# Proposition 1 DFW-Funded Cap and Trade Project

# CHILDS MEADOW BEAVER AND BEAVER DAM ANALOGUES

Progress and Updates

## Meadow Complex Overview



UC Davis - Sarah Yarnell (hydrology, geomorphology, restoration)







The Nature Conservancy – Kristen Podolak, Rodd Kelsey, Andrea Craig, (restoration and grazing mgt, geomorphology, uav)



UC Davis – Evan Wolf (carbon, restoration)



Point Blue –Ryan Burnett (birds, restoration)



USFS PSW – Karen Pope (amphibians, restoration)

## Meadow Complex Overview

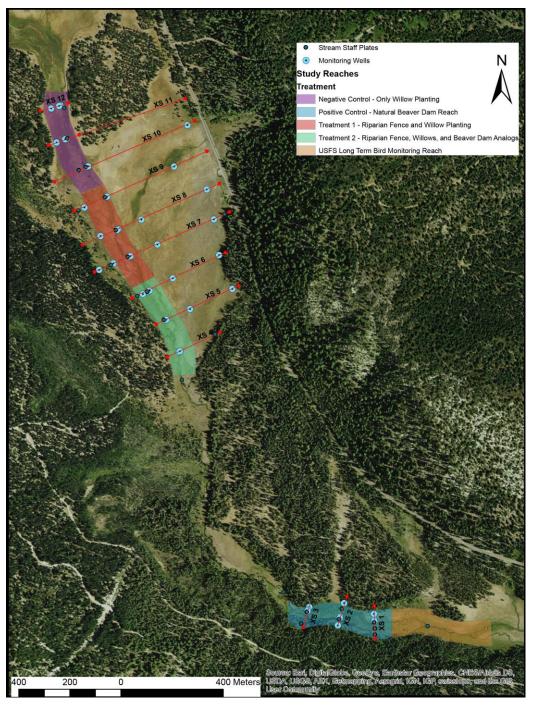


U.S. Fish & Wildlife Service
Jacob Byers and Sheli Wingo
Partnership Program
(dewatering, permitting, restoration)



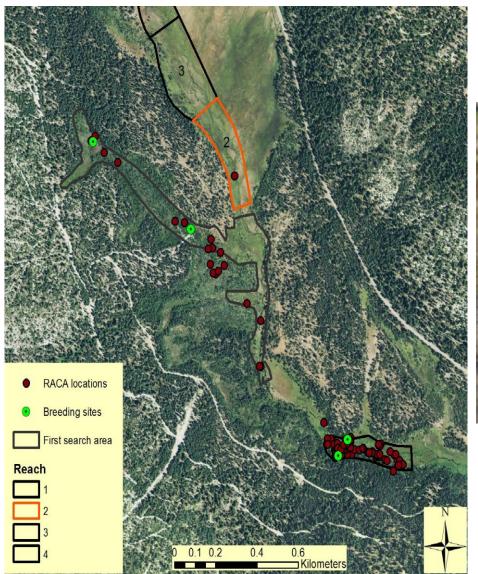
Plumas Corporation Leslie Mink (Permitting)

Scott River Watershed Council Charna, Leslie, Peter (BDA Construction)





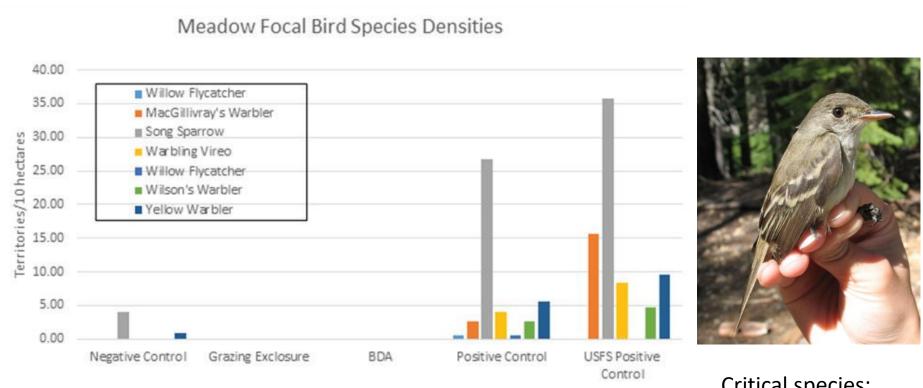
### Pre-Restoration meadow conditions





Critical species: Cascades frog Karen Pope's research

### Pre-Restoration meadow conditions



Critical species: Willow flycatcher Ryan Burnett's research

#### Pre-Restoration meadow conditions



Same day, Oct. 2014 BDA Reach pre-restoration

Natural beaver pond reach

#### Study and Restoration Goals

- Assess the effects of restoration (400 m) on meadow hydrology, geomorphology, and ecology using a classic BACI design.
- Increase carbon storage above and below ground;
- Increase groundwater levels and extent of surface water;
- Increase habitat for sensitive meadow species.



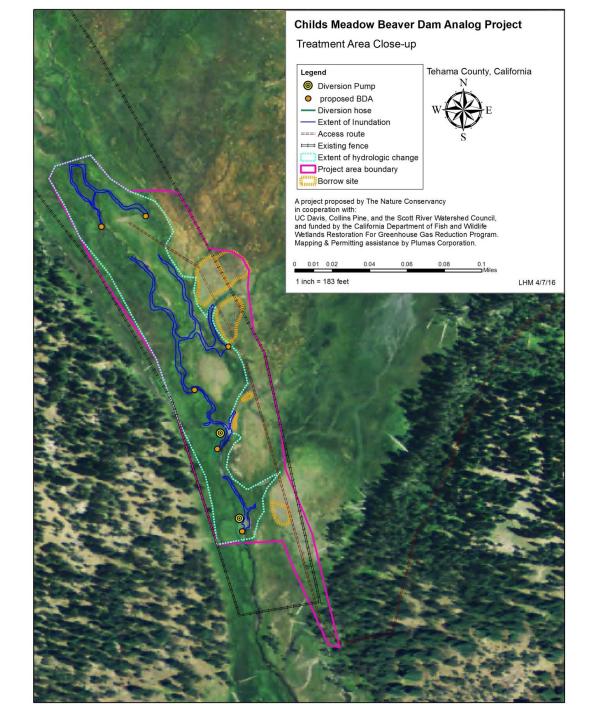
#### **Timeline**

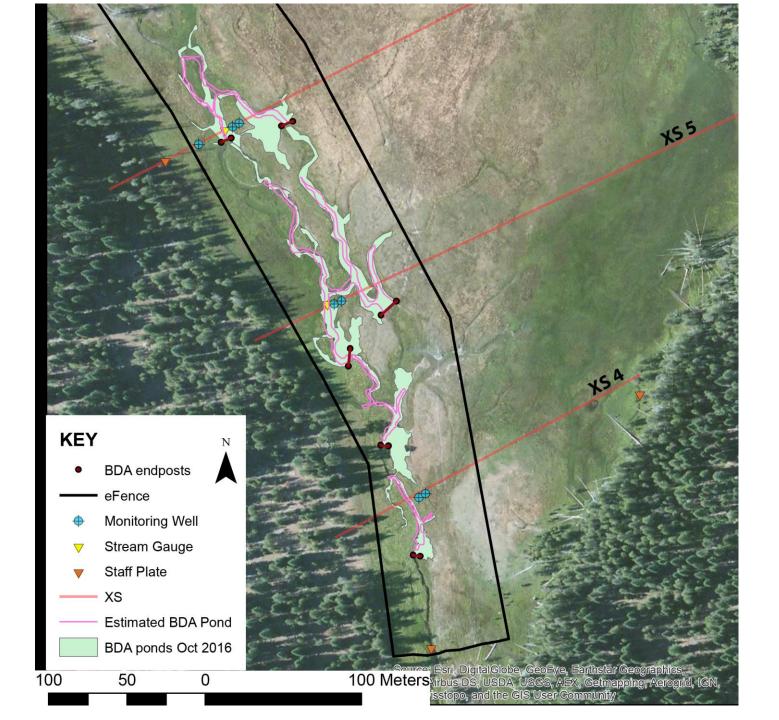
#### Fall 2015

- Cattle exclosure fence
- Planted willow stakes

#### Fall 2016

Installed 6 BDAs





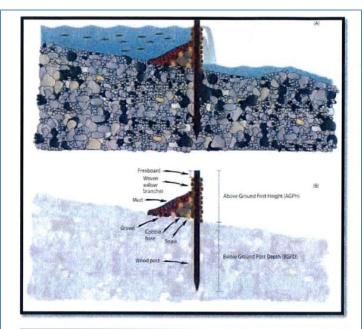




Figure 1. Photo of page 84 from: Pollock, M.M., G. Lewallen, K. Woodruff, C.E. Jordan and J.M. Castro, editors, 2015. The Beaver Restoration Guidebook: Working Beaver to Restore Streams, Wetlands, and Floodplains. US Fish and Wildlife Service, Portland Oregon. 189 pp.

Table 1. Project area acreage.

Project Area	Acres
BDA treatment area boundary	8
BDA treatment reach estimated extent of	4.6
hydrologic change (improved floodplain function)	
BDA treatment reach inundation	0.37
Fine soil source areas	0.5
Willow gathering area	4.6
Pickup truck access beyond existing roads	0.32 (1375')

Table 2. Material estimate.

Material	Quantity
Poles	96 poles totaling 3.2 cu yds
Willow branches	9 cu yds
Hay	3.6 cu yds
Fine soil	5 cu yds
Cobble	5 cu yds

















