# Northern California Climate Change Vulnerability Assessment Workshop

#### May 22-23, 2017 (Redding) May 31-June 1, 2017 (Eureka)

Jessi Kershner, Senior Scientist EcoAdapt jessi@ecoadapt.org









## Northern California Climate Adaptation Project

#### Goals

- Improve understanding of why important Northern California resources may be vulnerable to changing climate conditions, and
- Identify what adaptation actions can be implemented to reduce vulnerabilities and/or increase overall resilience.



### **Project Overview**

### USFS

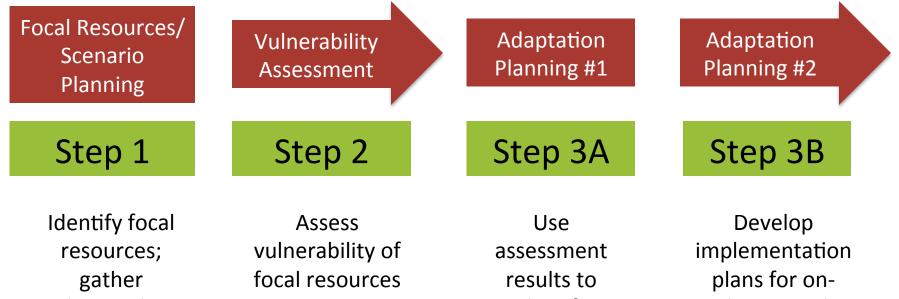
- Forest Plan Revisions
- Northwest Forest Plan Revision

### BLM

- Resource Management Plan Revisions
- **Project planning & NEPA**
- Facilitate partnerships & collaboration
- Other regional conservation efforts



### Project Methodology



relevant data and info

identify adaptation options

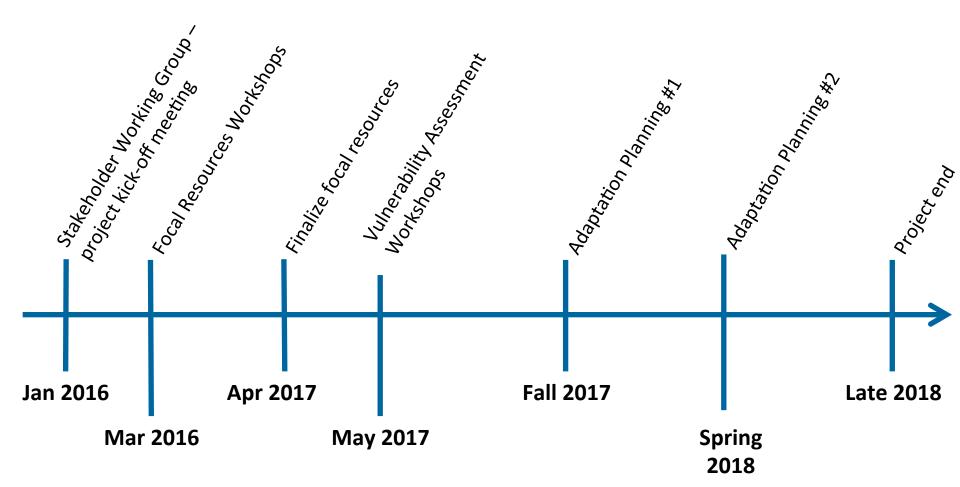
the-ground action

#### **Phase 1: Vulnerability** Assessment

### **Phase 2: Adaptation Planning**



### Project Timeline



\* All workshops will be held in both Eureka and Redding



## Step 1: Identify Priorities

**GOAL:** Collaboratively identify regionally important resources

- Management, cultural, or socio-economic concern
- Habitats, Species/Species groups, Ecosystem services
- Form Stakeholder Working Group

Identify draft list of habitats

• Create focal resource selection guidance



## Step 1: Identify Priorities

#### **GOAL:** Collaboratively identify regionally important resources

- Management, cultural, or socio-economic concern
- Habitats, Species/Species groups, Ecosystem services
- Convened Focal Resources & Scenario Planning Workshops to:
  - Review/Revise draft list of habitats
  - Identify species/species groups, ecosystem services
  - Explore alternative climate futures
- Over 65 stakeholders participated from ~23 different agencies/organizations
- ~75 resources identified
- USFS/BLM reviewed and prioritized list



## Step 1: Identify Priorities

**GOAL:** Collaboratively identify regionally important resources

- Management, cultural, or socio-economic concern
- Habitats, Species/Species groups, Ecosystem services

Since Focal Resources Workshops:

- USFS/BLM reviewed and prioritized list
- USFS and BLM sent out governmentto-government consultation letter to regional tribes
  - Tribes reviewed draft list and added some new resources

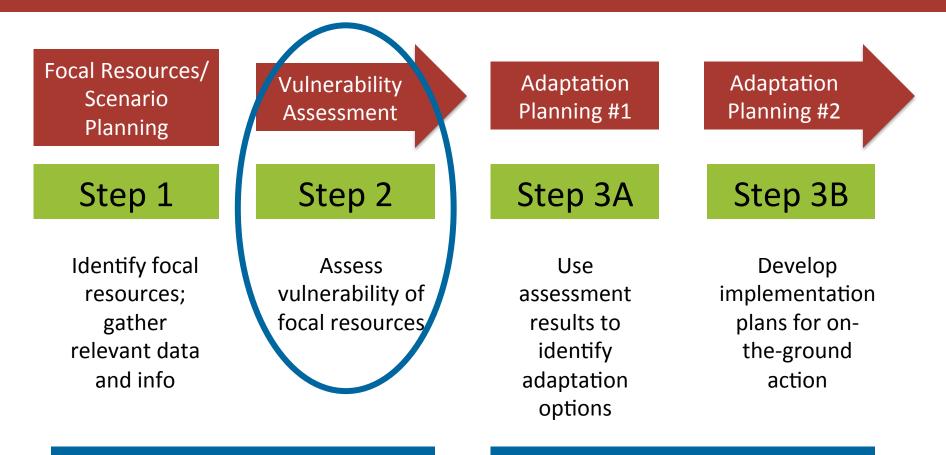


		Habitats	Species/Species Groups
0000	Coastal	<ul> <li>Coastal Dune Forest (dune grassland, non-tidal wetlands, forest mosaic)</li> <li>Coastal/Bluff Scrub (coastal bluff scrub, prairie)</li> </ul>	<ul> <li>Anadromous Fish (salmonids, lamprey, sturgeon)</li> </ul>
	Woodland	<ul> <li>Oak Woodlands</li> <li>Mixed Conifer Woodlands/Mixed Evergreen Forest</li> </ul>	<ul> <li>Native Ungulates (Roosevelt elk, deer)</li> <li>Tanoak</li> <li>Black oak</li> </ul>
	Shrub/ Grassland	<ul> <li>Chaparral</li> <li>Mixed Grasslands (non-alpine)</li> <li>Alpine Grassland/Shrubland</li> </ul>	<ul> <li>Native Pollinators</li> <li>Migratory Birds</li> <li>Brush Rabbit</li> </ul>
	Forest	<ul> <li>Coastal Redwood</li> <li>Mixed Conifer/Ponderosa (dry and moist)</li> <li>Coastal Conifer Hardwood (incl. pygmy forest)</li> <li>Coastal Pine Forest</li> <li>True Fir Forest</li> <li>Subalpine</li> </ul>	<ul> <li>Salamanders (Pacific Giant, endemic)</li> <li>Late Successional-Dependent Species (marten, fisher, northern spotted owl)</li> <li>Marbled Murrelet</li> <li>Rare Trees (spruce, cedar, alpine, cypress, enriched conifers)</li> <li>Sugar pine</li> </ul>
	Freshwater	<ul> <li>Rivers, Streams, Floodplain</li> <li>Lakes, Ponds</li> <li>Marshes, Vernal Pools</li> <li>Seeps, Springs, Groundwater</li> <li>Wet Meadows, Freshwater Wetlands, Fens</li> <li>Riparian</li> </ul>	<ul> <li>Frogs (Northern Red-Legged, Foothill Yellow-Legged, Tailed)</li> <li>Port Orford Cedar</li> <li>Western Pond Turtle</li> <li>Riparian Nesting Birds (warblers, grosbeak)</li> <li>Native mussels</li> </ul>
	Endemic	Rock Outcrops, Cliffs, Talus, Caves	• Bats 9

Step 1: Product



### **Project Methodology**



#### Phase 1: Vulnerability Assessment

### Phase 2: Adaptation Planning



## Vulnerability Workshop Objectives

### Day 1

- Provide participants with an overview of projected future trends for northwestern California
- Assess vulnerabilities of habitats to climate change

#### Day 2

- Assess vulnerabilities of species groups and species
- Present example case studies of moving from vulnerability to developing adaptation strategies
- Share example products, how they can be used, and next steps

### Questions?







