



2022 Highlights

Board Retreat

February 2, 2023



2022 Highlights

- Continued range of activities associated with managing historic drought and related impacts
- Completed the final reporting to the Temporary Urgency Change Petition – our first time applying for a TUCP
- Obtained \$5.5M in grant funding and applied for an additional \$26.8M, with \$26.8M in requests outstanding
- Worked closely with the Marin City community regarding concerns with their water supply, resulting in a successful partnered grant amount of \$7.7M for renewal of aging cast iron piping
- Completed Kastania Phase I and began Phase II upgrades
- 13 capital upgrade projects, completed through construction, including: 10 pipeline projects, 1 pump station and 1 retaining wall project, various projects through the Planning & Design phase.
- Completed a new lease for the Mt Tam telecom site for an increase in annual revenues of \$400,000 annually and received a \$1.5M lump-sum payment at the execution of the license agreement
- Completed a number of security upgrades on our computer network system

2022 Highlights (cont'd)

- Updated communications network resulting in an average 500% increase in data capacity
- Near completion of a Water Supply Resiliency Roadmap
- Continued conservation activities resulting in exceeding the state's goal with one of the highest demand reductions in the state
- Received Government Finance Officers Association recognition for excellence in financial reporting
- Completed final step in refinance of 2002 Bonds, resulting in a \$400k/year savings
- Developed and adopted District's first Hazard Mitigation Plan, now eligible for FEMA grant funding
- Turf conversion program had 230 participants, with an average of 750 sq ft, total 172,500 sq ft, for a water savings of 14.8 AF/year
- 2022 R-GPCD of 68 gpcd, 4% lower than 2021, and among the lowest in Marin Water history
- Improved website, including CIP fact sheets, section on Watershed Resiliency and Fire Protection efforts, and sections on Water Supply efforts and rate setting process
- Revamped e-news publication with an average 50% open rate
- Selected DEI contractor to provide training, completed initial phase with Senior Leadership Team

2022 Highlights (cont'd)

- Continued range of COVID-19 employee support and compliance activities, updated tele-work policy
- Completed 49 recruitments: 20 internal, 29 new employees
- Updated Flex Staffing programs which provides for non-competitive promotion in selected job classes
- 103 employees received recognition as part of the District's Employee Recognition Program
- District's Fishery program was awarded the "Ted Wellman Water Award" from Marin Conservation League for 25 years of collaboration
- Completed 30% designs for 13 restoration sites at Lagunitas Creek, \$869k from California Department of Fish and Wildlife for 100% designs for 7 sites, \$1.4m for United States Bureau of Reclamation for construction of 3 restoration sites
- Record high numbers; 150,000 of juvenile Coho salmon observed in Lagunitas Creek Watershed
- Completed year 4 of BFFIP implementation with 1476 acres treated. Overall, program is receiving local, statewide & national attention for successful fuel reduction work in an environmentally sensitive area

Looking Forward

- Update to District's Strategic Plan
 - Begin process August 2023
 - Complete update to Strategic Plan April 2024
- Organizational Efficiencies
 - Customer Service office Monday-Thursday pilot
 - Consideration of charging sanitary districts for meter/billing services
 - Review of appropriate lab analysis in-house vs. contract lab
 - Use of managed services to support IT functions
 - Develop approach to engage jurisdictions on continued increase in paving requirements and associated costs



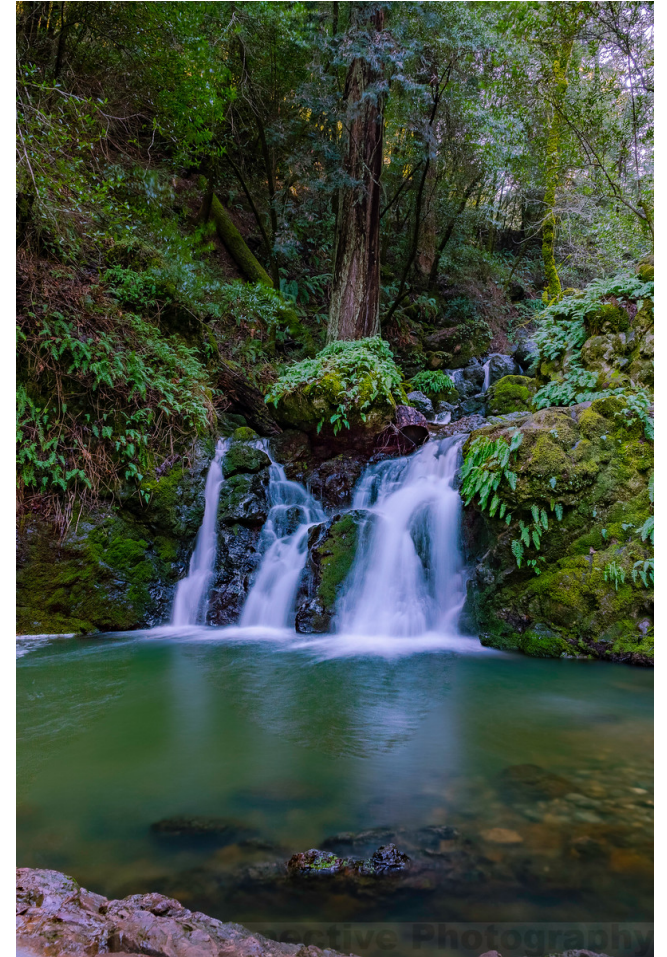


Watershed 2023 Priorities



Overview: Watershed 2023 Priorities

- Biodiversity, Fire, and Fuels Integrated Plan
- Lagunitas Creek Fisheries Enhancement
- Azalea Hill Trail Restoration Project
- Watershed Recreation Management Plan

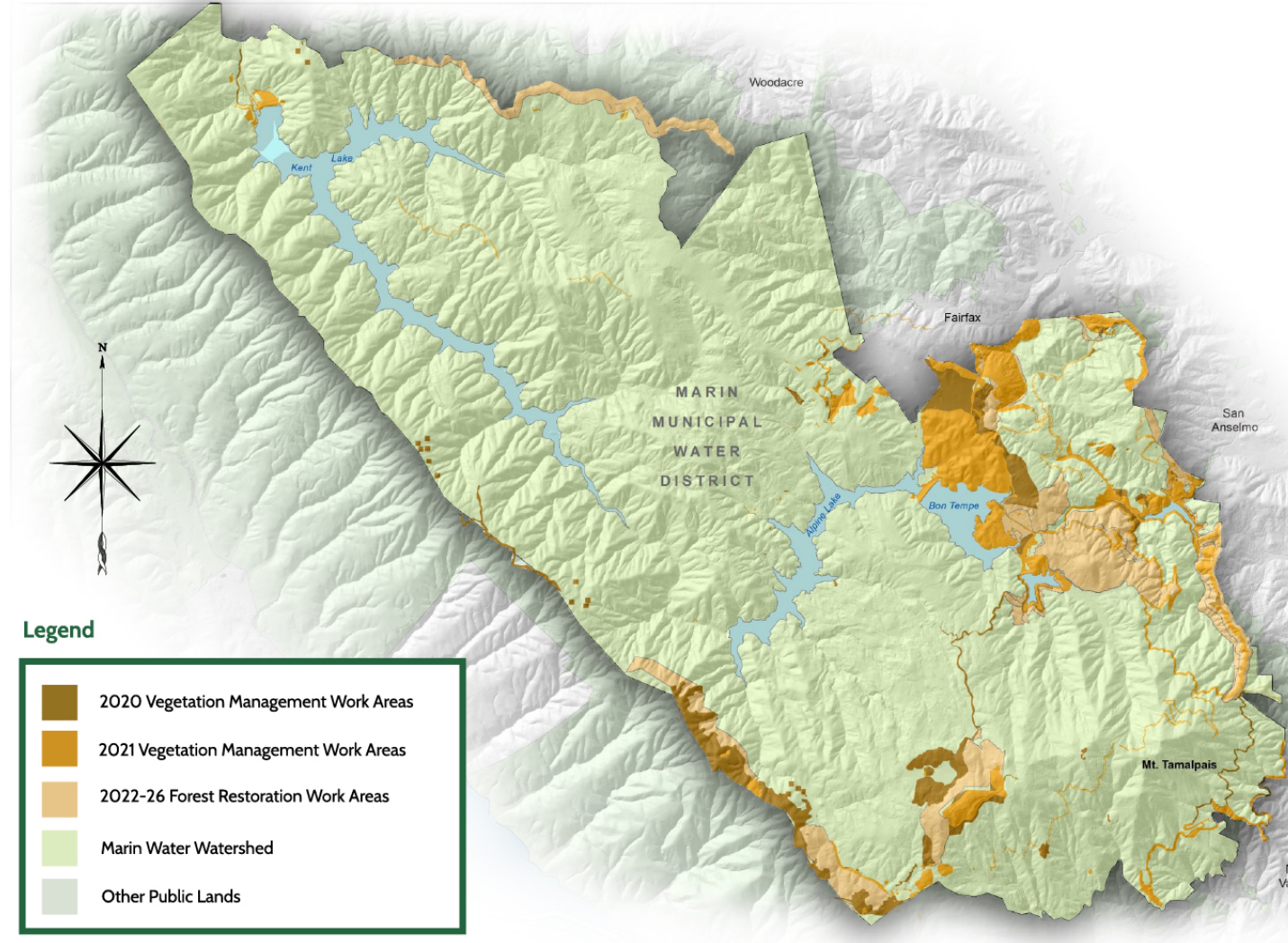
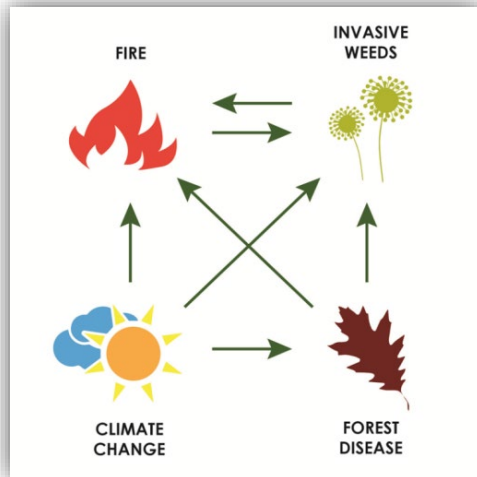


Biodiversity, Fires, and Fuels Integrated Plan

(Adopted in 2019)

BFFIP Plan Goals

- Minimize the Risk from Wildfire
- Preserve and Enhance Existing Biological Resources
- Provide an Adaptive Framework for the Periodic Review and Revision of the Plan



BFFIP Program Enhancements: Annual Goals & Milestones

- One Tam Forest Health Strategy anticipated to be completed - **March/April 2023**
- Wildfire modeling results to inform future treatments presented to Watershed Committee - **March 2023**
- EIR Addendum - **June-September 2023**
 - Increase vegetation management treatment acres
 - Refine Best Management Practices and Mitigation Measures
- State block grant proposal with One Tam - **May-July 2023**

Wildfire Modeling

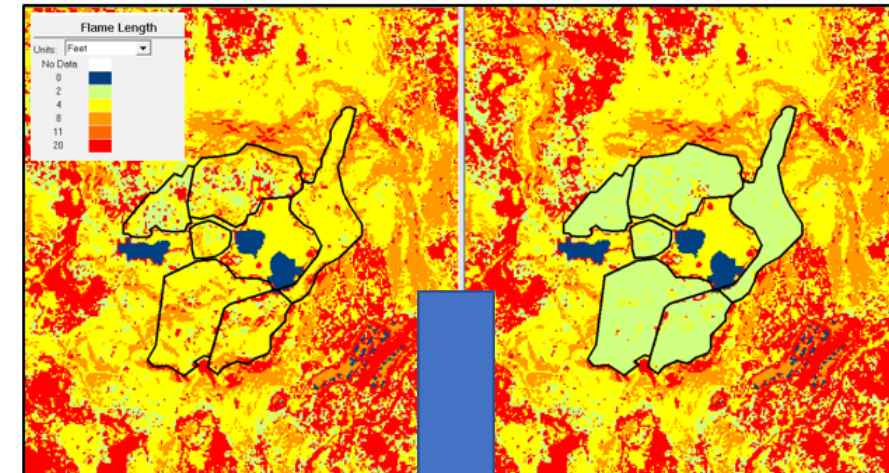
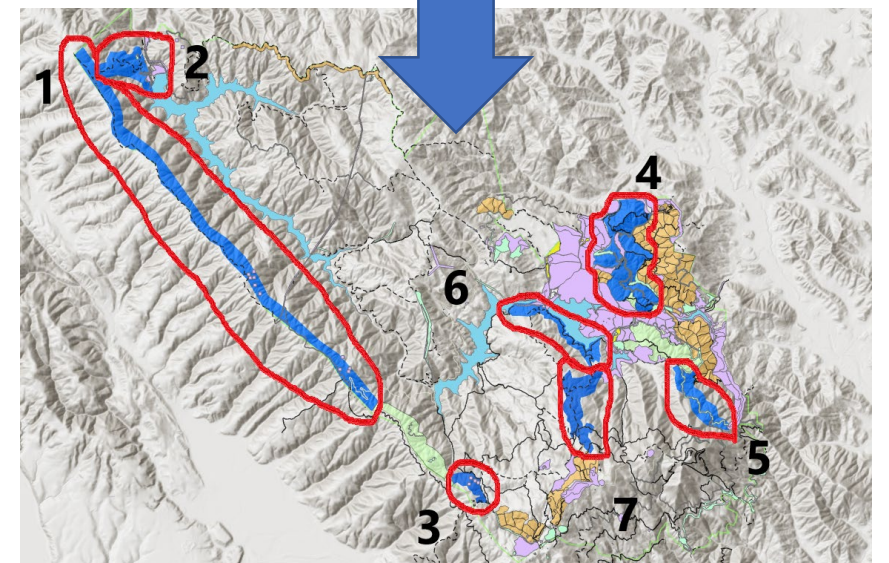
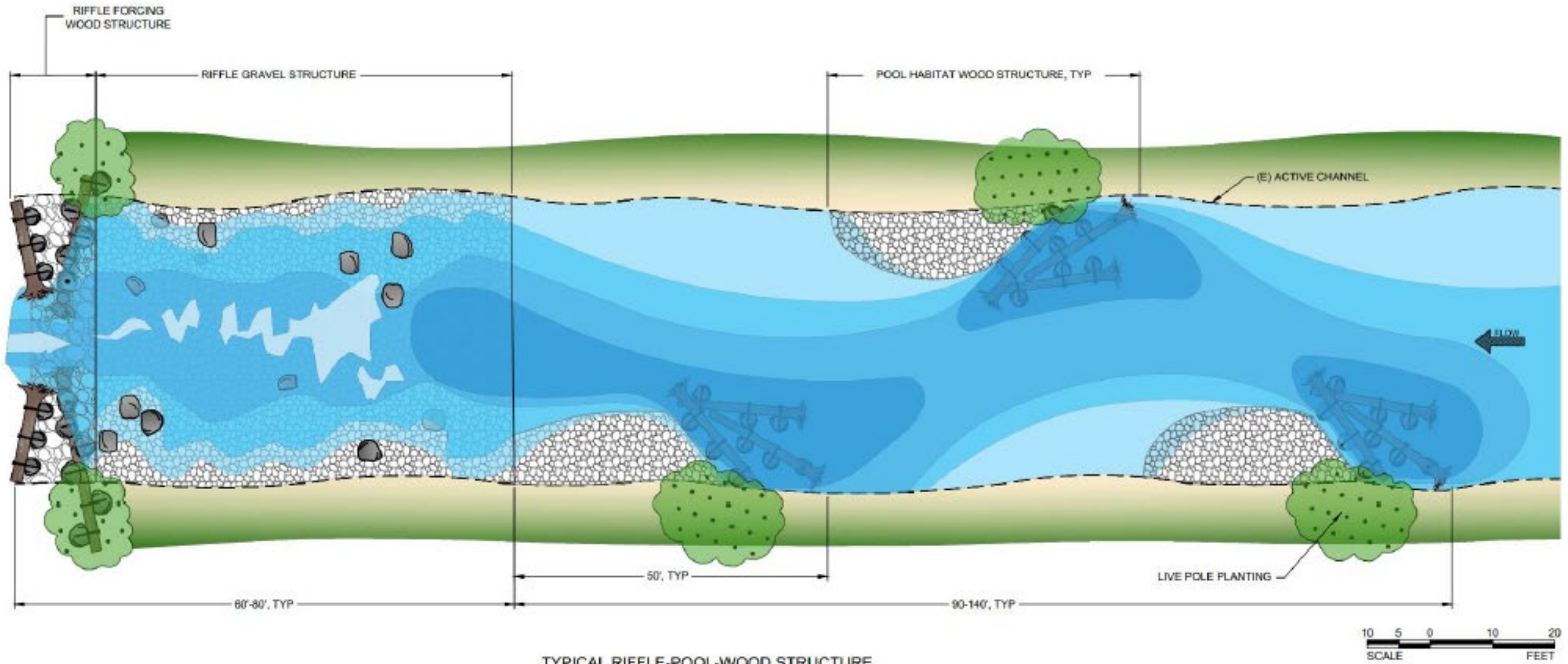


Figure 24. Pre-treatment (on left) and post-treatment (on right) flame length fire behavior prediction. Work areas shown with black outlines.



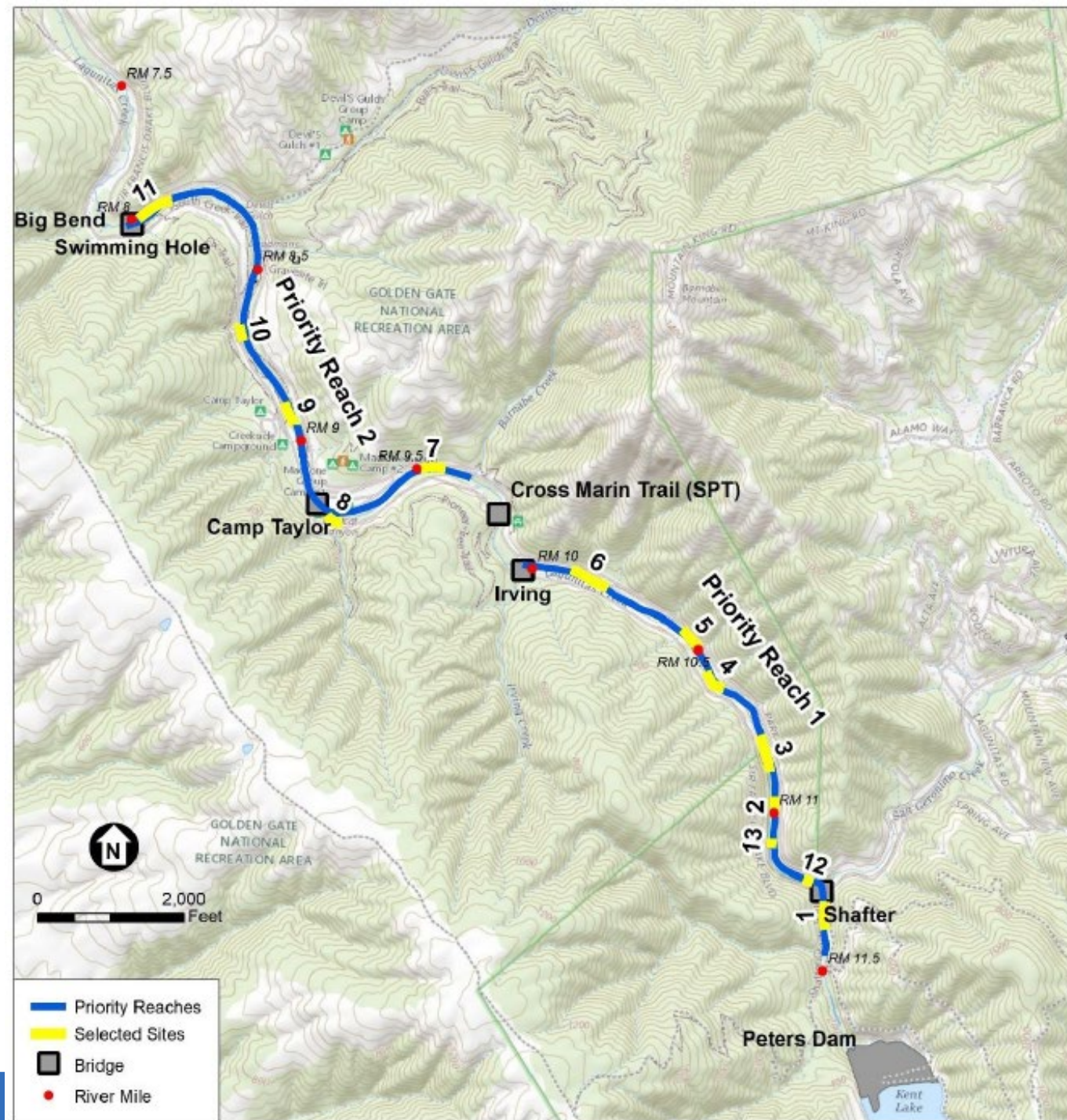
Lagunitas Creek Habitat Enhancement Project



TYPICAL RIFFLE-POOL-WOOD STRUCTURE
PLAN VIEW

Restoration Sites

- Two Priority Reaches
 - 13 Sites Total
 - Phase 1 = 8 sites
 - Phase 2 = 5 sites
- Estimated Phase 2 Design Costs = \$1 million
- Estimated Implementation Cost = \$8 million



Lagunitas Creek Watershed Enhancement Funding

Recent Awards

- **CDFW Prop 1 Grant** secured for 30% restoration designs for 13 sites \$350,000
- **CDFW Prop 68 Grant** secured to complete final design plans and environmental review of 8 Sites \$800,000
- **USBR WaterSMART Grant** secured to implement construction of Sites 1, 2, 3 \$1.4 million

Recent Applications Submitted

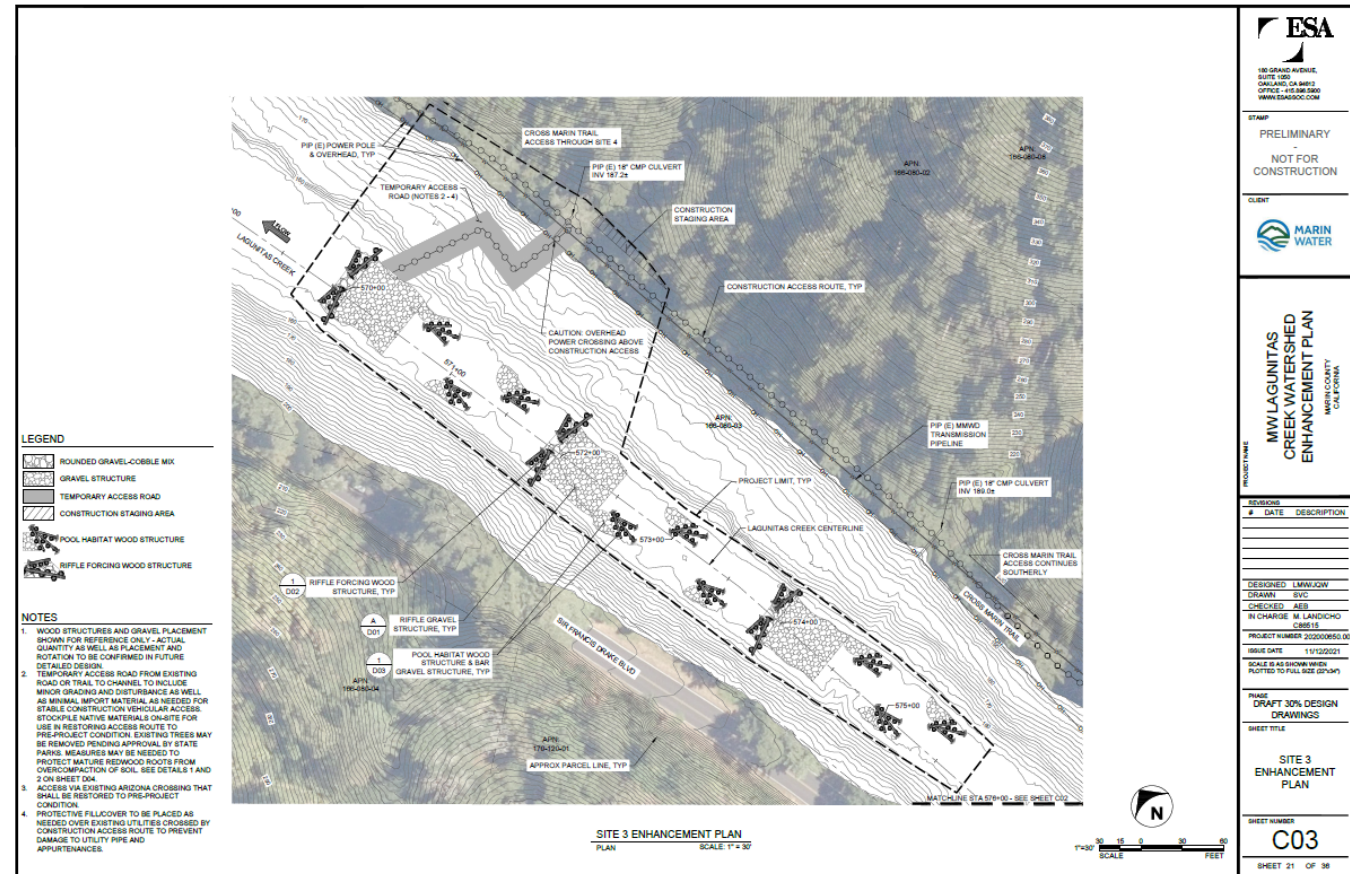
- **DWR Riverine Stewardship Grant** application submitted to implement construction of Sites 12 and 13 (gravel augmentation) \$650,000
- **DWR Storage Improvement and Restoration Grant** application submitted to implement construction of Sites 4, 5, 6 \$2.6 million

Future Applications

- **CDFW Fisheries Grant & Wildlife Conservation Board** application to be submitted in 2023/2024 to complete Phase 2 final designs and for implementation of 7, 8, 9, 10, 11
 - Outstanding funding need for Phase 2 design and implementation \$5 million

Lagunitas Creek Enhancement Plan: Goals & Milestones

- Final restoration designs - **April 2024**
- Construction bidding - **May 2024**
- Implementation of Sites 1, 2,3 - **June-October 2024**
- Secure grants for Phase II Design Funding - **2024**



Azalea Hill Trail Project

Azalea Hill

Restoration Project

Ongoing trail construction work is designed to ensure more sustainable ecology while enhancing visitor access.



Saving Serpentine Habitat

The greenish serpentine soil covering Azalea Hill is home to tough and tiny plants that grow few other places.

Heavy human traffic on and off the trails here has threatened the plants that grow in the serpentine outcrops.

MMWD is enhancing this trail as part of a multi-phase project to preserve wildlife and the watershed, and to encourage responsible use of this location.



How You Can Help



Stay on designated trails
 A new trail alignment was designed to protect this fragile ecosystem and protect water quality, but depends on visitors respecting the marked paths and staying on trail.

Thank you for your continued cooperation.



Stay off restricted trails
 The unmarked "social trails" on this location have been removed to protect the habitat.



Stay out of closed areas
 Please help us make this project a success by observing marked trails.



MMWD / David Goodberger / One Tam

Phased Construction

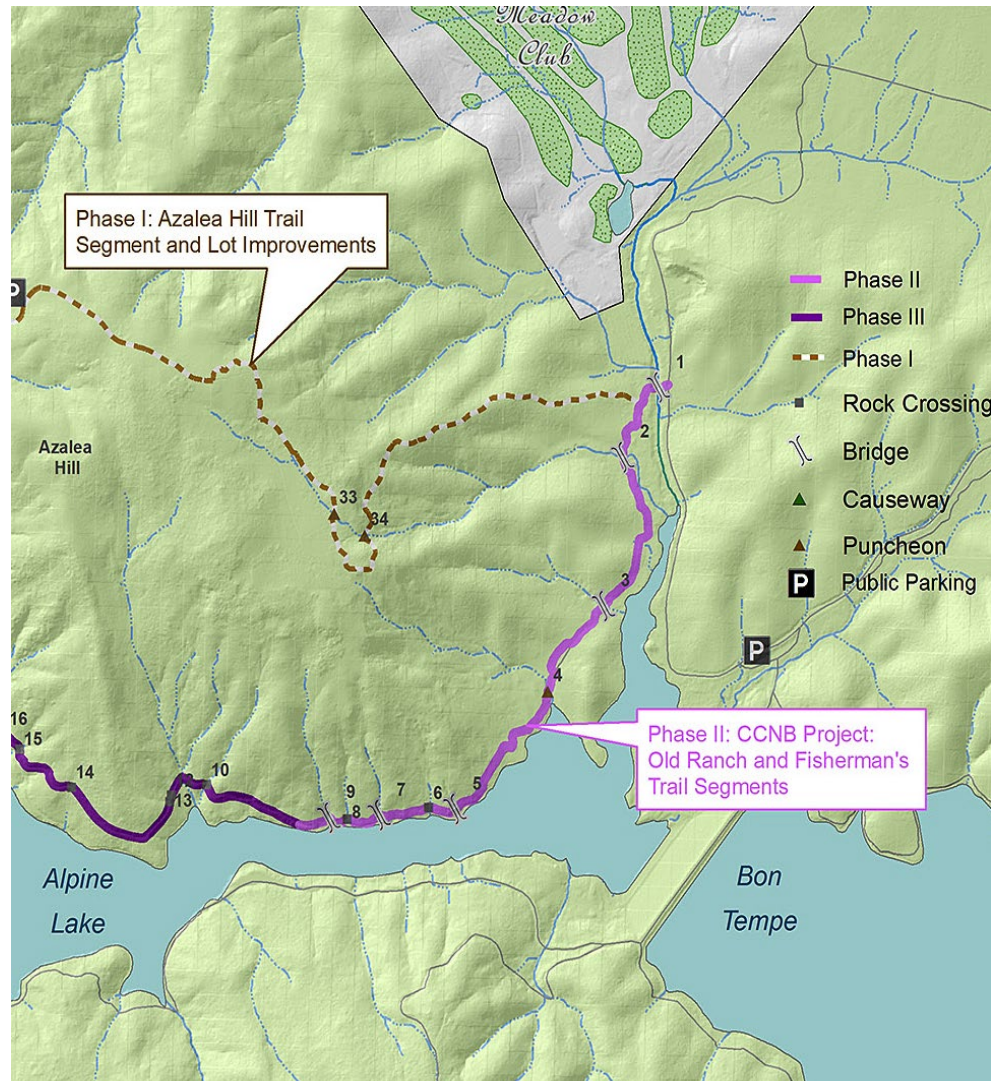
MMWD has secured funding from the Mt. Tamalpais Fund, the Emig Trust and Proposition 68 to begin construction of the trail. MMWD is actively seeking grants and private donations to support construction of future phases.

To make a donation to this project, visit MarinWater.org/MtTamWatershedFund

MarinWater.org
and OneTam.org

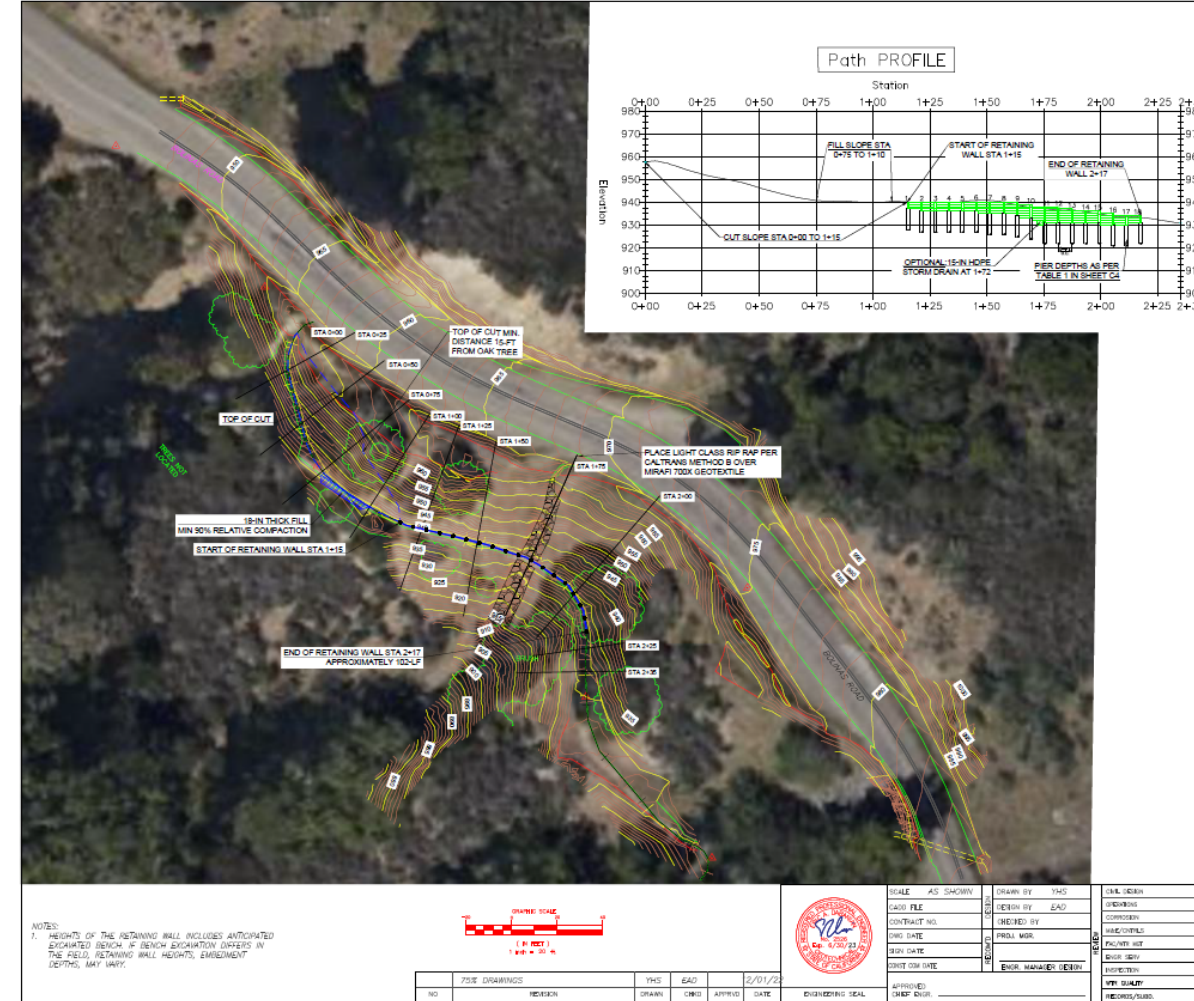


Azalea Hill Trail Work Completed



Azalea Hill Trail Restoration Project: Goals & Milestones

- Trail retaining wall construction - Bidding February 2023
- Retaining wall construction – May-October 2023
- Rare Plant Surveys to inform future phase of work - **2023-2024**
- Continue hiking trail improvements and social trail decommissioning - **2024**



Watershed Recreation Management Plan

We
Are
Here

Introduction &
Project Overview

Goals, Objectives
& Visitor Survey

Stewardship &
Outreach
Programs

Recreation
Facilities

Visitor Survey
Results &
Recreation
Zoning

Visitor
Management
Strategies &
Adaptive
Management

Final Recreation
Management Plan

(Fall 2023)

Meeting #1
May 2022

Meeting #2
July 2022

Meeting #3
August 2022

Meeting #4
October 2022

Meeting #5
February
2023

Meeting #6
April 2023

Site Visit #1
July 2022

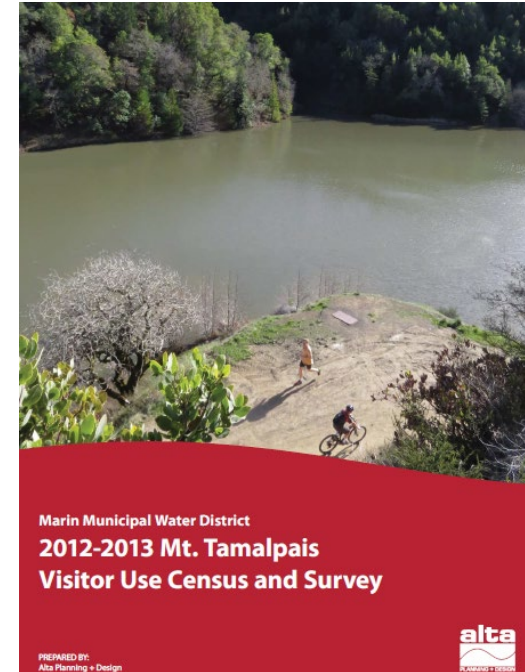
Site Visit #2
November 2022

Visitor Use Surveys

Visitor Data Analysis

Watershed Recreation Management Plan: Goals & Milestones

- Watershed census survey report finalized - **April 2023**
- Draft Plan - **November 2023**
- Consider updates to Road and Trail Plan and advance CEQA review - **2024**
- Initiate Implementation of recommendations - **2024-2026**



Summary

- BFFIP Addendum will expand acres for vegetation work, positioning the District/One Tam for a block grant.
- Azalea Hill Project implementation focus in 2023/2024 will be on retaining wall, bridges, and rock crossings.
- Lagunitas Creek Restoration Project will begin implementation in 2024 and continue through 2027/2028
- Watershed Recreation Management Plan will include outcomes that inform future management actions.





Human Resources 2023 Priorities

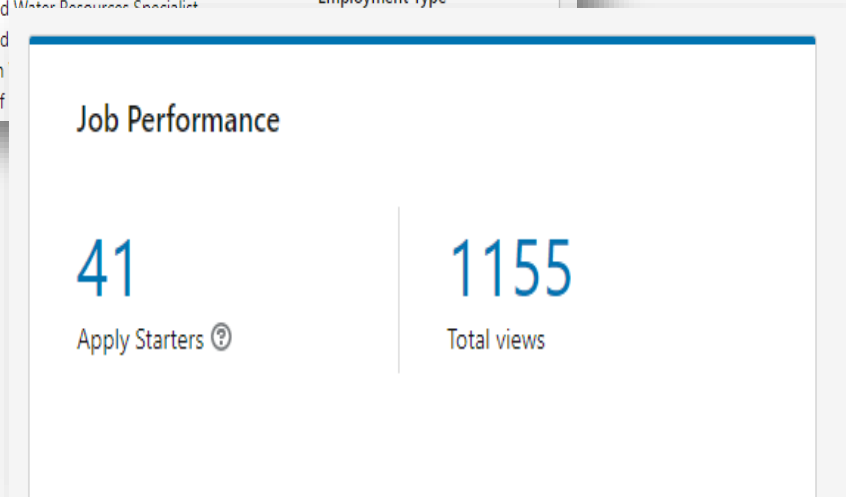
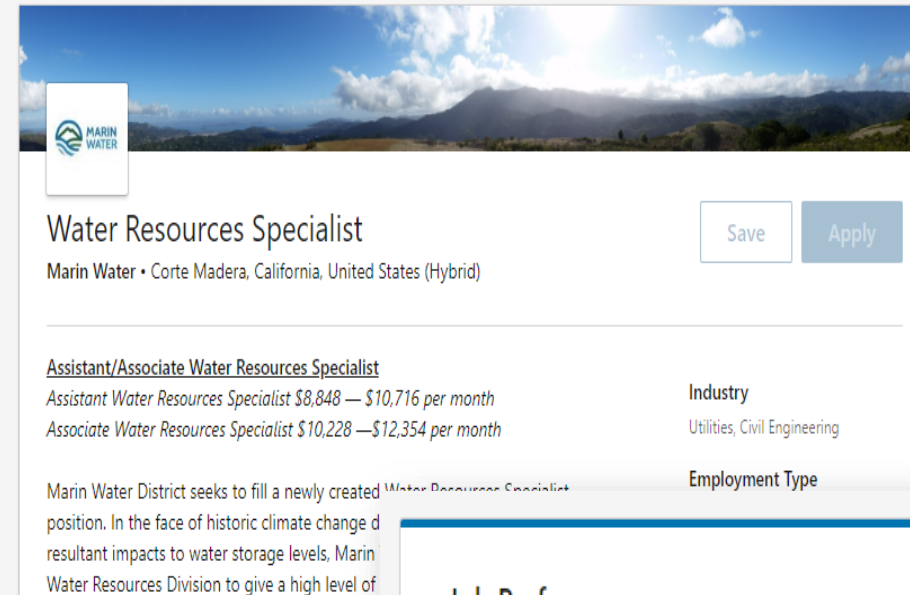


Overview: Human Resources 2023 Priorities

- Enhancement to Recruitment Program
- Enhancement to Onboarding
- New Performance Evaluation System
- Diversity, Equity and Inclusion Initiative
- Employee Engagement

Enhancements to Recruitment Program

- New LinkedIn Recruiter Account
 - **Pilot - January 2023**
 - Greater Visibility
 - Direct Connect to Passive Jobseekers through email notifications
 - Direct Message capability
- Increase Outreach to Community Based Organizations – to share job opportunities with the community, build relationships around careers in the water industry
 - **Implement - August 2023**



Enhancements to Recruitment Program



Marin Water Career Opportunities

powered by
NEOGOV®

New Recruitment and Applicant Tracking Platform


➤ **Launch March 2023**

- Increase applicant traffic
- Partner electronically and automatically larger job boards (diversity.com, zip recruiter)
- 24/7 customer support for both recruiters and applicants
- Metrics to gauge effectiveness of recruitment efforts
- Transfers data to the onboard module

Enhancements to Onboarding

- Electronic offers
- Electronic new hire forms
- Self-Service for new hires – policies and training
- Program 30 day and 120 day check-ins

Welcome to NEOGOV!



Getting Started

We'd like to welcome you to NEOGOV. We are excited that you have accepted our job offer and agreed upon your start date. I trust that this letter finds you mutually excited about your new employment with NEOGOV.

We want our new employees to have all of the resources

Checklist

19%

[VIEW ALL \(16\) >](#)

<input checked="" type="checkbox"/>	Watch Orientation Video	🕒	Due today
<input type="checkbox"/>	Complete I-9	🕒	Due today
<input checked="" type="checkbox"/>	Lunch With Your Manager	🕒	Due today
<input type="checkbox"/>	Complete Direct Deposit Form	🕒	Due today
<input type="checkbox"/>	View Sexual Harassment in the Workplace Video	🕒	Due today
<input type="checkbox"/>	Complete Medical Benefit Form	🕒	Due in 2 days
<input type="checkbox"/>	Complete Background Form	🕒	Due in 3 days
<input type="checkbox"/>	Workplace Policy Checklist	🕒	Due in 3 days
<input type="checkbox"/>	Complete W-4	🕒	Due in 5 days
<input type="checkbox"/>	Complete Employee Info Form	🕒	Due in 5 days

New Performance Evaluation System

Old Program:

- Antiquated Word Document
- One Template for all Employees

New Program:

- Interchangeable Competencies
- Annual Work Plans
- Regular Check-ins and Documentation
- Metrics

Problems:

- 360 Review Capability (July 2023)



Diversity, Equity and Inclusion Initiative

- DE&I consultant to develop training
 - DE&I Foundations
 - Unraveling Equity
 - Diversity Uncovered
- Employees workgroups
 - Implement July 2023
 - Logistics
 - Training Focus
 - Launch Training - December 2023



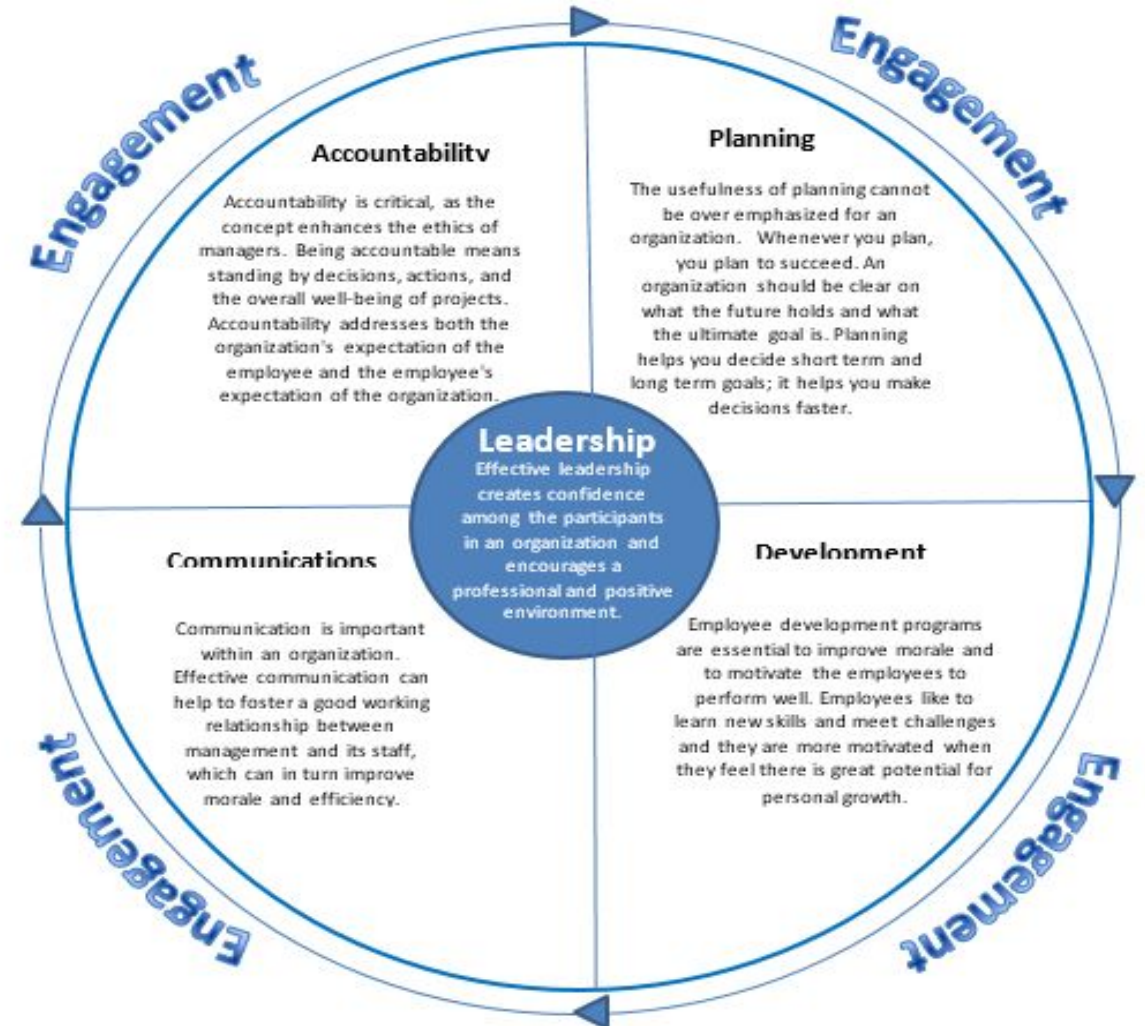
Employee Engagement

- Develop a broad-based comprehensive training program:
 - Onboarding Program for New Hires
 - Marin Water as a learning organization
 - Continued Core Leadership Training for Managers and Supervisors
 - Training needs assessments – technical and soft skills
 - Succession Planning
 - Sustained Diversity, Equity and Inclusion efforts
- Request: Additional FTE in HR to support training program development & implementation (FY23-24 budget cycle)

Employee Engagement

- Launch another Employee Engagement Survey
 - (December 2023)
 - Previous survey was conducted by Gallup in February 2016
- Communications Protocol – develop standards for internal communication, examples:
 - Weekly 1:1 Meeting with supervisor
 - Weekly staff meeting
 - Quarterly all staff division meetings

MMWD Wheel of Engagement







Communications 2023 Priorities



Overview: Communications 2023 Priorities

- Website Improvements
- Agenda Management System
- Outreach Support for Key District Efforts
- Public Education/ Storytelling Collateral

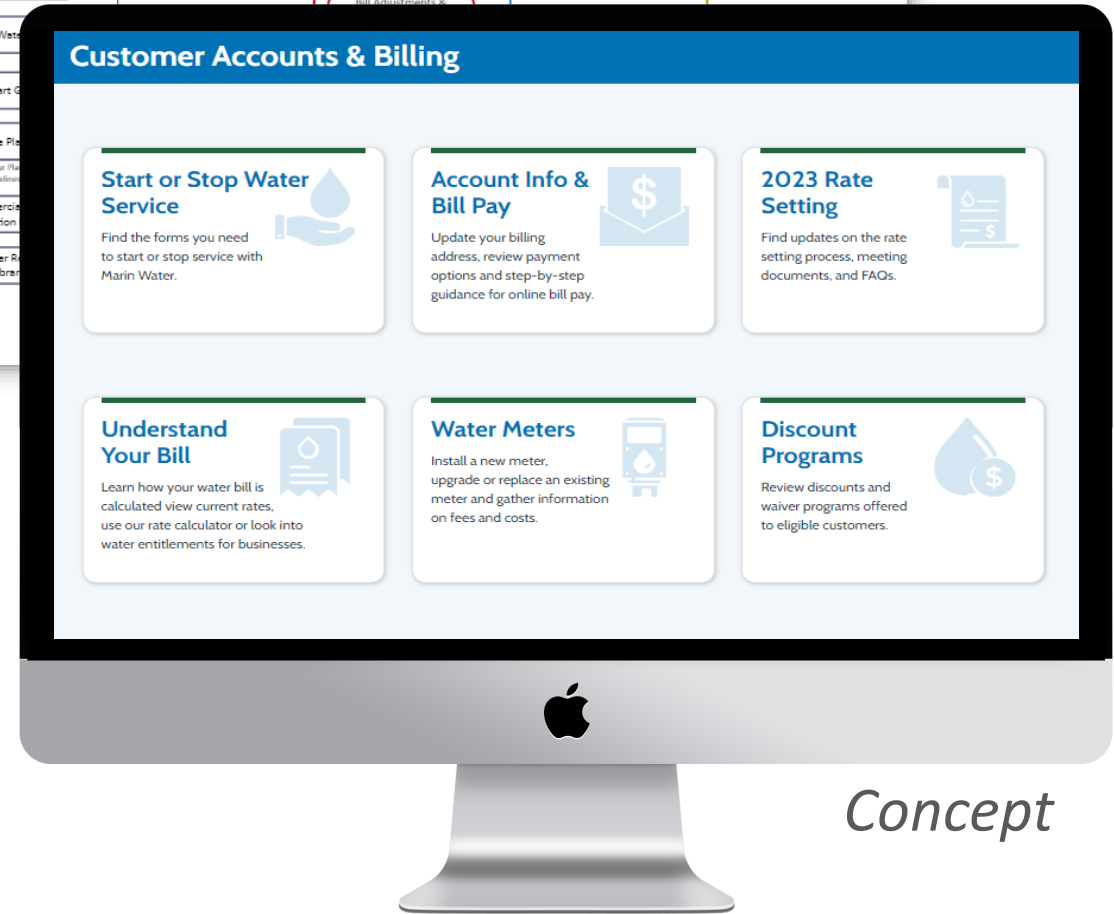
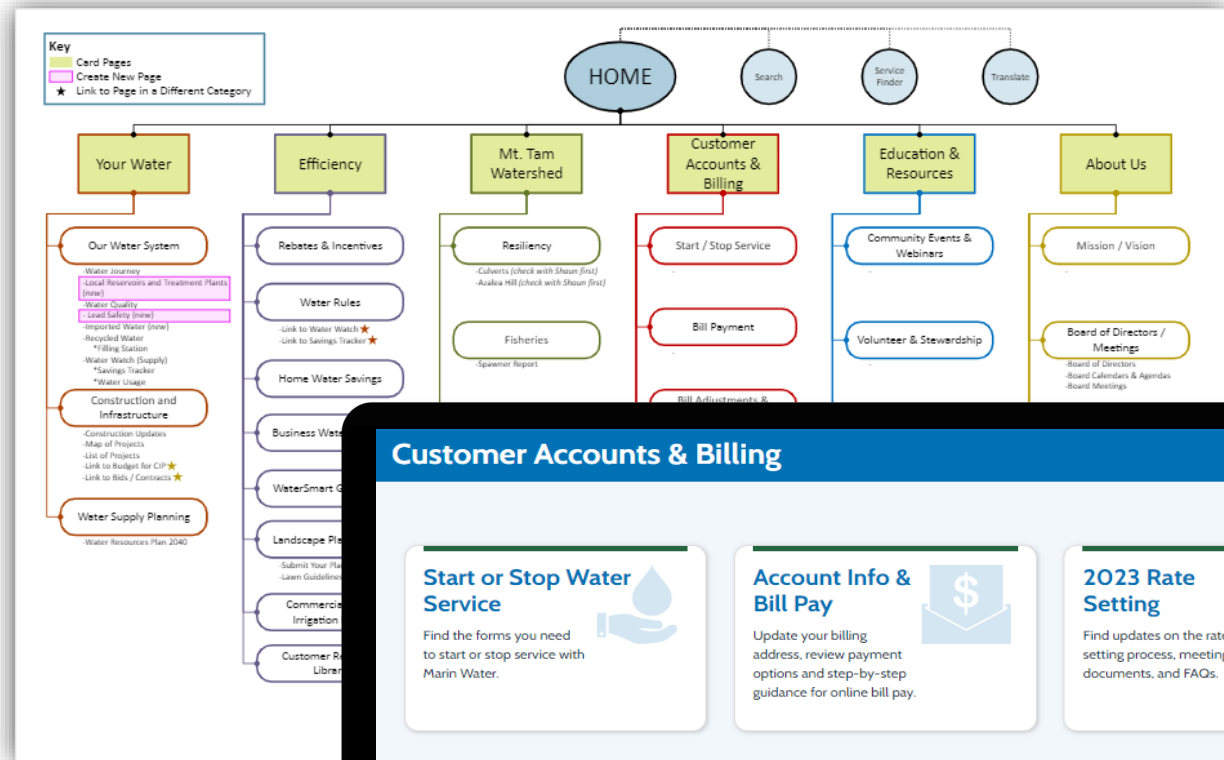
Website Improvements

- Homepage Update

- Redesigns layout, organization, and look and feel of the District website homepage

- Site Mapping

- Implementation of site map to reorganize website content
- Reconstruct major website landing pages



Concept

Website Improvements: Annual Goals & Milestones

Project Benefits

- Improve overall user navigation and accessibility of information
- Provide “front page” real estate to highlight timely District topics
- Support outreach needs of multiple District Departments and efforts

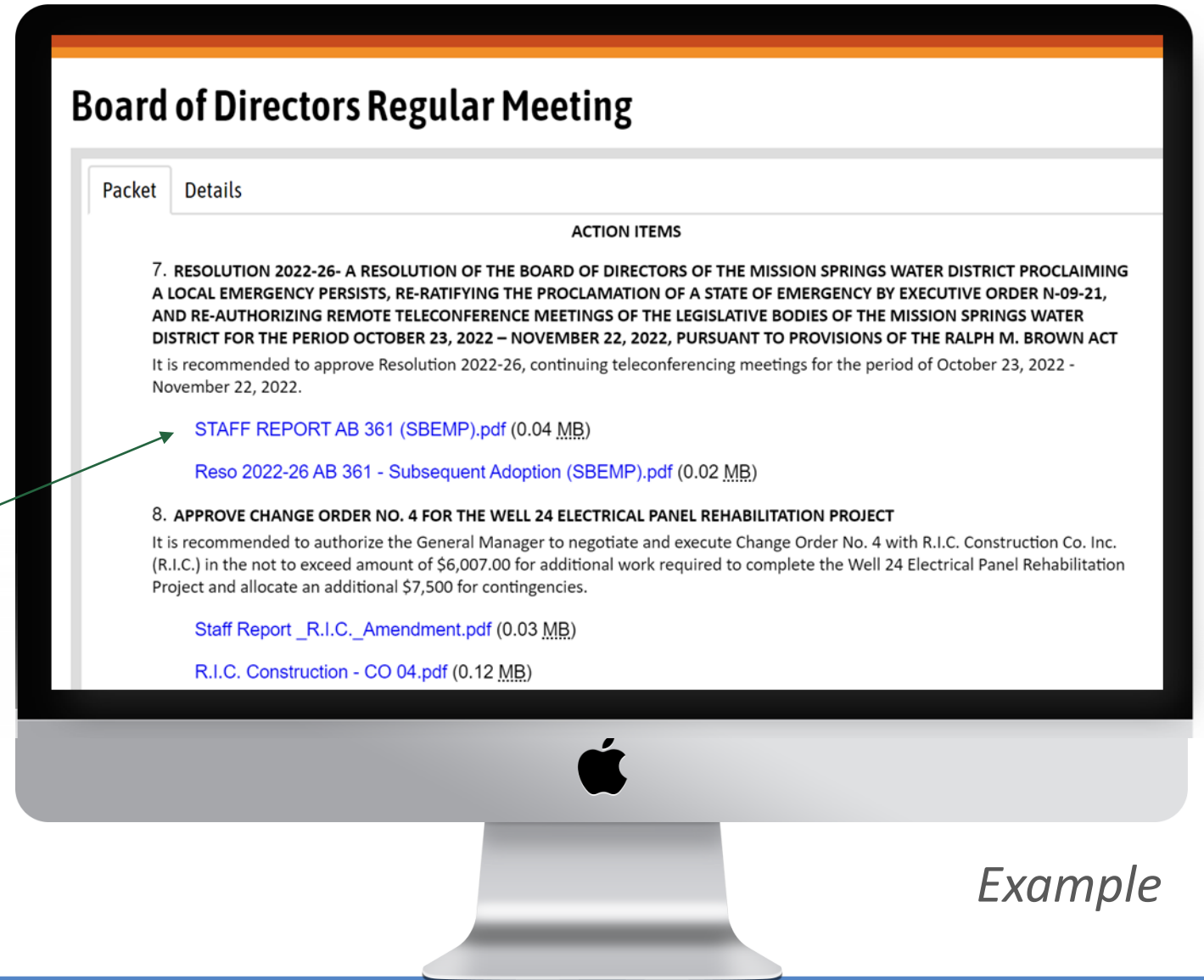
➤ Homepage Update – Completed by April 2023

➤ Site Mapping – Completed by March 2023

Agenda Management System

- Integrate new third party system with internal work flow for creation of agenda packets
- Migrate last 10 years of meeting agenda content to new portal
- Integrate public-facing agenda portal with District website

Each agenda item's docs are linked directly in the agenda



Example

Agenda Management System: Annual Goals & Milestones

Project Benefits

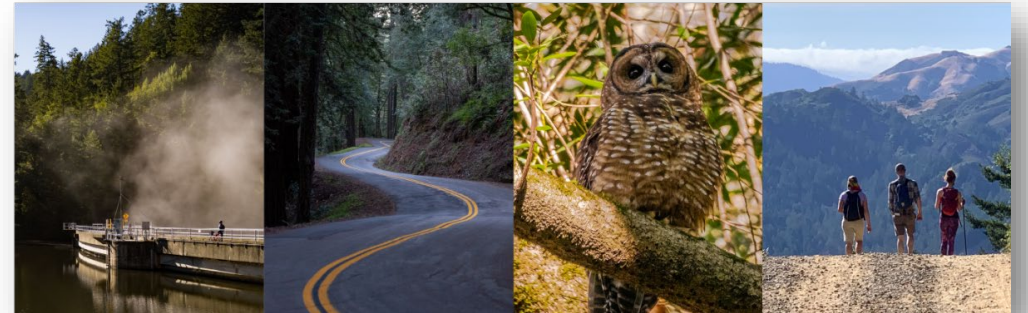
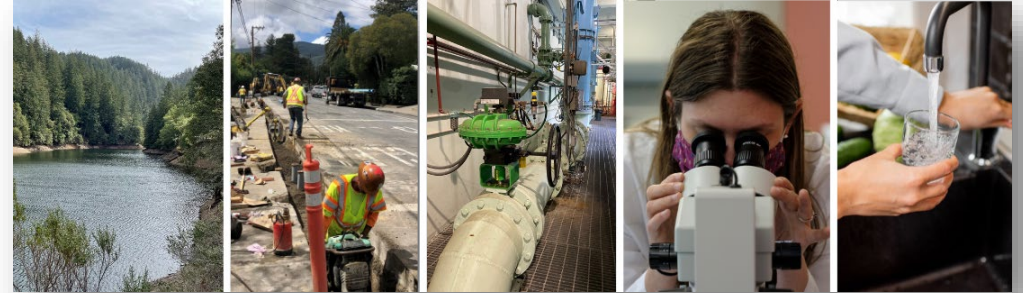
- Improve users experience when searching for board and committee meeting documents and videos
- Improve internal efficiencies

➤ Published and in use – By April 2023

Outreach Support for Key District Efforts

Support communications needs of District's three major concurrent efforts

- 2023 Rate Setting Process
- Strategic Water Supply Assessment
- Watershed Recreation Management Plan

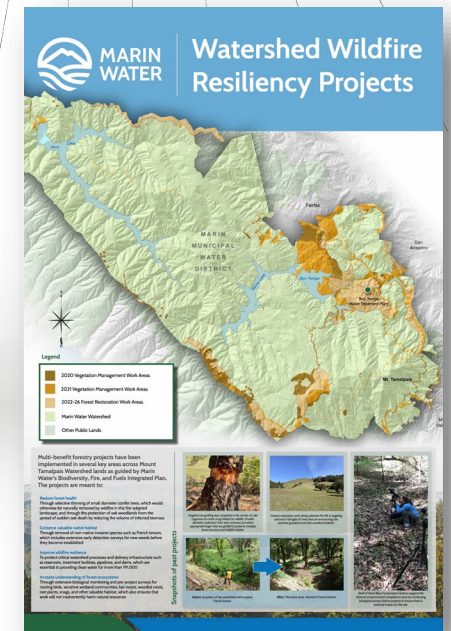


Public Education/Storytelling Collateral

- New opportunities to share our story (i.e. the complex operation that goes into delivering Marin Water to taps)
 - Short video for digital platforms
 - Event outreach booth display update
 - Point of service signage (lobby/ service counters)
 - Direct mailer for new customers

Annual Goal/Milestone

- Targeting completion of all items by August 2023



Examples





**NORTH MARIN
WATER DISTRICT**

Local Water Supply Enhancement
Novato and West Marin Service Area

Marin Water Board Retreat February 2023

North Marin Water District Service Areas



Local Supply Studies – Long History

Novato Supply History Snapshot

1950s – GW

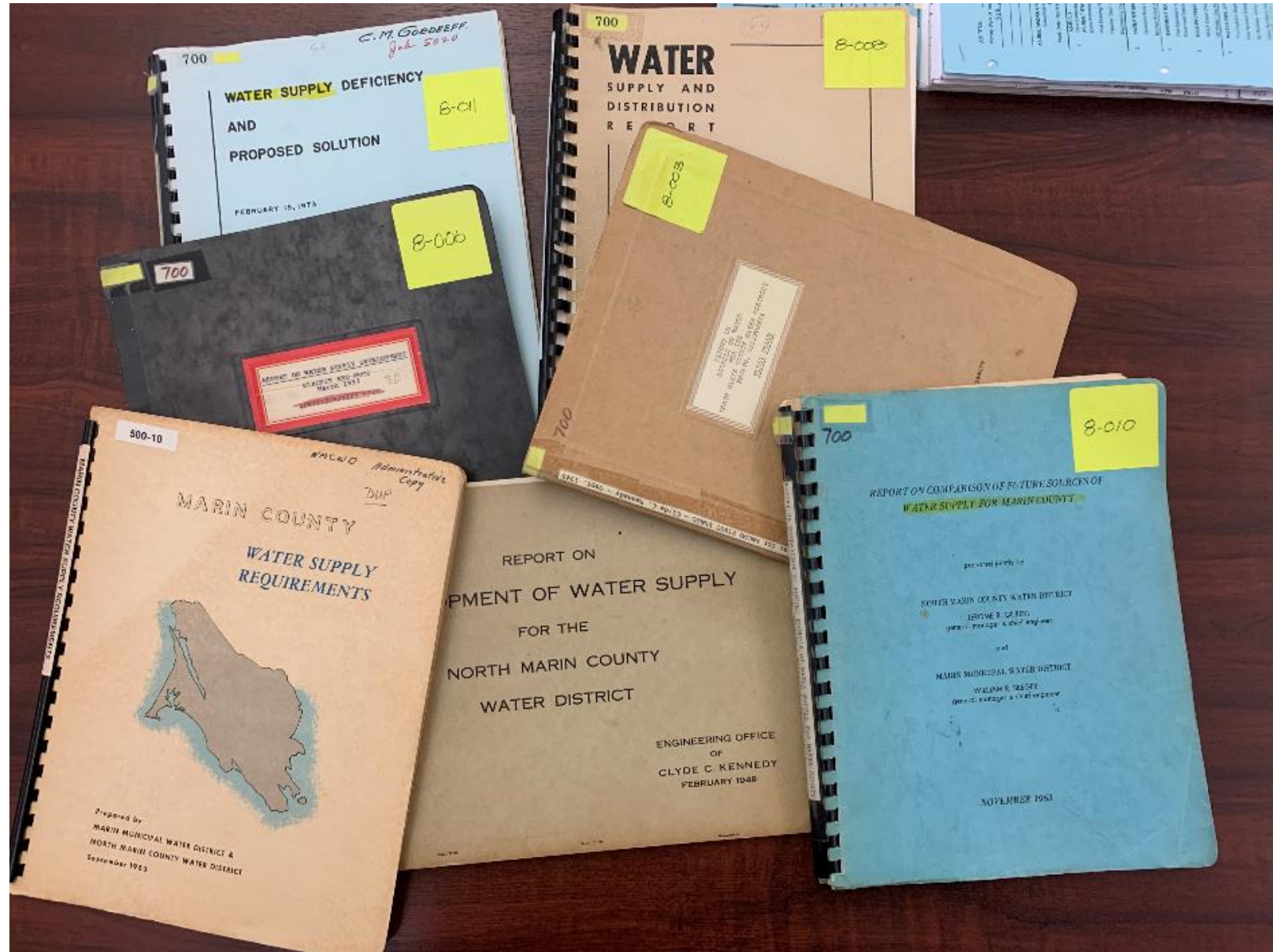
1960s – Stafford

1970s – SCWA

1980s – Stafford Raised

1990s - now: 70-85% SCWA

2011 - now – Recycled Water



Local Water Supply Enhancement Study

Issued RFP July 2021

- *Selected West Yost*

Public Workshops

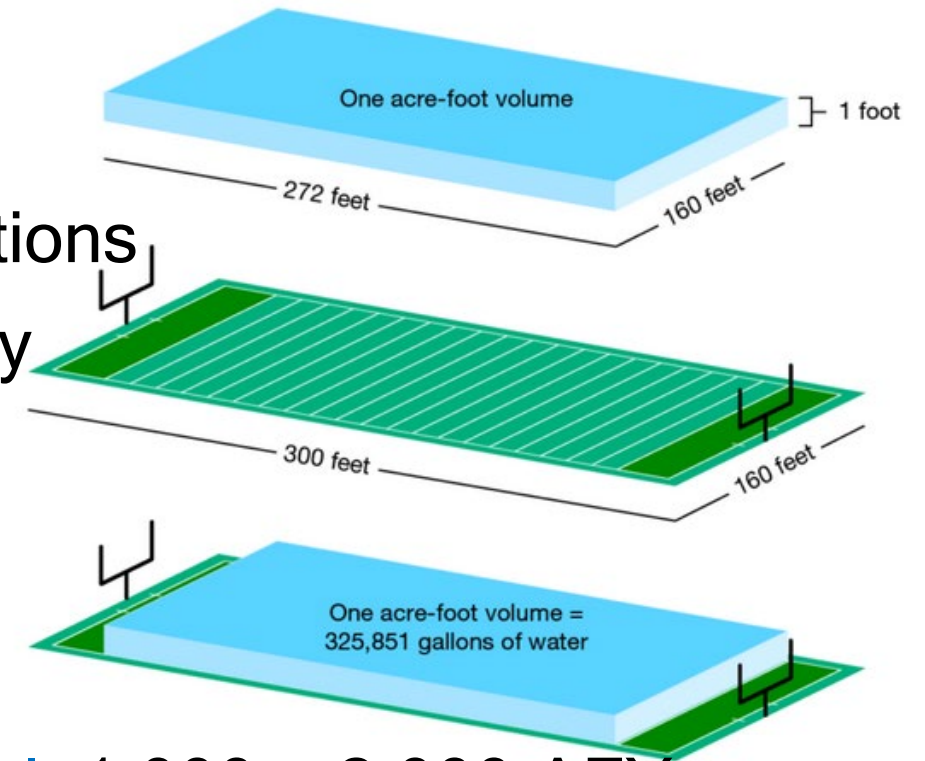
- **January & April 2022**

Final Report July 2022



Local Supply Alternatives Evaluated

- Aquifer storage recovery (ASR)
- Recycled water system expansion
- Indirect Potable Reuse (IPR) water use options
- Improve Stafford Treatment Plant Efficiency
- Capture and Conveyance of Stormwater
- Increasing Stafford Lake Capacity
- Desalination



Goal: 1,000 – 2,000 AFY



Evaluation Criteria

Quantitative Criteria




- Cost
- Water Supply Yield

Qualitative Criteria

- Reliability
- Operational Impacts
- Regulations and Permitting
- Public and Institutional Considerations
- Other Considerations



Low Ranking Alternatives

- **Aquifer storage recovery (ASR)** 
 - *Estimated at 50-100 acre-feet per year (AFY)*
 - *Pumping at tens of gallons per minute*
- **Recycled water system expansion**
 - *Potential potable water offset of up to 220 AFY*
 - *Expansion is very costly*
- **Indirect Potable Reuse (IPR) water use options** 
 - *ASR limitations*
 - *Stafford Lake at opposite end of Novato*
- **Desalination** 
 - *No viable intake or brine discharge or near shore site*
 - *Economy of Scale issue*



Potential Local Supply Alternatives

Local Water Supply Alternative	Estimated Capital Cost	Annual Yield (MGY)	Annual Yield (AFY)	Weighted Qualitative Score
Improve Stafford Treatment Plant Process Water Recapture Efficiency - Pretreatment Modification	\$70,000*	7 - 23	20 - 70	4.6
Increase Stafford Lake Storage Capacity - Spillway Notch Slide Gate	\$944,000	237	726	4.4
Divert Captured Stormwater Into Stafford Lake	\$2.46M - \$13.64M	80 - 257	245 - 788	3.2
*Includes performance testing				



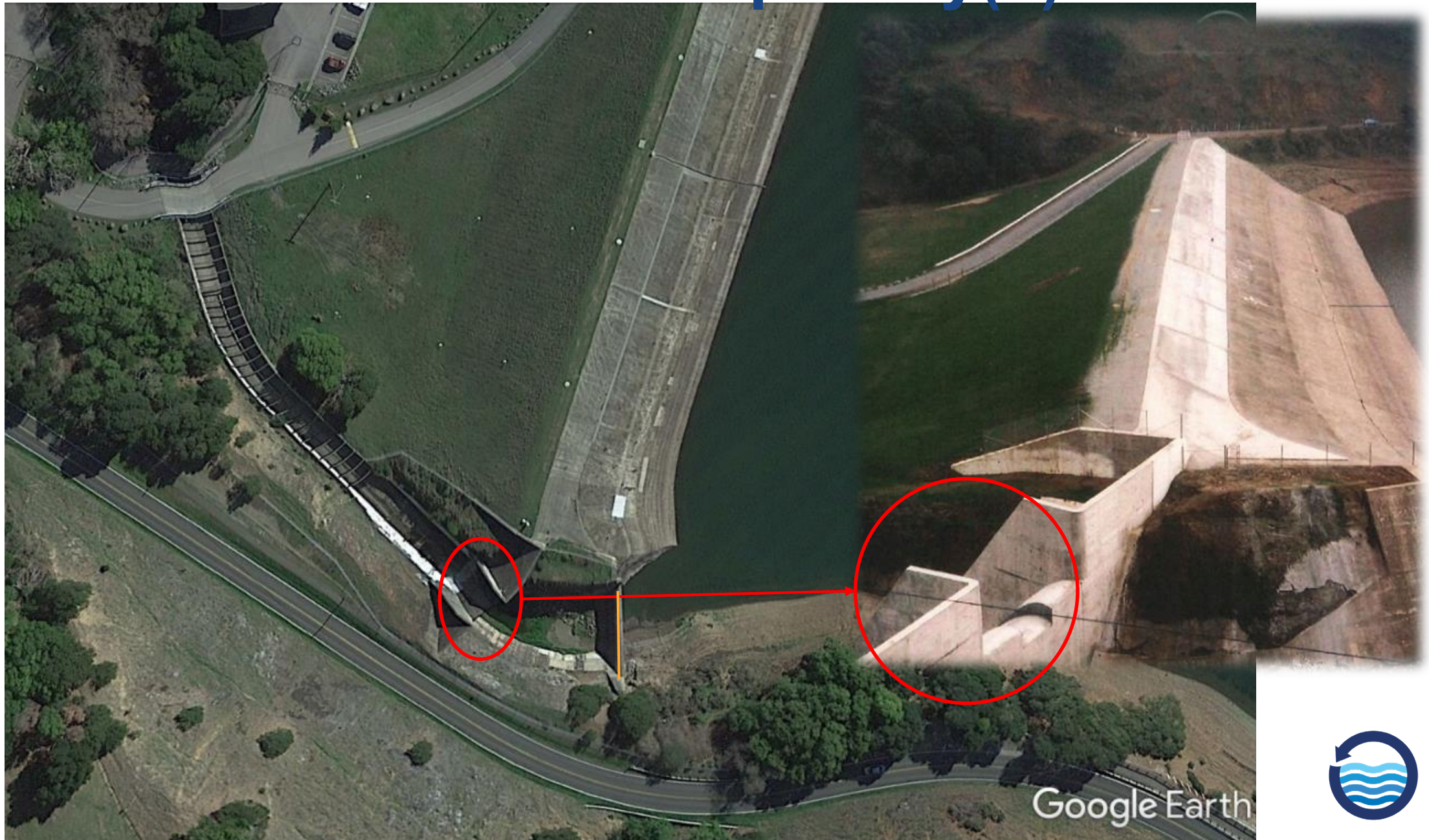
Improve Stafford Treatment Plant Process

Water Recapture Efficiency

- District staff previously conducted plant-scale study of modifying hydrocyclone return to reduce reject flow volume
- Conducting plant-scale study of modified hydrocyclone operation with external technical support to confirm capital/operations changes needed
- Raw water intake also may need modifications for more consistent intake water quality



Stafford Dam Spillway(s)



Stafford Dam Spillway Notch



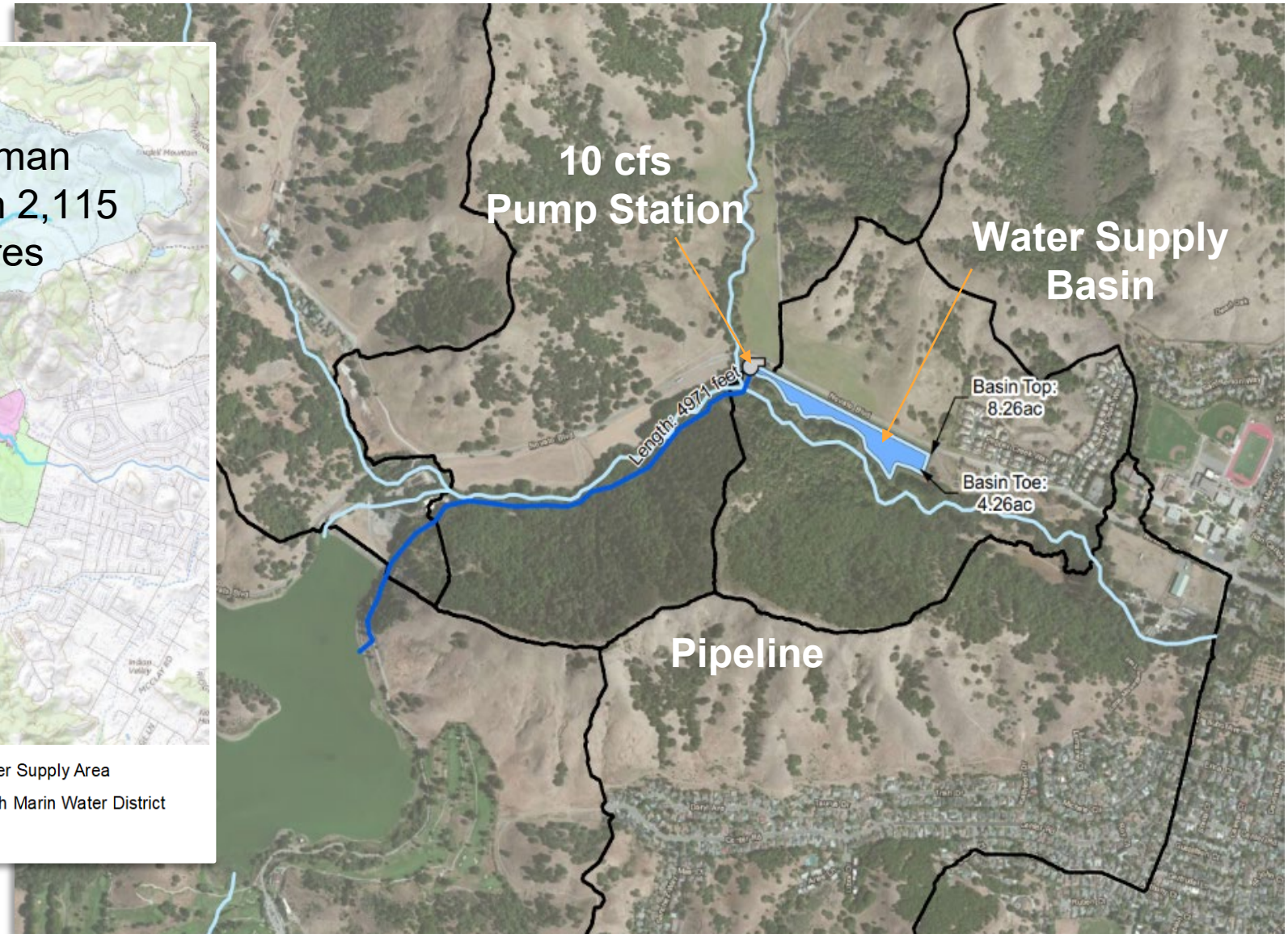
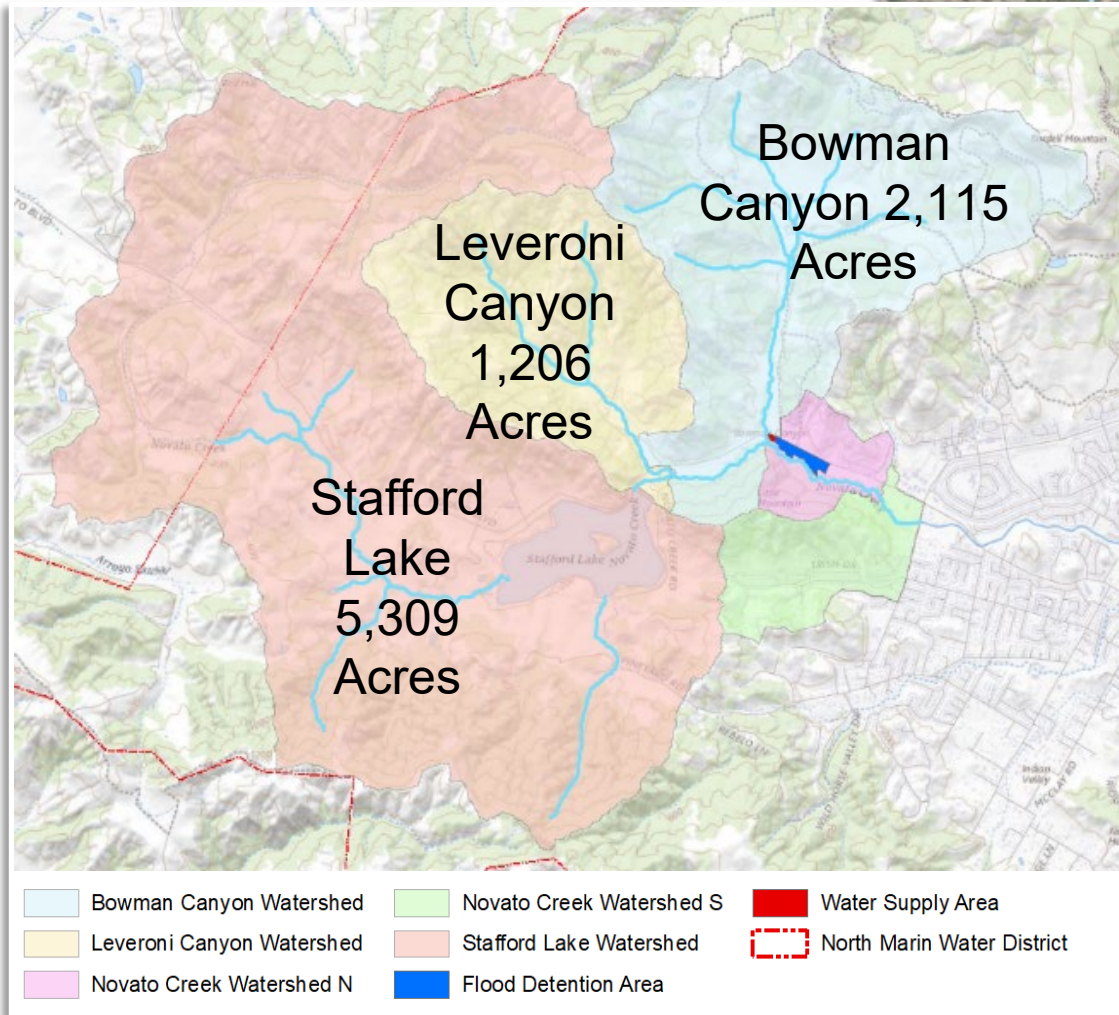
Slide Gate on Spillway Notch



Stafford Dam Spilling January 9th



Divert Captured Stormwater



FY2022-23 CIP

FY2022-23 CIP – Supply Enhancements*

Project #	Project Name	FY23 Budget**
1.6610.23	Water Supply Enhancements – STP Modifications	\$50,000
1.6610.24	Water Supply Enhancements – Dam	\$50,000
4XXX.00	Stafford Dam Master Plan	\$25,000
-	<i>Drought Contingency Plan (NBWRA)</i>	\$9,000

*CIP projects 1.6610.22, 1.6610.xx, and 1.6600.97 (\$125,000 total) could also include supply enhancement efforts.

**\$1.5M earmarked for top priority



Adjustable Spillway Gate Scoping

Regulatory/Permitting

- Division of Safety of Dams
- State Water Resources Control Board
- CA Department Fish & Wildlife

Engineering Assessments

- Spillway Gate Type Selection:
- Concrete evaluation of the spillway structure
- Hydraulic and Hydrological (H&H) evaluations
- Dam and Spillway Analysis (Stability and Seepage)
- Electrical and SCADA System
- Security Enhancements

Environmental Documentation

- CEQA
- Biological, Geological, Hydrological

Stakeholder Coordination and Approval

Other Considerations

State of California DEPARTMENT OF WATER RESOURCES California Natural Resources Agency
Division of Safety of Dam

APPLICATION FOR APPROVAL OF PLANS AND SPECIFICATIONS FOR THE CONSTRUCTION OR ENLARGEMENT OF A DAM AND RESERVOIR

DSOD Office Use Only	
Dam Number	Application Filed

Applicant must NOT fill in the above blanks.

For additional information concerning the filling out and filing of this form, refer to Part 1, Division 3 of the California Water Code and Chapter 1, Division 2, Title 23 of the California Code of Regulations. This is not an application to appropriate water. To secure the right to appropriate water, application should be made to the State Water Resources Control Board on forms the Board will provide upon request.

I, _____ of _____
Name of individual signing application Address

County of Marin, State of California, hereby make application for the approval of plans and specifications for the construction enlargement of Novato Creek Dam
Name of dam and reservoir

dam and reservoir.

The owner of the dam and reservoir is North Marin Water District
Name of owner

of P.O. Box 147, Novato, CA County of Marin, State of California
Address

If the owner is a corporation, give name and address of president and secretary:

The applicant is acting for the owner in the legal capacity of _____
Agent, Lessee, Trustee, Engineer, etc.

Location of Dam
(Enter the location of the dam's upper right abutment contact or the center of the reservoir for tanks)

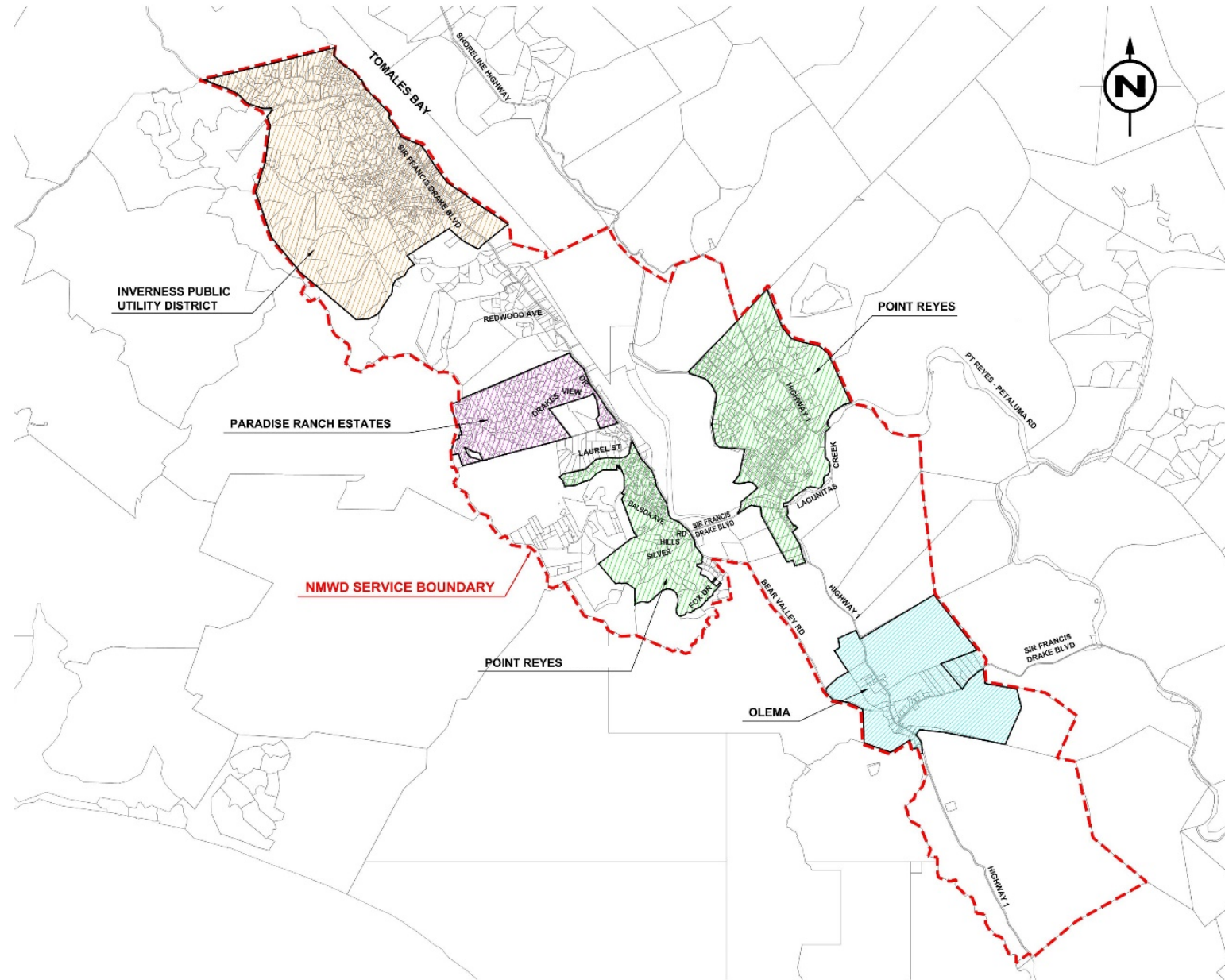
1. The dam is located at Latitude 38.12 Longitude -122.64
Enter to 5 decimal places Enter to 5 decimal places

and is located on Novato Creek tributary to n/a
Creek, river or offstream Creek or river

Description of Dam and Reservoir



West Marin Water Service Area



Water Supply Sources

Gallagher Well Field



Coast Guard Well #4



Coast Guard Wells

Well No. 2

- Drilled in 1973*
- *rescreened in 2021
- Depth = 60 feet
- Production = 320 gpm

Well No. 4

- Drilled in 2012
- Depth = 60 feet
- Production = 350 gpm

Well No. 3

- *Used as monitoring well*



Gallagher Wells

Well No. 1

- Drilled in 1993*
- *put into service in 2014
- Depth = 55 feet
- Production = 120 gpm

Well No. 2**

- Drilled in 2022
- Depth = 60 feet
- Production = 150+ gpm

***permit to operate/DDW approval
(10/31/22)*



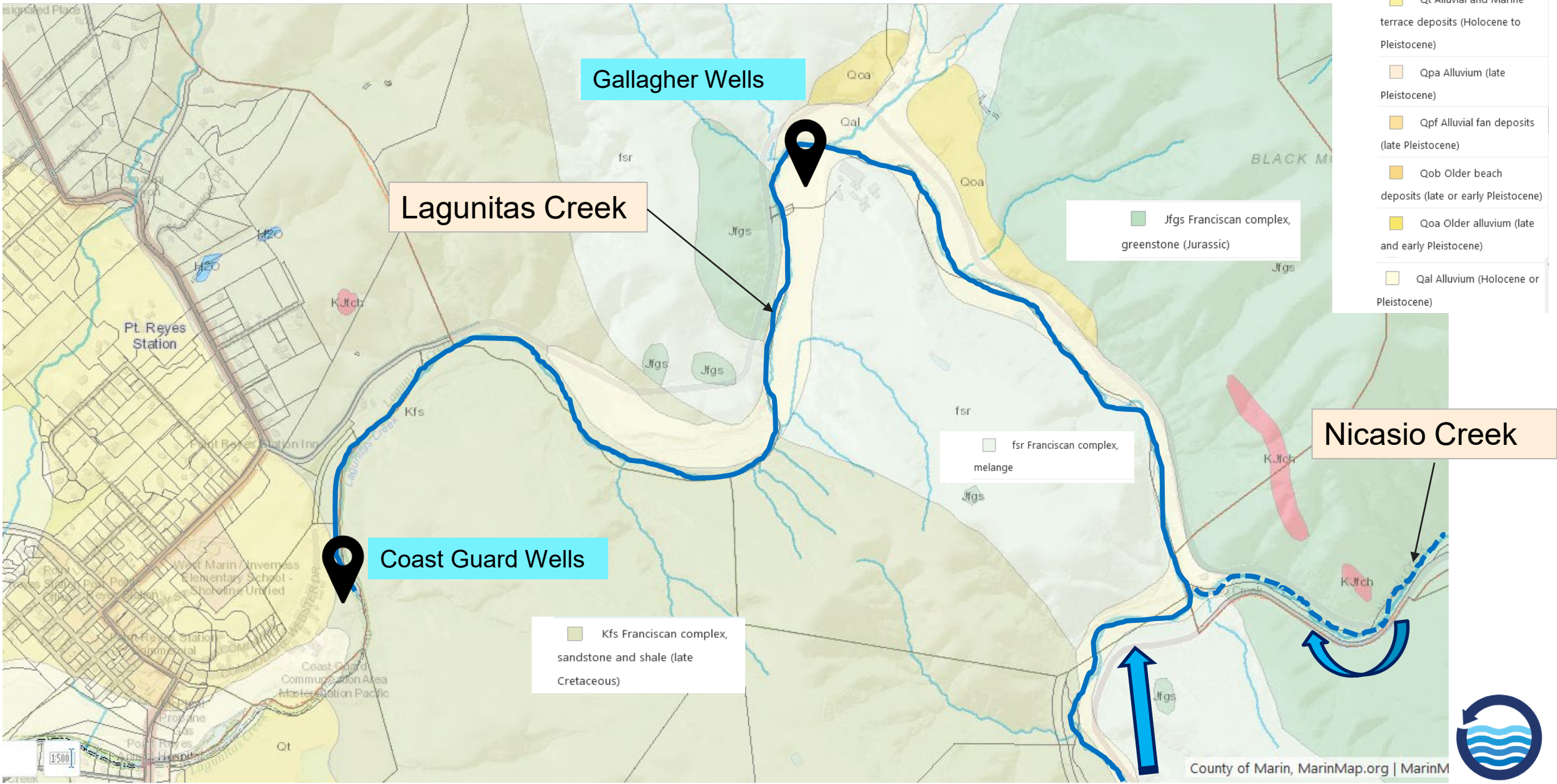
West Marin Groundwater



The State and USGS have done significant mapping and analysis of other Groundwater Basins in CA (DWR Bulletin 118)

- *Lagunitas Creek Basin identified by state in 1952*
- ❖ NMWD Has Done Numerous Subsurface Investigations and Test Wells since the 1970s
- ❖ Unconfined Shallow Aquifer (50-60 ft)
- ❖ Alluvial sands and gravels underlain by bedrock





Gallagher Wells

Lagunitas Creek

Coast Guard Wells

Nicasio Creek

- Qt Alluvial and Marine terrace deposits (Holocene to Pleistocene)
- Qpa Alluvium (late Pleistocene)
- Qpf Alluvial fan deposits (late Pleistocene)
- Qob Older beach deposits (late or early Pleistocene)
- Qoa Older alluvium (late and early Pleistocene)
- Qal Alluvium (Holocene or Pleistocene)

Jfgs Franciscan complex, greenstone (Jurassic)

fsr Franciscan complex, melange

Kfs Franciscan complex, sandstone and shale (late Cretaceous)



Lagunitas Creek Watershed



- Largest Watershed in Marin
- Very little impervious areas
- Very few wells
- Natural recharge via direct rainfall and through subsurface flows in Lagunitas Creek



Watershed Management

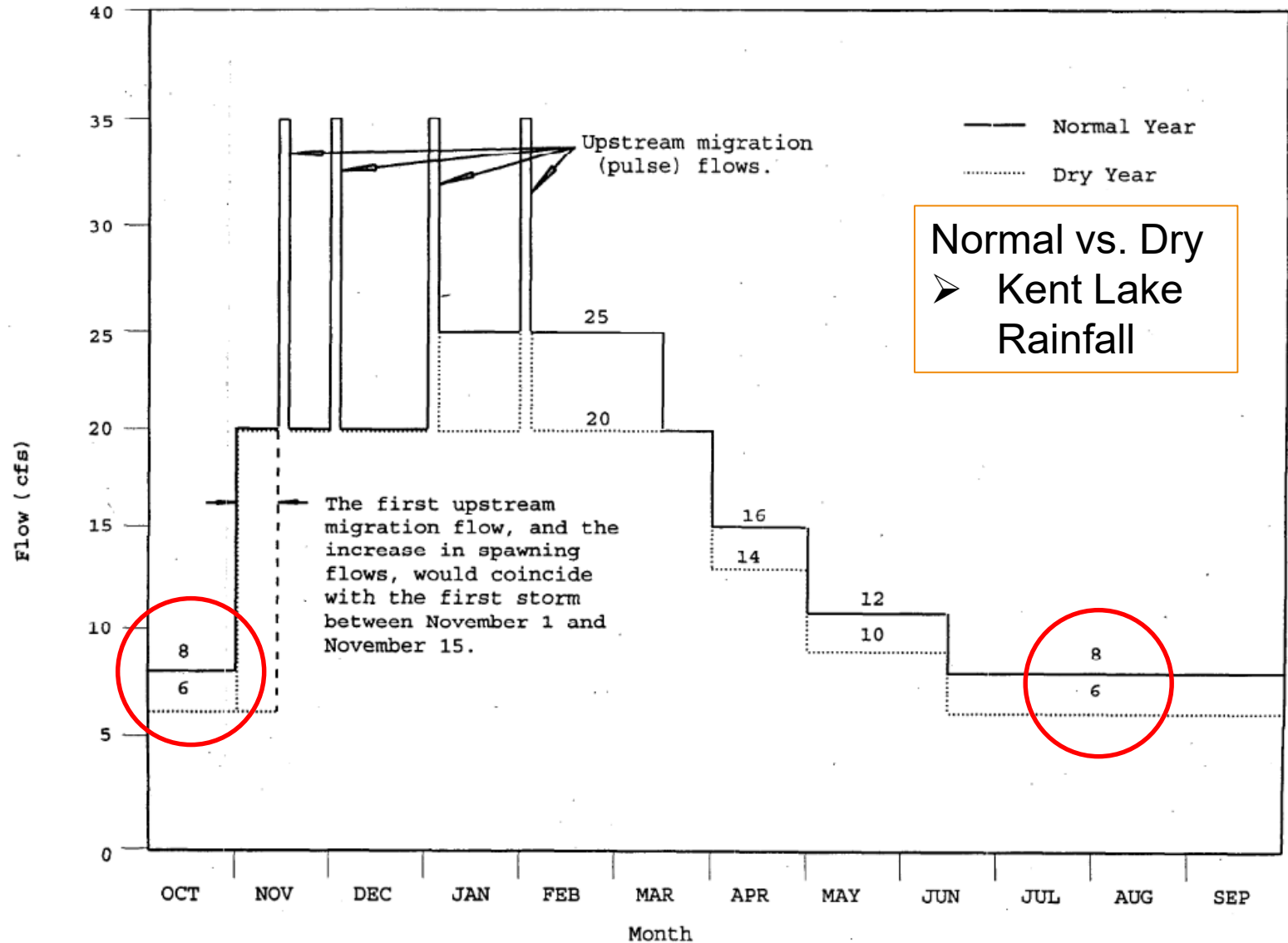
ORDER: WR 95-17

LAGUNITAS CREEK

Order Amending Water Rights and Requiring Changes in Water Diversion Practices to Protect Fishing Resources and to Prevent Unauthorized Diversion and Use of Water

October 26, 1995

STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY





Questions?



**NORTH MARIN
WATER DISTRICT**





Administrative Services Division 2023 Priorities




Overview: Administrative Services 2023 Priorities

- Water Rate Development and Implementation
- Connection Fee Study
- Financial Policies

Water Rate Development and Implementation

- Rate Schedule for Water Bills
 - Cost of Service Study
 - Rate Hearing

- Critical Funding Source for Marin Water activities
 - 95% of District revenues come from customer water bills



MARIN WATER
220 Nellen Avenue
Corte Madera, CA 94925-1105

ACCOUNT INFORMATION

Customer Number:
Service Number:
Billing Date:
Service Address:

Name
Address
City, State Zip

Billing Inquiries: 415.945.1400
Emergency: 415.945.1500

ACCOUNT DETAILS

Previous Balance:	54.71
Payments - Thank You (5/7/20):	-54.71
Adjustment:	

IMPORTANT INFORMATION

Marin Water uses this section of the bill to share important information with customers.

WATER USAGE

Meter Read Date: 02/02/2020 - 04/03/2020

Service Number	Meter Size	Prior Reading	Current Reading	Water Use Units*
				8



Rate Setting: Annual Goals & Milestones

- Initial Findings and Recommendations - February 2023
- Communication and Outreach
 - Community Workshops – February 2023
 - Proposition 218 Mailer – March 2023
- Implementation
 - Public Hearing on Proposed Rates – May 2023
 - Effective Date – July 2023

Connection Fees

- Conduct a study to review and update connection fee schedule
 - One time charges paid by new development for the right to connect to the water system
 - Recovers past and future capital costs of the water system
 - Last updated in 2018

Goals & Milestones

- Bring recommendations to Board – May 2024

Financial Policies

- Policies help guide District decision-making over the long term
- Best practice is to conduct periodic review and updates, with the following priorities:
 - Update Reserves Policy
 - Update Debt Management Policy
 - Update Procurement Policies
 - Update Investments Policy

Goals & Milestones

- Bring recommendation to Board – May 2024





Water Resources 2023 Priorities



Overview: Water Resources 2023 Priorities

- Water Supply Resiliency
 - Water Supply Roadmap Implementation
- Water Efficiency
 - SWSA Water Conservation Program
 - Conservation Master Plan
 - Water Loss Study

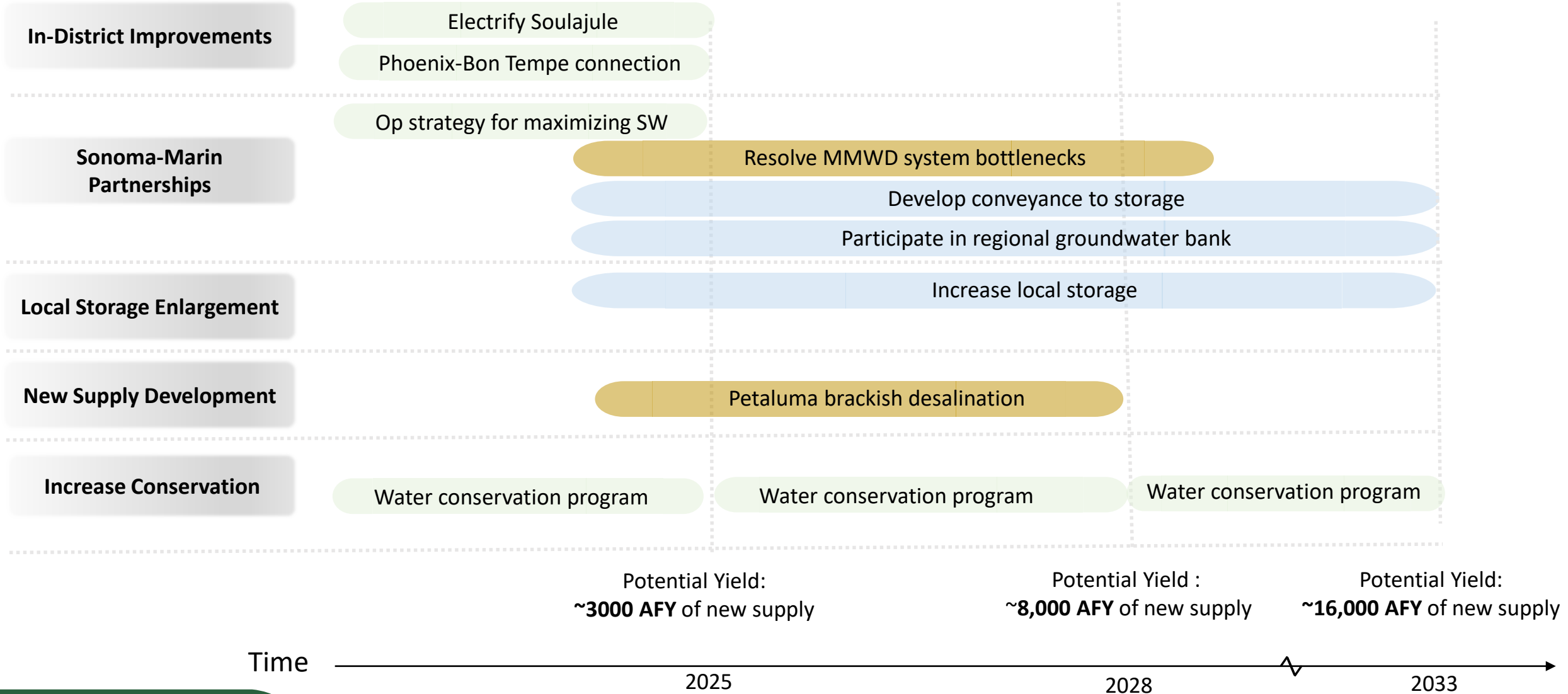
Water Supply Roadmap Implementation

- Range of Water Supply Options will likely be included in final roadmap
- Planning for implementation of supply options
- All supply options generally require similar level of pre-design work



Example Integrated Roadmap and Potential Yield:

Combining actions from various portfolios



Estimated Budget Needed To Support Roadmap Options – 4 year

	4-yr. Operational Cost [Million]	4-yr. Capital Cost [Million]
Conservation	\$6.8	\$0
Phoenix to Bon Tempe	\$0.2	\$5
Soulajule Electrification	\$1	\$6
Maximize Supplemental Water using existing facilities	\$11.5	\$0
Pre-design	--	\$12.5
4-Yr Total	\$19.5	\$23.5

Examples of Pre-design work on possible Projects: Marin-Sonoma Options

- Develop operational plans to optimize supplemental water via existing facilities
- Select preferred approach to conveyance
- Determine optimum capacity /sizing of selected conveyance option
- Pre-design report - confirms water availability, alignment, ROW needs, jurisdiction, permits, cost estimate
- Design to support CEQA/NEPA
- Approximate cost \cong \$4.5 Million

Examples of Pre-design work on possible Projects: Local Storage Enlargement

- Review hydrology, preliminary design, geotech and selection of reservoir (KENT/NICASIO/SOULAJULE) and scale of enlargement
- Model and analyze stream flows and impacts/benefits to creek/fishery of various options
- Discussion with State Water Resources Control Board, National Marin Fishery Service, CDFW and other resource agencies/stakeholders
- Design to support CEQA/NEPA
- Approximate cost \cong \$5.5 Million

Examples of Pre-design work on possible Projects: Petaluma Desalination

- Establish regional collaboration group
- Study to confirm aquifer pumping capacity, water quality, establish project approach, budget and schedule
- Studies to support brine disposal options, understand potential impacts to area of discharge and compliance with likely NPDES permit
- Engineering design to support CEQA
- Approximate cost \cong \$2.5 Million

Resourcing For Implementation of Roadmap

- Combined resources of Water Resources and Engineering for different aspects of the work
- Consultants to augment staff with technical work and program management

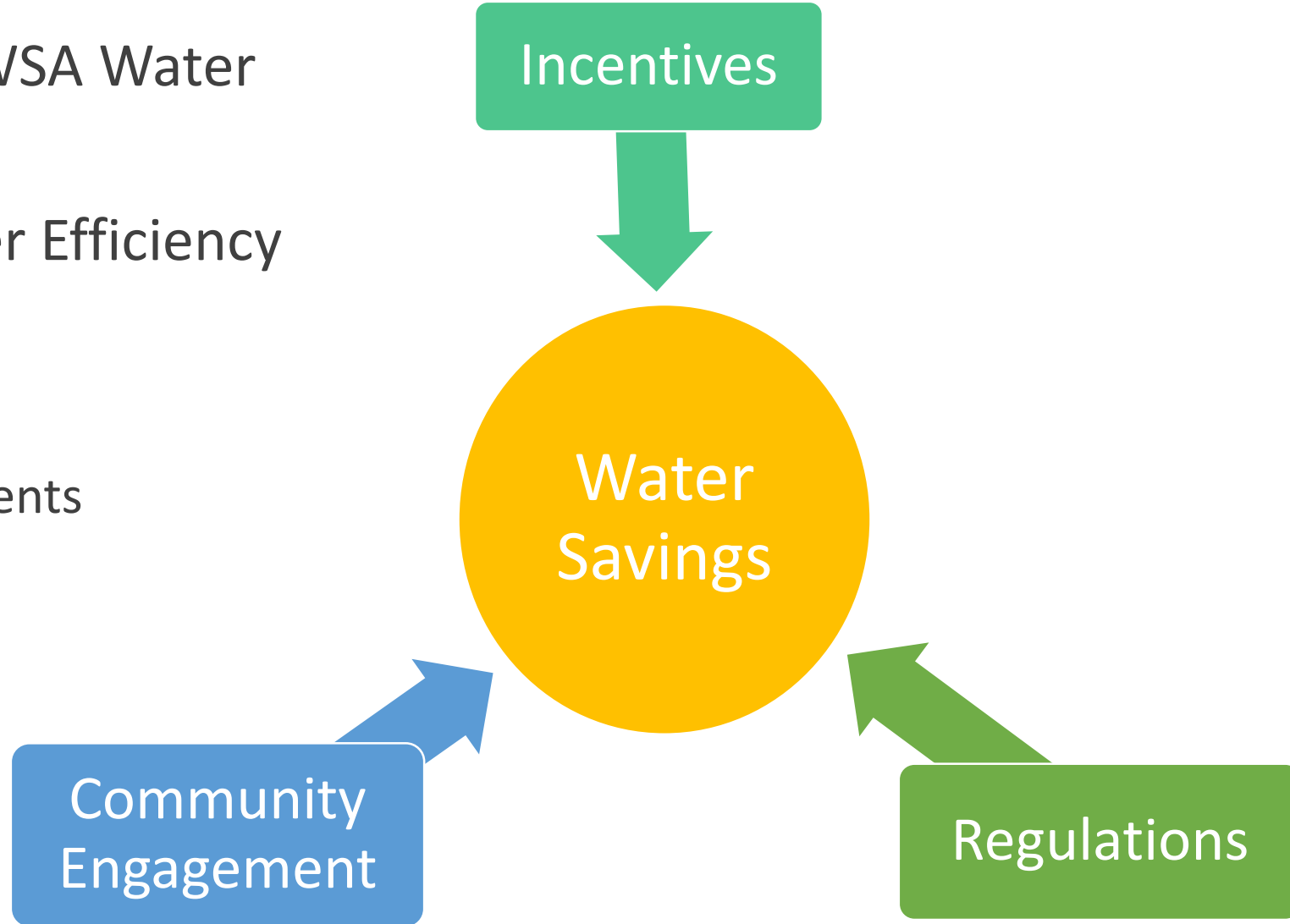


Water Supply Roadmap: Goals & Milestones

- Roadmap selection - **February 2023**
- Begin forming consulting teams to work on project selected from the roadmap - **March 2023**
- Begin “no-regrets” projects implementation - **March 2023:**
 - Conservation actions
 - Soulajule Electrification
 - Phoenix to Bon Tempe
- Develop detailed approach and schedule for individual projects and overall roadmap - **August 2023**

Overview: Water Efficiency 2023 Priorities

- Implementation of the SWSA Water Conservation Program
- Development of the Water Efficiency Master Plan
- System Water Loss Study
 - State regulatory requirements
 - New technologies
 - Maximize opportunities



Pursuing Demand Reduction through Water Efficiency

WATER EFFICIENCY PROGRAM

SWSA's WATER CONSERVATION ELEMENT

Demand Reduction Goal: ~200 AFY

WATER EFFICIENCY MASTER PLAN

Goal: TBD

DROUGHT RESPONSE ACTIONS

Goal: Aligns with Shortage Level

- Incentivized, voluntary program
- Quantifiable programs with calculated water savings
- Participation levels limited to be achievable based on historic data

- Short, medium, long term demand reduction goals maximizing the potential water savings
- Leading edge initiatives
- Incentivized, voluntary program
- May include adaptation of ordinances
- Includes non-quantifiable programs

- Short term, low frequency
- Initially voluntary, progress to mandatory
- Defined short term savings objectives per adopted Shortage Level (WSCP)
- Provides some long-term benefit

SWSA Conservation Program Details & Cost

Activity Name (program offer)	Annual Participation	Unit Cost (\$/AF)	Cumulative Water Savings in 2045 (AF)
<i>Drought Response Program Savings</i>			
High Efficiency Toilets (\$150 rebate)	30	\$2,435	6
High Efficiency Clothes Washers (\$100 rebate)	390	\$732	116
Flume Home Water Monitor (\$115 rebate)	2,000	\$442	904
Drought Program Turf Conversion (\$3/sqft)	380,000	\$2,024	780
Drought Program Mulch Madness (\$4.26/sqft)	47,600	\$3,116	97
Hot Water Recirculating System (\$50 rebate)	150	\$1,677	17
<i>Ongoing SWSA Water Conservation Program</i>			
AMI Leak Notifications (letters)	1,250	\$287	9,990
Non-Functional Turf Conversion (\$1.50-\$3/sqft)	70,000	\$2,132	4,505
Turf Conversion – Post Drought Programs (\$1.50-\$3/sqft)	100,000	\$1,985	4,282
Pool Cover Rebates (\$100 rebate)	90	\$877	642
Residential Irrigation Controller (\$100 rebate)	100	\$1,035	586
Residential CAP's (site visits)	500	\$13,763	378
Laundry-to-Landscape System (\$125 rebate)	40	\$4,988	154
Rain Barrel Rebate Program (\$0.50/gal of storage)	15,000	\$8,820	58
Program Overhead		\$414	
Total		\$1,792	22,515

Additional Water Efficiency Programs & Activities

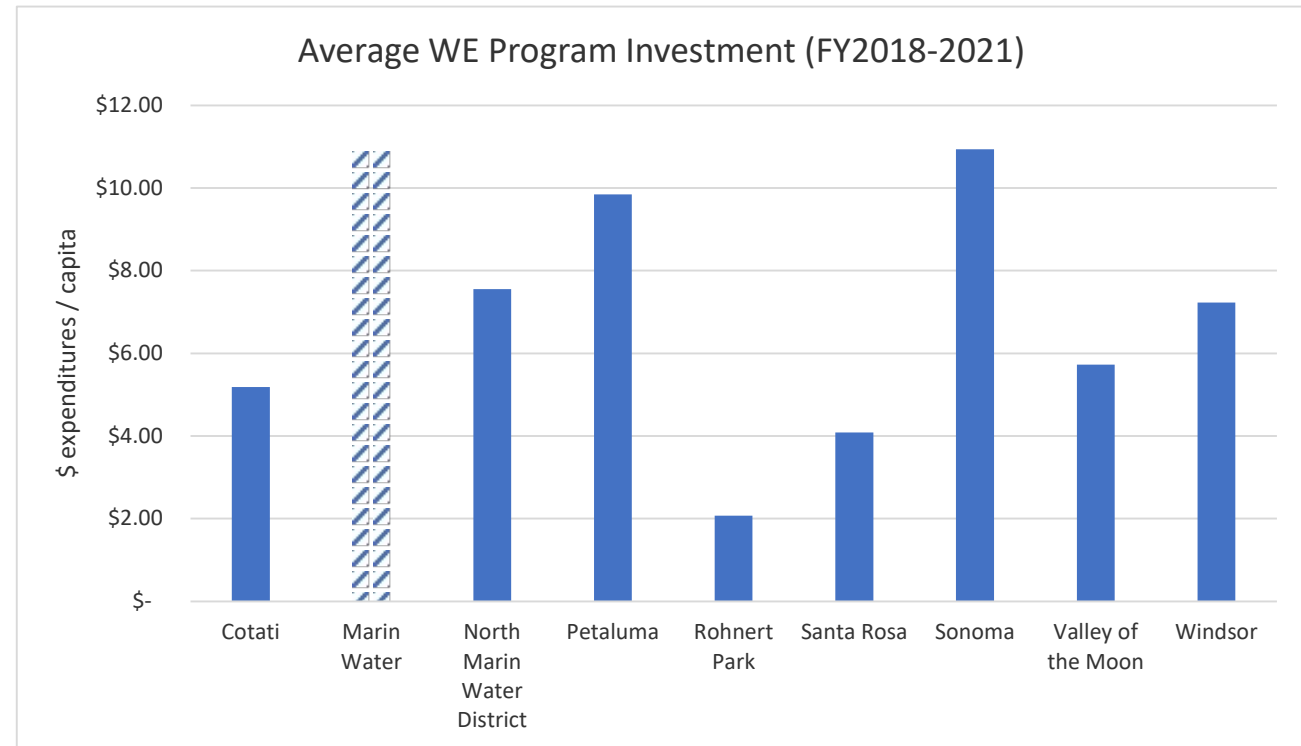
- Incentive programs target savings for both indoor & outdoor
- Landscape Plan Review
- Education Program
 - Youth Education in Schools
 - Contractors (builders, landscapers, plumbers)
 - Homeowners
- Outreach Events
 - Local community events
- Local, State, and National Partnerships
 - ie: Master Gardeners, Alliance for Water Efficiency
- Water Waste Prohibitions
 - Follow-up on reported water waste
- Customer Resources
 - ie: Weekly watering schedule

Current Incentive Offers

- High Efficiency Clothes Washers (\$100)
- High Efficiency Toilets (\$150)
- Flume devices (\$75) *Grant funded*
- Hot water recirculating systems (\$50)
- Showerheads, faucet aerators (free)
- Dye tablets for toilet leak detection (free)
- Lawn replacement (\$1.50 or \$3.00/ sqft, up to \$3K residential and \$15K commercial)
- Rain barrels (\$0.50/gallon of storage, up to \$1,000)
- WaterSense irrigation controllers (\$100)
- Laundry-to-landscape graywater kits (\$125)
- Pool and spa covers (\$100)
- Hose nozzles (free)

Water Efficiency Program Budget

- Future Annual Program Budget
 - SWSA: \$1.7M
 - All other activities: \$1.1M
 - WE Master Plan: TBD
- Historic Annual Program Budget
 - Non-drought: \$2.4M



Water Efficiency: Goals & Milestones

- Begin implementation of SWSA Conservation Program - **Feb 2023**
- Water Efficiency Master Plan framework initial briefing - **March 2023**
- Engage consultant for water loss study - **March 2023**
- Water Efficiency Master Plan elements and funding - **July 2023**
- Draft Water Loss Study - **August 2023**
- Draft Water Efficiency Master Plan - **September 2023**
- Final Water Loss Study - **October 2023**
- Final Water Efficiency Master Plan - **October 2023**





Engineering Division 2023 Priorities



Overview: Engineering Division 2023 Priorities

- Long Term Capital Planning
- SAP Conversion - Enterprise Resource Planning
- Help Desk Service Contract
- District Paving Program

Long Term CIP Planning

- Historic CIP planning has consisted of 2-year budget with a 10-year programmatic overview
- In 2019, the District analyzed, prioritized, and developed a proposed project-specific 10-year plan
- Currently several long term plans in progress
 - Water System Master Plan
 - Strategic Water Supply Assessment
 - Watershed Recreation Management Plan
 - Water Conservation Plan
 - IT Strategic Plan



Long Term CIP Planning: Annual Goals & Milestones

➤ Begin planning process September 2023

- Incorporate all capital elements of ongoing planning efforts into comprehensive long, medium, and short term plans
- Use asset management principles where applicable
- Account for unanticipated needs and emergencies

30-Year (Long-Range) CIP

- Updated every 10 years
- Long enough that major portions of MMWD system reach expected design life

10-Year (Medium-Range) CIP

- Updated every 3-5 years
- Provides a queue for the 4-year CIP

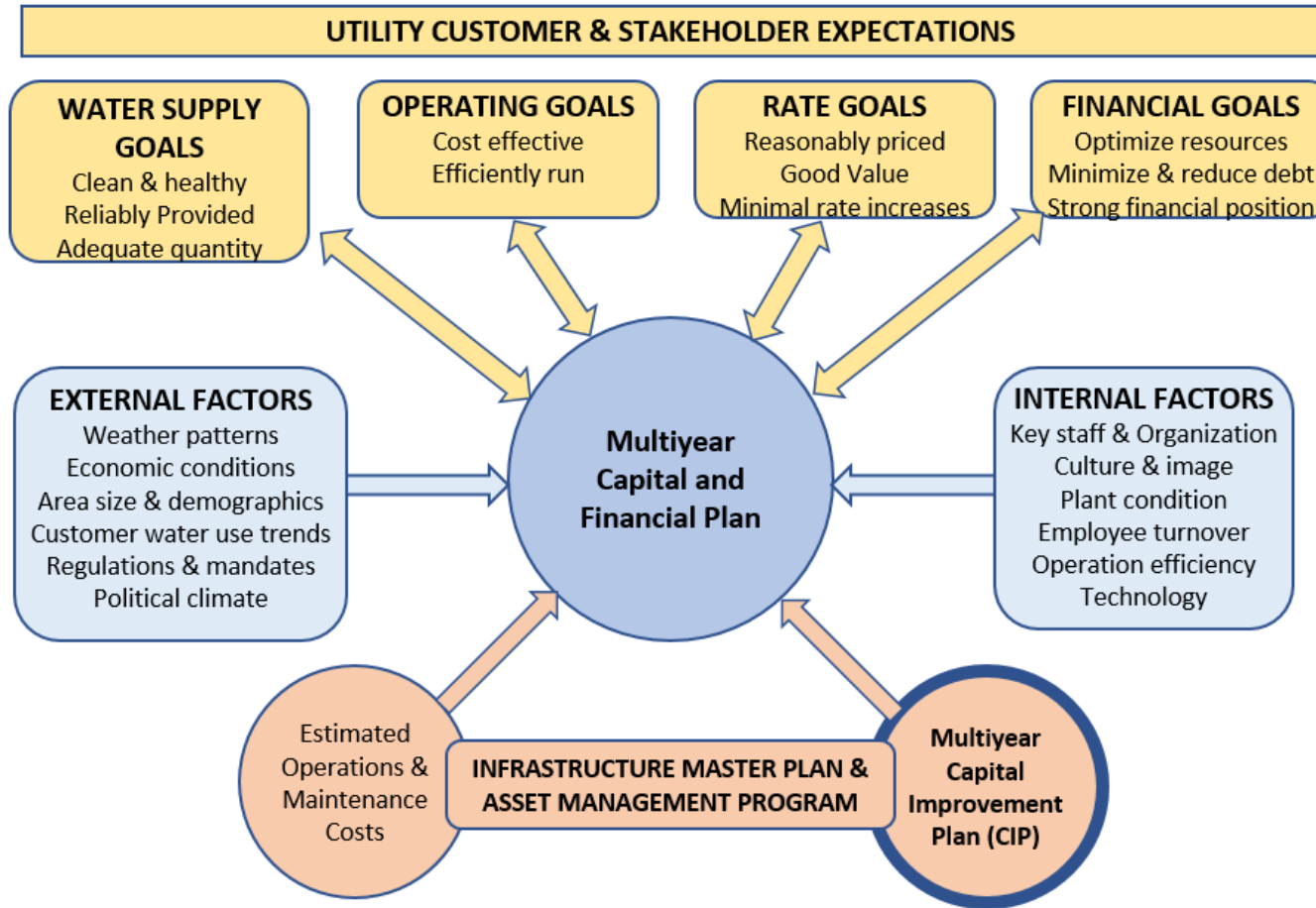
4-Year (Medium-Range) CIP*

- Updated annually for budget forecasting

*4-Year plan tied to budget and rate increase, Prop 218 required

Long Term CIP Planning: Annual Goals & Milestones

➤ Finalize 30 and 10 Year Capital Plan – May 2024



Source: AWWA M29 – Water Utility Capital Financing

Information Technology Strategic Plan

- Develop Information Technology Strategic Plan:
 - Identify long-term needs & opportunities for optimizing support for District activities and enhancing the use of Information Technology

Annual Goals and Milestones

- Expert Review of Draft Plan - March 2023
 - Engage staff and key stakeholders in internal review
- Bring to Board & finalize IT Strategic Plan - August 2023

SAP Conversion - Enterprise Resource Planning

- Enterprise Resource Planning (ERP) refers to a type of software that organizations use to manage day-to-day business activities such as accounting, human resources, budgeting, procurement, inventory, project and maintenance management, and customers relations.
- SAP has been in use at the District for over 23 years
- SAP is at “end of life” with no more updates planned other than security patches through December 2027



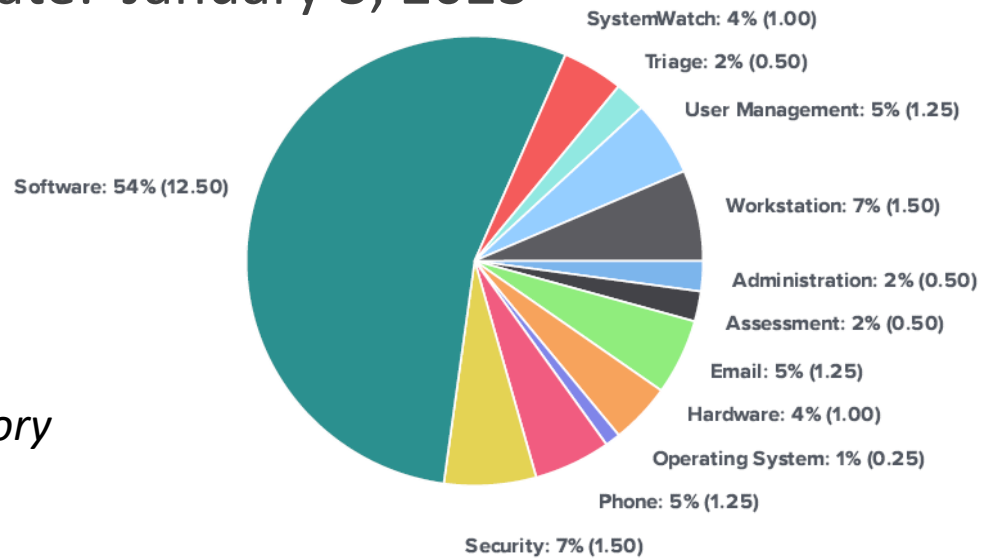
SAP Conversion: Annual Goals & Milestones

ERP Implementation Plan

- Phase 1 - Initiate ERP Options Review
 - Issue RFP – September 2023
 - Conduct Needs Assessment – December 2023
 - Vendor Demonstrations and Options Review – 2024
- Phase 2 – Contract Development
 - Prepare bid documents and professional services agreements for preferred alternative – Dec 2024
 - Vendor/Consultant Selection
- Phase 3 – Implementation
 - Data transfers, customizations, and “sandbox” testing - 2025-2026
 - Staff training – Spring 2026
 - “Go Live” Target Date – July 1, 2026

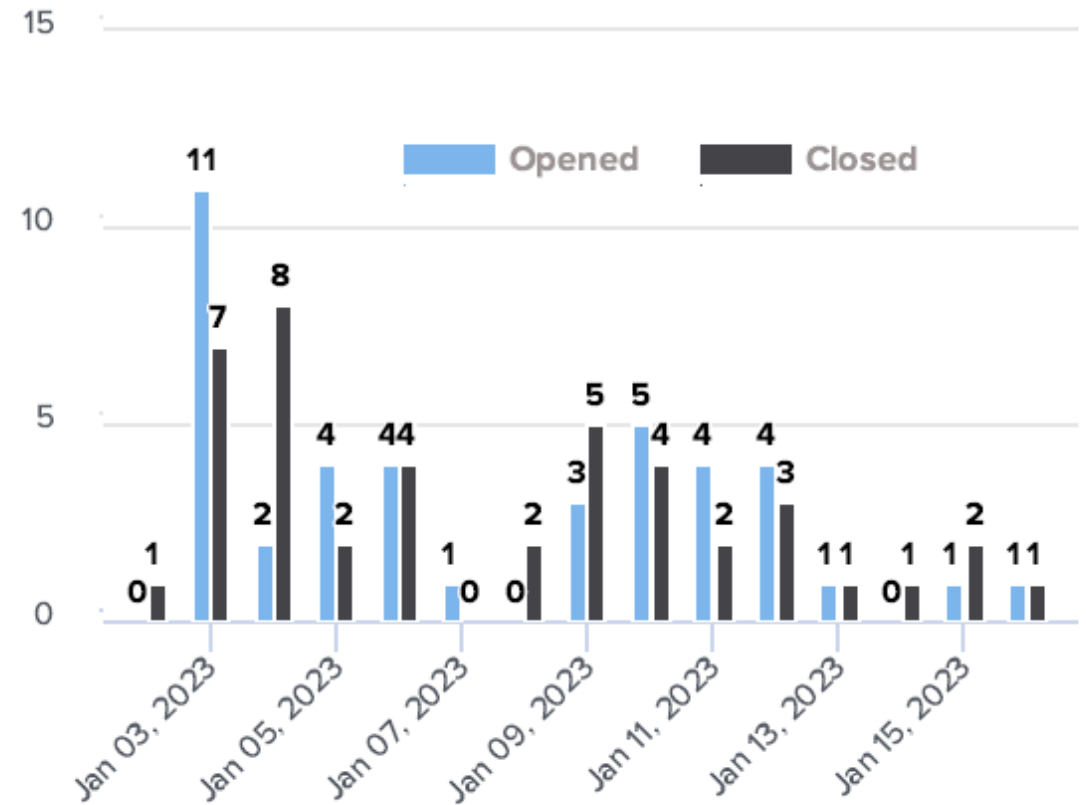
Help Desk Service Contract

- With recent staff retirements, the District entered into a four month service contract to augment Helpdesk staff with an outsourced provider
- Selected Provider: Team Logic IT, Santa Rosa, CA
- Start Date: January 3, 2023



Ticket Category by hours

Opened vs. Closed Tickets - Daily



Help Desk Service Contract

- Online ticketing system for ticket creation, tracking, collaboration, and reporting. Remote management of desktop updates and security patches. Reporting and tracking features
- If successful, could redeploy FTEs to support upcoming IT initiatives including:
 - SAP Conversion - ERP
 - GIS Utility Network Conversion
 - Conversion to Microsoft O365
 - Replacement of CISCO phone system
 - Software Integration for AMI

Help Desk: Annual Goals & Milestones

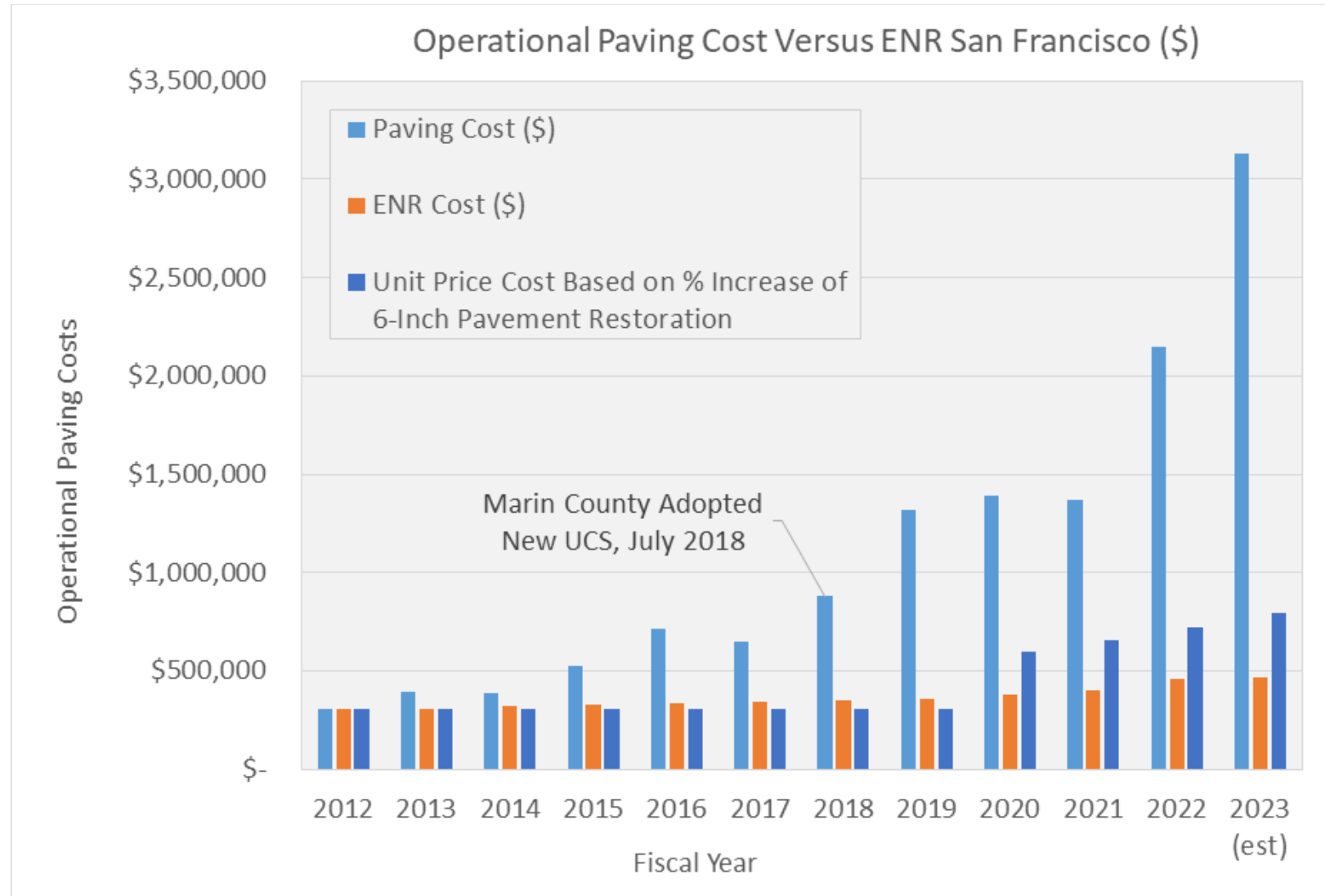
- Internal review of Helpdesk Service Contract with IT staff and internal users
 - 2 month review – March 2023
 - 4 month review – May 2023
- Evaluation of statistics, metrics, pros/cons for Help Desk Service Contract
- Report out to the Board – May 2023

District Paving Program

- Encroachment permits for pipe repairs and capital projects dictate extent of required paving per local jurisdictions
- Operational paving needs for pipe-repairs and other needs are met through a multi-year on-call paving contract
- Capital project paving needs are executed as a bid item under the contract award, which may be performed by the primary contractor or via a sub-contractor

District Paving Expenditures for Operations

- District operations paving costs have increased **927%** from 2012-2023
- In comparison, Contract Unit Costs have increased ~10% per year or 160% since 2012
- ENR Construction Cost Index has increased 54% since 2012
- **80%** of the increase has been due to increases in permit conditions



Paving requirements and limits are increasing



**PRE-2018 MARIN COUNTY UCS PAVING
PATCH**



**POST-2018 MARIN COUNTY UCS
STANDARD UPDATES**



Paving requirements and limits are increasing



**TYPICAL POST-2018
REPAIR PATCH**

**TYPICAL PRE-2018
REPAIR PATCH**

Paving requirements and limits are increasing



Paving: Requirements and limits are increasing

- Survey of 19 neighboring jurisdictions outside of Marin County shows that:
 - 2018 Marin County UCS trench and paving standards require 60% more paving than others
 - City of San Rafael 2022 paving standards are now 130% to 340% greater than others
- Cities in Marin County either follow the 2018 Marin County standards or adopt a more strict version
- Trend appears to be continuous increase in paving requirements and limits, increasing the cost for utility capital and operational costs

Paving Restoration Program: Strategy and Approach

- Staff Level Engagement - Pursue MOUs with City/County for paving exemptions in exchange for performance guarantees and monitoring plans – August 2023
- Develop understanding of legal bounds for increased paving limits under Proposition 218 and cost of service.
- Bring on an expert to analyze industry standards
- Elevate discussions between elected officials, as necessary
- Longer term – consider lobbying effort for legislative changes (through ACWA)
- Legal strategies

