

# TRUCKEE RIVER FUND

Enhancing and protecting our water resources

## TRUCKEE RIVER FUND ADVISORY COMMITTEE

### AGENDA

Friday, December 1, 2017, 8:30 a.m.

Community Foundation of Western Nevada

50 Washington Street, Suite 300, Reno, NV 89509

#### NOTES:

1. The announcement of this meeting has been posted at the following locations: Truckee Meadows Water Authority (1355 Capital), Reno City Hall (1 E. First), Sparks City Hall (431 Prater), Sparks Justice Court (1675 E. Prater Way, Sparks), Washoe County Clerk's Office/Courthouse (75 Court), Washoe County Central Library (301 South Center) Washoe County Administration (1001 East Ninth), and at <http://www.truckeeriverfund.org/meetings.shtml>
2. In accordance with NRS 241.020, this agenda closes three working days prior to the meeting. We are pleased to make reasonable accommodations for persons who are disabled and wish to attend meetings. If you require special arrangements for the meeting, please call 834-8002 before the meeting date.
3. Staff reports and supporting material for the meeting are available at Truckee River Fund and on the Truckee River Fund website <http://truckeeriverfund.org/meetings/> or you can contact Sonia Folsom at (775) 834-8002. Supporting material is made available to the general public in accordance with NRS 241.020(6).
4. The Committee may elect to combine agenda items, consider agenda items out of order, remove agenda items, or delay discussion on agenda items. Arrive at the meeting at the posted time to hear item(s) of interest.
5. Asterisks (\*) denote non-action items.
6. Public comment is limited to three minutes and is allowed during the public comment periods. The public may sign-up to speak during the public comment period or on a specific agenda item by completing a "Request to Speak" card and submitting it to the clerk. In addition to the public comment periods, the Chairman has the discretion to allow public comment on any agenda item, including any item on which action is to be taken.

1. Roll Call\*
2. Public comment (limited to no more than three minutes per speaker)\*
3. Approval of the agenda (for possible action)
4. Approve the August summary meeting minutes (**for possible action**)
5. Fund balance report\*
6. Review 2018 meeting calendar (**for possible action**)
7. Hear report and discussion on Truckee River Watershed Council projects, completed and in-progress (Lisa Wallace); update Farad burn site mud slide from The Nature Conservancy (Mickey Hazelwood) (**for possible action**)
8. Hear report and discussion on One Truckee River (Christi Cakiroglu) (**for possible action**)
9. Hear reports on projects completed in the last year: **#135** Nevada Department of Wildlife New Zealand mud snail and aquatic invasive species outreach for the Truckee River (Bill Bradley); **#137** Nevada Land Trust Alum Creek Water Quality Improvement (Bill Bradley); **#141** Tahoe Resource Conservation District Truckee River Eurasian Watermilfoil Survey & Removal (Mike B.); **#160** Truckee River Watershed Council Johnson Canyon Westside Restoration (Candice); **#162** Nevada Conservation District Rosewood & Third Creeks Invasive Weed Removal (Jerry/Janet/Lauren?); **#169** City of Reno Truckee River Cleanup Crew Year2 (Susan); **#173** Tahoe Fund Take Care- Truckee River (Susan); **#176** Keep Truckee Meadows Beautiful 2017 Spring Invasive Weed Pull & Fall Cleanup (Susan); **#178** Truckee River Watershed Council Donner Creek Concept Design (Don); **#181** Truckee Donner Land Trust Webber Lake Little Truckee Headwaters Management (Michael); **#184** Sierra Nevada Journeys Watershed Education Initiative (Janet)\*
10. Review need for quarterly reports on small grants (**for possible action**)

11. Discuss possible revisions to Request for Proposals (“RFP”), including but not limited to:  
Identifying any special topics that should be considered for next RFP; including zoning, development, and land use plans that might affect certain proposals (**for possible action**)
12. Committee and staff comments\*
13. Next meeting: January 19, 2018 (**for possible action**)
14. Public comment (limited to no more than three minutes per speaker)\*
15. Adjournment (**for possible action**)

## MEETING MINUTES (TRANSCRIPT SUMMARY)

### TRUCKEE RIVER FUND ADVISORY COMMITTEE MEETING OF AUGUST 18, 2017

The following meeting minutes is a summary of the certified transcript for the Truckee River Fund Advisory Committee meeting held at 8:30 a.m., Friday, August 18, 2017.

**Those Present:** Committee Members: Janet Phillips, Chairman; Susan Lynn, Vice Chairman; Michael Cameron; Bill Bradley\*; Mike Brisbin; Candice Elder; Don Mahin; and Ron Penrose; Also: Lauren Renda and Chris Askin, both with Community Foundation of Western Nevada; John Enloe and Sonia Folsom, both with TMWA; and Debbie Leonard, Esq., McDonald Carano Wilson, LLP; Members of the Public: Lisa Wallace, Truckee River Watershed Council; Christi Cakiroglu, Keep Truckee Meadows Beautiful; Eaton Dunkelberger and Sean Hill, both with Sierra Nevada Journeys; and Jenny Hatch and Lynn Baumgartner, both with Sierra Nevada Alliance.

\* Committee member arrived after roll call

\*\* Committee member left meeting before adjournment

**Agenda Item #1: Roll Call:** Roll call was taken. A quorum was noted. Janet noted that Lauren is ready to step in as the new staff person.

**Agenda Item #2: Public comment:** There was no public comment.

**Agenda Item #3: Approval of the agenda (for possible action):** The agenda was unanimously approved.

**Agenda Item #4: Approve the June summary meeting minutes (for possible action):** The Meeting Minutes (Transcript Summary) for June 2, 2017 was unanimously approved.

**Agenda Item #5: Fund balance report:** Lauren stated that we have \$848,289.04 available to spend, which includes some carryover from last year and a reduced distribution from TMWA of approximately \$450,000. John Enloe explained that the reason it was reduced was because TMWA was going through a rate increase, that the TMWA Board feels very strongly about the Truckee River Fund, but they were aware that there was \$400,000 left unspent in there, so they contributed what was needed to bring it up to a year's worth of donations.

**Agenda Item #6: Review grant proposals to Truckee River Fund and select projects to be recommended for funding (for possible action):** Janet noted that Bill Bradley arrived at the meeting. The following grant proposals were considered at length and voted on by the group and approved, rejected/declined, or action taken as follows:

#190, Sierra Nevada Journeys, Watershed Education Initiative, \$35,065, was unanimously approved for the full amount requested. Eaton Dunkelberger and Sean Hill were present and provided input and answered questions.

#191, City of Reno, Invasive Weed Removal - Reno Park Property, \$30,000. Lauren stated that they received a new cover sheet showing the correct requested amount of \$11,300. The full amount requested, \$11,300, was unanimously approved, with the condition that TMWA needs to concur with their time, place and type of chemicals. No one was present from the City of Reno.

#192, Truckee River Watershed Council, Truckee River Tributaries Sediment Reduction Project, \$165,000, was unanimously approved for the full amount. Lisa Wallace was present and provided input and answered questions.

#193, Keep Truckee Meadows Beautiful, 2018 Spring Invasive Weed Pull & Fall Truckee River Cleanup, \$69,760, was unanimously approved for the full amount. Christi Cakiroglu was present and provided input and answered questions.

#194, Sierra Nevada Alliance, Sierra Nevada AmeriCorps Partnership (SNAP), \$51,875, was unanimously rejected, but with a note of encouragement to the proposers to come back with a more focused study that's targeted on people in this community in Nevada. Jenny Hatch and Lynn Baumgartner were present and provided input and answered questions.

**Agenda Item #7: Review projects with a need for Advisor reassignment: #140 Sierra Nevada Journeys Watershed Education Initiative (2017) (Sue); #150 Tahoe Resource Conservation District TR Native & Non-native Aquatic Plants (Tom); #160 Truckee River Watershed Council Johnson Canyon Westside Restoration (Jerry/Janet):** Project #140 was reassigned to Ron Penrose, together with #190 since it's the same group. Projects #150 and #160 were reassigned to Candice Elder. Project #191 was assigned to Susan Lynn, #192 to Mike Brisbin, and #193 to Bill Bradley

**Agenda Item #8: Committee and staff comments:** The group decided to put on the next agenda an overview from Truckee River Watershed Council, an update on the One Truckee River, and an update on where we stand with the AIS programs on the Truckee River Watershed.

**Agenda Item #9: Next meeting: December 1, 2017 (for possible action):** The next meeting is Friday, December 1st. No action was taken.

**Agenda Item #10: Public comment (limited to no more than three minutes per speaker):** Christi Cakiroglu commented regarding finding a home for One Truckee River and what would work for them moving forward, that they have a meeting in September for identifying what OTR is going to look like for the future and that it's going to be really great and solid. She also suggested that this group may want to look at having someone come in and talk about the affordable housing situation in our community, because it's an issue that relates to water quality.

**Agenda Item #11: Adjournment (for possible action):** The meeting adjourned at 10:18 a.m. No action was taken.

**2018 Draft Calendar**

January 3	RFP distributed
February 6	11 a.m. Executive Committee meeting to set agenda
February 8	RFP/Grant applications due
February 23	8:30 a.m. TRF Advisory Committee meeting <ul style="list-style-type: none"> <li>• Review project proposals</li> </ul>
March 21	10 a.m. TMWA Board meeting
May 21	11 a.m. Executive Committee meeting to set agenda
June 1	8:30 a.m. TRF Advisory Committee meeting <ul style="list-style-type: none"> <li>▪ Discuss nominations for officers (even years)</li> </ul>
June 20	10 a.m. TMWA Board meeting
June 20	RFP distributed
July 13	Advisory Committee field trip/site visits
July 14	TMWA picnic
August 2	RFP/Grant applications due
August 6	11 a.m. Executive Committee meeting to set agenda
August 17	8:30 a.m. TRF Advisory Committee <ul style="list-style-type: none"> <li>• Elect officers (even years)</li> <li>• Review project proposals</li> </ul>
September 19	10 a.m. TMWA Board meeting
November 19	11 a.m. Executive Committee meeting to set agenda
November 30	8:30 a.m. TRF Advisory Committee <ul style="list-style-type: none"> <li>• Review/Approve 2018 calendar</li> </ul>
December 19	10 a.m. TMWA Board meeting



## TRUCKEE RIVER FUND

Enhancing and protecting our water resources

# Successes & Looking Ahead

Lisa Wallace

December 1, 2017





## Agenda

### About the Watershed Council

### CFWN TRF & TRWC

- Funding
- Projects
- Looking Ahead



Martis Creek



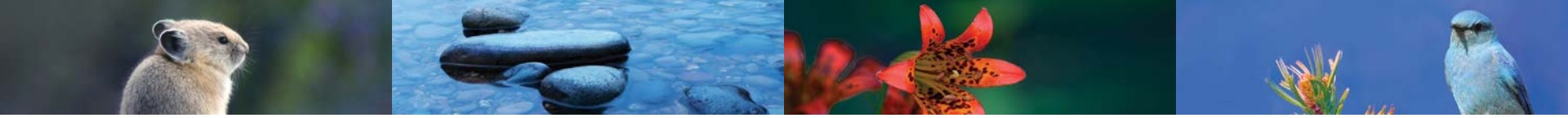


12-01-17 TRF Agenda Item 7



# Truckee River Watershed Council

We bring the community *Together for the Truckee* to protect, enhance and restore the Truckee River Watershed



# 10-year Vision

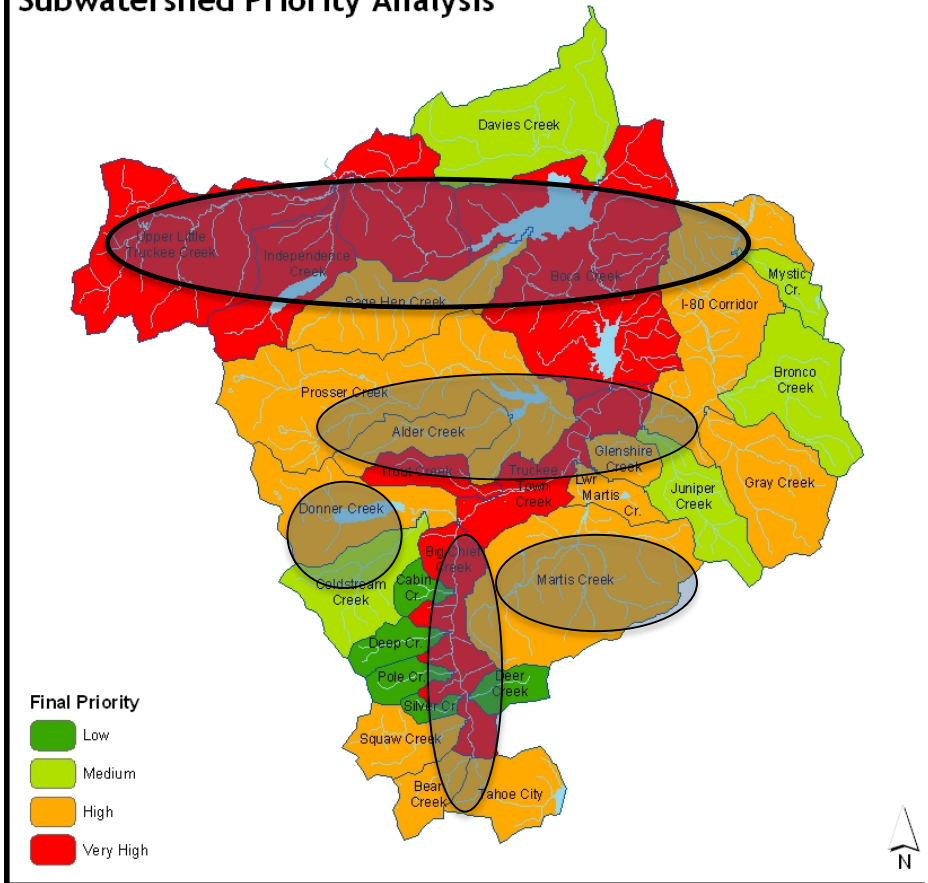
## Priorities

- 50 major projects
- Big Chief Corridor, Donner Basin, Town & I-80 Corridor

## Strategies

- Restoration: logging, grazing, railroad, dams, interstate, EPA Listing
- Prevention: drought, climate change, current land use
- Engagement: funders, stakeholders, partners, volunteers

## Subwatershed Priority Analysis

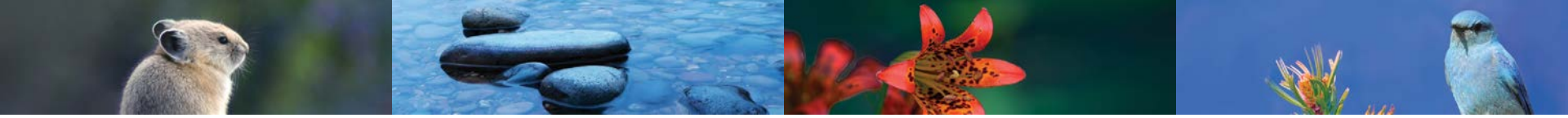




12-01-17 TRF Agenda Item 7

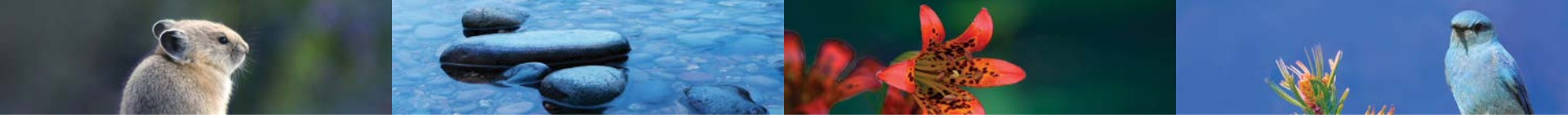


## Truckee River Fund & TRWC



# Funding Partnership

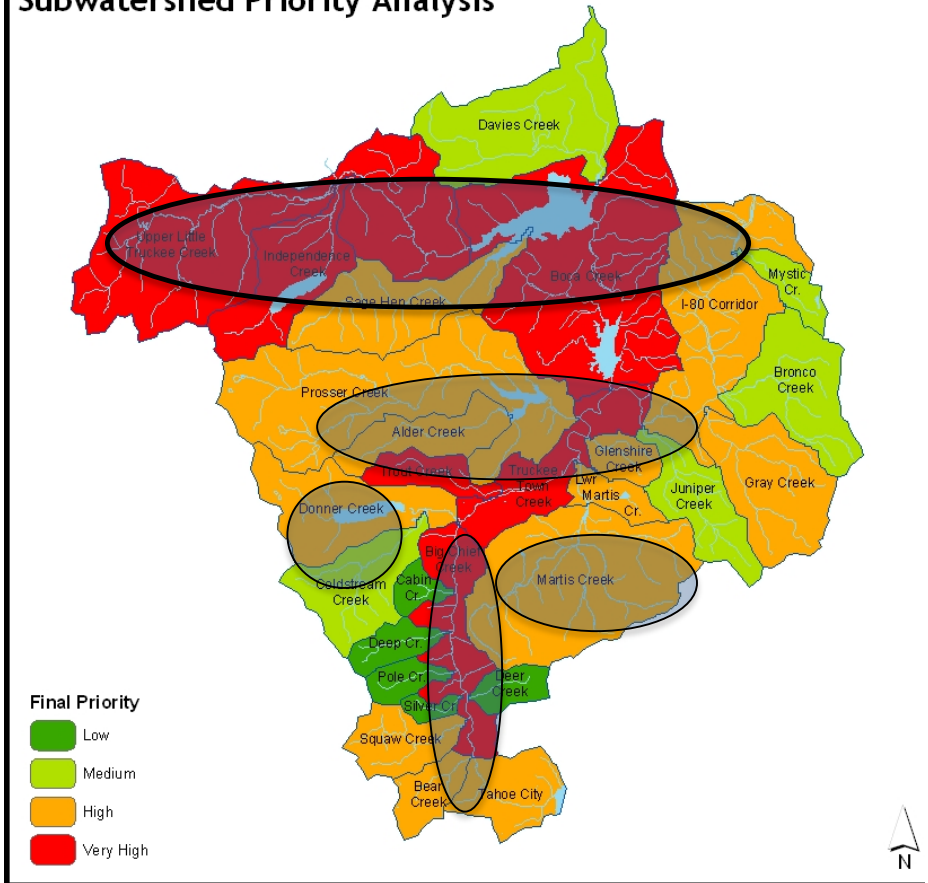
- 2010 to 2017
- 16 grants
- \$1,245,300 awards
- >\$311,325 match
- Towards CA TMDL for Sedimentation
  - Water Quality: 10% of TMDL Load Reductions
  - Habitat
  - Water Supply



## Projects

- Big Chief Corridor: 4
- Donner Basin: 8
- Town Corridor: 2
- I-80 Corridor: 0
  
- Upper Little Truckee: 1
- Martis Valley: 1

### Subwatershed Priority Analysis





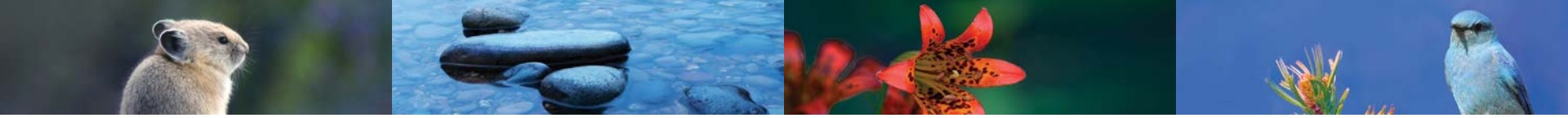


## Tributaries Assessment

Goal: To Improve Water Quality

- Identify sources of excess sediment
- Dirt roads & Legacy sites/Hi





## Methods

- Data analysis
- Field assessment
- Inventory sediment sources
- Rankings of problem areas



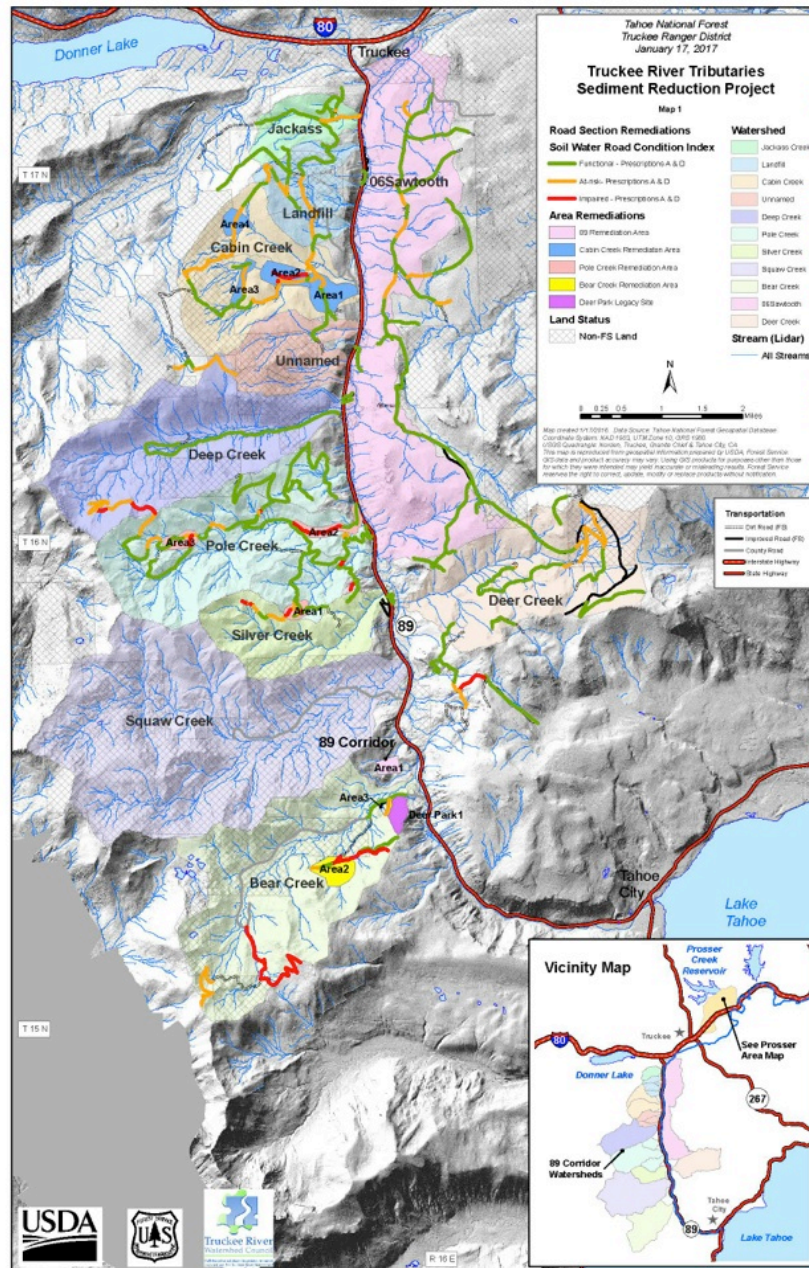
- Prioritized actions to improve water quality



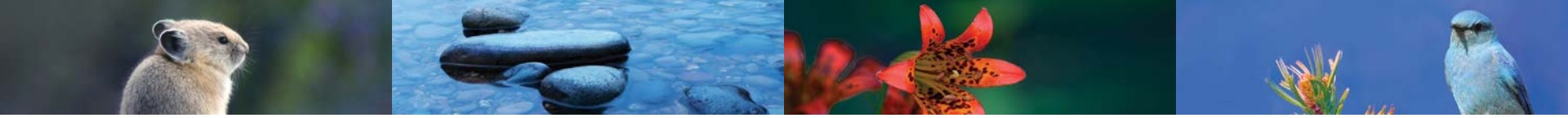




## Results



12-01-17 TRF Agenda Item 7

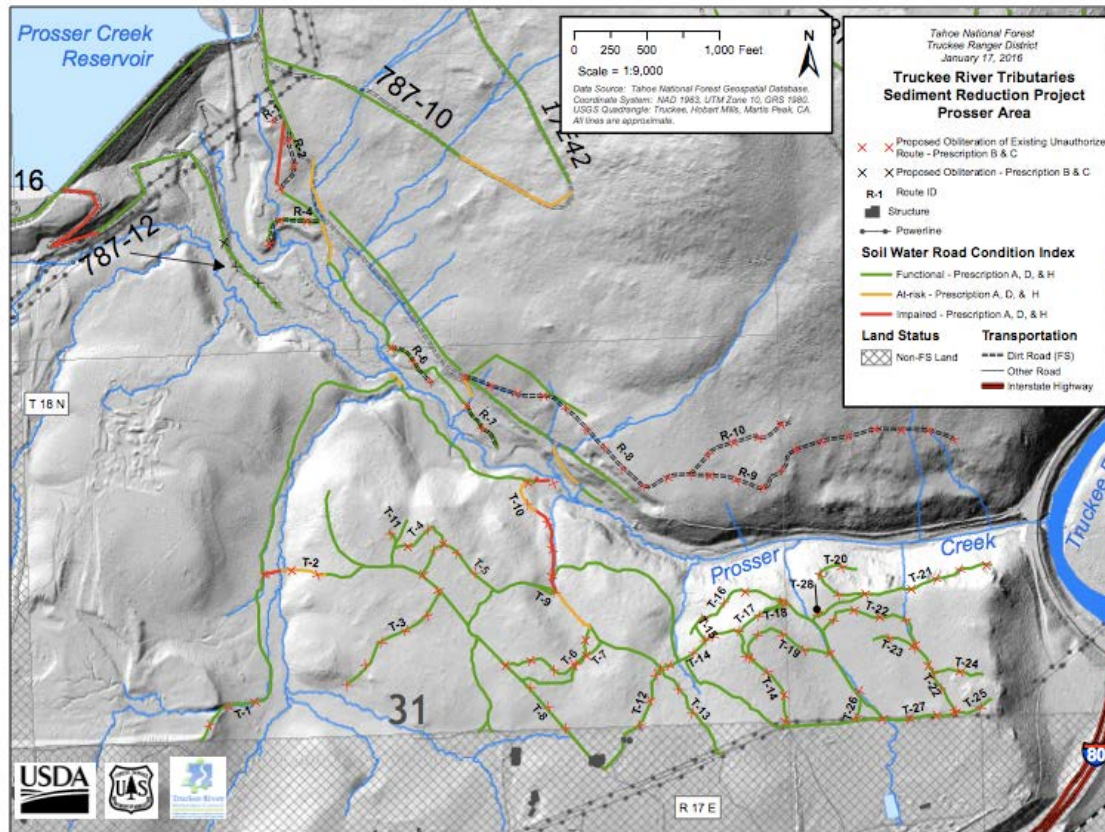


# Sediment Reduction

## ~ 4% of TMDL Load Allocations

Tributary	Current sediment/year	Sediment Reduction/year
Cabin Creek	15.83	12.66 - 14.25
Deep Creek	427.49	173.43 - 254.77
Pole Creek	18.16	16.16 - 17.16
Jackass Creek	19.96	13.81 - 15.44
Prosser Creek	31.91	23.82 - 23.82
Bear Creek- middle	1.19	1.1 – 1.1
<b>TOTAL (tons)</b>	<b>514.54</b>	<b>240.98</b>

# Prosser Creek Roads



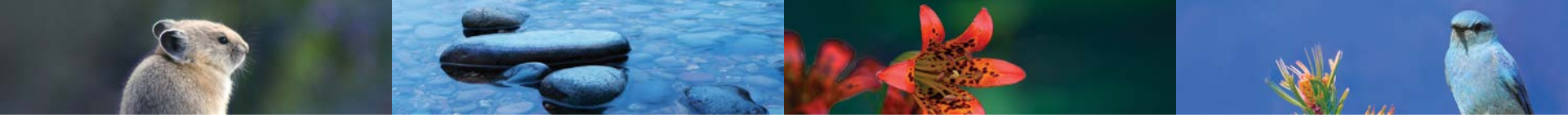
## Solutions

- Remove extra roads
- Improve drainage (i.e. culverts, drivable dips, waterbars, etc)
- Add road base

## Results

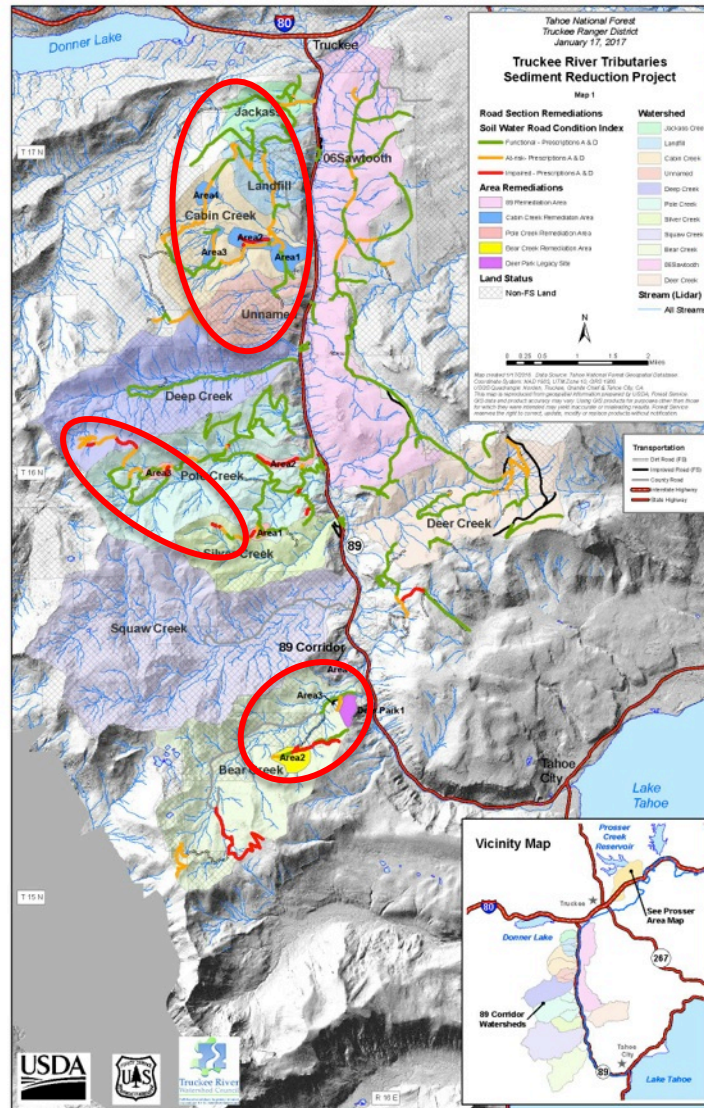
- Reduced sediment/improved water quality





## Implementation Approach

12-01-17 TRF Agenda Item 7





12-01-17 TRF Agenda Item 7



Thank you!





# Truckee River Watershed Health and Risk Assessment: Modeling, Planning, and Investing for Risk Reduction



# Why This Assessment and Why Now?

- Truckee River headwaters forest is overstocked from a century of fire suppression.
- Years of severe drought have left many trees dead, dying, or susceptible to disease and insect kills.
- We believe our forest may be at risk of unnatural, high-intensity fire(s) that could impact the region in many ways...





# Regional Importance of the Truckee River Watershed

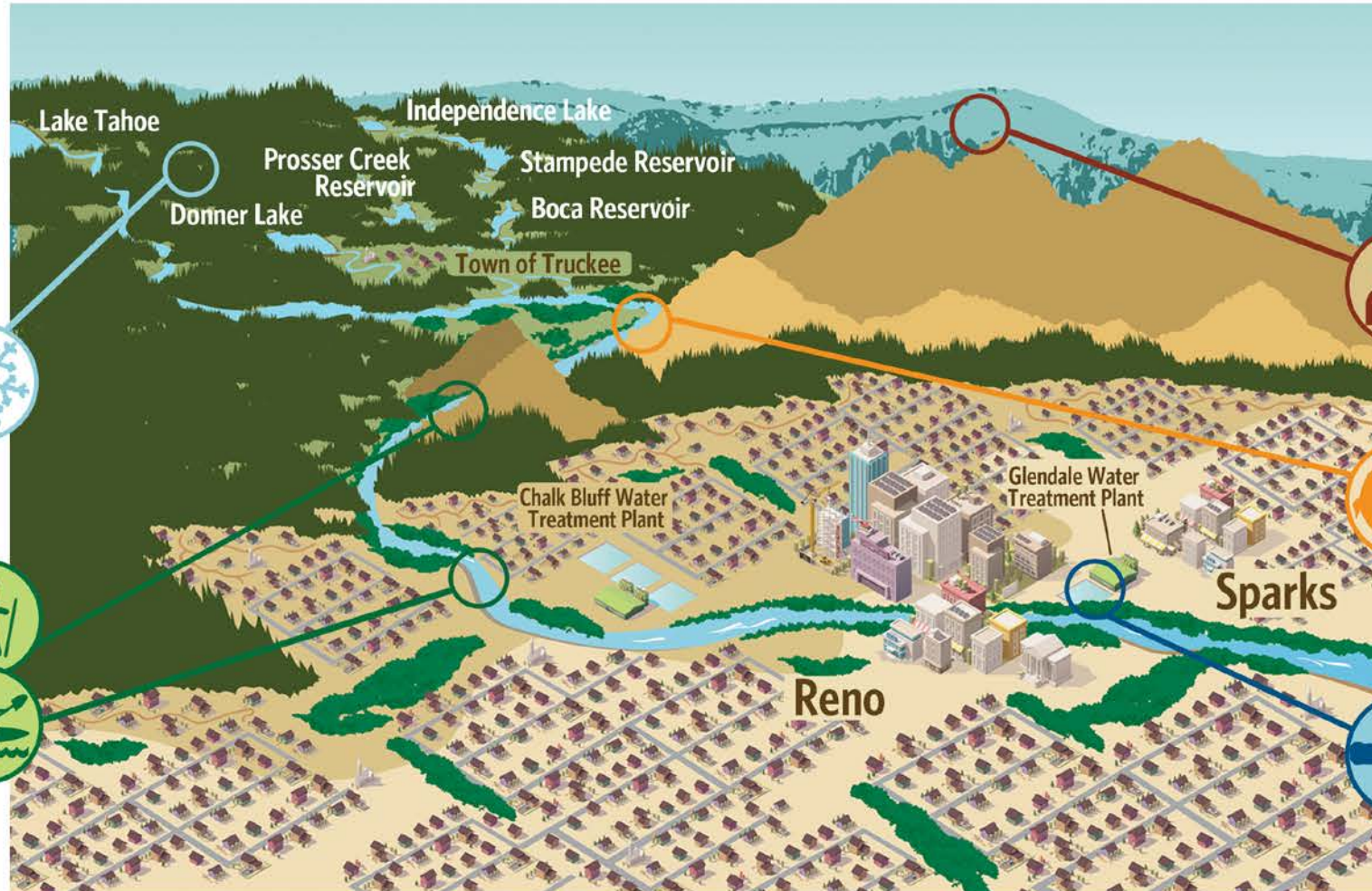
## THE TRUCKEE RIVER

Restore Our Forest to  
Protect Our Community

A healthy forest soaks up precipitation and releases it slowly over time, making water available longer, improving water quality, and reducing erosion from runoff.



The Truckee River, our reservoirs, and a scenic forest benefit recreation and tourism, which is just one way the river supports the Truckee Meadows' \$20 billion economy.



Forests provide clean, fresh air for our communities.



Streams and forests provide habitat for fish and wildlife.



The Truckee River supplies 85% of the water for the Truckee Meadows, including 400,000 residents and 7,000 businesses.



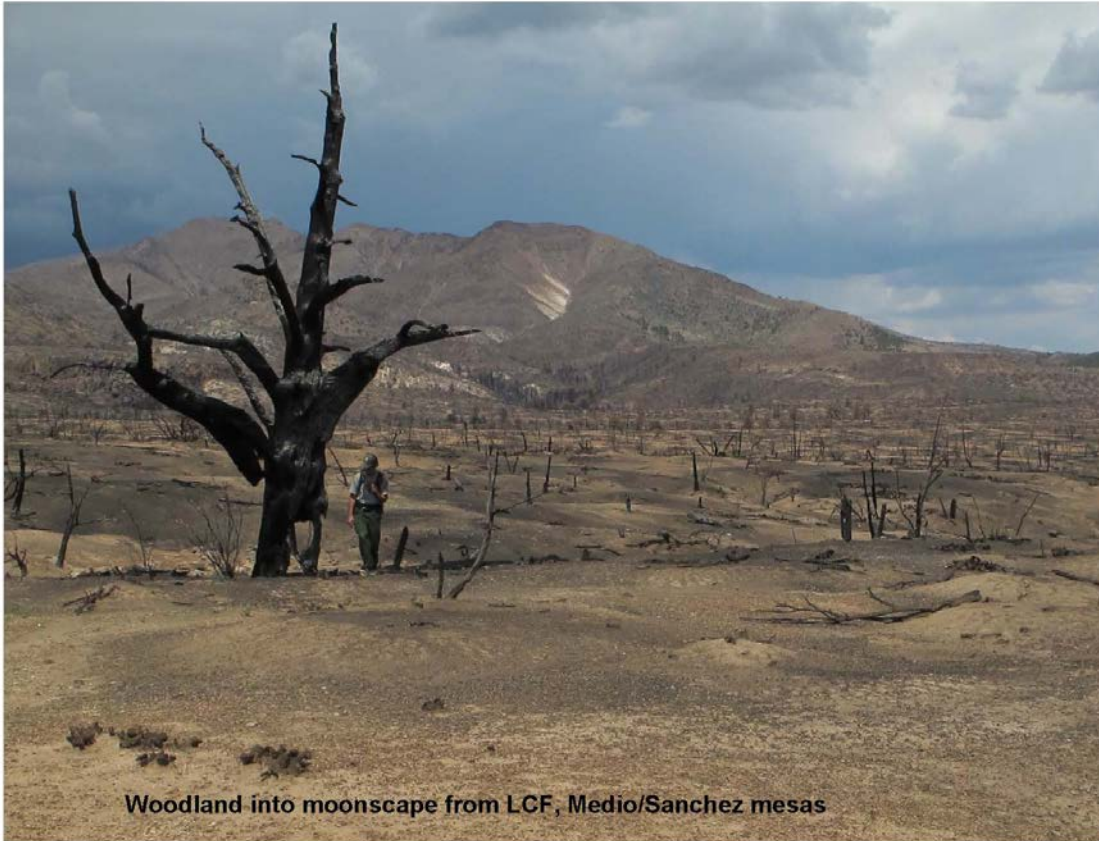
# Crown Fires



Hayman Wildfire actively burning in the  
Denver Watershed 2002 – Mike Ryan,  
US Forest Service



# High Intensity Burns



Woodland into moonscape from LCF, Medio/Sanchez mesas

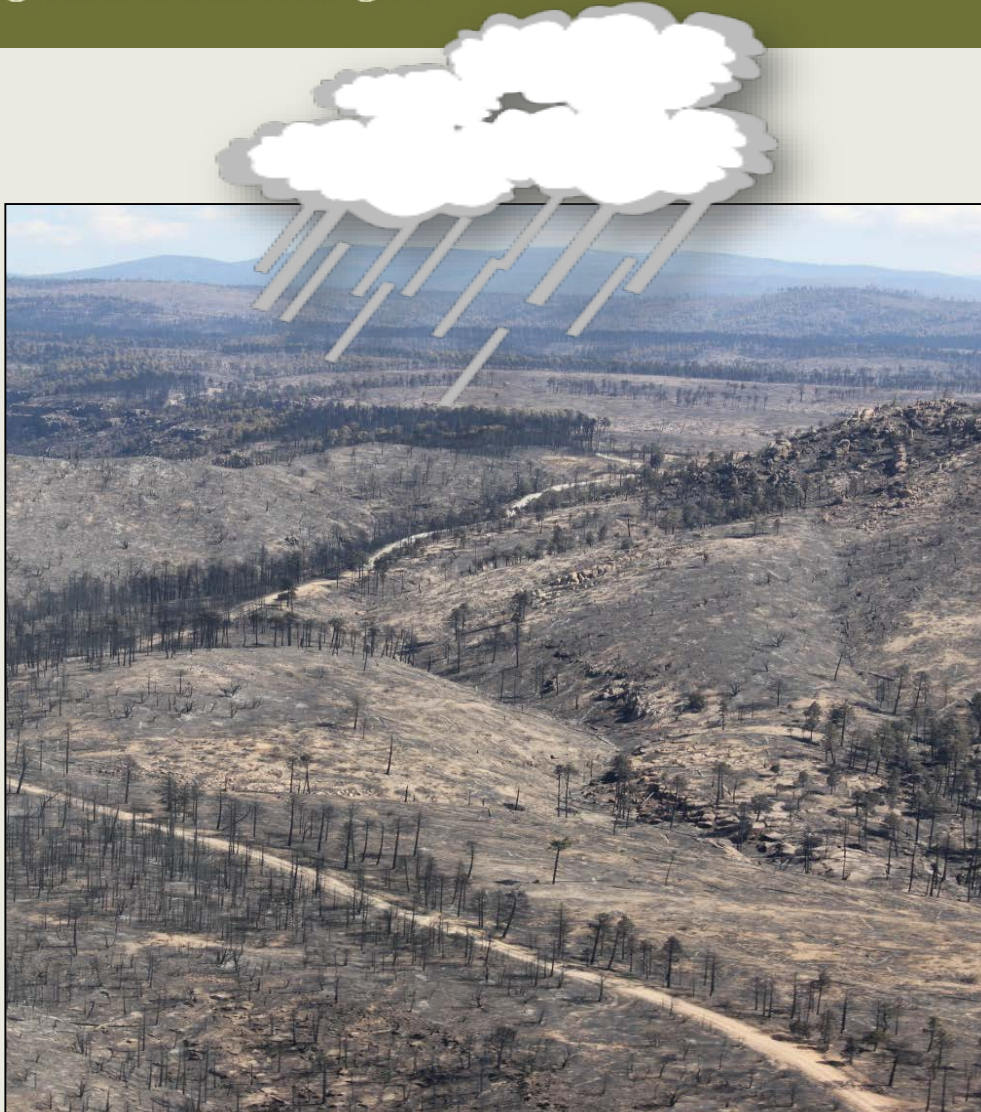


Ghost logs, Dome area





# After the Burn



- **No vegetation to interrupt the rain/water flow**
- **No organic layer to absorb water**
- **Water repellent ash layers**
- **Runoff increased from 200% to 2000%**

# Erosion and Sedimentation

<https://www.youtube.com/watch?v=9bjrSiUN8fA>





# Cochiti Reservoir



- Burned **156,000** forested acres
- Las Conchas fire cost is estimated at **\$300 million** and expenses are still accruing.
- Economic impact of one acre affected by this wildfire averages nearly **\$2,000**.
- Average cost to thin an acre in the watershed = **\$700**.



## Cost – Benefit Analysis

**Costs:** Forest Treatment

**Benefits:** Avoided Costs of  
Catastrophic Wildfire

### ***Local/Taos County***

Fire suppression, structure damage, tourism  
decline, agricultural decline

### ***Downstream***

Sedimentation, poor water quality





## ▶ CHARTER SIGNATORIES





# Landscape Conservation Forecasting (LCF)

- Combines high resolution satellite imagery, vegetation dynamics simulation, and community engagement to help inform large scale natural resource management
- Developed by TNC-NV



## Advisors:

### **Community Advisory Committee**

- Charlene Albee, Washoe Air Qual.
- Irene Davidson, H-T National Forest
- John Enloe and Kara Steeland, TMWA
- Aric Jensen, Reno Community Dev.
- Angel Lacroix, TMWRF
- Kameron Morgan, PLPT
- Joanne Roubique, Tahoe National Forest
- Lisa Wallace, TRWC

### **Science Review Committee**

- Becky Estes, U.S. Forest Service
- Stephanie Kampf, CO State Univ.
- Shey Rajagopal, Desert Research Inst.
- Hugh Safford, U.S. Forest Service

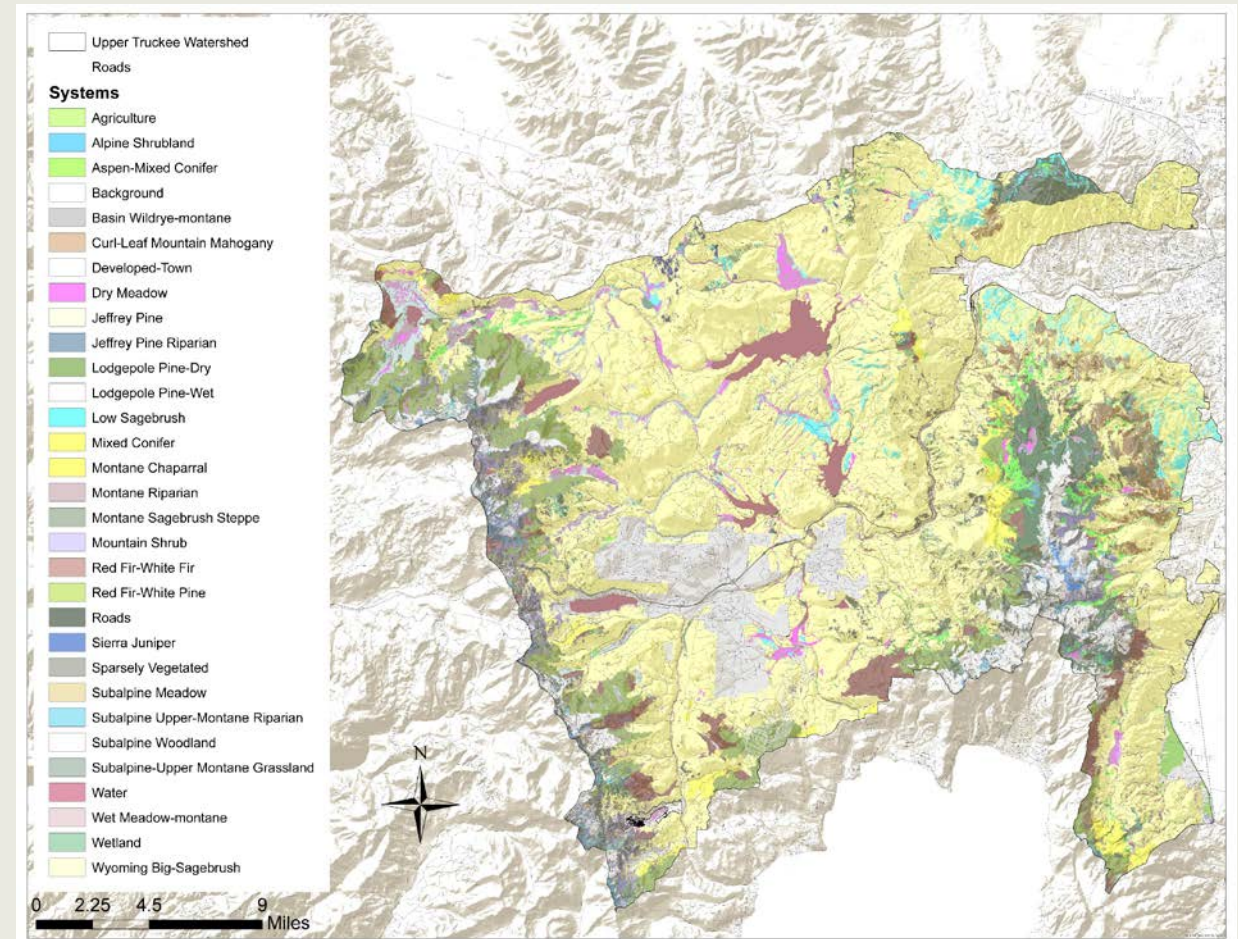
### **Subject Matter Experts**

- Staff from Tahoe National Forest
  - Michael Cartmill
- Staff from H-T National Forest
  - Anna Bell Monti



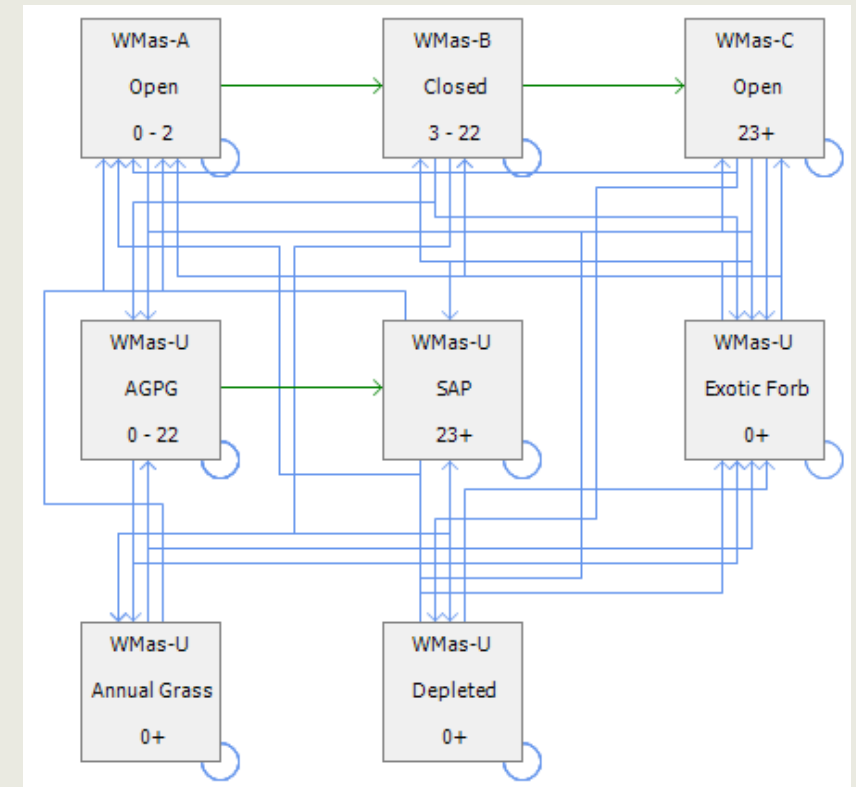
# Maps

- High resolution satellite imagery
- Extensive ground truthing
- Create map of both ecological systems and classes
- Accuracy of maps important as modeled processes are spatially dependent
  - It matters where fire occurs



# Models

- Based on State-and-Transition Simulation Models (STSMs)
- Vegetation follows a predictable succession pathway
- Climate, disturbances, and management actions can alter the succession pathway or move vegetation off of it
- Established software exists to build STSMs



# Hydrology/sediment modeling

- Goal is to analyze impact of fires and *management* on flows and timing of flows
  - Objectives: Examine impacts of climate change and fire management on
    - Changes in flows and flow timing
    - Sediment delivery and transport





# Connecting LCF to Precipitation Runoff Modeling System (PRMS)

- PRMS application in Truckee Basin Study
  - Three models developed, calibrated, and applied by DRI
  - 300 m grid cells
  - Provide climate data for stations in watersheds
    - Temperature and precipitation adjusted over model domain
  - Vegetation relationships
    - Seasonal canopy cover and interception
    - Snow and rain interception
  - Calibrated PRMS models cover ~ 2/3 of project area

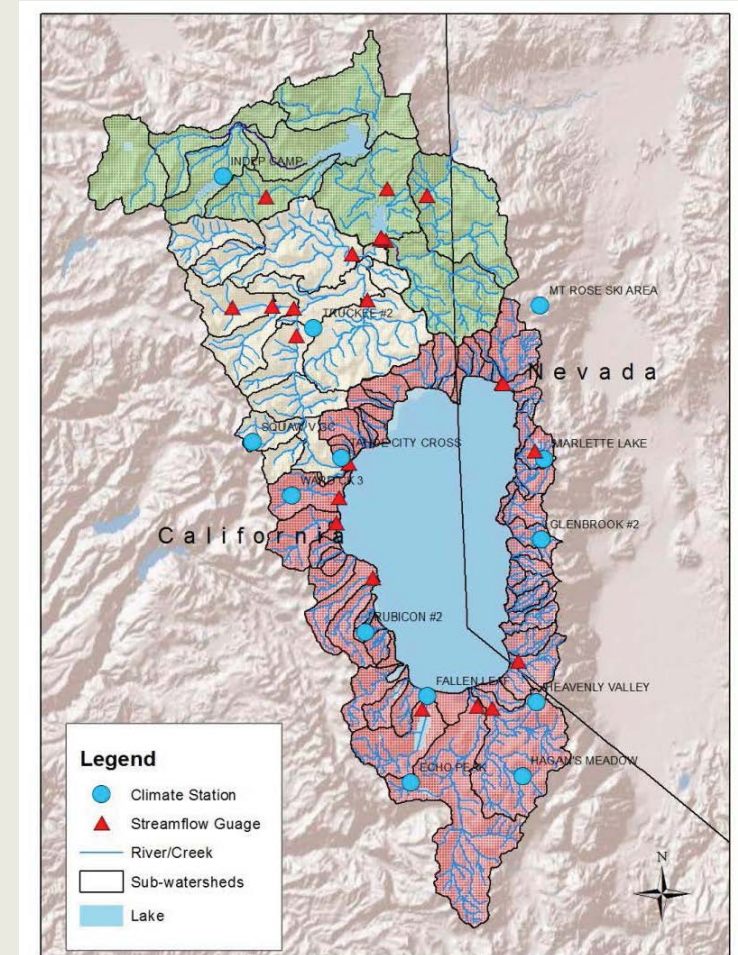
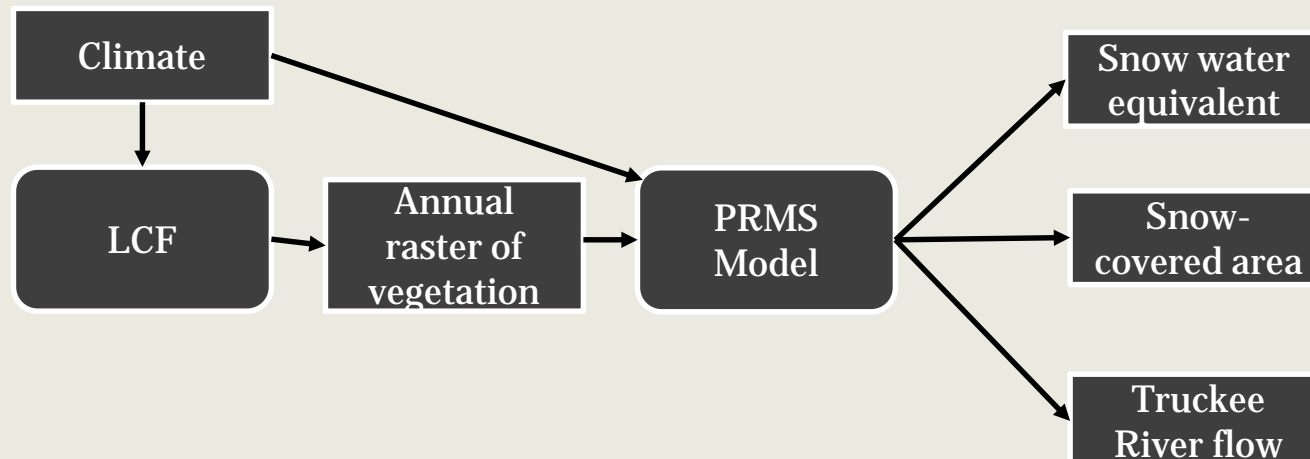
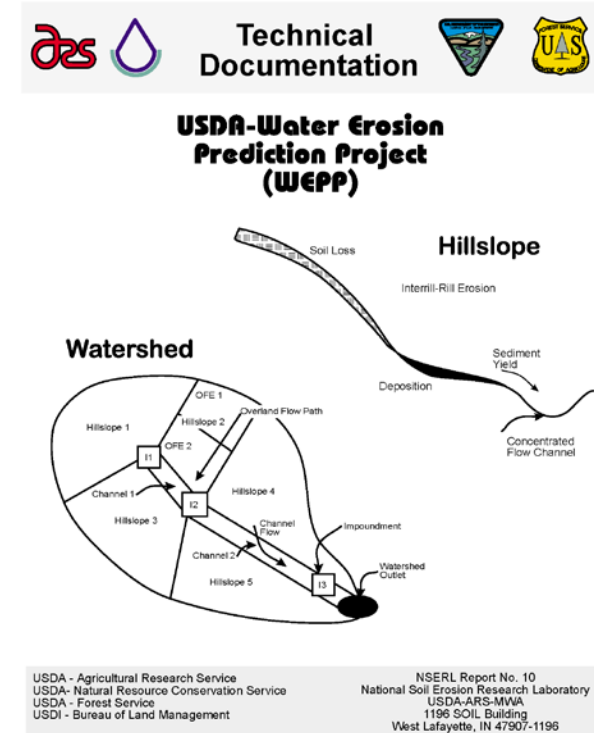
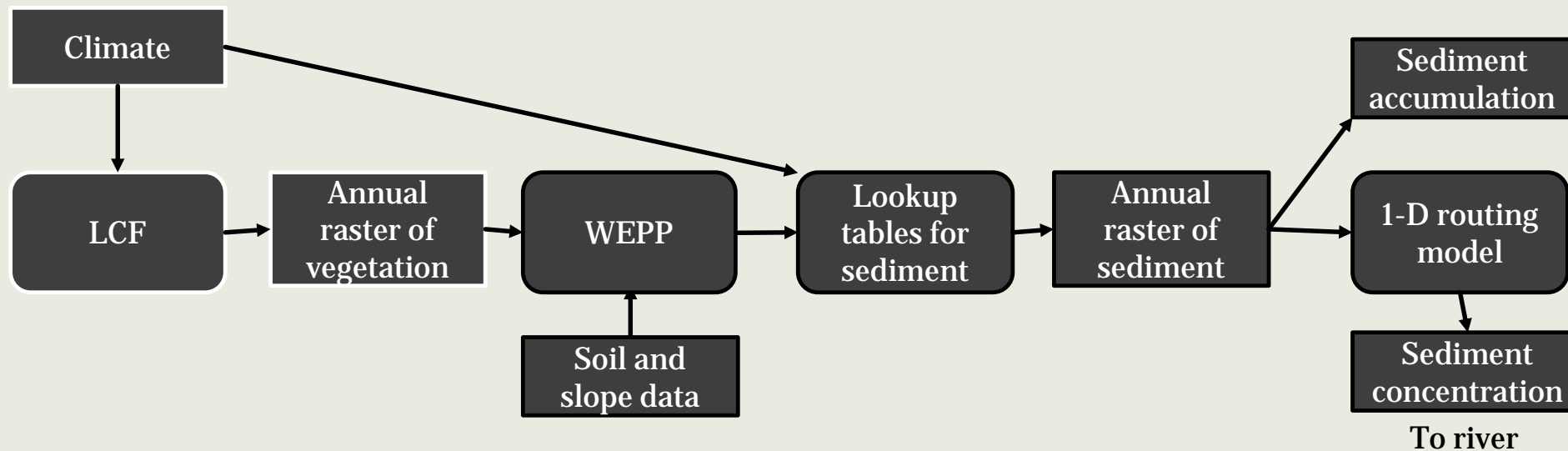


Figure 3-30. The Truckee Basin, Including the Tahoe Watershed, Martis Watershed, and Little Truckee Watershed

# Connecting LCF to Water Erosion Prediction Project Model (WEPP)

- Process-based hydrology and sediment transport model
- Erosion prediction model
  - Rill erosion
  - Interrill erosion
- Recently used to model a watershed in Tahoe Basin (Brooks et al. 2016)

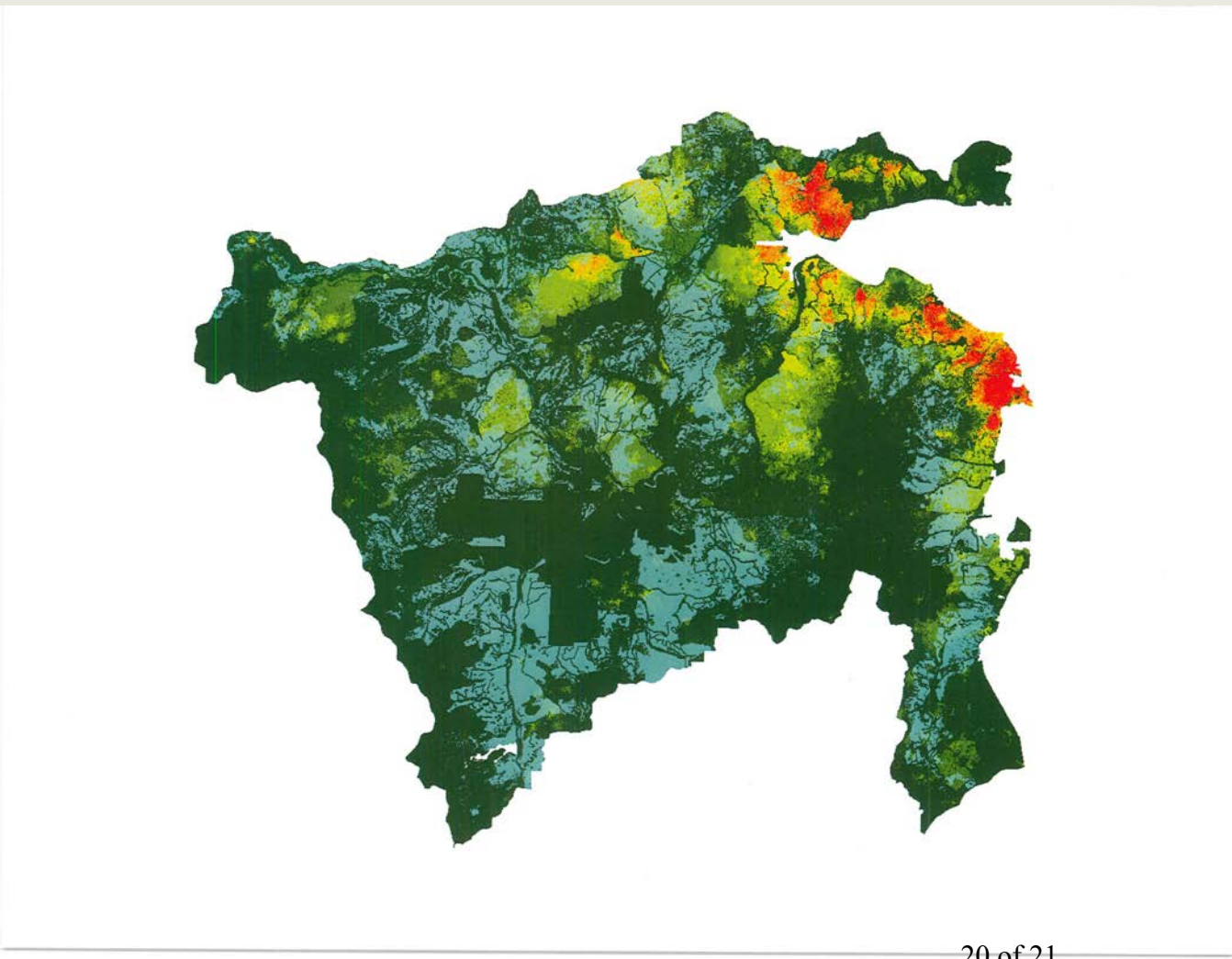
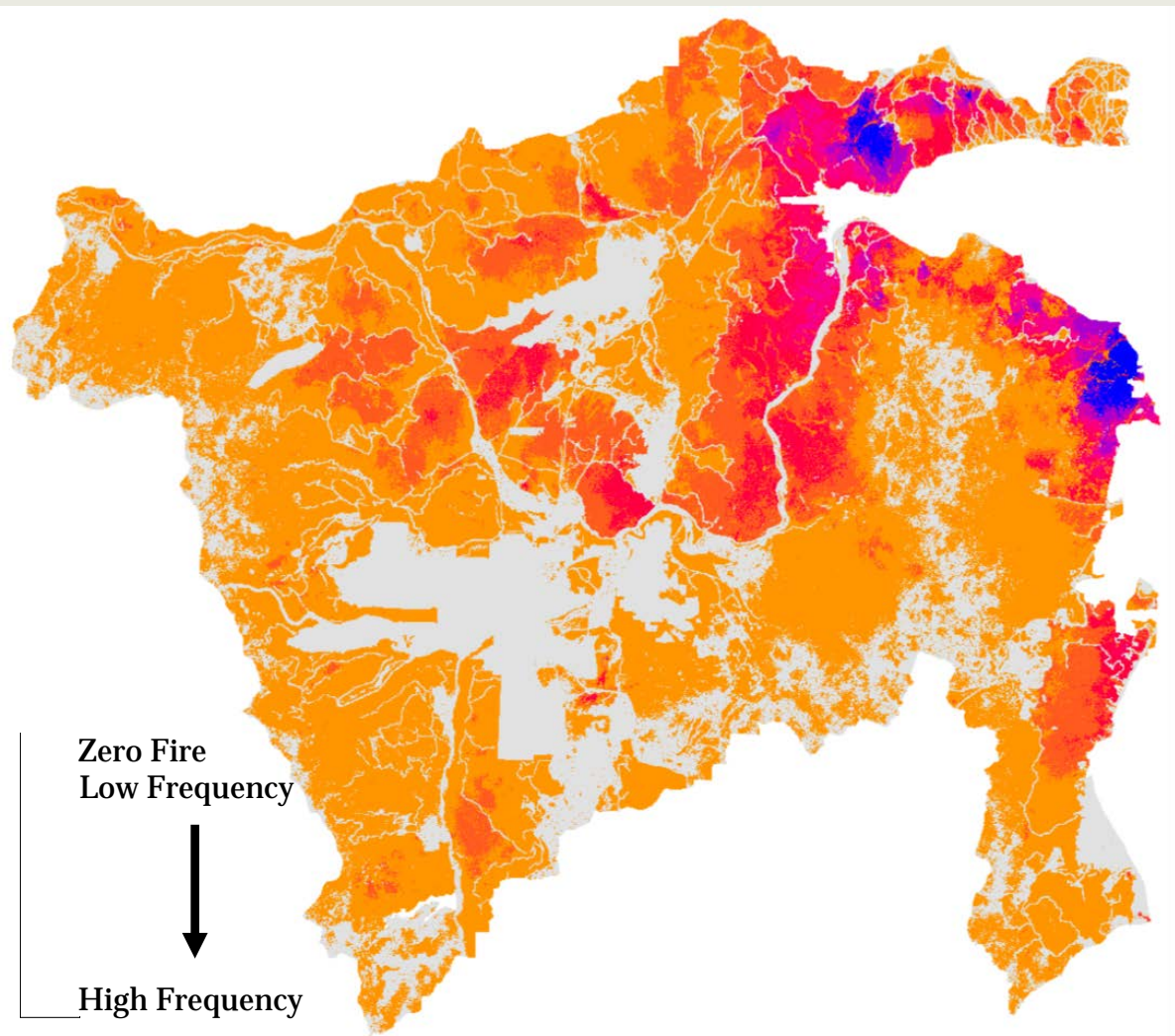


# Truckee River Watershed Investment Program

- Determine our risks and potential to reduce risks
- Demonstrate compelling case to invest
- Develop funding mechanisms (*going to need committee members to help us convey need if it exists*)
- Work with USFS



# Initial Findings





# Timeline

- October: LCF workshop that will include setting objectives and developing scenarios to be modeled
- January: Hands-on modeling workshop and review of preliminary results
- April: Review final results and discuss next steps/appropriate economic analyses
- TBD: Review results of economic analyses



[www.onetruckeerriver.org](http://www.onetruckeerriver.org)



Photo Courtesy Nevada State Library, Archives and Public Records



Photo Courtesy Nevada State Library, Archives and Public Records



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Photo Courtesy Nevada State Library, Archives and Public Records

# Who We Are, What We Do

One Truckee River (OTR) works to ensure a healthy, thriving, sustainable river connected to the hearts and minds of its community.

OTR is a collaboration of public and private partners working together to realize a Truckee River that flows clean and clear to quench our thirst – where natural ecology, cultural resources, and wildlife are sustained, and where residents and visitors are connected to unparalleled opportunities for recreation and regeneration.







In the beginning...













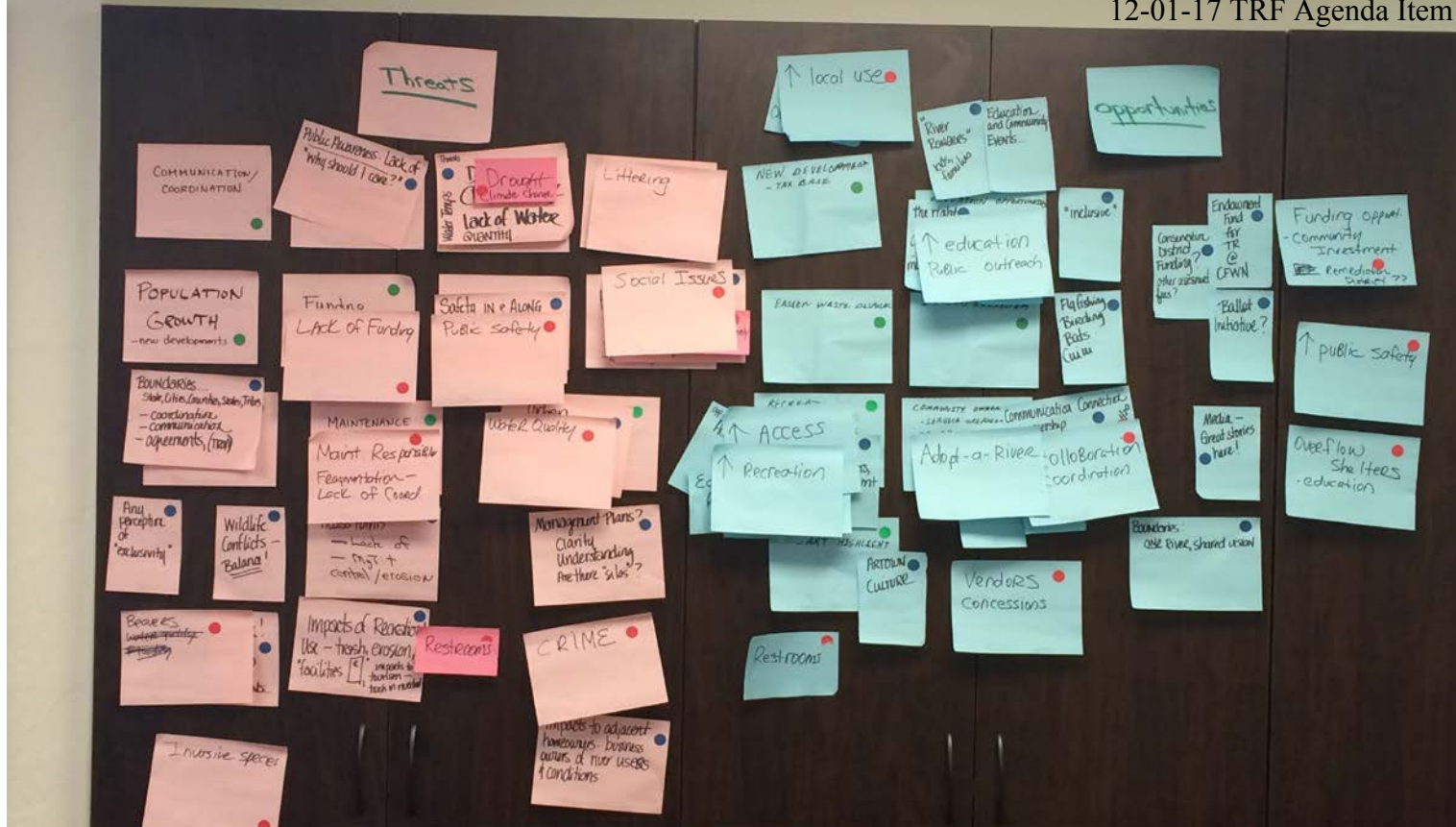






Brodhead  
Park 2012





# Nine Focus Areas

- Social
- Education
- Water Quality
- Sustainable Funding
- Stewardship
- Ecosystem Health
- Public Safety
- Recreation
- Quality of Life





Office DEPOT

PUBLIC SAFETY ISSUES

- crime \*
- patrol
- river safety
- lighting
- prevention & education
- multi jurisdictional roles \*
- dead trees / vegetation mgmt \*
- panhandling
- emergency response
- hazardous waste \*
- proposed public restrooms

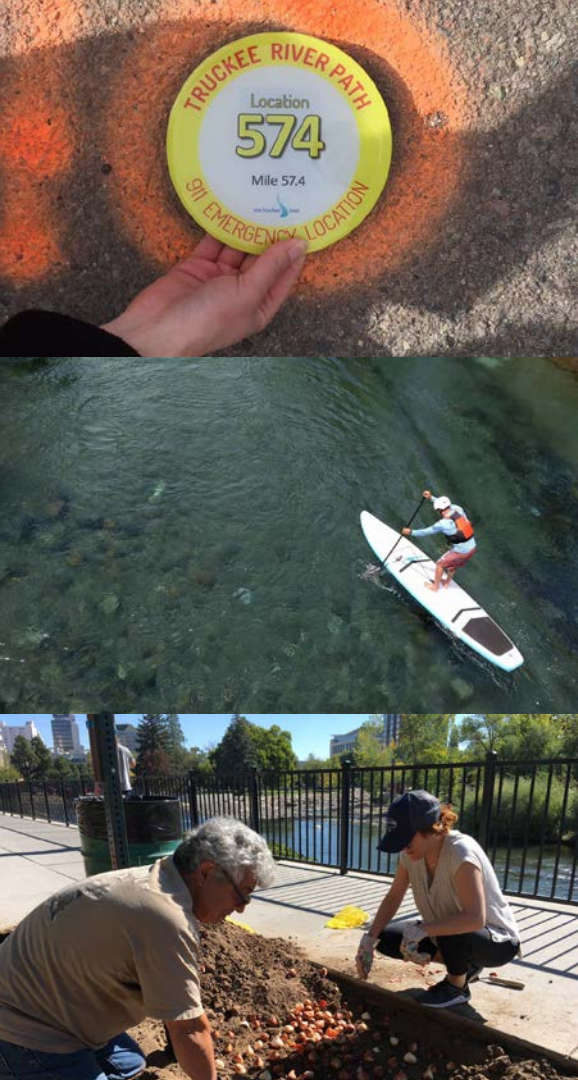
## One Truckee River Stakeholder Forum

### September 2015



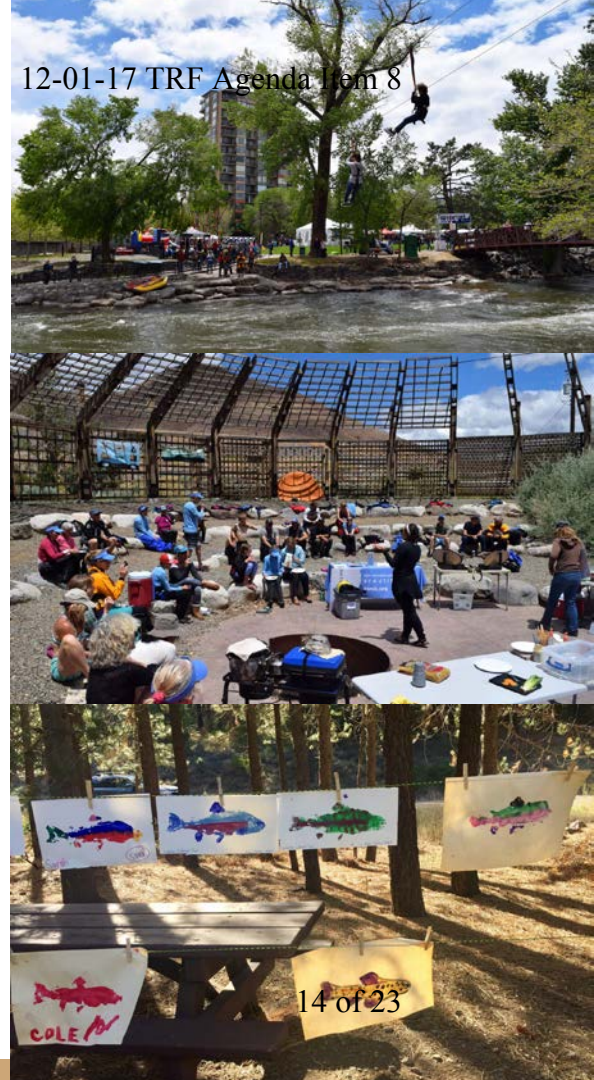
# Over 100 Action Items

- Develop a framework for long-term sustainable management of the river
- Designate region around river as a regional park
- Extend “Take Care” campaign from Tahoe downriver
- Build One Truckee River Visitor Center
- Develop an app that integrates educational, recreational and cultural activities and resources
- Install more artwork along river



# 4 Primary Goals:

- Protect water quality & ecosystem health
- Create and sustain a safe, beautiful and accessible river
- Build an aware community
- Ensure the sustainable management of the river





# One Truckee River Management Plan

Unanimously adopted by cities of Reno and Sparks, and Washoe County in September 2016.

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MANAGEMENT PLAN

PHASE 1 | WEST MCCARRAN TO SPARKS BOULEVARD

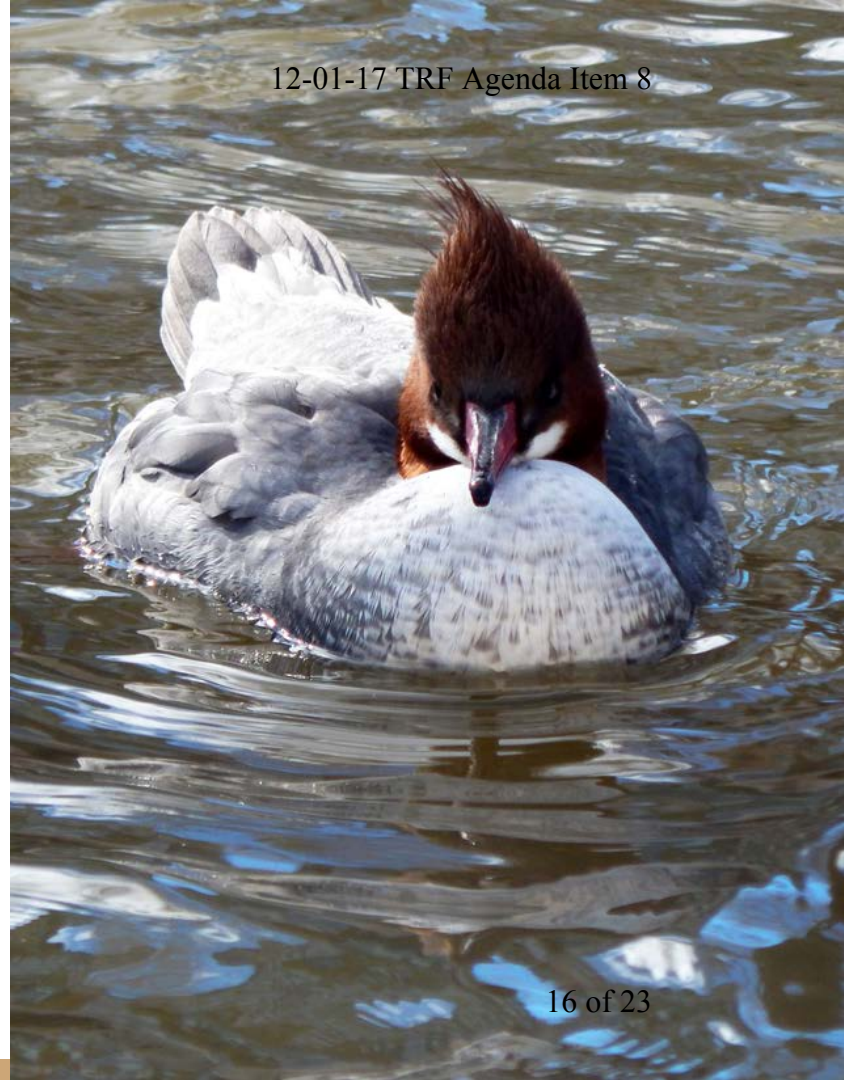


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## *Vision*

A healthy, thriving, sustained river  
connected to the hearts and minds of its  
community.



# Action Items Completed

- Baseline mapping
- Community Knowledge Survey
- Teacher resource and photo guides
- Life jacket stations
- Mile markers in Reno
- AB379



# In the Works...

- Watershed Education Plan
- One Truckee River coordinator
- Organizational success
- Mile markers in Sparks
- Signage & wayfinding
- Art Route from Reno to Gerlach
- Fundraising
- May is Truckee River Month



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# OTR Partner Activities

- NDEP Source Water / Watershed Planning
- TMWA portable restrooms
- Communication and collaboration
- Case workers & increased outreach
- Deeper dive into housing
- TNC modeling & planning
- KTMB's Great Community Cleanup and Truckee River Cleanup Day
- NLT seeking acquisition opportunities



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# One Truckee River's Path Forward





# Phase II Planning





# Funders



A photograph of a person's hand, wearing a watch, drawing the words "ONE TRUCK" in the sand on a beach. The sand is dark and wet, with several smooth, grey rocks scattered around. A long, thin, light-colored stick lies on the sand to the right. The background shows more sand and some dry, brown sticks.

[www.onetruckriver.org](http://www.onetruckriver.org)