

Habitat Restoration Project Effectiveness Monitoring

**Nevada Department of Wildlife
Nevada Partners for Conservation and Development**

Contact:

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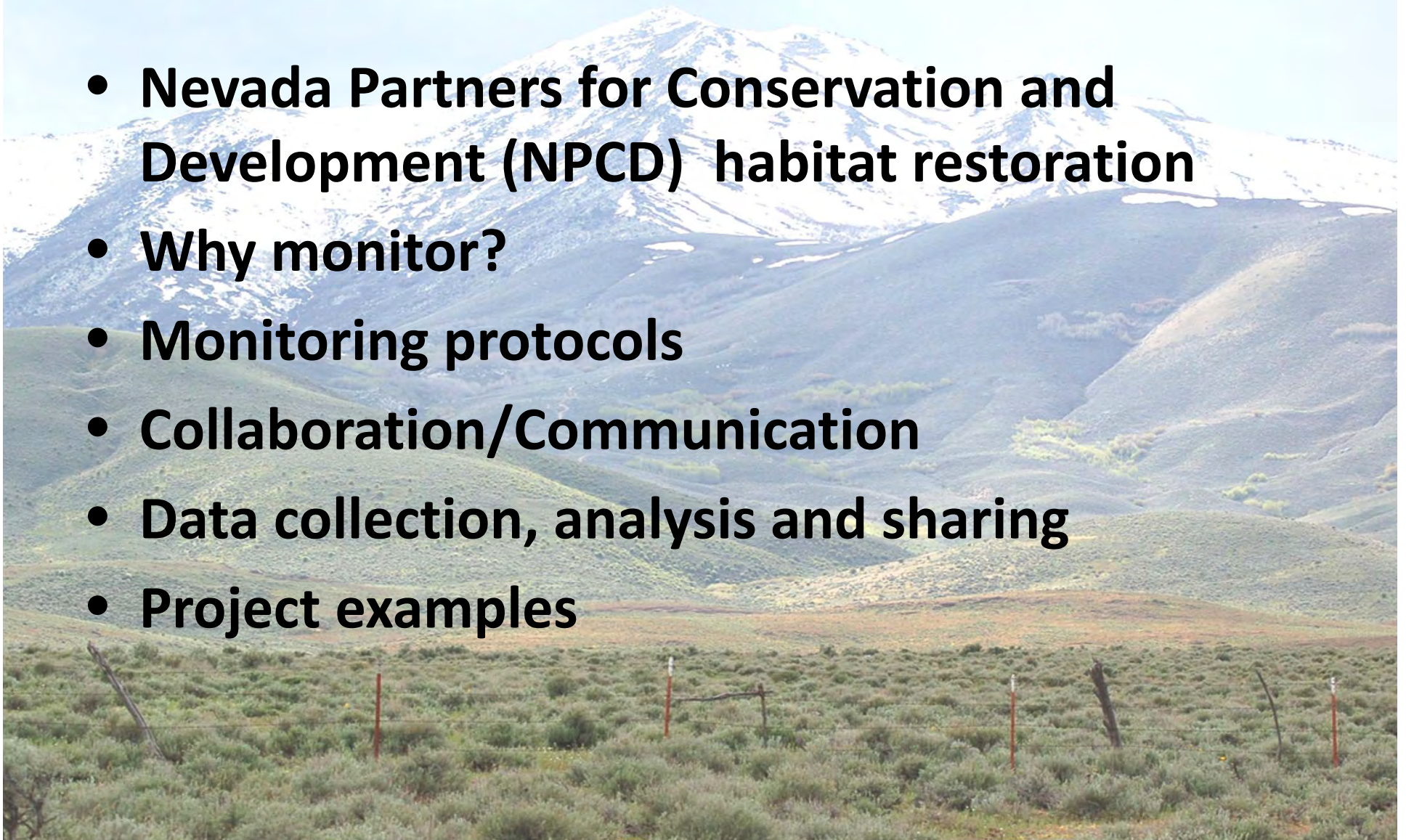
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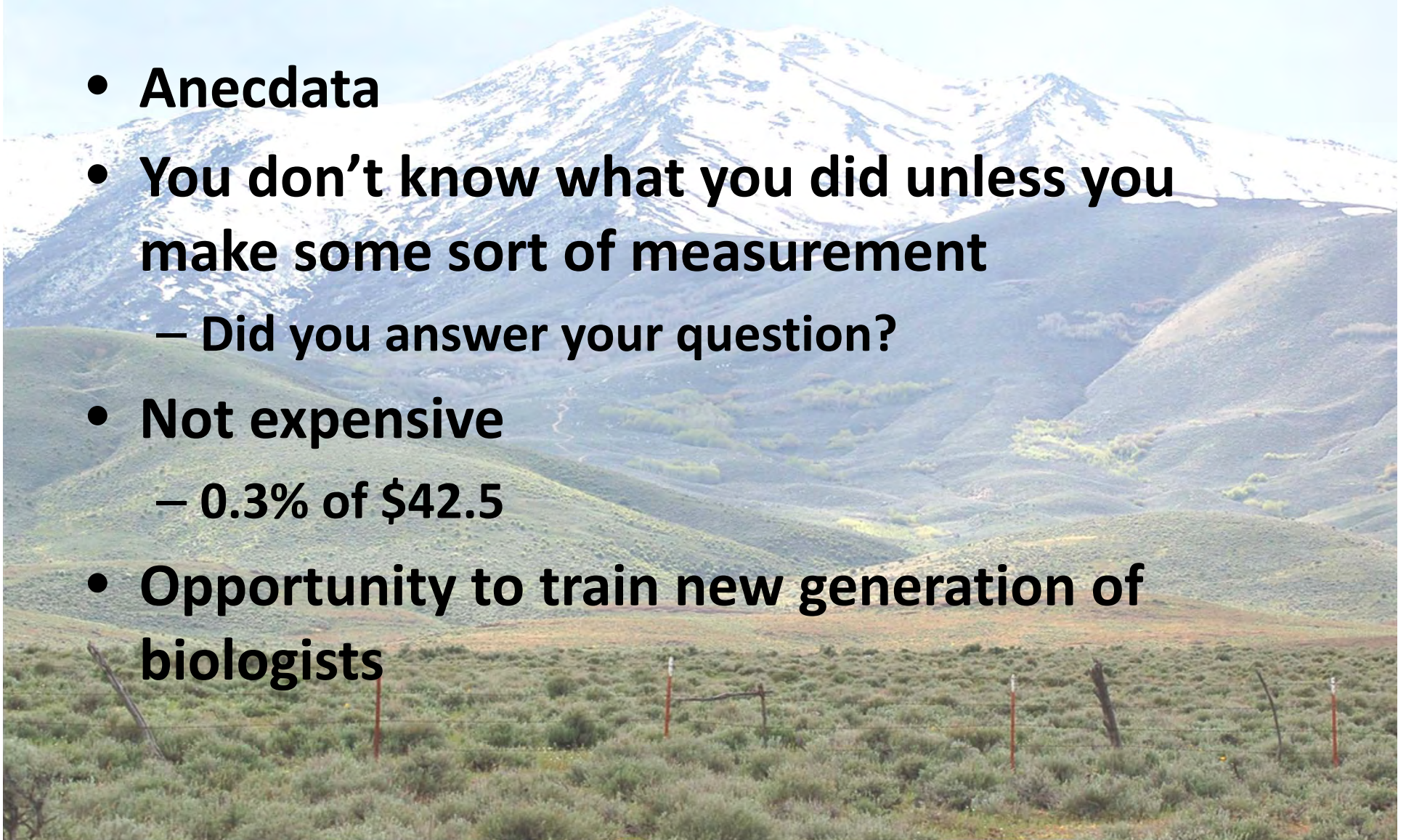
Outline for talk

- **Nevada Partners for Conservation and Development (NPCD) habitat restoration**
- **Why monitor?**
- **Monitoring protocols**
- **Collaboration/Communication**
- **Data collection, analysis and sharing**
- **Project examples**

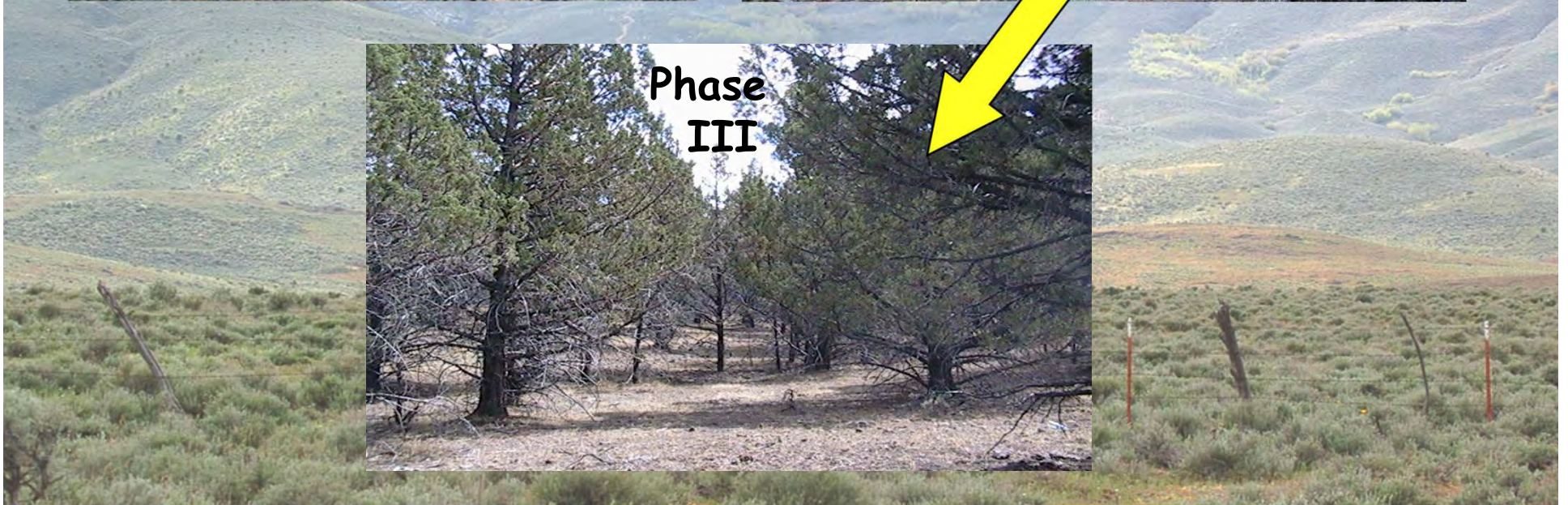
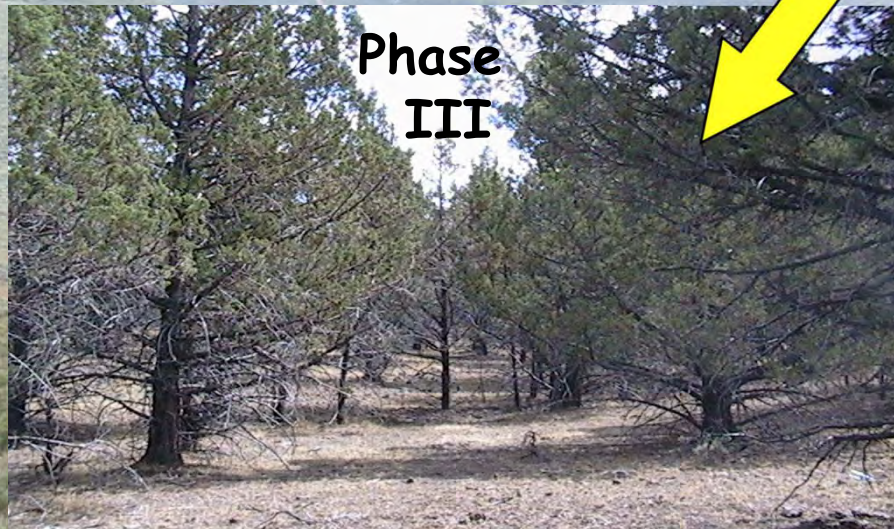
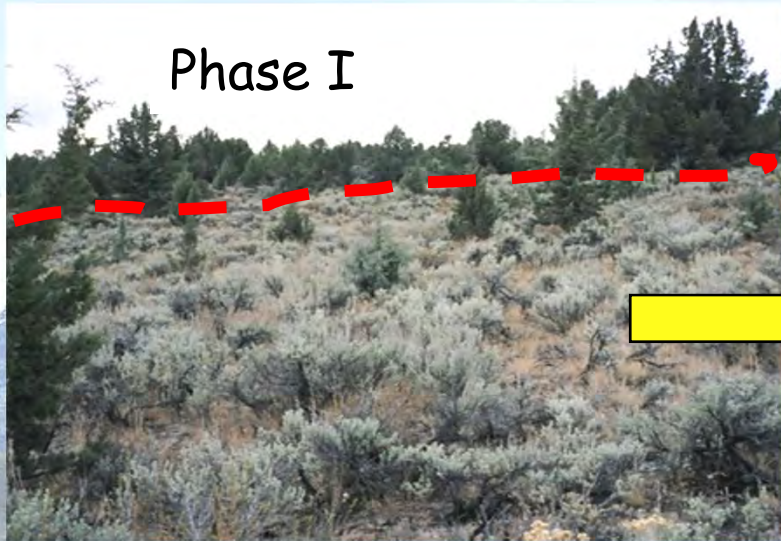


Why monitor?

- **Anecdotal**
- **You don't know what you did unless you make some sort of measurement**
 - Did you answer your question?
- **Not expensive**
 - 0.3% of \$42.5
- **Opportunity to train new generation of biologists**



Vegetation change through time



- **Post vegetation treatment**
- **Sage-grouse habitat effects**
- **Other birds**
- **Small mammals**

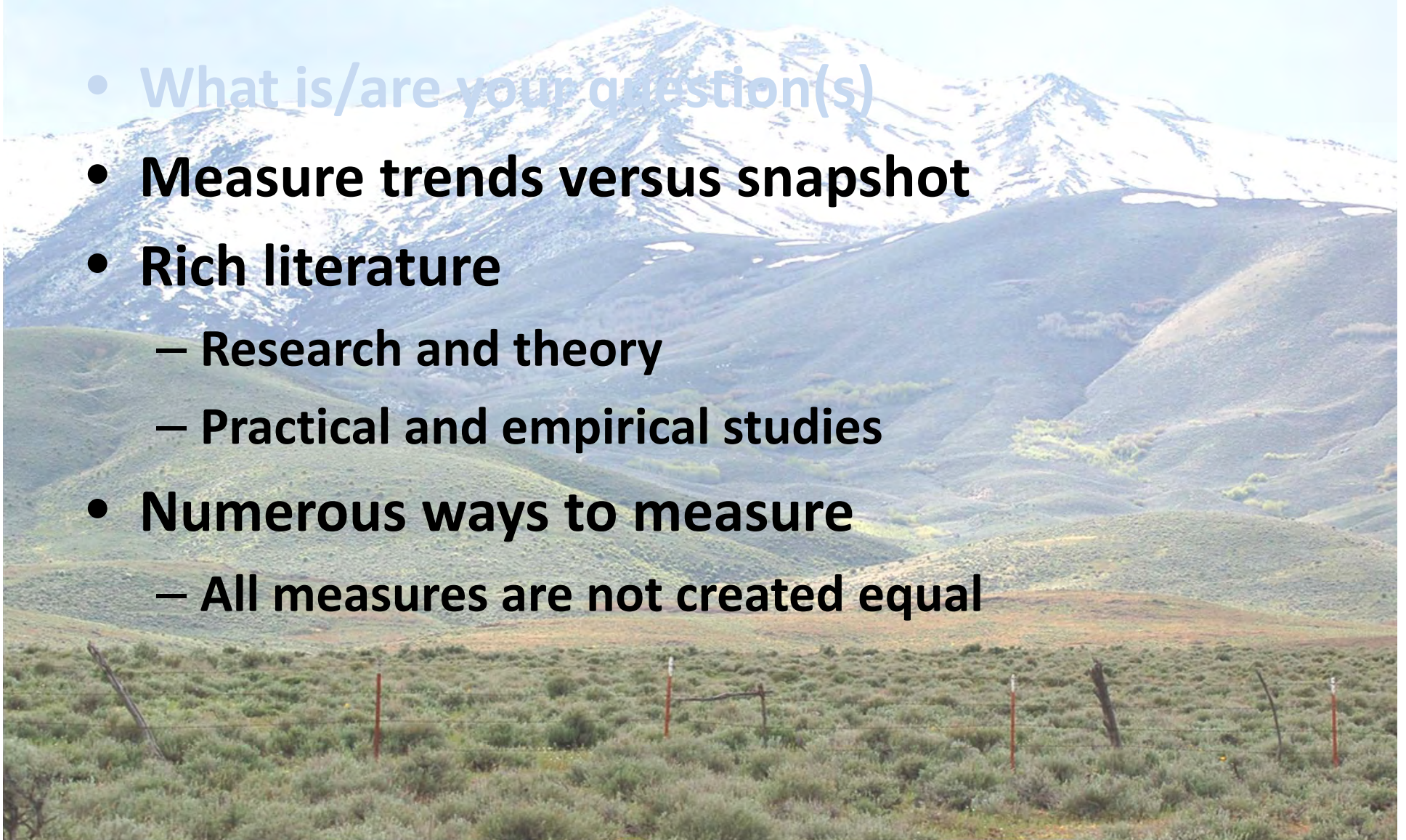


- **Old growth woodland survey**
- **Wildfire recovery**



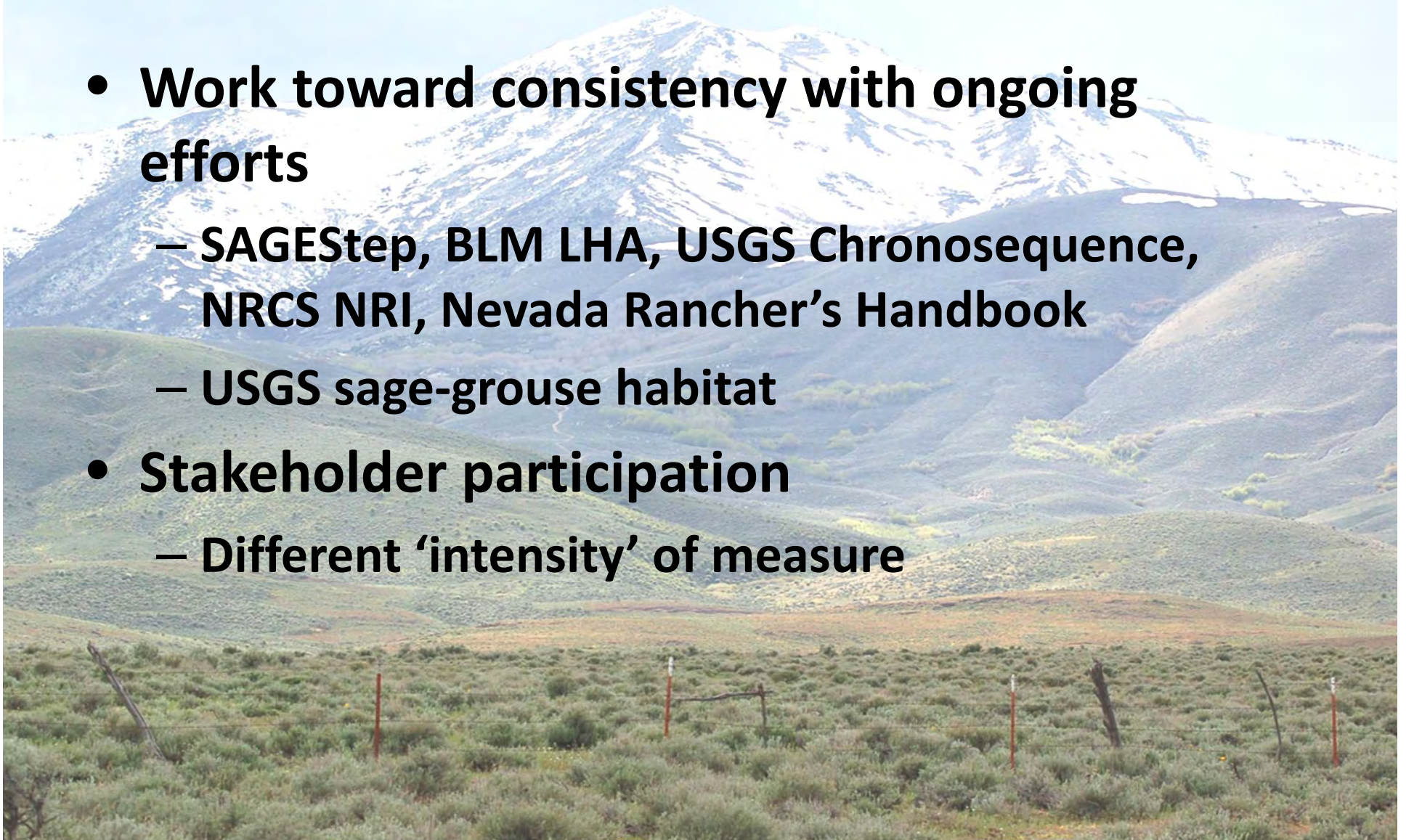
Vegetation Monitoring Protocols

- What is/are your question(s)
- **Measure trends versus snapshot**
- **Rich literature**
 - Research and theory
 - Practical and empirical studies
- **Numerous ways to measure**
 - All measures are not created equal



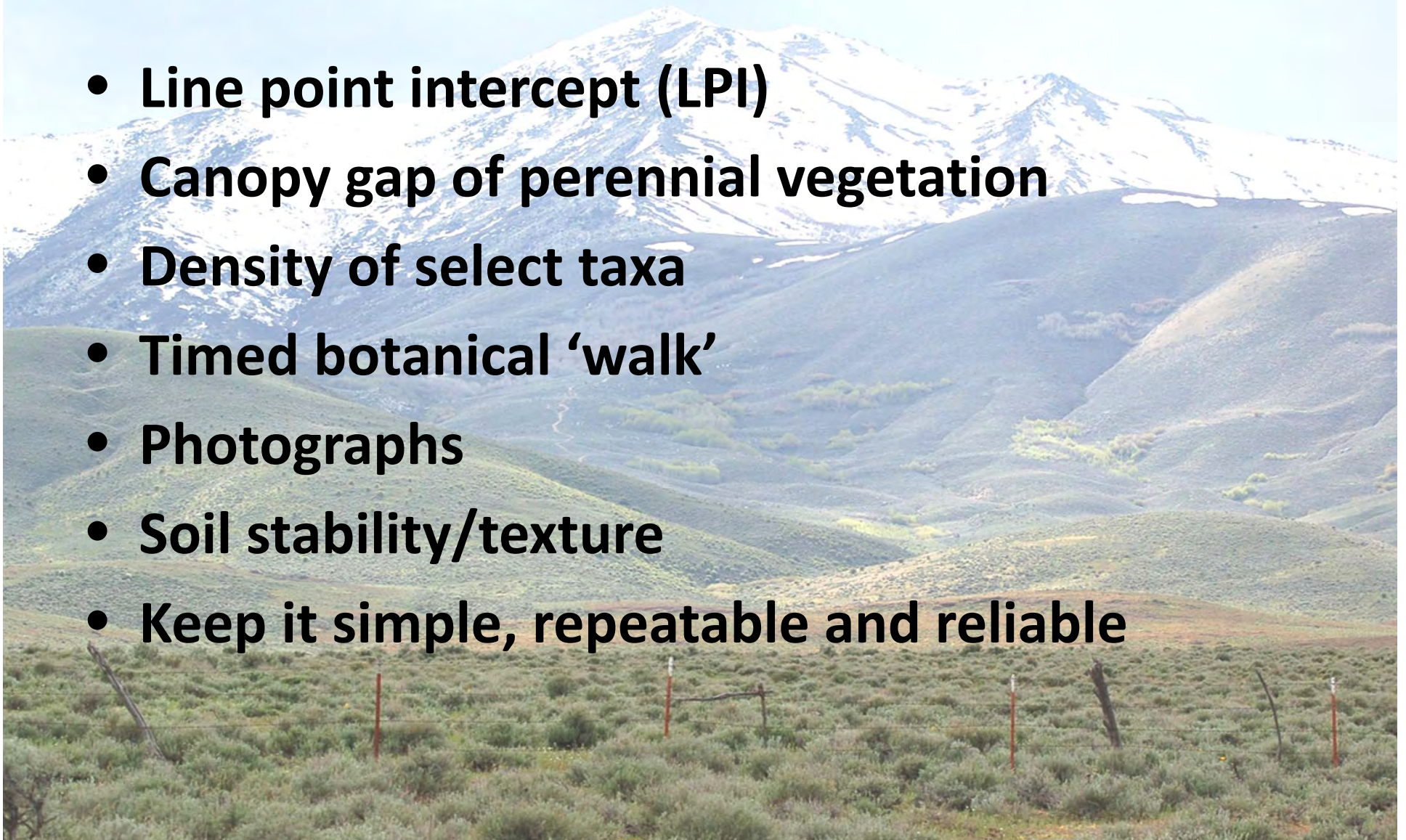
Collaboration/Communication

- **Work toward consistency with ongoing efforts**
 - SAGEStep, BLM LHA, USGS Chronosequence, NRCS NRI, Nevada Rancher's Handbook
 - USGS sage-grouse habitat
- **Stakeholder participation**
 - Different 'intensity' of measure



Vegetation Monitoring Measures

- **Line point intercept (LPI)**
- **Canopy gap of perennial vegetation**
- **Density of select taxa**
- **Timed botanical 'walk'**
- **Photographs**
- **Soil stability/texture**
- **Keep it simple, repeatable and reliable**



Data

- **Pre and post-treatment**
- **Data need to become information**
- **Database for Inventory, Monitoring and Assessment (DIMA)**
 - Free and widely used



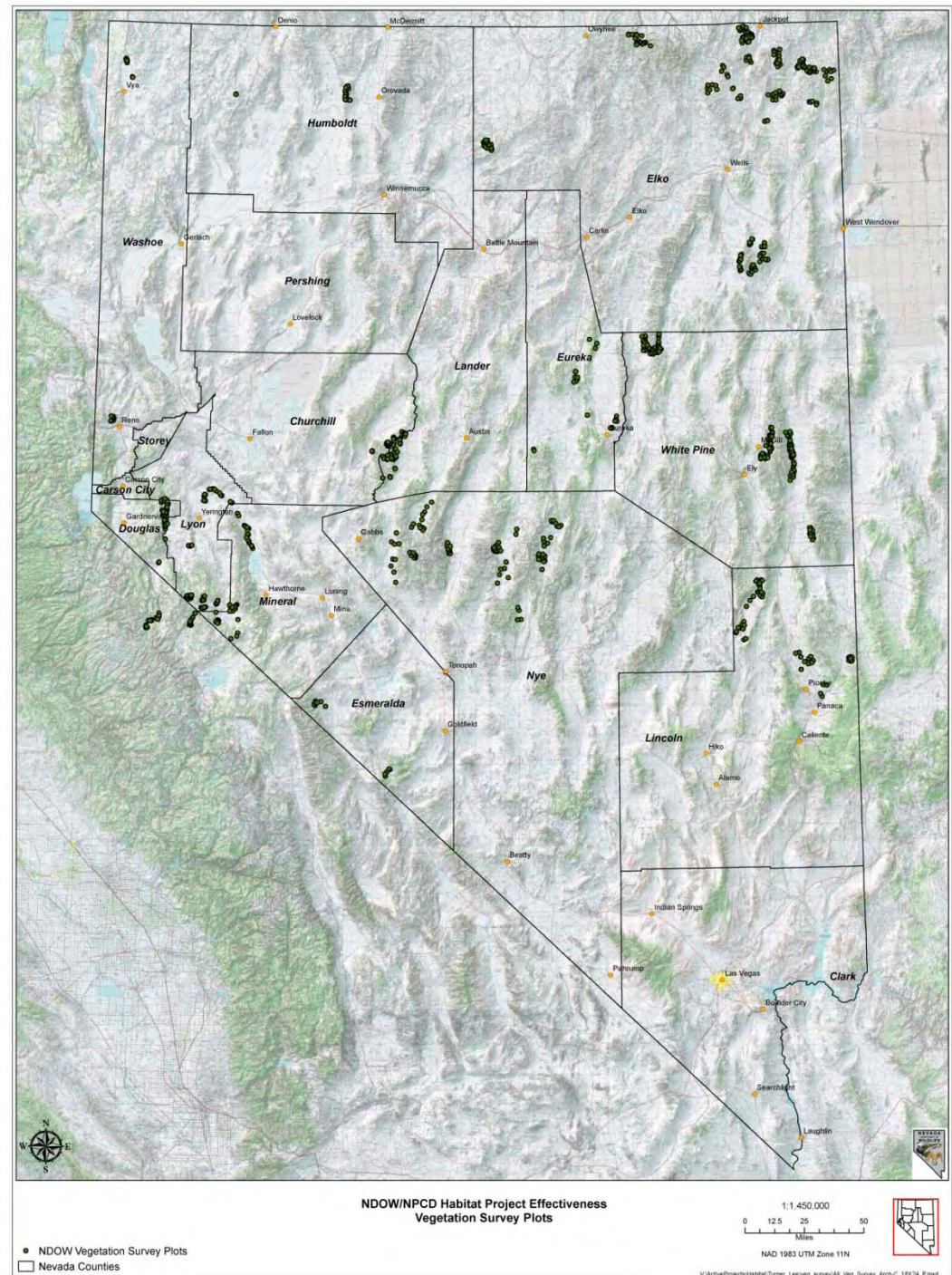
Project Examples

Monitoring

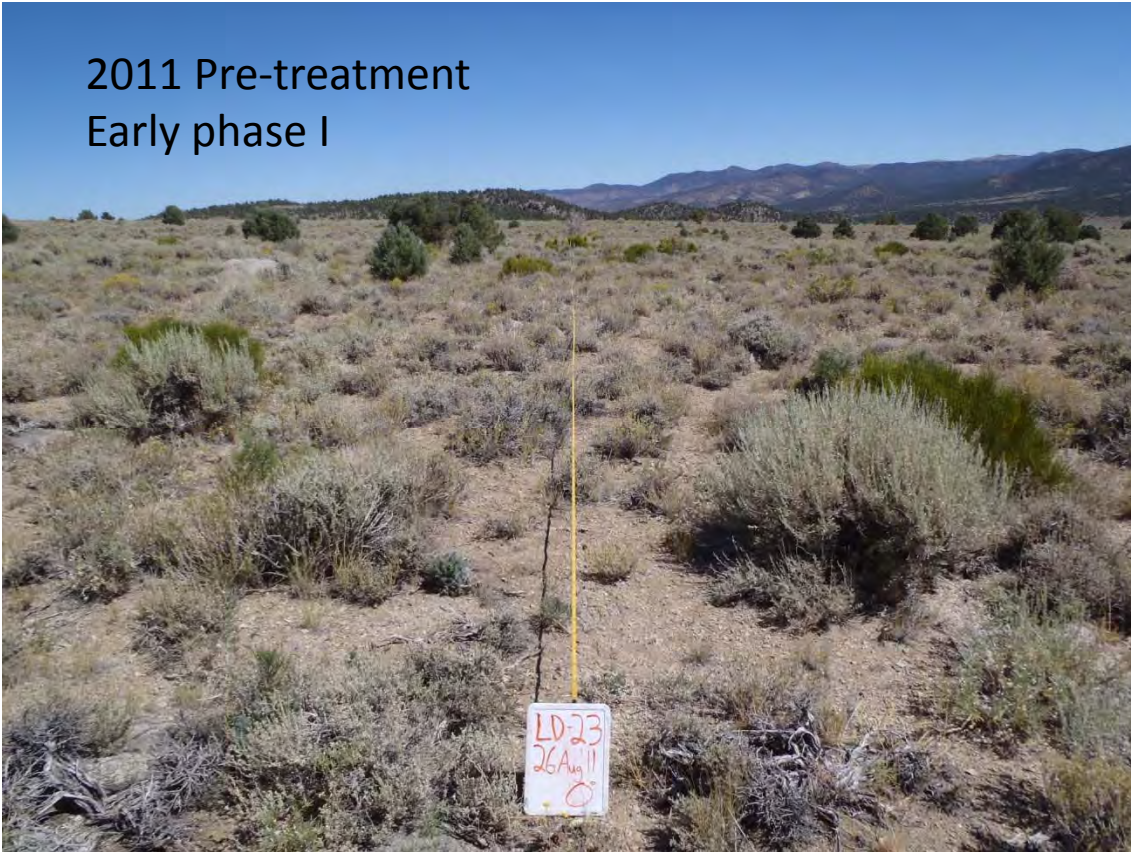
- Vegetation
- Large mammals
- Bats and other small mammals
- Learn from project work

Summer 2015 JOBS!

- Looking for 12 people
- Lots and lots of plant ID



2011 Pre-treatment
Early phase I



Sweetwater Summit Project



2014 Post-treatment



2011 Pre-treatment

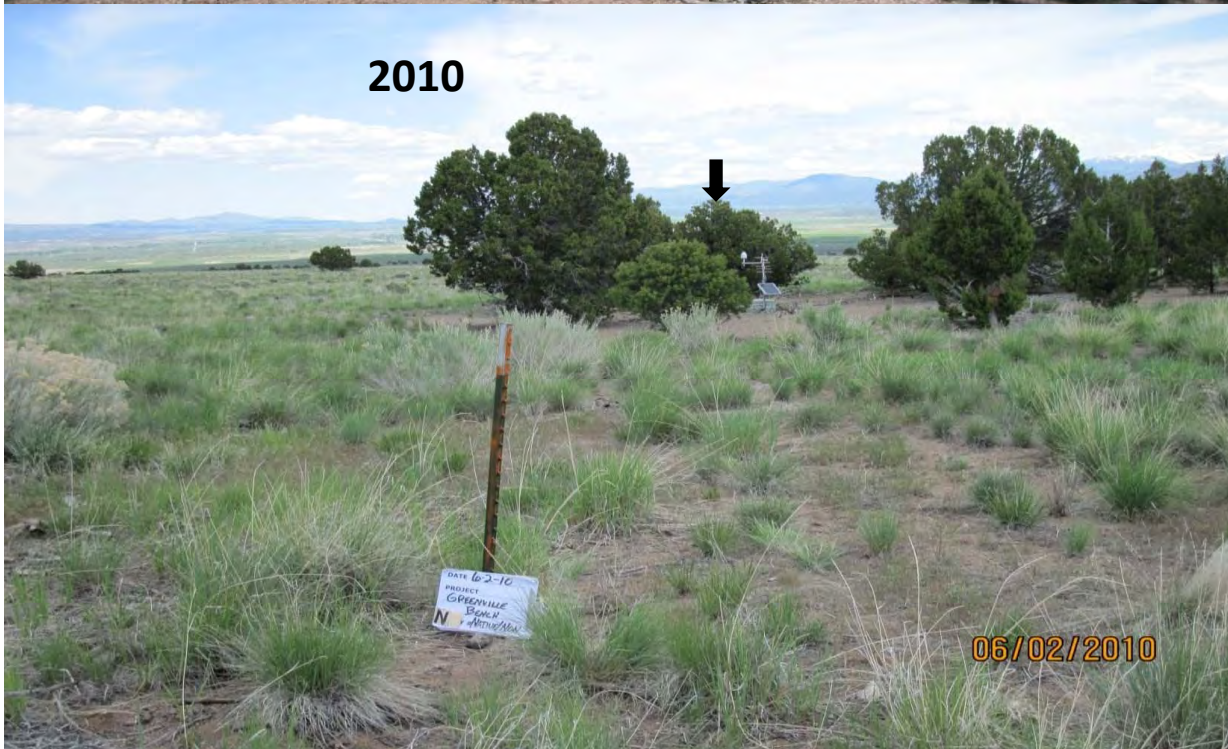
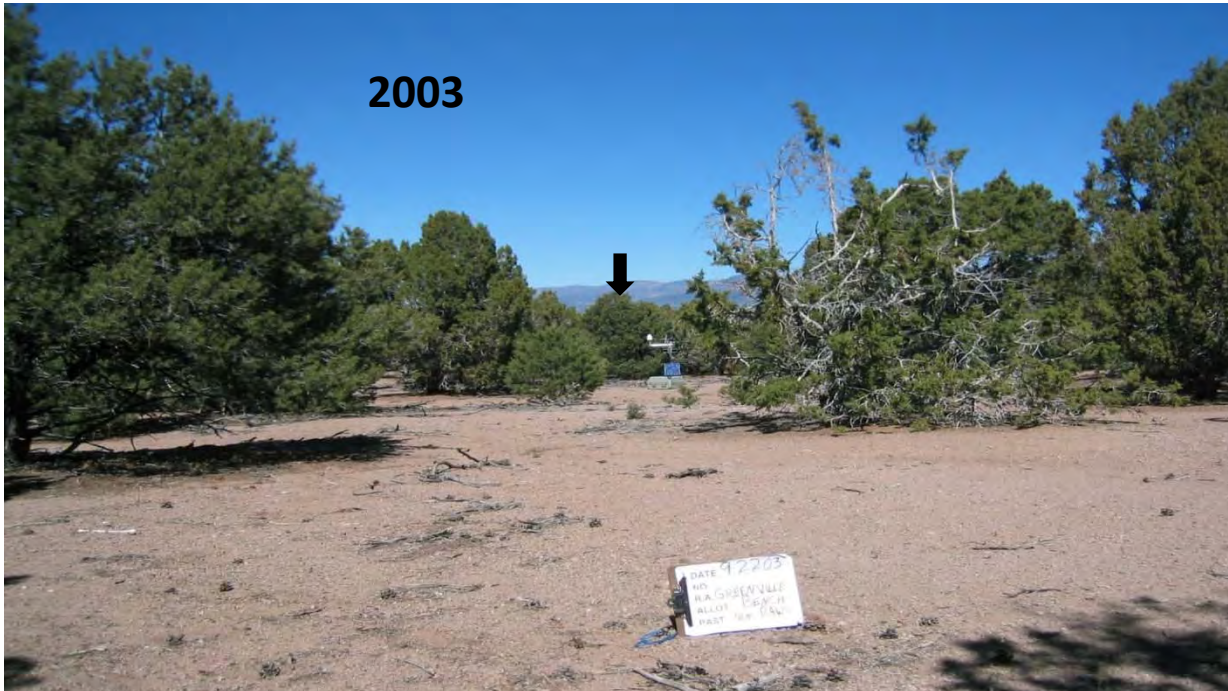


China Camp Leks Project



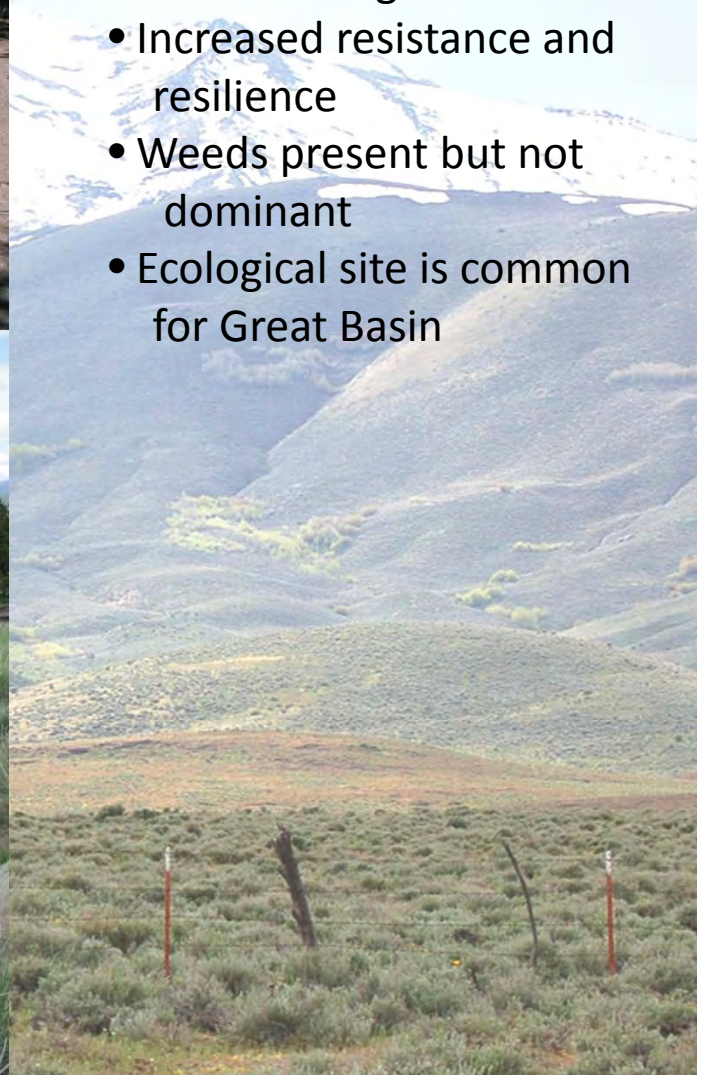
2014 Post-treatment





Greenville Bench

- 7 year interval
- Perennial vegetation
- Increased resistance and resilience
- Weeds present but not dominant
- Ecological site is common for Great Basin









Questions?



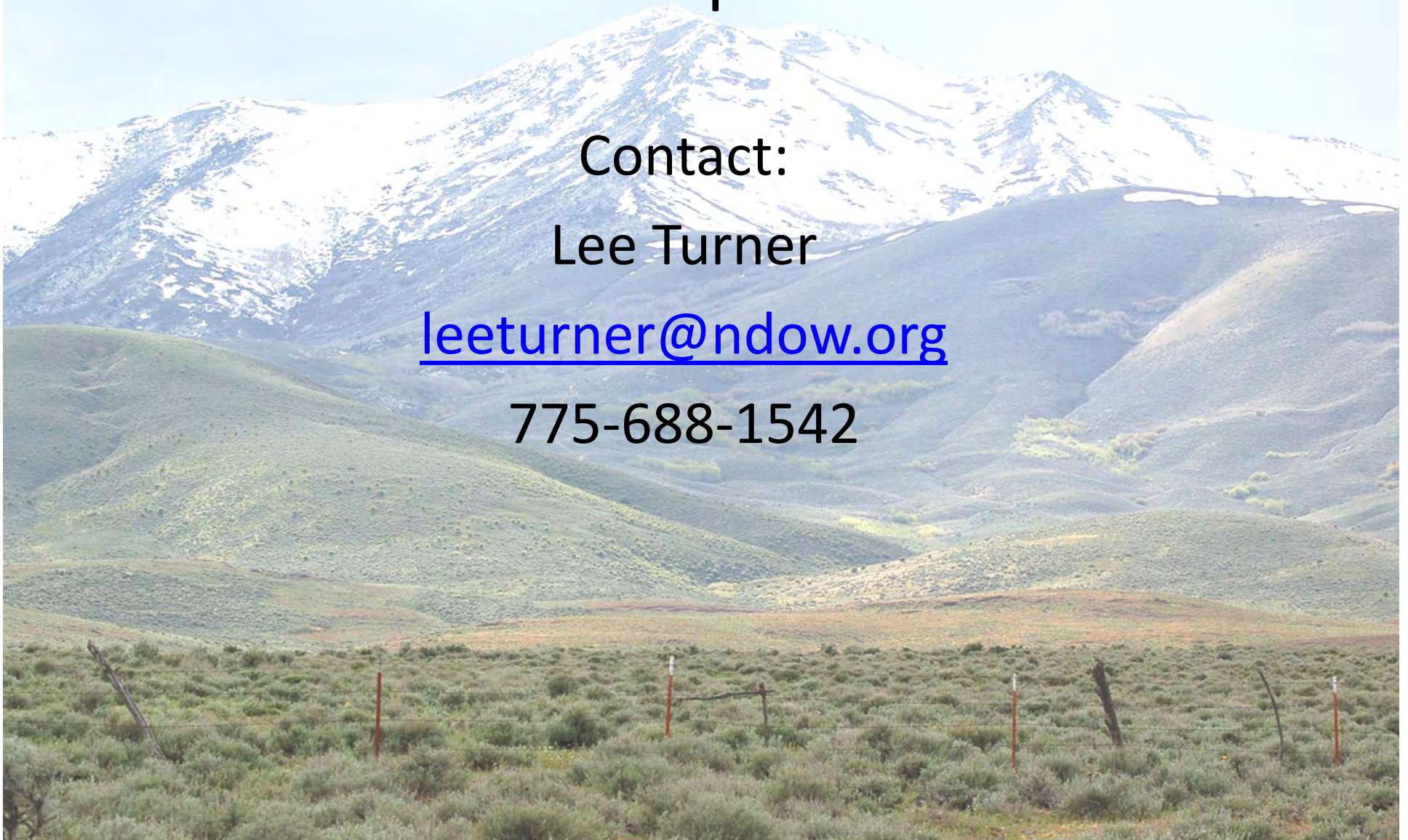
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Project Examples

