

Utah Landscape-Level Cultural Heritage Values and Risk Assessment

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Cultural Heritage Values and Risk Assessment

The regional approach adopted by the BLM is part of a larger strategy to establish a landscape-level approach throughout all DOI offices.

IM 2013-082 - Use of Regional Assessments suggested the potential use of the Rapid Ecoregional Assessments and the landscape-scale approach for studying other resources, including cultural resources.

As of 2015 – Four pilot programs integrating cultural resources into landscape-level mitigation planning have been completed or are underway, including the *San Luis Valley-Taos Plateau Landscape-level Cultural Heritage Values and Risk Assessment*.



Utah Regional Study Area

- Intersection of HUC 4 Watershed and Central Basin and Range Ecoregion
- 8.4 million acres
- Encompasses all or portions of 10 counties:
 - Utah
 - Washington
 - Iron
 - Beaver
 - Millard
 - Juab
 - Toole
 - SanPete
 - Sevier
 - Piute
 - Nevada
 - Lincoln



Cultural Heritage Values and Risk Assessment Goals

Synthesize existing cultural data

Identify areas of cultural sensitivity

Identify baseline condition, long-term trends, vulnerabilities, and risks

Develop an associated research design (*including landscape scale research questions*)

Potential to prioritize resources (*significance, risk, ability to answer research questions, stakeholder interest*)

Potential for use in identifying regional mitigation options



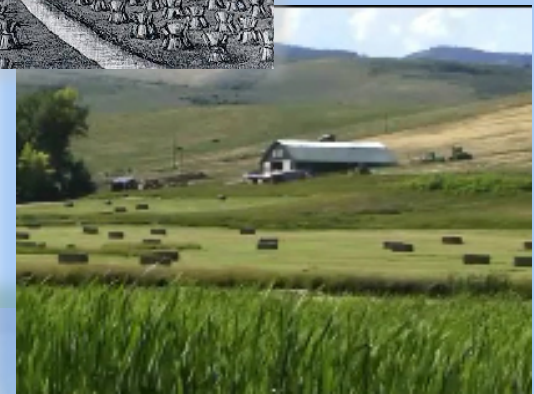
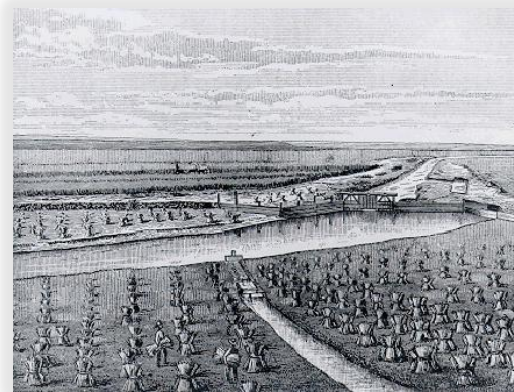
Cultural Landscape Assessments

Holistic landscape-scale approach to planning

Considers spatial and temporal contexts

Assesses the value and significance of resources in relation to each other, to the people that have created or use the resources, and to the environment

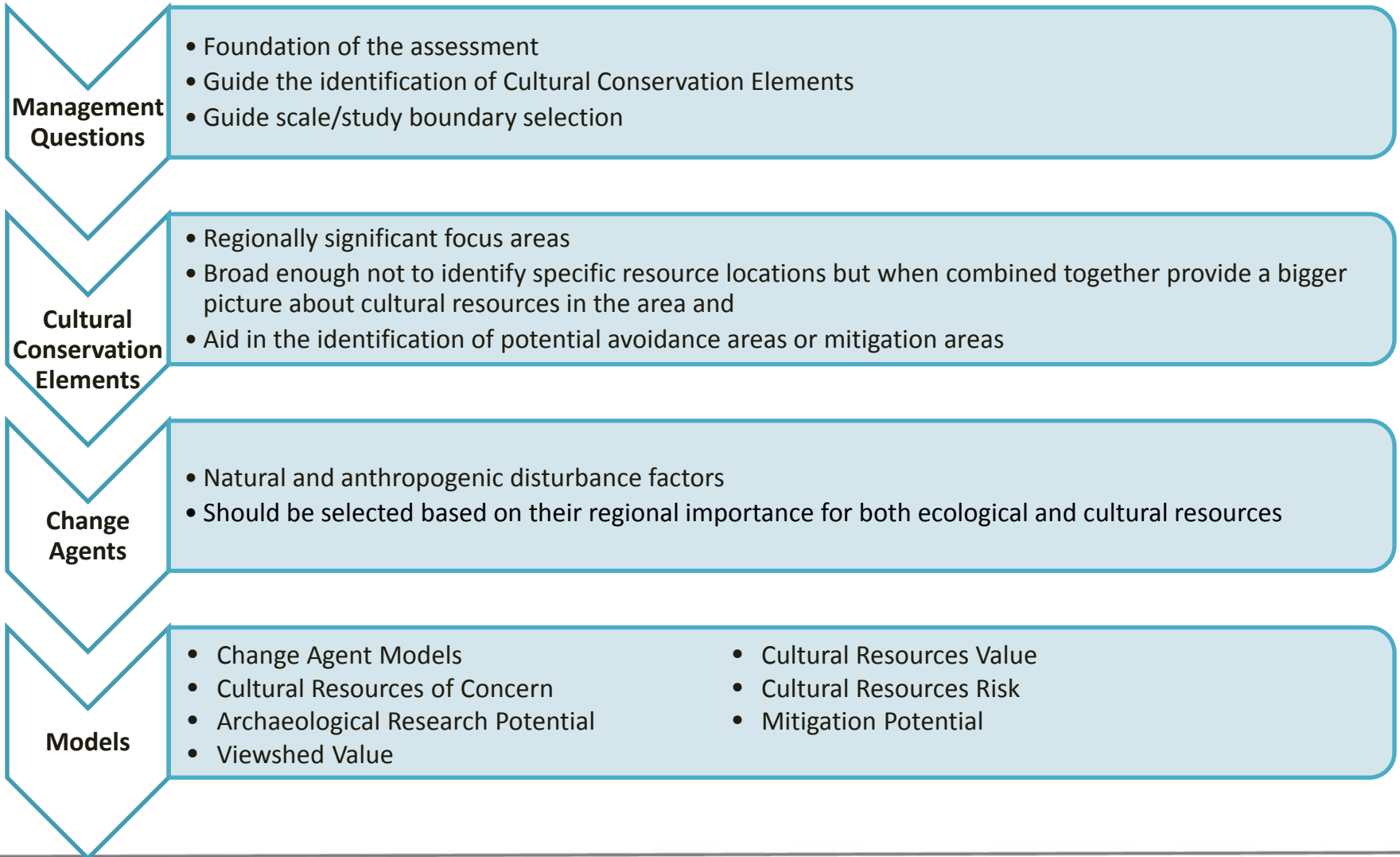
Recognizes the importance of the human relationship with the environment and the importance of that relationship for human well-being



Cultural Heritage Values and Risk Assessment Purpose



Cultural Heritage Values and Risk Assessment Framework



Management Questions

Where do areas of cultural resource management and protection occur?

Where are known historic properties, traditional cultural properties, and sacred sites and landscapes?

What are the traditional cultural land use patterns?

Where are known historic properties, traditional cultural properties, and sacred sites vulnerable to change agents?

Where are high potential areas or high density areas for historic properties that address the highest priority research goals?

Where is cultural landscape connectivity vulnerable to change agents?

Are these Management Questions applicable for the Utah Study Area?
Are there additional Management Questions to Consider?



Cultural Conservation Elements



Places of Traditional Cultural Importance

- Lakes, springs, rivers, mountain peaks and ranges, canyons, archaeological sites, trails, and shrines, other natural features with cultural value



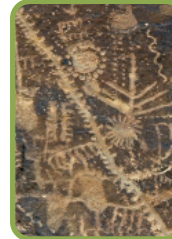
Mormon Settlement

- Historic homesteads, forts, towns, and sites associated with Mormon cultural history



Traditional Resource Collection Areas

- Plant collection areas, wetlands, culturally-modified tree clusters, pinyon-juniper woodlands, quarries, clay and mineral sources



Eligible Prehistoric Properties

- Listed on NRHP
- Eligible for NRHP
- Habitation sites, temporary camps, processing sites, lithic scatters, ceramic scatters, rock art, and burials representing the Paleoindian through historic periods



Trails, Passes, and Corridors

- Trails and travel corridors used by Native Americans; Spanish, Mexican, and American Explorers and fur-traders, historic trails and scenic byways.
- Transportation-related sites (ex. depots, camps)

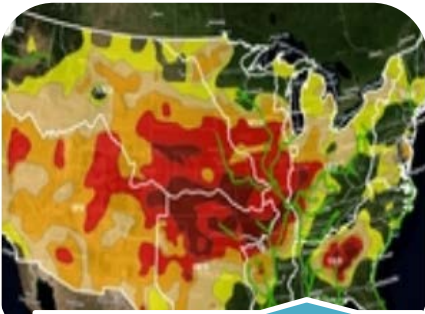


Eligible Historic Properties

- Listed on NRHP
- Eligible for NRHP
- Military sites, early settlements and homesteads, mining, ranching, and early urban development, communication, water works/reclamation and CCC works



Change Agents



Climate Change



Human Development



Grazing



Recreational Activities



Agricultural Practices



Invasive Species, Insects, and Disease



Wildfire

Water



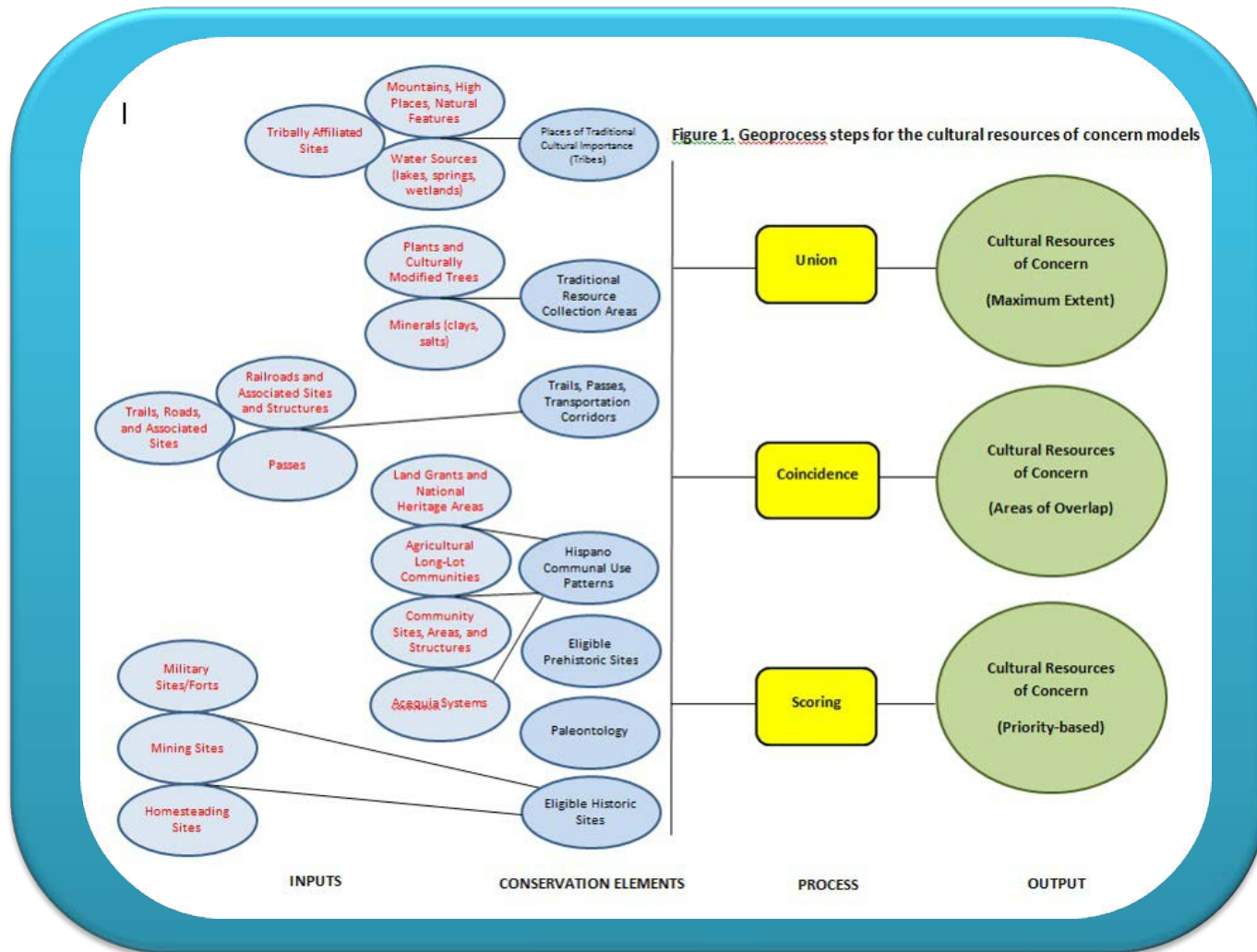
San Luis Valley-Taos Plateau Landscape-Level Cultural Heritage Values and Risk Assessment – Pilot Project



- Designed to see if the Rapid Ecoregional Assessment framework could be applied to the cultural environment
- Also supported development of a Regional Research Design
- Designed to be integrated with ecological and visual landscape assessments to provide a holistic view of the region's most valued and at-risk resources.



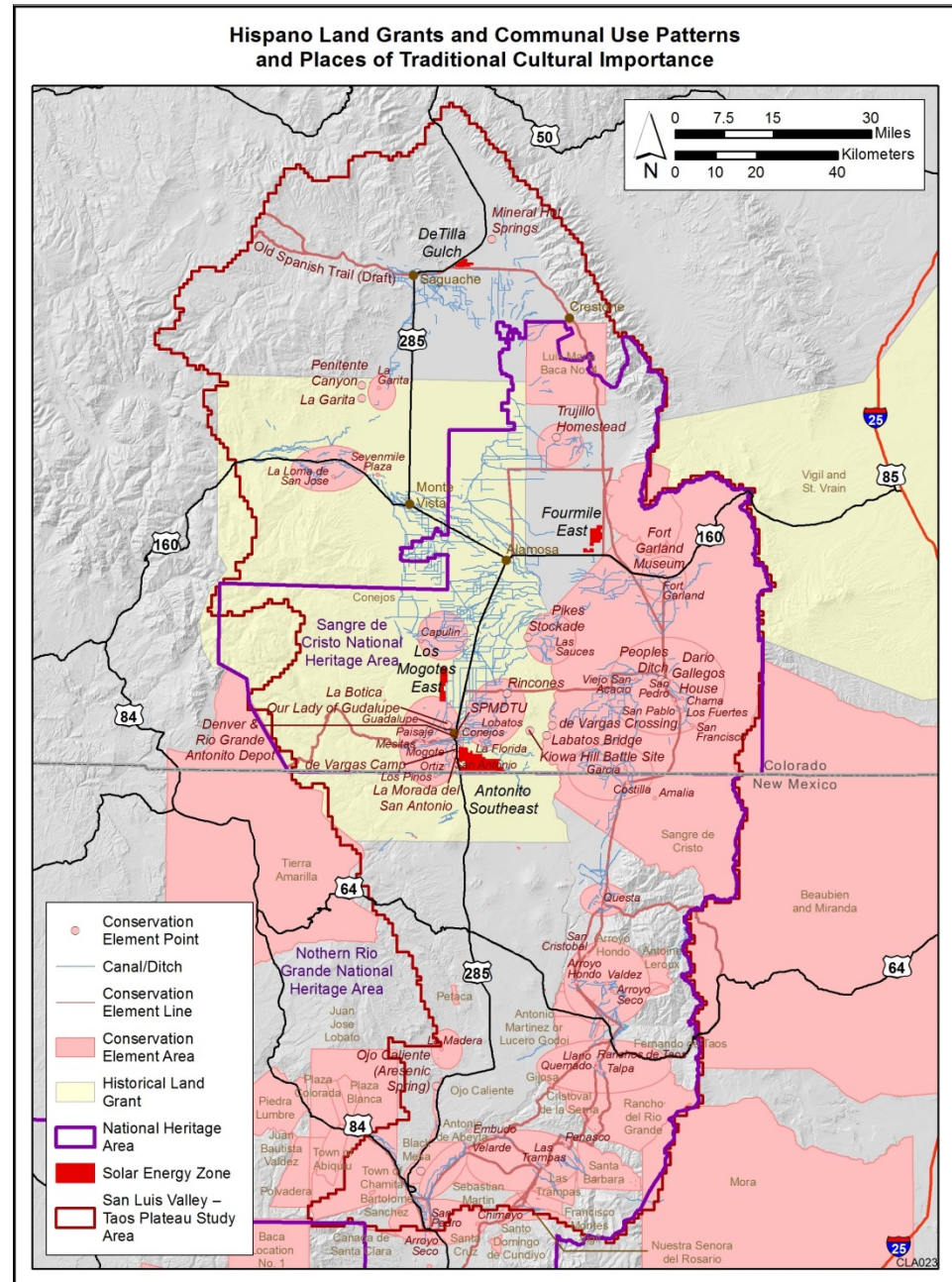
Cultural Resources of Concern Model



Hispano Land Grants, Communal Use Patterns, and Places of Traditional Cultural Importance

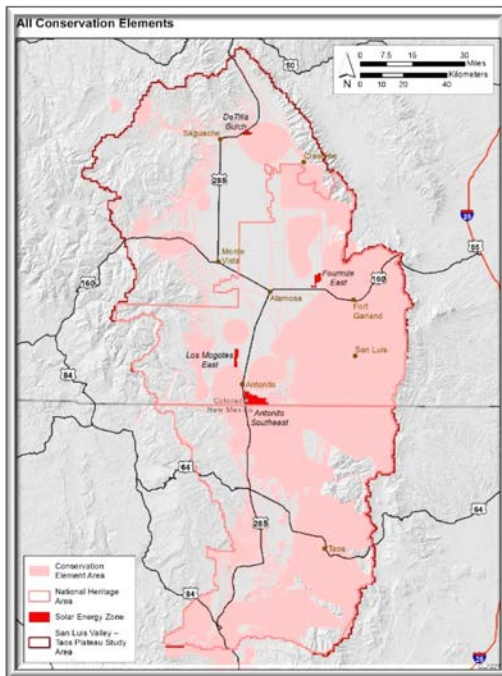
Cultural Landscape -- "The concrete and characteristic product of the interplay between a given human community, embodying certain cultural preferences and potentials, and a particular set of natural circumstances. It is a heritage of many eras of natural evolution and of many generations of human effort."

—Wagner and Miskell, quoted in Fowler 1999.

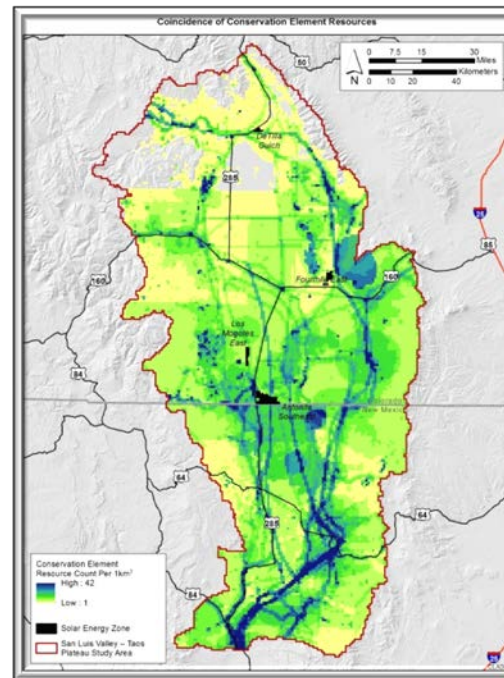


Cultural Resources of Concern Models

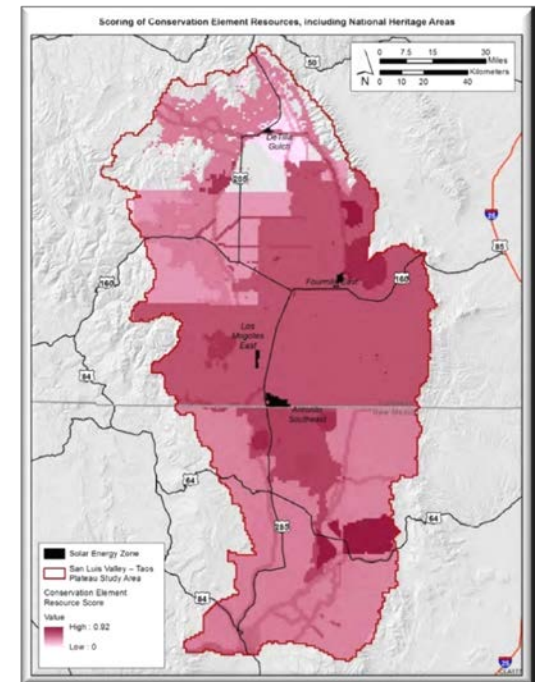
Union



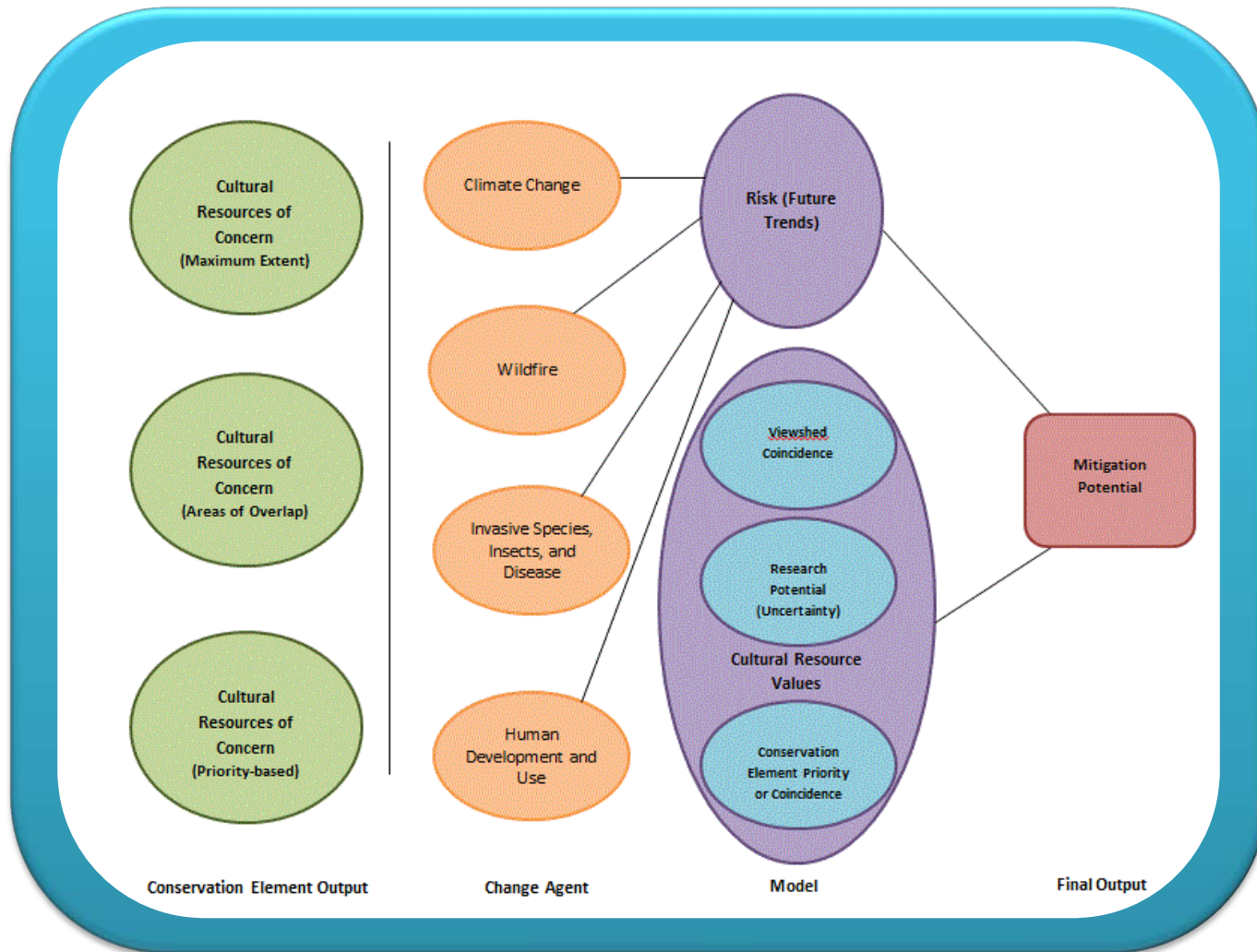
Coincidence



Scoring

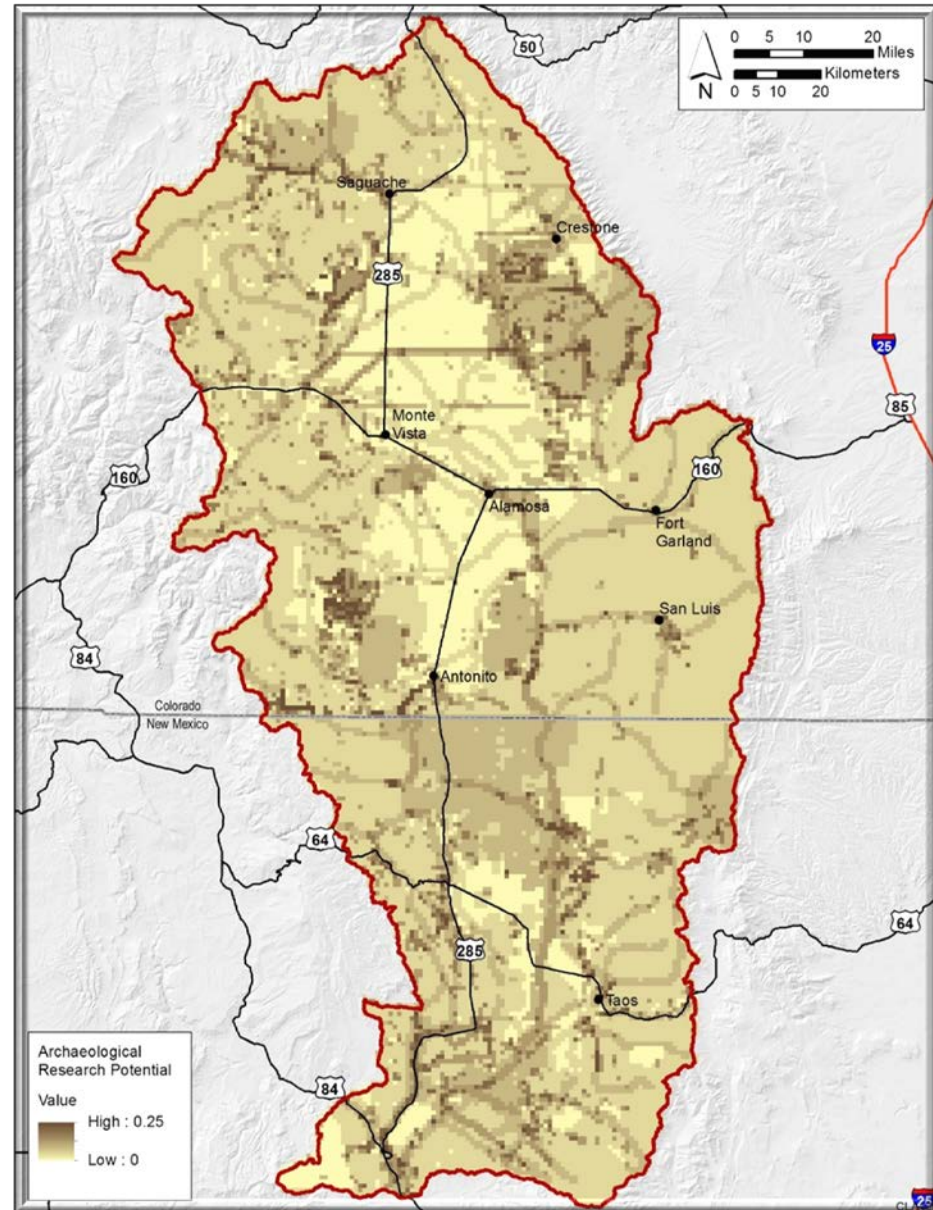


Mitigation Potential Model



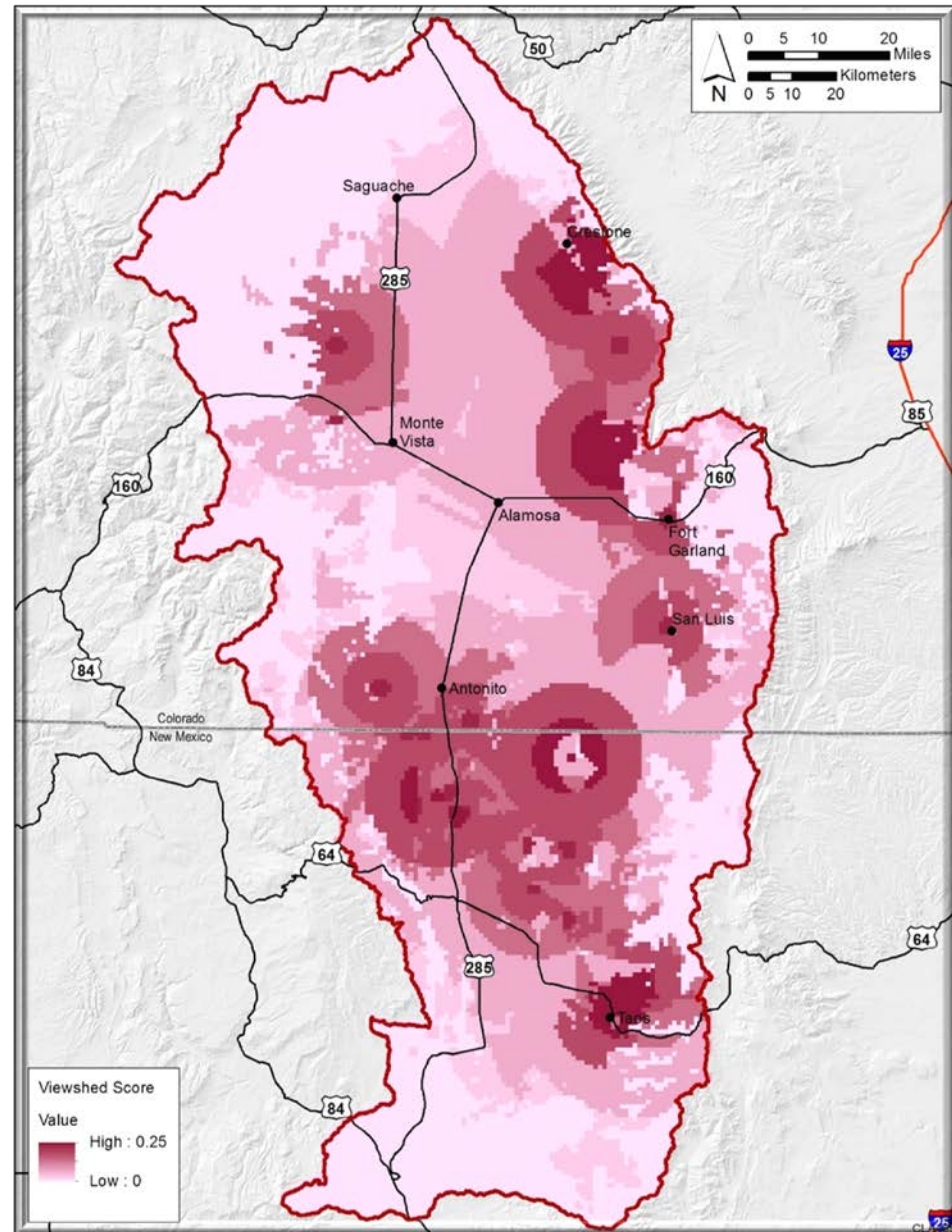
Archaeological Research Potential Model

- Takes into account:
 - Lack of cultural resources survey in the ecoregion
 - Potential for additional resources to be present
 - Areas of known higher potential (ex. near water)
- NOT A PREDICTIVE MODEL
- Incorporates areas that offer opportunities for research, conservation, and mitigation

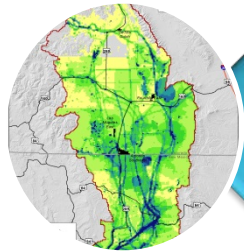


Viewshed Value Model

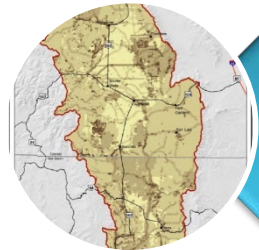
- Key Observation Points (KOPs) associated with specific cultural resources
- Visual component of resource is vital to integrity and significance of the resource



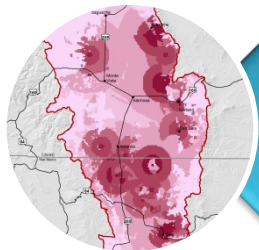
Cultural Resources Value Model



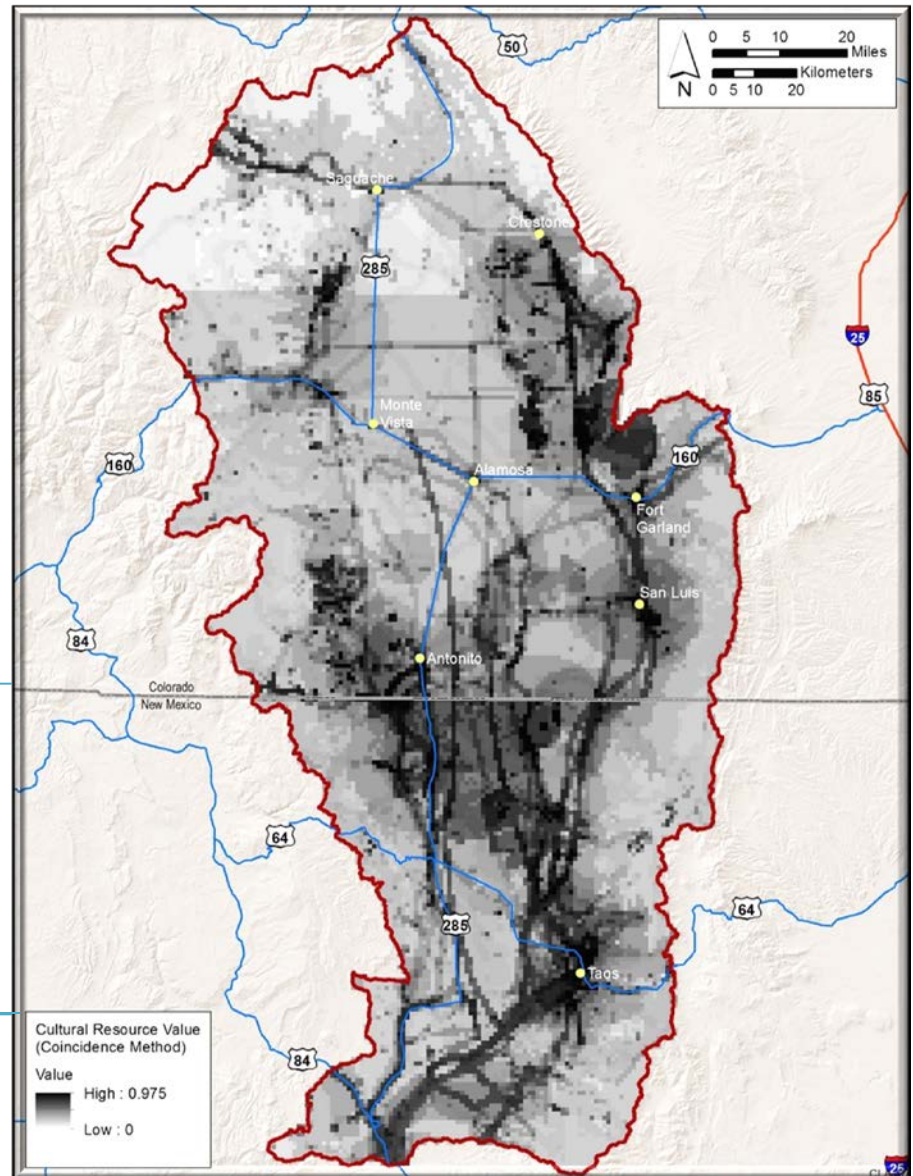
Cultural Resources of Concern



Archaeological Research Potential

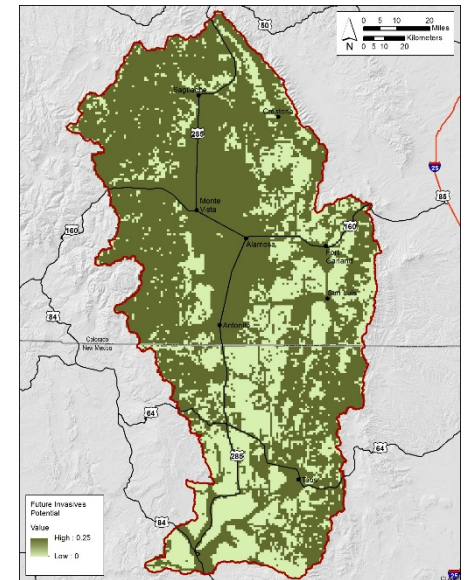
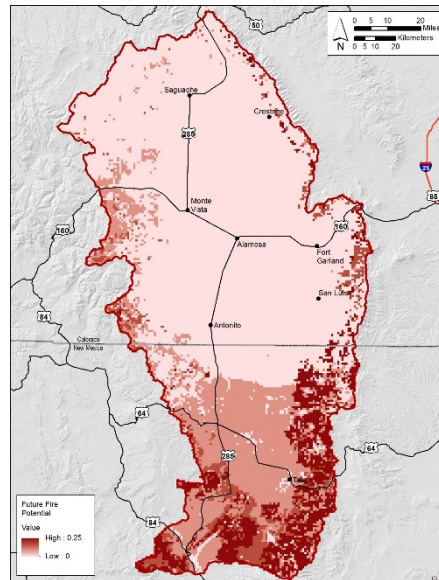
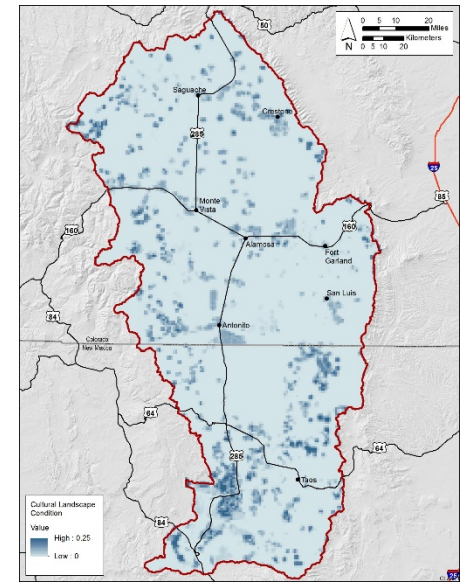
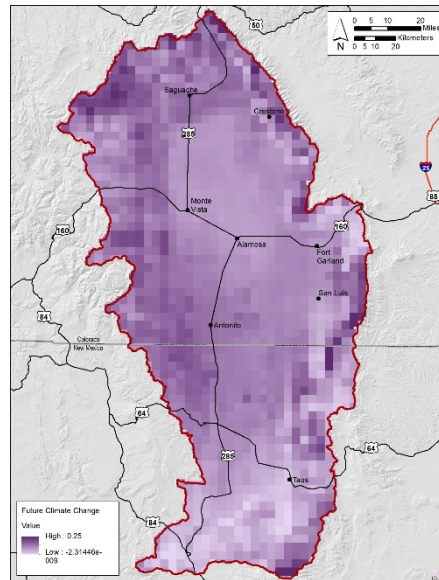


Viewshed Value

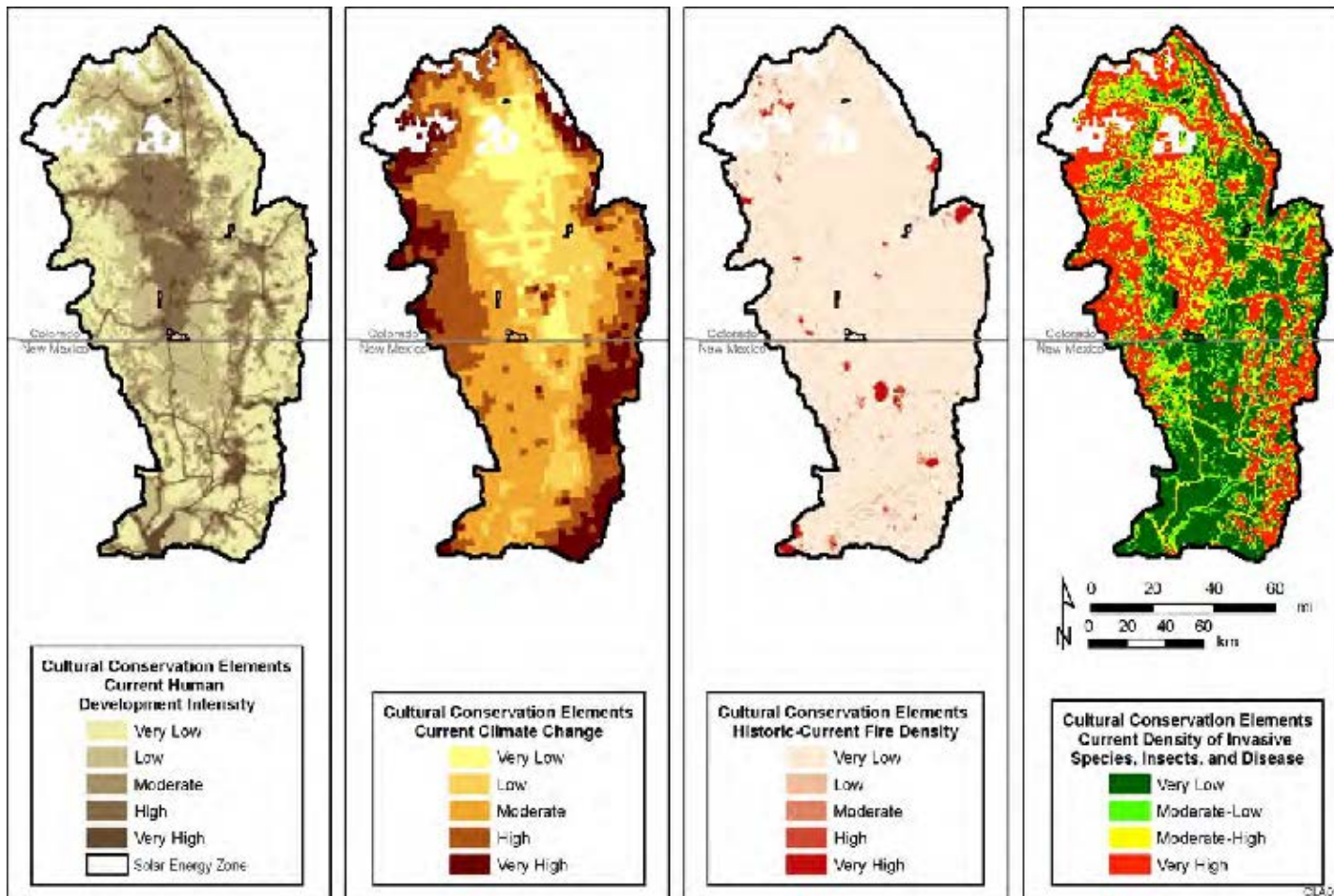


Change Agent Modeling

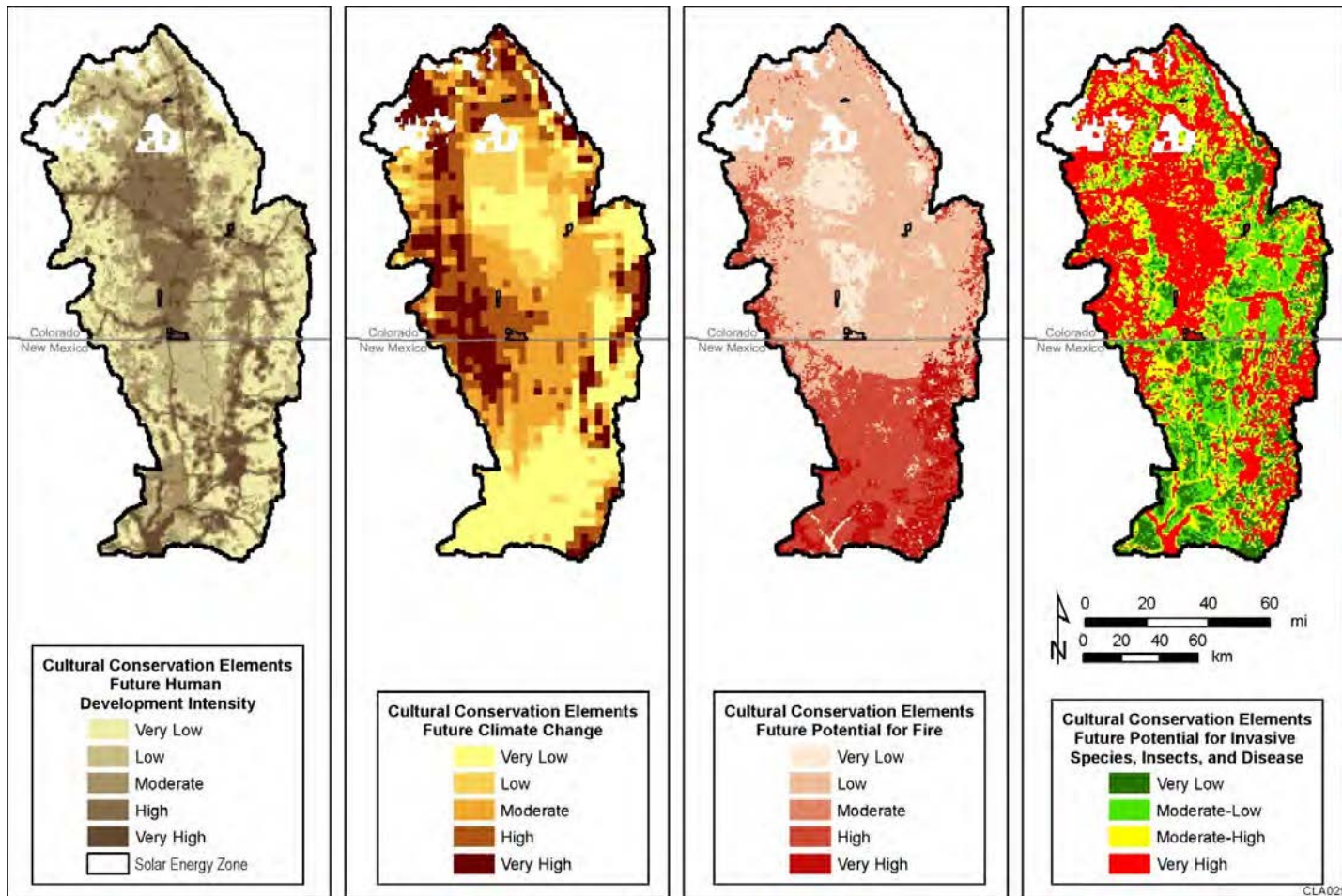
- Change agents are modeled in the same way as for the Ecological Landscape Assessment



Individual Change Agent Modeling with Cultural Conservation Elements - Current



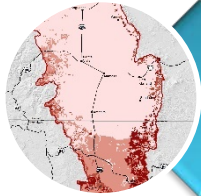
Individual Change Agent Modeling with Cultural Conservation Elements - Future



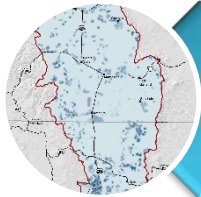
Change Agent Risk Model



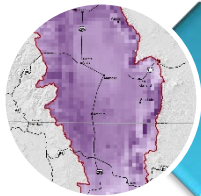
Invasive Species



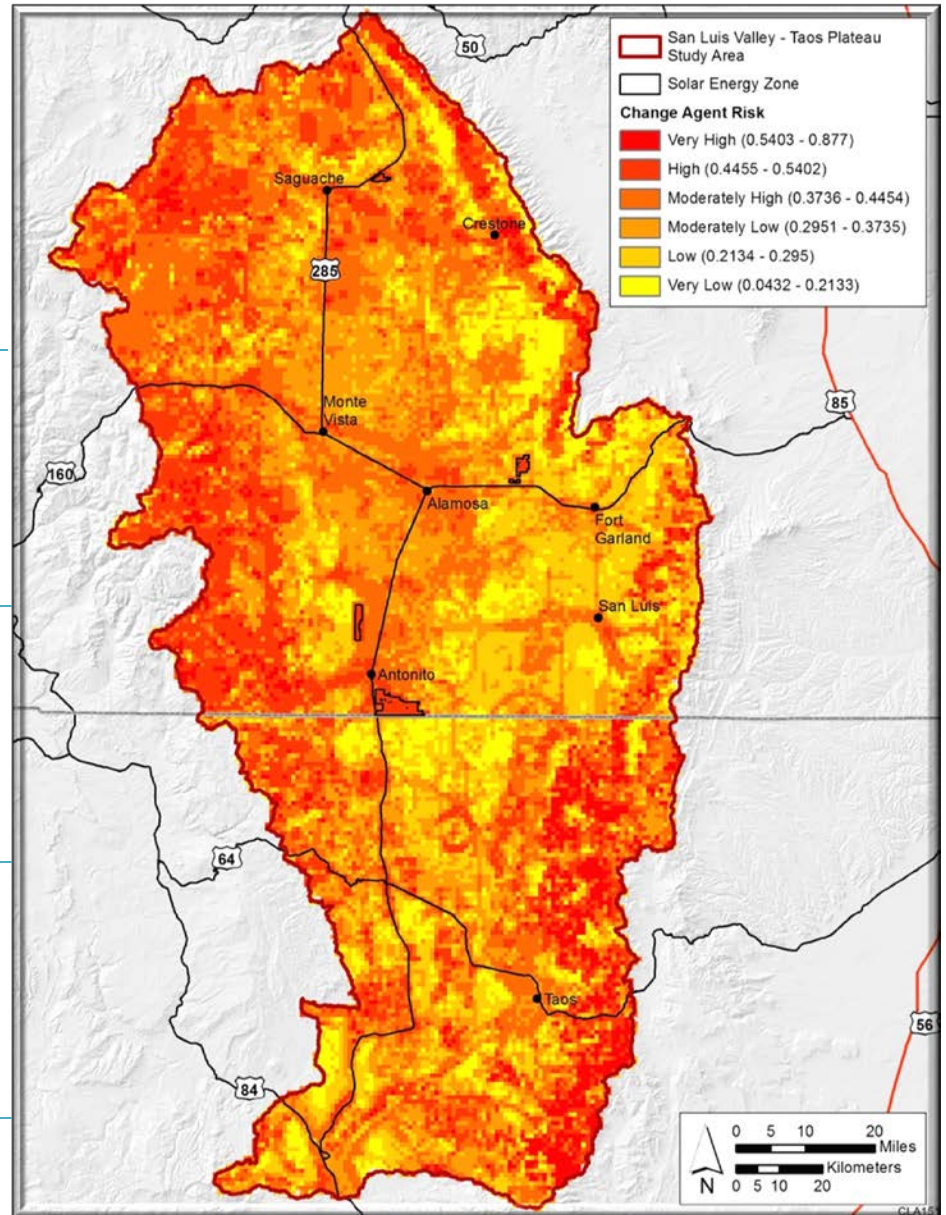
Wildfire



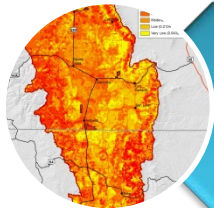
Human Development



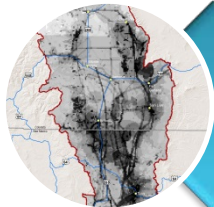
Climate Change



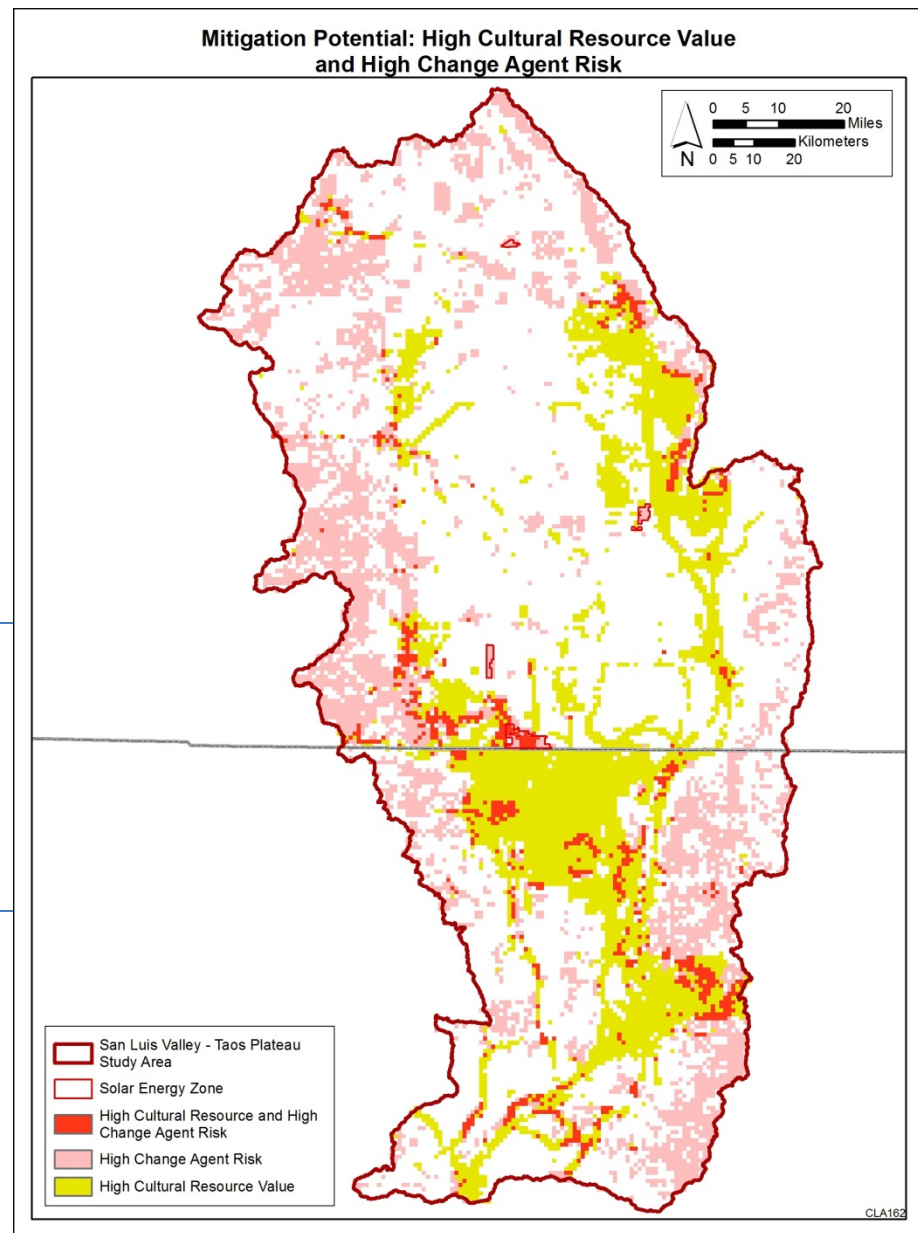
Mitigation Potential Model High Cultural Value- High Risk



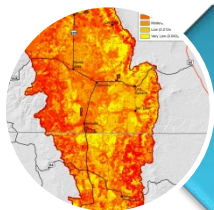
High Change
Agent Risk



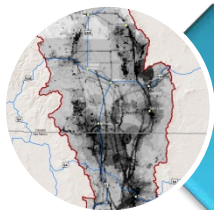
High Cultural
Resources
Value



Mitigation Potential Model High Cultural Value- Low Risk

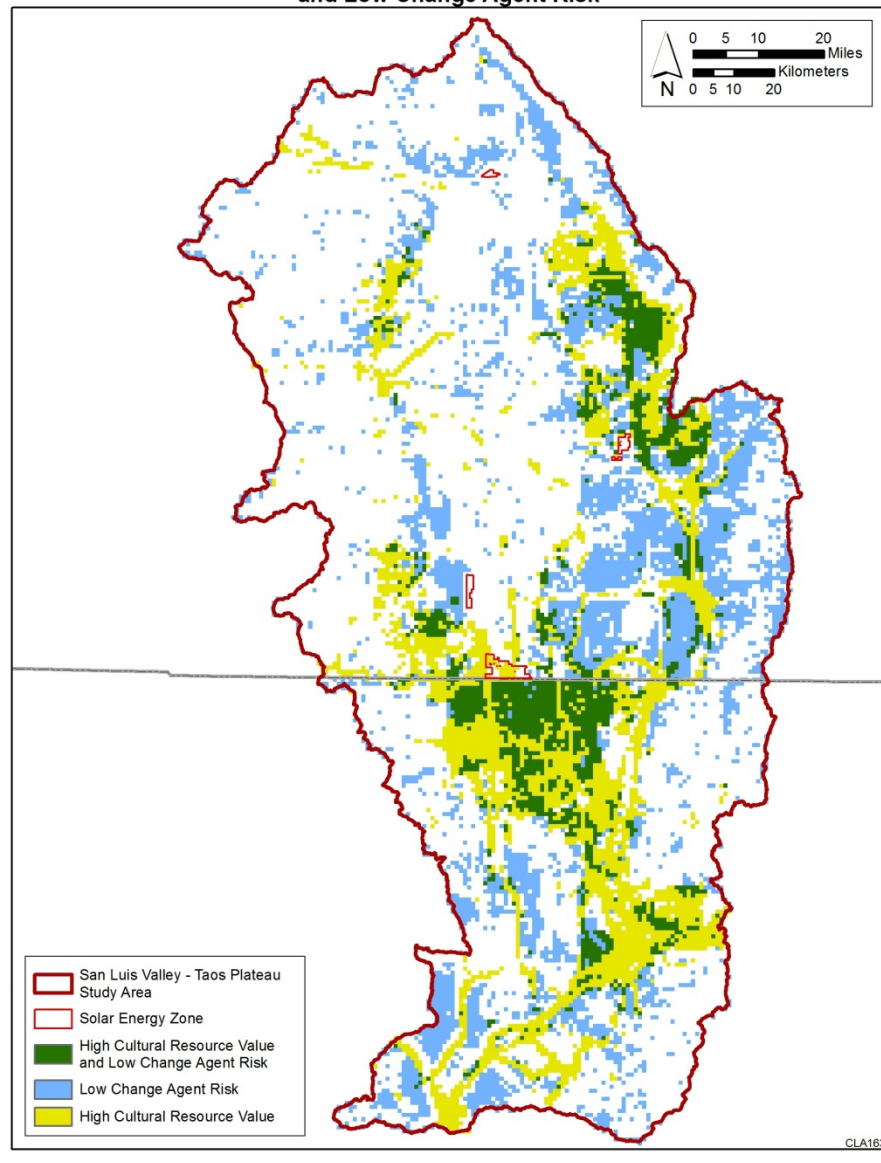


Low Change
Agent Risk



High Cultural
Resources
Value

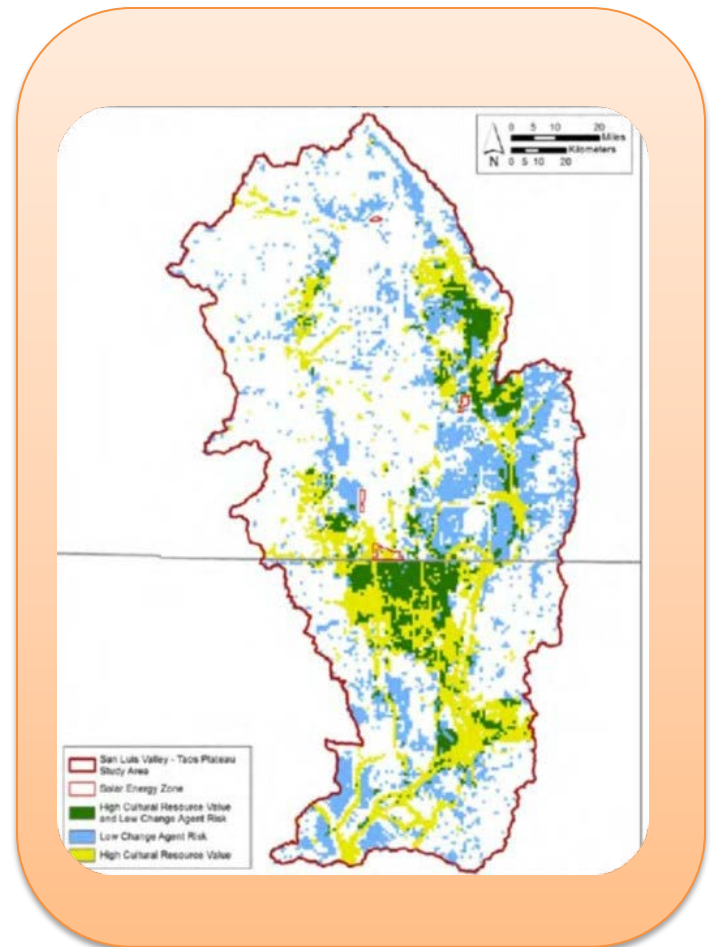
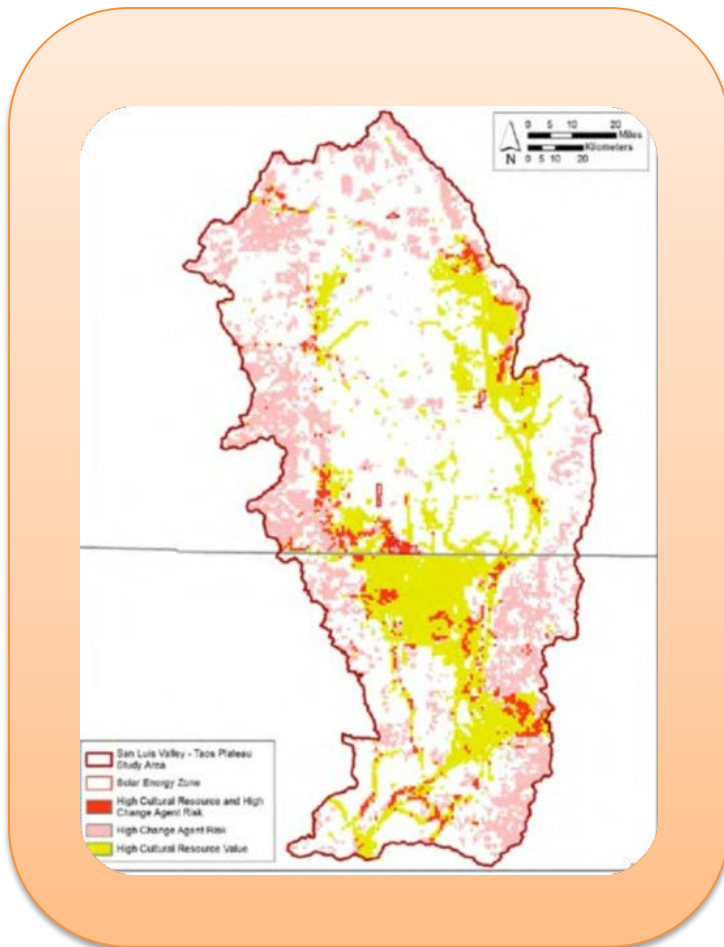
Mitigation Potential: High Cultural Resource Value
and Low Change Agent Risk

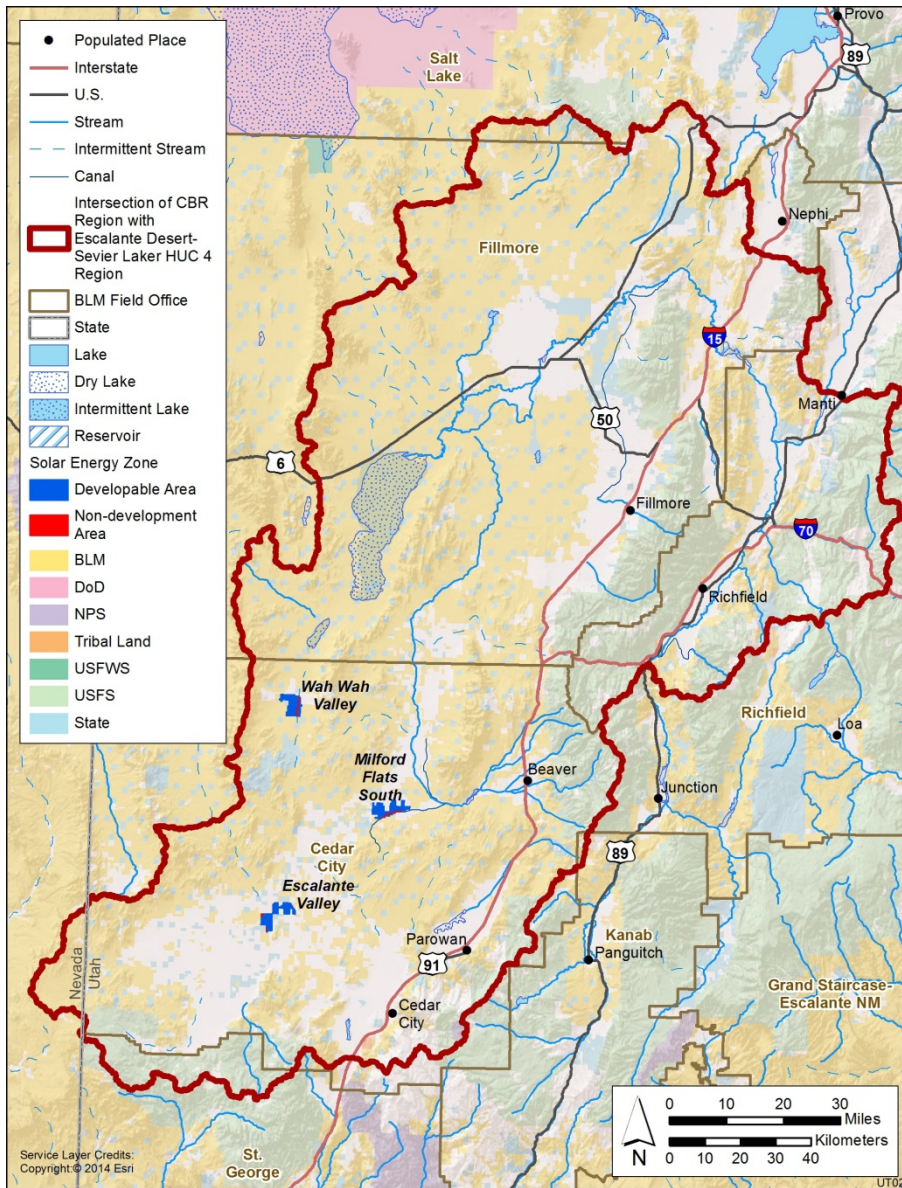


Mitigation Potential

High Cultural Value – High Risk
Mitigation Actions

High Cultural Value – Low Risk
Conservation/Preservation





Utah Study Area

- Part of Central Basin and Range Ecoregion
 - Change Agent data available
 - Condition and trend analysis completed for those change agents
- Encompasses Utah Solar Energy Zones
- HUC 4 Watershed Boundary, clipped to REA (for applicability of change agent data)

Data Sources (Reviewed so far)

Cultural Resources Class I
Inventory for the BLM
CCFO RMP
(Yentsch and Weymouth
2012)

Fillmore Field Office
Research Questions

NRHP
(publically available data)

Cultural Data Sources
Cited in the Solar PEIS
(2012)

UT SHPO data
(still need NV SHPO data)

Ethnographic Studies for
Solar PEIS – Confederated
Tribes of Goshute
Reservation and PITU
(2012)

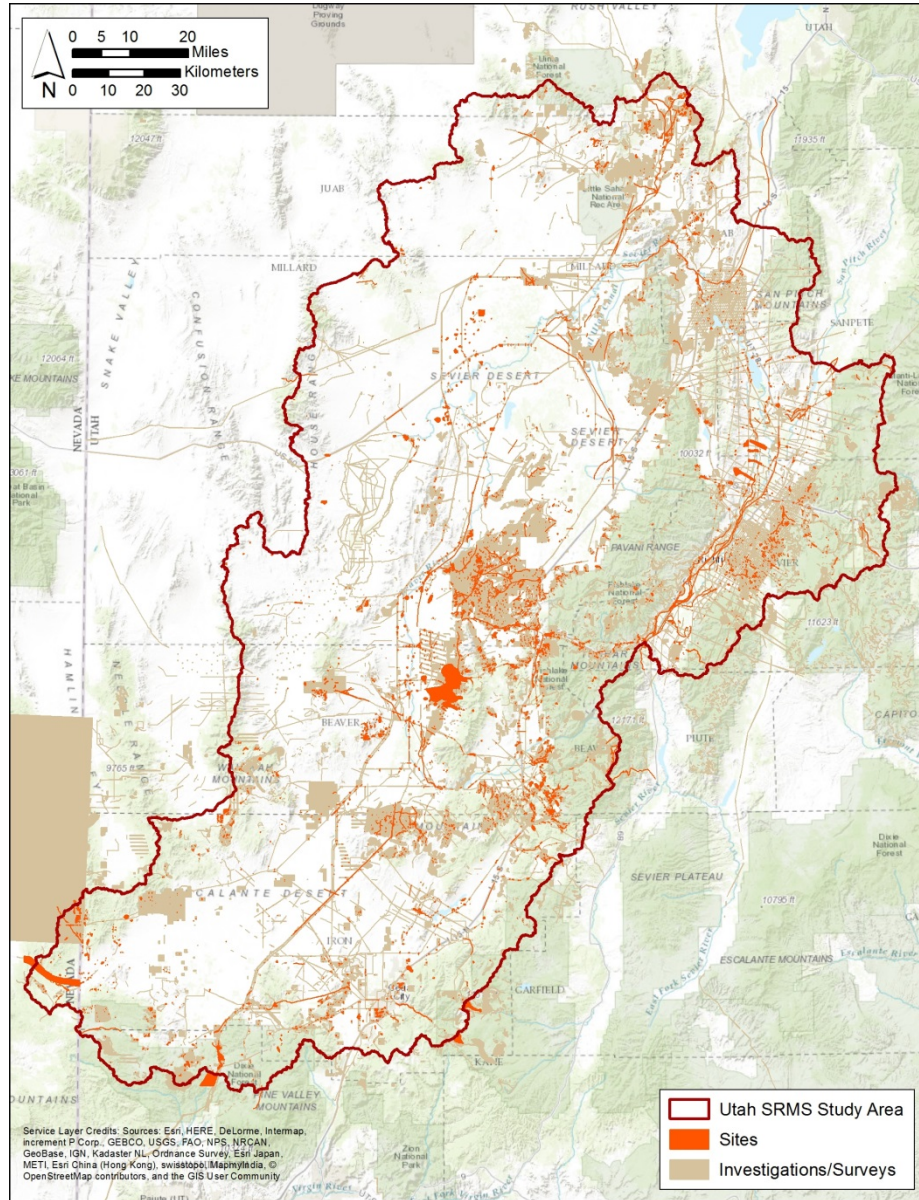
Dominguez-Escalante
Expedition 1776-
pamphlet

Great Basin Kingdom:
Economic History of the Latter
Day Saints 1830-1900
(Arrington 1966)

Historical Guide of Utah
Ghost Towns (Carr, 1972)



Standardized GeoDatabase



Ethnographic Information



Data Sources Needed

**We need
your help!**

What we'd like
from you:

- Suggestions for key documents
- Expert knowledge of important resources and their context
- Willingness to point out places on a map or describe locations
- GIS data



Other Strategies that Can Be Considered and Applied



Participatory Mapping

Priority Planning



Predictive Modeling



QUESTIONS?



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