



STAFF REPORT

Meeting Type: Board of Directors
Title: General Manager's Report September 2023
From: Ben Horenstein, General Manager
Meeting Date: October 24, 2023

TYPE OF ACTION: X Action Information Review and Refer

RECOMMENDATION: Approve Report

SUMMARY:

A. HIGHLIGHTS:

- The daily average net production for the month of September 2023 was 24.9 MGD compared to 22.9 MGD for the month of September 2022. Typical usage for September is 30.1 MGD.
- The daily average flow from Sonoma County Water Agency for the month of September 2023 was 12.4 MGD compared to 2.8 MGD for the month of September 2022.
- The District completed the review of the 90% Plans, Specification and Engineers estimate of the Pine Mountain Tunnel Phase 2 project to construct the two 2-million gallon pre stressed water storage tanks. This project is on schedule to advertise later in 2024 for construction in August 2025. This is the final phase of construction that will allow the District to permanently eliminate the use of Pine Mountain Tunnel for water storage purposes.
- Staff replaced a 60 foot water service to a sewer pump station near #50 Bon Air Shopping Center. This problematic plastic service forced the emergency shut down of water to the Bon Air Shopping Center because of a leak. The full renewal of the water service included moving the water meter from an enclosed fence line to more readily access the meter in the future.
- System Maintenance Crews replaced a broken check valve on the outlet piping for Crescent Ave Pump. During the installation, a broken main line valve was also discovered. Staff replaced the swing check valve with a pump control valve and replace the broken main line valve. This work upgrades this older pump station to be more in line with standardized system piping and allows better operation.
- Staff identified cavitation noise at the Santa Margarita Pump. After conducting an investigation into the issue, it was determined that the cavitation was a result of a change in state in that specific part of the distribution system, resulting in lower suction pressure at the pump station. To temporarily address this problem, a butterfly valve was throttled to equalize backpressure at the pump. Staff then made modifications to the relief pilot valve and two small solenoid

controlled check valves to eliminate the need to throttle the butterfly valve. This adjustment allows the distribution system to adapt to pump suction pressures eliminating the cavitation noise.

- The District was awarded a grant for \$4,659,898 through the CDFW Watershed Restoration Grants Program to fund implementation of six restoration sites on Lagunitas Creek. Two seasonal Aides began annual juvenile salmonid population monitoring and tagging surveys throughout the Lagunitas Creek watershed. Collaboration continued with the National Park Service and Sonoma Water on plans to install a PIT tag antenna in Olema Creek to inform regional monitoring.
- The District continued Year 5 of the Biodiversity Fire, & Fuels Integrated Plan with continued Forest Fuel Reduction work in the Below Filter Plant Project Area and up at South Potrero Meadow. Additionally the district coordinated multiple PG&E Pole Replacements along the Bolinas Ignacio Transmission Line.
- AmeriCorps fellow from UC Berkeley began his 10-month term; he will support forest health initiatives, volunteer engagement, and public outreach. The District carried out a trail volunteer day along the Azalea Hill Trail Restoration Project with volunteer support from the Marin County Bicycle Coalition. The District took part in State Park's Science Quest Day with activities supporting forest health and prescribed fire in the Rock Spring corridor.

MARIN WATER GRANT STATUS

| PROJECT DETAILS | | | | | | REQUIREMENTS | BUDGET | | |
|--|---------------------------|------------------------------|------------------|--------------------------------------|---|-------------------|--|---------------------|---------------------|
| OPPORTUNITY | FUNDER | FUNDER PRIORITIES | APPLICATION DATE | MATCHING PROJECT | DESCRIPTION | STATUS | PREREQUISITE | FUNDS REQUESTED | MATCH REQUIREMENT % |
| CURRENT APPLICATIONS | | | | | | | | \$69,821,698 | |
| Local Water Supply Storage Projects | DWR | Water Supply | 1/9/23 | Water Supply | Three projects: recycled water, local storage enhancement, and winter water conveyance | Open | UWMP Compliance | \$53,000,000 | 50 |
| Desal Feasibility Study | USBR | Desalination | 2/28/23 | Desalination | Exploring new brackish desal in Petaluma | Open | None | \$200,000 | 50 |
| Local Storage Supply Enhancement | USBR | Environmental + Water Supply | 3/28/23 | Water Supply | Evaluating increasing storage locally | Open | None | \$662,000 | 50 |
| Prop. 1, Round 2 IRWM Disadvantaged Community | DWR | Water Infrastructure | 12/1/22 | Marin City/San Rafael Infrastructure | Replacing aging transmission lines and laterals in Marin City and San Rafael's Canal District | Funded | IRWM CC Approval | \$6,500,000 | 0 |
| Forestry Corps | CCNB | Vegetation Management | Jan 2023 | Ongoing Forestry work | Workforce development; state funding directly to CCNB to fund crews working on the watershed | Funded | Corps Partnership | \$500,000 | 0 |
| Pre-application for Coastal Access Projects | State Coastal Conservancy | Recreation/Coastal Access | Dec. 2024 | Trail work | Watershed trail improvements | Open | None | \$1,000,000 | 0 |
| Fisheries Restoration Grant Program | COFW | Fisheries | 4/20/23 | Lagunitas Creek Restoration | Funding for Phase II site design and CEQA | Funded | 30% designs | \$723,000 | 5 |
| Lagunitas Creek Salmonid Spawning Gravel Improvement Project | DWR Riverine | Fisheries | 11/1/22 | Lagunitas Creek Restoration | Gravel augmentation for Lagunitas Creek | Funded | None | \$590,000 | 0 |
| Prop 1, Fisheries Restoration | COFW | Fisheries | 7/1/23 | Lagunitas Creek Restoration | Lagunitas Creek Restoration Sites 1-6 | Funded | 60% designs | \$4,659,898 | 0 |
| One Tam Forest Health Strategy | CA OPR | Forestry Restoration | 8/29/23 | BFFIP Implementation | BFFIP Implementation for 2-3 years | Open | CEQA | \$1,900,000 | 0 |
| Quagga & Zebra Mussel Infestation Prevention | DBW | Water Quality | 9/1/23 | EDMMD | Amount of award up to \$86,800.00 | Funded | N/A | \$86,800 | 0 |
| UPCOMING OPPORTUNITIES | | | | | | | | \$0 | |
| Hazard Mitigation Program | FEMA | Natural Hazards | Summer 2023 | Treatment Plant Clarifiers | Funds to address seismic hazards in water treatment facilities | TBD | NOI APPROVAL | TBD | |
| Small Storage Program | USBR | Water Supply | Fall 2023 | Phoenix Lake | Funding for new water supply projects | TBD | Approved Feasibility Study | TBD | |
| WaterSMART Planning & Design | USBR | Water Supply | 4/2/2024 | Water Supply Planning | Funding for advancing implementation of Strategic Water Supply Projects | Open | TBD | TBD | |
| WaterSMART Applied Science | USBR | Fisheries | 10/15/2023 | Advanced Weather Modeling | Funding for weather modeling to inform water resources man | Open | TBD | TBD | |
| LONG TERM OPPORTUNITIES (ongoing development) | | | | | | | | | |
| 2024 Water Bond | State of CA | Water supply projects | Fall 2024 | SWSA Water Supply Projects | Currently in Legislature | In legislature | Voter approval; District participation | TBD | |
| Water Resources Development Act | Army Corps of Engineers | Water supply projects | FY 2024 | SWSA Water Supply Projects | Pursuing for No Regrets and regional projects | In appropriations | Authorization (secured 2022) | \$28,000,000.00 | |

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 2023/24 | | FY 2022/23 | |
|---------------------------------|-------------------|-------------|-------------------|-------------|
| | (million gallons) | (acre-feet) | (million gallons) | (acre-foot) |
| Potable | | | | |
| Total production this FY | 2,333 | 7,159 | 2,137 | 6,558 |
| Monthly production, September | 756 | 2,319 | 684 | 2,100 |
| Daily average, September | 25.19 | 77.30 | 22.81 | 69.99 |
| Recycled | | | | |
| Total production this FY | 74.75 | 229.4 | 96.22 | 295.29 |
| Monthly production, September | 2.24 | 6.87 | 29.96 | 91.94 |
| Daily average, September | 0.07 | 0.23 | 1.00 | 3.06 |
| Raw Water | | | | |
| Total production this FY | 54.70 | 167.87 | 34.59 | 106.15 |
| Monthly production, September | 32.55 | 99.89 | 11.26 | 34.56 |
| Daily average, September | 1.09 | 3.33 | 0.38 | 1.15 |
| Imported Water | | | | |
| Total imported this FY | 1,113 | 3,417 | 291 | 894 |
| Monthly imported, September | 373 | 1,146 | 83 | 253 |
| Reservoir Storage | | | | |
| Total storage | 22,301 | 68,439 | 19,118 | 58,6722 |
| Storage change during September | -757 | -2,324 | -900 | -2,761 |
| Stream Releases | | | | |
| Total releases this FY | 727 | 2,230 | 611 | 1,874 |
| Monthly releases, September | 271 | 832 | 208 | 637 |

| 2. <u>Precipitation:</u> | <u>FY 2023/24 (in.)</u> | <u>FY 2022/23 (in.)</u> |
|---------------------------------|-------------------------|-------------------------|
| Alpine | 0.44 | 0.62 |
| Bon Tempe | 0.20 | 0.77 |
| Kent | 0.45 | 0.70 |
| Lagunitas * | 0.14 | 1.49 |
| Nicasio | 0.12 | 0.86 |
| Phoenix | 0.07 | 1.23 |
| Soulajule | 0.10 | 0.87 |

* Average to date = 0.06 inches

3. Water Quality:

| <u>Laboratory:</u> | <u>FY 2023/24</u> | <u>FY 2022/23</u> |
|---------------------------------------|-------------------|-------------------|
| Water Quality Complaints: | | |
| Month of Record | 7 | 10 |
| Fiscal Year to Date | 22 | 50 |
| Water Quality Information Phone Calls | | |
| Month of Record | 2 | 3 |
| Fiscal Year to Date | 6 | 27 |

The WQ lab ensured that the water supplied met or surpassed water quality regulations by collecting and analyzing 705 analyses on treatment plants and distribution system samples.

Mild steel corrosion rates averaged 2.28 (0.4 – 4.08) MPY. The AWWA has recommended an operating level of <5 MPY with a goal of <1 MPY.

Complaint Flushing: No flushing events were performed for this month on record.

Tank Survey Program: 9 water storage tank sanitary surveys were performed during the month. 59.69 % planned survey program has been completed for calendar year 2023.

Disinfection Program: No new water mains were disinfected during the month of September. Performed chlorination's on 29 water storage tanks to ensure compliance with bacteriological water quality regulations.

Tank Water Quality Monitoring Program: Performed 37 water quality-monitoring events on storage tanks for various water quality parameters this month to help ensure compliance with bacteriological water quality regulations.

Summary:

The lab performed 9 sanitary tank surveys, treated 29 tanks for low chlorine, and check an additional 37 tanks for low chlorine residual in September 2023.

4. Water Treatment:

| <u>Treatment Results</u> | <u>San Geronimo</u> | | <u>Bon Tempe</u> | | <u>Ignacio</u> | |
|--------------------------|---------------------|--------------|------------------|--------------|----------------|--------------|
| | Average | Monthly Goal | Average | Monthly Goal | Average | Monthly Goal |
| Turbidity (NTU) | 0.05 | ≤ 0.10 | 0.04 | ≤ 0.10 | 0.04 | ≤ 0.10 |
| Chlorine residual (mg/L) | 2.70 | 2.75 * | 2.72 | 2.75 * | 2.83 | 2.75 * |
| Color (units) | 0.6 | ≤ 15 | 0.6 | ≤ 15 | 0.2 | ≤ 15 |
| pH (units) | 7.8 | 7.8* | 7.9 | 7.8* | 8.0 | 8.1** |

- * Set monthly by Water Quality Lab
- ** pH to Ignacio is controlled by SCWA

5. Capital Improvement:

- Pine Mountain Tank Phase 1 – Rough Grading Project (D21043): The Pine Mountain Tunnel Tanks Replacement Project is a multi-year two-phased project that will replace the existing Pine Mountain Tunnel. This project (Phase 1) will excavate approximately 45,000 cubic yards of hillside and will install a soil nail retaining wall in preparation for a future project that will install two 2-million gallon pre-stressed concrete storage tanks (Phase 2). This Phase 1 project will also perform site grading and drainage improvements.
 - Project Budget: \$7,734,575
 - Monthly Activities: The Contractor has completed the installation of the vehicular guardrail on Sky Oaks Road, some storm drain improvements, and site clearing and grubbing. The contractor has also installed 3 inclinometers to monitor the movement of the hillside during the soil nail retaining wall installation. Topsoil off-haul began on September 5 and was completed on September 22. The new berms have been installed on the watershed roads and full restoration of the roads should be completed by October 6. The next order of work is to complete installation of storm drains and catch basins. Also, the Contractor’s sub will begin drilling soil nail wall anchors, they will likely start on October 3. Shaver Grade, Phoenix Lake Road, and the majority of bisecting trails will be fully reopened thereafter. Concrete Pipe Road between Taylor Trail and Fairfax-Bolinas Road will remain closed Monday through Friday 8:00 AM to 5:00 PM throughout the duration of the project. Project will close down and winterize for the rest of the calendar year once full rain weather begins, and will restart in 2024 after the Nesting Owl closure times out (August).

- b. Worn Spring Road Slide Repair Project (D23017): This project will install a 60-foot long soldier pile retaining wall with concrete lagging and a guardrail on Worn Spring Road on Marin watershed lands approximately 400 feet from Phoenix Lake.
 - Project Budget: \$289,910
 - Monthly Activities: The Contractor has completed installation of a cast-in-place concrete lagging wall, guardrail, final grading, and slope stabilization. Work that still remains is fencing, site winterization, and punch list. The project is anticipated to be complete in October.

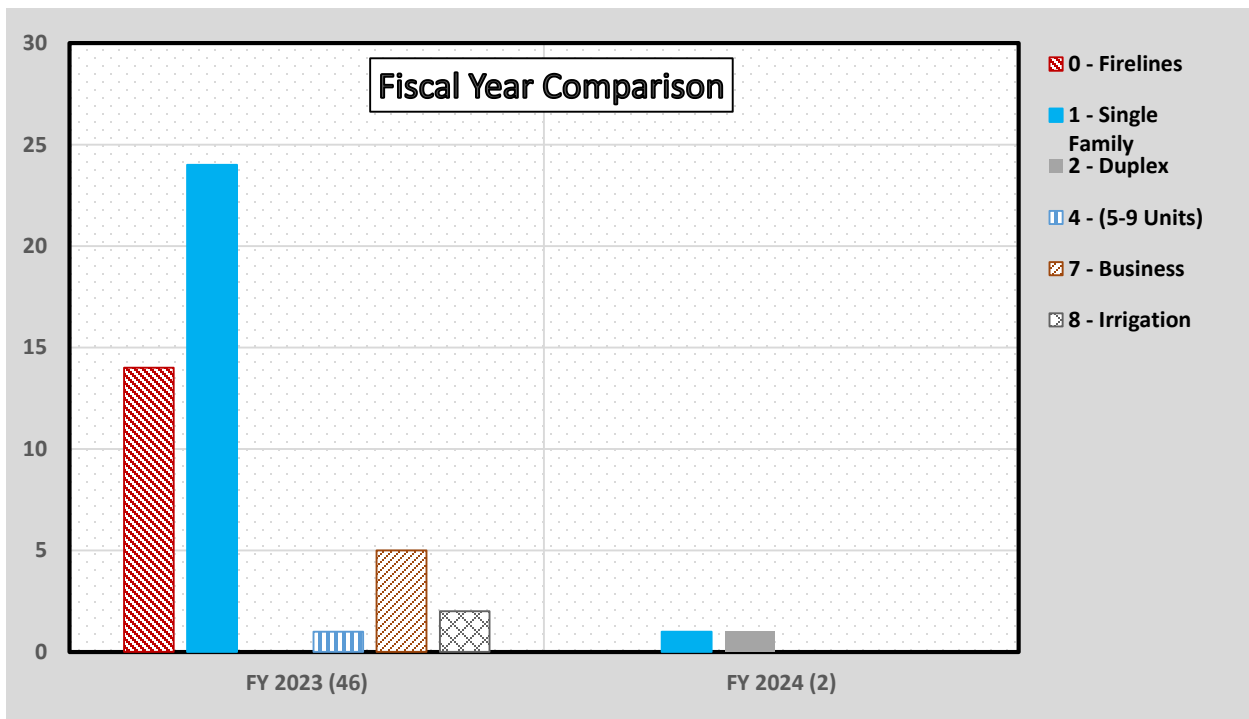
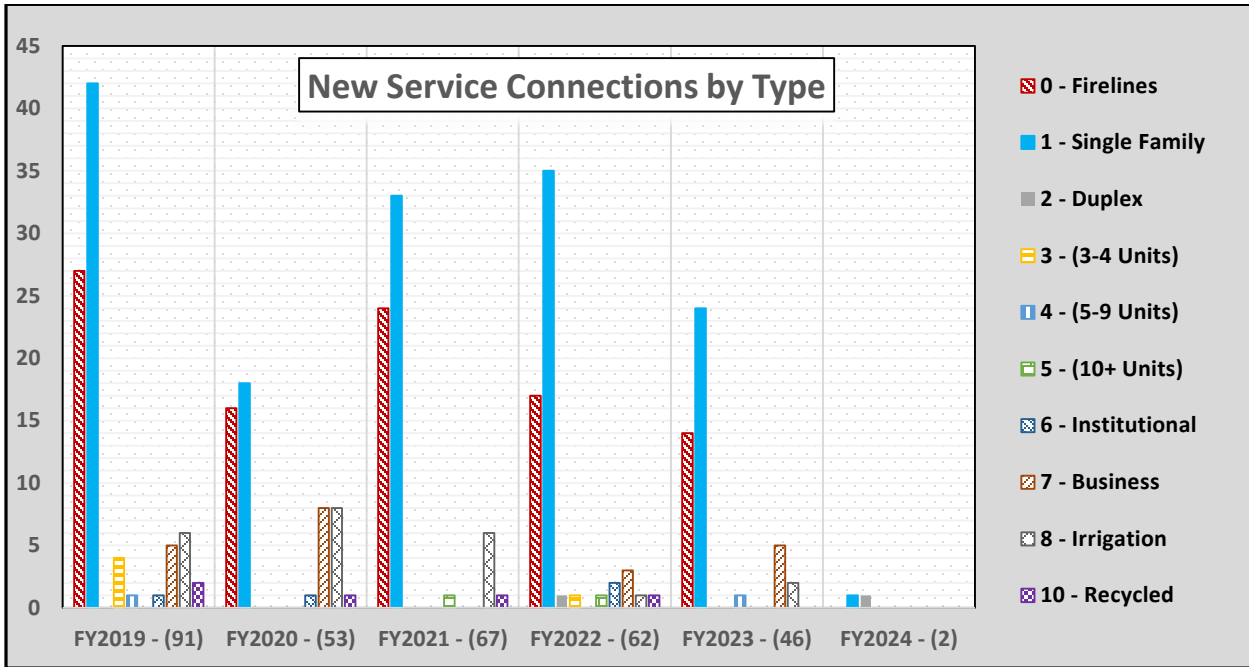
- c. Bolsa Tank Removal Project (D16006): This project installed approximately 90 feet of 6-inch pipe and a new pressure regulator valve to permanently decommission and remove the 45-year-old 200,000-gallon leak prone redwood Bolsa Tank located in the City of Mill Valley
 - Project Budget: \$246,900
 - Monthly Activities: The contractor completed final connections to the Mill Valley pressure zone, demolition of Bolsa Tank including removal and recovery of redwood siding, and they finished site clean-up and have demobilized. The project has been completed.

- d. Spillway Condition Assessment Phase II (CN2006): This project is considered Phase II of a multi-phase project that will investigate the concrete spillways at Peters Dam (Kent Lake), Seeger Dam (Nicasio Reservoir), and Soulajule Dam. Assessment work includes concrete coring, ground penetrating radar (GPR), video inspection and cleaning of sub-drains, and visual observation.
 - Project Budget: \$680,106
 - Monthly Activities: Contract execution is currently underway and the Contractor is preparing submittals and the baseline construction schedule. The first order of work includes the identification and installation of fall protection anchorage, which is followed by the assessment and inspection. Pre-Construction meeting with the Contractor is scheduled for October 3.

6. Other:

| <u>Pipeline Installation</u> | <u>FY2023/24</u> | <u>FY2022/23</u> |
|--|------------------|------------------|
| Pipe installed during September (feet) | 114 | 406 |
| Total pipe installed this fiscal year (feet) | 508 | 3,681 |
| Total miles of pipeline within the District | 908* | 908* |
| <i>* Reflects adjustment for abandoned pipelines</i> | | |
| <u>Pipe Locates (1,157 Responses)</u> | <u>FY2023/24</u> | <u>FY2022/23</u> |
| Month of September (feet) | 32,204 | 28,570 |
| Total this fiscal year (feet) | 109,336 | 101,632 |
| <u>Main Line Leaks Repaired:</u> | <u>FY2023/24</u> | <u>FY2022/23</u> |
| Month of September | 8 | 15 |

| | | |
|--|------------------|------------------|
| Total this fiscal year | 37 | 34 |
| <u>Services:</u> | <u>FY2023/24</u> | <u>FY2022/23</u> |
| Service upgrades during July | 15 | 13 |
| Total service upgrades this FY | 50 | 44 |
| Service connections installed during September | 2 | 1 |
| Total active services as of August 1, 2023 | 61,834 | 61,822 |



7. Demand Management:

| | Sep-23 | FY 23/24 TOTAL | FY 22/23 TOTAL | FY 21/22 TOTAL |
|---|--------|-------------------|-------------------|-------------------|
| WATER-EFFICIENCY PROGRAMS | | | | |
| Water-Use Site Surveys | | | | |
| Conservation Assistance Program (CAP) Consultations | | | | |
| Residential properties resi 1-2 (single-family) | 27 | 61 | 291 | 731 |
| Residential properties resi 3-5 (multi-family units) | 0 | 0 | 3 | 7 |
| Non-residential properties resi 6-7 (commercial) | 0 | 0 | 3 | 1 |
| Dedicated irrigation accounts resi 8-10 (large landscape) | 0 | 0 | 0 | 3 |
| Marin Master Gardeners' Marin-Friendly Garden Walks | | | | |
| Residential garden walks | 5 | 19 | 72 | 100 |
| Public Outreach and Education, Customer Service | | | | |
| Public outreach events (number of people attending) | 1,000 | 1022 | 1775 | 1602 |
| Public education events (number of participants) | 0 | 0 | 328 | 536 |
| Customer calls/emails admin staff | 338 | 971 | 4150 | 9508 |
| Outreach to new Marin Water customers (letters sent) | 125 | 366 | 0 | 0 |
| School Education | | | | |
| School assemblies | | | | |
| Number of activities | 0 | 0 | 0 | 0 |
| Number of students reached | 0 | 0 | 0 | 0 |
| Field trips | | | | |
| Number of activities | 2 | 2 | 15 | 0 |
| Number of students reached | 33 | 33 | 307 | 0 |
| Classroom presentations | | | | |
| Number of activities | 2 | 2 | 17 | 0 |
| Number of students reached | 65 | 65 | 531 | 0 |
| Other (e.g. booth events, school gardens) | | | | |
| Number of activities | 0 | 0 | 1 | 0 |
| Number of students reached | 0 | 0 | 480 | 0 |
| Incentives | | | | |
| Number of HECWs approved | 2 | 22 | 103 | 190 |
| Number of Rain Barrel/Cisterns approved | 0 | 2 | 15 | 76 |
| "Cash for Grass" Turf Replacements approved | 6 | 14 | 116 | 402 |
| Number of Laundry-to-Landscape Systems (kits) approved | 0 | 0 | 7 | 27 |
| Hot water recirculating system rebates | 0 | 2 | 30 | 122 |
| Pool Cover rebates | 3 | 6 | 27 | 298 |
| HET rebates | 1 | 2 | 22 | 92 |
| Number of Smart Controllers rebates approved | 2 | 14 | 35 | 69 |
| Number of Smart Home Water Monitor "Flume Direct Distribution" redeemed | 34 | 77 | 271 | 1568 |
| Number of Smart Controllers "Rachio Direct Distribution" approved | 5 | 91 | 77 | 178 |
| Advanced Metering Infrastructure (AMI) | | | | |
| AMI leak letters sent to customers (>200 GPD) | 158 | 392 | 1168 | 1050 |
| ORDINANCES | | | | |
| Water Waste Prevention | | | | |
| Water Waste Reports Received | 26 | 75 | 392 | 4451 |
| Water Waste Notifications Sent | 6 | 12 | 81 | 0 |
| Landscape Plan Review | | | | |
| Plans submitted | 7 | 23 | 88 | 77 |
| Plans exempt | 1 | 5 | 5 | 1 |
| Plans completed | 2 | 10 | 20 | 17 |
| Plans in workflow (pass & fail) | 12 | 54 | 145 | 123 |
| Tier 4 Exemption | | | | |
| Inspections that resulted in a pass | 0 | 2 | 1 | 1 |
| Graywater Compliance Form | | | | |
| Applications Received (as of Dec 2019) | 6 | 37 | 123 | 57 |
| Systems installed | 0 | 4 | 23 | 13 |

8. Watershed Protection:

Rangers Makes Arrest

On September 7th, Ranger, Michael Krakauer, and training officer Matt Cerkel, responded to Lake Nicasio for a report of a swimmer in the reservoir. While enroute, the Marin County



Booking Photo

Sheriff dispatched Deputies for a report of trespasser who made death threats to workers at a nearby ranch. The suspect had fled and jumped into the Nicasio Reservoir.

Rangers realized the incidents were likely related. Rangers arrived on-scene and observed the suspect in the middle of the Nicasio Reservoir. With the help of the CHP helicopter, the suspect was brought to shore where he was detained in handcuffs. Ranger Krakauer and Deputies then interviewed the ranch workers and determined the suspect had made criminal threats and had illegally trespassed on a ranch. Ranger Krakauer then place the suspect under arrest. The suspect was transported and booked into the Marin County Jail. The suspect was had there on \$50,000 bail.

Rangers Find Illegally-Built Mountain Bike Trail

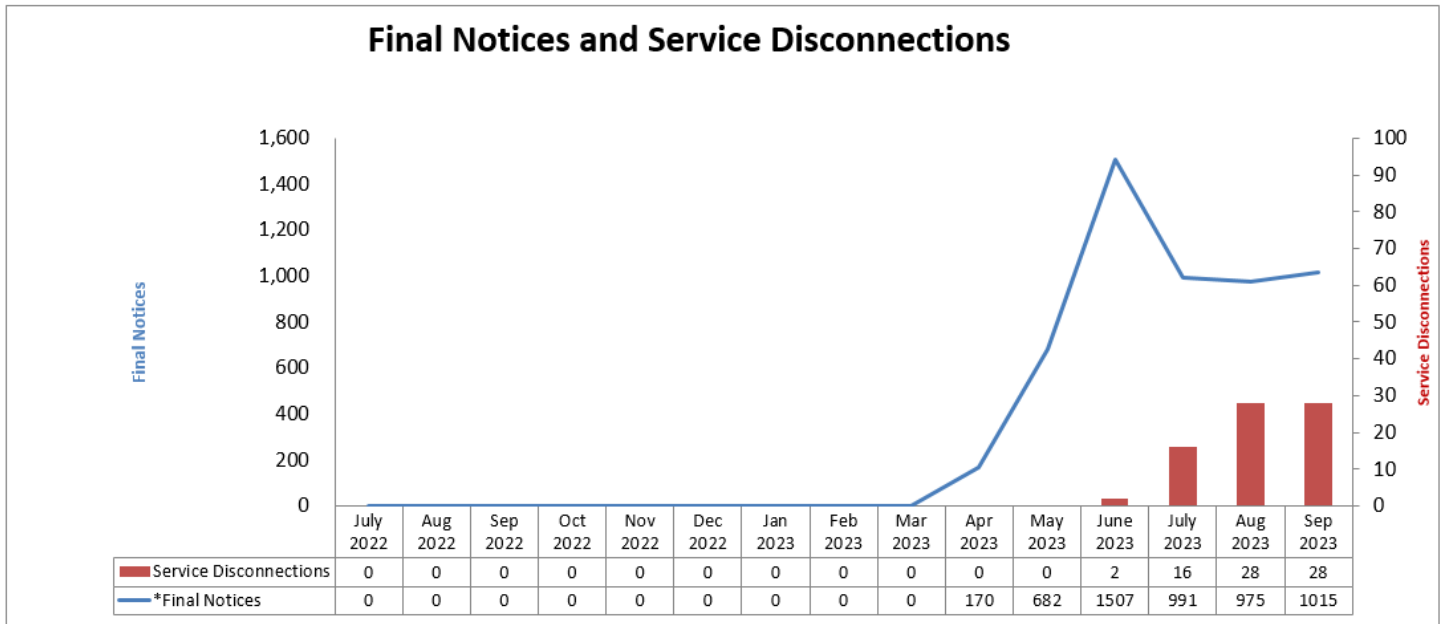
The Rangers located a newly built illegal downhill mountain bike trails that runs from Bolinas Ridge to Peters Dam. There was significant environmental along the route of the trail and would likely see serious erosion during the raining season. The trail is tentatively scheduled for decommissioning later this month. An investigation is on-going.



| Incidents and Events | 1021 |
|--------------------------------------|-------------|
| Visitor Assists | 559 |
| Warnings | 238 |
| Citations | 70 |
| Dam Check | 56 |
| Assist Watershed Maintenance | 39 |
| Vandalism | 13 |
| Fish and Game Checks | 12 |
| Medical Aid | 7 |
| Suspicious Circumstance | 4 |
| Assist Fire/EMS | 4 |
| Assist Other Agency | 3 |
| Misc Law Enforcement Calls | 2 |
| Misc. Calls for Service | 2 |
| Watershed Parking Lot(s) at Capacity | 2 |
| Lost Property | 2 |
| Citizen Complaint: Illegal Bike Use | 1 |
| Smoke Check | 1 |
| Search and Rescue | 1 |
| Citizen Complaint: Bike Speed | 1 |
| Ranger Callout | 1 |
| Resist Peace Officer | 1 |
| Humane/Animal Related Calls | 1 |
| Found Property | 1 |

| Citations | 70 |
|--|-----------|
| Non-Payment of Parking Fees | 63 |
| Dog off Leash | 1 |
| Obstruct Traffic/Parking within 6' of Center | 1 |
| Boating | 2 |
| Expired Registration | 1 |
| Fishing without a License | 1 |
| Parking After Sunset | 1 |

9. Shutoff Notices and Disconnections:




DISCUSSION: None.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S): None.

| DEPARTMENT OR DIVISION | DIVISION MANAGER | APPROVED |
|----------------------------------|--|---|
| Office of the General Manager | <hr/> |  |
| <hr/> | Ben Horenstein General Manager | <hr/> Ben Horenstein General Manager |