

**SPECIAL MEETING OF THE GROUNDWATER QUALITY COMMITTEE  
OF THE BOARD OF DIRECTORS  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA  
4040 PARAMOUNT BOULEVARD, LAKEWOOD, CA 90712  
10:00 A.M., FRIDAY, MARCH 6, 2009**

**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" MAY ALSO BE THE SUBJECT OF ANY "ACTION" TAKEN BY THE BOARD OR A COMMITTEE AT THE SAME MEETING.

- 1. DETERMINATION OF A QUORUM**
- 2. PUBLIC COMMENT**
- 3. MINUTES OF THE SPECIAL MEETINGS OF JANUARY 26, 2009 AND JANUARY 29, 2009**  
*Staff Recommendation:* Approve the minutes as submitted.
- 4. GROUNDWATER CONTAMINATION UPDATE**  
*Staff Recommendation:* For information.
- 5. STATE WATER RECYCLING POLICY ADOPTION - SUMMARY**  
*Staff Recommendation:* For information.
- 6. AWARD OF PROFESSIONAL SERVICES FOR SAFE DRINKING WATER PROGRAM (SDWP)**  
*Staff Recommendation:* Enter into a Professional Services Agreement, subject to approval of form by District Counsel, with URS Corporation for an amount not to exceed \$173,645 plus contingency.
- 7. SALINE PLUME POLICY UPDATE**  
*Staff Recommendation:* For information.
- 8. DIRECTORS' REPORTS, INQUIRIES, AND REVIEW OF DIRECTIONS TO STAFF**
- 9. ADJOURNMENT**

Posted by Abigail C. Andom, Deputy Secretary, March 2, 2009.

In compliance with the Americans with Disabilities Act (ADA), if special assistance is needed to participate in the Board meeting, please contact Deputy Secretary Abigail Andom 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 and minutes are available at the District's website, [www.wrd.org](http://www.wrd.org).

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**MINUTES OF JANUARY 26, 2009  
SPECIAL MEETING OF THE GROUNDWATER QUALITY COMMITTEE  
OF THE BOARD OF DIRECTORS OF THE  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A special meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Monday, January 26, 2009, 1:23 p.m., at the District Office, 4040 Paramount Boulevard, California. Chairperson Albert Robles called the meeting to order and presided thereover. Deputy Secretary Abigail C. Andom recorded the minutes.

**1. DETERMINATION OF A QUORUM**

Committee: Directors Albert Robles and Sergio Calderon  
Staff: Ted Johnson, Phuong Ly, Hoover Ng

**2. PUBLIC COMMENT**

None.

**3. MINUTES OF NOVEMBER 25, 2008**

The minutes were approved as submitted.

**4. GROUNDWATER CONTAMINATION UPDATE**

Water Quality Specialist Phuong Ly presented an overview of Univar USA, Inc, a site located in the City of Commerce, recently brought to the attention of WRD by California Water Service Company (Cal Water). Ms. Ly stated that Cal Water has a production well that is located approximately 900 feet north of the site and PCE and TCE concentrations have been increasing in the well since 2004. Based on staff's review of the data regarding this site, it was recently added to WRD's list of high-priority groundwater contamination sites.

Ms. Ly noted that in the most recent groundwater monitoring report (dated October 20, 2008), VOCs are the primary constituents of concern. Since April 2005, a soil vapor extraction system (SVE) has been removing VOCs from soils at the site. According to the DTSC Project Manager for this site, interim measures for groundwater cleanup are planned in the near future. She stated that WRD will be attending a public meeting regarding the status of cleanup activities at the site on January 28, 2009.

Ms. Ly's second site on WRD's list of high-priority groundwater contamination site is Angeles Chemical Company, Inc. located in the City of Santa Fe Springs. She noted that from 1976-2000, Angeles Chemical Company operated at the site as a petroleum solvents and chemicals wholesaler & distributor. Operations included the use of 34 underground storage tanks (USTs), rail cars, 4 aboveground storage tanks, and numerous 55-gallon drums. Since 2005, an on-site SVE

system (including 11 extraction wells) has been removing VOCs from soils.

Ms. Ly stated that groundwater samples collected at the site in September 2008 indicate the presence of VOCs, 1,4-dioxane, total petroleum hydrocarbons as gasoline, and arsenic at elevated concentrations. She noted that the Department of Toxic Substances Control (DTSC) has recommended preparation of a Feasibility Study and Remedial Action Plan for groundwater cleanup at the site.

**5. GROUNDWATER QUALITY UPDATE – NEW STATE ARSENIC MCL**

Senior Engineer Hoover Ng stated that the California Department of Public Health (CDPH) regulates drinking water supplies and sets enforceable standards that water purveyors must meet to protect public health. He noted that after extensive review and public comment, the CDPH has revised the state arsenic level from 50 parts per billion (ppb) to 10 ppb, effective November 28, 2008. The revised standard is the same as the federal arsenic standard which the U.S. Environmental Protection Agency (EPA) set at 10 ppb, effective January 23, 2006.

Mr. Ng stated that ten production wells in the District's service area have arsenic levels that exceed 10 ppb. He noted that samples collected from these wells since 2005 have had arsenic levels ranging from 11 to 53 ppb. Some pumpers have installed treatment systems and some have taken their wells offline.

**6. DIRECTORS REPORTS, INQUIRIES AND REVIEW OF DIRECTIONS TO STAFF**

None.

**7. ADJOURNMENT**

There being no further business to come before the Committee, the meeting was adjourned at 2:05 p.m.

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Chairperson

Attest:

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Director

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**MINUTES OF JANUARY 29, 2009  
SPECIAL MEETING OF THE GROUNDWATER QUALITY COMMITTEE  
OF THE BOARD OF DIRECTORS OF THE  
WATER REPLENISHMENT DISTRICT OF SOUTHERN CALIFORNIA**

A special meeting of the Groundwater Quality Committee of the Board of Directors of the Water Replenishment District of Southern California was held on Thursday, January 29, 2009, 12:10 p.m., at the District Office, 4040 Paramount Boulevard, California. Chairperson Albert Robles called the meeting to order and presided thereover. Deputy Secretary Abigail C. Andom recorded the minutes.

**1. DETERMINATION OF A QUORUM**

Committee: Directors Albert Robles and Sergio Calderon  
Staff: Robb Whitaker, Ted Johnson

**2. PUBLIC COMMENT**

Director Robles acknowledged the presence of Jack Vander Linden from the City of Torrance.

**3. GROUNDWATER CONTAMINATION UPDATE – INVESTIGATION INTO SOURCES OF CONTAMINATION IN WRD’S MONITORING WELL PM-3 MADRID IN THE CITY OF TORRANCE**

Chief Hydrogeologist Ted Johnson stated that the item is before the Committee today to provide an update to a July 23, 2008 report made to the Groundwater Quality Committee.

Mr. Johnson stated that at the July 23, 2008 meeting, staff reported that WRD played a key role in initiating and helping to complete a Site Discovery Investigation by the California Department of Toxic Substances Control (DTSC) in the City of Torrance. He explained that the Site Discovery Program identifies potentially contaminated sites that were either previously unknown to the DTSC or are possibly greater sources of contamination than formerly recognized.

Mr. Johnson stated that WRD notified the DTSC that its nested monitoring well known as PM-3 Madrid was exhibiting concentrations of volatile organic compounds (VOCs) with no known source(s) associated with it. He noted that the DTSC commenced a Site Discovery investigation of an approximately one mile radius surrounding the PM-3 Madrid well to identify sources of contamination. He stated that the DTSC completed the Site Discovery investigation and, at that time, identified the most likely source of contamination to be the former PPG Industries, Inc. Coatings and Resins Group Facility (PPG) site. PPG is located about .25 miles west of the well which is already under the purview of the DTSC and the Regional Water Quality Control Board.

Mr. Johnson reported that, over the past six months, the DTSC has been performing additional investigations as to the potential sources of contamination at the PM-3 Madrid monitoring well. He stated that based on their review, the DTSC no longer considers PPG to be a source of contamination at the PM-3 Madrid well. The information was transmitted to District staff via email received on January 27, 2009 from Greg Holmes, Unit Chief of the Southern California Cleanup Operations for the DTSC Cypress office.

Mr. Johnson stated that staff will continue its investigation and report back to the Committee any new information received.

**4. ADJOURNMENT**

There being no further business to come before the Committee, the meeting was adjourned at 1:05 p.m.

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Chairperson

Attest:

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Director



## MEMORANDUM

### ITEM NO. 4

*Prepared by:* Phuong Ly

*Reviewed by:* Ted Johnson

*Approved by:* Robb Whitaker

**DATE: MARCH 6, 2009**

**TO: GROUNDWATER QUALITY COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: GROUNDWATER CONTAMINATION UPDATE**

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### CONTAMINATED GROUNDWATER SITES

With the cooperation and support of stakeholders such as the United States Environmental Protection Agency (USEPA), California Regional Water Quality Control Board (RWQCB), and California Department of Toxic Substances Control (DTSC), WRD developed a list of high-priority contaminated groundwater sites within District boundaries. 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 across the Central and West Coast Basins.

WRD has been working with the lead regulatory agencies for each of these sites to keep abreast of their status, offer data collection, review and recommendations as needed, and facilitate progress in site characterization and cleanup. Below is a discussion of two sites that were recently updated with information obtained from the regulatory agency.

### STAUFFER CHEMICAL (CITY OF CARSON, WEST COAST BASIN)

From 1959 to 1982, the 25-acre site was occupied by Stauffer Management Company LLC (SMC) and on-site operations consisted of the manufacturing of polyvinyl chloride (PVC) resin. By mid-1985, all manufacturing facilities and equipment were removed and the property remains vacant. A portion of the property (6 acres) is now owned by British Petroleum and another portion (5 acres) is owned by the City of Carson.

Since 1994, semi-annual groundwater monitoring of on-site and off-site wells are being conducted under the oversight of DTSC. The constituents of concern (COCs) in soil and groundwater beneath the site are chlorinated volatile organic compounds (VOCs), primarily 1,2-dichloroethane (1,2-DCA), vinyl chloride, and trichloroethene (TCE). The highest VOC concentrations are detected in the shallowest aquifer and concentrations decrease with increasing depth. Elevated concentrations of VOCs are also detected at depths between 280 to 300 feet below ground surface. Below is a summary of the most recent analytical results of groundwater samples collected in April 2008.

**SUMMARY OF RECENT GROUNDWATER ANALYTICAL RESULTS  
Stauffer Chemical, City of Carson**

<b>Chemical</b>	<b>Concentration In Groundwater (April 2008)</b>	<b>Maximum Contaminant Level (MCL)</b>
Tetrachloroethene (PCE)	38 ug/L (Well MW-5A)	5 ug/L
Trichloroethene (TCE)	16,000 ug/L (Well MW-7A)	5 ug/L
1,1-Dichloroethene (1,1-DCE)	2,500 ug/L (Well MW-5A)	6 ug/L
cis-1,2-Dichloroethene (cis-1,2-DCE)	41,000 ug/L (Well MW-7A & 19A)	6 ug/L
Ethylbenzene	330 ug/L (Well MW-3A)	300 ug/L
Benzene	100 ug/L (Well MW-3A)	1 ug/L
1,1-Dichloroethane (1,1-DCA)	750 ug/L (Well MW-9A)	5 ug/L
1,2-Dichloroethane (1,2-DCA)	120,000 ug/L (Well MW-7A)	0.5 ug/L
Vinyl chloride	7,900 ug/L (Well MW-10A)	0.5 ug/L
Toluene	4,200 ug/L (Well MW-19A)	150 ug/L
1,1,2-Trichloroethane (1,1,2-TCA)	1,700 ug/L (Well MW-5A)	5 ug/L
Methylene chloride	220 ug/L (Well MW-2A)	5 ug/L

Since December 1998, a high vacuum vapor/liquid extraction (VLE) system has been removing VOCs from the subsurface at the site. Multiple pilot studies have been conducted at the site to determine the best method for groundwater cleanup. According to the October 3, 2007 Groundwater Feasibility Study, the recommended groundwater cleanup technique includes institutional controls (e.g., land use restrictions and engineering controls such as vapor barriers for new structures), continued operation of the VLE system, enhanced in-situ anaerobic bioremediation (EISB) for the on-site groundwater, and monitored natural attenuation for the off-site groundwater. A Groundwater Remedial Action Plan is to be completed in 2009.

**LAUSD SOUTH REGION HIGH SCHOOL #8 (CITY OF MAYWOOD, CENTRAL BASIN)**

The site was previously investigated by the Los Angeles Unified School District (LAUSD), under the oversight of the DTSC, as a potential new school location, but the site was rejected. The site consists of 9 parcels that are currently occupied by industrial/commercial facilities, including a paint distribution facility, a food preparation and distribution company, a warehouse and distribution facility of retail goods, a welding and parts repair facility, an auto tow yard, a wood veneer manufacturing facility, and a sign manufacturing company. Historically, the site has also been utilized for industrial purposes that included a chemical distribution facility, a foundry, metal fabrication, cork manufacturing, food processing, steel floor grating manufacturing, radio manufacturing, and metal parts repair.

During LAUSD's investigation, soil, soil vapor, and groundwater samples were collected at the site and COCs identified in groundwater included chlorinated VOCs and total petroleum hydrocarbons (TPH).

Below is a summary table of the groundwater analytical results of samples collected in July and August 2008.

<b>SUMMARY OF RECENT GROUNDWATER ANALYTICAL RESULTS</b> <b>LAUSD South Region High School #8, City of Maywood</b>		
<b>Chemical</b>	<b>Concentration In Groundwater (July &amp; August 2008)</b>	<b>Maximum Contaminant Level (MCL)</b>
PCE	358 ug/L	5 ug/L
1,2-DCA	58.9 ug/L	0.5 ug/L
1,1-DCE	9.3 ug/L	6 ug/L
TCE	13.8 ug/L	5 ug/L
TPH carbon chain	470 ug/L (C4 – C12); 28,800 ug/L (C13 – C22)	None

Since the LAUSD investigation, the site has not been investigated further. WRD recently met with DTSC to discuss the next steps for cleanup of the site. DTSC will be issuing a Voluntary Agreement or if necessary, an Order, to the property owners to initiate further investigation and remediation of the site. As of May 2008, no chlorinated VOCs have been detected in the nearest production well.

**FISCAL IMPACT**

None at this time.

**STAFF RECOMMENDATION**

For information.



## MEMORANDUM

### ITEM NO. 5

*Prepared by:* Hoover Ng

*Reviewed by:* Ted Johnson

*Approved by:* Robb Whitaker

**DATE: MARCH 6, 2009**

**TO: GROUNDWATER QUALITY COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: STATE WATER RECYCLING POLICY ADOPTION - SUMMARY**

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### SUMMARY

On February 3, 2009, the State Water Resources Control Board (SWRCB) adopted a new water recycling policy. This policy was the culmination of an unprecedented and major effort involving key stakeholder groups, including WRD who had prepared and provided to the Board a draft policy which was slightly modified and became the adopted policy.

Key elements and highlights of this policy include following:

#### General

1. Establishes mandates (or goals) for recycled water use statewide. This is intended to encourage water recycling throughout the state.
2. Recognizes distinct roles of the SWRCB, Regional Boards, and the California Department of Public Health (CDPH). Of particular importance is that the Regional Boards shall defer to the CDPH to prescribe requirements to protect human health.

#### Groundwater related

3. Requires salt/nutrient management plans be developed for every groundwater basin/sub-basin in the state within 5 years to ensure that basin water quality objectives are not exceeded. For the Central and West Coast Basins, the District should play a significant role in the development of these plans.
4. For Groundwater Recharge projects, convene an expert panel to address Chemicals of Emerging Concern (CEC's), e.g. pharmaceuticals, personal care products, and endocrine disrupting compounds, and to develop recommendations for selection and monitoring for such projects.
5. For water recycling projects that use reverse osmosis prior to spreading, provide an expedited process to issue permits within one year of an application.
6. To meet requirements of the antidegradation policy, which prohibits changes in ambient groundwater quality unless there is maximum benefit to the state, an antidegradation analysis will be required to demonstrate that a project will not exceed 10 percent of the assimilative capacity of a basin. This capacity is the difference between ambient groundwater quality levels and basin water quality objectives.

## Other

7. For landscape irrigation projects that meet specified criteria, provide a “streamlined approval” process to issue permits within 120 days of an application and shall exclude groundwater monitoring.
8. For incidental runoff from the use of recycled water, utilize best management practices to reduce such runoff.

The origin of this new state water recycling policy occurred on April 5, 2006 when the SWRCB adopted Board Order No. 2006-001, which rescinded the use of Notification Levels as effluent limits in the Waste Discharge and Water Recycling Requirements for the Alamitos Barrier Recycled Water Project, Order No. R4-2005-0061. In the course of making this decision, the SWRCB discussed the need for reviewing existing state policies to ensure that they promoted water recycling and that permits throughout the state be consistent in their requirements, and therefore directed staff to develop a new water recycling policy.

In March 2007, the SWRCB solicited public comments for development of a revised and updated water recycling policy. The District worked closely with other interested water recycling interests and the WateReuse Association to provide comments in support of this new endeavor. In February 2008, the SWRCB issued a draft policy and received public comments in March 2008. It became clear that there were major differences among the various stakeholders regarding this policy. As a result, key stakeholders, in an unprecedented action, joined together and requested the Board to allow them to develop their own version of a comprehensive draft water recycling policy. The SWRCB granted this group 90 days to develop their policy. The groups represented included the following:

- Association of California Water Agencies
- Heal the Bay
- California Association of Sanitation Agencies
- California Coastkeeper Alliance
- WateReuse Association , California Section
- Planning and Conservation League
- Environmental Justice Coalition/ Southern California Watershed Alliance

The stakeholders worked in earnest and developed a near-ready draft on July 15, 2008. They requested another extension, which was granted, and submitted their draft on September 2, 2008. The SWRCB directed staff to utilize this draft as a basis for issuing another draft by the end of the year.

The District participated throughout this process, submitted comments, provided testimony and supported the efforts of the WateReuse Association, which represented the water recycling community. In addition, funding was provided at the request of the WateReuse Association, the Association of California Water Agencies, and the California Association of Sanitation Agencies to help offset the extraordinary and unanticipated legal costs borne by these associations in this effort. This collaborative effort worked well and was effective in demonstrating to the SWRCB that the stakeholders were able to work out their initial

differences for the sake of promoting the increased and safe use of recycled water while being protective of the state's groundwater basins.

**FISCAL IMPACT**

None.

**STAFF RECOMMENDATION**

For information.



**MEMORANDUM**

ITEM NO. 6

*Prepared by:* Charlene King  
*Reviewed by:* Robert Siemak  
*Approved by:* Robb Whitaker

**DATE: MARCH 6, 2009**

**TO: GROUNDWATER QUALITY COMMITTEE**

**FROM: ROBB WHITAKER, GENERAL MANAGER**

**SUBJECT: AWARD OF PROFESSIONAL SERVICES FOR SAFE DRINKING WATER PROGRAM (SDWP)**

The District administers the Safe Drinking Water Program (SDWP) to assist basin purveyors in sustaining active production from contaminated wells. Wells are evaluated for assistance based on factors such as water quality data and production history. When assistance is deemed necessary, WRD and the groundwater producer jointly develop a treatment solution for the subject well.

In 2008, the City of Vernon approached WRD for assistance to treat groundwater contamination at Vernon Wells 9 & 10. Well 9 is affected with carbon tetrachloride (CCL4), 1, 2-dichloroethane (1, 2-DCA), and trichloroethylene (TCE) above their respective current California Department of Public Health (CDPH) Maximum Contaminant Levels (MCLs). Well 10, located on the same well site, is affected with trichloroethylene (TCE). On March 21, 2008, the Board approved funding for Vernon Wells 9 & 10 through the Safe Drinking Water Program. Since that time, the City of Vernon conducted rehabilitation operations on the wells and they are ready to proceed with the installation of a treatment facility to place the wells back into service.

WRD solicited proposals using the current WRD list of pre-qualified consultants for professional technical services. The selected professional services firm will provide planning, design, construction management assistance, and inspection services for the project wells. In the Request for Proposal, candidates were instructed to include two additional projects in addition to Vernon Wells 9 & 10 for future VOC removal Safe Drinking Water Projects that may transpire this calendar year. By combining a total of three (3) projects, WRD can take advantage of economies of scale and better value than if contracted and performed separately. On February 17, 2009, four (4) proposals were received from the following firms: Carollo, Lee & Ro, Tetra Tech Inc., and URS Corporation. The proposals were reviewed, evaluated, and a selection was made by WRD staff and a representative from the City of Vernon. The evaluation panel recommends URS Corporation for an amount not to exceed \$173,645 plus 15% contingency for a total amount of \$200,000.

Firm	Cost Estimate	Hours			Unit cost
	Based on 3 Projects	Design	CM	Total	\$/hr
URS Corporation	\$173,645	1578	385	1963	\$88
Lee and Ro (3X)*	\$292,416	2016	342	2358	\$124
Carollo (3X)*	\$643,917	2781	1056	3837	\$168
Tetra Tech (3X)*	\$800,806	3918	1140	5058	\$158

\* Proposals received contained scope and cost estimates for one site and cost were adjusted to reflect work at three sites.

**FISCAL IMPACT**

The proposal cost for URS Corporation is \$173,645. Staff also recommends a 15% contingency on the project for a total contract amount not to exceed \$200,000. Staff is currently reviewing the 08/09 budget for the annual midyear budget review and will present funding scenarios to the Committee on March 6, 2009.

**STAFF RECOMMENDATION**

Enter into a Professional Services Agreement, subject to approval of form by District Counsel, with URS Corporation for an amount not to exceed \$173,645 plus contingency.



## MEMORANDUM

ITEM NO. 7

*Prepared by: Nancy Matsumoto  
Reviewed by: Ted Johnson  
Approved by: Robb Whitaker*

**DATE:** MARCH 6, 2009  
**TO:** GROUNDWATER QUALITY COMMITTEE  
**FROM:** ROBB WHITAKER, GENERAL MANAGER  
**SUBJECT:** SALINE PLUME POLICY UPDATE

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At the November 2008 Committee meeting, Staff presented a recommended Saline Plume Policy for consideration. The Policy is intended to help the District evaluate to what extent, if any, it will expand its efforts to remediate the large volume of saltwater contamination that exists in the West Coast Basin.

Key points in developing the Saline Plume Policy include the following:

- Updated saline plume maps have been completed. These are the most comprehensive maps to date, as they map individual aquifers.
- The plume continues to move eastward at a rate of approximately 250 ft/yr. Chloride concentrations are increasing in some wells as the plume moves. Production wells in the basin remain threatened by the plume.
- Benefits to remediation include contamination removal, restoration of a usable groundwater basin, new water supply, and protecting wells currently not impacted.
- Drawbacks to remediation include treatment cost, long time frame, possible increased barrier injection demands, and legal/institutional hurdles.
- The saline plume is a large contamination source. In the highly impacted zones, the water cannot be used without treatment.
- Staff plans on installing two monitoring wells in the saline plume to obtain detailed information on its concentration and the geology in these two areas.

Staff is finalizing a draft policy in the form of a Board resolution and will review with the Committee.

### FISCAL IMPACT

None.

### STAFF RECOMMENDATION

For information.