The meeting teleconference will begin shortly

Listen to the meeting by using your computer or tablet speakers or by calling (877) 853 5247 using meeting ID 979 215 700

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Public comments, suggestions or questions regarding technical issues may be emailed to comments@sbvmwd.com

Please use the chat feature in the Zoom toolbar to let the moderator know that you would like to make a comment during the meeting or use the digital “raise hand” 🖐️ function in Zoom.

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Call to Order

Board of Directors Workshop - Resources
Thursday, September 3, 2020

Chairperson – Director Hayes
Vice-Chair – Director Harrison
Introductions

Following the introduction of Directors and District staff, participants may use this time to state their name and agency/affiliation in order to be included in the formal record of attendees.
Public Comment

Any person may address the Board on matters within its jurisdiction.

• Please use the chat feature on the Zoom toolbar or digitally raise your hand to let the moderator know you would like to make a comment.
Summary of Previous Meeting (Pg. 3)

Board of Directors Workshop – Resources - August 6, 2020
Discussion Item 4.1 (Pg. 7)

Bob Tincher, PE, MS – Chief Water Resources Officer/Deputy General Manager

Presentation of City of San Bernardino Consent Decree

Staff Recommendation
Receive and file.
Newmark Groundwater Contamination Site Consent Decree and Recent Amendments

September 3, 2020
Overview

• City faced widespread groundwater contamination from PCE, TCE, resulting from WWII activities of US Army, manifest in 1990s

• City sued in 1996, settled in 2005, recovered remedial system and $69M in cash for operation & maintenance (O&M), treatment plants, groundwater modeling and institutional controls

• In return, City undertook obligation for capture/treatment and compliance with water supply permit, obligations that may last until 2057

• Remedy has produced most of the City’s potable water in recent years
Remedial System

Extraction Well Networks

- **Newmark OU**
  - Newmark North – 3 extraction wells
  - Newmark Plume Front – 5 extraction wells

- **Muscoy OU**
  - Muscoy Plume – 6 extraction wells

Treatment Plants

- **Newmark** – seven 20,000 lbs GAC vessels
- **Waterman** – eight 20,000 lbs GAC vessels
- **17th Street** - three 20,000 lbs GAC vessels (inactive)
- **19th Street** - twelve 30,000 lbs GAC vessels

Monitoring Well Network

- Monitoring Wells – 97 wells
- Active/Inactive Production Wells – 12 wells
FIGURE 1-1
Newmark OU and Muscoy OU Remedial Action Facilities Map

NEWMARK PLUME FRONT TREATMENT FACILITY
(Waterman GAC & Air Stripping)

NORTH PLANT TREATMENT FACILITIES
(Newmark GAC & Air Stripping)

MUSCOY PLUME TREATMENT FACILITY
(19th Street GAC Plant)

NEWMARK PLUME FRONT TREATMENT FACILITY
(17th Street GAC Plant)
Waterman Treatment Plant
(Newmark OU: EPA 002, EPA 003 and EPA 004)

MCL = 5.0 ug/L
WS Permit = ND

Legend
- PCE
  MCL = 5.0 ug/L
  WS Permit = ND
- TCE
  MCL = 5.0 ug/L
  WS Permit = ND

Influent Time vs. Concentration

City of San Bernardino
Municipal Water Department

Newmark GW Contamination Superfund
Site IRA 2017 City of San Bernardino
Municipal Water Department

Waterman GAC Treatment Plant

Note: Hollow symbols indicate samples reported as ND
Newmark Treatment Plant
(Newmark OU: EPA 006, EPA 007 and Newmark 3)

MCL = 5.0 ug/L
WS Permit = ND

Date
Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17 Jan-18
Concentration (ug/L)

Legend
PCE
MCL = 5.0 ug/L
WS Permit = ND

TCE
MCL = 5.0 ug/L
WS Permit = ND

City of San Bernardino
Municipal Water Department

Newmark GW Contamination Superfund
Site IRA 2017 City of San Bernardino
Municipal Water Department

Figure/Well No.
Newmark GAC Treatment Plant
The
Influent Time vs. Concentration

Notes: Hollow symbols indicate samples reported as ND
19th Street Treatment Plant
(Muscoy OU: EPA 001, 108, 108S, 109, 110, 111, and 112)

MCL = 5.0 ug/L
WS Permit = ND

Influent Time vs. Concentration

Legend
- PCE
  MCL = 5.0 ug/L
  WS Permit = ND
- TCE
  MCL = 5.0 ug/L
  WS Permit = ND

Client/Project
Newmark GW Contamination Superfund
Site IRA 2017 City of San Bernardino
Municipal Water Department

19th Street North GAC Treatment Plant

Note: Hollow symbols indicate samples reported as ND.
Remedial Action Performance

**Newmark OU – Success Story**
- Operating as designed (able to maintain flow rates)
- Flow performance - hydraulic containment maintained
- Contaminant performance – contaminant performance criteria met
- Successfully managing water levels through aquifer replenishment program

**Muscoy OU – Very Challenging**
- Flow rates and water levels declining
- Flow performance – throughflow below target value
- Contaminant performance – PCE in downgradient shallow aquifer monitoring wells
- No replenishment facilities upgradient of Muscoy OU

**General**
- Periodic reporting, annual certifications, annual DTSC survey, 5-Year USEPA review
- Funding under AIG policy adequate
- Groundwater model maintenance, updates funding
Institutional Controls

- Decree provides for City permit program under City ordinance to control placement of new wells and recharge basins within City limits to avoid potentially impacting performance of cleanup

- Initially opposed by neighboring water agencies

- City negotiated interagency agreement satisfying all parties; approved by EPA and DTSC in 2012

- Groundwater model used to evaluate new projects in the area to determine whether they will impact the cleanup
Management Zone for Recharge
Management Zone for Production Wells
Groundwater Model and Institutional Controls

- Groundwater model used as the evaluation tool for assessing the possible impact of a proposed production well and/or artificial recharge project.

- Only the Baseline Feeder wells have gone through the process.

- Model a team/shared effort with Valley District for broader water supply planning.

- Model basis to certify remedy completion.
Model Development

- Model co-developed as an IC tool/basin-management tool with Valley District and input from the interagency agreement members
- Co-development was favored to avoid the potential conflict of “dueling models”
- Valley District had developed a basin-wide model through USGS and was continuing to refine
  - Initially 800’x800’ grid with two layers
  - Refine 100’x100’ grid with 5 layers
Model Development (continued)

• CD model development and basin-wide model refinement was initiated in 2005
• Calibrated to 1983 through 2006 conditions
• A baseline period from 2007 through 2032 was established for predictive simulations
  – production based on 2007 Integrated Regional Groundwater Management Plan (i.e. pre-conservation)
Model Development (continued)

• At the request of the interagency agreement members, the model underwent substantial, parallel peer review (Balleau Groundwater) with USGS and WEI also providing peer review

• Peer review comments addressed during a major model revision funded through a federal grant, facilitated/administered by EPA that co-funds SBMWD and Valley Districts aspects of the model

• Work is anticipated to be completed by January 2021
Model Domain
- 126 square miles
- 5 layers
- Monthly stress periods
- Calibration period - 1983 through 2016
Model Expenditures & Remaining Work

• The $1M limit for model development and maintenance was exceeded prior to the award of the EPA grant ($1,000,422 expended)
• Model maintenance through January 2021 is being covered under the EPA grant
• Model maintenance activities for 2021 through 2057 are not currently funded
• The CD includes requirements for the following model maintenance activities:
  – Compilation of model input data are to be completed on an annual basis
  – Model updates are to be completed every 5 years or more often if review of compiled data indicates a more frequent update is warranted.
Groundwater Model Updates

- Groundwater model needs to be kept updated for Institutional Controls to work
- Groundwater model is basis to certify completion under paragraph 57
- City required to implement Institutional Controls and keep model updated, paragraph 14. i., j
- Institutional Controls and permit program defined in paragraphs 27-30, rely expressly on groundwater model
Proposed 2020 Amendment to Decree

• Raise CD’s modeling sublimit to $3M from $1M; estimated to be enough
• Frees existing money, does not add new funds
• Clarifies that monitoring well closure costs are also covered
• Prevents these update and closure costs from shifting to ratepayers
2020 Amendment Approval Steps

• State of California (DTSC) and California Dept. of Justice AND U.S. EPA and U.S. Dept. of Justice approval
• Final sign-off by Assistant Attorney General
• Pending court filing of joint stipulation – all parties
• No comment period necessary; letter informing stakeholders
Proposed Process for Model Maintenance

• Current work under EPA Grant includes development of maintenance protocols to ensure coordinated updates for remedy and water supply purposes

• Protocols to include updates between integrated model and SBBA model
  – CD requires update every 5 years (SBMWD)

• Integrated model update ongoing (Valley District)

• Coordination meeting held July 21, 2020
Director Comments and Discussion

T. Milford Harrison
President

Paul Kielhold
Vice President

Susan Longville
Treasurer

June Hayes
Director

Gil Navarro
Director

Staff Recommendation
Receive and file.
Discussion Item 4.2 (Pg. 35)

Matt Howard, MS – Water Resources Senior Project Manager

Consider USGS Data Collection Program for FY 2020 – 2021

Staff Recommendation

Staff recommends forwarding this item to the next Board of Directors’ meeting for consideration.
The USGS has provided Data Collection services for Valley District for the past several decades, in support of the:

- Western - San Bernardino Watermaster
- Santa Ana River Watermaster
- Habitat Conservation Plan
Element 1: Watermaster Data Collection Program

- Total of 27 Stream Gages
- Total of 4 Precipitation Gages
Element 2 - Groundwater Level Monitoring Program

- 40 groundwater monitoring sites which contain a total 162 observations wells for monitoring WL's
Program Summary for FY 2020-2021

Program Elements:
1. Watermaster Data Collection Program
2. Groundwater Level Monitoring Program
3. Habitat Conservation Plan (RIX outflow)

Cost of Program:
Total Cost: $1,024,230
USGS Contribution: $159,000
Reimbursement from Partners: $196,188

Valley District Total: $669,042
Director Comments and Discussion

T. Milford Harrison
President

Paul Kielhold
Vice President

Susan Longville
Treasurer

June Hayes
Director

Gil Navarro
Director

Staff Recommendation
Staff recommends forwarding this item to the next Board of Directors’ meeting for consideration.
Directors’ Request for Consideration 5.1

Heather Dyer, MS, MBA – Chief Executive Officer/General Manager

Directors' Requests for Consideration

Staff Recommendation

Staff recommends that the Board consider the following requests and provide direction to staff on each item.
I. **Director's Requested Activity to be Considered by the Board:**

I would like to propose a presentation from Reclamation Commissioner Brenda Burman at a directors' workshop.

II. **Discussion of Activity's Value to Valley District and/or the Board:**

I attended the WACO meeting and heard from Reclamation Commissioner Burman. She talked about the DWR lawsuit, Water SMART available grants, projects in process, etc. It was a really good presentation. I thought maybe an update of this presentation might be informative to our board members.

III. **Estimated Staff Time Required (to be completed by Staff):**

One hour to coordinate scheduling with Commissioner Burman; another hour to put together the Staff Memo for a future Workshop meeting.

IV. **Estimated Cost or Use of District Resources (to be completed by Staff):**

1-2 hours of staff time; no other cost or use of District resources.

V. **Possible Modification or Suggested Alternative:**

No alternatives recommended.
Staff Recommendation

Staff recommends that the Board consider the following request and provide direction to staff on each item.
Adjournment