### TRINITY RIVER WATERSHED COUNCIL

#### Mission Statement

To protect, enhance, restore and revitalize the watershed through collaborative efforts that leverage external resources, work toward common goals, educate and engage community stakeholders, address natural resource issues, and support healthy ecosystems for future generations.

#### **MEETING MINUTES**

Tuesday, March 8<sup>th</sup>, 2022 Zoom, 10:00AM – 12:00PM

#### 1. 10:00-10:10 Introductions

#### In Attendance:

- Nathan McCanne WRTC
- Cindy Buxton WRTC
- Amelia Fleitz TCRCD
- Maya Williams TCRCD
- Nicole Eastman TCRCD
- Molly Breitmun TCRCD
- Patrick Flynn Trinity County
- Kate Blanchard CDFW
- David Colbeck TC
- Chad Martel Hoopa
- Tiffany Perez NRCS
- Tracy McFaddin WRTC
- Qwalen WRTC
- Ellen McGahee WRTC
- Sandra Perez 5 Cs
- 2. 10:10-10:15 Additions/Changes
  - Should recordings of meetings be published?
    - Members who have attended previously may have voting rights at these meetings, check in about your voting status
    - Meetings will be taking place with both in person and virtual options starting this fall
- 3. 10:15-10:20 Discussion: Drought planning
  - o CA Senate Bill 552
  - O Trinity county water security and conservation group started by Amelia Fletiz in 2021 from July to November to acknowledge projects and things being seen around the watershed. Meetings will be starting in April due to low flows.
- 4. 10:20-10:50 Presentation: Upper Trinity Watershed Management Plan WRTC and TCRCD
  - Presented by Cindy Buxton WRTC, Nicole Eastman TCRCD Grizzly Corps Members
  - Recent grants received for upper trinity watershed analysis

- Galen Anderson USFS
- Kelly Sheen TCRCD
- Leslie Hubbard
- Liam Gogan
- Eric Wiseman USFS
- Ana Wright Flowra
- Andy Hill CDFW
- Monique Rea USFS
- Josh Smith WRTC
- Pat Frost TC
- Leroy Cyr USFS
- Erin Taylor NRCS
- Kyle DeJulio Yurok
- Natasha Braziel BLM
- Mike Dixon TRRP
- Amy Cambell TNC
- James Bettaso USFS
- Sam Chilcote

- Variety of ownerships and stakeholders includes trinity alps wilderness and trinity lake
- Has suffered legacy impacts: mining, fire suppression, logging, roads
- Joint effort between WRTC and TCRCD
- TCRCD Plan: increase water security and watershed resiliency, reduce high severity fire risk, funding through 2023
  - Examining BDA sustainability in upper trinity, will begin ground truthing habitat suitability
  - Will be hosting meeting in June w/ community members from the north lake area
  - Potential future projects: BDA installation, mining restoration, forest thinning, and forest management for greater snow retention

#### WRTC

- WRTC BOR WaterSmart grant
  - Improve forest health and protect reliability of water supplies through landscape scale watershed restoration planning
    - Literature review, LiDAR Based modeling (meadows, roads, and forest health), Field verification, project identification and prioritization.
    - Terrainworks NetMap
      - In the process of figuring out funds to purchase this model suit
      - Takes LiDAR that models of fluvial processes, aquatic habitats, riparian zones, erosion, roads, and wildfire and climate change, wetlands
      - In collaboration with Klamath meadows partnership and Karen Pope from the Redwood Sciences Lab
      - Justin Garwood is providing a list of wetland sites within the Klamath Mountains that will help Karen with her work

#### Analysis

- Wet meadow classification and condition
- Legacy road sediment site identification
- Both needing field verification
- Outreach to community
  - Engage Upper Trinity Stakeholders
    - Figure out community needs
    - Project prioritization and support
    - Retain Upper Trinity representation in the TRWC
- Facilitate local community involvement and collaboration to identify critical needs, potentially solutions, and prioritize watershed restoration projects relating to water resources
- Expires Dec 2023, one year after the TCRCD's grant expires
- Questions

- Roads were identified in the BRAT model since beavers are more likely to establish further from roads
  - There is no plan to change road infrastructure
  - TCDOT is interested in interested in partnering if road alteration needs to occur
- Trinity Alps Transportation Study
  - County and USFS identified roads that are in the Upper Trinity Watershed area
- Literature List can be shared among interested parties and the presentation, potentially on the TRWC website.
- County has the obligation to reclaim mine if landowner or if a mine goes out of business
  - Let Patrick Flynn know if anything like this occurs
  - TCDOT is also interested in restoration and reclamation of mining.
- 5. 10:50-11:00 Updates on Upcoming Grants
  - Presented by Tracy McFadin WRTC
  - Has put together spreadsheet with grants relevant to local organizations
  - O NFW 2022 Klamath Basin Coho Restoration Program
  - US Bureau of Reclamation Water Smart Cooperative Management, WaterSmart drought contingency planning, WaterSmart small scale water projects
  - O CA fish and wildlife fisheries restoration grant program
  - O North Coast Resource Partnership Integrated Regional Water Management
  - o Partnerships for Climate Smart Commodities USDA
- 6. 11:00-12:00 Round Robin Updates
  - A representative from each organization will have time to update the council on current projects and activities.

#### • 5 Cs – Sandra:

- Sydney Gulch, restoring fish passage and improving instream habitat. Will have design finished this year, but waiting on USFS for implementation
- Lee Fong park, design is 90% complete. Looking into making a public meeting with parks and recreation for public input. Fish habitat structures
- Partner with BLM to figure out conditions of streams on BLM lands, started 6-7 years ago. Looking to find fish presence and inventorying stream condition
- Pursuing funds to East branch and east weaver watershed
  - i. Have dam removal project, hoping to implement this summer
  - ii. Fish passage improvement
  - iii. Looking to put in a storage and forbearance systems
- O Browns creek watershed Community Watershed Management plan, mostly finished except for Muriel who will continue to work with WRTC.
- O Assist community in the coffee creek area with wildfire and slide damage
- O Deadwood 1 phase of implementation from fire damage and road upgrades
- Migration improvement design phase in upper Deerlick springs area
- BLM
  - Fuels mitigation projects
- CDFW Andy hill,

- o last steelhead spawn day at TRH,
- o state listing of spring chinook may impact surveys.
- Kate Blanchard
  - Yurok and WRTC SFTR wood loading project
  - o 5Cs permitting on the east weaver creek dam removal
  - o PUD Wildfire resilience EIR
  - Statutory exemption for small habitat improvement projects: only place that it has worked in Mendocino county
    - i. Expires in 2025, potentially in "testing phase" might get reapproved
- Down River Solutions Marie
  - O LSAs and 401s, getting close to implementation
    - i. Bridge replacements
    - ii. Pond decommissioned
    - iii. Culvert removal
    - iv. Partnering with heavy equipment operators
  - O Post mountain planting on a class 3 stream.
  - Work with WRTC with riparian planting projects
  - o Improving 30 stream crossings in 1 HUC12 watershed in the Eel River.
- Hoopa Valley Tribal Fisheries Chad Martel
  - O Rotary screw trap is installed since mid-January just upstream of the North Fork
  - Supply creek, removal of 750 feet of berm following 64 flood put 250 feet of side channel
  - Fish passage design for juveniles and adults Soctish Creek
- NRCS Tiffany
  - O SHPO clearance granted to start to begin debris flow clean up effort in coffee creek.
- Trinity County DOT David
  - Lots of fire recovery work
  - O Dealing with 2017 floods
  - Bridges in design
    - i. Bridge for East Fork Hayfork Creek
    - ii. Fawn lodge bridge
    - iii. Corral Bottom Bridge
    - iv. Wildwood road
  - Figuring out design and logistics of a Pedestrian bridge going from Lowden park to lance gulch road
  - Sydney gulch veg program
  - Oregon street culvert
  - Lorenz bridge improvement
  - East Branch and East Weaver Road crossing is still being designed, probably wont be implemented until 2023
  - New cannabis division director and a greater capacity to handle cannabis related things within county staff
- Trinity County Planning Department Patrick
  - Heliwood project SFTR project with WRTC
    - i. Floodplain and other permits
  - O Oregon gulch channel rehab moving forward in permitting

- i. 350000 yards of tailings down to the trinity river to eagle rock
- ii. Implementation occurring this year
- Oregon gulch culvert replacement
  - Finding funds and figuring out design with several partners including the Yurok
     Tribe, NOAA, and CDFW
- Director Lozier hoping to start the general plan update
- TCRCD Amelia and Maya
  - O Roads Amelia
    - i. Cynthia is working on many roads projects
      - 1. August complex and McFarland
      - 2. Might get to some Weaverville community forest items this year
      - 3. Federal and OHV funds
  - Watershed department Amelia
    - i. Riparian project and forest health management plan for the Travis ranch conservation easement
      - 1. Will span for 2-3 years
    - ii. Project BDA within the Weaverville community forest
    - iii. West Weaver diversion enhancement
      - 1. Still looking for funds on top part
      - 2. Ditch line
    - iv. Temp and flow monitoring for USFS
    - v. Program that gives private land owners native plants for removing invasive weeds from their property. This is being built this year, and will be available shortly
    - vi. Trinity county water security and conservation meetings
      - 1. March 21<sup>st</sup> or 22<sup>nd</sup> to start date
      - 2. What agencies can offer communities and where there are gaps
    - vii. Updating downriver and southern section of community wildfire protection plan due to august complex and Monument fire
    - viii. Trinity county hazard and mitigation plan in 2023
    - ix. update Trinity County wildfire community protection plan for the 2025 update in 2024
    - x. Moon Lee ditch Molly
      - 1. Young Family Ranch pre-approved to an NRCS cost share
        - Segment between Young Family Ranch and the Weaverville community service district
      - 2. Moves an open water ditch into a closed pipeline
  - O Education and Outreach Maya
    - i. March 19th Broom pull at Bucktail
    - ii. Science on Tap: event on every 4<sup>th</sup> Wednesday from 6-7pm at the Trinity County Brewery
    - iii. July 30<sup>th</sup>: free float on the river to learn about restoration projects on the Trinity River
    - iv. October 1st: Salmon festival
    - v. Trinity river clean up tentatively on June 25<sup>th</sup> to get it out of fire season.
- TRRP Mike Dixon
  - O This is the third consecutive critically dry year. Before there had only ever been two consecutive critically dry years

- Trinity Reservoir
  - i. 400,000 acre feet anticipated to be met in late summer
  - ii. Trying to figure out how to manage flows and spread it as efficiently as possible for the fall spawning period
- DOI and USFWS are looking at applications with more scrutiny, and applications should be very solid before sending them in.
- NFWIF partnership should have grants turned in by May and funds delivered by September
- Fire suppression repair with BLM
  - i. Monument fire footprint
    - 1. Incomplete fire suppression repair to reduce sediment damage
- Oregon gulch
  - i. Channel rehab project could take 3-4 years
  - ii. and culvert replacement
- Gravel augmentation
  - i. Middle and upper trinity river needs more spawning habitat
- Sky Ranch Project
  - i. Relocate the boat launch and public facilities improvement.
  - ii. Lower floodplain
- ST USFS
  - o Fisheries Eric
    - i. SFTR Heliwood project partnering with WRTC
    - ii. Tree tipping in Forest Glenn area
    - iii. Post Fire projects
      - 1. August Complex Phase 1
        - a. Mostly timber sale, not too much restoration besides the Forest Glenn
        - b. Some planting occurring
      - 2. August Complex Phase restoration project
        - a. Commercial component with lots of planting
        - b. Not much fisheries or hydrologic work due to lack of fish presence in project area
      - 3. McFarland
        - a. SF Goods creek in planning phases
          - i. Inventorying site conditions
    - iv. Mostly dealing with land management, relying on partnerships to implement restoration
  - Hydrology Galen
    - i. Looking into McFarland suppression repair needs and roads improvements
    - ii. North Fork Coffee Creek lost a bridge that will need to be replaced
    - iii. August complex recovery is getting a lot of funds
      - 1. Might get a meadow restored
    - iv. Interested in helping with BDA implementation
      - 1. Ordering a new post pounder that partners can use.
  - Hydro and fisheries struck out on hiring seasonal technicians. They will be leaning on partnerships to get fieldwork done

- SPI Keith
  - Monument fire
    - i. Assessing and fixing post fire road impacts this year
  - River complex
    - i. Also assessing and fixing post fire road impacts
    - ii. Less of a concern since it's above the lake
    - iii. Saw less fire rehabilitation than the monument
- SRF Mike
  - Largest Salmonid Conference in California will be held in person this year from April 19<sup>th</sup>-22<sup>nd</sup> in Santa Cruz
  - o Erosion and Sediment Control Field School at Indian Creek Lodge June 13-15
- WRTC Josh
  - Salt creek floodplain restoration project
    - i. Modified stage zero project that will remove levies and raise the streambed
    - ii. Hoping to recharge the aquifer
    - iii. Working on the 65% plans
  - o Browns Creek Community Water Management plan
    - i. In a new outreach and design phase
    - ii. Looking into environmental flow needs
    - iii. Storage and forbearance tank set ups
      - 1. 2 complete set ups, 2 more are in the process of being built, and there are enough funds for one more set up
  - Indian valley restoration project
    - i. Heavily dewatered valley
    - ii. Shifted focus to Corral gulch
      - 1. Full stage zero full wet meadow designs are finish and out for scoping
  - SFTR Heliwood
    - i. Collaborating
    - ii. Up from Forest Glenn, in the heart of the spring chinook zone
    - iii. Design is nearly done
      - 1. Yarder placement on private land
      - 2. Helicopter placement over a larger area
    - iv. Riparian planting near oak street and at Riverview
      - 1. Looking into new sites within the hayfork valley
    - v. West Tule Creek fish passage project
      - 1. Working with private landowner to keep flows up
      - 2. 100% design has been finalized for a new fish screen and new diversion
        - Figuring out if there is currently enough funds, or if more are needed
  - Barker Creek road project
    - i. Assessment and community outreach
    - ii. Later goal to set up projects to limit erosion
  - Lidar Assessment of Hayfork creek to look for new projects
  - Upper Hayfork creek fish ladder assessment
    - i. Large concrete fish ladder is falling apart and impeding at least lamprey passage if not more for
- Yurok Leslie and Kyle

- Construction this season
  - i. Oregon Gulch
    - 1. Largest project this season and for the next several years
- Ongoing planning and design projects
  - i. SFTR Heliwood with WRTC
  - ii. Weaver Creek
    - 1. A lot of potential for fisheries habitat in Weaverville
- Many projects outside of the county
- o Interested in long-term efficacy of restoration projects
  - i. Not sure how this will look like, but ideally will be funded by bipartisan laws
- o Grants
  - i. Year 1 of Klamath funding from USFWS
    - 1. Landscape scale strategy
  - ii. Cannabis restoration grant program
    - 1. Qualified cultivator program
- o Partnerships
  - i. Wanting to expand and keep partnerships in good standings
  - ii. Having tribal status can help with some grants and they're receptive to collaborating to help secure funding
- O Initiating downstream migrant trap at the end of march
- O Grass valley creek carcass placement is wrapping up
- O Acquiring 40 mile bathometry?? Lidar compliment this spring and summer
- O Increase in data acquisition
- Fish and Game Commission Sam and Mike
  - Emma is the new secretary
  - Beaver letter, needed more analysis and through due to dam operations
  - o meeting advisory tomorrow
  - Sam Chilcote is leaving the commission
  - O There are existing vacancies and a need for new members
    - i. Here is a link to their website: Commission
- 7. Next Meeting: September 13<sup>th</sup>, 2022 10:00AM 12:00PM

## **Upper Trinity Assessment**

TCRCD and WRTC
Funding by CA DOC and BOR WaterSmart

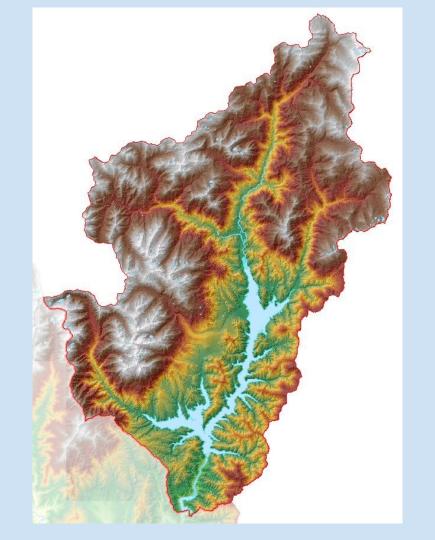
## **Upper Trinity**

459,347 acres

32 % Wilderness

Fisheries- non anadromous

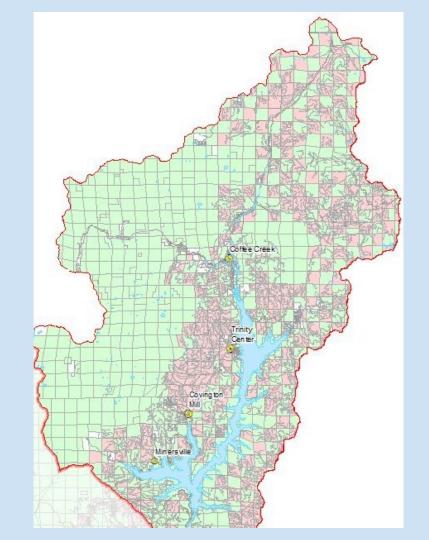
**Above Trinity Dam** 





## **Upper Trinity**

- Ï Checkerboard ownership
  - Ë Industrial Logging
  - Ë USFS: TRMU, SMMU, NRA
  - Ë Small communities
- ï Community water
  - Ë CSDs and private
- Ü Central Valley Project
  - Ë Water storage
  - Ë Water diversion to CVP
- Î Legacy Impacts
  - Ë Mining
  - Ë Fire Suppression
  - Ë Roads





# TCRCD DOC Grant: Upper Trinity River Watershed Assessment Plan

**Goal**: Increase water security and watershed resilience in the Upper Trinity River watershed at the stream and landscape levels

Ï Expires January 2023





## **Literature Review**

- **Evaluation of previous analyses** 
  - Ë Upper Trinity River Watershed Analysis (USFS 2005), Sediment Source Analysis (TCRCD 2006), Gap and Trend Analysis for the Tributaries (TCRCD 2019)

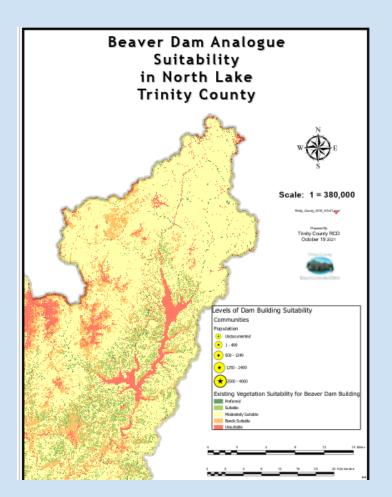
- **Historical Information**
- Restoration Planning





## **BRAT Model**

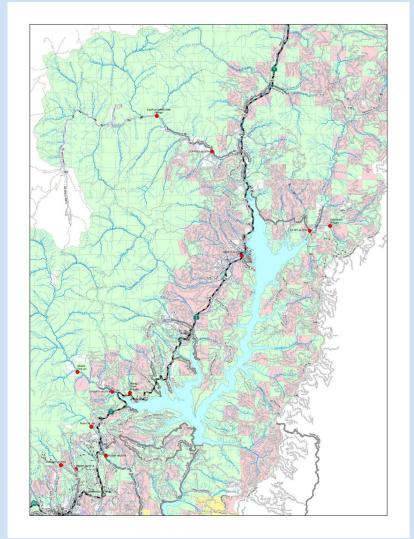
- Beaver Restoration Assessment Tool
- Ϊ 5 main criteria:
  - Ë Perennial water source
  - Ë Availability of dam building materials
  - Ë Ability to build a dam at baseflow
  - Ë Likelihood of dams to withstand a typical flood
  - Ë Likelihood of a stream gradient to limit dam building





## **Field Verification**

- Ï Ground-truthing beaver dam suitability
- Function-based rapid assessment methodology: USFW
  - Ë Site locations: ongoing flow and temperature assessments + additional sites at the top of each system



## **Project Identification and Community Feedback**

Meeting in June with community members from the North Lake area

## l Potential projects:

- Ë Beaver dam analogues installation
- Ë Mining restoration
- Ë Forest thinning, cultural and prescribed burning
- Ë Forest management for greater snow retention



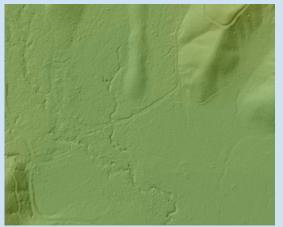
## **WRTC BOR WaterSmart grant**

- Improve forest health and protect reliability of water supplies through Landscape scale watershed restoration planning.
- Facilitate local community involvement and collaboration to identify critical needs, potential solutions, and prioritize watershed restoration projects relating to water resources.

**Expires December 2023** 







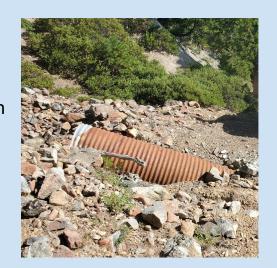
## **Analysis**

Wet meadow classification and condition

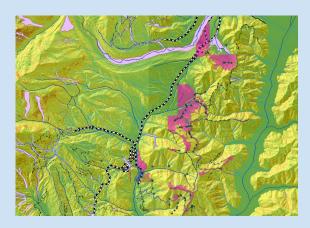
Legacy road sediment site identification

Forest and Fuels Modeling

Field Verification











## **Landscape Scale Watershed Restoration Planning**

## Literature review

## LiDAR based modeling

Meadows (water resilience)

Roads (water quality/sediment)
Forest health (fire, fuels and water)

## Terrainworks NetMap

Legacy Road Sediment Site

Wet Meadow classification

Forest Health

Other models:

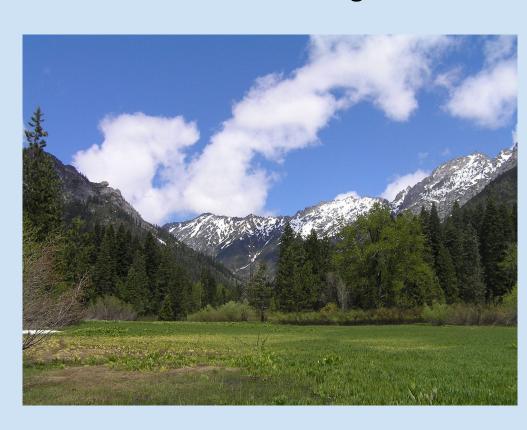
Powers GGL

Pope RFM and PBT

Garwood

## Field verification

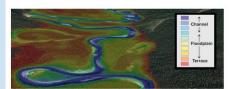
Project identification and prioritization



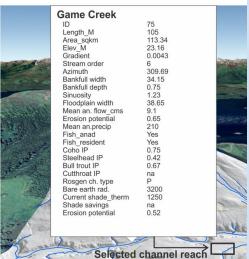


## **Terrainworks NetMap**









#### Watershed Tools

#### **FLUVIAL PROCESSES**

- Flow Calculations
- · Hydraulic/Planform Geometry
- Network Variables
- · Channel Classification
- Floodplain Mapping
- Topographic Wetness Index
- · Drainage and Junction Density
- Landslide-Channel Interactions
- · Wood Accumulation Types
- Closed Depressions
- Sloat Scour Model
- Tech Help

#### **EROSION**

- · Landslide susceptibility
- · Debris flow susceptibility
- Gully erosion
- Surface erosion
- · Sediment yield
- Sediment delivery

#### **AQUATIC HABITATS**

- · Salmon and resident species, habitat quality
- Habitat diversity
- Beaver habitat
- · Channel disturbance index
- Piscicide Model
- · Technical Help

#### RIPARIAN

- · Access vegetation data
- · Shade/Thermal Energy · In-stream wood recruitment
- · Thermal refugia
- · Delineate riparian zone

- Road density
- · Road drainage diversion
- Road stability

ROADS

- · Roads in floodplain
- · Habitat length above roads
- · Road surface erosion and delivery

#### WILDFIRE/CLIMATE CHANGE

- Fire probability
- · Fire intensity
- · Climate change forecasts

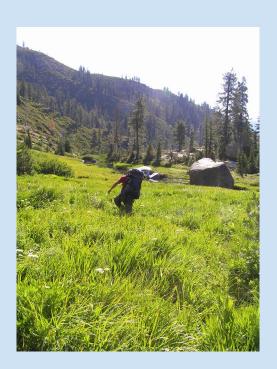
## **Outreach to community**



## **Engage Upper Trinity Stakeholders**

- Community identified needs and projects
- Project prioritization and support
- Retain an Upper Trinity representation in the Council

Build off the prior BOR
Watersmart Grant efforts that
solidified this Council



## TRWC partners

- What projects do you have in UT?
  - ➤ Ideas
  - Planning phase
  - Implementation phase
  - > Completed
- What do we need to get projects completed?
  - > Funding gaps
  - other needs



## Contacts

**Trinity County Resource Conservation District** 

Amelia Fleitz afleitz@tcrcd.net

The Watershed Research and Training Center

Josh Smith josh@thewatershedcenter.com

Cindy Buxton cbuxton@thewatershedcenter.com



Grantor	Grant Program	Preliminary	Pre-App Due	Full Proposal Due Date	Amount
Deadlines for 2022					
All CA State Agency Grants and Loans Link					
CALIFORNIA GRANTS PORTAL					
Department of Water Resources	Small Community Drought Relief Program			open until 12/29/2023 or	
Friesen Foundation	Community Development- incl. trails, rec and enviro restoration			continuous	\$10,000 to \$50,000
Humboldt Area Foundation	Youth Leadership Fund			continuous	up to \$1,500 (\$1,000
Sierra Pacific Foundation	Growing Healthy Communities			continuous	
Coastal Conservancy	Wildfire Resilience	Yes		Ongoing (awards May 2022)	
National Forest Foundation	Matching Awards Program Outdoor Experiences/Forest Health			1/12/2022 and 6/22/2022	\$25,000
FEMA	Building Resilient Infrastructure and Communities			1/28/2022	
Sierra Nevada Conservancy	Wildfire Recovery & Forest Resilience Grant Program			1/31/2022	
CA Dept Parks and Rec (OGALS)				2/1/2022	
Trinity County Child Abuse Prevention Council	Community Based Child Abuse Prevention (CBCAP) Mini-Grant			2/7/2022	
CAL FIRE	Fire Prevention			2/9/2022	
CAL OES	Prepare CA Match for FEMA HMGP	Yes NOI		2/15/2022	
CAL OES	PrepareCA JumpStart			2/28/2022	
Coast Centeral Credit Union (HAF)	Community Investment			2/28/2022	\$5000 to \$25,000
CA Dept Fish and Wildlife	Watershed Restoration Grant Programs (Prop 1)			3/4/2022	
CA Dept Parks and Rec (OGALS)	OHV	Yes	3/7/2022	6/6/2022	
Community Foundation of the North State	McConnell Fund			3/9/2022	\$30,000
Humboldt Area Foundation/ Trinity Trust	Community Response Grant			3/15/22 and 10/15/2022	\$20,000
Humboldt Area Foundation/ Trinity Trust	Trinity Trust Summer Youth Program			3/15/2022	\$500 ave
National Fish and Wildlife Foundation/ Bureau of Reclamation	2022 Klamath Basin Coho Restoration Program/ Trinity River Restoration Program	Yes	3/28/2022	5/23/2022	\$557,500 total for
					TRRP, \$10,00 to
					\$500,000
Community Foundation of the North State	Redding Rancheria Community Fund			3/30/2022 and 9/xx/2022	\$500 to \$10000
North Coast Resource Partnership / Dept of Water Resources	Prop 1 / IRWM Round 2 Implementation			Summer 2022 solicitation	
CA Dept Fish and Wildlife	Environmental Enhancement Fund			3/30/2022	Up to \$300,000
Bureau of Reclamation	WaterSMART Cooperative Watershed Mgt Program Ph I			3/31/2022	
CAL FIRE	Workforce and Business Development			3/31, 6/30, 9/30, 12/31	
Santa Cruz Bicycles	PayDirt Fund			3/31, 6/30, 9/30, 12/31	
CA Dept Parks and Rec (OGALS)	Recreational Trails Program			4/7/2022	
CA Dept Parks and Rec (OGALS)	Habitat Conservation Fund			4/7/2022	\$6M available
Bureau of Reclamation	WaterSMART Drought Response Program: Drought Contingency Planning Grants (for Drought Response Framework requirements)			4/14/2022	
CA Fire Safe Council	State Fire Assistance Grant			4/14/2022	
American Trails	Trail Fund			4/15/2022	
National Wilderness Stewardship Alliance	Wilderness Stewardship Performance Activity Grants			4/15/2022	
National Wilderness Stewardship Alliance/USFS	National Forest System Trail Stewardship Partner Funding Program			4/15/2022	\$2000 to \$20000
Bureau of Reclamation	WaterSMART Small-scale Water Projects			4/28/2022	
CAL FIRE	Rural Fire Capacity			5/4/2022	\$500 to \$20,000
Sierra Nevada Conservancy	Vibrant Recreation and Tourism	Yes	5/6/2022	7/22/2022	Up to \$1M
CA Dept Fish and Wildlife	Public Land Cleanup and Remediation			6/3/22	Up to \$10M available
CA Dept Fish and Wildlife	Watershed Enhancement			6/3/2022	