed.

The Department approved funding in the amount of \$409,800 for the construction of a new Arrowhead well to replace the contaminated drinking water supply. Reimbursements in the amount of \$370,225 have been issued to the STPUD for this project during the reporting period.

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Riverview Water District (San Diego County): Alternate Water Supply Purchase –

This public water system detected MTBE contamination in one (1) drinking water well at concentrations that consistently exceeded an adopted drinking water standard. The District has taken the contaminated well out of service and is purchasing additional water supplies from an adjacent water supplier to replace the drinking water from the contaminated well.

The Department approved funding in the amount of \$243,500 for the incremental cost to purchase the alternate drinking water supply. Reimbursements in the amount of \$211,294 have been made to the Riverview Water District for this project during the reporting period.

Citizen Utilities Company, Montara District (San Mateo County): Drake Well Treatment Project –

This public water system detected MTBE concentrations in one (1) drinking water well exceeding an adopted drinking water standard.

The Department has approved funding in the amount of \$111,073 for the installation of treatment facilities for the contaminated well and reimbursements in the amount of \$111,073 have been issued to the Citizens Utilities Company for this project during the reporting period.

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

This public water system detected MTBE concentrations in four (4) drinking water wells in the Charnock Well Field, at concentrations exceeding an adopted drinking water standard.

The Department has approved funding in the amount of \$639,000 for the investigation of the possible source(s) of the MTBE contamination in the Charnock Well Field.

Research Projects

The Department convened the DWTRF Research Advisory Committee during the year as required to address any issues regarding the implementation of a comprehensive research program.

During this reporting period, the Department issued a funding commitment totaling \$150,000, for a research project proposed by the Contra Costa Water District. In addition, the Department expended an additional \$40,000 to conduct a research needs assessment workshop for developing treatment technologies to remove oxygenates and developing strategies to protect drinking water sources from oxygenate contamination.

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A brief description of the research projects approved for funding is provided below.

Contra Costa Water District (CCWD) –

This public water system requested funding from the DWTRF, to participate in a research project to develop a guidance manual for minimizing MTBE and other oxygenate contamination in lakes and reservoirs. The total amount of funding required to complete the project is \$300,000. The CCWD has received a funding commitment of \$150,000 from the American Water Works Association Research Foundation (AWWARF) for this project.

The Department issued a funding commitment of \$150,000 to participate in this research project. Commensurately, the Department has entered into a Memorandum of Understanding (MOU) with the AWWARF regarding the management and administration of this project.

Research Needs Assessment Workshop –

The Department sponsored a Nominal Group Technique (NGT) Workshop for the purpose of identifying the research needs in the areas of developing treatment technologies to remove oxygenates from water and the development of strategies to protect drinking water sources from oxygenate contamination. The NGT Workshop was completed in September 2000 and a final report was produced which identified types of research that should be conducted. The total cost to conduct the NGT Workshop was \$40,000.

In October 2000, the DWTRF Research Advisory Committee reviewed the findings of the NGT Workshop final report and made recommendations to the Department regarding the research project areas that should be conducted under the DWTRF. A list of the recommended research projects is included in Appendix B of this report.

Currently, the Department is developing the Requests-for-Proposals (RFP's) for the solicitation of research entities to conduct the recommended research projects.

Appendix A

Drinking Water Treatment and Research Fund

Summary of Commitments and Expenditures

(As of 12/15/00)

Public Water System	Project ID#	Type	Commitment Amount	Amount Expended	Balance
Citizens Utilities Co. of CA - Montana District	D-41-10010-01	Corrective Action	\$111,073	\$111,073	\$0
Contra Costa Water District	D-07-10003-01	Research	\$150,000	\$0	\$150,000
Fruitridge Vista Water Co.	D-34-10023-01	Corrective Action	\$1,300,000	\$572,663	\$727,337
Riverview Water District	D-37-10030-01	Corrective Action	\$243,500	\$211,294	\$32,206
Santa Monica, City of	D-19-10146	Corrective Action	\$639,000	\$0	\$639,000
South Tahoe PUD - Arrowhead	D-09-10002-01	Corrective Action	\$409,800	\$370,225	\$39,575
South Tahoe PUD - Gardner Mountain	D-09-10002-02	Corrective Action	\$564,677	\$0	\$564,677
Total Amount Committed			\$3,418,050		
Total Amount Expended			\$1,265,255		
Balance			\$2,152,795		

Appendix B

**Department of Health Services
Drinking Water Treatment and Research Fund**

**Research Advisory Committee
Project Recommendations**

The Research Advisory Committee (RAC) members conducted a detailed discussion of the NGT Workshop final report and unanimously agreed to use the final report as the basis for establishing the RAC research project(s) recommendations to the Department. Commensurately, the RAC members unanimously decided to recommend the following research projects be conducted by the Department:

- Evaluate Various Reactive Barrier Designs for Enhanced *In Situ* Treatment of methyl-tertiary-butyl-ether (MTBE) and Other Oxygenates
- Develop Effective Subsurface Monitoring Systems and Improve Underground Storage Tank Monitoring (UST) Monitoring Equipment to Detect Liquid and Vapor Releases of Oxygenates at UST
- Investigate Ethanol Data Gaps Prior to Increased Ethanol Use
- Evaluate Current Gasoline Containment Practices and Needs and Opportunities for Improvement and Development of Best Management Practices