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Prioritizing Meadows for Restoration

Using the Meadow Condition Scorecard
and a
Collaborative Stakeholder Engagement Process

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Meadow Condition Scorecard

9/25/11

Meadow Name ______________________ Date : ___/___/_____ MM DD YYYY

GPS Location: ______°______'____.____" N ______°______'____.____" W

GPS Datum (e.g., WGS 84, NAD 27) ____________________

Elevation (ft)__________Slope (°)__________ County ____________ Landowner ____________

USGS Quad Name 7.5' or 15' (circle one)

Observers:

	CONDITION CATEGORY			
Parameter	**Natural Condition**	**Slightly impacted**	**Moderately Impacted**	**Heavily Impacted**
1. Bank Height in Main Channel (measured in the riffle).	Little or no channel incision, Banks 0-2 feet high along >95% of the channel length.	Bank heights of 2-4 feet along less than 25% of the channel length; 0-2 feet elsewhere. .	Bank heights of 2-4 feet along more than 50% of channel length; higher than 4 feet along less than 25% of channel length.	Bank heights > 4 feet along more than 25% of channel length. Note if sections of channel have banks 0-2 feet high.
Score:	4	3	2	1
Second Channel (if present):	4	3	2	1
2. Bank Stability	<5% of bank length is unstable.	5-20% of bank length is unstable.	20-50% of bank is unstable	>50% of bank is unstable.
Score:	4	3	2	1
Second Channel (if present):	4	3	2	1
3. Gullies/ditches outside of main channel	No gullies or ditches outside of the main channel	Ditch or start of a gully outside of the main channel. Combined length of all gullies & ditches is less than 1/10th meadow length.	Combined length of all gullies and ditches up to 1/2 of meadow length	Combined length of all gullies and ditches is greater than 1/2 of meadow length.
Score:	4	3	2	1
4. Vegetation Cover	Graminoids account for 75-100% of the area covered by vegetation	50-75% graminoid cover	Forbs dominate. 25-50% graminoid cover.	Forbs dominate. <25% graminoid cover.
Score:	4	3	2	1
5. Bare Ground	Bare ground covers less than 5% of the meadow area.	Bare ground covers 5-10% of meadow area	Bare ground covers 10-15% of meadow area.	Bare ground covers > 15% of meadow area.
Score:	4	3	2	1
6. Conifer or Upland Shrub Encroachment	No upland shrub or conifer encroachment. Raised, topographically distinct areas may have upland species present, but not the meadow surface.	Few encroaching upland species; <10% of total meadow area	Encroaching upland species cover 10-20% of total meadow area	Encroaching upland species cover >20% of total meadow area
Score:	4	3	2	1

Total	
Possible Points	
Total/Possible	

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1. Bank Height
2. Bank Stability
3. Extent of Gullies
4. Graminoid/Forb ratio
5. Bare Ground
6. Encroachment

Plus checklist

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Scorecard Assessments

UC Davis Database - Online Data Entry

Assessments

Organization - Any -

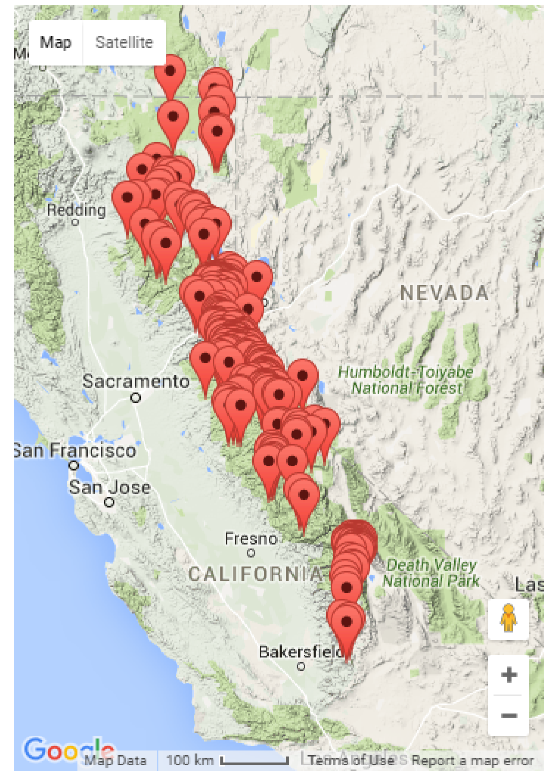
Watershed - Any -

Completed - Any -

Apply

Title / Meadow	Assessment Date	Watershed	Score
Lower Stephens Meadow Assessment Meadow (or UCID): UCDSNM016235	April 21, 2015	Pine Creek	25
Upper Stephens Meadow Assessment Meadow (or UCID): UCDSNM016204	April 21, 2015	Pine Creek	23
Burgess Meadow Assessment Meadow (or UCID): UCDSNM016431	March 26, 2015	Pine Creek	20
Shoestring Draw Meadow Assessment Meadow (or UCID): UCDSNM016416	March 26, 2015	Pine Creek	19
McKenzie Cow Camp Meadow Assessment Meadow (or UCID): UCDSNM016283	March 25, 2015	Pine Creek	30
Logan Springs Meadow Assessment Meadow (or UCID): UCDSNM016343	March 25, 2015	Pine Creek	19
McCoy Flat Assessment Meadow (or UCID): UCDSNM016379	March 25, 2015	Pine Creek	15
Little Antelope Valley Assessment	March 16, 2015	Pine Creek	19

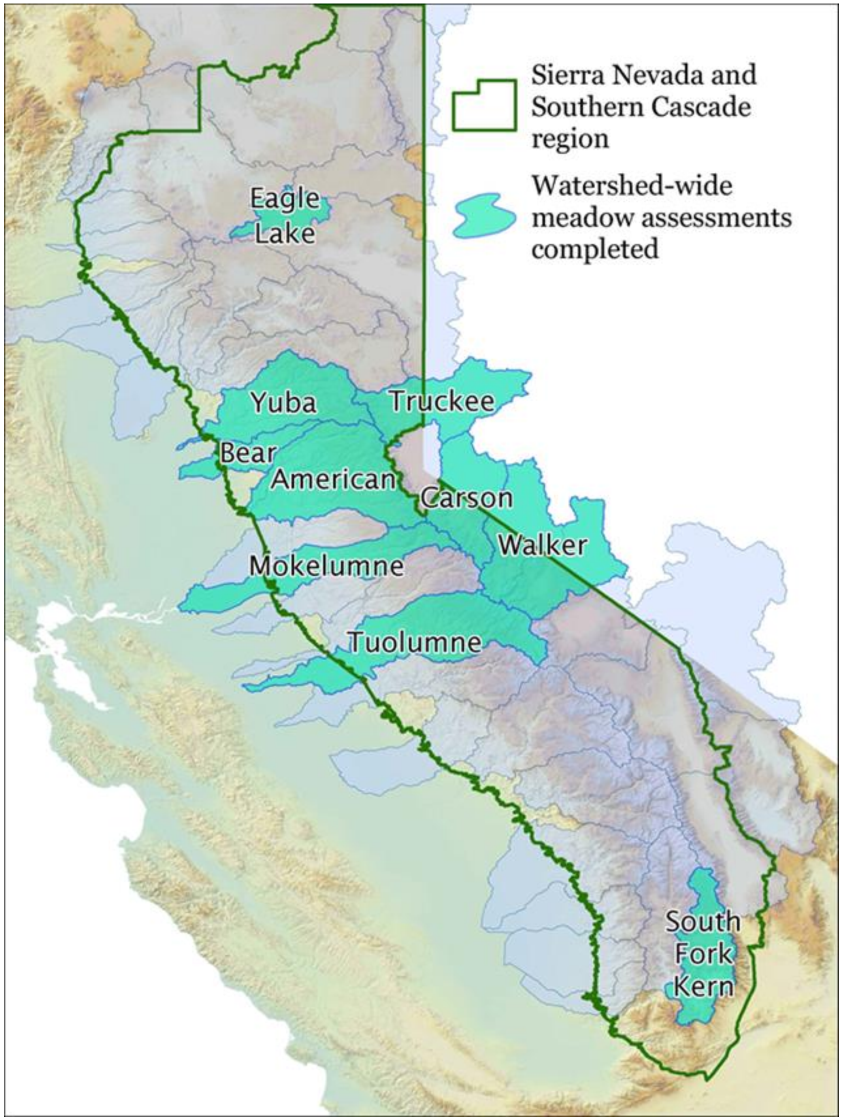
Map



Click to see the full sized map

Scorecard Assessments

American Rivers' Assessments



A couple Examples
(that I happened to have slides for)

- Walker River
- Carson River
- Truckee River
- Pine Creek/Eagle Lake

Process

1. **GIS to identify suite of meadows to visit**
   - Integrate datasets, accessibility, imagery, local experts
2. **Conduct scorecard assessments**
3. **Establish Stakeholder Workgroup**
   - Example – Walker Workgroup
     - CalTrout, Trout Unlimited
     - US Forest Service, CA Dept Fish and Wildlife,
     - US Fish and Wildlife Service
     - NFWF
     - US Marines, Inyo Mono RCD

3. **Analyze data gaps and determine/compile additional prioritization data**
   - Species distributions (current, critical habitat)
   - Access (ownership/wilderness)
   - Existing priorities
   - Grazing, Marine training
4. **Detailed review and vet priorities**
   - Site visits
   - Establish priority sites and project planning

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Scorecard Data

Meadow Name	Bank Height	Bank Stability	Gullies	Vegetation	Bare Ground	Encroachment	Number of Headcuts
Sardine Meadow	1	1	2	3	3	1	4
Leavitt Meadow	1	1	2	4	2	2	1
Little Wolf Creek	2	3	3	3	1	3	3
Lower Piute Meadow	2	2	4	3	3	1	0
Grizzly Meadow	2	2	4	3	1	4	0
Little Antelope Valley	1	3	1	4	4	4	4
Upper Piute Meadow	2	2	4	3	3	3	0
Big Meadow	2	2	3	4	3	3	0
Pickel Meadow	2	2	2	4	4	3	0
Upper Wolf Creek	3	4	3	3	2	3	3
Cloudburst Creek	3	3	3	3	4	3	5
Lower Wolf Creek	3	4	3	3	4	2	1
Middle Piute Meadow	3	3	4	4	4	2	0
Kirman Lake Meadow	4	3	3	4	4	3	0
Upper Little Wolf Creek Meadow	4	3	4	4	2	4	0

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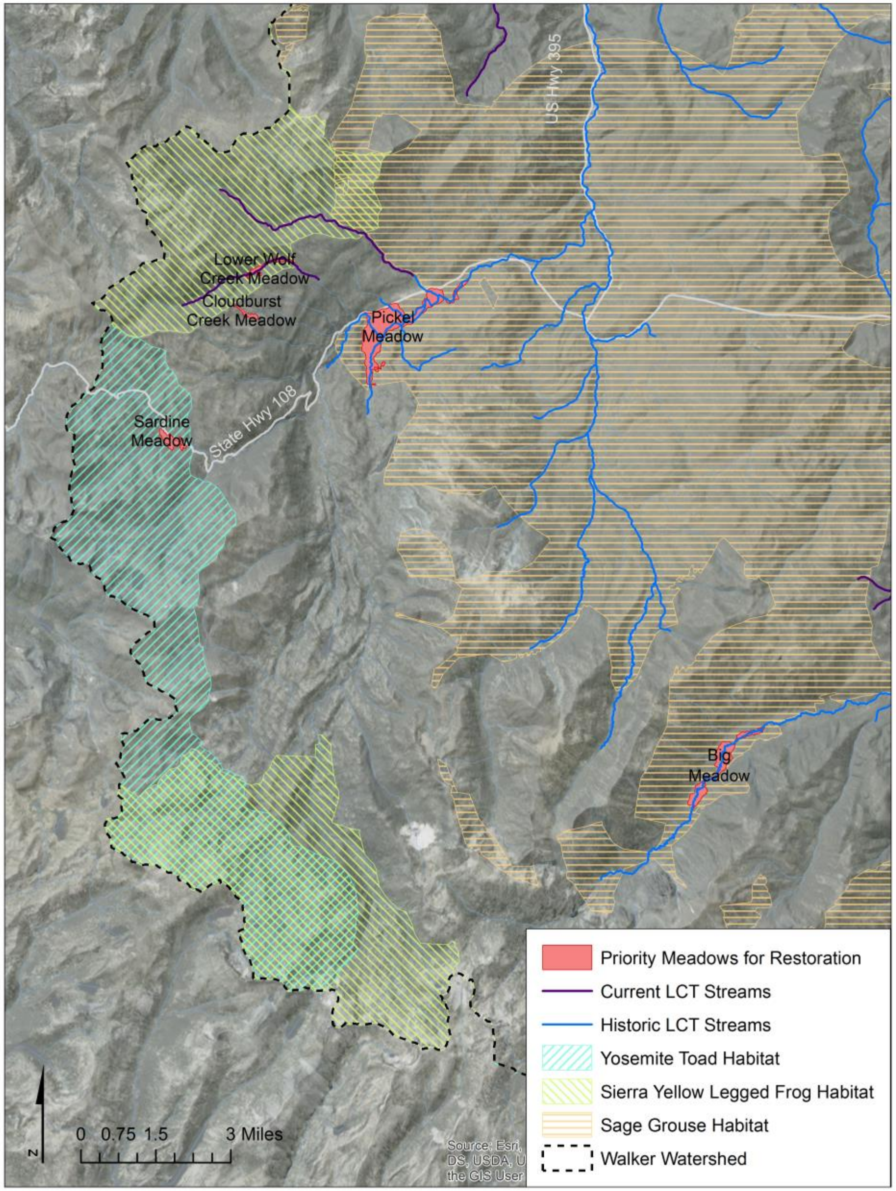
Walker Assessment

Results



5 near-term priority sites for restoration

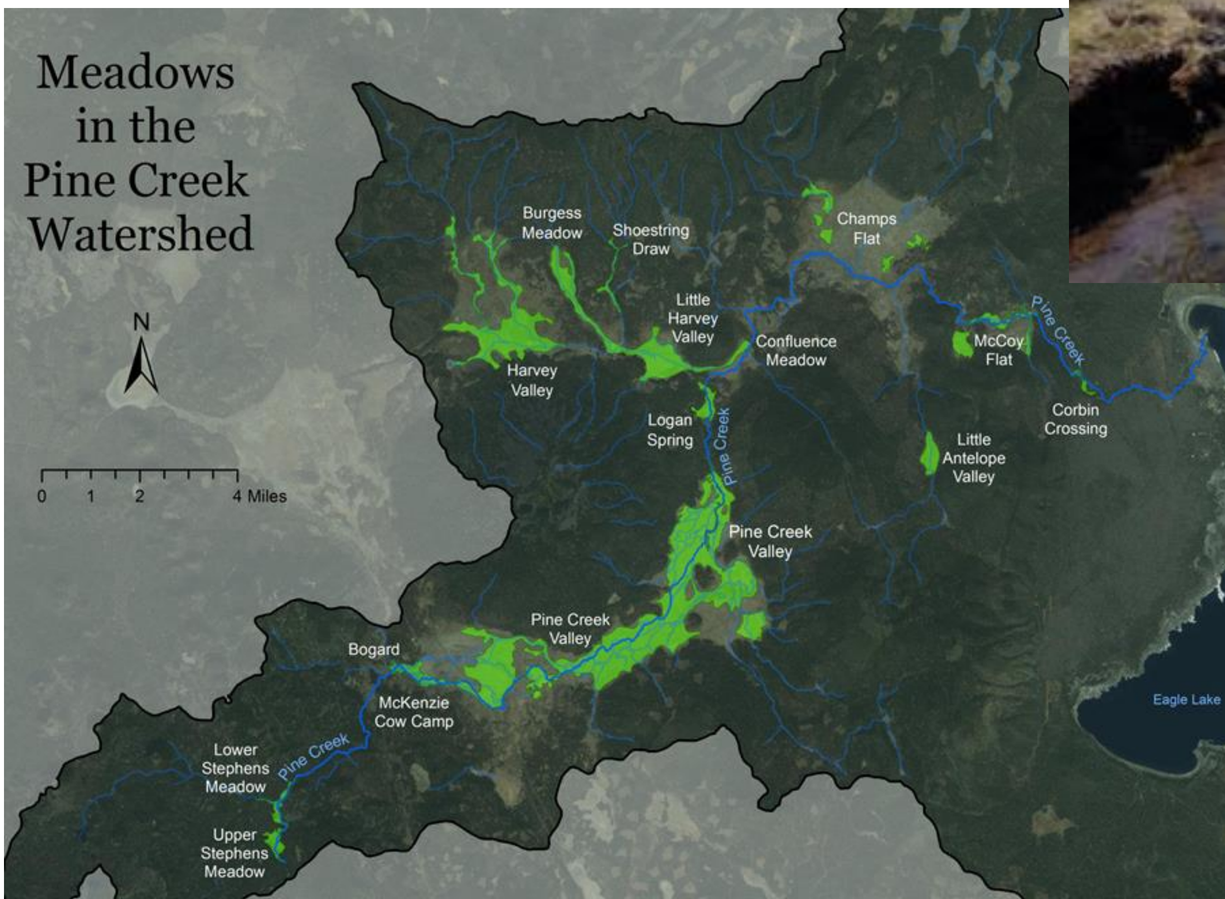
Secured funding

Multiple Meadows under one NEPA/CEQA

USFWS/ Marines buy-in upfront

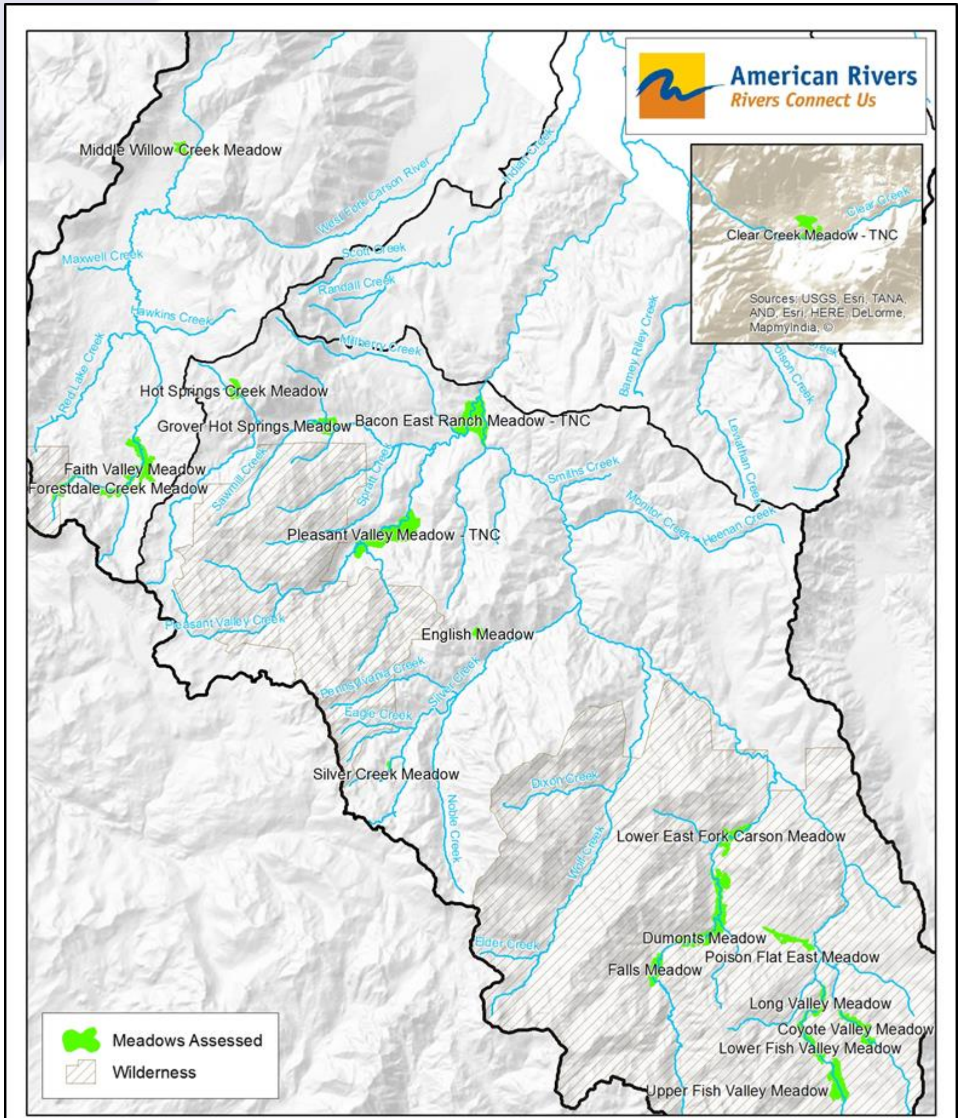
Pine Creek/Eagle Lake

- Conducted assessment
- Developed priorities with Pine Creek CRMP
- Design and permitting for first sites

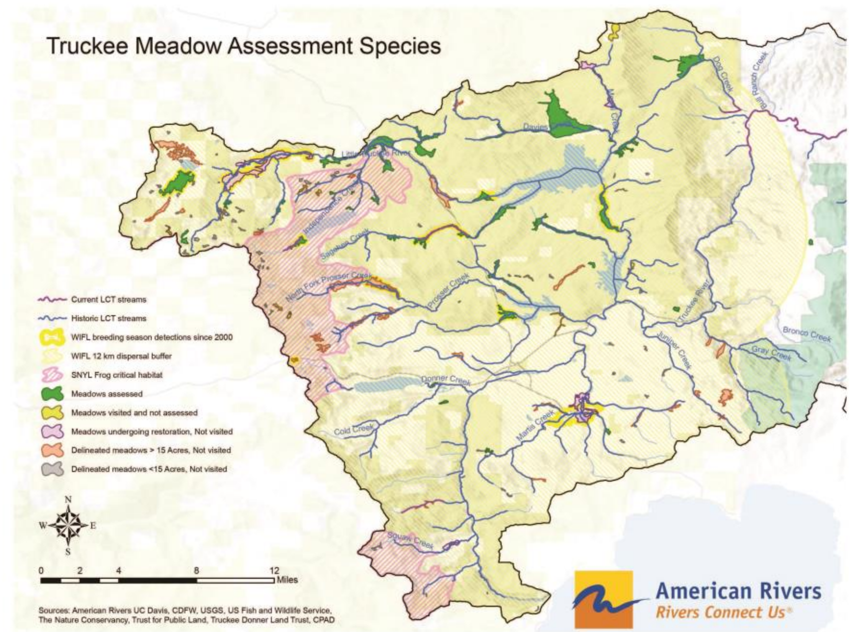


Carson & Truckee

- Conducted assessment
- Convened stakeholders groups
- In process of compiling additional data and developing priorities



Carson Meadows Assessment Overview



Conclusions

Scorecard assessment and prioritization process

- Identifies issues specific to each site
  - Eg. road impacts vs. entrenchment
- Ensures priority sites are addressed first
- Makes use of local and regional knowledge and expertise
- Galvanizes support from partners, agencies and funders
- Can provide an economy of scale for NEPA, etc.
- Increases the pace of restoration!

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Thank You!

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