

Vegetation Sampling For Recording Changes In Vegetation for Perazzo Meadows Restoration: Phase 1

By: Dave Weixelman, USFS Regional Range Ecologist
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Introduction

Vegetation sampling was begun in Perazzo meadows in September, 2008, to record plant species data prior to construction of the pond and plug project. Permanent transects were established by crews from the Tahoe National Forest Supervisors office. Five cross sectional transects, running across the entire meadow (see figure 1) were used to record vegetation data.

Vegetation Sampling Techniques

Five cross sections were established in Perazzo meadows (see Figure 1, page 2). The cross section vegetation community sampling method using Winward (2000) was used. Using this method, the beginning and end of each transect was permanently marked with rebar stakes. The transect was walked, and the number of paces covered by each plant community were recorded. Plant communities were identified by a dominant species and co-dominant species, such as *Salix lemmonii*/*Carex nebrascensis*, and recorded on the forms.

In addition to the Winward (2000) method, quadrats were placed along the cross section transect to record percent cover by plant species (see Figure 2, page 3). A 20 X 50 cm quadrat was used. In each quadrat, the percent cover of each plant species (all vascular plants) was recorded. Spacing of quadrats along the transect were 15 paces apart.

Data will be summarized and combined for all five transects and compared with follow-up surveys to record changes in vegetation composition before and after the pond and plug restoration project. Summary data will consist of:

- Percent coverage of plant communities along the transects
- Percent cover of willow vegetation
- Percent cover of hydrophytic vegetation
- Percent cover of bare soil

Future Surveys

On-the-ground restoration in the upper Perazzo meadows is scheduled to begin in summer, 2009. It is anticipated that the next vegetation sampling will occur in mid-September, 2009. After that, vegetation surveys are scheduled for 2010 and 2011. These data will provide one season of pre restoration data and 3 seasons of post-restoration data for comparisons.

Figure 1. Study area in Perazzo meadows. White lines show the cross section transects used for vegetation sampling in 2008 (see text).

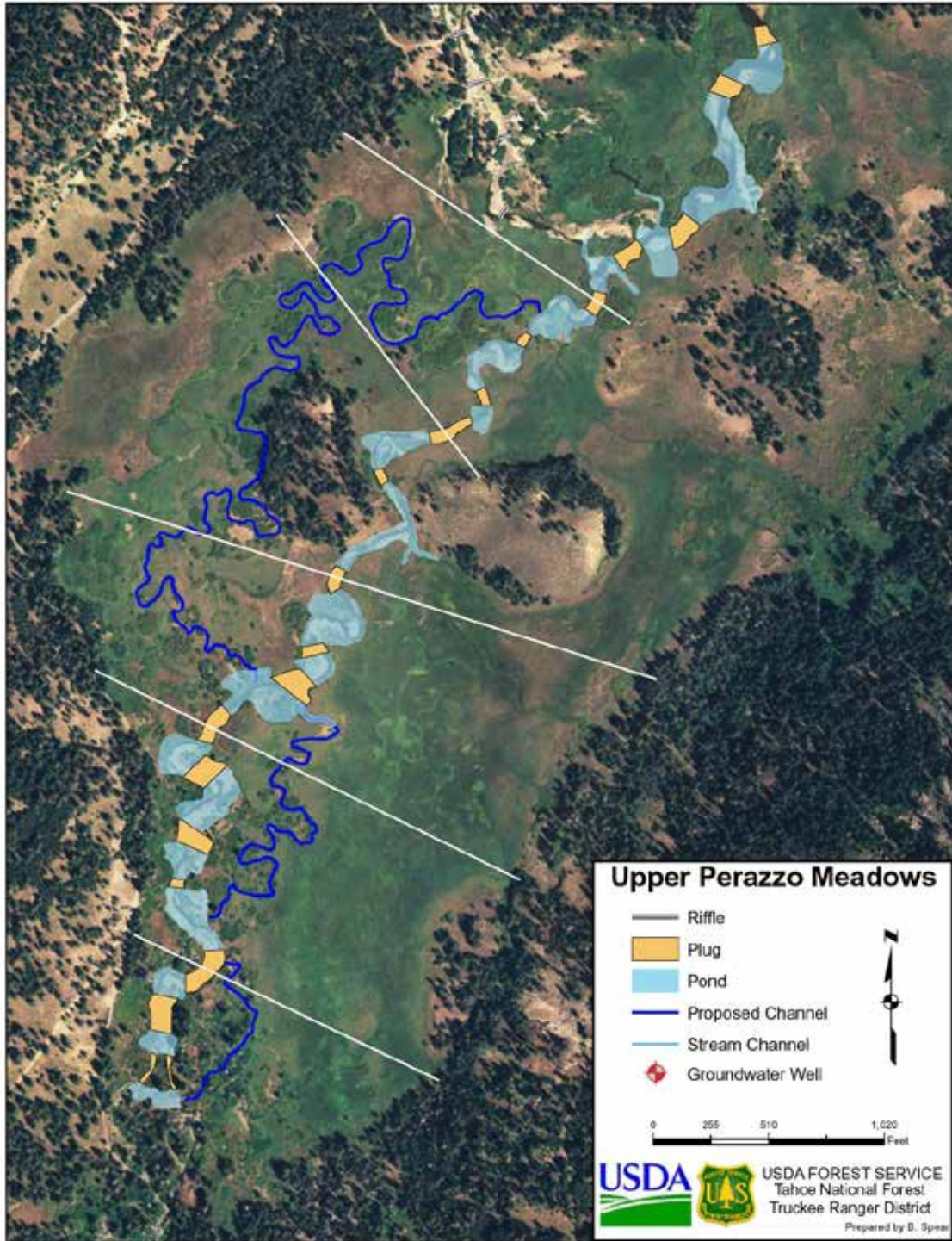


Figure 2. Example of plant species cover form for quadrat data on transect #1.

Frequency													
Plot Code	Date	Examiner	RMU Name	RMU Number									
Transect Location	Number of Quadrats		27	Frame Size	20 x 50 cm								
Plant Code	Species Name	0	5	10	15	20	20	0	5	10	15	20	Total
	POIR	2	1	1									
	BRCA			1									
	ERTG	2											
	DACA	1											
	CAN10	1											
	JUGA	1											
	CAN2	4	1	1	1	1	1	1	1	1	1	1	13
	AGSTB	2	1	1									7
	POGAR	1											
	ASDC	1											
	GAD12	1											
	ELEL	1											
	POGL	2											
	DECE	1											
	CAUE1	1	1	1	1	1	1	1	1	1	1	1	13
	SALE	5	1	1									10
	PICOM4	3											6
	URS	1	1	1	1	1	1	1	1	1	1	1	11
	INCP	1	1	1	1	1	1	1	1	1	1	1	11
	SOIL	1	1	1	1	1	1	1	1	1	1	1	11
	GRAVE1	1	1	1	1	1	1	1	1	1	1	1	11
	ROCK	4	1	1	1	1	1	1	1	1	1	1	18
Vegetation (Basal)		Litter		Bare Ground		Gravel (< 3/4 inch)		Rock (> 3/4 inch)		Cryptogams			
1)	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover
2)													
3)													
Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover	Hits	% Cover
Total		Total		Total		Total		Total		Total		Total	
Remarks:													
Species Indicating High Similarity to PNC													
Species Indicating Moderate Similarity to PNC													
Species Indicating Low Similarity to PNC													

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References:

Winward, A.H. 2000. Monitoring the Vegetation Resources in Riparian Areas. USDA Forest Service, Rocky Mountain Research Station. RMRS-GTR-47.



Map 3

Middle Perazzo M Restoration Site #3 a

January 28, 200

- Plug
- POND
- Grade Control
- Flood Flow