NOTICE OF THE BOARD OF DIRECTORS' REGULAR BI-MONTHLY MEETING

Tuesday, November 18, 2025 at 5:30 PM

AGENDA

LOCATIONS:

Open Session to start at or after 6:30 p.m.

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

Outside location for Director Larry Russell - Harrahs Resort Southern California, 777 Harrahs Rincon Way, Business Center, Valley Center, CA 92082

Closed Session begins at 5:30 p.m.

Marin Water Mt. Tam Conference Room, 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:

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

On a computer or smart device, go to: **https://marinwater.zoom.us/j/88134852296**

By phone, dial: **1-669-444-9171** and use Webinar ID: **881 3485 2296**

HOW TO PROVIDE PUBLIC COMMENT:

During the Meeting: Typically, you will have 3 minutes to make your public comment, however, the board president mayshorten 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. **Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s)**

   Following announcement of Closed Session items and prior to recess into Closed Session, the public may speak up to three minutes on items to be addressed in Closed Session. The Board will convene to Closed Session in the Mt. Tam Conference Room after public comment.

   a. **Closed Session - Liability Claim**
   (*California government code §54956.9 (d)(2) and (e)(3)*)

   Claimant: Mark Luria

   b. **Conference with Real Property Negotiations**
   (California Government Code §54956.8)

   Property: APN 125-202-13 & APN 125-202-14 (7701 Redwood Blvd., Novato)

   Agency Negotiation: Ben Horenstein, General Manager

   Negotiating Parties: Roshan Patel (Golden State Properties)

   Under Negotiation: Price and Terms

   Adjourn closed session and reconvene to open session in the Board Room and via Zoom.

4. **Reconvene to Open Session; Closed Session Report Out**
5. **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.

6. **Directors' and General Manager's Announcements**
7. **Board Committee Reports**

   Each Committee Chair or Vice Chair will provide a report on recent committee meetings. Directors may ask questions or provide brief comments or requests for additional information on an item.

8. **Consent Items** (6:40 p.m. – Time Approximate)

   All Consent Items will be enacted by a single action of the Board, unless specific items are pulled from Consent by the Board during adoption of the agenda for separate discussion and action.

   a. November 4, 2025 Board Meeting Minutes

   RECOMMENDATION: Accept the minutes of the Board of Directors' Regular Bi-Monthly Meeting on November 4, 2025

b. General Manager's Report October 2025

RECOMMENDATION: Approve Report

9. **Regular Items** (6:45 p.m. – Time Approximate)

a. Lagunitas Creek Enhancement Project Phase 1B Construction and Monitoring

RECOMMENDATION: Receive staff update on Lagunitas Creek Enhancement Project Phase 1B construction, monitoring, and grant funding

b. Approve a Professional Services Agreement for Nicasio Hydrology Study

RECOMMENDATION: Approve a Professional Services Agreement with Environmental Science Associates (ESA) for Nicasio Hydrology Study in the amount not to exceed $387,685 and authorize the General Manager to execute the agreement

10. **Future Board and Committee Meetings and Upcoming Agenda Items**

This schedule lists upcoming board and committee meetings as well as upcoming agenda items for the next month, which may include Board interest in adding future meeting items. The schedule is tentative and subject to change pending final publication and posting of the meeting agendas.

a. Upcoming Meetings

11. **Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s) - None.**

12. **Reconvene to Open Session; Closed Session Report Out - Not applicable.**

13. **Adjournment** (7:45 p.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: 11-14-2027

STAFF REPORT

Meeting Type:	Board of Directors
Title:	November 4, 2025 Board Meeting Minutes
From:	Terrie Gillen, Board Secretary
Through:	Ben Horenstein, General Manager
Meeting Date:	November 18, 2025

TYPE OF ITEM: X Action Information

RECOMMENDATION: Accept the minutes of the Board of Directors' Regular Bi-Monthly Meeting on November 4, 2025

SUMMARY: The Board of Directors held their regular bi-monthly meeting on November 4, 2025. The minutes of that meeting are attached for your approval.

DISCUSSION: None.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S):

1. Draft November 4, 2025 Regular Meeting Minutes

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

Attachment 1

NOTICE OF THE BOARD OF DIRECTORS' REGULAR BI-MONTHLY MEETING

Tuesday, November 04, 2025 at 5:30 PM

MINUTES

LOCATIONS:
Open Session to start at or after 6:30 p.m.
Marin Water Board Room – 220 Nellen Avenue, Corte Madera, CA 94925

Closed Session begins at 5:30 p.m.
Marin Water Mt. Tam Conference Room, 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:
The public attended this meeting in-person or remotely using one of the following methods: on a computer or smart device, https://marinwater.zoom.us/j/88134852296, or by phone, 1-669-444-9171, using Webinar ID #: 881 3485 2296.

AGENDA ITEMS:

1. **Call to Order and Roll Call**

   President Matt Samson called the meeting to order at 6:30 p.m.

   DIRECTORS PRESENT

   Ranjiv Khush

   Diana Maier

   Larry Russell

   Jed Smith

   Matt Samson

2. Adoption of Agenda

Vice President Smith motioned to adopt the agenda. Director Maier seconded the motion.

There were no public comments.

Voting Yea: Directors Khush, Maier, Russell, Smith, and Samson

3. Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s)

There were no public comments.

President Samson announced that the Board would leave the room.

The Board convened the Closed Session at the Mt. Tam Conference Room to discuss the following items.

a. Conference with Real Property Negotiations
(*California government code §54956.8*)

Property: APN: 010-21-02, Forbes Reservoir Site

Agency Negotiation: Ben Horenstein, General Manager

Negotiating Parties: Steve Moore (Ross Valley Sanitary District)

Under Negotiation: Price and Terms

b. Conference with Legal Counsel - Anticipated Litigation
(Significant exposure to litigation pursuant to *California Government Code 54956(b)*)

Number of Cases: 1

The closed session adjourned. The Board reconvened to open session in the Board Room and via Zoom

4. Reconvene to Open Session; Closed Session Report Out

At 6:30 p.m., the open session continued with President Samson reporting that no reportable action took place.

5. Public Comment on Non-Agenda Matters

There were four (4) public comments.

6. Directors' and General Manager's Announcements

- Director Maier reported that she got to see a ZunZun representative engage with students regarding water conservation and appreciated his talents.

- President Samson commended staff for last month's informational bill insert. Also, he mentioned his attendance at the 2025 Association of Metropolitan Water Agencies Conference to accept *the Gold Award for Exceptional Utility Performance* on behalf of Marin Water. This distinguished award acknowledged the District's leadership, including stengthening infrastructure and drought preparedness.

7. Board Committee Reports

- Planning Committee Chair Russell and Finance & Administration Committee Chair Jed Smith briefed the Board on the topics discussed at their meetings last month.

- Also, Directors Smith and Russell mentioned their attendance at the Sonoma Water Advisory Committee/Technical Advisory Committtee Meeting and highlighted some of the topics discussed.

- Chair Russell also reported that he attended the Forecast Informed Reservoir Operations (FIRO) signing event at Lake Mendocino and provided highlights from that event.

8. Consent Items

a. October 21, 2025 Board Meeting Minutes

RECOMMENDATION: Accept the minutes of the Board of Directors' Regular Bi-Monthly Meeting on October 21, 2025

Director Khush motioned to accept the Consent Calendar item. Vice President Smith seconded the motion.

There were no public comments.

Voting Yea: Directors Khush, Maier, Russell, Smith, and Samson

9. Regular Items

a. Reject All Bids for Marin City Phase II Pipeline Replacement Project (GC25005), Contract No. 2019B

RECOMMENDATION: Approve a resolution rejecting all bids for the Marin City Phase II Pipeline Replacement Project, Contract No. 2019B and finding bid protest moot (*Resolution No. 8821*)

Construction Manager Mark Kasraie presented this item.

Discussion followed.

There were no public comments.

Director Maier motioned to approve the resolution rejecting the bids. Vice President Smith seconded the motion.

Voting Yea: Directors Khush, Maier, Russell, Smith, and Samson

b. Water Supply Update

RECOMMENDATION: Receive an update on current and projected water supply conditions

Water Resources Director Paul Sellier and Water Resources Manager Lucy Croy presented this item.

Discussion occurred during and after the presentation.

There were no public comments.

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

c. Atmospheric River Capture (ARC) Project Update

RECOMMENDATION: Receive an update on the Atmospheric River Capture (ARC) Project

Director Sellier and Ms. Croy also presented this item.

Discussion between the presenters and the Board occurred during and after the presentation.

There were three (3) public comments.

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

10. Future Board and Committee Meetings and Upcoming Agenda Items

a. Upcoming Meetings

The board secretary presented upcoming internal and external meetings for the month of November.

There were no comments.

11. Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s) - None.

12. Reconvene to Open Session; Closed Session Report Out - Not applicable.

13. Adjournment

There being no further business, the Board of Directors' meeting adjourned at 7:50 p.m.

_____

Board Secretary

MARIN WATER

STAFF REPORT

Meeting Type:	Board of Directors
Title:	General Manager's Report October 2025
From:	Ben Horenstein, General Manager
Meeting Date:	November 18, 2025

TYPE OF ITEM: X Action Information

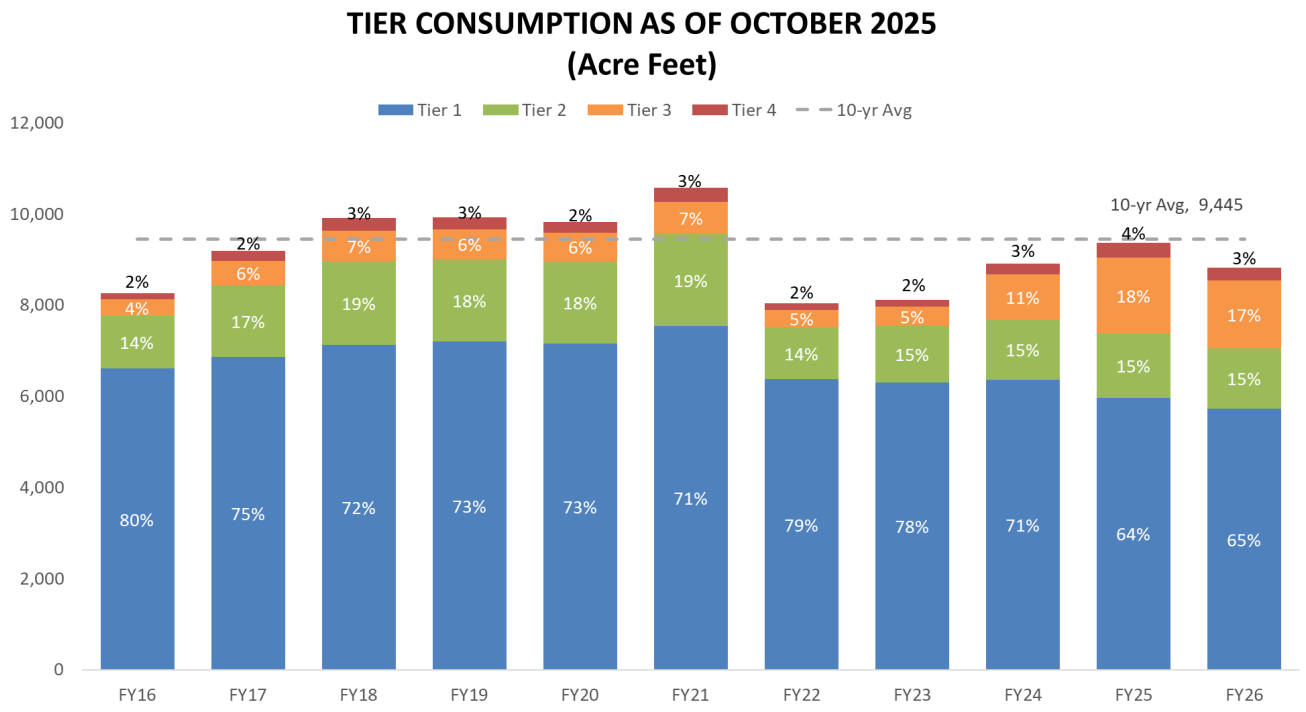
RECOMMENDATION:

SUMMARY:

A. HIGHLIGHTS:

- The daily average net production for the month of October 2025 was 18.9 MGD compared to 24.1 MGD for the month of October 2024. Typical usage for October is 25.6 MGD.
- Staff completed the inspections of both clearwells at the San Geronimo Treatment Plant with the consultant team. The inspections will be used in determining the structural capacity of the clearwell roof for the addition of solar panels at this site, as well as any minor repairs to the interior of the clearwells. Installing additional solar panels on the clearwell will allow the District to reduce its energy bill at the SGTP by approximately 10%, helping to reduce the District's energy costs and carbon foot print.
- Staff have received and are currently reviewing the Tocaloma Pump Station Rehabilitation Project 90% design plans and specifications. The rehabilitation includes the installation of a new electrical system, including variable frequency drives, pumps, motors and seismically resilient fire hardened structure. These upgrades will significantly improve its operational system reliability and resiliency against natural disasters. This project is on track to advertise for construction early next year.
- Staff had the opportunity to participate at the Marin Accessory Dwelling Unit Fair and Open House at the Corte Madera Town Hall. Staff were able to engage residents who were considering and had questions about the water service application process. Staff were able to educate residents in the process, answer their questions and direct customers to the correct links on the District's website for the application process.
- Staff responded to 1,168 underground service alert tickets and marked out approximately 42,770 feet of pipe in the month of October, helping ensure that District underground infrastructure was not damaged by contractors or homeowners during excavation work.

- In coordination with the Marin County Fire Department maintenance staff completed a 47 acre prescribed fire and subsequent mop up on Knob II Unit C near Bon Tempe Lake.
- Staff completed monthly dam and spillway inspections and finished vegetation maintenance and tree work at the Leo T. Cronin Fish Viewing Area prior to its reopening for the season.
- The District continued implementation of BFFIP Year 7 through October 2025 and completed forest mastication and fuels treatment of approximately 100 acre Rock Spring Extension unit. Using new contracts 2050 (Veg Maintenance) and 2051 (Forestry & Pile Burn Support) crews have begun working in the Fish Grade and Worn Springs units. Prescribed burn prep work continues at Ridgecrest Blvd. and pile burn prep near Ross Reservoir. Crews have begun annual vegetation maintenance on seven District dams and spillways per CA State Division of Safety of Dams regulations.
- Hosted College of Marin students in an advanced biology class. Students learned about the history and benefits of prescribed burns and how that ties into forest health.
- Carried out two rounds of visitor intercept surveys at 5 locations around the Watershed as part of the e-Bike Pilot Program.
- Staff participated in Marin County Community Wildfire Protection Plan scoping and technical review meetings to provide early input on plan development.
- Fisheries staff began annual juvenile salmon surveys in Lagunitas, San Geronimo, and Devil's Gulch Creeks, with a goal of capturing and PIT tagging 1,200 fish by early fall.
- Fisheries staff completed field work to support gravel augmentation study by placing PIT tagged gravel in Lagunitas Creek to monitor gravel transport.


TIER CONSUMPTION AS OF OCTOBER 2025
(Acre Feet)
Tier 1
Tier 2
Tier 3
Tier 4
10-yr Avg
10-yr Avg, 9,445
12,000
10,000
8,000
6,000
4,000
2,000
0
FY16
FY17
FY18
FY19
FY20
FY21
FY22
FY23
FY24
FY25
FY26
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15%
78%
3%
11%
15%
71%
4%
18%
15%
64%
3%
17%
15%
65%

PROJECT	FUNDER	FUNDER PRIORITIES	FUNDING OPPORTUNITY	MATCHING PROJECT	DESCRIPTION	STATUS	AWARD AMOUNT
Prop.1. Round 2 IRWM Disadvantaged Community	DWR	Water Infrastructure	Prop.1. Round 2 IRWM Disadvantaged Community	Marin City/San Rafael Infrastructure	Replacing aging transmission lines and laterals in Marin City and San Rafael's Canal District	Awarded; in progress and on track. Funding MOU and work plan is executed and in place with Multicultural Center of Marin.	$6,408,000
Forestry Corps	CCNB	Vegetation Management		Ongoing Forestry work	Workforce development; state funding directly to CCNB to fund crews working on the watershed	Awarded; in progress and on-track.	$500,000
Fisheries Restoration Grant Program	CDFW	Fisheries	Fisheries Restoration Grant Program (FRGP)	Lagunitas Creek Restoration	Lagunitas Creek Coho Habitat Enhancement Plan - 100% Designs for Phase 2 Sites (7, 8, 9, 10, 11); CEQA	Awarded; in progress and on-track.	$599,689
Lagunitas Creek Salmonid Spawning Gravel Improvement Project	DWR	Fisheries	Riverine Stewardship Program (RSP)	Lagunitas Creek Restoration	Gravel augmentation for Lagunitas CreekThe Lagunitas Creek Salmon Spawning Gravel Project will inject 1,700 tons of clean river-run gravel just below Peters Dam and Kent Lake at two sites within Lagunitas Creek. This project is part of a larger 13-site project with over 100 large wood structures and gravel to restore 4 miles of Lagunitas Creek to its historical geomorphic condition. This would be the first time that gravel augmentation would be conducted in Lagunitas Creek.	Awarded; in progress and on-track.	$590,000
Lagunitas Creek Salmonid Spawning Gravel Improvement Project	USBR Environmental Restoration Project	Fisheries		Lagunitas Creek Restoration	Gravel augmentation for Lagunitas Creek Sites 1-3	Awarded; in progress and on-track.	$1,400,000
Rain Water Harvesting Project	MCSTOPP	Conservation		Conservation	Barells for customers	Awarded; in progress and on-track.	$15,032
Urban Multi-Benefit Drought Relief (UMDR)	DWR	Water Resources	Urban Multi-Benefit Drought Relief (UMDR)	SWSA	Strategic Water Supply Assessment	Working on no-cost extension to wrap up final reports/invoices and closeout items	$2,000,000
Water Conservation: turf rebates	USBR	Conservation	Water and Energy Efficiency Grant (WEEG)	Conservation		Term goes through September 2026 but we've spent nearly all of these funds.	$722,925
Prop 1. Fisheries Restoration Grants Concept Proposals	CDFW	Fisheries	Lagunitas Creek Coho Enhancement Project Phase 1	Lagunitas Creek Restoration	Lagunitas Creek Restoration Sites 1-6	Awarded; in progress and on track	$4,659,898
Azalea Hill Trail Restoration	California State Parks	Trail Restoration	Recreational Trails Program (RTP)	Watershed	Azalea Hill Restoration	Awarded; in progress and on-track. Working on last invoice and closeout items.	$952,657
One Tam Regional Forest Health Project	CA WCB	Forestry Restoration		BFFIP Implementation		Awarded; in progress and on-track. MMWD funds have all been spent down.	$4,260,000
WaterSMART Aplied Science	USBR	Water Resources		Advanced Weather Modeling	Funding for weather modeling to inform water resources management	Awarded; in progress.	$150,628.00
One Tam Regional Forest Health Project Phase II	CAL FIRE	Forestry Restoration	California Climate Investments Department of Forestry and Fire Protection Forest Health Program 2023-2024	BFFIP Implementation	BFFIP Implemenation for 2-3 years	Awarded; in progress and on-track.	$6,966,078
					TOTAL FUNDED:		**$29,224,907**

PENDING GRANTS

PROJECT	FUNDER	FUNDER PRIORITIES	OPPORTUNITY	DATE SUBMITTED	AMOUNT REQUESTED	DESCRIPTION	STATUS
Lagunitas Creek Coho Enhancement Phase 2	Wildlife Conservation Board	Restoration	Full Application	8/27/2025	$1,109,000	Short pre-application submitted to WCB for review 5/27/25. The District was invited to submit a full proposal on 7/10.	Pending and potentially dependent on Prop 4 appropriations; we are hoping to be considered at the February 2026 WCB board meeting.
One Tam Block Grant	lifornia Natural Resources Agen	Forestry Restoration	Block/Regional Grant	7/2/2025	$10,371,070	One Tam block grant request to CNRA to increase the pace and scale of forestry work between FY26 and FY32. Total request across One Tam agencies is $28,378,435. MMWD's request of $10,371,070 would enable us to complete an estimated 2,700 additional treatment acres during the project period.	Pending; hosting Assemblymember Connolly on 11/17

UPCOMING GRANTS

FUNDER	OPPORTUNITY	FUNDER PRIORITIES	PROJECT	DESCRIPTION	STATUS
Various	Prop. 4 Bond Funding	Various	TBD	Funds have been appropriated for FY2025-26 but disbursement is delayed while various granting agencies complete or update program guidelines.	Monitoring
Economic Development Agency	Economic	Disaster Recovery	TBD	Federal - $1.45B in available funds on a rolling (first-come, first served) basis. Staff will attend an informational webinar on 11/13 to inform next steps and better understand alignment.	

DISCUSSION:

B. SUMMARY:

AF = Acre Feet
Mg/L = milligrams per liter
MPN = most probable number
MPY = mils per year
MG = million gallons
NTU = nephelometric turbidity units

1. Water Production:

	FY 2025/26		FY 2024/25	
	(million gallons)	(acre-feet)	(million gallons)	(acre-feet)
Potable				
Total production this FY	2,816	8,643	3,068	9,414
Monthly production, October	588	1,804	743	2,279
Daily average, October	18.97	58.21	23.95	73.51
Recycled				
Total production this FY	114.39	351.05	130.39	400.16
Monthly production, October	14.33	43.98	25.81	79.19
Daily average, October	0.46	1.42	0.83	2.55
Raw Water				
Total production this FY	34.14	104.76	40.25	123.52
Monthly production, October	2.28	7	7.18	22.03
Daily average, October	0.07	0.23	0.23	0.71
Imported Water				
Total imported this FY	1,185	3,637	1,091	3,349
Monthly imported, October	250	768	287	880
Reservoir Storage				
Total storage, October	20,603	63,229	20,440	62,728
Storage change during October	-452	-1,386	-823	-2,526
Stream Releases				
Total releases this FY	881	2,704	923	2,831
Monthly releases, October	198	609	234	718

2. Precipitation:

	FY 2025/26 (in.)	FY 2024/25 (in.)
ALPINE	4.94	0.85
BON TEMPE	3.25	0.48
KENT	5.37	0.62
LAGUNITAS	3.52	0.45

NICASIO	2.36	0.43
PHOENIX	3.03	0.32
SOULAJULE	2.35	0.26

Average to date = 3.62 inches

3. <u>Water Quality</u>:

<u>Laboratory</u>	<u>FY 2025/26</u>	<u>FY 2024/25</u>
Water Quality Complaints:		
Month of Record	10	15
Fiscal Year to Date	51	73
Water Quality Informational Inquiries:		
Month of Record	9	23
Fiscal Year to Date	46	57

The WQ Lab ensured that the water supplied met or surpassed water quality regulations by collecting and analyzing 1,760 analyses on treatment plants and distribution system samples.

Mild steel corrosion rates averaged 1.88 (0.29 – 3.06) MPY. The AWWA has recommended an operating level of <5 MPY with a goal of <1 MPY.

<u>Complaint Flushing</u>: No flushing events for the month on record.

<u>Disinfection Program</u>: No new pipeline were disinfected during the month of October. Performed chlorination on 65 water storage tanks to ensure compliance with bacteriological water quality regulations.

<u>Tank Water Quality Monitoring Program</u>: Performed 188 water quality-monitoring events on storage tanks for various water quality parameters this month to help ensure compliance with bacteriological water quality regulations.

<u>Summary:</u>

The Lab analyzed 1,760 treatment plant and distribution water samples, and the water quality department treated 65 tanks for low chlorine and checked an additional 188 tanks for low chlorine residual in October 2025.

4. Water Treatment:

	San Geronimo		Bon Tempe		Ignacio	
Treatment Results	Average	Monthly Goal	Average	Monthly Goal	Average	Monthly Goal
Turbidity (NTU)	0.06	≤ 0.10	0.03	≤ 0.10	0.04	≤ 0.10
Chlorine residual (mg/L)	2.63	2.75 *	2.77	2.75 *	2.76	2.75 *
Color (units)	0.6	≤ 15	0.3	≤ 15	0.0	≤ 15
pH (units)	7.8	7.8*	7.8	7.8*	8.0	8.1**

* Set monthly by Water Quality Lab

** pH to Ignacio is controlled by SCWA

5. Capital Improvement:

a. Pine Mountain Tank Phase 2 – New Water Tanks Project (D21043): The Pine Mountain Tunnel Tanks Replacement Project is a multi-year two-phased project that will replace the existing Pine Mountain Tunnel. The current project (Phase 2) will construct two 90-foot inside diameter pre-stressed concrete potable water storage tanks, will install yard piping and control systems, and will then complete final site grading.
   - Project Budget: $19,142,500
   - Monthly Activities: The Contractor is continuing to install storm drain facilities at the tank site on Concrete Pipe Road. This first year of work is anticipated to continue through January 2026, depending on weather conditions.

b. San Geronimo Treatment Plant Roof Replacement Project (D21034) : The San Geronimo Treatment Plant Roof Replacement Project is a component of the District's Capital Improvement Program. This project will remove and replace the existing leaky roof membrane with a new Class A Fire Rated Thermoplastic Polyolefin (TPO) and add fall protection to the San Geronimo Treatment Plant and North Marin Line Pump Station.
   - Project Budget: $1,495,747.00
   - Monthly Activities: The Contractor continues to install the new roofing system. When the roof has been replaced, the contractor will install fall protection guardrails and access ladders. Project completion is estimated November 2025.

c. Glenwood Transmission Pipeline Replacement/Fire Flow Improvement Project (F22002): The Glenwood Transmission Pipeline Replacement Project is a component of the District's Fire Flow Improvement Program. This Project will install approximately 6,470 feet of new 18", 16",

12”, 8”, 6”, and 4” welded steel pipe to replace the old, leak-prone, fire flow deficient piping installed as early as 1928.

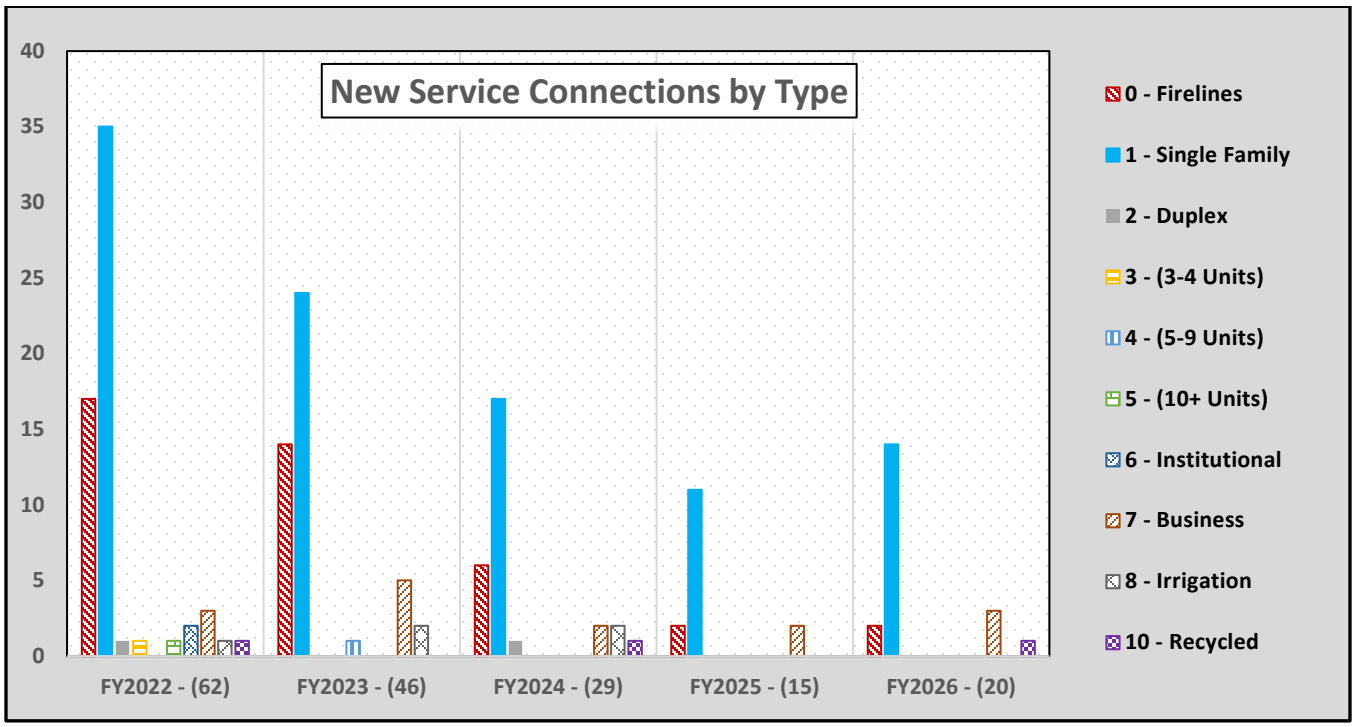
- Project Budget: $4,962,000
- Monthly Activities: The Contractor has completed underground water system installation and paving. The work that remains includes concrete flatwork and miscellaneous project punch list items. Project completion is estimated in November 2025, ahead of schedule.

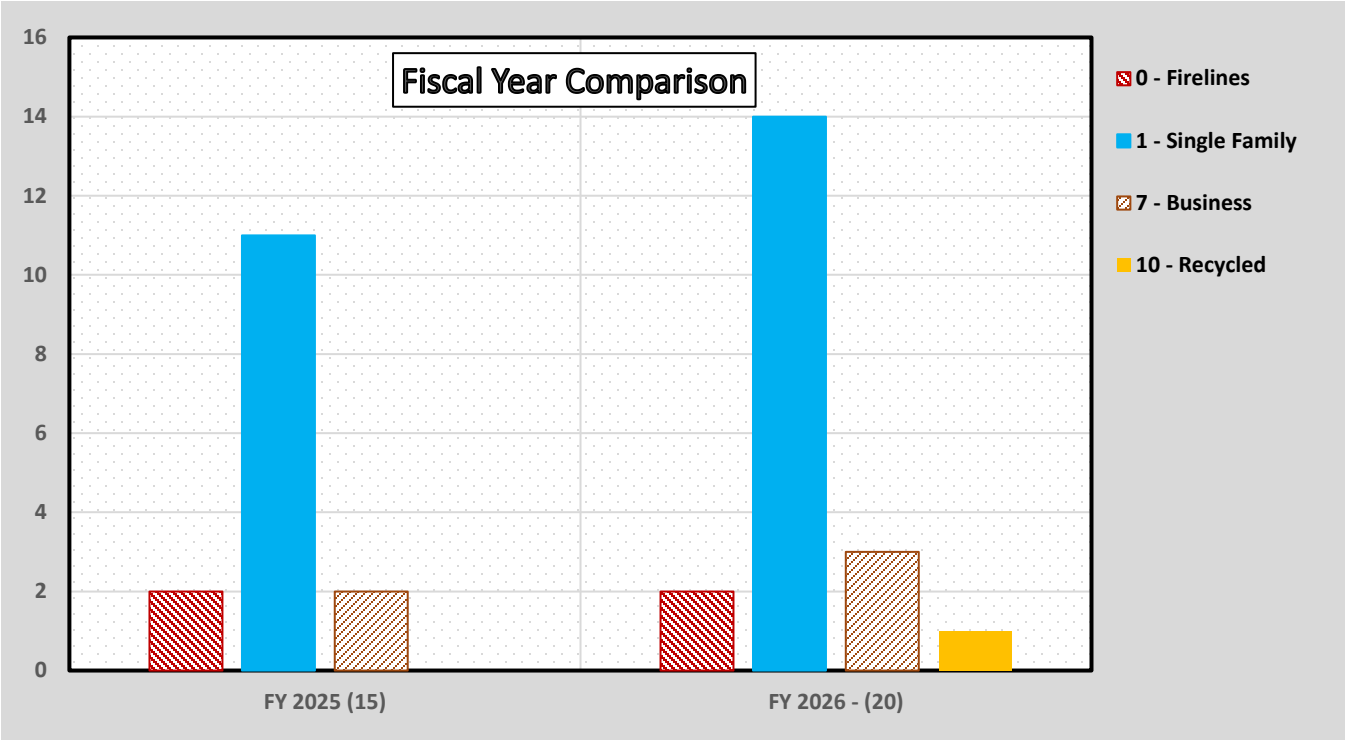
d. Bridgeway Pipeline Replacement Project (D24027): The Bridgeway Pipeline Replacement Project is a component of the District’s Capital Improvement Program. The Project will install approximately 870 feet of 12, 8 and 6-inch welded steel pipe to replace old, leak-prone cast iron, and asbestos cement pipe installed as early as 1943.
    - Project Budget: $677,000
    - Monthly Activities: The Contractor has completed all water system installation and paving work. The work that remains includes roadway striping and miscellaneous project punch list items The project will be completed October 2025.

e. Canal Pipeline Replacement Project (GC25005): The Canal Pipeline Replacement Project will install approximately 3,800 feet of new 12”, 8”, 6”, and 4” welded steel pipe to replace asbestos-cement pipe and leak-prone plastic service laterals installed as early as 1951. The District was awarded a Bay Area Integrated Regional Water Management (IRWM) Proposition 1 Round 2 grant in the amount of $6,408,000 to implement the Marin City/San Rafael Water Supply Resilience Project. The grant also includes funding for community partners to conduct project-related outreach to support implementation and community based water education activities.
    - Project Budget: $2,958,870
    - Monthly Activities: The project was awarded for construction at the August 19 Board of Directors meeting and the contract has been executed. A preconstruction meeting was held October 2. Field work is anticipated to begin late October. Project completion is estimated in February 2026.

6. Other:

Pipeline Installation	**FY 2025/26**	**FY 2024/25**
Pipe installed during October (feet)	11	2,525
Total pipe installed this fiscal year (feet)	5,878	13,398
Total miles of pipeline within the District	908*	908*
** Reflects adjustment for abandoned pipelines*		
Pipe Locates (1,168 Responses)	**FY 2025/26**	**FY 2024/25**
Month of October (feet)	42,770	41,488
Total this fiscal year (feet)	149,302	154,532
Main Line Leaks Repaired	**FY 2025/26**	**FY 2024/25**
Month of October	11	18
Total this fiscal year (7/1/25-5/31/26)	53	49
Services	**FY 2025/26**	**FY 2024/25**
Service upgrades during October	12	17
Total service upgrades this FY	68	71
Service connections installed during October	3	0
Total active services as of November 1st, 2025	60,654	60,617
(Total Including firelines)	62,044	62,012


New Service Connections by Type
40
35
30
25
20
15
10
5
0
FY2022 - (62)
FY2023 - (46)
FY2024 - (29)
FY2025 - (15)
FY2026 - (20)
0 - Firelines
1 - Single Family
2 - Duplex
3 - (3-4 Units)
4 - (5-9 Units)
5 - (10+ Units)
6 - Institutional
7 - Business
8 - Irrigation
10 - Recycled


Fiscal Year Comparison
16
14
12
10
8
6
4
2
0
FY 2025 (15)
FY 2026 - (20)
0 - Firelines
1 - Single Family
7 - Business
10 - Recycled

7. Recruitments and Hires:

The District recruited for the following positions:

1. Associate Engineer
2. Assistant or Associate Engineer
3. Assistant Utility-Maintenance Worker
4. Customer Service Representative I/II
5. Water System Technician

The District hired new employees for the following positions:

1. Natural Resources Technician II – Temp/Limited Duration

Employees promoted through competitive process:

1. Senior Customer Service Field Inspector

8. Demand Management:

	Oct-25	FY 25/26 TOTAL	FY 24/25 TOTAL	FY 23/24 TOTAL
WATER-EFFICIENCY PROGRAMS				
Water-Use Site Surveys				
Conservation Assistance Program (CAP) Consultations				
Residential properties resi 1-2 (single-family)	102	332	692	404
Residential properties resi 3-5 (multi-family units)	0	1	10	6
Non-residential properties resi 6-7 (commercial)	0	0	1	0
Dedicated irrigation accounts resi 8-10 (large landscape)	0	1	7	0
Marin Master Gardeners' Marin-Friendly Garden Walks				
Residential garden walks	15	61	147	173
Public Outreach, Education, Customer Service				
Public outreach events (number of people attending)	0	2500	3870	7022
Public education events (number of participants)	300	330	265	425
Department customer calls/emails	571	2382	6124	4485
Outreach to new Marin Water customers (letters sent)	234	592	1483	1908
School Education				
School assemblies				
Number of activities	1	2	19	19
Number of students reached	364	721	7212	21850
Field trips				
Number of activities	1	3	22	16
Number of students reached	19	60	471	343
Classroom presentations				
Number of activities	0	4	13	14
Number of students reached	0	103	390	457
Other (e.g. Earth Day booth events, school gardens)				
Number of activities	0	0	2	3
Number of students reached	0	0	225	400
Incentives				
Rain Barrel/Cisterns approved	1	2	14	9
Rain Barrel/Cisterns gallons	1000	1530	13650	0
Rain Barrel Give-a-way (Gallons)	3000	6600	33550	4840
"Cash for Grass" Lawn Replacements total properties approved	6	27	81	61
"Cash for Grass" (Best Practices) square ft. lawn replaced	0	1130	17699	0
"Cash for Grass" (Standard) square ft. lawn replaced	3422	31744	51049	0
"Cash for Grass" (MCSTOPP) square ft. lawn replaced	0	1120	3555	0
Number of Laundry-to-Landscape Systems (kits) approved	0	0	0	1
Hot water recirculating system rebates	0	1	6	11
Pool Cover rebates	0	1	25	35
Number of Smart Home Water Monitor "Flume Direct Distribution" redeemed	59	176	456	544
Number of Smart Controllers MW rebates approved	1	8	37	49
Number of Smart Controllers "Rachio Direct Distribution" approved	15	58	184	219
Custom Rebate - Commercial and Multi-Family	0	0	1	0
Advanced Metering Infrastructure (AMI)				
AMI leak letters sent to customers (>200 GPD)	77	427	1319	1330
ORDINANCES				
Water Waste Prevention				
Water Waste Reports Received	7	50	177	224
Water Waste Notifications Sent	1	9	34	49
Landscape Plan Review				
Plans submitted	14	42	90	117
Plans exempt	1	5	15	23
Plans completed	1	10	23	30
Plans in workflow (pass & fail)	19	78	139	172
Tier 4 Exemption				
Inspections that resulted in a pass	0	0	1	2

9. Watershed Protection:

Search and Rescue Incident

At 10 PM on October 31st, one of our resident Rangers was alerted by the Marin County Sheriff's dispatcher for an overdue 65-year-old hiker who was last known to be near Bon Tempe Lake at 5:30 PM. When the hiker didn't return home, his wife called 911. According to the wife, the hiker had a dead phone, no lights, and was parked at Rock Spring, expecting to finish the hike by 7 PM. The Ranger, along with a State Park Ranger and a Sheriff's Deputy, began a hasty search of the fire roads between Bon Tempe and Rock Spring. When that failed to locate the hiker, a callout was made to the Marin County Search and Rescue Team (SAR). Our Ranger worked closely with the SAR leadership and arranged for the lower section of Kent and Stocking Trails to be searched first. At 1 AM, the first SAR team sent into the field found the hiker on Kent Trail at Van Wyck Team. The hiker was tired and thirsty, but otherwise in good condition. He was hiked out to the nearest road and then provided a ride back to his car.

MMWD Rangers Provide Specialized Training

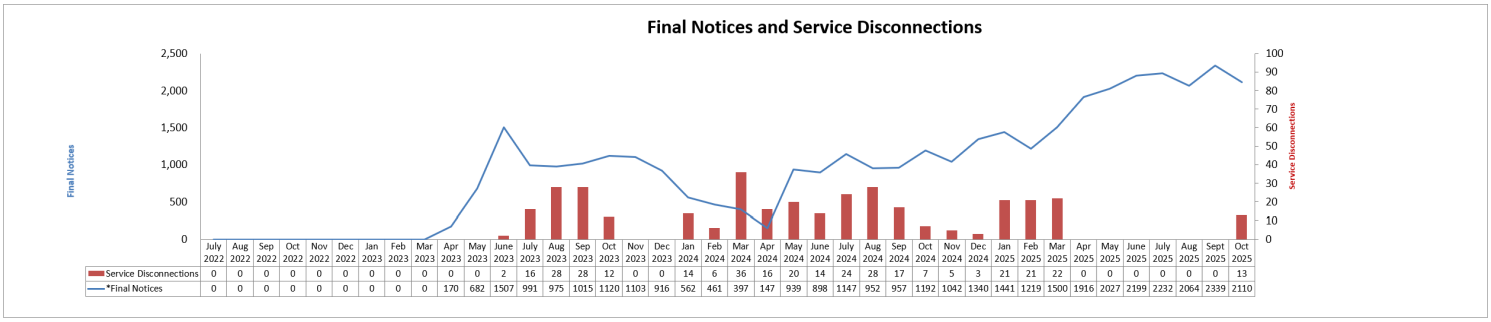
Senior Ranger Matt Cerkel was the lead instructor for an 8-hour "Basic Wildland Fire Pump Operations" course, which was attended by over 20 people, including MMWD Rangers and Watershed Maintenance staff, and Rangers from the Midpeninsula Regional Open Space, City of Palo Alto, and City of San Jose. The course covered basic pump operations, drafting from a static water source, basic hydraulics, and supply hose lines. The training also allowed the Rangers to evaluate a type of fire slip-on pumper unit that the District is considering purchasing for a new Ranger patrol truck/Type 6 engine to replace an existing 16-year-old Ranger patrol truck/Type 6 engine.

Senior Ranger Cerkel overseeing pump training using a Type 6 engine/patrol truck.

RANGER ACTIVITIES	
Law Enforcement	**#**
MMWD Ordinance Violations	
Cites	22
Bike on Trail	1
Parking	20
Penal Code Violations	
Vandalism	9
Illegal Dumping	1
Theft	1
Vehicle Code Violations	
Parking Violations	1
Misc. Vehicle Code Violation	3
Fish and Wildlife	
License Checks	15
Warning for Fish and Game Violations	3
Warnings	0
All	95
Other	
Assist Other Law Enforcement Agency	4
Medical/Fire	**#**
Responses	
Medical Calls	3
Assist Fire/EMS	1
Fire Service	9
Prescribed Fire	1
Search and Rescue	**#**
Search and Rescue	1
Preventive Search and Rescue	1
General	**#**
Visitor Assists	86
Dam Checks	100
Assist MMWD work groups	58
Assist Other Agencies	2
Watershed Observation Reports	
Received	5
Additional Patrols	
Foot	63 miles
Bike	201 miles
ATV/UTV	62 miles
LIDAR	3
Boat	3

10. Shutoff Notices and Disconnections:

*Final Notices
Service Disconnections
* Includes 10 day and final notices



	July 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	June 2023	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	June 2024	July 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	June 2025	July 2025	Aug 2025	Sept 2025	Oct 2025
Service Disconnections	0	0	0	0	0	0	0	0	0	0	0	2	16	28	28	12	0	0	14	6	36	16	20	14	24	28	17	7	5	3	21	21	22	0	0	0	0	0	0	13
*Final Notices	0	0	0	0	0	0	0	0	0	170	682	1507	991	975	1015	1120	1103	916	562	461	397	147	939	898	1147	952	957	1192	1042	1340	1441	1219	1500	1916	2027	2199	2232	2064	2339	2110

FISCAL IMPACT: None.

ATTACHMENT(S): None.

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Office of the General Manager	_____	
	Ben Horenstein General Manager	**Ben Horenstein General Manager**

STAFF REPORT

Meeting Type:	Board of Directors
Title:	Lagunitas Creek Enhancement Project Phase 1B Construction and Monitoring
From:	Shaun Horne, Director of Watershed Resources
Through:	Ben Horenstein, General Manager
Meeting Date:	November 18, 2025

TYPE OF ITEM: Action X Information

RECOMMENDATION: Receive staff update on Lagunitas Creek Enhancement Project Phase 1B construction, monitoring, and grant funding

SUMMARY: On May 20, 2025, the District awarded Contract No. 2043 in the amount of $2,175,000 to Rehak General Engineering (RGE) to construct Phase 1B of the Lagunitas Creek Coho Habitat Enhancement Project (Project). Phase 1B of the Project consists of installing large wood habitat structures and spawning gravel at five locations (Sites 1,2,3,12,13) in Lagunitas Creek to support spawning and rearing of endangered Coho Salmon and threatened steelhead. Funding for Phase 1B is provided through grants from the California Department of Fish and Wildlife (CDFW), California Department of Water Resources (DWR), and the US Bureau of Reclamation (USBR). Staff will provide a project update and overview of the construction and monitoring schedule to the Board.

DISCUSSION: The Lagunitas Creek Coho Habitat Enhancement Project began in 2020 as a collaboration between Marin Water, California State Parks, and the Lagunitas Technical Advisory Committee with funding primarily from CDFW grants. The goal of the Project is to improve stream habitat conditions on District and State-owned lands below Peters Dam through Samuel P. Taylor State Park. To achieve this goal, thirteen distinct enhancement sites have been identified, where over 270 logs and approximately 11,000 tons of spawning gravel will be installed to support endangered salmon and other sensitive species.

The Project is split into three phases (Phase 1A, Phase 1B, and Phase 2) to facilitate planning, permitting, and implementation over multiple years. Construction in any given year is constrained to August through October due to project permit requirements. Construction of Phase 1A (Sites 4, 5, 6) was successfully completed in 2024. Construction of Phase 1B (Sites 1, 2, 3, 12, 13) began in August 2025, with RGE completing three of the five sites by October. At Sites 1, 12, and 13, RGE utilized an innovative piece of equipment called a “rock slinger” to complete the gravel augmentation elements of the project. The rock slinger employed a directionally-controlled high speed conveyor system to deliver 2,150 tons of new spawning gravel to Lagunitas Creek from roadways adjacent to the channel.

This technique proved to be efficient and required minimal disturbance to the surrounding streambanks and vegetation.

Construction of Site 2 occurred from September through October and included building and installing five large wood habitat structures with boulder ballast and adding approximately 600 tons of new spawning gravel to the channel. The plans for this site included two riffle-forcing log structures, which are designed to constrict the channel and raise the bed elevation several feet to create deeper pools. However, during construction, it became apparent that significant onsite constraints, including a large fallen redwood tree across the creek and very limited space in the channel, precluded a practical way to construct these features. District staff along with the District's design engineering team, Environmental Science Associates, determined that the site will still achieve Project objectives and function without these riffle-forcing structures. Staff will discuss this design modification with the granting agencies to determine whether Site 2 can be considered complete as-is or requires further modifications. Construction of Site 3 and any remaining work on Site 2 will occur in summer 2026, which is allowable under District Contract No. 2043 with RGE, as well as project permits and the District's access agreement with State Parks. Phase 2 (Sites 7-11) is currently in the final design and permitting stage under a separate CDFW grant, with implementation planned for 2027-2028, depending upon future grant funding availability.

Funding for Phase 1B construction is provided by three grants from CDFW, DWR, and USBR. These grant contracts all end (expire) in 2026. District staff are working with each agency's grant representative to request extensions as needed to complete the remaining Phase 1B sites. In July 2025, DWR approved an amendment to the District's existing grant, increasing the total funding by an additional $1,400,000.

Post-project monitoring is extensive and includes salmon surveys, photo documentation (including drone video), structural performance measurements, and a gravel tracer study. These monitoring efforts are intended to provide valuable feedback on project performance and compliance with permit conditions and grant agency requirements. District staff, with support from consultants, have just begun post-project monitoring of Phase 1 and will continue to provide updates on findings to the Board as well as interested stakeholders through the Lagunitas Technical Advisory Committee (Lagunitas TAC) going forward.

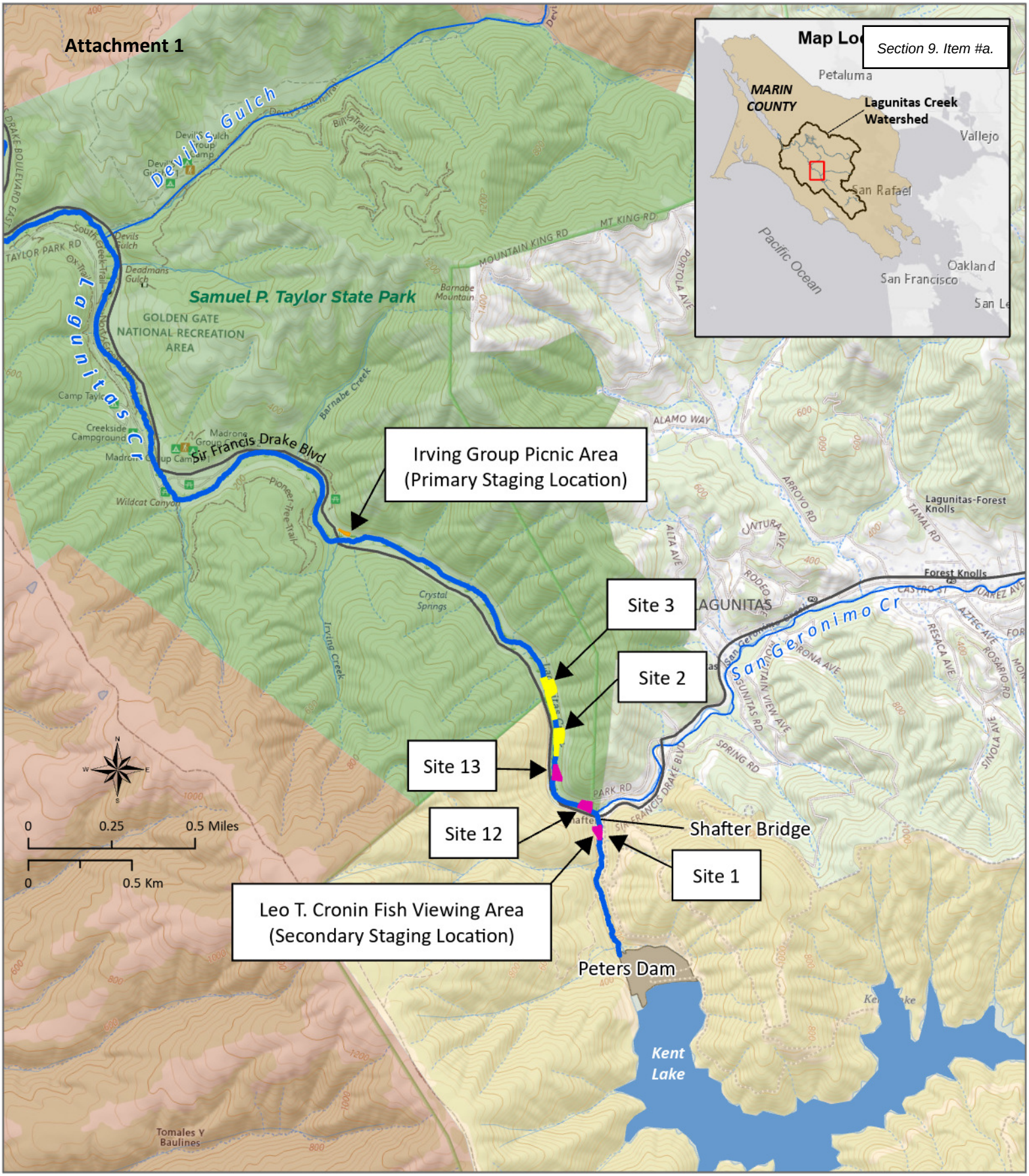
ENVIRONMENTAL REVIEW: Staff have reviewed the Project pursuant to the California Environmental Quality Act (CEQA) and found that the Project is Statutorily Exempt pursuant to Section 21080.56 of the California Public Resources Code, known as the Statutory Exemption for Restoration Projects (SERP). The Project qualifies for exemption pursuant to Section 21080.56 inasmuch as project is a restoration project for fish and wildlife meeting the conditions of SERP as stated in Section 21080.56.

FISCAL IMPACT: The total cost to complete Phase 1B of the Project is estimated at $2,175,000 under Contract No. 2043 with RGE. The District has been awarded a CDFW grant in the amount of $4,659,898 to fund Phase 1. The Board approved Resolution No. 8758 in November of 2023, confirming the District's commitment to the Project, approving the filing of the grant application, and appointing the General Manager as the agent to negotiate and execute grant agreements. The total CDFW grant Phase 1 cost is $6,059,898 with a required District match of $1,400,000 (23.1%). The District has secured a USBR grant in the amount of $1,400,000 to achieve the CDFW grant match requirement.

The District has also secured a grant from California Department of Water Resources for $1,990,000 to fund construction of Phase 1B and a portion of Phase 2 if needed.

ATTACHMENT(S):

1. Project Location Map



Lagunitas Creek Coho Salmon Habitat Enhancement Project (Phase 1B)

MARIN WATER

Land Ownership

- Marin Water
- California State Parks
- National Park Service

- Gravel Augmentation Site
- Wood/Boulder/Gravel Restoration Site
- Construction Staging
- Lagunitas Creek

STAFF REPORT

Meeting Type:	Board of Directors
Title:	Approve a Professional Services Agreement for Nicasio Hydrology Study
From:	Paul Sellier, Director of Water Resources
Through:	Ben Horenstein, General Manager
Meeting Date:	November 18, 2025

TYPE OF ITEM: X Action Information

RECOMMENDATION: Approve a Professional Services Agreement with Environmental Science Associates (ESA) for Nicasio Hydrology Study in the amount not to exceed $387,685 and authorize the General Manager to execute the agreement

SUMMARY: In response to flooding concern expressed by property owners along Nicasio and Halleck Creeks, staff requested that Environmental Science Associates develop a scope of work to study the hydrology in the area and identify causes and contributors to flooding and to inform potential management actions to help mitigate the concerns.

DISCUSSION: The ESA scope proposes to review the potential for immediate action and to develop an integrated creek and watershed model that will assist understanding how water moves through the land and creek system. The model will allow the District to assess the causes of localized flooding and potential management actions. ESA is well positioned in terms of understanding the area and the issues, and has the qualifications and availability of personnel to carry out the study in a timely manner. The work will take approximately six (6) months from notice to proceed. The Scope of Work and Fee Estimate is attached.

Staff recommend the Board of Directors approve a Professional Services Agreement with ESA and authorize the General Manager to negotiate and execute the contract for the Nicasio Upstream Flood Study in an amount not to exceed $387,685.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: The total cost impact associated with the proposed agreement is $387,685. Funds are included in the adopted FY 2026 Budget.

ATTACHMENT(S):

1. ESA Scope of Work and Schedule
2. Fee Estimate

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Water Resources	**Paul Sellier** **Water Resources Director**	**Ben Horenstein** **General Manager**

ESA
575 Market Street
Suite 3700
San Francisco, CA 94105
415.896.5900 phone
415.896.0332 fax

memorandum

date	November 5, 2025
to	Paul Sellier, Marin Water
cc	Jill Hamilton
from	Andrew Smith, PE; Andy Collison, PhD; Damien Kunz
subject	DRAFT Proposal for Upper Nicasio Creek Flood Study

SCOPE OF WORK

This document outlines the scope of work for a topographic survey of the Nicasio Creek corridor upstream of the Nicasio Reservoir and hydrologic and hydraulic models that will be used to better understand flood processes and identify potential management actions.

ESA was previously scoped to survey Nicasio Creek between Nicasio Reservoir and Nicasio Valley Road. The purpose of that survey was to survey portions of the creek bed and banks that were not captured by the existing Marin County LiDAR[1] topographic survey. Conventional LiDAR surveys cannot capture conditions below water (e.g., deep pools or areas of Nicasio Creek that are in the reservoir backwater) and in some situations LiDAR may not capture the bare ground topography beneath dense brush. For this reason, in June of 2025 ESA began to survey cross sections of the submerged channel bed and spot checked the LiDAR in areas of dense brush. Approximately one third of that survey was completed before the surveying task was suspended. The spot-checking revealed that, in addition to the expected need to survey below the water line in the creek bed, much of the surrounding riparian corridor was poorly captured by the County LiDAR survey and required additional ground points.

This present scope completes the survey with additional time set aside for survey of the dense riparian corridor, and adds several additional tasks as follows;

- Complete Nicasio Creek cross section and bridge surveys
- Extended survey cross sections through densely vegetated areas of riparian corridor where the LiDAR did not reach bare ground

[1] Light Detection and Ranging (LiDAR) uses laser pulses from an aircraft to survey the ground, but for standard LiDAR equipment these pulses are reflected by water and, depending on how dense vegetation is, they may not be able to penetrate beneath thick understory

- Create a digital elevation model of the creek corridor that combines the survey data with the County LiDAR
- Create a rainfall-runoff (hydrology) model of the Nicasio Creek watershed to estimate a range of flood flows in the Nicasio Creek watershed
- Use the flows generated by the hydrology model and the topographic data from the survey to construct a hydraulic model (flood model) of Nicasio Creek and Halleck Creek above Nicasio Reservoir to better understand existing flooding and to assess potential management strategies
- Install flow gauges in Nicasio Creek to collect data on water levels and flow rates

The approach of this study is as follows:

Task 1. Data Collection

This effort will focus on collecting information from field observations, previous reports, and maps to be used in the analysis on existing conditions, to set up and calibrate a hydraulic model. Proposed survey data collection supplements survey data previously collected by ESA for Marin Water in June 2025, and the survey effort described herein has been informed by site conditions observed at that time.

Structure Surveys: The project reach includes a minimum of four road bridges, one footbridge, and two culverts. One of these bridges, the Nicasio Valley Road bridge over Halleck Creek, was surveyed in June 2025. ESA will survey[2] the remaining critical structure elements to support model development, of which the known locations are presented in Figure 1. This includes culvert inverts, bridge facings, bridge abutments, low chord, high chord, railing, piers, etc.

Channel Bed Survey: ESA will conduct a bed survey of Nicasio and Halleck Creeks along the reaches delineated in Figure 1 sufficient to develop an accurate channel DEM for the purpose of hydraulic model development. Data collection is anticipated to include features such as bank slope, toe of bank, channel bed, thalweg, and any other noteworthy features such as culverts discharging to the creek. Point density will be sufficient to characterize geomorphic features and hydraulic grade controls. Survey data is anticipated to be collected through a mix of RTK-GPS and total station. During ESA's initial survey in June 2025 a bathymetric survey of the deeper channel-center portions of Nicasio Creek between its confluence with Halleck Creek downstream to where it flows into Nicasio Reservoir was conducted. Review of LiDAR ground-truthing surveys completed at the same time indicate that there are significant areas where the above-water banks were not captured by LiDAR due to dense vegetation cover; ESA proposes to collect ground survey data of both channel banks sufficient to accurately characterize bank elevations in the channel DEM.

Channel Photographs and Channel Blockage Mapping: While conducting the channel surveys described above, ESA will take 360-degree photographs of the channel from its approximate centerline with sufficient photo

[2] ESA performs land surveys and collects hydrographic data to augment traditional surveying services for the purposes of engineering, geomorphic interpretation, monitoring of project performance, and other specific uses consistent with California Business and Professions Code (Civil Engineering practice as defined by Section 6731.1. of the Professional Engineers Act and Geologic and Landscape Surveys as defined in the Professional Land Surveyors' Act). ESA does not provide traditional land survey services such as property boundaries and maps for general use by others. ESA recommends that these traditional surveying services be accomplished by a licensed, professional land surveyor either under direct contract with the client or as a sub-consultant to ESA.

density to characterize all significant channel reaches. These data will be used to identify roughness coefficients for use in the hydraulic model. Additionally, during ESA's initial survey in June 2025 significant channel blockages (fallen trees, wrack) were noted in Nicasio Creek between the Ranch Road crossing and the creek's confluence with Halleck Creek. In addition to photographing these blockages, ESA proposes to map their location and width so that they can be incorporated into the hydraulic model.

Hydrologic Data Collection: ESA will deploy up to three (3) water level (stage) gages[3] (pressure transducers) within Nicasio and Halleck Creeks for the purpose of model calibration and steady flow analysis. Gages will be deployed and maintained for up to six (6) months, to capture a range of water elevations through the winter rainfall season.

Historical Data. As part of this task ESA will also review historical information (e.g., photographs, narrative descriptions of previous hydrologic events) supplied by Marin Water and residents near Nicasio or Halleck creeks. Examples include materials submitted as part of comments on the Notice of Preparation for the Nicasio Spillway Modification Project.

Data Collection Memorandum: ESA will prepare a brief (3-4 pages not including figures) data collection memorandum. The memorandum will include information on survey dates, survey methods, pertinent metadata, data processing methods, and any pertinent results.

Assumptions

- Extensive Landowner coordination and access permission will be needed to facilitate access for survey, gage installation and monitoring which will be coordinated by Marin Water with minimal input from ESA.
- All data will be surveyed relative to survey control established and/or provided by Marin Water.
- The survey, photo, and blockage mapping effort will be limited to 15 two-person crew-days.
- All three water level gages will be deployed in one day by two field staff and serviced on an approximate 6-week service cycle. Cost basis assumes 4 total visits.
- Existing LiDAR data is available and of sufficient resolution for preliminary analysis except where identified above.
- Additional ground survey will be required in areas where LiDAR lacks coverage or accuracy, especially in vegetated or channelized areas.
- Survey data will be collected using RTK-GPS or total station, depending on site access and vegetation cover.

Deliverables

- Draft and Final Technical Memorandum on Data Collection
- Spreadsheet of data including point number, northing, easting, elevation, and description (PNEZD).

[3] There are risks associated with field data collection, especially in the marine environment. ESA maintains insurance for instruments,and therefore takes the risk of damage to the hardware or loss. ESA also applies quality control procedures to reduce the possibility of malfunction. However, ESA cannot guarantee that data collection will be complete. ESA will endeavor to complete the scope of work within the estimated fee and schedule with the data actually collected. ESA's policy is to notify clients if a problem arises and results in the need for added effort or schedule revision, so that the appropriate remedy can be identified and implemented. ESA reserves the right to not re-deploy instruments if the risk of damage or loss, especially due to theft or vandalism, appears high.

Task 2. Hydrology

This task will characterize watershed hydrology to support hydraulic modeling and the evaluation of creek management alternatives. ESA will conduct a brief historical review of the Nicasio Creek watershed and summarize key findings to inform the feasibility and design of proposed alternatives (e.g., identifying how vegetation has changed in the creek corridor since Nicasio Reservoir was constructed).

An HEC-HMS hydrology model will be developed for the Nicasio Creek watershed upstream of the reservoir to estimate inflows for the hydraulic model described in Task 3. The model will be constructed following applicable guidance documents, including for parameters such as loss rates based on land cover. The model will divide the Upper Nicasio Creek watershed into sub-watersheds so that the paths taken by local floodwaters can be incorporated into the hydraulic model (i.e., so that the origins and pathways of flooding can be identified).

Hydrographs will be generated for the 10, 25, 50, and 100-year design flood events for Nicasio Creek, Halleck Creek, and local runoff contributions from small watersheds (e.g., school area).

Model will be calibrated using either regional USGS flow frequency equations and/or data from a historic USGS gage on a tributary to Nicasio Creek. Flow frequency statistics from this gage will be compared to model-predicted flows for the corresponding design events. Additionally, peak flow during a recent flood event will be estimated for Nicasio Creek using watershed area scaling and observed peak flows from nearby gages. This estimate will support calibration of the hydraulic model.

The analysis will be summarized in an appendix to the Task 1 Technical Memorandum.

Assumptions

- Available hydrologic and land cover data (e.g., USGS gage records, Marin County GIS layers) are assumed to be sufficiently accurate and complete for model development and calibration.
- The 10-, 25-, 50-, and 100-year design storm events are assumed to represent the range of conditions needed for evaluating hydraulic performance and feasibility of alternatives.
- Regional USGS flow frequency equations and historic gage data are assumed to be valid for calibration purposes, despite potential differences in watershed characteristics.

Deliverables

- Draft and Final Appendix to the Task 1 Technical Memorandum

Task 3. Hydraulic Modeling

A HEC-RAS 2D hydraulic model (flood model) will be developed to predict flood inundation extents under existing conditions and three flood risk reduction alternatives. The model domain will extend from Nicasio Reservoir upstream along Nicasio Creek through the town of Nicasio to Ranch Road as well as along Halleck Creek from the confluence with Nicasio Creek upstream to the quarry. The lateral extent of the model will be the approximate valley bottom. The topographic data source will be a surface created from the ESA ground survey data for the channel areas and the County LiDAR data for the floodplain areas. The flow inputs will be the hydrographs for the 10, 25, 50, and 100-yr flood events as well as the available calibration events as estimated with the hydrology analysis in Task 2 for Nicasio Creek, Halleck Creek, and the small tributary that drains through Nicasio Elementary School. Manning's roughness values will be calibrated based on USGS guidance, photographs of previous flood events, and stage data if available. The following flood reduction alternatives will be simulated for the above flood events with inundation extents compared to existing conditions and summarized in a technical memorandum.

- Alternative 1: Vegetation and blockage reduction in riparian corridor

- Alternative 2: Riparian corridor excavation and widening
- Alternative 3: Local diversions to bypass flood-prone areas

Typically, regulatory authorization is required for management and removal of vegetation and sediments from within a regulated resource such as Nicassio and Haleck Creeks. Work conducted by hand or by using mechanical equipment operated from the adjacent top of bank may be exempt from U.S Army Corps of Engineers authorization. Regulatory authorizations may be sought for each distinct maintenance event or can be acquired for routine and recurring actions. Generally, regulatory authorization for stream maintenance activities requires applications to be submitted to:

- The U.S Army Corps of Engineers for a Nationwide Permit or Regional General Permit, and typically include a Biological Assessment for consultation under the federal Endangered Species Act, and Cultural Resource Survey Report for consultation under Section 106 of the National Historic Preservation Act;
- the San Francisco Bay Regional Water Quality Control Board for a Water Quality Certification; and
- the California Department of Fish and Wildlife for a Lake and Streambed Alteration Agreement (or Routine Maintenance Agreement).

The permit requirements and recommended pathway will vary depending on specific flood management scenarios; to assist Marin Water in the evaluation of each flood management scenario, ESA can provide a table that summarizes the regulatory permitting requirements for each of the above alternatives for inclusion the technical memorandum.

Assumptions

- ESA will use LiDAR and ESA ground surveys for onsite elevations.
- Each alternative will be modeled using consistent boundary conditions and event scenarios (e.g., Q10, Q50, Q100).
- Alternatives will be conceptual and not fully engineered designs at this stage.
- Model outputs will include flood extents, depths, and velocities for comparison.
- Model extent will include key tributaries and flood-prone areas identified in the hydrology task.
- Manning's n values will be estimated from land cover and refined with field observations if available.
- ESA will simulate existing topographic conditions in the Halleck Creek quarry. This analysis assumes active sediment removal from the channel under existing conditions.

Deliverables

- Draft and Final Technical Memorandum on Flood Analysis

Task 4. Coordination and Meetings

This task involves meetings to coordinate with Marin Water via meetings, emails, and phone calls, and to collaboratively identify potential flood management scenarios to model, as well as monthly invoicing and progress reporting. It is assumed technical meetings will occur twice per month for 6 months.

In addition, this task also includes three additional meetings to present information about the scope of work. For these meetings ESA assumes we will prepare brief Powerpoint presentations that will be reviewed with Marin Water staff beforehand.

Deliverables

- Draft and Final Powerpoint presentations

Optional Task 1. Streamflow Gage Installation (Optional)

ESA understands that Marin Water has interest in deploying a streamflow gage at the Nicasio Valley Road bridge to continuously measure and telemeter Nicasio Creek streamflow, using already-owned equipment. ESA proposes to prepare, deploy, calibrate, and telemeter data from the same Sommer RQ-30+ non-contact radar sensor and Campbell Scientific CR1000Xe data logging system Marin Water purchased for the Nicasio Creek ecohydrology and fisheries study, previously deployed on Platform Bridge and currently held in Marin Water's storage facility. Once the instrument is safely and properly deployed then accurately calibrated, ESA will work with Marin Water's data management team to deliver cellular telemetered Nicasio Creek streamflow data to their real-time network web portal.

Assumptions

- While ESA anticipates that this particular equipment ensemble will function properly at this location, we recognize that there may be challenges using this particular radar instrument to collect accurate data along this particular reach of channel, namely related to the creek's flowpath under the bridge, the height of the bridge relative to radar accuracy, and staff safety working on and around the bridge. Unexpected complications may result in the need for additional funds to resolve.
- ESA assumes that Marin Water will coordinate all permissions necessary for a streamflow gage installation on Nicasio Valley Road Bridge, with minimal input from ESA. This includes permission for equipment installation as well as landowner permission to access the adjacent channel during installation and during streamflow calibration visits.
- The station deployed at Platform Bridge, where the proposed equipment was pulled from, utilized satellite telemetry, due to poor cellular signal at that location. This cost proposal assumes purchase of a cellular modem to be paired with the rest of the already-owned equipment, for more stable and cost-effective telemetry services.
- Nicasio Valley Road bridge experiences extensive high-speed vehicle traffic and does not have a safe shoulder to work on. ESA assumes that partial road closure will be required to safely work on the bridge during equipment installations, and that Marin Water will coordinate that process.
- It is possible that the RQ-30+ instrument's angled (velocity) radar sensor is unable to accurately measure surface velocity indexes at all creek stages, due to flow path disturbances just upstream. If this is the case, it may be necessary to build a partial stage-discharge rating curve, for an additional cost, relative to the vertical (stage) radar sensor to deliver accurate streamflow through the full range of creek stages.

Schedule

We anticipate that the performance period for this scope of work is six months.

- **Task 1 – Data Collection**
  - **Draft Memo:** 12 weeks after Notice to Proceed
  - **Final Memo:** 4 weeks after receiving client comments on the draft Task 1 memo.
- **Task 2 - Hydrology**
  - **Draft Appendix:** 12 weeks after Notice to Proceed
  - **Final Appendix:** 4 weeks after receiving client comments on the draft appendix.
- **Task 3 – Hydraulic Model**

- **Draft Analysis:** 12 weeks after receiving data from Tasks 1 and 2 (i.e., completion of the draft memo and appendix).
- **Final Analysis:** 4 weeks after receiving client comments on the draft Task 3 memo.

- **Task 4 – Coordination and Resident Meetings**
  - Coordination is on-going.
  - Schedule for three meetings with residents to be determined by Marin Water.

Budget

Please refer to the detailed breakdown of estimated effort and cost by task, submitted under separate cover.

Upper Nicasio Creek Flood Study		ESA LABOR COST		SUBCONSULTANT & EXPENSES	TOTAL PROJECT COST
Task #	Task Name/Description	ESA Total Hours	Total ESA Labor Cost	Total Expense ($) Amount	
1.1	Topo Survey, Photos, Mapping	413.00	$ 83,204	$ 17,603	$ 100,807
1.2	Hydrologic Monitoring	109.00	$ 22,323	$ 3,330	$ 25,653
1.3	Memo	38.00	$ 9,462	$ -	$ 9,462
1	**Task 1**	**560.00**	**$ 114,989**	**$ 20,933**	**$ 135,922**
2.1	HEC HMS Modeling	147.00	$ 39,243	$ -	$ 39,243
2.2	Reporting (draft and final)	101.00	$ 28,697	$ -	$ 28,697
2	**Task 2 Hydrologic modeling**	**248.00**	**$ 67,940**	**$ -**	**$ 67,940**
3.1	Topographic surface creation	40.00	$ 9,360	$ -	$ 9,360
3.2	Modeling (calibration and alternatives)	170.00	$ 43,694	$ -	$ 43,694
3.3	Reporting (draft and final)	133.00	$ 36,961	$ -	$ 36,961
3	**Task 3 Hydraulic modeling**	**343.00**	**$ 90,015**	**$ -**	**$ 90,015**
4.1	Coordination, Resident Meetings (3)	112.00	$ 36,588	$ -	$ 36,588
4	**Task 4 - Coordination and Resident Meetings**	**112.00**	**$ 36,588**	**$ -**	**$ 36,588**
O.1	Streamgage Installation	254.00	$ 50,240	$ 6,980	$ 57,220
	Optional Task 1	**254.00**	**$ 50,240**	**$ 6,980**	**$ 57,220**
	Total Hours	**1,517.00**	**$ 359,772**	**$ 27,913**	**$ 387,685**
	Total ($) Amount		**$ 359,772**	**$ 27,913**	$ 387,685

PROJECT COST ESTIMATE SUMMARY TABLE		
ESA Labor	$359,772	$359,772
Annual Rate Escalation Allowance		
Contingency		
Technology and Data Management Fee		
ESA Labor Amount	**$359,772**	**$359,772**
ESA Non-Labor Expenses		
Reimbursable Expenses (see Attachment A for detail)	**$9,258**	**$9,258**
ESA Equipment Usage (see Attachment A for detail)	**$18,655**	**$18,655**
Subtotal ESA Non-Labor Expenses	**$27,913**	**$27,913**
PROJECT TOTAL	**$387,685**	**$387,685**

MARIN WATER

UPCOMING MEETINGS

This schedule lists upcoming board and committee meetings as well as upcoming agenda items for the next month, which may include Board interest in adding future meeting items. The schedule is tentative and subject to change pending final publication and posting of each meeting agenda.

Internal Meetings		
Meeting Date	**Meeting Type**	**Key Item(s)**
Thursday, Nov. 20, 2025 9:30 a.m.	Finance & Administration Committee Meeting	Quarterly Investment Report
Monday, Dec. 1, 2025 9:00 a.m.	Special Meeting of the Board of Directors (Board Retreat)	
Tuesday, Dec. 9, 2025 6:30 p.m.	Board of Directors' Regular Bi-Monthly Meeting	Committee Meetings Calendar
Thursday, Dec. 11, 2025 9:30 a.m.	Planning Committee Meeting/ Special Meeting of the Board of Directors	Scenic Ave. Tank Replacement Project

External Meetings	
Meeting Date	**Meeting Type**
Tuesday, Dec. 2, 2025 8:15 a.m.	Association of California Water Agencies
Friday, Dec. 5, 2025 9:30 a.m.	North Bay Watershed Association