



Posting Date: 12-07-2020

## NOTICE OF MEETING

### WATERSHED COMMITTEE/BOARD OF DIRECTORS (WATERSHED)

**MEETING DATE:** 12-10-2020

**TIME:** 1:30 p.m.

**LOCATION:** This meeting will be held virtually, pursuant to the Governor's Executive Order N-29-20.

To participate online, go to <https://zoom.us/j/96125455332>. You can also participate by phone by calling 1-669-900-6833 and entering the webinar ID#: 961 2545 5332.

**PARTICIPATION DURING MEETINGS:** During the public comment periods, the public may comment by clicking the "raise hand" button on the bottom of the Zoom screen; if you are joining by phone and would like to comment, press \*9 and we will call on you as appropriate.

**EMAILED PUBLIC COMMENTS:** You may submit your comments in advance of the meeting by emailing them to [BoardComment@MarinWater.org](mailto:BoardComment@MarinWater.org). All emailed comments received by 11 a.m. on the day of the meeting will be provided to the Board of Directors prior to the meeting. Those emailed comments on approval items received by 11a.m. will also be summarized by the board secretary at the board meeting. All emails will be posted on our website. (Please do not include personal information in your comment that you do not want published on our website such as phone numbers and home addresses.)

AGENDA ITEMS	RECOMMENDATIONS
Call to Order	
Introduction of New Director Monty Schmitt	
Adopt Agenda	
<b>Public Comment</b> Members of the public may comment on any items not listed on the agenda during this time. Comments will be limited to three minutes per speaker, and time limits may be reduced by the Committee Chair to accommodate the number of speakers and ensure that the meeting is conducted in an efficient manner.	

**MARIN WATER BOARD OF DIRECTORS:** LARRY BRAGMAN, JACK GIBSON, CYNTHIA KOEHLER, LARRY RUSSELL AND MONTY SCHMITT

AGENDA ITEMS	RECOMMENDATIONS
<b>Calendar</b>	
1. Minutes of the Watershed Committee/Board of Directors (Watershed) Meeting of September 17, 2020	<i>Approve</i>
2. One Tam Draft 2021 Annual Work Plan	<i>Review &amp; Refer to a future meeting of the Board of Directors</i>
3. Azalea Hill Project Mitigation Monitoring Report and Update	<i>Information</i>
4. Grassland Invasive Plant and Habitat Restoration Services	<i>Review &amp; Refer to a future meeting of the Board of Directors</i>
<b>Adjournment</b>	

#### ADA NOTICE AND HEARING IMPAIRED PROVISIONS:

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#### FUTURE BOARD MEETINGS:

- ❖ Friday, December 11, 2020  
Operations Committee/Board of Directors (Operations) Meeting  
9:30 a.m.
- ❖ Tuesday, December 15, 2020  
Regular Bi-Monthly Board of Director's Meeting  
7:30 p.m.
- ❖ Thursday, December 17, 2020  
Finance Committee/Board of Directors (Finance) Meeting  
9:30 a.m.



Board Secretary

## Approval Item

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**TITLE**

Minutes of the Watershed Committee/Board of Directors (Watershed) Meeting of September 17, 2020

**RECOMMENDATION**

Approve the adoption of the minutes.

**SUMMARY**

On September 17, 2020, the Watershed Committee/Board of Directors (Watershed) held its quarterly meeting. The minutes of that meeting are attached hereto.

**DISCUSSION**

None

**FISCAL IMPACT**

None

**ATTACHMENT(S)**

1. Minutes of September 17, 2020, Meeting of the Watershed Committee/Board of Directors (Watershed)

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

**MARIN MUNICIPAL WATER DISTRICT  
WATERSHED COMMITTEE /BOARD OF DIRECTORS (WATERSHED) MEETING**

**MINUTES**

**Thursday, September 17, 2020**

**Via teleconference**

(In accordance with Governor Gavin Newsom's Executive Order N-29-20)

**DIRECTORS PRESENT:** Larry Bragman, John C. Gibson, and Larry L. Russell

**DIRECTORS ABSENT:** Director Koehler

**CALL TO ORDER:** Chair Bragman called the meeting to order at 1:30 p.m.

**ADOPT AGENDA:**

On motion made by Director Russell and seconded by Director Gibson, the board approved the adoption of the agenda by the following roll call vote:

Ayes:	Directors Gibson, Russell, and Bragman
Noes:	None
Absent:	Director Koehler
Abstain:	None

**PUBLIC COMMENT:**

There were no public comments.

**CALENDAR ITEMS:**

**ITEM 1. MINUTES OF THE WATERSHED COMMITTEE /BOARD OF DIRECTORS  
(WATERSHED) MEETING OF JUNE 18, 2020**

On motion made by Director Gibson and seconded by Director Russell, the board approved the minutes by the following roll call vote:

Ayes:	Directors Gibson, Russell, and Bragman
Noes:	None
Absent:	Director Koehler
Abstain:	None

**ITEM 2. ANNUAL VEGETATION MANAGEMENT REPORT**

Watershed Resources Manager Shaun Horne presented this item. A lengthy discussion ensued.

There were two public comments. The committee took no formal action.

**ITEM 3. WATERSHED SMALL UNMANNED AIRCRAFT SYSTEMS (sUAS) PROGRAM PROPOSAL**

Chief Ranger Don Wick brought forth this item. A discussion followed.

There were two public comments. The committee took no formal action.

**ITEM 4. CALIFORNIA CONSERVATION CORPS AGREEMENT ADDENDUM**

Watershed Resources Manager Shaun Horne also presented this item. Discussion ensued.

There were no public comments.

The committee reviewed and referred the item to a future regular bi-monthly meeting of the board.

**ADJOURNMENT**

There being no further business, the Watershed Committee meeting adjourned at 2:46 p.m.

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Board Secretary

## Recommend for Approval Item

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### **TITLE**

One Tam Draft 2021 Annual Work Plan

### **RECOMMENDATION**

For review and referral to the Board of Directors with recommendation to approve the One Tam 2021 Annual Work Plan

### **SUMMARY**

In 2014, the Mt. Tam's four land management agencies: the Marin Municipal Water District, National Parks Service, California State Parks, Marin County Parks, and the Golden Gate National Parks Conservancy launched the Tamalpais Lands Collaborative-now called One Tam. One Tam is currently in its sixth year. Each year One Tam develops an Annual Work Plan (Work Plan) that is structured around areas of focus of the One Tam's 2019–2023 Strategic Plan.

Staff is recommending that the Watershed Committee review and refer to the Board of Directors with recommendation to approve the One Tam 2021 Annual Work Plan to continue the collaboration and important projects and programs. Staff is also attaching the One Tam Annual Report 2019-2020, which highlights accomplishments and areas of focus from the last year of work.

### **DISCUSSION**

In accordance with the Memorandum of Understanding signed by the Tamalpais Lands Collaborative (TLC) partner agencies, a "5 Year List" of projects and programs that are aligned with the purpose and vision of the TLC was developed. The initial 5 Year List and a cooperative agreement with the Golden Gate National Parks Conservancy to support One Tam activities were approved by the district's Board of Directors on November 10, 2014. To frame the overall development and operation of the One Tam initiative, a comprehensive 5-year vision document was developed at the same time. This 5-year strategy "One Mountain, One Vision" served as important guidance during the key early years, in that all of its goals were met or exceeded.

### **One Tam 5-Year Strategy**

The first five years of the TLC as envisioned by the initial 5-year strategy was marked by *building and sustaining* the initiative by focusing on programs to engage the community and then increasing investment and expanding impact. The theme of the current 5-year strategy is *strengthening and sustaining* our effort. At the March 5, 2019 Board of Directors meeting the updated 5-year strategy "One Tam the Next Five Years Going Farther, Together" was presented. Consistent with the principles of transparency and accountability embraced by the work leading to the formation of One Tam, and held to during the work of developing and growing the One

Tam initiative, the development of the next 5-year strategy has involved ongoing presentations and conversations with groups and organizations interested in the long-term health of Mt. Tamalpais.

The strategy's organizational structure follows a similar structure as during the first five years with the addition of a new chapter on "Landscape-scale Science and Management", to the original chapter framework: Programs, Projects, Awareness and Engagement, Partnership and Collective Impact, and Philanthropy and Investment. This new chapter recognizes the focus on science and conservation actions that came to the forefront during the development of the strategy in the first 5 years. The goal of this effort is to sharpen our efforts and to better recognize that the success of One Tam is born out of a strong collaboration with the community as much as it is among partner agencies. Finally, the strategy is intended to provide tactics to achieve our greater goals and inform the development of future work plans and associated fund-raising, planning, implementation, and public stewardship.

### **One Tam 2021 Annual Work Plan**

The activities described in this 2021 work plan will continue to deepen and expand the efforts of the One Tam partners to improve the health of the mountain, enrich the experiences of its visitors, and cultivate and educate a new generation of stewards. It is structured around the six organizational areas that are presented in the One Tam's 2019–2023 Strategic Plan. Those six areas include Landscape-Scale Science and Management, Projects, Programs, Partnership and Collective Impact, Philanthropy and Investment, and Communication. The work plan also reflects the current priorities of each of the partners and adds capacity to existing programs to collectively increase our mountain-wide reach and impact.

The 2021 work plan includes both program and project support for the District. Program support includes continuation and expansion of the mountain-wide stewardship and citizen science activities, volunteer stewardship and youth programs. These programs are integrally linked to, and add capacity to, the District's existing programs areas. Key ongoing District projects include the Resilient Forest Project, and the Azalea Hill Restoration Project.

The One Tam 2021 Annual Work Plan is attached for Board review and consideration. Staff is recommending that the Watershed Committee review and refer to the Board of Directors with recommendation to approve the One Tam 2021 Annual Work Plan to continue the collaboration and important projects and programs.

### **FISCAL IMPACT**

No anticipated fiscal impacts.

### **ATTACHMENT(S)**

1. One Tam 2021 Annual Work Plan
2. One Tam Annual Report 2019-2020

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Watershed	 Crystal Yezman Director of System Maintenance and Natural Resources	 Ben Horenstein General Manager



# ONE TAM

## 2021 Annual Work Plan Review Draft

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The One Tam partnership was formed in 2014 to increase capacity across our agencies while providing an invaluable forum to identify and pursue collective goals and shared stewardship of our public lands. Had we foreseen then the challenges awaiting us in 2020 we would have been even more certain of the necessity and urgency of our partnership's need and mission.

The COVID-19 pandemic has upended nearly every aspect of our shared work. At the same time, the crisis has demonstrated added agility brought about by our partnership. From the joint effort to reopen Stinson Beach to the multi-agency pivot toward an online LINC program, our respective staffs have demonstrated flexibility and creative problem solving that will be crucial in the months ahead.

The enclosed work plan speaks both to the established roadmap for our work in the 2021 fiscal year and the high-level scenario planning required to accommodate the pandemic as we push forward on the benchmarks laid out in the 5-year One Tam strategy.

Our framework also draws on the need for a stewardship approach in our collective One Tam effort that creates an equitable and inclusive environment. One Tam staff at agencies and the Conservancy have threaded elements of our current thinking into this document as we seek to carve out concrete steps that will make our work more open and equitable to all.

Though strands of uncertainty remain in the year ahead, this document provides a framework to leverage the shared resources and intent of our agencies to maintain the trajectory of our partnership strength, sustainability and care for Mt. Tam in 2021 and beyond. Each section of the 2021 work plan represents the collective efforts of all of the One Tam partners – National Park Service (NPS), California State Parks (State Parks), Marin Municipal Water District (MMWD), Marin County Parks (MCP), and the Golden Gate National Parks Conservancy (Conservancy). The following document speaks to how our collective work has been and will be adapted to meet the changing conditions in these uncertain and unprecedented times.

### [The Six Primary Organizational Areas of One Tam's Work](#)



# Programs

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## Overview

Programs connect us to our local communities while providing opportunities for engagement and learning. The One Tam Programs team develops and delivers relevant and immersive stewardship and community science programs that provide opportunities for service, learning, and community participation in the long-term care of Mt Tam. We also provide youth-specific programming and educational opportunities designed to foster the next generation of conservation leaders while providing pathways to entry level internships and jobs.

An additional focus this year will be on amplifying our efforts to better reach and serve our local diverse audiences. As we make our way through the uncertainty brought on by the pandemic, we plan to adapt our programs, modifying them throughout the year to meet this moment while still moving in a forward direction.

## Stewardship

**The Stewardship Program** provides the public with service opportunities on NPS, State Parks, MCP, and MMWD lands. Stewardship projects will emphasize actions that increase resiliency in the face of climate change, including riparian, wetland, and floodplain restoration as well as forest health. Additional effort will also be made to increase connectivity and partner opportunities with the One Tam Community Science, Trails and Youth teams. These programs will be evaluated on a consistent basis for alignment with current county health orders, agency protocols, and best practices.

In January 2020, the **Trails Stewardship Program** hired a Program Manager to implement the primary goals of the program: facilitating best-practice sharing and cooperation between partners as well as organizing a mountain-wide volunteer trail corps to improve trail maintenance capacity amongst the partners. Plans to hire a second full-time staff member and interns to help implement the program were put on hold following the Bay Area shelter-in-place order. Nevertheless, progress has been made in 2020 in the critical areas of community partnerships, volunteer trails curriculum development, and professional resource sharing. In 2021, we anticipate this progress will be continued when the resumption of volunteer groups allows for the development and training of a One Tam trail corps to support partner agency maintenance staff in executing critical trail construction and maintenance projects on the mountain. Trails Stewardship will also partner with One Tam Youth and Education Programs to foster equity and inclusion by providing trail-based community and skill building opportunities for underserved youth.

## Community Science

**The Marin Wildlife Picture Index Project** will continue to engage volunteers in the long-term monitoring of 17 mammal species that live on Mt Tam. For 2021, we will continue to maintain 100 cameras, and expect to re-design the volunteer MWPIP experience, beta test and migrate to a new data management platform (Wildlife Insights 2.0), and update our training materials. We will also continue to develop school-based programming by working with at least five academic institutions, with a goal of training 120 students (grades 9 – 12, plus post-secondary), and hosting workshops for educators.

**Bioblitz events** engage the public in resource-sensitive exploration of the diversity and distribution of the plants and animals around us. One Tam staff have successfully adapted our bioblitz programming to meet new and changing social distancing and shelter-in-place requirements. In 2021 we will continue to host bioblitz events that incorporate web-based instruction and the use of the iNaturalist phone app to engage new and returning volunteers in the detection and documentation of species on Mt Tam and closer to home. We will also continue to host bioblitz events that focus on poorly documented groups of species (fungi, pollinators, and amphibians and reptiles) and participate in the international City Nature Challenge and California State Biodiversity Day. Additionally, we will develop web-based training modules that meet the needs of science and youth educators in traditional, home-based, and non-traditional settings. Lastly, the Community Science team will facilitate several workshops for land managers and researchers that are specifically designed to integrate these community-supported datasets into our understanding of the Health of Mt Tam.

### Youth and Education

**Youth & Education programs** are committed to promoting equity and inclusion in our public lands. To do this, we foster future youth leaders by focusing on personal growth, civic engagement, conservation, career planning, and leadership development. We will continue to develop culturally relevant programming to engage the most underserved communities of students throughout Marin County, and will continue to foster our relationship with community partners like Marin City and Canal Alliance through year-round youth programming for Middle School and High School youth.

**Linking Individuals to their Natural Community (LINC-Tam)** is an immersive six-week summer program that provides the opportunity for 20 high school students to assist all four One Tam agencies with service projects that are aligned with the larger One Tam work plan. In 2020, the program adapted to shelter-in-place circumstances and transitioned to a virtual program. During 2021, we will continue to provide this summer experience, and collaborate with the Marin County Office of Education and College of Marin summer career academy programs to explore linkages and partner opportunities.

**The Environmental Leadership Program** is a pilot that will commence in 2021. This year round leadership program for High School Youth will utilize the mountain as a diverse and expansive classroom, engage young stewards in the restoration of high-priority native habitat, teach about the importance of public lands, provide valuable leadership skills, and create lasting connections to this special place. Projects and activities will vary by month and can include habitat restoration, trail work, community science, virtual engagement, and opportunities to support K-8<sup>th</sup> environmental youth programs. Participants will have opportunities to gain leadership skills, while developing a community-based project to support their local communities.

**NPS Youth Programs Support** - One Tam will continue to work with this National Park Service by providing staff support for field trips and occasional education programs in partnership with local school districts and the public.

**MMWD Youth Programs Support** - One Tam will continue to partner with the Marin Municipal Water District by providing limited staff support for field trips and occasional education programs, watershed fieldtrips and the Trout in the Classroom program.

**Cultural Resources** – explore opportunities to support cultural resource project and programs

## Community Connections

**Diversity Outdoors**— In 2021 One Tam will strengthen and amplify efforts to foster connections between marginalized communities and our parks and open spaces. As part of this work, we will strengthen our community partnerships and facilitate conversations to support inclusion in outdoor recreation, nature, stewardship and conservation.

**The Mobile ‘Roving Ranger’ Station**— One Tam continues to bring programming from our parks out into the community. In 2020, the Roving Ranger’s activities were severely limited by Covid-19 as most public-facing programs were canceled. In 2021, we hope to bring the Roving Ranger back into the community, with appearances at community events, career fairs, and celebrations in the Bay Area that may include Biketoberfest, the Rosie Rally, Día de los Muertos at Pickleweed Park, the Teen Summer Library Party, the Fairfax Festival, Wildcare Family Nature Day, REI Camping Happy Hour, Summerfest, and the College of Marin Career Fair.

**Park Greeter Program** — In 2020, following shelter-in-place orders, One Tam aims to pilot a Park Greeter Program to welcome visitors back to the parks and to complement public education efforts. Following a review of this pilot effort, we hope to expand this program into an ongoing tool to assist land managers with public outreach and education and to connect Mt. Tam’s visitors with opportunities to get involved.

**Library-Park Connections** bring together One Tam and Marin County’s libraries to increase community connections to our public lands. Ongoing offerings include the Park-Pass and Backpack check-out programs, Tales to Trails story times, shuttles, and guided hikes. Ideally, we will host park shuttle events in the year ahead, however given the current COVID crisis and related uncertainty about the use of libraries, we plan to be flexible and adaptable in 2021.

**One Tam Ambassadors** are passionate community members who volunteer their time to spread the word about One Tam’s work. Ambassadors represent One Tam at public events and community and business forums, and they assist with membership outreach and event planning. They also bring the Roving Ranger out to popular trailheads. In FY2021, the One Tam Ambassador program will be organized to include two subcommittees: Membership & Events and Outreach. The Ambassador group will meet quarterly with additional meetings and activities for subcommittee members. There will also be a focus on One Tam Ambassador recruitment to expand the group from the 21 to 25 participants.

**Membership programs** such as member-only guide hikes, rides, and behind-the-scenes tours offer unique opportunities to individuals who support One Tam with their annual membership contributions. While many of these events were cancelled in 2020 given COVID19 social distancing restrictions, we piloted One Tam Member Webinars in spring 2020. In 2021, we will continue working with Ambassadors, agency partners, and community members to identify venues and activities to help connect members more deeply to our work with both in-person and virtual programs. In 2021, we will be designing and launching a Corporate Giving strategy to strengthen the existing One Tam Business Club. We will also be focused on upgrading current and new members to our One Tam Circle, which is our membership program for major donors, and developing a signature event for this group.

# Projects

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## Overview

One Tam priority projects continue to be based on best practices—including good science, robust community engagement, the principles of sustainability—and have broad-reaching benefits for the care and enjoyment of Mt. Tam’s natural and cultural resources.

2020 saw progress on a number of key One Tam projects, with work initiated on three trails – Azalea Hill, Deer Park Fire Road, and Redwood Creek Trail. Similar to previous years and punctuated this year by significant changes to agency and state budgets, adequate funding and capacity to do multiple large-scale projects simultaneously continue to be challenges.

### Legacy Projects

One Tam will continue to coordinate and advance its two Legacy Project areas. These areas represent a generation-long commitment to restoration and enhancement, with multiple projects comprising a larger vision.

1. Dipsea Trail Corridor
2. Redwood Creek

In 2021, progress will be made on both legacy projects. Designs for the Dipsea Bridge are currently progressing, and work is underway to both realign portions of the Redwood Creek Trail to better support habitat restoration, as well as a feasibility study to understand opportunities for larger scale floodplain restoration.

### Adopted One Tam Projects

The table on the following page represents the One Tam projects currently adopted and included in the 2021 work plan, as well as where project support overlaps with other One Tam work areas. One focus of our support is ensuring high quality and thoughtful communication and community engagement when appropriate. This will need to look different in 2021, with continued COVID limitations around social gatherings. The project teams are exploring new opportunities and tools for ensuring continued robust engagement. Full descriptions of these adopted projects can be found in prospectus sheets included in the *One Tam 2019 – 2023 Strategy*.

One Tam 2020/21 PRIORITY PROJECTS	AGENCY	STATUS	COMMUNICATION	ENGAGEMENT	DEVELOPMENT	SCIENCE
<b>2020 IMPLEMENTATION: Portion of Project Constructed in 2020*</b>						
Azalea Hill Trail Restoration	MMWD	Construction Start 2020	✓	✓	✓	
Deer Park Fire Road Rehabilitation	CDPR	Implement Feb/March 2020				
Redwood Creek Trail Realignment	CDPR	Phase 1 in 2020				
<b>HIGH PRIORITY: Staff &amp; Funding Focus</b>						
Bothin Marsh Adaptation	MCP	Conceptual Alts in Design	✓	✓	✓	
Forest Health & Resiliency	MMWD	In Process	✓			✓
Roy's Redwoods Restoration & Access	MCP	CEQA Begin 2020		✓	✓	✓
<b>MID PRIORITY: Primarily Agency Led &amp; Funded; Pursue Opportunistic Funding Only</b>						
Azalea Hill Trail Restoration	MMWD	Construction Start 2020		✓	✓	
Bolinas Wye Restoration	MCP	Draft Designs Fall 2020	✓	✓	✓	✓
RC Trail Realignment & Dias Ridge Extension	CDPR & NPS	Future Phases TBD			✓	
Redwood Creek Floodplain		Feasibility Study			✓	
Dipsea Bridge Construction	NPS	Concept Design		✓	✓	
<b>BACK BURNER: Revisit 2021</b>						
Dipsea Trail & Deer Park Rehabilitation	NPS & CDPR			✓	✓	
Potrero Meadow Restoration	MMWD					
RC Juvenile Coho Habitat Creation	NPS	Phase II 2021	✓	✓	✓	

\*Note, as these are all multi phased projects, they appear within one of the three tiers below for future action.

# Landscape-Scale Science and Management

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## Overview

**Measuring the Health of a Mountain: A Report on Mount Tamalpais' Natural Resources** (MHM) is an assessment tool for the mountain's ecosystems and iconic species that has become a cornerstone of One Tam's work. It presents consensus findings on the status and trends of 27 biological indicators that include both individual species and entire communities. The report also identifies threats to Mt. Tam's health, concrete actions to mitigate these threats, and areas where more information is needed.

Using the framework provided by the MHM report, One Tam partners continue to collect and synthesize data and undertake landscape-scale management work that demonstrably improves the health and resiliency of Mt. Tam's natural resources. As projects are identified and scoped through these efforts they may be nominated and vetted for listing as a One Tam project.

## Vegetation Management

**The Mt. Tam Early Detection and Rapid Response (EDRR) Program** augments agency efforts to detect and eliminate small patches of high-priority weeds before they develop into large, firmly established nuisance populations. The EDRR team has covered over 425 miles of roads, trails, and drainages— completing a comprehensive three-year survey of 61 priority weeds in the One Tam area of focus: A summary report was released in 2020. We are now working to increase control efforts and to share our expertise with start-up EDRR programs elsewhere in California and in other western states. Specific tasks to be undertaken in 2021 include:

1. Continuing detection surveys along roads, trails, and drainages as well as at known disturbance sites.
2. Use the results from a 2020 weed prioritization process conducted for 32 species to focus treatments.
3. Continuing to improve field techniques and safety protocols used by all partner staff engaged in EDRR work.

**Rare species protection and enhancement efforts** across the mountain will continue to receive One Tam support in 2021. In particular, those that improve habitat for or supplement the populations of rare species, including: serpentine endemic plants, fire-dependent maritime chaparral shrubs, foothill yellow-legged frogs, and western pond turtles.

## Inventory and Monitoring Programs

**Long-term monitoring of Marin County's bats** continues in partnership with the U.S. Geological Survey. One Tam is using a combination of acoustic monitoring tracking and roost identification techniques that align that with standards from the North American Bat Monitoring Program. Mist netting and the use of radio transmitters for roost identification have been suspended due to the potential risk of a human-to-bat transfer of COVID-19.

**One Tam's pollinator inventory and monitoring program** will continue with the postponed 2020 inventory of bees on Marin's National Park Service lands, commencing in the early spring of 2021. Pursue funding to support projects and other efforts to improve habitat for Monarch butterflies.

**Freshwater spring monitoring** remains in development. A postponed vegetation classification study of spring-fed micro-habitats has been rescheduled for the spring of 2021. The results, in combination with water quality and isotope data collected in the fall of 2020, will be used to select 8 to 15 springs for long-term monitoring.

**The Marin County-wide Vegetation Mapping and Landscape Database Project** delivered a number of fine-scale datasets in 2020 including a countywide vegetation lifeform map, and several lidar derived forest structure and topographic products that will be foundational for partners conducting planning and conservation efforts across the region. Partnership efforts to-date continue to leverage new opportunities, such as the addition of alliance level mapping for tidal wetland areas. 2021 milestones will include release of a new fine scale countywide hydrography layer, detailed mapping of forest disease and the much anticipated first-ever comprehensive countywide fine scale vegetation map for Marin County.

### **Forest Health and Resiliency**

**The Regional Forest Health Strategy** for the public lands of Marin County is currently in development and will include detailed quantitative health assessments and identification of on-the-ground project sites in (5) key forest types across the landscape. In 2020 the project endeavored to produce conceptual models of forest health that will provide the framework for a comprehensive strategy that will eventually include recommendations for high-priority treatments, with suggested work-approaches and compliance pathways. Specific milestones for 2021 will be:

1. Integration of foundational datasets developed as part of the Marin Countywide Fine Scale Vegetation Map and Landscape Database Project with robust conceptual models of forest health and function to produce a comprehensive countywide assessment of the health of Marin's forests.
2. Using results of the forest health assessment, identify priority areas to implement multi-benefit treatments to increase forest health, promote biodiversity and reduce fire fuel loads; outline a compliance pathway for priority treatments
3. Focus and implement a robust communications strategy that will seek to engage key audiences in Marin County including the environmental community, the newly created Marin Wildfire Prevention Authority and the broader public. Host in-person workshops and tours of forest health demonstration project areas, if feasible.
4. Connect the Marin Regional Forest Health Strategy to parallel work happening across the state to increase the impact of our work and pursue grant funding opportunities; coordinate expert technical review of strategy documents to ensure consistency with the best available scientific understanding.
5. Work to increase coordination between agencies on fire preparedness



### Ongoing Priorities

**The Measuring the Health of the Mountain report** is a living document that will be updated periodically as important data sets become available or on-the-ground conditions change significantly. The 2021 release of the countywide vegetation map is such a milestone. In anticipation of a 2022 update to the MHM report, One Tam partners will continue the process of updating existing chapters and developing new ones for freshwater springs, riparian systems, native pollinators, bats, badgers, and serpentine endemic plants.

# Communications

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## Overview

2020 saw additional investment in the connectivity and capacity of partnership communications. Increased allocation of staff time has contributed to channel growth and more dedicated communication between partner agencies. The onset of the COVID pandemic created unprecedented messaging complications for partners, and the Communications Working Group responded by increasing frequency of communications to share updates, messaging and content. This improved connectivity will provide value and improve the long-term capacity of the partnership.

## 2020 Building Blocks

**Newsletter storytelling** gained renewed focus in early 2020 and will continue moving forward. Our newsletters are the most reliable way to message digitally to the people who support our work. In order to grow open rate and improve our reader engagement, we have begun weaving in regular community science features, profiles, virtual resources and topical introductions. We have seen strong open rates since making these changes and we anticipate added value here will generate reader loyalty and subscriber retention. New format flexibility will allow us to pivot more easily and share partner priorities as appropriate.

**The onetam.org website** saw its largest traffic spike ever in May of 2020 as our partner communications representatives and the Conservancy's GIS specialist teamed to create a map that provided closure information related to the COVID pandemic, shattering website traffic records. In 2021 visitor utility will become central as we connect people to our work through the website. At the same time, in 2021 we will ensure that more of the content on the site connects readers to opportunities for membership and a lasting relationship with the partnership.

**Social media growth** remains a priority in order to strengthen our shared tools. Increased cadence on our Instagram channel resulted in more than 20-percent growth in our following to begin 2020. This platform lends itself well to showcasing the compelling images from the WPIP project and other programmatic and scientific work. We are also seeing success in highlighting photography from the community, creating a positive feedback loop with those who hold Tam sacred. In alignment with the Conservancy's Communications Team, we will continue to prioritize growth on this platform while utilizing Twitter and Facebook for event posting and other utility needs.

**Agency and community stakeholder group boards and subcommittees** will continue to be engaged as appropriate to share project and program information, achievements, etc. Agency board and public meetings will also continue to serve as the forum for receiving CEQA/NEPA-based public comments.

**Connectivity led to content** in several instances in 2020 as communications teams worked in unison to promote our park closure map, City Nature Challenge, International Migratory Bird Day and other messages. This ability to share storytelling skills and unify messaging will allow us to greatly amplify priority messages going forward.

## 2021 Priorities

**Focus on search strength** - OneTam.org metrics indicate that most visits to our website come through search. Those visits overwhelmingly land on our trails and calendar pages. Currently, those pages leave little incentive to stay on our page or interact further with the work of the partnership. In 2021, we will expand on the trails page, offer simple maps and more directly tie that work to our science, programs and project work in order to more clearly illustrate how the partnership and One Tam membership benefits all who support the health of Tam.

**Speaking to our accomplishments** for those who aren't yet familiar with our work is key to the long-term strength of One Tam. We've seen widespread interest in iNaturalist, WPIP, Bat research, youth programs and specific projects. As we build out a new WPIP research database, map utilities and break ground on feature projects we must explain how that work builds upon the growing legacy of our young partnership and present those stories in a way that can be consumed by anyone who might be interested in our programs or membership.

**Supporting Diversity Outdoors** - The communications team will support the need for a stewardship approach in our collective One Tam effort that creates an equitable and inclusive environment by engaging with representatives at the One Tam-wide and agency levels to ensure our messaging mirrors best practices for making our workplaces and public lands welcoming to people of all backgrounds.

**Clarifying public understanding** will be a focus in the years ahead. In the early days of our partnership, we prioritized building the One Tam brand without focusing on the individual contributions of our partner agencies. In order to improve community understanding of jurisdiction, access, and stewardship, we will increase efforts to explain how each agency enhances our collective value.

# *Partnership and Collective Impact*

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## Overview

One Tam is continuing to strengthen and sustain the many dimensions of its partnership and to maximize its impact despite pandemic impacts. 2021 activities will include continued focus on strengthening the partnership's operations and staff support, increasing efficiencies and information exchange, sharing our work and best practices more broadly, and continuing to build key relationships with other organizations. Similarly, One Tam will continue to facilitate and lead the work of the California Landscape Stewardship Network (<http://calandscapestewardshipnetwork.org/>).

## Ongoing Efforts

**Onboarding and succession planning** have been brought into clearer focus over the past year as Conservancy staff realignment and pandemic scenario planning have brought new colleagues and roles into the partnership structure and creating more clear succession pathways. One Tam staff members from the Conservancy are developing onboarding tools to introduce staff and provide new partners with a more wholistic view of the partnership and its history.

**The Partnership Impact Model™** will continue to be used as a tool to monitor the health and progress of the One Tam partnership and its larger relationship network. We will continue working with California State University, Sacramento to develop a long-term partnership assessment strategy based upon this model. The foundations of the Model are also being integrated into the development of a Collaborative Leadership Curriculum. This work is overseen by the California Landscape Stewardship Network in partnership with a number of state and national organizations. We anticipate the development of the initial pilot program in 2021.

**The Park Academy and Training Portal** - will support cross-partnership engagement and professional development through shared training opportunities by offering virtual and in-person trainings (when possible) through Park Academy. Topic areas will include diversity, equity, and inclusion, safety, technology, volunteer management, community programming, and job specific trainings to increase efficiencies, peer exchange, and coordination. Increase the utilization of the Training Portal throughout the partnership, serving as the central hub for in-person, virtual, and on-demand learning opportunities.

**California Landscape Stewardship Network** support will continue in 2021 with the development and distribution of shared solutions to barriers limiting the scaling-up and operationalizing of landscape stewardship practices, funding, and support. The Network is working in partnership with One Tam leaders to develop a Stewardship Forum in 2021 which will highlight some of One Tam's system's change successes, collaborative leadership program development and science-based work, plus share a ideas regarding the future of landscape stewardship as a practice.

**Competitive benefits and staff recruitment** are critical to hiring and retaining high-caliber employees. One Tam staff will continue to receive a benefits package that includes health, dental, vision, and life insurance; short- and long-term disability; employee assistance; and a tax deferred annuity program. We will also expand staff recruitment support through centralized recruiting and coordination among One Tam partner hiring efforts. Lastly, we will continue to create career development opportunities for youth, interns, and seasonal staff through strengthening One Tam's workforce development program with agency partners.

## ***Philanthropy and Investment***

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One Tam will secure agency and community support to meet the programmatic and infrastructure needs outlined in this fiscal year 2021 (FY21) work plan. Fundraising is ongoing for projects depending on need and opportunity.

See the FY21 financial statement below for philanthropy and investment goals. This financial statement is updated quarterly and can be found at [onetam.org/facts-figures](https://onetam.org/facts-figures). Project and capital fundraising activity is described in the projects chart on page X of this work plan

**TAMALPAIS LANDS COLLABORATIVE**  
**7/1/2020 THRU 9/30/2021 PROPOSED BUDGET**  
**PROJECTS/PROGRAMS BREAKDOWN**

	<b>7/1/2020 thru 9/30/2021 Budget Projects</b>	<b>7/1/2020 thru 9/30/2021 Budget Programs</b>
<b>INCOME</b>		
Restricted Carry Forward as of 6/30/2020	1,903,323	1,145,330
Individual Gifts	-	339,842
Events	-	-
Corporate Giving	-	45,000
Foundation Grants	79,985	350,000
Government Grants <sup>1</sup>	-	25,000
Agency Contributions <sup>1</sup>	175,000	168,126
Parks Conservancy Contributions <sup>2</sup>	-	121,305
<b>TOTAL INCOME</b>	<b>2,158,308</b>	<b>2,194,603</b>
<b>EXPENSES</b>		
<b><u>Community &amp; Conservation Programs</u></b>		
Community Engagement/Roving Ranger	-	178,610
Conservation Management	-	698,147
Community Science & Stewardship	-	827,366
Youth Engagement	-	223,922
	-	<b>1,928,045</b>
<b><u>Initiative Development, Infrastructure and Staffing</u></b>		
Marin Office Equipment, Supplies, Infrastructure	-	37,630
Initiative Communications & Design	-	64,000
Graphic Design and Website Management Support	-	49,995
Material Development & Production	-	34,750
Reporting & Documentation	-	10,000
Wayfinding and Signage	-	26,178
Events & Meetings	-	44,005
	-	<b>266,558</b>
<b><u>Partnership Research and Systems Development</u></b>		
Large Landscape Conservation	165,000	-
	<b>165,000</b>	-
<b><u>Priority Projects - Wetlands and Waterways</u></b>		
Redwood Creek Juvenile Coho Habitat Restoration	235,605	-
	<b>235,605</b>	-
<b><u>Priority Projects - Signature Trail Corridors</u></b>		
Dipsea Bridge	17,000	-
Redwood Creek Trail Re-alignment Implementation	217,984	-
	<b>234,984</b>	-
<b><u>Priority Projects - Legacy Projects</u></b>		
Large Scale Inventories	1,063,479	-
Roy's Redwoods	66,617	-
Bothin Marsh	335,700	-
Bolinas Lagoon	56,923	-
	<b>1,522,719</b>	-
<b>TOTAL EXPENSES</b>	<b>2,158,308</b>	<b>2,194,603</b>
<b>NET OPERATING SURPLUS</b>	<b>-</b>	<b>-</b>

<sup>1</sup>Includes reimbursable grants awarded in advance of expenditures.

<sup>2</sup>COVID-19 Safety Measures covered by Parks Conservancy.



# ONE TAM

2019–2020  
REPORT TO THE  
COMMUNITY

Item Number: 02

Attachment: 2





# SUSTAINING OUR SHARED MISSION

One Tam surged into its seventh year with a slate of programs and projects reflecting the maturity and scale of our sustained partnership. Our collaborative effort was founded on the belief that we can accomplish more together, and while this conviction has been repeatedly validated over our first six years, the upheaval brought about by the global pandemic, societal changes, and this year's wildfires has underscored the necessity of working in coordination at a landscape scale. From collectively designing and maintaining a regional map on COVID-19 and fire-related public lands closures to reopening Stinson Beach amid the shelter in place orders to the multi-agency effort to shift our summer internship program online, our partners found ways this year to lift each other up and continue our collective work. We remain humbled and grateful for the ways in which this partnership is bolstered by support from One Tam members, supporters, volunteers, and community members like you. Thank you! Inside this report, you'll find highlights and accomplishments from October 1, 2019 to September 30, 2020. The stories featured here demonstrate our commitment to sustaining connectivity, supporting the resilience of Mt. Tam and growing our impact in the community during even the most challenging times.

Sincerely,  
*The One Tam Executive Team*

## ONE TAM


### EXECUTIVE TEAM



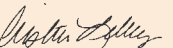
MAX KORTEN  
*Director and General Manager*  
Marin County Parks and Marin County  
Open Space District



BENNETT HORENSTEIN  
*General Manager*  
Marin Municipal Water District



LAURA JOSS  
*General Superintendent*  
Golden Gate National Recreation Area  
National Park Service



CHRISTINE LEHNERTZ  
*President & CEO*  
Golden Gate National Parks Conservancy



MARIA MOWREY  
*Superintendent*  
California State Parks  
Bay Area District



# THE OPEN SPACES ON MT. TAM

are a mosaic of interlocking protected areas primarily managed by four public agencies: the Marin Municipal Water District, National Park Service, California State Parks, and Marin County Parks and Open Space District. One Tam brings together these four agencies and the nonprofit Golden Gate National Parks Conservancy to support the long-term stewardship of Mt. Tam.

LEGEND:

Area of Focus

State Park

Golden Gate National Recreation Area

Marin Municipal Water District

Marin County Parks and Open Space District

Point Reyes National Seashore

Golden Gate National Parks Land Managed by Point Reyes National Seashore





# RESILIENT FORESTS

## Supporting healthy forests and reducing fire risk

The summer of 2020 has been an unprecedented fire year in California and we are all experiencing its effects. Here in Marin, the Woodward fire in Point Reyes National Seashore, ignited on August 18 and 95% contained as of this writing, burned approximately 5,000 acres. While our federal and local firefighters were able to prevent a loss of life and property, residents faced mandatory evacuations and all of us experienced park closures and weeks of poor air quality due to this and other fires around the state.

The conditions for a destructive fire event remain present throughout Marin. The One Tam partners are actively working with each other, Marin County Fire, and our surrounding communities on decreasing risk by clearing accumulated fuels, diseased trees and brush. “Many trees are diseased and dying from sudden oak death or pitch pine canker, and

young saplings that rely on fire to clear vegetation and open their cones are not able to regenerate. The result can be a dense thicket with lots of dead, dry vegetation, many small-diameter trees competing for space, water, and sunlight, limited diversity of mid- and understory vegetation, and few young tree seedlings.” says Golden Gate Parks Conservancy Senior Project Manager Caroline Christman. “In some locations, land managers can take a more active role to help improve forest health by removing dead vegetation and thinning the thickets of small-diameter trees or by using prescribed fire in small, controlled burns.”

In doing so, we are in turn improving conditions for many native species, particularly those associated with our declining oak woodlands and mixed hardwood forests. For example, One Tam’s forest health work adjacent to Potrero Meadow is a multi-benefit

project that decreases the risk of an explosive fire event while also improving hydrological conditions and the potential for native plant species to reestablish in sunny openings on the forest floor.

In addition, the *Marin Regional Forest Health Strategy for Public Lands* is incorporating lessons learned from this project and from the current fire season: the final report will identify potential restorative forest treatment actions and best practices that will improve overall forest ecosystem resiliency, reduce fire fuels, and can be shared among all One Tam partners.



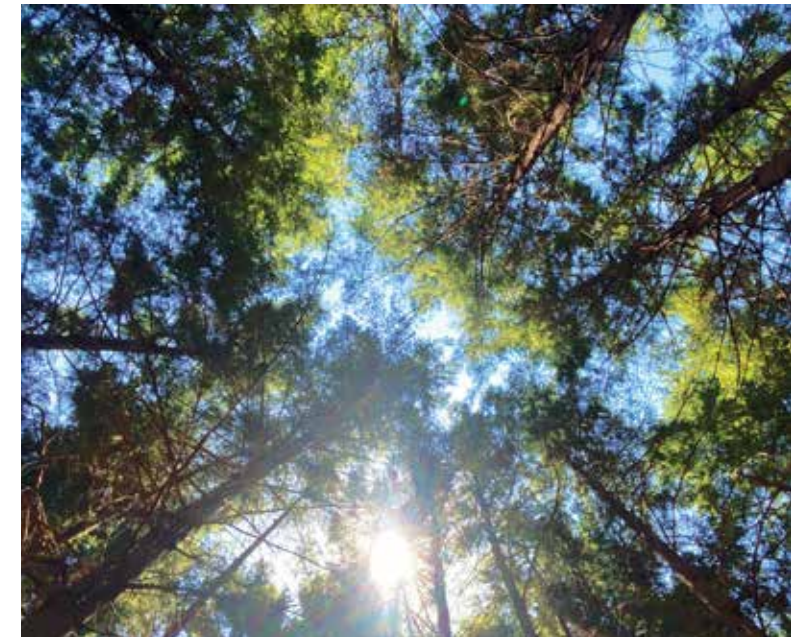
1



2



3



4

- (1) MMWD’s Carl Sanders and Parks Conservancy’s Caroline Christman tour a treated forest site near Potrero Meadow.
- (2) A “snag” or standing dead tree left in place after forest health work. Snags are an important component in healthy forests and can provide habitat for many species of wildlife, insects, and fungi.
- (3) Near-final site conditions on the forest floor in the Potrero Meadow demonstration project area. Small woody debris is often left in place to prevent erosion.
- (4) Dappled light in forests provides important ecological functions.





LINC participants and staff adapted to the format of the 2020 program, including online meetings.

# EMPOWERING YOUTH AT A DISTANCE

Immersive summer youth program pivots online

Identifying and fostering the next generation of park stewards is essential to sustaining One Tam's work. Our Linking Individuals to their Natural Community (LINC) program offers high school students the opportunity to get out in nature with partnership staff and gain a wider understanding of our public lands. Or at least it does in a typical year.

Within days of the regional shelter in place order, LINC program leaders knew they would need to develop an entirely new program. But the leadership team also knew they couldn't simply ask 22 students from five counties to sit through video lectures and hope their bonds with nature would grow. They had to adapt to the pandemic.

What followed was a pivot led by Golden Gate National Parks Conservancy staff to get the students out into the community and learning while also respecting public health guidelines for outdoor activity.

Regular learning sessions with staff from across the partnership still took place over video, but they were used to set up outdoor explorations and learning sessions including species identifications, park cleanups and shared projects in participants' neighborhoods. As One Tam Youth Program Manager Grecia Pacheco observed, "we gave our LINC participants agency about how to complete their projects, and students responded to this freedom with creativity and individuality."

The group was inspired by social justice conversations and civil unrest happening across the country. After hearing untold stories of the parks and learning from a diverse environmental career panel, participants collaborated on community agreements to inform their work on public lands and their pledge to truly make parks accessible and welcoming for all.

"It is essential to have these conversations because it is a crucial step in creating a more inclusive and diverse field," observed one participant.

At the culmination of the four-week program, students met with One Tam partner staff in a mentoring session. They discussed the ways they'd grown personally and professionally in the program and how the lessons they'd learned at LINC might influence their future career choices.

"I can confidently say that LINC has changed my life. Before the program, I was so confused on what I wanted to do in the future, but LINC has made me realize that an environmental career is a path for me," said one 2020 intern.

Thanks in part to LINC, the next generation of Bay Area land stewards is already taking root.

"I can confidently say that LINC has changed my life."

— LINC participant



Participants took part in outdoor exploration and learning sessions including species identifications, park cleanups and shared projects in participants' neighborhoods, following local health department guidelines.



Observations made of Mt. Tam flora and fauna submitted to iNaturalist contribute to our understanding of biodiversity on Mt. Tam, and also form part of a global biodiversity database. These observations were made this year by One Tam staff: (1) Black-tailed bumble bee (*Bombus melanopygus*) by Lisette Arellano (2) Coyote (*Canis latrans*) by David Greenberger (3) Leopard lily (*Lilium pardalinum* ssp. *pardalinum*) by David Greenberger (4) Western jack-o'-lantern (*Omphalotus olivascens*) by David Greenberger



# SUSTAINING CONNECTIONS

Community science offers paths to connect to nature and to each other

Connectivity with the community is central to the One Tam mission, but the cancellation of in-person gatherings due to Covid-19 has disrupted some of our most effective and direct pathways for engaging with those who support our work. In the field of community science, however, technology has advanced to meet the moment and sustain connections with those who share in our work.

In recent years, online platforms and communities like iNaturalist and Seek—developed by the California Academy of Sciences and National Geographic—have powered our bioblitz events, allowing trained and amateur biologists alike to share and verify findings

that might previously have been left in an individual's photo collection.

“To me, iNaturalist is the promise of the internet fulfilled,” says One Tam Community Science Program Manager Lisette Arellano, whose team leads bioblitzes throughout the year.

Community members and collaborators from the California Academy of Sciences were able to connect at two fungus-focused bioblitzes prior to shelter in place. The team has adapted rapidly since then and partners from the five One Tam agencies rallied to create virtual programming and publicize City Nature Challenge and California

Biodiversity Day as ways for people to stay connected to each other and to our natural world amid the pandemic. Individuals were encouraged to responsibly go out into nature and identify species.

Arellano and other “iNat” experts are now beginning to see trends emerge from over five years of data collection in the One Tam area of focus. In the future, these findings may help influence our stewardship strategy, and in the present, they are keeping our staff and community connected and focused on the health of the natural world.



Setting up a mist net with USGS bat biologist Gabriel Reyes in preparation for a nocturnal bioblitz in late 2019.





One Tam team members Rachel Kesel, David Greenberger, and Michael Sturtevant remove thoroughwort (*Ageratina adenophora*) near Bootjack Campground in Mt. Tamalpais State Park in 2019.

Boxelder bug hatch on native mugwort at Lagunitas Creek.



# EARLY DETECTION RAPID RESPONSE

Getting into the weeds at a landscape scale

Managing weeds is critical to protecting Mt. Tam's unique plants and animals. The four agencies that directly manage the lands on Mt. Tam have been working independently for decades to try to stay ahead of the curve on invasive weeds, but with limited capacity and weeds arriving regularly, the challenge looms large. What's more, plants don't see property lines.

Taking a mountain-wide perspective on the problem, One Tam's Early Detection Rapid Response (EDRR) program unites all of the agencies on Mt. Tam to find and treat weed infestations when they are just getting a foothold, keeping them from becoming a bigger problem in the future.

The program does this by identifying which invasive species are the highest priority, finding and treating patches of these high-priority weeds, and then sharing these data with all four One Tam partners and with

the public. The declining need for year-to-year control for several high-priority species shows that the program is working. Having a cross-jurisdictional team that understands and supports each agency's needs has been essential to this success.

While the team is no stranger to treating weeds in tough-to-reach spots, working during the pandemic is new terrain altogether. New procedures, staffing plans, and safety concerns, compounded by smoky conditions and red flag closures, make 2020 a difficult time to do field work. The team has met these challenges with a spirit of adaptability and care for one another, doing as much as they can to keep this critical work going under these unpredictable and changing conditions.

This year, the program released *Early Detection Beyond Boundaries*, a synthesis of the first four years of its important work (2014-2018). This milestone, authored by Rachel

Kesel and David Greenberger, who initiated and built the One Tam EDRR program, details how the work is done and what we know about invasive species distributions on Mt. Tam. It also describes survey and treatment efforts to date and strategies for addressing widespread weeds that can be used by others who may be interested in starting a similar program of their own. You can read the full report at [onetam.org](https://onetam.org).

"The idea that we can prevent the next French broom or other really problematic weed on the mountain through this work is really rewarding," said Kesel. "Plus, treating weed patches while they are still a manageable size potentially saves One Tam partners thousands of dollars every year, over decades of weed removal efforts."

The benefits to both the mountain and to One Tam's partner agencies are well worth the early investment, to be sure.





One Tam staff, interns, and volunteers restore habitat at Creekside Marsh in late 2019.

# THANK YOU!


Staff, partners, community members,  
and volunteers

The One Tam partnership is fueled by the work of over 100 staff from all five partners, now including more than 10 One Tam-funded staff who work closely with project and program managers from the five partners to meet annual goals guided by the collective priorities of the One Tam Five-Year Strategy.



A One Tam team  
restores habitat on  
Azalea Hill in late 2019.





Thank you to our generous donors  
who supported One Tam this year.  
Your gift helps ensure that we can  
expand our community programs  
and our ecological restoration  
and science work so that future  
generations can continue to enjoy  
the mountain's ecological, scenic,  
and historic treasures together.

*[onetam.org/donate](https://onetam.org/donate)*

# ONE TAM CONTRIBUTIONS

October 1, 2019 – September 30, 2020

## \$100,000 AND ABOVE

Matthew and  
Janice Barger  
CA State Coastal  
Conservancy  
CA Wildlife Conservation  
Board  
John Pritzker Family Fund  
S. D.Bechtel, Jr. Foundation

## \$25,000 AND ABOVE

National Fish & Wildlife  
Foundation  
Outstanding in the Field  
Pisces Foundation  
Resources Legacy Fund

## \$10,000 AND ABOVE

Suzanne Badenhoop and  
Guy Lampard  
Hanford ARC  
Patagonia  
Philip Smith  
REI  
Smart Family Fund

## \$1,000 AND ABOVE

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Kurt and Lainey Altvater  
Nancy Wind Benjamin  
David L. Berry

Gray Boyce and  
Thomas Bliska  
Dayton Coles  
Jeffrey and Catherine Colin  
Christine Comaford  
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Don Harper and  
Jaccy Gouly  
Humanist Fund, in memory  
of Richard D. Silberman  
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Lisa and Michael Landers  
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Andrea and Daniel Elkort  
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Ayesha Ercelawn  
David Erle and  
Renee Howard

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Kathryn and Spencer Fast  
Andrew and Amy Faulkner  
Marsha Feinland  
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## Informational Item

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**DATE:** 12-10-2020

**TO:** Watershed Committee/Board of Directors (Watershed)

**THROUGH:** Ben Horenstein, General Manager 

**FROM:** Crystal Yezman, Director of System Maintenance and Natural Resources 

**ITEM:** Azalea Hill Project Mitigation Monitoring Report and Update

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### SUMMARY

On May 14, 2019, the District Board of Directors adopted the Amendment of the Mt. Tamalpais Watershed Road and Trail Management Plan (RTMP) for the Restoration of Azalea Hill Trail (Project). In fiscal year 2020, the District implemented trail tread work along a ½ mile section of the of the 'Old Ranch' and 'Fisherman's' trails, installed temporary project signage, completed geotechnical review of bridge features, and installed a pre-fabricated 80' steel truss bridge over the Bon Tempe Creek. Additionally, the District secured a \$700,000 grant from the California Department of Parks Recreational Trail Program (RTP) for phase three of the Project.

### DISCUSSION

Marin Water adopted an Amendment to the *Mt. Tamalpais Watershed Road and Trail Management Plan* (RTMP) for the Restoration of Azalea Hill (Project) on May 14, 2019. The Project will: 1) remove approximately 4.4-miles of non-system roads and trails and restore those routes to natural conditions to improve habitat and water quality; 2) adopt and improve a 1.9-mile Class IV road comprised of the existing Liberty Gulch Road (1.2 miles) and an existing non-system trail (0.7 miles), which will be converted to the wider, small vehicle route; 3) improve the hiking and equestrian route over Azalea Hill by correcting erosion and drainage problems along approximately 1.1 miles of existing Class VI trail, rerouting the trail around sensitive plants and adopting 250 feet of an existing non-system trail; and 4) treat the Azalea Hill parking lot to correct its erosion problems and improve the visitor amenities. Upon its completion, the Project will prevent up to an estimated 219 cubic yards of sediment from entering Azalea Hill's creeks and Alpine Lake annually (or 4,380 cubic yards over 20 years) and will restore approximately one acre of habitat.

The Project consolidates use on the two existing routes proposed for upgrades and provides a much-needed connection and safety improvement between the "Lakes" and "Pine Mountain" areas. The Project is subject to the requirements of the California Environmental Quality Act (CEQA). On May 14, 2019 the Board approved Resolution No. 8533 which adopted the

Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program for the Amendment of the Mt. Tamalpais Watershed Road and Trail Management Plan for the Restoration of Azalea Hill and approved Resolution No. 8534 which approved the Project and amended the Mt. Tamalpais Watershed Road and Trail Management – Restoration of Azalea Hill. All work proposed as part of the Project was addressed in the adopted Mitigated Negative Declaration.

**MITIGATION MONITORING AND REPORTING PROGRAM:**

The California Environmental Quality Act (CEQA) requires a lead public agency to develop a Mitigation Monitoring and Reporting Plan or Program (MMRP) when making any necessary findings for a Final Environmental Impact Report (EIR) or when approving a Mitigated Negative Declaration. The intent of the MMRP is to document the mitigation measures required to be implemented as part of the project analyzed in the accompanying CEQA document. In accordance with Section 15074(d) of the CEQA Guidelines and California Public Resources Code Section 21081.6(a) (1), the District adopted the MMRP as presented in Appendix F of the Final IS/MND for the Project. The MMRP includes all mitigation measures in the FEIR MMRP and new mitigation measures resulting from the Final IS/MND that will be used to guide pre-construction and construction activities.

To verify and document the required mitigation measures presented in the Mitigated Negative Declaration the District will track all activities throughout the implementation phases. On an annual basis the District will provide an Annual Mitigation Monitoring Report that identifies where work has occurred, what pre-construction surveys were completed, mitigation measures implemented during construction, and tracks long-term monitoring measures. Attached to the staff report is the Annual Mitigation Monitoring and Reporting Checklist for project related mitigation measures for Phase II of the Project.

Work was started on Phase II in July, 2020, along existing sections of the 'Old Ranch' and 'Fisherman's' Trails to improve alignment and grade conditions, as well as to correct erosion and drainage problems along approximately ½ mile of trail that leads from Bon Tempe Creek along the northeastern shoreline of Lake Alpine. Phase II of the Project is being funded by a Prop. 68 Grant that was awarded to the California Conservation Corps North Bay (CCNB) in the amount of \$225,000 for trail construction activities. The CCNB crews working in collaboration with the District completed ½ mile of trail brushing, rough tread work, and secured the necessary lumber for the six stream crossings in Phase II. In October, work was completed by district staff on the forming and pouring of the 'Bull Frog' bridge abutments. On November 25, the pre-fabricated 80' steel truss bridge was set in place over Bon Tempe Creek. The bridge project was enabled through generous funding from the EMIG Trust (\$75,000) and community contributions to the Mt. Tamalpais Watershed Fund (\$75,000).



To facilitate construction and ensure compliance with the Azalea Hill IS/MND, pre-project surveys were conducted and an Environmental Mitigation Monitoring Check List was developed to track and document compliance with mitigation measures. Trees proposed for removal (>10" DBH) were surveyed for potential bat roosting habitat. Prior to construction, wildlife surveys were completed along the trail and within trail crossings, and exclusionary fencing was placed between the trail corridor and Lake Alpine to limit potential impacts to nesting western pond turtles.

Prior to construction, during early July, a native plant survey was carried out within the trail construction corridor where work was planned along the 'Old Ranch' and 'Fisherman's' Trails. The following five rare plants were observed within the vicinity of the proposed Phase II work:

- |   |                         |
|---|-------------------------|
| 1. <i>Arctostaphylos montana</i> ssp. <i>Montana</i>  | Mt. Tamalpais manzanita |
| 2. <i>Calamagrostis ophitidis</i>                     | Serpentine reed grass   |
| 3. <i>Cordylanthus pilosus</i> ssp. <i>pilosus</i>    | Hairy bird's beak       |
| 4. <i>Eriogonum, luteolum</i> var. <i>caninum</i>     | Tiburon buckwheat       |
| 5. <i>Lessingia micradenia</i> var. <i>micradenia</i> | Tamalpais lessingia     |

The District established appropriate avoidance flagging for these species and modified the trail alignment to avoid impacts. All staff and contractors received pre-con wildlife and rare plant avoidance training. Native tree replacement (planting) mitigation will be conducted in November and December, using locally collected willow cuttings and seeds from black oak, valley oak, Oregon white oak and California buckeye. Invasive plant removal (broom and yellow starthistle, plus surveys for goatgrass) in the area is ongoing and will continue to be prioritized through the current and future construction and monitoring periods.

Attached to the Staff Report is the 2020 Mitigation Monitoring and Reporting Checklist that documents and tracks implementation of the mitigation measures. Additionally, staff will provide a short presentation that provides a general project update. Construction work will resume on Phase II during spring and summer 2021, and planning work for Phase III will kick-off in FY 2021.

#### **FISCAL IMPACT**

NA

#### **ATTACHMENT(S)**

1. Azalea Hill Trail Project Mitigation Monitoring Reporting Checklist

## Azalea Hill Mitigation Check List-Phase II

Design		
Environmental Factor/ Mitigation Measure	Compliance Verification	Date Completed
<b>4. Biological Resources</b>		
<b>RTMP Mitigation Measure 3.2-A.1.</b> Prior to finalizing construction plans for each project, a qualified botanist will survey the area to be disturbed for Federal and State listed plant species.	Design Phase (Project-wide) - Completed	June, 2018 - AW
<b>RTMP Mitigation Measure 3.2-A.2.</b> All projects will be designed to avoid any Federal or State listed plant species (if subsequent surveys find these species on the Watershed).	Design Phase (Project-wide) – Complete	October, 2018 - AF
<b>RTMP Mitigation Measure 3.2-B.1.</b> Project sites not yet surveyed for Special Status Species shall be surveyed prior to final project design.	Design Phase (Project-wide) – Completed	June, 2018 - AW
<b>RTMP Mitigation Measure 3.2-D.1.</b> The area where the new trail section for the Potrero Meadow Trail, Laurel Dell to Barth's Retreat Trail, and Azalea Hill Trail could be constructed will be surveyed for the presence and location of Special Status Species of plants.	Design Phase (Project-wide) – Complete	June, 2018 - AW
<b>RTMP Mitigation Measure 3.2-D.2.</b> To the maximum degree feasible, the location for the new trail shall be selected to avoid destruction of Special Status Species of plants. Where avoidance is not feasible, then revegetation per <b>RTMP Mitigation Measure 3.2-B.2</b> shall apply.	Design Phase (Project-wide) – Complete	October, 2018 - AF
<b>RTMP Mitigation Measure 3.2-D.3.</b> The Azalea Hill Trail reroute shall be rerouted to avoid the stand of serpentine chaparral. The non-system trail that proceeds south of the Azalea Hill Trail shall be decommissioned.	Design Phase (Project-wide) – Complete	October, 2018 - AF

Pre-construction		
Environmental Factor/ Mitigation Measure	Compliance Verification	Date Completed
<b>4. Biological Resources</b>		
<b>IS/MND Mitigation Measure BIO-1.</b> Prior to the commencement of construction activities, commission or conduct protocol-level surveys for special status plant species. The special status plants will be flagged and survey area will include all areas in which construction would occur during that construction season, as well as all adjacent areas that could be disturbed. <ul style="list-style-type: none"> <li>All Marin western flax plants (or other state or federally listed plants) will be avoided, and all work will be avoided within 500 feet of any Marin western flax or other state or federally listed plant population when the plant is above ground (late May-July).</li> <li>In instances where a 500-foot buffer cannot be accomplished, the district should consult with the California Department of Fish and Wildlife</li> </ul>	Pre-Construction Phase; current-year footprint complete	May – August 2020, SA
<b>RTMP Mitigation Measure 3.2-A.3.</b>  Implementation of <b>IS/MND Mitigation Measure BIO-1</b> would fulfill the requirements of <b>RTMP Mitigation Measure 3.2-A.3.</b>	Completed by Bio-1	May – August 2020, SA
<b>RTMP Mitigation Measure 3.2-B.2.</b>  Implementation of <b>IS/MND Mitigation Measure BIO-1</b> would fulfill the requirements of <b>RTMP Mitigation Measure 3.2-A.3.</b>	Completed by Bio-1	May – August 2020, SA
<b>RTMP Mitigation Measure 3.2-C.1.</b> Pre-construction surveys will be completed in accordance with <b>IS/MND Mitigation Measure BIO-1</b> immediately before any decommissioning activities.	Completed by Bio-1	May – August 2020, SA
<b>IS/MND Mitigation Measure BIO-2.</b> The district or district's contractor shall protect special status plant species from incidental harm due to construction equipment and spread of weeds. <ul style="list-style-type: none"> <li>All construction personnel must attend a biological resources training.</li> <li>Erosion control materials will be reviewed and approved by district botanist prior to purchase.</li> </ul>	Pre-Con Training	July 6, 2020
<b>RTMP Mitigation Measure 3.2-B.5.</b> The district will retain records of all surveys and the locations of all special status plants identified at project sites.	All survey records saved.	November 2020

## Azalea Hill Mitigation Check List-Phase II

<b>RTMP Mitigation Measure 3.2-I.1.</b> Invasive exotic weeds in and adjacent to project sites will be treated prior mobilization. Sites where imported gravel or other fill materials are installed or stored should be mapped and monitored.	Nearby weed patches managed	Ongoing
<b>IS/MND Mitigation Measure BIO-3.</b> To further ensure that the species, California red-legged frog, is not harmed by the Proposed Project, <ul style="list-style-type: none"> <li>All construction personnel will attend a mandatory pre-construction biological resource training.</li> <li>A pre-construction survey of work sites with potential to support red-legged frog habitat will be performed by a qualified biologist.</li> </ul>	Pre-Con Training	July 6, 2020
<b>IS/MND Mitigation Measure BIO-4.</b> To further ensure that the species, foothill yellow-legged frog, is not harmed by the Proposed Project, <ul style="list-style-type: none"> <li>All construction personnel will attend a mandatory pre-construction biological resource training.</li> <li>A pre-construction survey of work sites with potential to support yellow-legged frog habitat will be performed by a qualified biologist.</li> </ul>	Pre-Con Training	July 6, 2020
<b>IS/MND Mitigation Measure BIO-5.</b> To further ensure that the species, California giant salamander, is not harmed by the Proposed Project, <ul style="list-style-type: none"> <li>All construction personnel will attend a mandatory pre-construction biological resource training.</li> <li>A pre-construction survey of work sites with potential to support California giant salamander habitat will be performed by a qualified biologist.</li> </ul>	Pre-Con Training	July 6, 2020
<b>IS/MND Mitigation Measure BIO-6.</b> To further ensure that the species, western pond turtle, is not harmed by the Proposed Project, <ul style="list-style-type: none"> <li>All construction personnel will attend a mandatory pre-construction biological resource training.</li> <li>A pre-construction survey of work sites with potential to support western pond turtle habitat will be performed by a qualified biologist.</li> <li>Prior to the start of construction, exclusionary fencing shall be placed between the lake or Bon Tempe Creek and the construction area or access routes where suitable western pond turtle habitat exists.</li> </ul>	Pre-Con Training	July 6, 2020
<b>IS/MND Mitigation Measure BIO-7.</b> If construction activities occur during the nesting season of native bird species, typically February through August in the project region, a pre-construction survey for nesting birds will be conducted by a qualified biologist. The survey will occur within one week of the commencement of construction activities.	Pre-con nesting landbird surveys conducted	July – August, 2020
<b>RTMP Mitigation Measure 3.3-C.1.</b> If shrubs or trees would need to be removed to construct a specific project, MMWD should remove those trees and shrubs prior to the onset of the nesting season, so birds will not nest in trees or shrubs on the construction site. However, trees known to be used for northern spotted owl and golden eagle nesting shall not be removed.	Pre-con nesting landbird surveys conducted	July – August, 2020
<b>RTMP Mitigation Measure 3.3-C.2.</b>  Implementation of <b>IS/MND Mitigation Measure BIO-7</b> will fulfill the requirements of <b>RTMP Mitigation Measure 3.3-C.2.</b>	Completed through Bio 7	NA
<b>IS/MND Mitigation Measure BIO-8.</b> If vegetation removal occurs during the bat maternity roosting (April 15 to August 31) or hibernation period (October 15 to February 28), a focused tree habitat assessment shall be conducted by a qualified bat biologist of all trees that will be removed or impacted by construction activities. Trees containing suitable potential bat roost habitat features would then be clearly marked. <ul style="list-style-type: none"> <li>A pre-construction survey of work sites with potential to support bat roost habitat will be performed by a qualified biologist.</li> </ul>	Pre-con bat roosting tree habitat assessed Marked trees removed in Sept 1 – Oct 14	July 2020
<b>RTMP Mitigation Measure 3.3-D.2.</b> 2-step tree removal process. This measure specifically relates to trees larger than 24 inches (DBH).  Implementation of <b>IS/MND Mitigation Measure BIO-8</b> will fulfill the requirements for the timing of tree removal identified in <b>RTMP Mitigation Measure 3.3-C.2.</b>	Pre-con bat roosting tree habitat assessed No trees larger than 24" DBH removed	July 2020
<b>RTMP Mitigation Measure 3.3-D.3.</b> 2-step tree removal process. Remove smaller trees before removing larger trees. Removal of smaller trees are still subject to the conditions of <b>IS/MND Mitigation Measure BIO-8.</b>	2-step removal process used	July – October 2020
<b>RTMP Mitigation Measure 3.3-D.4</b> specifically addresses potential habitat in snags (non-living trees/shrubs) and also requires surveys prior to removal.	All snags surveyed prior to removal	July – October 2020

# Azalea Hill Mitigation Check List-Phase II

<b>IS/MND Mitigation Measure BIO-9.</b> To further ensure that the species, American Badger, is not harmed by the Proposed Project, <ul style="list-style-type: none"> <li>All construction personnel will attend a mandatory pre-construction biological resource training.</li> <li>Pre-construction surveys for badger dens or burrows will be performed by a qualified biologist.</li> </ul>	Pre-Con Training Scheduled	July 6, 2020
<b>RTMP Mitigation Measure 3.3-D.1.</b>  Implementation of <b>IS/MND Mitigation Measure BIO-9</b> will fulfill the requirements of <b>RTMP Mitigation Measure 3.3-D.1.</b>	Completed through Bio-9	NA
<b>IS/MND Mitigation Measure BIO-10.</b> Consistent with Chapter 5 of the RTMP, the following measures shall be implemented to address potential indirect impacts to biological resources from use of the Proposed Project routes: <ul style="list-style-type: none"> <li>At locations where the trail borders sensitive biological resources, design features will be used where appropriate to clearly demark the tread margins and discourage encroaching into adjacent vegetation.</li> <li>Interpretative signage shall be installed at key locations</li> </ul>	Trail alignment designed to avoid sensitive resources Signs installed	July 2020
<b>RTMP Mitigation Measure 3.2-F.1.</b> Decommissioned roads and trails should be covered with native mulch available in the site area. MMWD may also collect seeds of plants or live plants common to the area and revegetate the disturbed slope. Decommissioned sections should be ripped or otherwise treated to encourage the establishment of seeds or seedlings.	No road or trail decommissioning occurred during this portion of Phase II.	NA
<b>RTMP Mitigation Measure 3.2-G.2.</b> Class IV trails will be constructed according to accepted equestrian trail standards.	All Phase II trail work meets Class IV equestrian standards	July – November 2020
<b>5. Cultural Resources</b>		
<b>RTMP Mitigation Measure 3.4-B.1.</b> The Mount Tamalpais Area Vegetation Management Plan Draft EIR (Leonard Charles and Associates, 1994) contains an Archaeological Sensitivity Map (Figure 21 of that Draft EIR) which identifies areas within the Watershed that may contain cultural resources. This map was prepared by a consulting archaeologist and is used by MMWD to check for archaeological resources prior to conducting Vegetation Management Plan projects. This same map will be used to guide future Draft Plan projects.	Completed (Project-wide)	August, 2017
<b>RTMP Mitigation Measure 3.4-B.2.</b> Prior to constructing any project that would involve disturbance of earth outside road or trail beds or other areas previously disturbed when constructing the road and trail system. MMWD staff shall review Figure 21 of the Mount Tamalpais Area Vegetation Management Plan Draft EIR. If the project is located within an area that is mapped as "archaeologically sensitive," then the site shall be field surveyed by a qualified archaeological consultant who shall make recommendations and develop proposals for any procedures deemed appropriate to further investigate and/or mitigate adverse impacts to those resources.	Completed (Project-wide)	August, 2017,
<b>6. Geology/Soils</b>		
<b>RTMP Mitigation Measure 3.4-C.1.</b> MMWD will have a geotechnical engineer consult in the design of any road bridge project or retaining walls on the Watershed. Major trail and road reroutes will be reviewed by a geologist or geotechnical engineer.	Geotech/Engineer designed all Phase II bridges	August 2020
<b>9. Hydrology/Water Quality</b>		
<b>RTMP Mitigation Measure 3.1-B.4.</b> Erosion control methods and materials will be included in the final project design plans for each phase of construction to control sediment and avoid increases in turbidity in adjoining streams.	Native erosion control used on exposed soils.	July – August 2020
<b>RTMP Mitigation Measure 3.1-B.10.</b> All bridge abutments shall be designed by a civil engineer.	Geotech/Engineer designed all Phase II bridge abutments	July – August 2020
<b>RTMP Mitigation Measure 3.1-B.14.</b> Prior to any work, the construction crew(s) will be informed of: (1) all necessary environmental protection measures; (2) the location of known special status species populations; (3) the location of any environmentally sensitive habitats; (4) the location of invasive exotic weed species that could infest the project site, and (5) all protective measures included in the project to minimize accidental environmental impacts.	Pre-Con Training	July 6, 2020

## Azalea Hill Mitigation Check List-Phase II

<ul style="list-style-type: none"> <li>The mandatory training will review special status species locations, protection measures, and review all environmental protection measures required including any conditions within resource agency permits.</li> </ul>		
<b>RTMP Mitigation Measure 3.1-B.15.</b> All construction sites will be signed and noticed that a construction project will occur or is in progress.	Signs installed	July 2020
<b>RTMP Mitigation Measure 3.1-B.16.</b> All construction staging and storage areas shall be identified prior to beginning construction. Whenever possible, the staging and storage areas should be located in areas that have minimal natural resource value.	Staging and storing areas identified	July 2020
<b>RTMP Mitigation Measure 3.1-B.19.</b> Placement of excess materials resulting from project activities will be identified in advance. <ul style="list-style-type: none"> <li>In regards to placement of excess materials and drainage processes the district will integrate conditions of <b>RTMP Mitigation Measure 3.1-B.19</b> directly into the final project designs to ensure fill placement and adequate stabilization limit erosion, diversion of run-off, and other unanticipated drainage problems.</li> </ul>	No excess materials generated	NA
<b>RTMP Mitigation Measure 3.1-B.26.</b> Seasonal Closures.	All newly constructed trail alignments to be closed	November 1, 2020 to June 1, 2021
<b>RTMP Mitigation Measure 3.1-B.27.</b> Inspections.	Not applicable to Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.28.</b> Road Grading.	Not applicable to Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.29.</b> Ditch Grading.	Not applicable to Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.30.</b> Culverts.	Not applicable to Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.31.</b> Bridges.	Bull Frog bridge designed to accommodate 100 year floods	July 2020
<b>RTMP Mitigation Measure 3.1-B.32.</b> Fords.	Not applicable to this portion of Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.33.</b> Cutbanks.	All newly constructed trail alignments to be closed	November 1, 2020 to June 1, 2021
<b>RTMP Mitigation Measure 3.1-B.34.</b> Fillslopes.	Fill slopes stabilized	July – August 2020
<b>RTMP Mitigation Measure 3.1-B.</b> Trail Decommissioning. All the mitigation measures pertinent to decommissioning listed under Impact 3.1-B will apply. In addition, the following measure is included in the Draft Plan. <ul style="list-style-type: none"> <li>Waterbars and cross-road drains will be installed at 50, 75, 100 or 200-foot intervals, or as necessary at springs and seeps, to disperse road surface runoff, especially on roads that are to be decommissioned.</li> </ul>	No trails decommissioned thus far in Phase II	NA
<b>RTMP Mitigation Measure 3.1-F.2.</b> Trail improvements should be constructed according to recommendations outlined in either the Trail Manual for the Maintenance and Operation of Trails in the East Bay Regional Park District (McDonald 1995), A Handbook on Trail Building and Maintenance (Griswold 1996), NPS Trails Management Handbook (National Park Service, 1983), or the Trails Handbook (California Department of Parks and Recreation 1998). Class VI trails should be built and repaired to allow safe horse passage per guidelines set forth in Trails Manual (Vogel, 1982).	Trail work within Phase II complies with listed specifications	July – August 2020
<b>RTMP Mitigation Measure 3.1-F.3.</b> When laying out the trail location, MMWD should attempt to locate the trail in locations where any erosion that does occur will be drained to areas that do not connect to the stream system.	Run-off from trail work within Phase II is not connected to stream crossings	NA
<b>RTMP Mitigation Measure 3.1-F.4.</b> Areas that are disturbed when constructing the trail that are outside the trail tread shall be reseeded with native plant seed, and/or punched straw or other locally available mulch will be placed to protect against raindrop impact and to minimize soil detachment and downslope movement.	Exposed soils resulting from trail work within	July – November 2020



## Azalea Hill Mitigation Check List-Phase II

<ul style="list-style-type: none"> <li>Also see <b>IS/MND Mitigation Measure BIO-12.</b></li> </ul>	Phase II, covered with local native mulch.	
<b>RTMP Mitigation Measure 3.2-H.1.</b> Prior to designing or finalizing construction documents/plans for each project, a field survey of the project site shall be conducted by a qualified wetland expert.	Jurisdictional Wetland Survey: Complete  Submittal of Wetland Survey	Complete: August, 2017  Submittal
<b>RTMP Mitigation Measure 3.2-H.2.</b> All wetlands created by springs shall be maintained to the maximum degree feasible.	Spring-fed wetlands within Phase II retained	July – August 2020
<b>RTMP Mitigation Measure 3.2-H.3.</b> Any roadside ditch wetlands will be assessed by the district to determine whether they can be retained.	No ditch wetlands within Phase II	NA
<b>RTMP Mitigation Measure 3.2-H.4.</b> When removing culverts for replacement, the minimum amount of vegetation shall be removed.	No culverts removed in Phase II	NA
<b>RTMP Mitigation Measure 3.2-H.5.</b> Culverts draining upslope wetlands shall be placed so that the inlet is set at the same elevation as the existing culvert to maintain the upslope hydrologic regime.	No culvert installations in Phase II	NA
<b>RTMP Mitigation Measure 3.2-H.6.</b> When decommissioning roads and trails, all wetlands should be retained unless their retention would cause substantial future erosion.	No trail decommissions thus far within Phase II	NA
<b>RTMP Mitigation Measure 3.2-H.8.</b> Where wetland plants must be removed or wetland habitat is created, the district shall collect seed from wetland plants in the area and reseed the area once construction is complete. <ul style="list-style-type: none"> <li>The district will develop a revegetation plan for all wetlands temporarily impacted by the project that includes harvesting of existing wetland plants and seeds, where feasible. Also see <b>IS/MND Mitigation Measure BIO-12.</b></li> </ul>	No wetlands plants to be removed during Phase II	NA
<b>RTMP Mitigation Measure 3.2-H.10.</b> To ensure there is no net loss of wetlands due to the project, the district is committed to creating approximately 290 feet of new creek as the result of the road and trail decommissioning called for in the Draft Plan.	No wetland mitigation proposed during Phase II	NA
<b>15. Recreation</b>		
<b>IS/MND Mitigation Measure REC-1.</b> The district will design and develop informational kiosks at the Azalea Hill parking lot trailhead and Bull Frog road as part of project design.	Kiosk currently being designed and to be installed as part later Phase II work	Installation planned for 2021
<b>IS/MND Mitigation Measure REC-3.</b> On Liberty Gulch Road, speed calming features (e.g. signs, changes in elevation such as earthen speed bumps, lane narrowing, diagonal diverters using local logs or rocks, etc.) to reduce the downhill speed of bicyclists shall be constructed that integrate standard trail design guidelines (hiking, equestrian, biking) and a focus on safety.	No work planned on Liberty Gulch during Phase II	NA

<b>Construction</b>		
Environmental Factor/ Mitigation Measure	Compliance Verification	Date Completed
<b>3. Air Quality</b>		
<b>IS/MND Mitigation Measure AIR-1.</b> During construction activities, the district shall require its personnel and any construction contractor(s) assigned to the project to implement a dust abatement program.	Dust control using water	July – November 2020
<b>RTMP Mitigation Measure 3.4-A.1.</b> MMWD will require its staff or contractors to implement, as appropriate, the BAAQMD's basic control measures for emissions of dust during construction.	Contractors and MMWD Staff watered at least 2X daily at all active work sites	July – November 2020
<b>4. Biological Resources</b>		

## Azalea Hill Mitigation Check List-Phase II

<p><b>IS/MND Mitigation Measure BIO-1.</b> Prior to the commencement of construction activities, commission or conduct protocol-level surveys for special status plant species. The special status plants will be flagged and survey area will include all areas in which construction would occur during that construction season, as well as all adjacent areas that could be disturbed.</p> <ul style="list-style-type: none"> <li>No trail improvements/construction activities will occur within the trail segment in which several Marin western flax plants were observed in 2018. The construction team shall be instructed that no trail improvements or disturbance is permitted in that section of the trail.</li> <li>If a special status plant species, other than Marin western flax (as all Marin western flax will be avoided, see above) are found in the project's disturbance boundary during preconstruction surveys, the plants will be avoided to the degree practicable. Removal of special status plants will be required from within Liberty Gulch Road. Flagging and/or fencing shall be placed near any identified special status plants that can be avoided during construction to prevent incidental disturbance.</li> <li>Supplement to RTMP Mitigation Measure 3.2-B.2. If avoidance is not practicable, then a rare plant mitigation and monitoring plan shall be designed and implemented for all special-status plants affected</li> </ul>	<p>Pre-Construction Phase; current-year projected footprint—complete</p> <p>No western flax near current work area</p> <p>Avoidance flagging used around all special status plant species</p> <p>Avoidance of all special status plant species during this portion of Phase II</p>	<p>May – July 2020</p>
<p><b>RTMP Mitigation Measure 3.2-A.3.</b> Construction monitoring will occur to ensure that there will be no adverse impacts to the populations.</p> <p>Implementation of <b>IS/MND Mitigation Measure BIO-1</b> would fulfill the requirements of <b>RTMP Mitigation Measure 3.2-A.3.</b></p>	<p>Phase II monitored</p>	<p>July – November 2020</p>
<p><b>RTMP Mitigation Measure 3.2-C.1.</b> When decommissioning roads, MMWD shall survey the areas to be disturbed for Special Status Species. Areas supporting such plants will not be included in fillslope/cutbank decommissioning</p>	<p>No roads decommissioned</p>	<p>NA</p>
<p><b>IS/MND Mitigation Measure BIO-2.</b> The district or district's contractor shall protect special status plant species from incidental harm due to construction equipment and spread of weeds by implementing the following:</p> <ul style="list-style-type: none"> <li>The number of vehicles on site will be minimized to reduce the potential for disturbance and ensure adequate space to park and maneuver within designated areas.</li> <li>All vehicle routes, staging, parking, and turnaround areas will be marked and vehicle operation in unmarked areas will be prohibited.</li> <li>Additional visual or physical barriers (fencing, signs, stakes, marking paint, or flagging) will be installed, as needed, to ensure vehicle compliance with approved vehicle routes, staging, parking, and turnaround areas.</li> <li>All open bed vehicles carrying a load of material (unconsolidated fill, erosion control material, etc.) shall be covered to prevent the dispersal of weed seeds.</li> </ul>	<p>Special status plants protected from vehicle and equipment impacts</p>	<p>July – November 2020</p>
<p><b>RTMP Mitigation Measure 3.2-B.3.</b> The district will conduct regular training for its permanent and seasonal construction crews in Special Status Species and environmentally sensitive habitats so they are more likely to prevent accidental environmental impacts to these resources. (see <b>RTMP Mitigation Measure 3.1-B.14.</b>)</p>	<p>Pre-Con Training</p>	<p>July 6, 2020</p>
<p><b>RTMP Mitigation Measure 3.2-B.4.</b> The district shall monitor construction to ensure that plants scheduled for avoidance are protected during the construction process.</p>	<p>Rare plant avoidance areas monitored</p>	<p>July – November 2020</p>
<p><b>IS/MND Mitigation Measure BIO-6.</b> To further ensure that the species, western pond turtle, is not harmed by the Proposed Project,</p> <ul style="list-style-type: none"> <li>Prior to the start of construction each day, a designated biological monitor (who has received training from a qualified biologist) shall inspect the fence and construction area. Any pond turtles found on the upland side of the construction fencing shall be relocated by a qualified biologist or the trained, designated biological monitor.</li> </ul>	<p>Fence installed and monitored</p>	<p>May – August 2020</p>
<p><b>RTMP Mitigation Measure 3.3-C.2.</b></p> <p>If construction activities and equipment would or could result in adult birds abandoning the nest, rescheduling of work must occur to avoid impacts to nesting birds identified in <b>RTMP Mitigation Measure 3.3-C.2.</b> Therefore, implementation of <b>IS/MND Mitigation Measure BIO-7</b> will fulfill the requirements of <b>RTMP Mitigation Measure 3.3-C.2.</b></p>	<p>All nesting bird sites avoided with spatial buffers</p>	<p>May – August 2020</p>

## Azalea Hill Mitigation Check List-Phase II

<b>RTMP Mitigation Measure 3.3-C.3.</b> For projects within spotted owl nest areas, heavy equipment will not be operated between February 1 and August 31 within one quarter mile of any spotted owl nest site unless protocol surveys determine the nest is not being used.	No NSO habitat	NA
<b>IS/MND Mitigation Measure BIO-8.</b> If vegetation removal occurs during the bat maternity roosting (April 15 to August 31) or hibernation period (October 15 to February 28), a focused tree habitat assessment shall be conducted by a qualified bat biologist of all trees that will be removed or impacted by construction activities. Trees containing suitable potential bat roost habitat features would then be clearly marked. <ul style="list-style-type: none"> <li>If it is determined that day roosting bats are unlikely to occur, the tree may be removed as described in the full MMRP.</li> </ul>	Pre-con bat roosting habitat trees assessed	July 2020
<b>RTMP Mitigation Measure 3.3-D.2.</b> 2-step tree removal process. This measure specifically relates to trees larger than 24 inches (DBH).  Implementation of <b>IS/MND Mitigation Measure BIO-8</b> will fulfill the requirements for the timing of tree removal identified in <b>RTMP Mitigation Measure 3.3-C.2.</b>	No trees >24" DBH removed	NA
<b>RTMP Mitigation Measure 3.3-D.3.</b> 2-step tree removal process. Remove smaller trees before removing larger trees. Removal of smaller trees are still subject to the conditions of <b>IS/MND Mitigation Measure BIO-8.</b>	2-step removal process used	July – September 2020
<b>RTMP Mitigation Measure 3.3-D.4</b> specifically addresses potential habitat in snags (non-living trees/shrubs) and also requires surveys prior to removal.	All snags proposed for removal surveyed	July 2020
<b>RTMP Mitigation Measure 3.3-F.1.</b> During all on-site activities, MMWD and its contractors shall take all precautions to avoid damaging or killing any form of wildlife, including snakes, lizards, small mammals, or birds, that becomes exposed during vegetation or soil removal. <ul style="list-style-type: none"> <li>All construction personnel will attend mandatory pre-construction biological resource training which will include a review of precautions and procedures for avoiding or killing wildlife.</li> </ul>	Pre-Con Training	July 6, 2020
<b>IS/MND Mitigation Measure BIO-11.</b> Where trails will be rerouted or where activities will occur outside of existing trails, the protection of native vegetation will be prioritized by adjusting the final alignment, within the regions already surveyed for sensitive species.	Protection of native vegetation prioritized	July – November 2020
<b>RTMP Mitigation Measure 3.2-E.1.</b> All projects shall be designed and constructed to remove only that native vegetation needed to accomplish the erosion control objectives.	Native vegetation removal minimized	July – November 2020
<b>RTMP Mitigation Measure 3.2-E.2.</b> Standing trees, snags and stumps greater than one foot in diameter at breast height shall not be damaged or undercut unless authorized by the MMWD Resource Specialist.	NRPM assessed/approved two removals > 12" DBH	July 2020
<b>5. Cultural Resources</b>		
<b>IS/MND Mitigation Measure ARC-1.</b> In the event of an unanticipated discovery of archaeological deposits during project implementation, the district shall ensure that construction crews shall stop all work within 100 feet of the discovery until a qualified archaeologist can assess the previously unrecorded discovery and provide recommendations.	No archaeological deposits discovered	NA
<b>IS/MND Mitigation Measure ARC-2.</b> In the event of an unanticipated discovery of human remains during project implementation, the district shall ensure that construction crews stop all work within 100 feet of the discovery. The district shall treat any human remains and associated or unassociated funerary objects discovered during soil-disturbing activities according to applicable State laws.	No human remains discovered	NA
<b>RTMP Mitigation Measure 3.4-B.3</b>  Implementation of <b>IS/MND Mitigation Measure ARC-1</b> will fulfill the requirements of this measure.	Completed by MM Arc-1	NA
<b>RTMP Mitigation Measure 3.4-B.4.</b>  Implementation of <b>IS/MND Mitigation Measure ARC-2</b> will fulfill the requirements of this measure.	Completed by MM Arc-2	NA

# Azalea Hill Mitigation Check List-Phase II

<i>Hazards and Hazardous Materials</i>		
<b>IS/MND Mitigation Measure HAZ-1.</b> The district's contract documents will require implementation of the best management practices identified in <b>IS/MND Mitigation Measure HAZ-1</b> by any contractors working on the project. Daily inspections by district staff will ensure compliance with the contract documents. If the project is implemented by the district, the district will implement the best management practices identified in <b>IS/MND Mitigation Measure HAZ-1</b> .	Hazardous materials BMPs implemented by contractors	July – November 2020
<b>IS/MND Mitigation Measure HAZ-2.</b> The district and/or its contractor(s) shall use BMPs that will minimize the potential adverse effect of the Proposed Project to groundwater and soils from chemicals used during construction activities. The district's contract documents will require any contractors prepare and submit a spill prevention and countermeasure plan for district review and approval. Which includes, at the very least, the BMPs listed under <b>IS/MND Mitigation Measure HAZ-2</b> . If the project is implemented by the district, the district will prepare a spill prevention and countermeasure plan.	Groundwater BMPs implemented and spill prevention measures utilized	July – November 2020
<i>Hydrology/Water Quality</i>		
<b>RTMP Mitigation Measure 3.1-B.1.</b> For each project or a related group of projects to be done sequentially by the same contractor, MMWD will identify which mitigation measures and/or Best Management Practices (BMPs) will be required for that project. The measures/BMPs will be described using a checklist identifying where and when the measures are to be done.	MMs and BMPs utilized by contractors	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.2.</b> Where needed, temporary diversions around the work area will be accomplished using a small cofferdam and flexible pipe. For wet crossings, excavations must begin at the downstream end of the site and is recommended for dry sites worked on near the end of the dry season. When a dam is used, sufficient water will be allowed to pass downstream to maintain aquatic life below the dam.	No water diversions during Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.3.</b> The contractor will establish an outflow point for the dewatering pipe at a downstream location in the creek, even if flows are very low.	No dewatering during Phase II	NA
<b>RTMP Mitigation Measure 3.1-B.5.</b> The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action.	Access and staging areas minimized	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.6.</b> Because construction work in streams will be conducted during a low flow period when turbidity can impact salmonids, the district and its contractor must exercise extreme care in all actions - even for such actions as walking in the stream – to prevent sediments from being stirred into the creekflow.	Work conducted outside stream crossings	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.7.</b> Any equipment entering the creek will keep movement in the creek and entrances and exits to and from the creek at an absolute minimum.	Creeks crossed during dry season	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.8.</b> To prevent construction debris from entering the creek, appropriate best management practices set forth in the California Storm Water Best Management Practice Handbooks will be employed.	Silt fencing installed	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.9.</b> Potential pollutants (e.g., fuels, etc.) will be stored with proper containment and outside of areas where contact with stormwater runoff or creek waters could occur.	Pollutants not stored on-site	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.11.</b> All work activities will be timed to avoid, or minimize, the environmental impacts of those work activities. Work in a stream crossing will be done during the dry season to help protect water quality and fisheries. Work around streams will be confined to the period of April 15 through October 15 or the first rainfall.	Work near creeks in dry season	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.12.</b> Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species.	No banks disturbed	NA
<b>RTMP Mitigation Measure 3.1-B.13.</b> Planting of seedlings shall begin after December 1, or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings, but in no case after April 1.	Tree planting started after first rains	Nov – 2020
<b>RTMP Mitigation Measure 3.1-B.17.</b> Whenever possible, the district will confine its work activities within the alignment of an existing road or trail and avoid impacts to previously untrammelled areas.	Tread work outside existing alignments minimized	July – November 2020

## Azalea Hill Mitigation Check List-Phase II

<b>RTMP Mitigation Measure 3.1-B.18.</b> Only the areas that truly need to be disturbed will be disturbed.	Disturbance limited	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.24.</b> Topsoil removed from the project area will be stored for its return to the disturbed site upon project completion. <ul style="list-style-type: none"> <li>Special care will be applied to any soil supporting special status plant species to minimize excessive disturbance of the soil during its removal, storage and return to the project area.</li> </ul>	Top soil stockpiled on-site and re-used No soil with rare plants disturbed	July – November 2020
<b>RTMP Mitigation Measure 3.1-B.25.</b> Soil will only be compacted to the extent necessary to reduce any surface erosion that may occur in the first heavy rainfall.	Soil compaction only on trail tread surface	July – November 2020
<b>RTMP Mitigation Measure 3.1-F.2.</b> Trail improvements should be constructed according to recommendations outlined in either the Trail Manual for the Maintenance and Operation of Trails in the East Bay Regional Park District (McDonald 1995), A Handbook on Trail Building and Maintenance (Griswold 1996), NPS Trails Management Handbook (National Park Service, 1983), or the Trails Handbook (California Department of Parks and Recreation 1998). Class IV trails should be built and repaired to allow safe horse passage per guidelines set forth in Trails Manual (Vogel, 1982).	Trails constructed to listed specifications; Class IV standards	July – November 2020
<b>RTMP Mitigation Measure 3.1-F.5.</b> New trail grading or culvert crossing installation should be implemented during the dry season	All work tread work conducted during dry season	July – November 2020
<b>RTMP Mitigation Measure 3.2-H.2.</b> All wetlands created by springs shall be maintained to the maximum degree feasible.	All spring wetlands retained	July – November 2020
<b>RTMP Mitigation Measure 3.2-H.3.</b> Any roadside ditch wetlands will be assessed by the district to determine whether they can be retained.	No roadside ditches	NA
<b>RTMP Mitigation Measure 3.2-H.4.</b> When removing culverts for replacement, the minimum amount of vegetation shall be removed.	No culverts removed	NA
<b>RTMP Mitigation Measure 3.2-H.5.</b> Culverts draining upslope wetlands shall be placed so that the inlet is set at the same elevation as the existing culvert to maintain the upslope hydrologic regime.	No culverts installed	NA
<b>RTMP Mitigation Measure 3.2-H.6.</b> When decommissioning roads and trails, all wetlands should be retained unless their retention would cause substantial future erosion.	No roads or trails decommissioned during this portion of Phase II	July – November 2020
<b>RTMP Mitigation Measure 3.2-H.9.</b> The district shall abide by any additional permit conditions required by the Army Corps, California Department of Fish and Game, and the RWQCB.	All work compliant with relevant ACOE, CDFG and RWQCB permits	July – November 2020
<b>RTMP Mitigation Measure 3.2-H.10.</b> To ensure there is no net loss of wetlands due to the project, the district is committed to creating approximately 290 feet of new creek as the result of the road and trail decommissioning called for in the Draft Plan.	No new creek habitat created during this portion of Phase II work	July – November 2020

Post-Construction		
Environmental Factor/ Mitigation Measure	Compliance Verification	Date Completed
<b>4. Biological Resources</b>		
<b>RTMP Mitigation Measure 3.2-B.2.</b> Reintroduction can occur near the disturbed area or in other suitable habitat where the species would benefit from reintroduction  Implementation of <b>IS/MND Mitigation Measure BIO-1</b> will fulfill the requirements of <b>RTMP Mitigation Measure 3.2-B.2.</b>	No rare plant reintroductions planned during this portion of Phase II	NA
<b>RTMP Mitigation Measure 3.2-B.5.</b> The district will retain records of all surveys and the locations of all special status plants identified at project sites so that these plants can be avoided during construction of any future projects in the area.	Survey records saved by district staff	May – August 2020

## Azalea Hill Mitigation Check List-Phase II

<b>RTMP Mitigation Measure 3.2-I.2.</b> MMWD shall monitor project sites and remove new exotic weeds spread into the site area by project construction.	Project monitored for new weeds	July 2020 --
<b>RTMP Mitigation Measure 3.2-I.3.</b> Monitoring and/or treatment of these sites shall occur quarterly, or until it has been determined that there is no longer a risk of an unintentional release of an invasive, exotic species.	Project monitored for new weeds	July 2020 --
<b>IS/MND Mitigation Measure BIO-10.</b> Consistent with Chapter 5 of the RTMP, the following measures shall be implemented to address potential indirect impacts to biological resources from use of the Proposed Project routes: <ul style="list-style-type: none"> <li>The BMPs and Environmental Protection Measures in the RTMP (Chapter 3) shall be implemented.</li> <li>After the project is complete, monitoring and enforcement shall be carried out as part of and pursuant to the annual Project Restore program and methodology (Chapter 5 of the RTMP).</li> <li>The district's rangers will regularly patrol the trail system to provide monitoring of trail conditions and enforcement of regulations.</li> <li>Adaptive management measures, including but not limited to implementation of BMPs, Design Standards, Environmental Protections per the RTMP, edge-of-trail barriers, tread surface hardening, seasonal trail closures, restoration of degraded habitats, weeding, and increased patrols shall be implemented as needed to ensure routes perform as designed.</li> <li>A district botanist will conduct surveys, as needed, of the trail system to identify areas of overuse or illegal use and provide adaptive management recommendations</li> </ul>	BMPs implemented  Project incomplete  Ranger patrols planned  Project work monitored for potential adaptive management  District Ecologist to monitor	July 2020 --
<b>IS/MND Mitigation Measure BIO-11.</b> Areas disturbed by construction will be monitored and adaptively managed to ensure revegetation for a period of five years.	District Ecologist to monitor	July 2020 -- 2025
<b>IS/MND Mitigation Measure BIO-12.</b> All areas temporarily disturbed during project construction, including areas where tree replacement is conducted, will be restored and revegetated to their pre-disturbance condition.	Restoration, including tree replacement in process	November -- December 2020
<b>IS/MND Mitigation Measure BIO-13.</b> In addition to the requirements of <b>RTMP Mitigation Measure 3.2-F.1</b> , all decommissioned trails will be monitored by a qualified botanist annually for a period of five years.	No decommissioning conducted during this portion of Phase II	NA
<b>9. Hydrology/Water Quality</b>		
<b>RTMP Mitigation Measure 3.1-B.20.</b> The district will seek to allow natural reestablishment of native vegetation at construction sites.	Native volunteer recruitment prioritized	July 2020 --
<b>RTMP Mitigation Measure 3.1-B.21.</b> Whenever possible, the district will reseed disturbed sites by redistributing topsoil and surrounding vegetative litter in the final site dressing.	Topsoil redistributed and local vegetation litter used	July -- November 2020
<b>RTMP Mitigation Measure 3.1-B.22.</b> Newly seeded areas should be marked on the ground or mapped and protected from disturbance during the germinations season.	Seeded areas marked	November -- December 2020
<b>RTMP Mitigation Measure 3.1-B.23.</b> Following seeding planting perennial species, shrubs and trees, may be appropriate at specific project sites.	Native, locally collected, trees planted	November -- December 2020
<b>RTMP Mitigation Measure 3.1-B.26.</b> Seasonal Closures.	Newly constructed trail closed	November 1, 2020 to June 1, 2021
<b>RTMP Mitigation Measure 3.1-B.27.</b> Inspections.	Monitored	November 2020 --
<b>RTMP Mitigation Measure 3.1-B.28.</b> Road Grading and maintenance.	No road grading	NA
<b>RTMP Mitigation Measure 3.1-B.29.</b> Ditch Grading and maintenance.	No ditch work	NA
<b>RTMP Mitigation Measure 3.1-B.30.</b> Inspect culverts and fix problems as soon as practicable.	No culvert work	NA
<b>RTMP Mitigation Measure 3.1-B.31.</b> Bridges maintenance.	New Bull Frog Bridge maintained	November 2020 --
<b>RTMP Mitigation Measure 3.1-B.32.</b> Rock armor maintenance on permanent fords.	No fords built during this portion of Phase II	NA

## Azalea Hill Mitigation Check List-Phase II

<b>RTMP Mitigation Measure 3.1-B.33.</b> Inspect and maintain cutbanks.	Cutbanks to be maintained	November 2020 --
<b>RTMP Mitigation Measure 3.1-B.34.</b> Fillslopes.	Fillslopes to be maintained	November 2020 --
<b>RTMP Mitigation Measure 3.2-H.7.</b> All ditches supporting wetlands shall be clearly identified so that ongoing road and trail maintenance avoids grading or cleaning these ditches except where needed to restore ditch function.	No ditch wetlands	NA
<b>15. Recreation</b>		
<b>IS/MND Mitigation Measure REC-2.</b> The survey required by <b>IS/MND Mitigation Measure BIO-10</b> , shall also include an identification adaptive management actions to treat any deterioration in trail and road segments and parking lots serving the project area.	Monitor for potential adaptive management	November 2020 --
<b>IS/MND Mitigation Measure REC-4.</b> The district shall conduct focused patrols at Azalea Hill, similar to those it conducts for Project Restore, and document its patrol and enforcement activity in the Azalea Hill area and prepare a report on its findings after five years.	Focused patrols planned	November 2020 --

<b>Timing Not Specified</b>		
Environmental Factor/ Mitigation Measure	Compliance Verification	Date Completed
<b>4. Biological Resources</b>		
<b>RTMP Mitigation Measure 3.2-F.2.</b> In locations where there are mature trees on fillslopes or cutslopes, MMWD should make every effort to preserve those trees unless the banks where these trees are growing pose a significant risk of failure.	Mature trees preserved	July 2020 --
<b>RTMP Mitigation Measure 3.2-G.1.</b> To the degree feasible, MMWD shall lay out the new trail locations to avoid mature trees, mature shrubs, or other sensitive or unique plant specimens. All wetlands shall be avoided other than where it is necessary to cross a stream.	Mature trees avoided	July 2020 --
<b>RTMP Mitigation Measure 3.1-F.1.</b> The minimum width needed for safe use of the trail will be disturbed for trail construction.	Minimum safe trail width incorporated into design	July 2020 --

## Recommend for Approval Item

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### **TITLE**

Grassland Invasive Plant and Habitat Restoration Services

### **RECOMMENDATION**

Review and refer to the Board of Directors with recommendation to approve authorizing the General Manager to execute an agreement for Grassland Invasive Plant and Habitat Restoration Services in an amount not to exceed \$150,000 for a two year period.

### **SUMMARY**

The District requires consultant services for grassland invasive plant management and habitat restoration services for priority sites on the Mt. Tamalpais Watershed. Specifically, the District seeks support with maintaining or increasing native plant cover in multiple grassland sites where invasive grass species are expanding and threatening rare plant populations. The work will include development of seasonal work plans, weed mapping, rare species avoidance, data management, and initial as well as follow-up manual control work for two years.

### **DISCUSSION**

October of 2019, the District adopted the Biodiversity, Fires, and Fuels Integrated Plan (BFFIP) which described the actions the District will implement to reduce wildfire hazards and to maintain and enhance ecosystem function. Under the BFFIP there are 27 management actions that are being implemented to fulfill the goals and approaches described in the plan. Vegetation management under the BFFIP aims to reduce fuel loads, maintain fuelbreak infrastructure, preserve defensible space, and reduce invasive weed species. Vegetation management is conducted continuously throughout the year with the chief goal of reducing fuel loads and maintaining the watershed's biological diversity. This contract will support the scaling up of vegetation management relating to invasive weed management and grassland restoration on the Mt. Tamalpais watershed.

The District has an active weed management program, focused mainly on broom and yellow starthistle, but with the adoption of the BFFIP has begun scaling up work on other species that threaten the integrity of high quality grasslands. The District's goal under the BFFIP for this work involves removal of targeted invasive from priority sites on the Mt. Tamalpais Watershed with a focus on areas with rare plant species. The identification, mapping, monitoring, and non-chemical control of these species—and the avoidance of nearby rare plant species—requires advanced plant identification skills, mapping, data management capacity and restoration planning expertise is beyond the current capacity of the brush removal and fuel load reduction



service providers currently under contract. As such, staff issued a request for proposal from four local habitat restoration and/or ecological consulting firms and received two responses.

Staff requests that the committee review and refer to the Board of Directors with recommendation to approve authorizing the General Manager to execute an agreement for Grassland Habitat Restoration Services in an amount not to exceed \$150,000 over two fiscal years.

#### **PROPOSAL SELECTION PROCESS**

Staff sent a request for proposals to four San Francisco Bay Area firms that were identified as having sufficient in-house expertise to address all of the components of the District's scope of work. Specifically, these service providers have staff qualified and skilled in advanced plant taxonomy, weed mapping including the use of the Calflora data management system, long range planning, project management, and grassland restoration. The four firms are H.T. Harvey & Associates, Recon Environmental, WRA, and Hanford ARC.

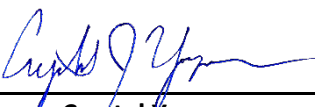

The District received two qualified proposals from Hanford ARC and WRA. The District's selection criteria included a demonstrated understanding of the work required, thoroughness of the proposal, technical expertise and qualifications of personnel identified to do the work—specifically with regard to weed identification, mapping, and manual control, demonstrated understanding of the regulatory environment as well as the District's policies and procedures for vegetation management, and an ability to commence work immediately after the execution of the contract. The successful proposal was WRA.

#### **FISCAL IMPACT**

Staff proposes a multi-year agreement with an approximately \$75,000 annually for a two year period with a not to exceed amount of \$150,000. Funding for this work is currently budgeted in Watershed Fund Centers 6750 & 6740 of the operational budget.

#### **ATTACHMENT(S)**

1. Grasslands Weed Management Contract MA 5911

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Watershed	 Crystal Yezman Director of System Maintenance and Natural Resources	 Ben Horenstein General Manager

Misc. Agreement No. 5911

## AGREEMENT FOR CONSULTING SERVICES

The following is an agreement between **Marin Municipal Water District**, hereinafter "District", and **WRA Inc**, hereinafter, "Consultant".

**WHEREAS**, Consultant is a duly qualified consulting firm, experienced with conducting invasive plant mapping and manual management.

**WHEREAS**, in the judgment of the Board of Directors of the District, it is necessary and desirable to employ the services of the Consultant for the purpose of conducting grassland habitat restoration and mapping as required under the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP) Management Actions 1 (annual update of invasive species mapping), 22 (treat new and existing patches of invasives), 24 (restore grassland health through reduction of high priority invasives), and 27 (conduct trials for difficult to control weeds).

**NOW, THEREFORE**, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

### PART A-- SPECIFIC PROVISIONS:

**1. DESCRIPTION OF SERVICES AND PAYMENT:** Except as modified in this agreement, the services to be provided and the payment schedule are:

- a. The scope of work covered by this agreement shall be that included in "**Attachment A**" of this agreement.
- b. The fee and fee payment for such work shall be as stipulated under the fee schedule included in "**Attachment B**" of this agreement and shall not exceed **\$150,000** in total.

### PART B-- GENERAL PROVISIONS

**1. ASSIGNMENT/DELEGATION:** Except as above, neither party hereto shall assign, sublet or transfer any interest in or duty under this agreement without written consent of the other, and no assignment shall be of any force or effect whatsoever unless and until the other party shall have so consented.

**2. STATUS OF CONSULTANT:** The parties intend that the Consultant, in performing the services hereinafter specified, shall act as an independent contractor and shall have the control of the work and the manner in which it is performed. The Consultant is not to be considered an agent or employee of District, and is not entitled to participate in any pension plan, insurance, bonus or similar benefits District provides its employees.

**3. INDEMNIFICATION:** District is relying on professional ability and training of the Consultant as a

material inducement to enter into this agreement. The Consultant hereby warrants that all its work will be performed in accordance with generally accepted professional practices and standards, as well as the requirements of applicable federal, state and local laws, it being understood that acceptance of the Consultant's work by District shall not operate as a waiver or release.

- a. Consultant expressly agrees to defend, indemnify and hold harmless District, its officers, agents, and employees from and against any and all loss, liability, expense, claims, suits and damages, including attorneys' fees, arising out of or pertaining or relating to Consultant's, its associates', employees', sub-consultants', or other agents' negligence, recklessness, or willful misconduct, in the operation and/or performance under this Agreement.
- b. With respect to all other than professional services under this agreement, Consultant shall indemnify, hold harmless, release and defend District, its officers, agents and employees from and against any and all actions, claims, damages, disabilities, liabilities and expenses, including attorney's and expert fees and witness costs that may be asserted by any person or entity, including the Consultant, arising out of or in connection with this agreement and the activities necessary to perform those services and complete the tasks provided for herein, but excluding liabilities due to the sole negligence or willful misconduct of District.

This indemnification is not limited in any way by any limitation on the amount or type of damages or compensation payable by or for the District or its agents under workers' compensation acts, disability benefit acts or other employee benefit acts.

**4. PROSECUTION OF WORK:** The execution of this agreement shall constitute the Consultant's authority to proceed immediately with the performance of this contract. Performance of the services hereunder shall be **completed by June 30, 2023**, provided, however, that if the performance is delayed by earthquake, flood, high water or other Act of God or by strike, lockout or similar labor disturbance ("Acts"), the time for the Consultant's performance of this contract shall be extended by a number of days equal to the number of days the Consultant has been delayed by such Acts.

**5. METHOD AND PLACE OF GIVING NOTICE, SUBMITTING BILLS AND MAKING PAYMENTS:** All notices, bills and payment shall be made in writing and may be given by personal delivery or by mail. Notices, bills and payments sent by mail should be addressed as follows:

**DISTRICT:** Marin Municipal Water District  
Attn. Laurie Offenbach  
Administrative Assistant  
220 Nellen Avenue  
Corte Madera CA 94925  
415.945.1184  
SAdams@marinwater.org

**CONSULTANT:** WRA Landscape Restoration, Inc.  
Attn. Rolland Mathers  
Project Manager/Foreman  
2169-G East Francisco Blvd.  
San Rafael, CA 94901  
415.454.8868  
mathers@wra-ca.com

and when so addressed, shall be deemed given upon deposit in the United States Mail, postage prepaid. In all other instances, notices, bills and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills and payments are to be given by giving notice pursuant to this paragraph.

**6. MERGER:** This writing is intended both as the final expression of the agreement between the parties hereto with respect to the included terms of the agreement, pursuant to California Code of Civil Procedure Section 1856 and as a complete and exclusive statement of the terms of the agreement. No modification of this agreement shall be effective unless and until such modification is evidenced by a writing signed by both parties.

**7. SEVERABILITY:** Each provision of this agreement is intended to be severable. If any term of any provision shall be determined by a court of competent jurisdiction to be illegal or invalid for any reason whatsoever, such provision shall be severed from this agreement and shall not affect the validity of the remainder of the agreement.

**8. TERMINATION:** At any time and without cause, the District shall have the right in its sole discretion, to terminate this agreement by giving written notice to the Consultant. In the event of such termination, District shall pay the Consultant for services rendered to the termination date.

In addition, if the Consultant should fail to perform any of its obligations hereunder, within the time and in the manner herein provided, or otherwise violate any of the terms of this agreement, District may terminate this agreement by giving the Consultant written notice of such termination, stating the reason for such termination. In such event, the Consultant shall be entitled to receive as full payment for all services satisfactorily rendered and expenses incurred hereunder, an amount which bears the same ratio to the total fees specified in the agreement as the services satisfactorily rendered hereunder by the Consultant bear to the total services otherwise required to be performed for such total fee, provided, however, that there shall be deducted from such amount the amount of damage, if any, sustained by District by virtue of the breach of the agreement by the Consultant.

**9. TRANSFER OF RIGHTS/OWNERSHIP OF DATA:** The Consultant assigns to District all rights throughout the work in perpetuity in the nature of copyright, trademark, patent, and right to ideas, in and to all versions of any plans and specifications, reports, video tapes, photographs, and documents now or later prepared by the Consultant in connection with this contract.

The Consultant agrees to take such actions as are necessary to protect the rights assigned to District in this agreement, and to refrain from taking any action which would impair those rights. The Consultant's responsibilities under this contract will include, but not be limited to, placing proper notice of copyright on all versions of plans and specifications, reports and documents as District may direct, and refraining from disclosing any versions of the reports and documents to any third party without first obtaining written permission of District. The Consultant will not use, or permit another to use, any plans and specifications, reports and documents in connection with this or any other project without first obtaining written permission of District.

All materials resulting from the efforts of District and/or the Consultant in connection with this project, including documents, reports, calculations, maps, photographs, video tapes, computer programs, computer printouts, digital data, notes, and any other pertinent data are the exclusive property of District. Reuse of these materials by the Consultant in any manner other than in conjunction with activities authorized by District is prohibited without written permission of District.

**10. COST DISCLOSURE:** In accordance with Government Code Section 7550, the Consultant agrees to state in a separate portion of any report provided District, the numbers and amounts of all contracts and subcontracts relating to the preparation of the report.

**11. NONDISCRIMINATION:** The Consultant shall comply with all applicable federal, state and local laws, rules and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex, marital status, age, medical condition or physical handicap.

**12. EXTRA (CHANGED) WORK:** Extra work may be required. The Consultant shall not proceed nor be entitled to reimbursement for extra work unless that work has been authorized, in writing, in advance, by District. The Consultant shall inform the District as soon as it determines work beyond the scope of this agreement may be necessary and/or that the work under this agreement cannot be completed for the amount specified in this agreement. Failure to notify the District shall constitute waiver of the Consultant's right to reimbursement.

**13. CONFLICT OF INTEREST:** The Consultant covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. The Consultant further covenants that in the performance of this contract no person having any such interest shall be employed.

**14. INSURANCE:** The Consultant shall obtain insurance acceptable to District in a company or companies with a Best's rated carrier of at least "A". The required documentation of such insurance shall be furnished to District at the time the Consultant returns the executed contract. The Consultant shall not commence work nor shall it allow its employees or subcontractors or anyone to commence work until all insurance required hereunder has been submitted and approved.

The Consultant shall have and maintain at all times during the life of this agreement, up to the



date of acceptance, the following policies of insurance:

- a. Workers' Compensation Insurance: Workers' Compensation Insurance to cover its employees, as required by the State of California, and shall require all subcontractors similarly to provide Workers' Compensation Insurance as required by the Labor Code of the State of California for all of the subcontractors' employees. All Workers' Compensation policies shall be endorsed with the following specific language:

"This policy shall not be canceled without first giving thirty (30) days prior notice to District, Attn: Sherry Adams, by regular or certified mail."

The Workers' Compensation Insurance self-insured deductibles and retentions for both the Consultant and its subcontractors shall not exceed \$1,000.

- b. Public Liability Insurance: Personal Injury (including bodily injury) and Property Damage Insurance for all activities of the Consultant and its subcontractors arising out of or in connection with this agreement, written on a commercial general liability form which provides coverage at least as broad as ISO Commercial General Liability Occurrence Form CG 00 01 11 85 or 88 or any subsequent revision or equivalent including benefit contractual coverage, completed operations coverage, Consultant's protective coverage, and automobile coverage. The automobile coverage should be at least as broad as ISO Business Auto Form CA001 edition 187 or equivalent including employer's non-ownership liability. All deductibles or self-insured retentions shall not exceed \$1,000. Coverage in an amount not less than \$1,000,000 combined single limit personal injury, including bodily injury, and property damage for each occurrence is required. Each such policy shall be endorsed with the following language:

1. The Marin Municipal Water District, its officers, agents, employees and volunteers are additional insureds under this policy.
2. The insurance shall be primary as respects the insured shown in the schedule above.
3. The insurance afforded by this policy shall not be canceled except after thirty days prior written notice by certified mail return receipt requested has been given to the District.
4. The referenced policy does not exclude explosion, collapse, underground excavation hazards or removal of lateral support.
5. The inclusion of more than one insured shall not operate to impair the right of one insured against another insured, and the coverage afforded in the policy shall apply as though separate policies had been issued to each insured.

Consultant's policy shall be endorsed with "**Attachment C** "- Additional Insured Endorsement" form.

The General Aggregate Limits of Insurance in the referenced policies apply separately to this project.

- c. Professional Liability Insurance: The Consultant shall procure and maintain throughout the term of this agreement, Professional Liability Insurance in an amount not less than \$1,000,000. All insurance deductibles or self-insured retentions shall not exceed \$5,000. All Professional Liability Insurance policies shall be endorsed with the following specific language:

- (i) This policy shall not be canceled without first giving thirty (30) days prior notice to District by certified mail.

- d. Documentation: The following documentation of insurance shall be submitted to District:

- (i) A Certificate of Insurance for Workers' Compensation Insurance for Consultant. A copy of the required policy endorsements specified in subparagraph a. shall be attached to each such Certificate submitted.

- (ii) Certificates of Liability Insurance showing the limits of insurance provided. Copies of the required endorsements specified in subparagraphs b. and c. shall be attached to each Certificate submitted.

- e. Consultant hereby grants to District a waiver of any right to subrogation which any insurer of said Consultant may acquire against the District by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not District has received a waiver of subrogation endorsement from the insurer.

**15. DISPUTE RESOLUTION:** Any dispute or claim in law or equity between District and Consultant arising out of this agreement, if not resolved by informal negotiation between the parties, shall be mediated by referring it to the nearest office of Judicial Arbitration and Mediation Services, Inc. (JAMS) for mediation. Each party shall provide the others with a list of four mediators. The parties shall confer on the list and select a mutually agreeable mediator. Mediation shall consist of an informal, non-binding conference or conferences between the parties and the judge-mediator jointly, then in separate caucuses wherein the judge will seek to guide the parties to a resolution of the case. If the parties cannot agree to a mutually acceptable member from the JAMS panel of retired judges, a list and resumes of available mediators with substantial experience in mediating claims of the type at issue between the parties, numbering one more than there are parties, will be sent to the parties, each of whom will strike one name leaving the remaining name as the mediator. If more than one name remains, JAMS arbitrations administrator will choose a mediator from the remaining names. The mediation process shall continue until the case is resolved or until such time as the mediator makes a finding that there is no possibility of resolution.

At the sole election of the District, any dispute or claim in law or equity between District and Consultant arising out of this agreement which is not settled through mediation shall be decided by neutral binding arbitration and not by court action, except as provided by California law for judicial review of arbitration proceedings. The arbitration shall be conducted in accordance with the rules of Judicial Arbitration Mediation Services, Inc. (JAMS). The parties to an arbitration may agree in writing to use different rules

and/or arbitrators.

**16. BILLING AND DOCUMENTATION:** The Consultant shall bill District for work on a monthly or agreed upon basis or as articulated in Attachment B and shall include a summary of work for which payment is requested. The summary shall include time and hourly rate of each individual, a narrative description of work accomplished, and an estimate of work completed to date.

**17. REASONABLE ASSURANCES:** Each party to this agreement undertakes the obligation that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise, with respect to performance of either party, the other may, in writing, demand adequate assurance of due performance and until the requesting party receives such assurance may, if commercially reasonable, suspend any performance for which the agreed return has not been received. "Commercially reasonable" includes not only the conduct of the party with respect to performance under this agreement but also conduct with respect to other agreements with parties to this agreement or others. After receipt of a justified demand, failure to provide within a reasonable time, not to exceed 30 days, such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of this agreement. Acceptance of any improper delivery, service, or payment does not prejudice the aggrieved party's right to demand adequate assurance of future performance.

**WRA Landscape Restoration, Inc.**

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Rolland Mathers, Project Manager/Foreman

**MARIN MUNICIPAL WATER DISTRICT**

Dated: \_\_\_\_\_

By: \_\_\_\_\_  
Bennett Horenstein, General Manager

## ATTACHMENT A

**WRA Landscape Restoration, Inc.**  
**SCOPE OF SERVICES**  
**MARIN MUNICIPAL WATER DISTRICT**  
**Grassland Habitat Restoration Work 2021-2022**

### **1.0 INTRODUCTION AND BACKGROUND**

Marin Municipal Water District (MMWD) lands include nearly 22,000 acres of Mt. Tamalpais and lands adjacent to Nicasio and Soulajule Reservoirs. These lands are home to some of Marin County's most valuable natural resources, including the major sources of domestic water for MMWD customers. These lands are held in trust as a natural wildland of great biological diversity, as scenic open space, and as an area for passive outdoor recreation for residents of Marin and much of the rest of the Bay Area. **Herbicide use is currently not allowed on MMWD lands.**

MMWD lands support over 1,000 species of plants, over 200 of which are non-native, and over 100 of which are considered invasive. Hundreds of acres of manual control work—primarily on brooms and star thistles—is performed annually by contractors and district staff. In 2019 the district expanded this work to explicitly and systematically include control efforts of grassland weeds. Presented below are summary descriptions of the primary target sites:

- **Carson Meadow** is a 20-acre meadow south of the junction of Conifer Fire Road and San Geronimo Ridge Rd. It has been actively managed for harding grass and velvet grass for the past two years. One endangered plant grows at the edge of the grassland, and three others in the adjacent serpentine chaparral. The current work focuses on continued control of these two species.
- **Bolinas ridge** tops an extensive grassland on the west facing slope. It falls almost entirely outside of MMWD lands, however the Bolinas Ridge fire road passes through our land and has a population of rosy sand crocus. This will be the initial treatment for this species in this location.
- **Carson Ridge and Azalea Hill** are serpentine grasslands adjacent to Bolinas-Fairfax Road. These areas have approximately 5 sparse acres of barbed goatgrass that have been worked annually for over 10 years, and populations of 10 rare plant species.
- **Yolanda Trail** is a trail through a grassland-chaparral complex between Deer Park and Phoenix Lake with 3 acres of cheatgrass in two patches which has been treated annually since 2019.
- **Mill Valley Air Force Base** is a decommissioned military base at the top of Mt. Tamalpais with serpentine outcrops, chaparral, and grassland with two acres of scattered cheatgrass patches, which has been treated annually since 2016. In addition both yellow starthistle and purple starthistle have been treated annually at this site for over 10 years.
- **Potrero Meadow** is a native-dominated grassland at 2,000' in elevation with 3 rare plants that has been invaded by tall fescue and velvet grass. The assignment here is *not* wholesale eradication, rather targeted removal directed by staff as part of a pilot project.
- **Lagunitas Meadow** is a native-dominated grassland with 5 rare plants. In 2017 and 2019 dallis grass and velvet grass were mapped and removed. Dallis grass was found on about ½ acre spread across the site, and velvet grass was found diffusely across 8 acres. The task is to resume treatment of these two perennials.
- **Nicasio Island** is a remote site with several rare plants. An estimated 2.5 acres has been invaded with medusahead grass, this will be the initial treatment

The sites and amount of work to be done under this scope are represented by estimated acreages as set forth above. The estimated quantities represent the district's best estimate of anticipated work, and are specified primarily for bidding purposes only. The district does not expressly or by implication guarantee that the actual amount of work or sites will correspond to the estimated amounts.

## **2.0 GENERAL SCOPE OF WORK**

The consultant shall provide all labor, equipment and material necessary to perform all work defined in the scope of work and deemed necessary by MMWD. Work shall be performed in calendar years 2021 and 2022, and must be completed by November 30, 2022. The scope of work shall include, but is not limited to, the following tasks, completed each FY.

### **TASK 1 – Project Management**

- Provide overall project management and maintain effective communications with MMWD's project administration staff.
- Prepare detailed work plan. The work plan serves as both a project procedures manual to govern day to day direction, and as a detailed guidebook for completion including schedules, budgets, resource utilization, and information management systems.
- Track and monitor project budget and schedules.
- Prepare monthly invoices and progress reports. The monthly progress reports will summarize the work performed during the month, work to be completed in the next month, and statements of schedule and budget status.
- Attend kickoff meeting. Topics of discussion will include communications, schedule of meetings, project schedule, reliability requirements, and coordination between all parties.

**Deliverables:** work plan, project team directory, meeting minutes summarizing decisions and follow-up actions, monthly invoices, monthly progress reports, and kickoff meeting.

### **TASK 2 – Weed Mapping and Management**

The consultant will map and control invasive plants and track all management activities. Best Management Practices for preventing the spread of invasive species and pathogens will be followed, as outlined in MMWD's Biodiversity Fire and Fuels Integrated Plan, Appendix F, available here: <https://www.marinwater.org/vegetation>

#### **Task 2.1: Review background materials and data**

The consultant will review relevant district mapping already in Calflora.

#### **Task 2.2: Weed control and tracking**

The consultant will conduct weed control, map populations—including cover and phenology data—that are under management, and track labor.

**Deliverables:** Calflora records or shapefiles of target populations reflecting treatment status; invoices as noted in Task 1.



## Project Schedule

Year	Time Frame	Task	Project Site/Event	Labor Title	Estimated Hours	Description
2021	February	1	Kick-Off	Foreman	8	Project kick-off with District. Submittals: Work Plan, Project Team Directory, Work Performed report format.
				Botany Tech	4	
		1	Work Planning	Foreman	8	Inspect sites and assemble site specific plans. Review plans and schedule with District.
				Botany Tech	8	
		2.1	Review Background Materials	Foreman	8	Review existing Calflora data for project sites.
				Botany Tech	8	
	February - March	2.2	Yolanda Trail	Foreman	74	Cheatgrass control and Calflora data entry
				Botany/Restoration Tech	144	
		1	Project Management	Foreman	11	Project review, future planning, and invoicing
	March-April	2.2	Bolin Ridge	Foreman	25	Rosy sand crocus control and Calflora data entry
				Botany/Restoration Tech	50	
	April - May	2.2	Nicasio Island	Foreman	33	Medusahead grass control and Calflora data entry
				Botany/Restoration Tech	64	
		2.2	Carson Ridge/ Azalea Hill	Foreman	33	Barbed goatgrass control and Calflora data entry
				Botany/Restoration Tech	64	
		2.2	Mill Valley AFB	Foreman	17	Cheatgrass control and Calflora data entry
				Botany/Restoration Tech	32	
		1	Project Management	Foreman	11	Project review, future planning, and invoicing
	June/July	2.2	Lagunitas Meadow	Foreman	33	Dallis grass and velvet grass control and Calflora data entry
				Botany/Restoration Tech	64	
		2.2	Potrero Meadow	Foreman	17	Tall fescue and velvet grass control and Calflora data entry
				Botany/Restoration Tech	32	
		2.2	Carson Meadow	Foreman	17	Harding grass and velvet grass control and Calflora data entry
				Botany/Restoration Tech	32	
		2.2	Mill Valley AFB	Foreman	41	Starthistle control and Calflora data entry
				Botany/Restoration Tech	80	
		1	Project Management	Foreman	11	Project review, future planning, and invoicing

2022	February	1	Kick-Off	Foreman	8	Project kick-off with District. Submittals: Work Plan, Project Team Directory, Work Performed report format.
				Botany Tech	2	
		1	Work Planning	Foreman	8	Inspect sites and assemble site specific plans. Review plans and schedule with District.
				Botany Tech	8	
	February - March	2.2	Yolanda Trail	Foreman	71	Cheatgrass control and Calflora data entry
				Botany/Restoration Tech	144	
		1	Project Management	Foreman	11	Project review, future planning, and invoicing
	March-April	2.2	Bolin Ridge	Foreman	25	Rosy sand crocus control and Calflora data entry
				Botany/Restoration Tech	64	
	April - May	2.2	Nicasio Island	Foreman	33	Medusahead grass control and Calflora data entry
				Botany/Restoration Tech	64	
		2.2	Carson Ridge/ Azalea Hill	Foreman	33	Barbed goatgrass control and Calflora data entry
				Botany/Restoration Tech	64	
		2.2	Mill Valley AFB	Foreman	17	Cheatgrass control and Calflora data entry
				Botany/Restoration Tech	32	
		1	Project Management	Foreman	11	Project review, future planning, and invoicing
	June/July	2.2	Lagunitas Meadow	Foreman	33	Dallis grass and velvet grass control and Calflora data entry
				Botany/Restoration Tech	64	
		2.2	Potrero Meadow	Foreman	17	Tall fescue and velvet grass control and Calflora data entry
				Botany/Restoration Tech	32	
		2.2	Carson Meadow	Foreman	16	Harding grass and velvet grass control and Calflora data entry
				Botany/Restoration Tech	32	
		2.2	Mill Valley AFB	Foreman	40	Starthistle control and Calflora data entry
				Botany/Restoration Tech	80	
		1	Project Management	Foreman	11	Project review, project summary and invoicing

## ATTACHMENT B COST ESTIMATES

2021 Task 1. Project Management				
Role	Tasks	2021 Rate	Anticipated Hours	Anticipated Total Project Cost
Foreman	Coordinating field work, weed work, training, monthly reporting, invoicing	\$88	40	\$3,520
Botanist Technician	Work planning support	\$67	12	\$804
<b>Task Subtotal</b>			<b>63</b>	<b>\$5,919</b>
2021 Task 2.1 Review Background Materials and Data				
Role	Tasks	2021 Rate	Anticipated Hours	Anticipated Total Project Cost
Foreman	Review background material	\$88	8	\$704
Botanist Technician	Review background material	\$67	8	\$536
<b>Task Subtotal</b>			<b>16</b>	<b>\$1,240</b>
2021 Task 2.2 Weed control and tracking				
Role	Tasks	2021 Rate	Anticipated Hours	Anticipated Total Project Cost
Foreman	Weed work, CalFlora reporting	\$88	280	\$24,640
Botanist Technician	Weed work, training, CalFlora reporting	\$67	140	\$9,380
Restoration Technician	Weed work	\$67	420	\$28,140
Expenses	Mileage, debris bags			\$5,350
<b>Task Subtotal</b>			<b>840</b>	<b>\$67,510</b>
<b>2021 TOTAL</b>				<b>\$74,669</b>
2022 Task 1. Project management				
Role	Tasks	2022 Rate	Anticipated Hours	Anticipated Total Project Cost
Foreman	Coordinating field work, weed work, training, monthly reporting	\$91	34	\$3,094
Botanist Technician	Work planning support	\$69	10	\$690
<b>Task Subtotal</b>			<b>63</b>	<b>\$5,128</b>
2022 Task 2.2 Weed control and tracking				
Role	Tasks	2022 Rate	Anticipated Hours	Anticipated Total Project Cost
Foreman	Weed work, CalFlora reporting	\$91	280	\$25,480
Botanist Technician	Weed work, training, CalFlora reporting	\$69	140	\$9,660
Restoration Technician	Weed work	\$69	420	\$28,980
Expenses	Mileage, debris bags			\$5,350
<b>Task Subtotal</b>			<b>840</b>	<b>\$69,470</b>
<b>2022 TOTAL</b>				<b>\$74,598</b>
<b>Grand Total</b>				<b>\$149,267</b>

## ATTACHMENT C

### ADDITIONAL INSURED ENDORSEMENT

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage: Policy# \_\_\_\_\_

Policy Period \_\_\_\_\_

Automobile Liability: Policy# \_\_\_\_\_

Policy Period \_\_\_\_\_

**INSURED:** Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

#### **SCHEDULE**

The Marin Municipal Water District, its officers, officials, agents, employees and volunteers (District).

#### **WHO IS AN INSURED**

Is amended to include as an insured the organization shown in the schedule above.

1. The insurance shall be primary concerning the insured shown in the schedule above.
2. The insurance afforded by this policy shall not be cancelled except after thirty days prior written notice by certified mail return receipt requested has been given to the District.
3. The referenced policy does not exclude explosion, collapse, underground excavation hazards or removal of lateral support.
4. The inclusion of more than one insured shall not operate to impair the right of one insured against another insured, and the coverage afforded in the policy shall apply as though separate policies had been issued to each insured.

#### **Authorized Insurance Representative**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name and Title

Rev. 7-25-06