



NOTICE OF THE OPERATIONS COMMITTEE MEETING/SPECIAL MEETING OF THE BOARD OF DIRECTORS

Friday, February 16, 2024 at 9:30 AM

AGENDA

LOCATIONS:

Open Session to start at or after 9:30 a.m.

Marin Water Board Room – 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:

The public may attend this meeting in-person or remotely using the following methods:

On a computer or smart device, go to: <https://marinwater.zoom.us/j/86822995553>

By phone, dial: **1-669-444-9171** and use Webinar ID: **868 2299 5553**

HOW TO PROVIDE PUBLIC COMMENT:

During the Meeting: Typically, you will have 3 minutes to make your public comment, however, the board president may shorten the amount of time for public comment due to a large number of attendees. Furthermore, pursuant to Government Code, section 54954.2 (the Brown Act), the Board may not take action or discuss any item that does not appear on the agenda.

-- **In-Person Attendee:** Fill out a speaker card and provide to the board secretary. List the number/letter (ex: 6a) of the agenda item(s), for which you would like to provide a comment. Once you're called, proceed to the lectern to make your comment.

-- **Remote Attendee:** Use the "raise hand" button on the bottom of the Zoom screen. If you are joining by phone and would like to comment, press *9. The board secretary will use the last four digits of your phone number to call on you (dial *6 to mute/unmute).

In Advance of the Meeting: Submit your comments by email in advance of the meeting to boardcomment@marinwater.org. To ensure that your comment is provided to the Board of Directors prior to the meeting, please email your comment 24 hours in advance of the meeting start time. Comments received after this cut off time will be sent to the Board after the meeting. Please do not include personal information in your comment such as phone numbers and home addresses.

AGENDA ITEMS:

1. Call to Order and Roll Call
2. Adoption of Agenda

3. Public Comment on Non-Agenda Matters

This is the time when any person may address the Board of Directors on matters not listed on this agenda, but which are within the subject matter jurisdiction of the Board.

4. Regular Items (9:50 a.m. – Time Approximate)

- a. Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on January 12, 2024

RECOMMENDATION: Approve the minutes

- b. Wildland Fire Services Contract

RECOMMENDATION: Staff is requesting that the Operations Committee review and refer the proposed 'Wildland Fire Services' General Services Agreement (GSA) contract to a future Regular Meeting of the Board of Directors for award of contract to the lowest qualified bidder.

- c. Capital Improvement Program – Marin City Phase I Pipeline Replacement Project (D23007)

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for contract award for the Marin City Pipeline Replacement Project and approval of a cooperative reimbursement agreement with the County of Marin

- d. Spillway Capacity and Sub-Surface Condition Assessment

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for award of professional services agreement for the Spillway Capacity and Sub Surface Condition Assessment

- e. Update on the Lead and Copper Rule Revision

RECOMMENDATION: Receive update on status of the Lead and Copper Rule Revision

5. Upcoming Meetings

The next Operations Committee Meeting/Special Meeting of the Board of Directors is on Friday, March 8 at 9:30 a.m.

6. Adjournment (11:00 a.m. – Time Approximate)

ADA NOTICE AND HEARING-IMPAIRED PROVISIONS

In accordance with the Americans with Disabilities Act (ADA) and California Law, it is Marin Water's policy to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including those with disabilities. If you are an individual with a disability and require a copy of a public hearing notice, an agenda, and/or agenda packet in an appropriate alternative format, or if you require other accommodations, please contact the Board Secretary/ADA Coordinator at 415.945.1448, at least two business days in advance of the meeting. Advance notification will enable Marin Water to make reasonable arrangements to ensure accessibility.

Information agendas are available for review at the Civic Center Library, Corte Madera Library, Fairfax Library, Mill Valley Library, Marin Water Administration Building, and marinwater.org.

Posted: 02-12-2024



STAFF REPORT

Meeting Type: Operations Committee/Board of Directors
Title: Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on January 12, 2024
From: Terrie Gillen, Board Secretary
Through: Ben Horenstein, General Manager
Meeting Date: February 16, 2024

TYPE OF ACTION: X Action Information Review and Refer

RECOMMENDATION: Approve the minutes

SUMMARY: The Operations Committee/Board of Directors held a meeting on January 12, 2024. The minutes of that meeting are attached.

DISCUSSION: None.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S):

1. Draft January 12, 2024 Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Communications & Public Affairs Department	 Terrie Gillen Board Secretary	 Ben Horenstein General Manager



NOTICE OF THE OPERATIONS COMMITTEE MEETING/SPECIAL MEETING OF THE BOARD OF DIRECTORS

Friday, January 12, 2024 at 9:30 AM

MINUTES

LOCATIONS:

Open Session to start at or after 9:30 a.m.

Marin Water Board Room – 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:

The public may attend this meeting in-person or remotely using the following methods:

On a computer or smart device, go to: <https://us06web.zoom.us/j/86822995553>

By phone, dial: **1-669-444-9171** and use Webinar ID: **868 2299 5553**

AGENDA ITEMS:

1. Call to Order and Roll Call

Chair Larry Russell called the meeting to order at 9:32 a.m.

DIRECTORS PRESENT

Matt Samson

Monty Schmitt (arrived at 9:34 a.m.)

Ranjiv Khush

Larry Russell

DIRECTOR ABSENT

Jed Smith

2. Adoption of Agenda

A motion was made by Vice Chair Khush and seconded by Director Samson to approve the adoption of the agenda.

There was no public comment.

Voting Yea: Directors Samson, Khush, and Russell

Absent: Directors Schmitt and Smith

3. Public Comment on Non-Agenda Matters

There was one (1) public comment.

Director Schmitt arrived at 9:34 a.m.

4. Regular Items

- a. Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on December 15, 2023

RECOMMENDATION: Approve the minutes

A motion was made by Vice Chair Khush and seconded by Director Schmitt to approve the minutes.

There was no public comment.

Voting Yea: Directors Samson, Schmitt, Khush, and Russell

Absent: Director Smith

- b. Loma Alta Landslide and North Marin Line Valve Isolation Project Update

RECOMMENDATION: Receive a staff update related to the Loma Alta Landslide and the North Marin Line Valve Isolation Project

Engineering Director Alex Anaya Introduced this item and Engineering Construction Manager Mark Kasraie, who provided the presentation.

Discussion followed.

There was no public comment.

This was an information item. The Board did not take any formal action.

- c. Grant Funding Agreements for Integrated Regional Water Management Program and Wildlife Conservation Board Grant Awards

RECOMMENDATION: Review receipt of grant awards for the Integrated Regional Water Management (IRWM) grant and Wildlife Conservation Board (WCB) grants and refer the item to a regular Board of Directors meeting to consider approving grant awards and authorizing the General Manager to sign grant agreements and other documents necessary for acceptance

Watershed Resources Manager Shaun Horne introduced this item and new Grant Program Coordinator Jaime Hailer. Ms. Hailer introduced herself and provided the presentation.

Discussion followed.

Motion made by Vice Chair Khush and seconded by Director Samson to refer this item to the Board to consider approval at a future board meeting.

There was no public comment.

d. Water Efficiency Incentives - Flume Program Changes

RECOMMENDATION: Review proposed changes to the Participation Agreement for Direct Distribution of Whole-Home Flow Monitoring Device with the California Water Efficiency Partnership and refer to a regular Board meeting to consider approving the agreement and authorizing the General Manager to execute the agreement on behalf of the District

Water Efficiency Manager Carrie Pollard presented this item. Discussion ensued.

A motion was made by Director Samson and seconded by Director Schmitt to refer this item to the Board to consider approval at a future board meeting.

There was one (1) public comment.

e. Update on the Water Supply Roadmap

RECOMMENDATION: Receive update on status of Water Supply Roadmap Implementation

Water Resources Director Paul Sellier presented this item. There was discussion throughout the presentation.

There were two (2) public comments.

This was an information update. The Board did not take any formal action.

5. **Upcoming Meeting**

Chair Russell announced that the next Operations Committee Meeting/Special Meeting of the Board of Directors would be on Friday, February 16, 2024.

6. **Adjournment**

There being no further business, the Operations Committee Meeting/Special Meetings of the Board of Directors adjourned at 11:23 a.m.

Board Secretary



STAFF REPORT

Meeting Type: Operations Committee/Board of Directors
Title: Wildland Fire Services Contract
From: Shaun Horne, Director of Watershed Resources
Through: Ben Horenstein, General Manager
Meeting Date: February 16, 2024

TYPE OF ACTION: Action Information X Review and Refer

RECOMMENDATION: Staff is requesting that the Operations Committee review and refer the proposed ‘Wildland Fire Services’ General Services Agreement (GSA) contract to a future Regular Meeting of the Board of Directors for award of contract to the lowest qualified bidder.

SUMMARY: The district is currently in year five of implementation of the Biodiversity, Fire and Fuels Integrated Plan (BFFIP) that was adopted in 2019. During the course of conducting the BFFIP-driven vegetation Management Actions, the District has generated vegetation piles on the watershed that need to be burned off to achieve the vegetation management goals. Staff propose using a three year ‘Wildland Fire Services’ contract to provide certified wildland fire contractor crews with fire equipment necessary to help address the un-burned vegetation piles, as well as provide operational assistance for prescribed burn site preparation and post fire mop up operations.

Staff is requesting that the Operations Committee review and refer the Wildland Fire Services GSA contract for approval at a future regularly scheduled Board of Directors meeting for award of contract to the lowest qualified bidder and to authorize the General Manager to execute any and all future amendments to this contract, which is deemed necessary, so long as they do not exceed 10% in total of the contract amount.

DISCUSSION: In October of 2019, the District adopted the BFFIP, and associated Programmatic Environmental Impact Report (PEIR), which describes actions the District will implement to reduce wildfire hazards and to maintain and enhance ecosystem function. Vegetation management under the BFFIP aims to reduce fuel loads, maintain fuelbreak infrastructure, preserve defensible space, and reduce invasive weed species. Vegetation management is conducted continuously throughout the year with the chief goal of reducing fuel loads and maintaining the watershed’s biological diversity. For the past five years, watershed staff and contractors have successfully implemented vegetation management actions outlined within the BFFIP, some of which generate vegetative slash burn piles. For example, with respect to vegetation treatments described in the BFFIP under MA-21, ‘Fuelbreak

Construction' and MA-23, 'Forest Stand Structure Improvement', as well as MA 24, 'Grassland and Oak Woodland Improvement', thirty or more slash debris piles per acre may result from conducting this work that ultimately need to be burned in order to reach the desired stand conditions.

Despite continued efforts by District staff and contractors to burn off the resulting BFFIP debris piles generated over the last five years, there still remain piles on the watershed that are in need of burning to complete the treatment. During the last five years, extended drought conditions and Bay Area Air Quality Management District restrictions have limited efforts to conduct pile burn operations. These constraints have contributed to the un-burnt vegetation debris piles on the watershed. Utilizing a licensed contractor with State certified firefighters and appropriate fire equipment will provide critical support to augment ongoing district burn pile operations.

The BFFIP also outlines prescribed burn treatments under MA-23, that District staff do not have the full capacity to implement independently. For example, for the 11-acre 2023 Rock Spring Prescribed Burn, staff relied on contractors to assist with site preparation and on Marin County Fire (MCF) to conduct the prescribed burn and provide post-fire patrol support. At the February 13th Board of Directors meeting, the Board approved a Memorandum Agreement between Marin County Fire Department (MCFD) and the District in an effort to support prescribed burn planning and implementation. This Wildland Fire Services GSA will provide additional resources for prescribed burn site preparation and for post-fire patrol on prescribed burns planned over the next three years. This is needed because post-fire patrol requires multiple days of overnight patrols to ensure the prescribed fire has been fully extinguished. As such, the Wildland Fire Services GSA will complement the MCFD Agreement and other BFFIP contractor work on the watershed.

PROPOSAL SELCTION PROCESS:

In February 2024, the District released a notice inviting bidders to submit proposals for a three-year Wildland Fire Services GSA. The notice was published in the local paper and posted on the District's external bid posting website to inform contractors of the opportunity. Sealed bids will be received and reviewed by the District and the lowest qualified bidder will be selected.

ENVIRONMENTAL REVIEW: The District as the Lead Agency, has prepared a Programmatic Environmental Impact Report (PEIR) pursuant to the provisions of CEQA for the Biodiversity, Fire and Fuels Integrated Plan (BFFIP) which was adopted in 2019 and covers all work being proposed under the new 'Wildland Fire Services' contract.

FISCAL IMPACT: Staff estimate the cost to perform the Wildland Fire Services over three years, during FY24, FY25 & FY26, will total approximately \$1,035,000.00. To cover the first year's expense, during FY24, \$345,000.00 is currently budgeted within A1E07, Fund 20 -FY23 Capital, 'Green Infrastructure' (BFFIP) Contractors (D24005) and will be supplemented by grant funding as it is secured.

ATTACHMENT(S): None.



STAFF REPORT

Meeting Type: Operations Committee/Board of Directors

Title: Capital Improvement Program – Marin City Phase I Pipeline Replacement Project (D23007)

From: Alex Anaya, Director of Engineering

Through: Ben Horenstein, General Manager *AA*

Meeting Date: February 16, 2023 *BH*

TYPE OF ACTION: Action Information X Review and Refer

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for contract award for the Marin City Pipeline Replacement Project and approval of a cooperative reimbursement agreement with the County of Marin

SUMMARY: The Marin City Phase I Pipeline Replacement Project (Project) will install approximately 9,200 feet of new pipe in the unincorporated Community of Marin City in coordination with the County’s street overlay project. On February 20, 2024, the District will open construction bids for the Project. District staff will make a recommendation for contract award along with a proposed cooperative reimbursement agreement with the County of Marin to contribute in lieu of full repaving requirements at a future regularly scheduled Board meeting.

DISCUSSION: The Marin City Phase I Pipeline Replacement Project is a component of the District’s Capital Improvement Program. This Project will install approximately 9,200 feet of new pipe to replace the old, leak prone cast iron piping installed as early as 1959.

The Project will be constructed in coordination with the County’s upcoming paving project to minimize impact to the community. Under the terms of this coordination effort, the County will waive the requirement for the District to perform the standard road resurfacing associated with portions of the pipeline project alignment pursuant to the terms of a cooperative reimbursement agreement, through which the District will reimburse the County of Marin for a portion of the repaving. This approach will reduce trench restoration requirements, expedite the construction process and minimize the impact to the community. The District and the County have agreed the pavement reimbursement fee will be paid at \$3.90 per square foot for the limits stipulated in a proposed cooperative agreement between the District and the County. The total pavement reimbursement cost is \$44,998.20, which will be paid by the District to the County for the future road resurfacing project. Staff will return with the final

cooperative reimbursement agreement for the Board to consider approving at a future regularly scheduled Board meeting.

The Project will take place in the locations described in Table 1 and shown on the map provided in Attachment 1.

Table 1
Pipeline Replacement Locations

STREET	LENGTH	INSTALLATION DATE	EXISTING SIZE & TYPE
Drake Avenue	5,390 ft	1959	8" CIP
Cole Drive	994 ft	1959	6" CIP
Eureka Street	653 ft	1959	6" CIP
Pacheco Street	742 ft	1959	6" CIP
Dutton Court	640 ft	1959	6" CIP
Waldo Court	382 ft	1961	6" CIP
Phillips Drive	399 ft	1962	6" CIP

*CIP = Cast Iron Pipe

These street segments were evaluated for the installation of recycled water piping. The nearest existing recycled water pipeline is approximately 12.0 miles away located on intersection of San Pedro Road and Sequoia Road in the community of Los Ranchitos. The closest waste water treatment plant, Mill Valley Sewage Treatment Plant, is located approximately 3.5 miles away in Mill Valley however their facilities are not equipped to provide tertiary recycled water.

Summaries of the estimated Project costs and schedule are provided below.

Budget:

Engineer’s Estimate:	\$2,700,000
Contingency (10%):	\$270,000
Materials:	\$405,000
District Labor/Inspection:	\$375,000
County Pavement Reimbursement:	\$44,998.20
Total Budget:	\$3,794,998.20
Budget Category:	A1A02A

Project Implementation:

Project Advertisement:	February 6, 2024
Bid Opening:	February 20, 2024
Project Award:	March 5, 2024
Estimated Completion Date:	January 31, 2025
Duration:	332 days

Public Outreach:

Marin Water staff will be working in collaboration with Marin City Climate Resilience and Health Justice to develop an outreach plan and associated materials in advance of and during the pipeline replacement project to help inform the community of the project benefits and to prepare the community for potential construction-related impacts in the area.

ENVIRONMENTAL REVIEW: The Project was presented to the Board of Directors on July 21, 2023 during a regularly scheduled Board meeting. The Board approved the filing of the Notice of Exemption by the Director of Engineering. The project was found to be Categorically Exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15302(c), replacement or reconstruction of existing pipelines involving no or negligible expansion of capacity. The Notice of Exemption was filed with the County of Marin on August 2, 2023.

FISCAL IMPACT: The District was awarded a Bay Area Integrated Regional Water Management (IRWM) Proposition 1 Round 2 grant in the amount of \$6,408,000. The IRWM grant selected Marin City and San Rafael to receive funding for water resiliency projects. Marin City Phase I Pipeline Replacement Project will be cost shared with grant funding from the IRWM and the District's Capital Program.

The total cost to complete the Marin City Phase I Pipeline Replacement Project is estimated at \$3,794,998.20.

ATTACHMENT(S):

- 1. Site Map

MARIN CITY - PHASE I PIPELINE REPLACEMENT PROJECT

Section 4. Item #c.



TANK

PS

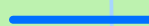


445B

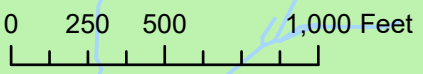
445A

101

101

Legend

-  MARIN CITY - PHASE I - PIPELINE REPLACEMENT PROJECT
-  MARIN CITY PUMP STATION
-  MARIN CITY WATER STORAGE TANK



Esri Community Maps Contributors, County of Marin, California State Parks, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS



STAFF REPORT

Meeting Type: Operations Committee/Board of Directors
Title: Spillway Capacity and Sub-Surface Condition Assessment
From: Alex Anaya, Director of Engineering
Through: Ben Horenstein, General Manager
Meeting Date: February 16, 2024

TYPE OF ACTION: Action Information X Review and Refer

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for award of professional services agreement for the Spillway Capacity and Sub Surface Condition Assessment

SUMMARY: On January 6th 2024, staff issued a Request for Proposals (RFP) titled *Spillway Capacity and Sub-Surface Condition Assessment Services*. The request is aimed at evaluating the relationship between existing dam infrastructure and various rainfall scenarios with an emphasis on a changing climate and the increased potential for atmospheric river storm events using hydrologic and hydraulic methods. The District solicited proposals from engineering consulting firms specializing in dam safety and analysis, with proposals due February 13th. Staff will be returning to a future, regularly scheduled Board of Directors meeting with the recommendation to the Board to authorize the General Manager to execute a contract with a qualified consultant to perform a spillway hydraulic capacity assessment on all District spillways and a sub-surface condition assessment of Bon Tempe spillway along with a staff requested contingency.

DISCUSSION: On June 27th 2023, the Marin County Civil Grand Jury published a report titled *Dam and Reservoir Safety – Water May Save Us – Water May Drown Us*. The underlying premise of the report identifies concerns with climate change, and the impact of atmospheric river events on dam safety. As a follow-up, the District issued a Request for Proposals (RFP) titled *Spillway Capacity and Sub-Surface Condition Assessment Services*. The proposal aims at evaluating the relationship between existing dam infrastructure and changing climactic conditions including the potential of increased frequency of atmospheric rivers. Analysis will include both hydrologic analysis to identify reservoir behavior in response to a variety of storm events, as well as hydraulic evaluations of each spillways’ ability to safely convey excess runoff via the spillways.

The District is also including a sub-surface condition assessment of the Bon Tempe’s Spillway. While conducting routine inspection of the Bon Tempe Spillway in 2023, staff identified minor damage in the form of cracks, spalls, shallow holes, and leaks on the spillway. Since original construction in 1949, Bon

Tempe Dam’s concrete spillway has had various minor repairs. Based on the number of spillway defects identified and repaired, staff is recommending a complete condition assessment of the Bon Tempe Spillway similar to what the District is currently doing to its larger spillways on Kent, Nicasio and Soulajule.

On January 9, 2024, the District solicited engineering consultant firms specializing in dam safety and assessment through a RFP. The closing date for consultants to submit proposals is February 13, 2024. Staff will be reviewing all proposals and will be returning to a future, regularly scheduled Board of Directors meeting with the recommendation to the Board to authorize the General Manager to execute a contract with the qualified consultant team to perform the Spillway Hydraulic Capacity Assessment on all seven of the Districts dam spillways and Sub-Surface condition Assessment of Bon Tempe Spillway. Funding for this work has been budgeted within the engineering division’s operating budget.

ENVIRONMENTAL REVIEW: Not Applicable.

FISCAL IMPACT: Funding is included in the FY24 and FY25 Engineering division’s operating budget.

ATTACHMENT(S): None.



STAFF REPORT

Meeting Type: Operations Committee/Board of Directors
Title: Update on the Lead and Copper Rule Revision
From: Paul Sellier, Water Resources Director
Through: Ben Horenstein, General Manager
Meeting Date: February 16, 2024

TYPE OF ACTION: Action X Information Review and Refer

RECOMMENDATION: Receive update on status of the Lead and Copper Rule Revision

SUMMARY: The U.S. Environmental Protection Agency (EPA) has proposed updated revisions to the Lead and Copper Rule (LCR), strengthening key elements of the existing federal water quality regulation. Included in the revised LCR, public water systems are required to provide an inventory of lead service lines by October 2024. District staff have undertaken a comprehensive field inspection process to develop an inventory of service lines. No lead service lines have been identified. Staff will provide an overview of the regulations, field inspection methods, results of the field inspections completed, and next steps.

DISCUSSION: Lead has been used in plumbing fixtures and as pipe since the Roman Empire. In the United States, lead was the material of choice for plumbing up until the 1920s when it was supplanted by copper. According to an article¹ published in the American Journal of Public Health in 2008, “installation of lead pipes in the United States on a major scale began in the late 1800s, particularly in the larger cities. By 1900, more than 70% of cities with populations greater than 30,000 used lead water lines. Although lead was more expensive than iron (the material of choice until that time), lead pipes had 2 significant advantages over iron ones: they lasted much longer than iron (about 35 years compared with 16) and, because they are more malleable, they could be more easily bent around existing structures.” These practical aspects of lead piping, disagreement on health effects, the robust efforts of the Lead Industry Association to promote the use of lead and the lack of a federal standard meant that lead continued to be used in water infrastructure.

Comprehensive health based drinking water regulations were first promulgated with the Safe Drinking Water Act in 1974; this regulation was amended in 1986 prohibiting the use of pipes, solder or flux that were not “lead free” in public water systems or plumbing and regulations have continued to evolve.

1 The Lead Industry and Lead Water Pipes “A MODEST CAMPAIGN”, Richard Rabin. 2008 American Journal of Public Health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2509614/>

Following the lead contamination crisis in Flint, Michigan that began in 2014, the US EPA proposed revisions to the Lead and Copper Rule (LCR), a federal water quality regulation established in 1991 to reduce lead and copper in drinking water. The LCR established regular monitoring and testing of drinking water systems for lead and copper, and defined action limits for performing mitigations, including replacing lead service lines, optimizing corrosion control, and notifying customers of lead exposure. Although rarely found in natural sources of water, lead can leach from lead pipes, faucets, and plumbing installed many decades ago and can lead to adverse health effects in young children. The recent USEPA revisions to the LCR known as the Lead and Copper Rule Revisions (LCRR) added the requirement to identify customer service laterals that are lead.

In compliance with existing LCR regulations, Marin Water performs lead monitoring at residential sampling locations on a triennial basis with the next sampling event planned to occur during summer 2024. Results from sampling events have remained well below regulatory limits. Over a three year period beginning in 2017, the District conducted lead sampling at all public K-12 schools built after 2010, and private schools that requested assistance within the service area. In total, 267 drinking water samples were analyzed for lead from 53 public and private schools throughout the service area, focusing on drinking fountains and faucets accessible to children. Exceedances of lead levels were discovered at three schools through this sampling program. Contacts at each of the schools were notified and took action to replace suspect drinking fountain or plumbing associated with the high lead levels.

Lead Service Line Inventory

In light of the public health crisis in Flint, the USEPA has developed a number of revisions to the Lead and Copper Rule, including a requirement for water systems to identify lead service lines and for replacement of those lines if lead is identified. While the USEPA is continuing to finalize components of the revised regulation, an inventory of service line materials is required by October 16, 2024.

The USEPA requirement to identify lead service lines encompasses the entire service line, including both the portion owned by the water utility and the extent beyond the meter to the premises owned by the customer. The District has maintained thorough historical records of service lines owned by the District and many were field verified in 2020 to comply with California Senate Bill 427 (2017), confirming that no lead service lines were identified. Similar to most water utilities in California, the District does not maintain records of the customer-owned portion of the service line. To meet the requirements of the revised LCR, the material type of the customer owned service lines must be determined and submitted for compliance with the revised regulation.

Field Verification

The California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) has developed guidance to aid local water agencies in the development of a compliant lead service line inventory. Compliant identification methods described by DDW utilize field verification along with desktop statistical analysis of the service area. The District used stratified random sampling, an approved service line identification method which divides a large and diverse population, such as the District’s 63,156 service lines, into smaller groups called strata and selecting a random but representative sample from each group. Strata are formed based on a population’s common attributes, such as age, year of construction, etc., to increase the similarity of characteristics within each group. To effectively use the statistical verification process, DDW requires that results achieve a

1 The Lead Industry and Lead Water Pipes “A MODEST CAMPAIGN”, Richard Rabin. 2008 American Journal of Public Health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2509614/>

minimum level of confidence -- 95% plus or minus 5% margin of error. For example, a typical strata group may consist of approximately 5,000 service lines but only a representative group of 350 would be required to be field verified. The results of the field inspections can then be statistically applied across the entirety of the group.

Hands-on training for identification of pipe material was provided to District staff prior to beginning the field inspection process in May 2023. The training covered methods to accurately identify service line materials including lead, copper, galvanized iron, and plastic pipes. Identification methods included techniques such as visual (color) assessments, scratch testing, magnetic attraction, and chemical reaction testing.

Results of Investigations

Between May 2023 and January 2024, District field staff have verified 8,991 customer service lines throughout the Marin Water service area. No lead service lines have been discovered during the entirety of the inspection period. The most common service line materials identified are copper (68%), plastic (13%), galvanized iron (11%), and other non-lead (8%). Staff prepared a LCRR compliance plan that included the initial field inspection results and submitted it to DDW for review in January 2024. In early February 2024, DDW completed review and approved the District’s compliance plan.

ENVIRONMENTAL REVIEW: Not Applicable.

FISCAL IMPACT: None.

ATTACHMENT(S): None.

1 The Lead Industry and Lead Water Pipes “A MODEST CAMPAIGN”, Richard Rabin. 2008 American Journal of Public Health. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2509614/>