



American Rivers
Rivers Connect Us



Hope Valley Meadow Restoration

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American Rivers

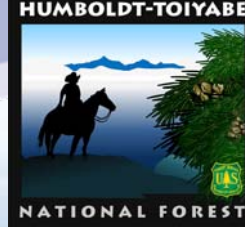
Sally Champion

schampion@fs.fed.us

**Humboldt-Toiyabe National
Forest**



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Project Partners

Partners

CA Department of Fish & Wildlife

Alpine Watershed Group

Friends of Hope Valley

Institute for Bird Populations

Trout Unlimited

Caltrout

Funders

Sierra Nevada Conservancy

National Fish and Wildlife Foundation

Wildlife Conservation Society

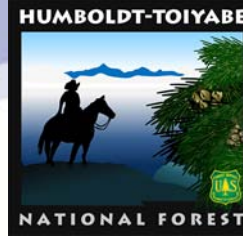
CA Wildlife Conservation Board

Bella Vista Foundation



Why Restore Meadows?

The floodplains of the Sierra



Benefits of Healthy Meadows

- Reduced erosion
- Replenished groundwater
- Moderated peak flows
- Improved water quality
- Summer baseflows
- Habitat



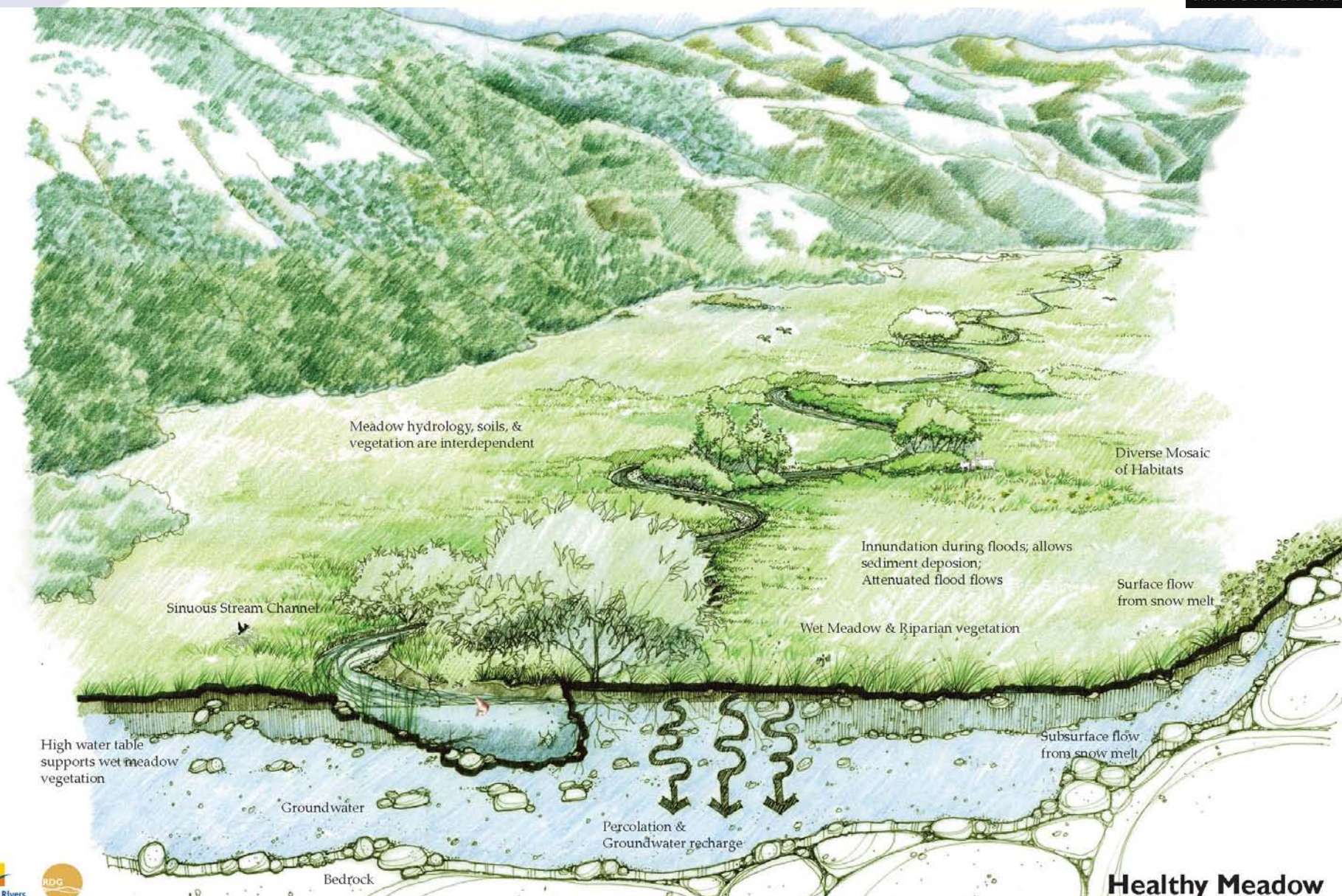
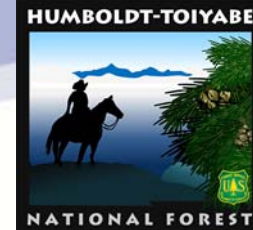
Impacts

- Overgrazing
- Ditching
- No Fire
- Diversions
- Concentrating Flow
(Culverts, RR, Roads)
- Development





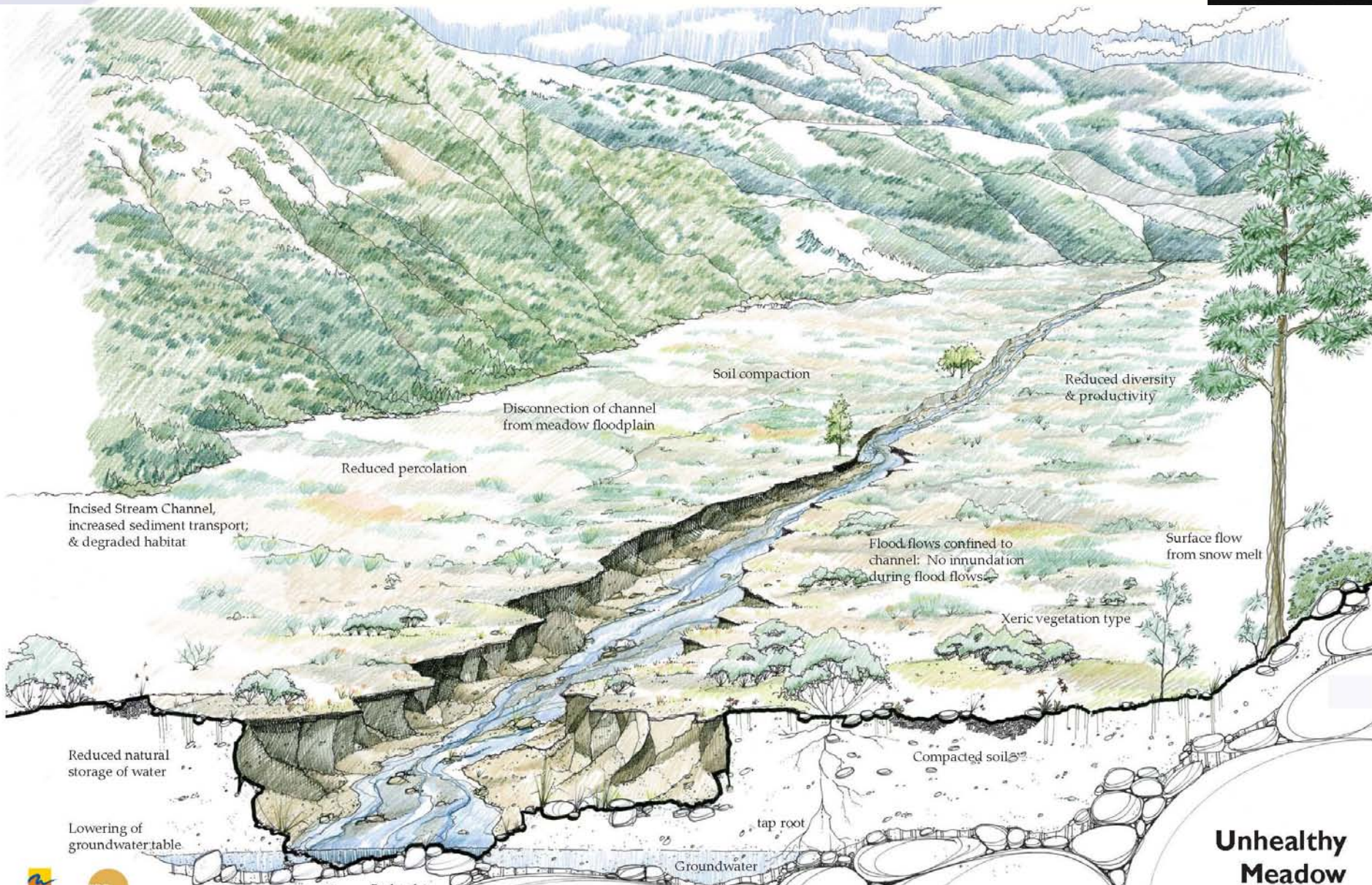
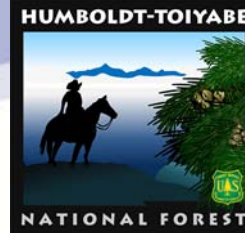
Why Restore Meadows?





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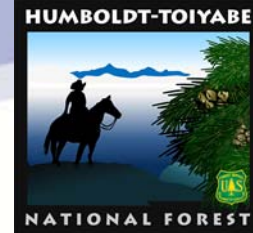
Why Restore Meadows?



**Unhealthy
Meadow**



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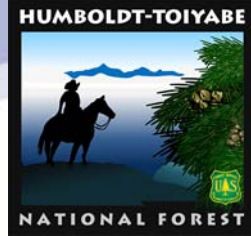


Iconic Hope Valley Meadow





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Current Conditions

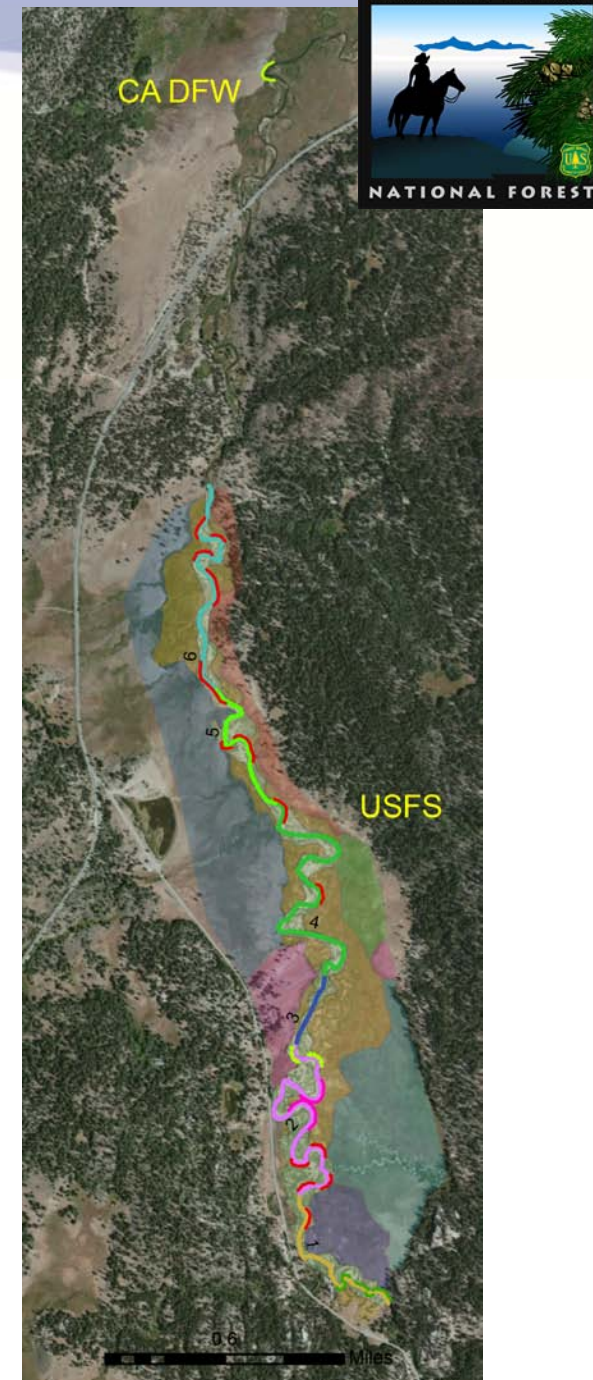
Incision and
high, unstable banks



Hope Valley Project – 5 Steps

1. Assessment and Conceptual Design
1. Technical Restoration Design
- 2. Permitting**
- 3. Implementation**
4. Monitoring & Adaptive Management

*CA DFW added component in 2014



Light handed Approach - 5 Primary Restoration Activities

1. Vegetative Stabilization
 2. Stabilization of Streambank Toes
 3. Meander Cutoff Protection
 3. Floodplain Benches
 5. Log crib bank stabilization (CA DFW)
- Hand Labor – headcut repair

Beaver are helping Hope Valley recover





Vegetative Stabilization

- Light-handed approach
- Low cost, low risk

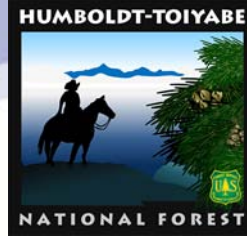


- Used by FOHV below Hwy 88 for 20+ years.



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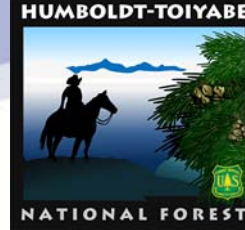
Stabilization of Streambank Toes



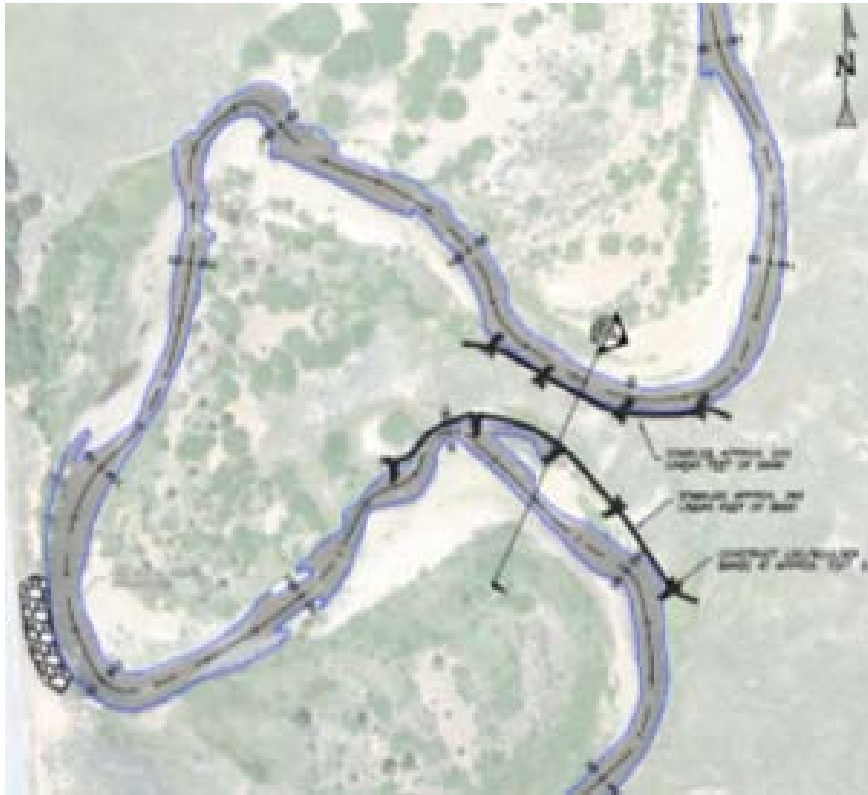
Sod block placed at toe of eroding bank



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Meander Cutoff Protection



- Channel shortened 1500 ft
- Loss of 3 ft of profile grade

Bank protection to prevent:

Floodplain Benches

(At Two Demonstration sites)



- Create stable inset floodplain where erosion is currently highly active
- Favorable access site, monitor to inform future restoration work

Floodplain Benches

(At Two Demonstration sites)



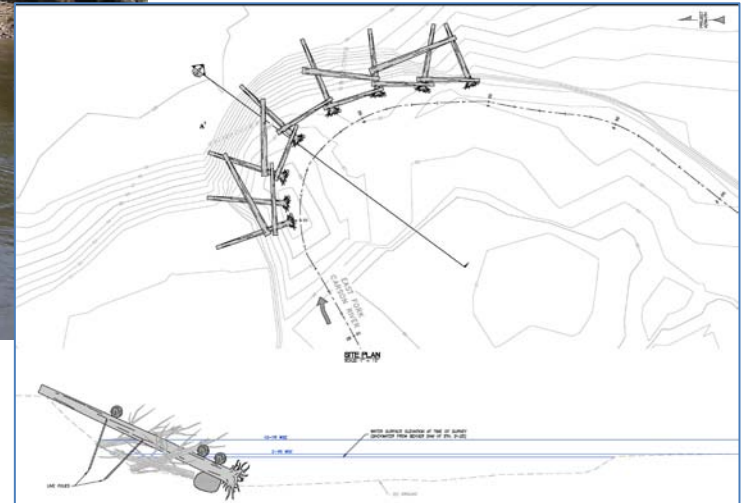
- Create stable inset floodplain where erosion is currently highly active
- Favorable access site, monitor to inform future restoration work

Log Crib Bench Stabilization

(CA DFW property)



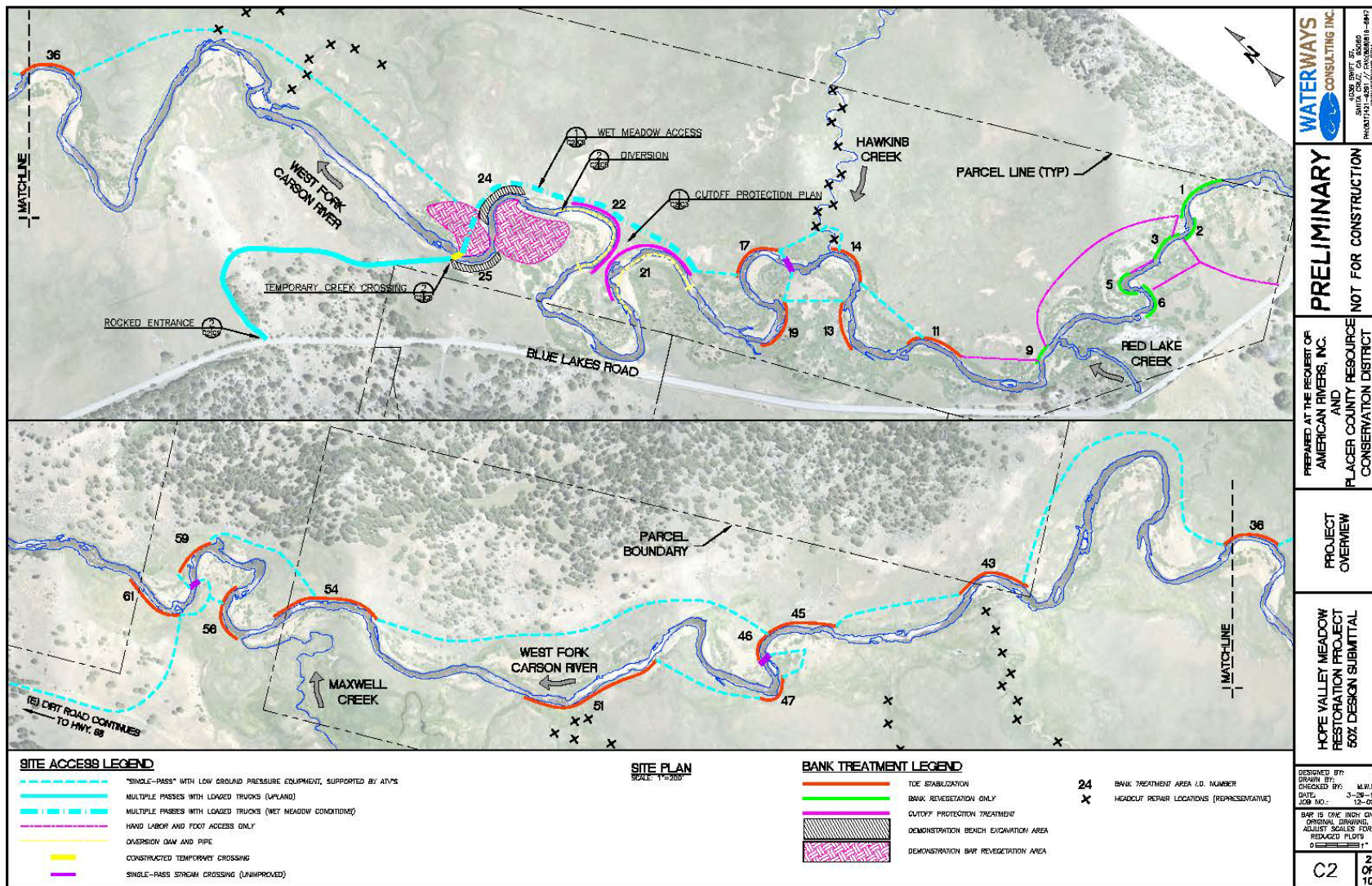
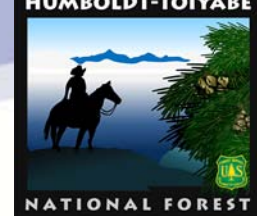
Stabilize high, eroding bank using log-crib structure & willow plantings





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Distribution of Restoration Activities



WATERWAYS CONSULTING INC.
CONSULTING ENGINEERS
SINCE 1982
PHOTOGRAPHY: 4847
WWW.WATERWAYS.COM

PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF
AMERICAN RIVERS, INC.
AND
PLACER COUNTY RESOURCE CONSERVATION DISTRICT

PROJECT OVERVIEW

HOPE VALLEY MEADOW RESTORATION PROJECT 50% DESIGN SUBMITTAL

Thank You!

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