November 7, 2014
Carrizo Colloquium

Carrizo Plain Conservancy

MORE CONSERVATION  MORE COLLABORATION

...creates new conservation initiatives and facilitates on-going conservation and restoration efforts on the Carrizo Plain through collaboration with public and private organizations.
Carrizo Plain Conservancy Initiated

To build upon conservation opportunities created by solar plant construction

The approximate breakdown of Topaz lands is:

Mitigation land: Required by project permits (12,147 acres)
Preservation land: Required per settlement agreement with national environmental groups (5,399)
Stewardship land: Open spaces between arrays areas (1,390)
Project land: Solar arrays and supporting infrastructure (3,510)
Total 22,446 acres

The breakdown of CVSR lands is:

Mitigation easement: 8031.7 recorded; 9177.2 required by ITP
On-site easements: 2555.7 with 741 left to be recorded
Off-site easements: 5476 with 404.5 left to be recorded
Project land after decommissioning: 1366.9
Does not include acreage associated with national settlement groups
Total 19,721.3 after above lands are recorded

Grand Total for both projects 42,167.3 acres
Carrizo Plain Conservancy Initiated

To foster collaboration among Carrizo interested groups and agencies

County of San Luis Obispo
Los Padres Forest Watch
Friends of Carrizo Plain NM
Chimineas Ranch Foundation

And More...
Building upon conservation opportunities....

Consolidate Habitat Areas

- The “Golden Arch”—Tejon Ranch to Bitterwater and Beyond
- Cholame Hills to Caliente Range
- La Panza Range to Temblor Range
Building upon conservation opportunities....
California Valley Lot Retirement Program
Building upon conservation opportunities....

Mustang Springs Restoration with Partners
“Water for Wildlife”

“Mustang Spring furnishes a small watering place beside a road...”

USGS, 1913 Water Supply Paper
Minor Perennial Springs
Building upon conservation opportunities....

Functional Units
Building upon conservation opportunities.... Functional Units
Building upon conservation opportunities....

Functional Units
Fostering Collaboration...

Carrizo Plain Visioning Project
- Solar Companies
- Topaz Biological Working Group
- Carrizo Plain citizen representation

Outcomes
- Examined possible conservation “futures”
- Impetus for initiation of Carrizo Plain Conservancy
- Ecologistics hosting Carrizo Colloquium

Building Momentum!
Fostering Collaboration...

Carrizo Plain National Monument Vegetation Classification and Mapping Project
Fostering Collaboration...
Carrizo Plain Ecological Reserve Land Management Plan
Q Veg manipulation for Species: Public input?
  How to optimize vegetation for species to avoid conflicts with native plants?
Q A. Manage non-native species of vegetation.
  A. Non-natives complicate BNUL habitat. Retain natives.
  A. Grazing affects native & non-natives
  A. Conservation management plan targets relationship between plants & animals

2013
Key Questions Posed
1. What research needs/desires have arisen from what has been done so far? Short and Long term (5-10 years or over 10 years)
2. What protocols would you recommend to ensure that research results are consistent and comparable?
3. How do you see climate change affecting the Carrizo Plain?
Making Best Use of 2013 Colloquium General Assembly Input

- Continue existing research
- Kit fox prey? Insects need study
- Grazing
- Insects as food source
- UC Berkeley GKR, grazing
  - insect data/samples available
- Releves: Get info into data
  - commons across disciplines
- Friends of Carrizo-Washburn Ranch
  - papers scanned & available
- Standardized protocols
- TNC & UC Berkeley Carrizo Web ecosystem, Pt. Blu, benchmarking
Configuring Output

- Relationship to CPC mission/goals?
- Making Use of solar post-construction monitoring?
- Organizational development
  - Working groups on topics?
  - Organic evolution of groups based on common interests?
  - Other?

Additional Notes:

- Research: How to keep migratory birds from landing on solar panels?
- Monitoring
- Research: Long-term species monitoring, e.g., beyond 3-yr study for kit for habitat selection.
- Proportional habitat use

What still needs study:
- S. end of Caliente Range, e.g., “Devils Causeway” behind Wells Ranch.
- Lichens, MicroBiotic Crust communities.
The Tulare Basin Wildlife Partners (TBWP) work with partner agencies and organizations to conserve and restore critical Tulare Basin upland, wetland, and riparian habitats for people and wildlife.

The TBWP facilitates the engagement of partners, funders, and stakeholders in multi-benefit projects to promote ecological and economic health, sustain our agricultural heritage, and enhance the quality of life in the Tulare Basin for current and future generations.
Developing Next Steps?
Carrizo Plain Conservancy

Bringing Carrizo lands and people together for conservation and collaboration

Neil Havlik, PhD
President

Herb Stroh, Esq.
Vice President

Anne Fairchild
Treasurer

Steph Wald
Secretary

Lynne Dee Althouse, PhD

Dorothy Jennings

Douglas Campbell

www.carrizoplainconservancy.org
Devise and Implement Long-Range Visioning Process

2012-2015 Construction

2015-2050 Operation

2050-2052 Decommission

- All lands
  - Footprint of solar plants—to be completely restored upon decommissioning
  - On and off site mitigation lands—use of lands by wildlife during construction and beyond
  - California Valley—retirement of antiquated subdivision and purchased lots
  - Carrizo Plains National Monument and in-holdings
- Management entities for mitigation lands
- Endowment funds to manage lands based on PAR analysis
California Valley Solar Ranch
GKR Data Sheet

Date: 30 January 2012

Personnel Involved and Permit Numbers: Howard Clark, Federal Recovery Permit TE-797267-14.2

Capture Location (GPS Coordinates): UTM 11S 0235783 3913111

Time of Capture and/or Observation: 2120 (30 January 2012)

Time of Release: 2306

Sex: Male ☐ Female ☐

Age: Juvenile ☐ Sub-Adult ☐ Adult ☐

Weight: 133 g

Hind Foot Measurement (mm): 50.20

 PIT Tag #: 074108607

Radio Collar #: N/A

Ambient temperature when handled and released: 44 degrees F

General condition and health (note all visible conditions including gait and behavior, diarrhea, emaciation, salivation, hair loss, ectoparasites, injuries, etc.): In good health. No injuries or other concerns.

Other Notes: GKR was caught at Array 6 in trap pen C94. Release UTM 11S 0235254 3912931. Released in artificial precinct R94 east of O&M.

Initials of Staff Completing this Form: HOC
Topaz Solar Farm Constraints

Legend:
- Project Site
- JD Study Area
- A12E1 Protected Forest Areas
- Topical PV Array
- Proposed Roads
- FEMA Zone A
- Floodway
- Protected Vegetation
- Fish Habitat
- Wetlands
- Critical Habitat
- Urbanized Area
- 500 ft set back from Hwy 58

550 NW Solar Farm Project

Topaz Solar Farms, LLC
1131 Broadway, 4th Floor
Oakland, CA 94607

Althouse and Meade, Inc.
3602 Story Road
Fresno, CA 93714

First Solar
2008 NAIP Aerial Photograph
Flood Insurance Rate Map Ready
01070199730 and 0107012009
Map Updated March 34, 2011
Figure 10. Landscape Permeability for Pronghorn antelope

Least-Cost Corridor* (3%)
- Less Cost
- More Cost
- Target Zone
- Suitable Habitat**
  - Pronghorn Sightings
  - Pronghorn Crossing
- Highways
- County Boundaries
- Hydrography
- Outer Project Boundaries

* Cumulative cost to movement
** This analysis was run from Medium-High to High Suitable Habitat within each Target Zone.
Figure 4. Habitat Suitability for Pronghorn antelope

Degree of Suitability
- High
- Med-High
- Med
- Low-Med
- Low

- Pronghorn Sightings
- Highways
- County Boundaries
- Hydrography

Map Produced By:
Lessons Being Learned

- Possible to design for reduced impacts at increased expense to solar companies
- Possible to leverage adversarial position for longer term collaborative advantage
- Possible for solar companies to export lessons learned with early and frequent contact with perceived adversaries

CVSR Soil restoration and seeding efforts

TSF Mitigation Pond