



Wildfire Season Preparedness

November 7, 2023



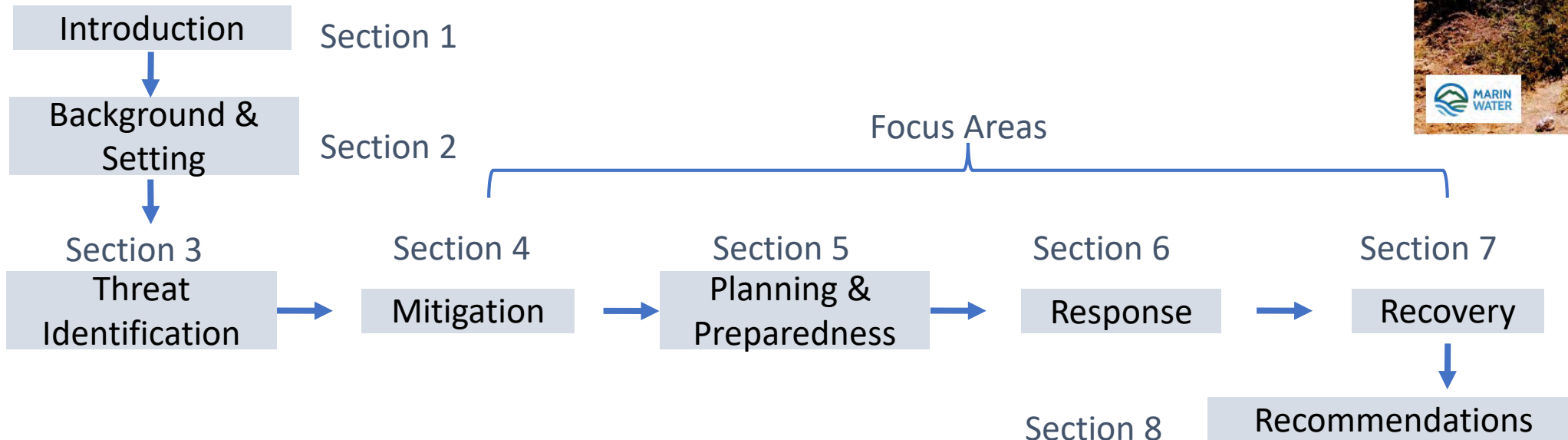
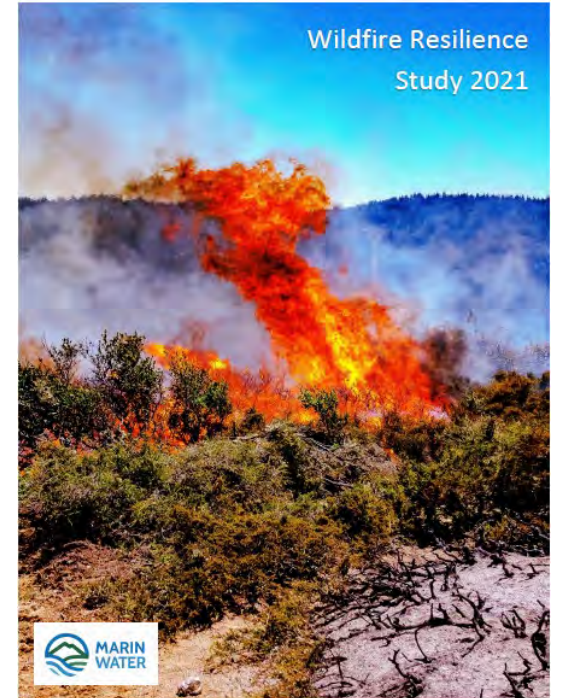
Outline

- Background
- Fire Season Preparedness
- Watershed Management
- Facilities
- Partnership Coordination
- Planning
- Fundraising
- Ongoing Efforts



Background

Objective: Develop a comprehensive fire preparedness document that integrates available information, identifies data gaps, and develops a process and structure for improving fire resiliency and preparedness through ongoing implementation of recommended actions.



Fire Season Preparedness

- Wildland Firefighting staff 13
 - Annual Staff Refresher Training
 - Monthly Trainings
 - Training with Local Fire Depts.
- Resource Advisor Staff (3)
- Fire Danger Signs
- Website and Social Media Messaging
- Public Notification and Alerts
- Watershed Closures and Use Restrictions



Equipment Inventory

District's equipment supports initial attack and support County Fire's response.

Rangers' Trucks:

- 2 – Type 6 (200 gal)
- 3 – Type 7 (100 gal)
- In-process an additional Type 7 and replacements of the older Type 6s and Type 7s

District Equipment

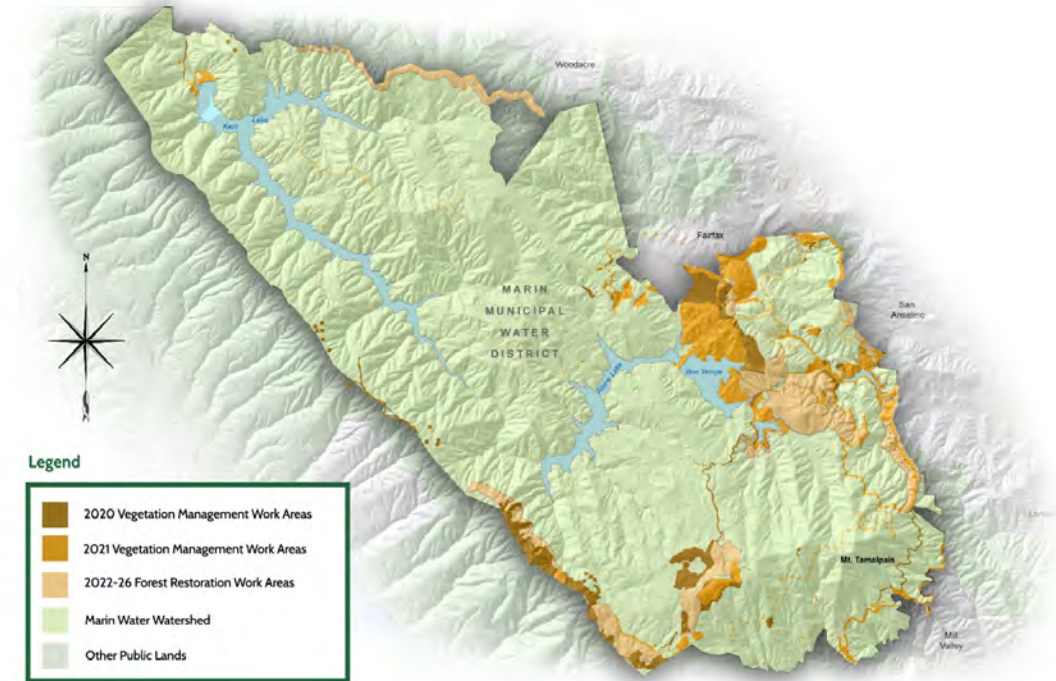
- Water Tender (2,200 gal)
- Type 3 Wildland Engine
- Boat with portable pumps
- Dozer (Fire Rated)
- 6 Portable Fire Pumps



Watershed Management

Watershed forest restoration and vegetation management work completed:

- 442 acres of Fuelbreak maintenance work completed to date
- 380 acres of forest restoration and fuel reduction work completed
- 458 acres of broom management work completed
- 47 acres of roadside mowing completed
- 10 acres of expanded fuelbreak infrastructure



BFFIP work completed and planned

Prescribed Fire Planning

- Ongoing site evaluations
- Developed four (4) prescribed fire plans
- Consultations with Federated Indians Graton Rancheria
- BAAQMD Air Quality Permit
- Communication and outreach materials
- Fuel moisture monitoring
- Marin County Fire Coordination
- Pre-project vegetation treatments



What happened here?

Prescribed Fire

- In coordination with Marin Water, Marin County Fire Department conducted a prescribed fire here on the Mt. Tam Watershed.
- Prescribed fire is one of many methods, including mechanical removal, manual pulling, grazing and others, that contribute to Marin Water's proactive approach to fire fuel management and a more resilient, ecologically healthy watershed.
- By mimicking the natural effects of wildfire, the carefully planned burn of overgrown vegetation is a safe and efficient way to restore forest health, improve open-woodland conditions for wildlife habitat and create fuel breaks that help protect our water quality, water system and the surrounding community.
- Additional prescribed fire treatments may be planned on the watershed in the future. Implementation of these efforts will always be dependent on air quality, weather and other environmental conditions, as well as available fire department resources.



marinwater.org/WatershedResiliency



Prescribed Fire Implementation

- Implemented 11 acres project at Ridgecrest and Rock Spring
- Ongoing coordination to support 20 acre project at Rock Spring
- Ongoing site evaluations and monitoring
- Coordinating additional pre-project treatments
- Marin County Fire coordinating implementation schedule



Fire Roads and Emergency Access Improvements

- Sky Oaks Rd. retaining wall
- Worn Springs Rd. slide repair
- Azalea Hill Trail retaining wall project
- Concrete Pipe Rd. improvements
- Shaver Grade Rd. improvements
- Bon Tempe Rd. improvements
- Seven (7) watershed culvert repairs
- Cross Marin Trail culvert repair
- Downed tree clearing along fire roads



Bon Tempe Rd improvements



Worn Springs Rd retaining wall



Down tree removal along fire roads



Culvert replacement

PG&E Coordination

- 12 acres of Vegetation Management along 2.5 miles of Power Lines
- Equipment Maintenance & Replacement
- District Compliance Review
 - Contractor Tracking
 - Rare Plants
 - Northern Spotted Owls
 - Nesting Birds
 - Aquatic Resources



Facilities Vegetation Management

Vegetation work completed around water distribution facilities:

- 20 sites received tree pruning to reduce elevate canopy, reduce fuel loads and remove hazardous trees.
 - Of these 20-25% of the sites required 2-3 treatments
- 18 sites (pump stations and tanks) received broom management and/other ladder fuel management work.
- 192 sites received defensible space work targeting fine fuels. District staff completed 125 of the sites and our contractor F&K completed 67 sites.



Rafael Highlands Tank Before and After



Fairview Park Tank Before and After



Water System Facilities Projects

- Completed permanent generator project at San Geronimo Treatment Plant.
- Removed Courtright and Bolsa redwood tanks from system and replaced with regulators.
- Completed three-valve cluster installation at intersection of NML and Fairfax Transmission Line.
- 3.1 miles of pipeline replacement projects, capital and FFIP, to improve fire flow and system resiliency.
- Added mobile generators to fleet to ensure ongoing operations during power outages.



San Geronimo Permanent Generators

Partnership Coordination

- Fire Safe Marin monthly board meetings
 - Annual Ember Stomp Event-Marin Water table
- Marin Wildfire Prevention Authority-Advisory Technical Committee
 - Collaborative vegetation work and community presentations/field trips
- One Tam Forest Resiliency Strategy Finalized
 - Self guided forestry tour, Tam Van outreach, and community site visits
- Fire Chief Meetings and Fire Flow Project Prioritization
- Project coordination with County Fire for prescribed burning
- Outreach
 - Cal Fire and Coastal Conservancy Forestry Tour
 - TOGETHER Bay Area Forestry Tour, FLAME (Fire-resilient Lands Alliance (for the Management of Everything)) working group tour
 - Marin Conservation Leagues Fire & Environmental Working Groups
 - Ecological Sound Practices Partnership & other local community groups



Ember Stomp Event

Planning

- Biodiversity Fire and Fuels Integrated Plan Addendum 2023
 - BFFIP wildfire modeling
 - BFFIP prescribed burn planning & implementation
- Completed One Tam Forest Health Strategy
- Strategic Water Supply Road Map
- Advancing Watershed Recreation Management Planning Feasibility Study
- Continuing work on water system master plan, tentative completion date spring 2024
- Submitting Watershed Culvert permit package for 70 additional sites to resource agencies
- Contributing to 2023 Peak Health Report Update
- Completed Watershed Hydrological Model

Fundraising

Awarded Grants

- Cal Fire 2021 Forest Health \$3.1 million
- California Coastal Conservancy \$800K
- CCNB 2022 Forestry Corps Grant for 12 crew weeks

Submitted Grants

- Wildlife Conservation Board 2023 \$6.4 million
- Governors Office of Planning and Research ICARP \$1.7 million
- CCNB 2023 Forestry Crops Grant 24 crew weeks



Tour with Cal Fire, state representatives and MWPA

Ongoing Efforts

- Pine Mountain Loop Road failure assessment
- Evaluating replacement or re-habilitation options for eight (8) spring fed water tanks on the watershed
- Continuing to assess opportunities for permanent generators at key pump station
- Update Emergency Operations Plans
- Launching a Watershed Ranger Trainee Program