




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**

View the live meeting presentation at <https://sbvmwd.zoom.us/j/979215700>

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.



Please mute your microphone during the meeting to reduce background noise. Click on the microphone icon to unmute your microphone if needed.



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

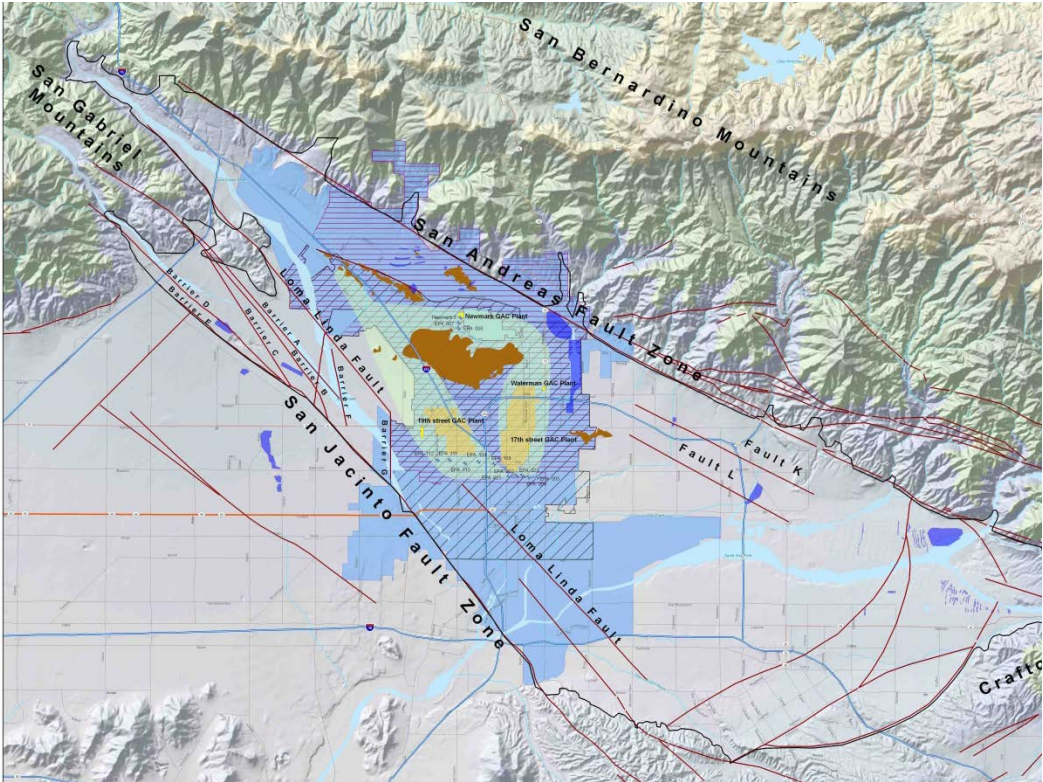
Presentation of City of San Bernardino Consent Decree

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

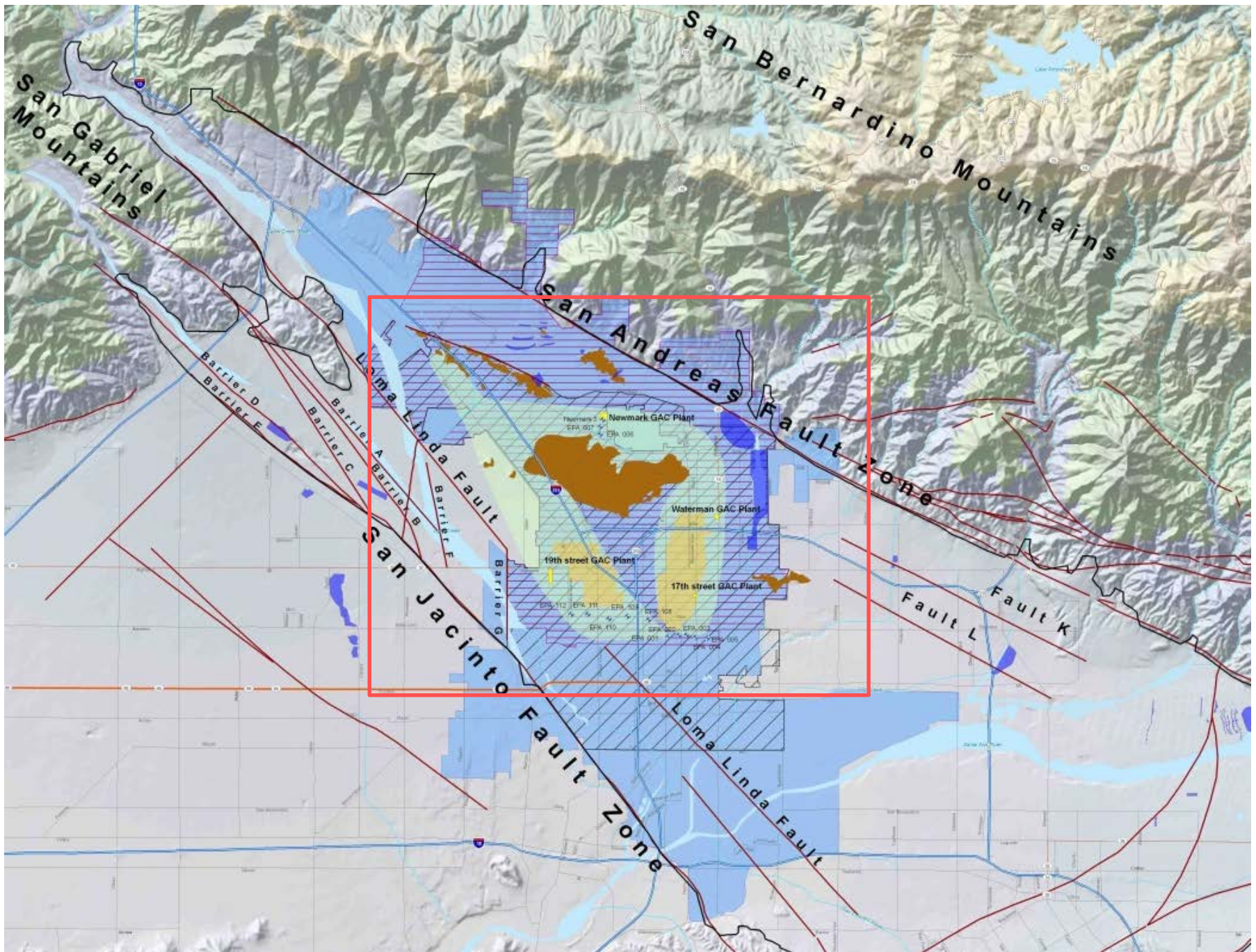
- Newmark OU
 - Newmark North – 3 extraction wells
 - Newmark Plume Front – 5 extraction wells
- Muscoy OU
 - Muscoy Plume – 6 extraction wells

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



Newmark and Muscoy OU Facilities

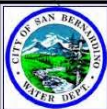
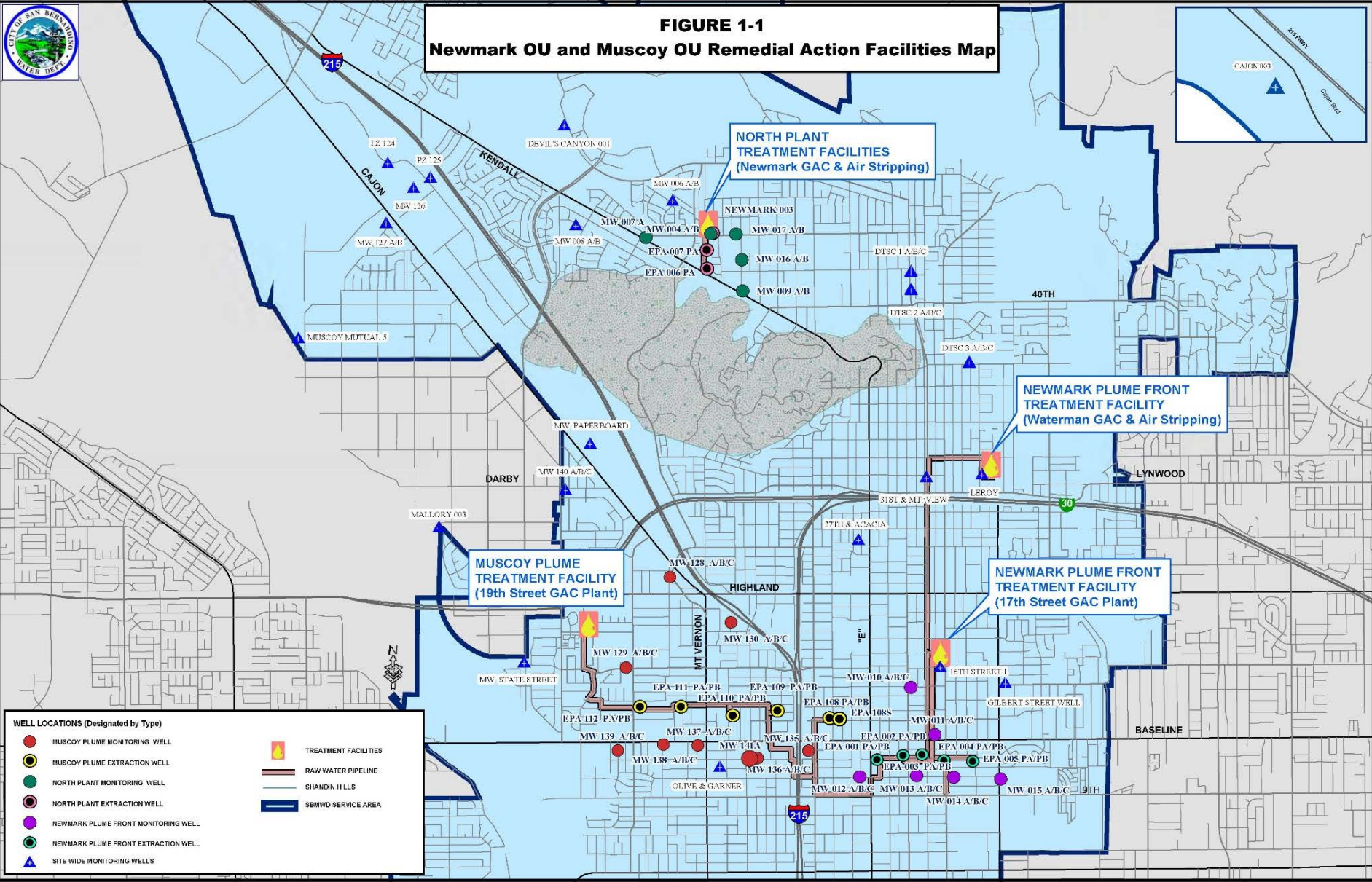


FIGURE 1-1
Newmark OU and Muscoy OU Remedial Action Facilities Map



WELL LOCATIONS (Designated by Type)

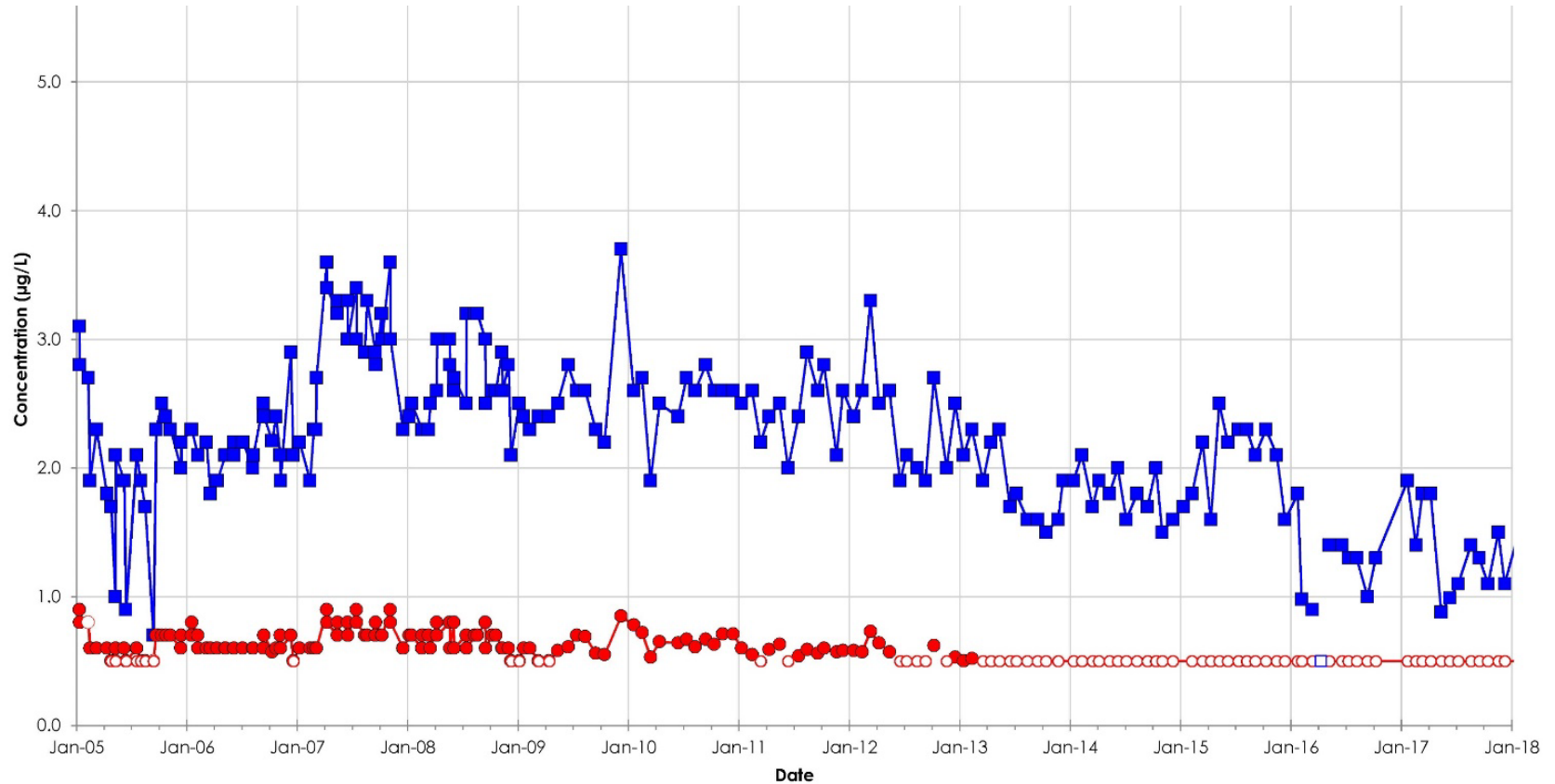
- MUSCOY PLUME MONITORING WELL
- MUSCOY PLUME EXTRACTION WELL
- NORTH PLANT MONITORING WELL
- NORTH PLANT EXTRACTION WELL
- NEWMARK PLUME FRONT MONITORING WELL
- NEWMARK PLUME FRONT EXTRACTION WELL
- SITE WIDE MONITORING WELLS

TREATMENT FACILITIES

- RAW WATER PIPELINE
- SHANDON HILLS
- SBMWD SERVICE AREA

Waterman Treatment Plant

(Newmark OU: EPA 002, EPA 003 and EPA 004)



Legend

Client/Project

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



■ PCE

● TCE

MCL = 5.0 ug/L
WS Permit = ND

MCL = 5.0 ug/L
WS Permit = ND

Figure/Wel. No.

Waterman GAC Treatment Plant

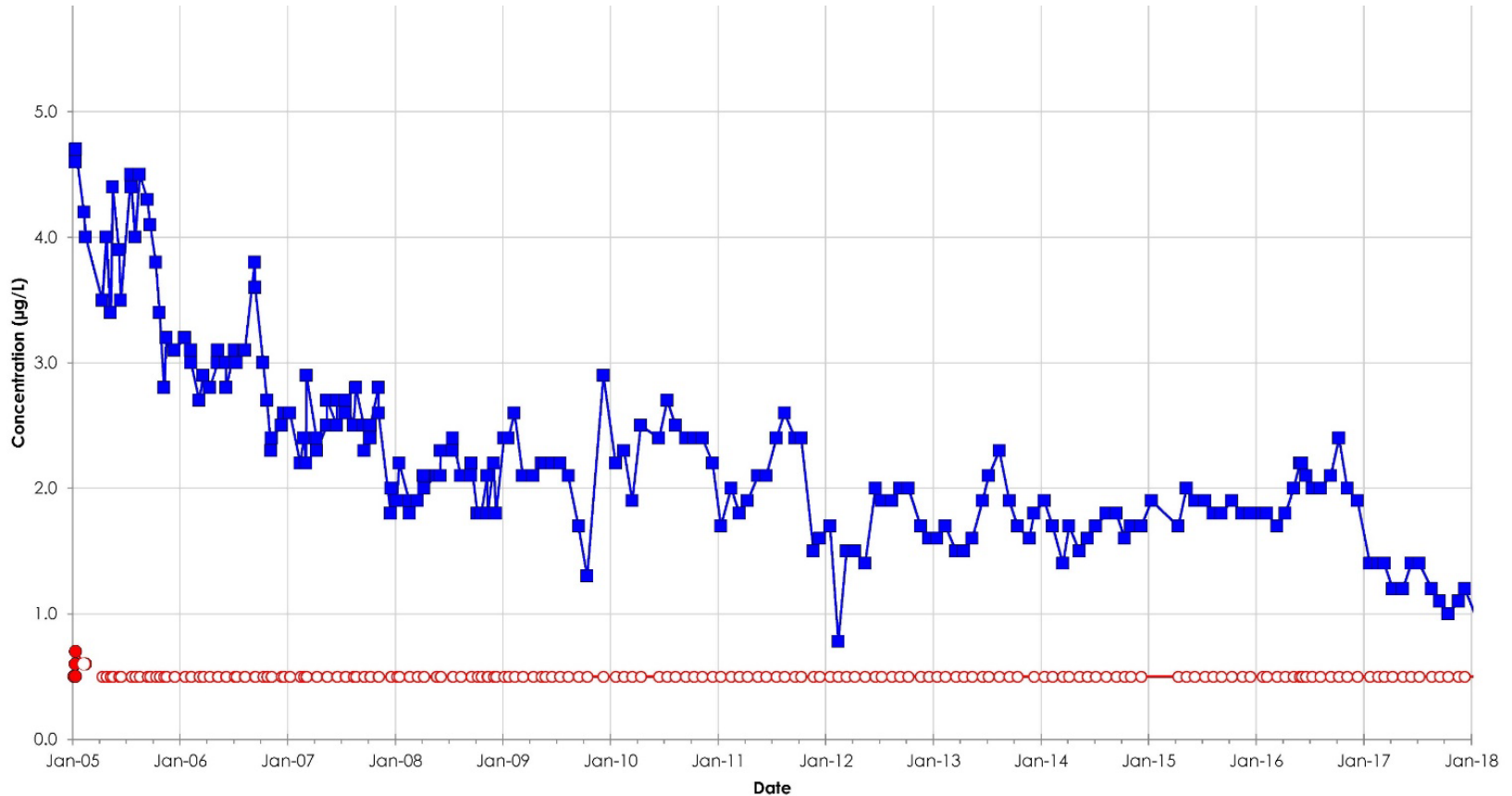
Title

Influent Time vs. Concentration

Note: Hollow symbols indicate samples reported as ND

Newmark Treatment Plant

(Newmark OU: EPA 006, EPA 007 and Newmark 3)



Legend

Client/Project



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

■ PCE
MCL = 5.0 ug/L
WS Permit = ND

● TCE
MCL = 5.0 ug/L
WS Permit = ND

Figure/Well No.

Newmark GAC Treatment Plant

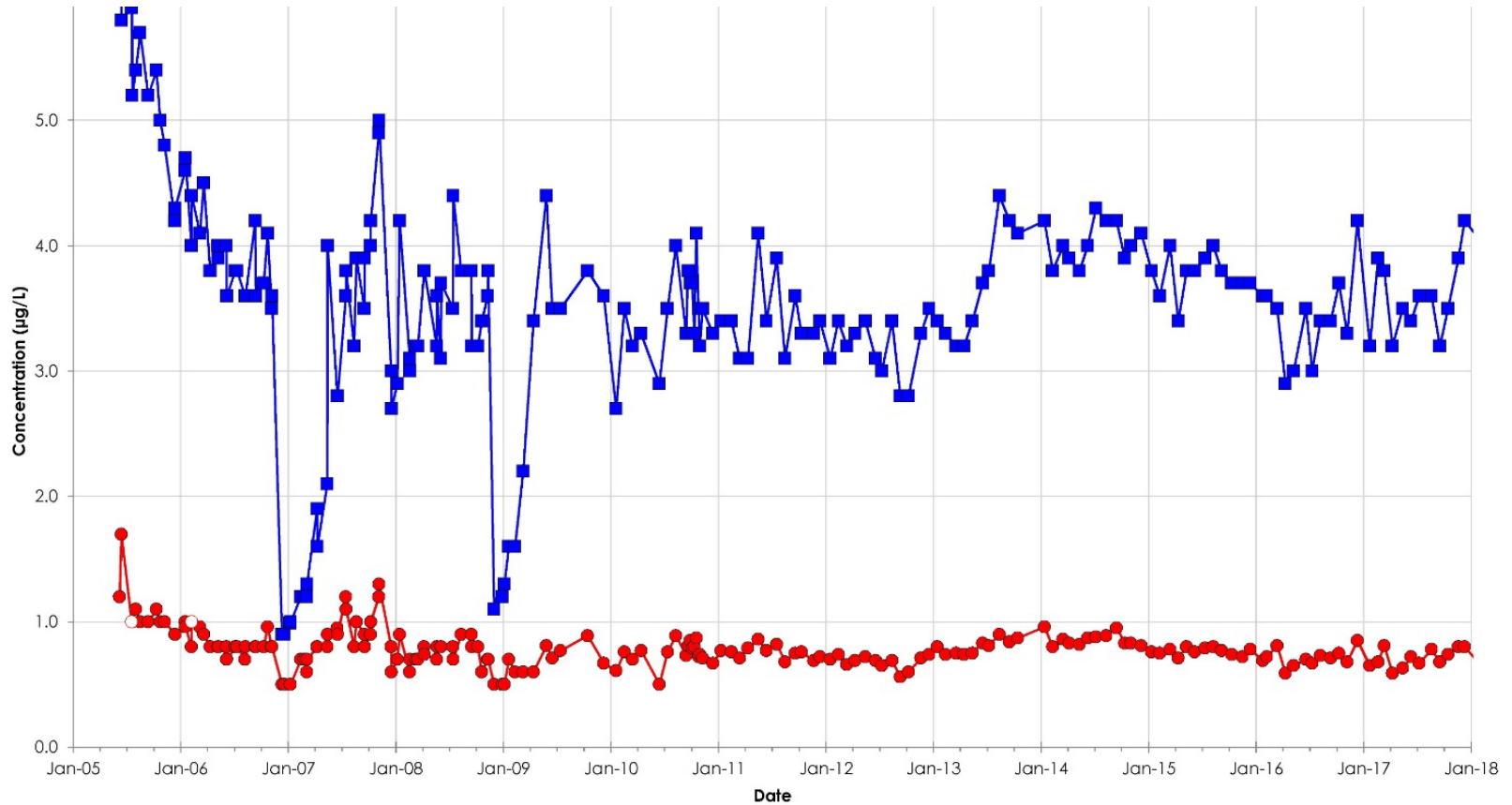
Title

Influent Time vs. Concentration

Note: Hollow symbols indicate samples reported as ND

19th Street Treatment Plant

(Muscoy OU: EPA 001, 108, 108S, 109, 110, 111, and 112)



Legend

Client/Project

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



■ PCE

● TCE

MCL = 5.0 ug/L
WS Permit = ND

MCL = 5.0 ug/L
WS Permit = ND

Figure/Well No.

19th Street North GAC Treatment Plant

Title

Influent Time vs. Concentration

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

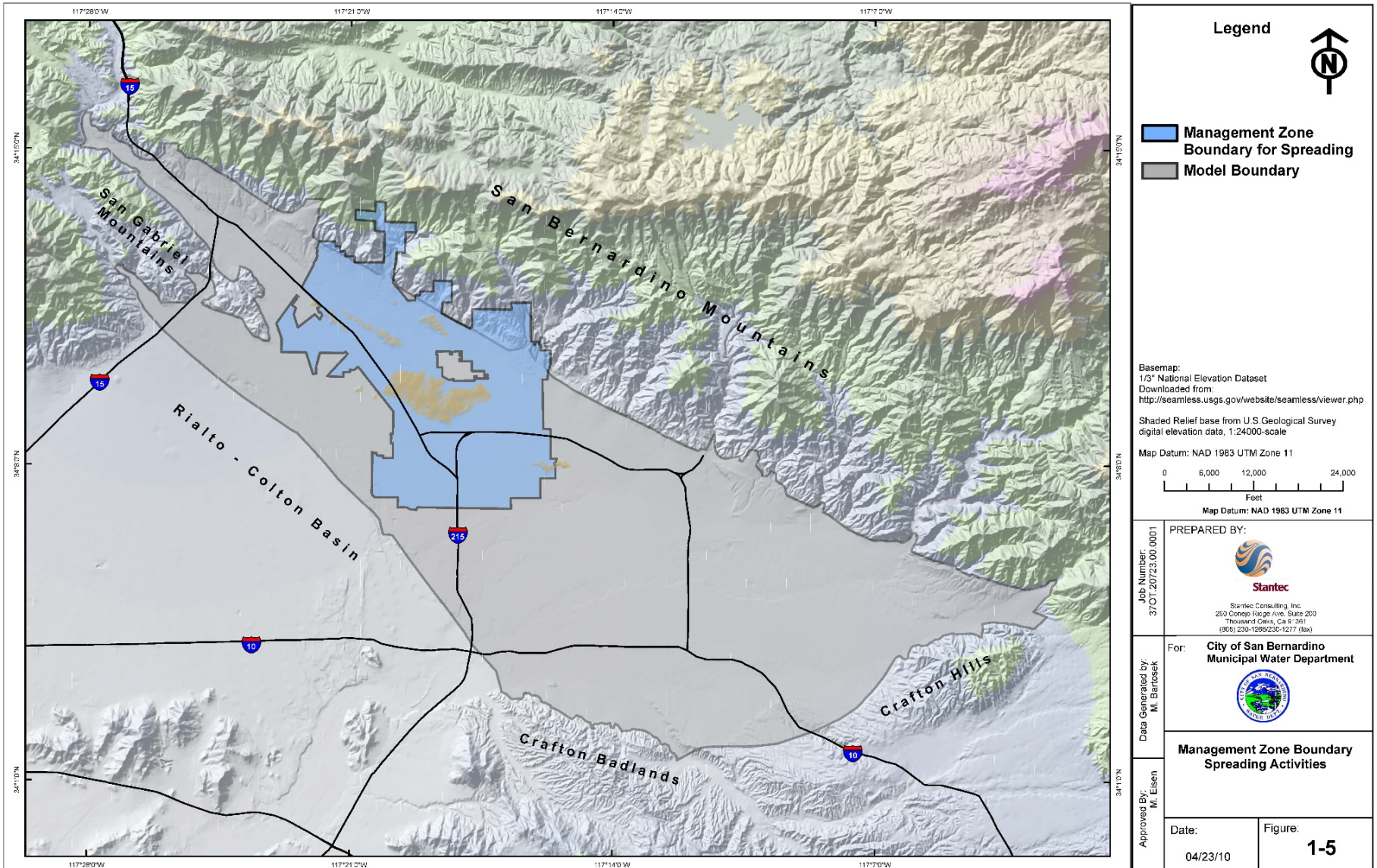
General

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

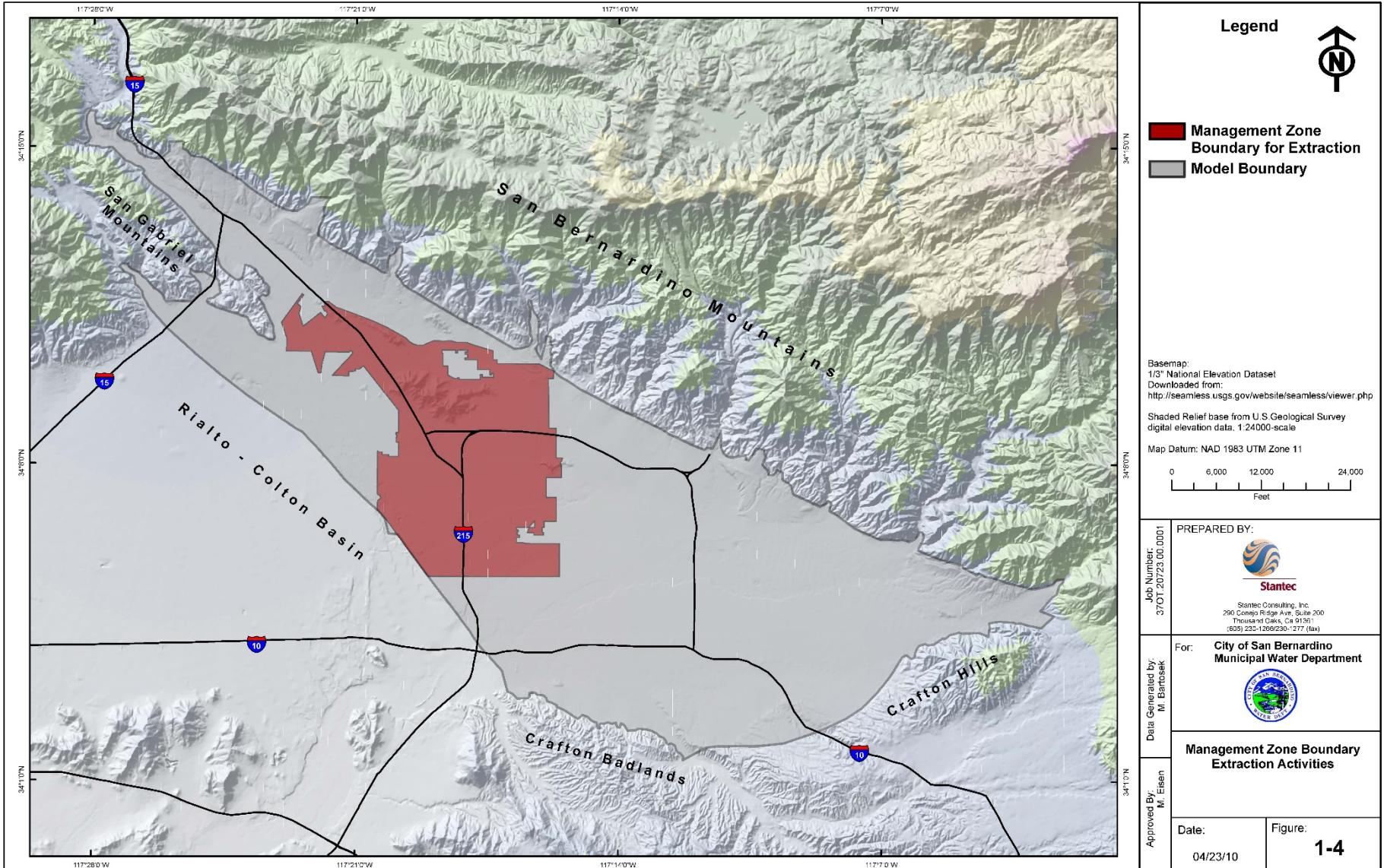
Institutional Controls

- 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



Legend

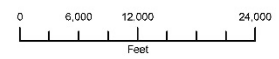


- Management Zone Boundary for Extraction
- Model Boundary

Basemap:
 1/3" National Elevation Dataset
 Downloaded from:
<http://seamless.usgs.gov/website/seamless/viewer.php>

Shaded Relief base from U.S. Geological Survey
 digital elevation data, 1:24000-scale

Map Datum: NAD 1983 UTM Zone 11



Job Number:
370120723.00.0001


PREPARED BY:



Stantec Consulting, Inc.
 290 Conroy Ridge Ave, Suite 200
 Thousand Oaks, CA 91321
 (805) 232-1269/230-1277 (fax)

Data Generated by:
M. Bartosiek

For: **City of San Bernardino
Municipal Water Department**



Approved By:
M. Eisen

**Management Zone Boundary
Extraction Activities**

Date: 04/23/10	Figure: 1-4
-------------------	-----------------------

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 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)

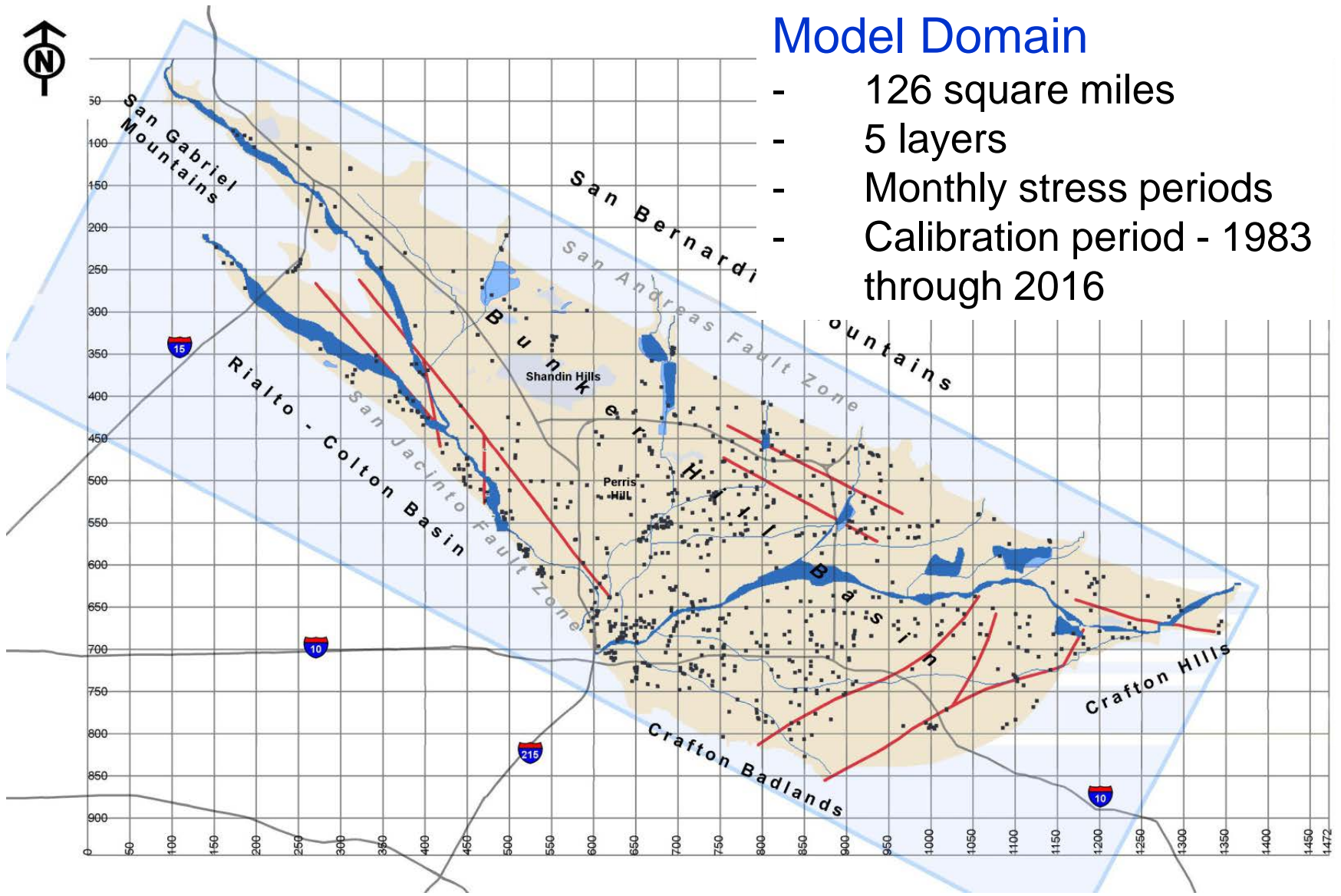
- CD model development and basin-wide model refinement was initiated in 2005
- Calibrated to 1983 through 2006 conditions
- A baseline period from 2007 through 2032 was established for predictive simulations
 - production based on 2007 Integrated Regional Groundwater Management Plan (i.e. pre-conservation)

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.

USGS Data Collection Program

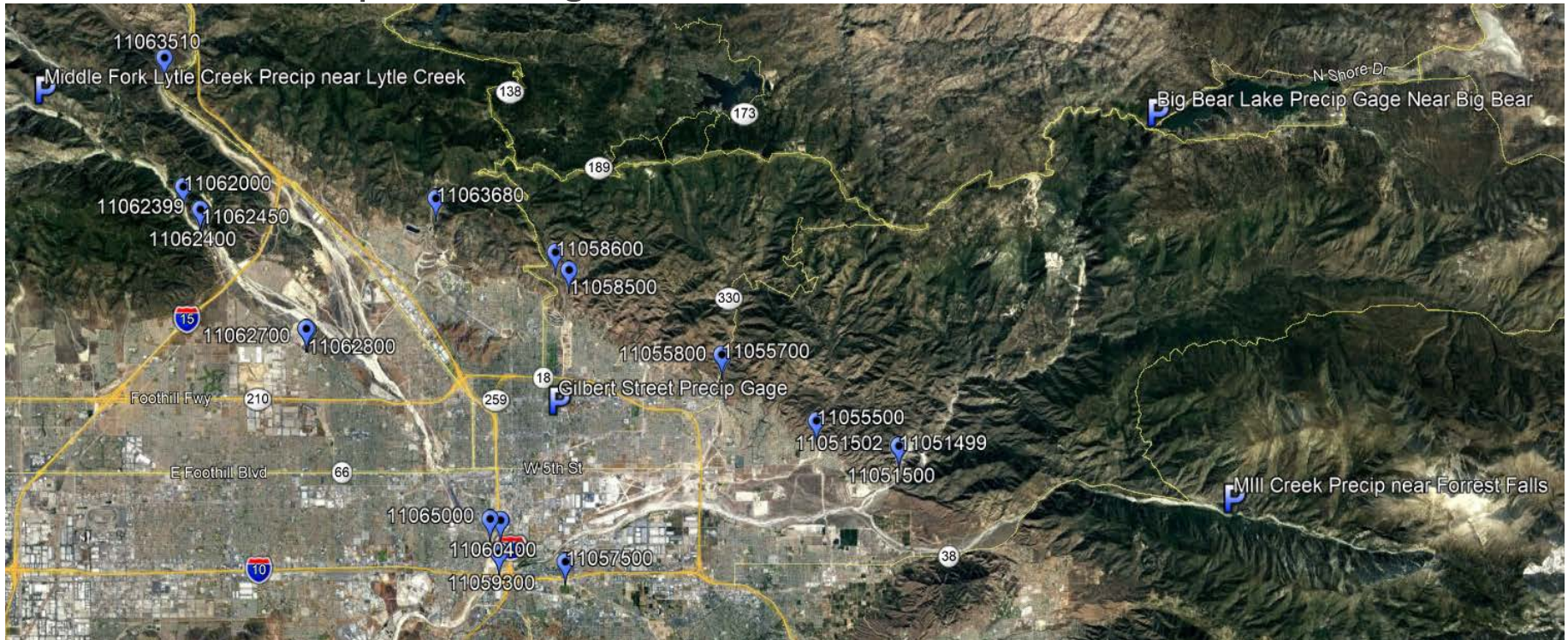
The USGS has provided Data Collection services for Valley District for the past several decades, in support of the:

- Western - San Bernardino Watermaster
- Santa Ana River Watermaster
- Habitat Conservation Plan



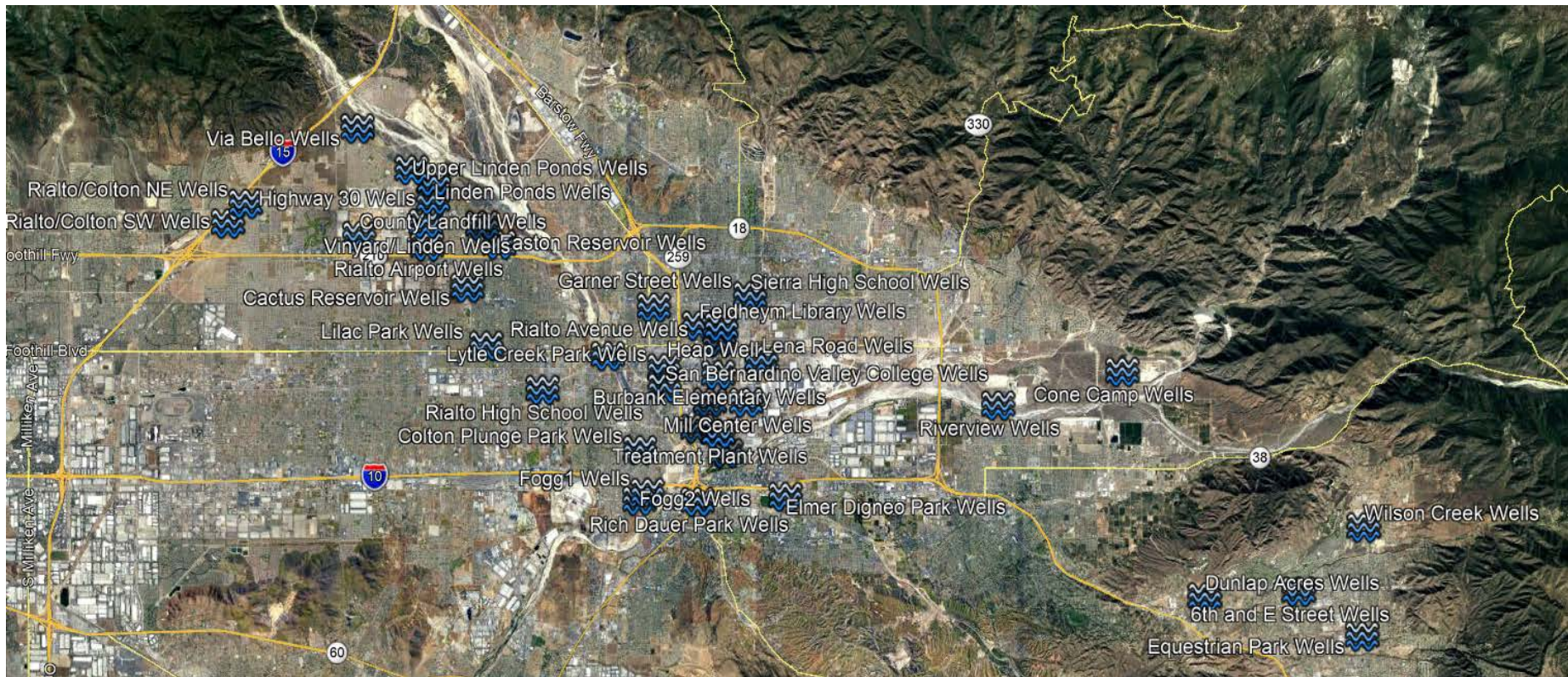
Element I: Watermaster Data Collection Program

- 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 (Pg. 52)

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.



DATE: 8/10/20

Reset Form

TO: Board of Directors

FROM: June Hayes



SUBJECT: Director's Request for Consideration by Board

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.

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



Adjournment
