

Making Connections Between Healthy Sierra Nevada Headwaters and Water Supply/Hydropower Value



Most people don't know where their water comes from.
See TNC website for information.



Reduce wildfire risk Need to treat 20% of landscape Finney et al. 2006, Ager et al. 2007

*Basal area is the cross sectional area of tree trunks within a forest area



Not thinned Thinned=more snow= more runoff
Independence Lake - The Nature Conservancy
*thinning funded by Truckee River Fund, water utility



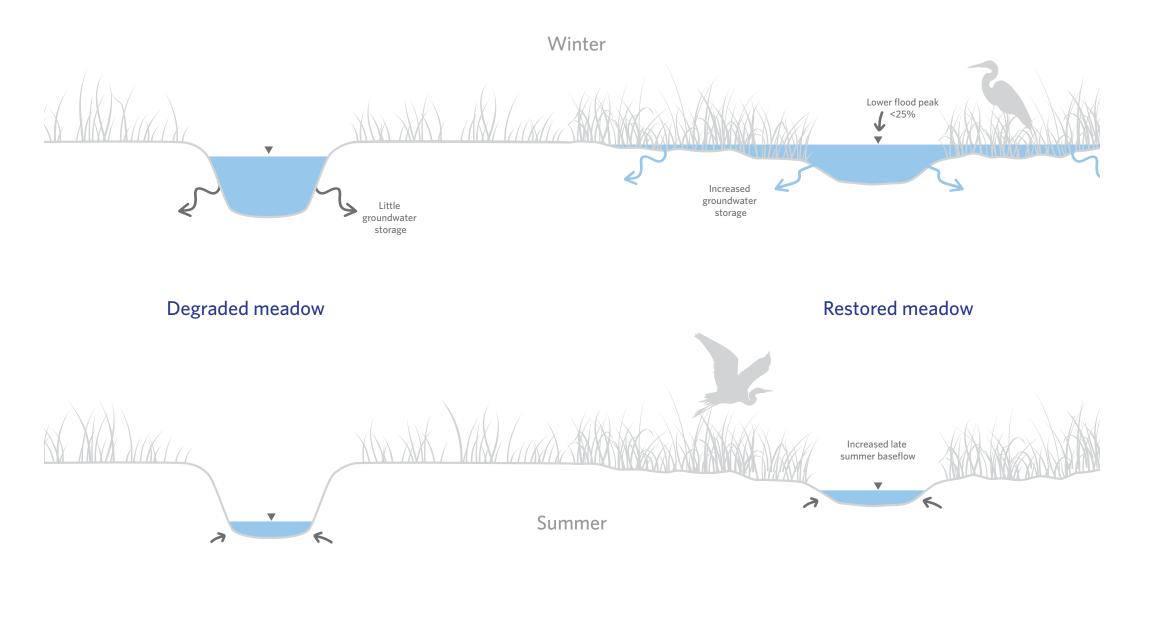
Meadow restoration at Perazzo Meadow with "pond and plug" restoration

Forest Thinning

To% Evapotranspiration Snow in tree canopy Overly dense forest Basal area ~200 square feet/acre 17% Runoff Snow on ground 18% Infiltration

0.1-0.4 acre feet/acre thinned (paired basin studies)
Assume 20-30% basal area reduction (GTR 220, 237)

Meadow Restoration



0.5-0.7 acre feet/acre shift in water timing from winter to summer from restoration (Tague et al. 2008, Plumas Corp. 2004)