

Renewable Arizona

The Restoration Design Energy Project EIS

Project Overview – Conceptual *DRAFT* Alternatives

November 2011



What are the project objectives?

- Allocate areas and sites for renewable energy development
- Emphasize previously disturbed sites and areas with low resource conflicts
- Serve as a “step-down” to the Solar PEIS
- Amend BLM RMPs as appropriate



Where are we in the process?

- Conceptual Alternatives identified
- Resource summaries complete
- Tribal consultation ongoing
- Outreach with Cooperating Agencies and stakeholders ongoing
- Internal review of Administrative Draft EIS



Cooperating Agencies

- Arizona Department of Water Resources
- Arizona Game & Fish Department
- Arizona State Land Department
- Arizona Corporation Commission
- Arizona Department of Environmental Quality
- Central Arizona Water Conservation District
- US Bureau of Reclamation
- Western Area Power Administration



Terms

- **Planning Area** = entire state regardless of land status (*except tribal*)
- **Decision Area** = BLM National System of Public Lands (*surface estate*)
- **REDA** = Renewable Energy Development Area (*solar and wind energy any scale*)
- **SEZ** = Solar Energy Zone (*utility scale solar*)



BLM/DOE Draft Solar PEIS

TABLE 2.2-1 Summary of Potentially Developable BLM-Administered Land under the No Action Alternative, the Solar Energy Development Program Alternative, and the SEZ Program Alternative^a

State	Total State Acreage ^b	BLM-Administered Lands Constituting No Action Alternative (acres)	BLM-Administered Lands Constituting Solar Energy Development Program Alternative (acres) ^c	BLM-Administered Lands Constituting SEZ Program Alternative (acres)
Arizona	72,700,000	9,218,009	4,485,944	13,735
California	100,200,000	11,067,366	1,766,543	339,090
Colorado	66,500,000	7,282,061	148,072	21,050
Nevada	70,300,000	40,794,055	9,084,050	171,265
New Mexico	77,800,000	12,188,361	4,068,324	113,052
Utah	52,700,000	18,182,368	2,028,222	19,192
Total	440,200,000	98,732,220	21,581,154	677,384

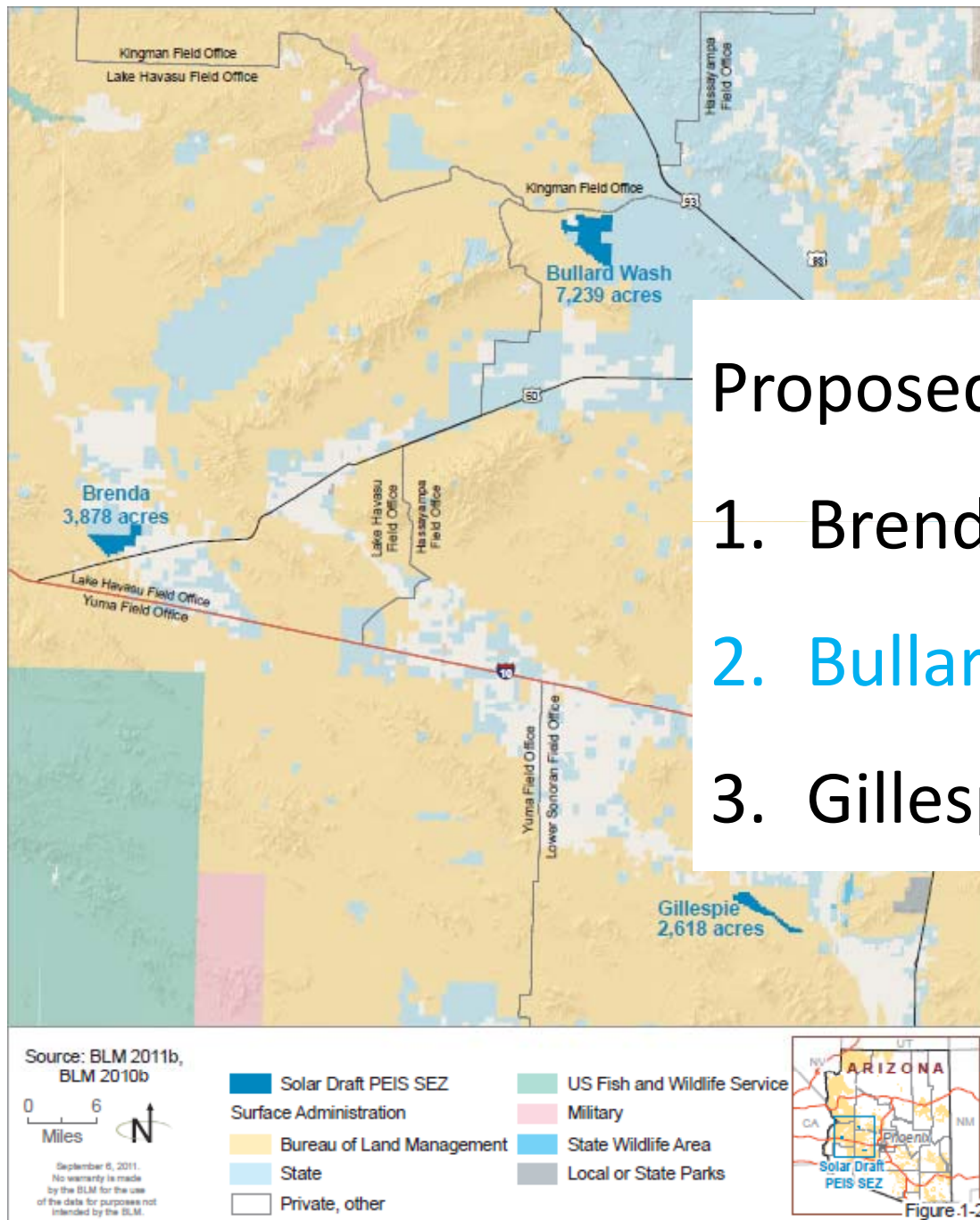
Solar PEIS, Chapter 2, December 16, 2010



Draft Solar PEIS

Proposed SEZs in AZ:

1. Brenda (3,878 ac)
2. Bullard Wash (7,239 ac)
3. Gillespie (2,618 ac)



Solar PEIS, Chapter 2, December 16, 2010



Solar PEIS Status (July 14, 2011)

- Draft Released December 2010
 - 3 SEZs = 13,375 acres
 - About 4.5M acres as “solar program lands”
- Supplemental document Fall 2011
 - Program Lands to be “Variance Areas” with a process for future development - Drop Bullard Wash SEZ
- No new SEZs identified
- Additional SEZs to be considered through state efforts – RDEP in Arizona



Scope of the REDAs

Designate Renewable Energy Development Areas (REDAs)

- Disturbed and lands with low resource sensitivity
- Wide range technologies (*wind and solar*)
- Multi-jurisdictional partnership opportunities
- Multiple scales (*utility, community, small scale, etc.*)
- Programmatic analysis



Scope of the SEZ

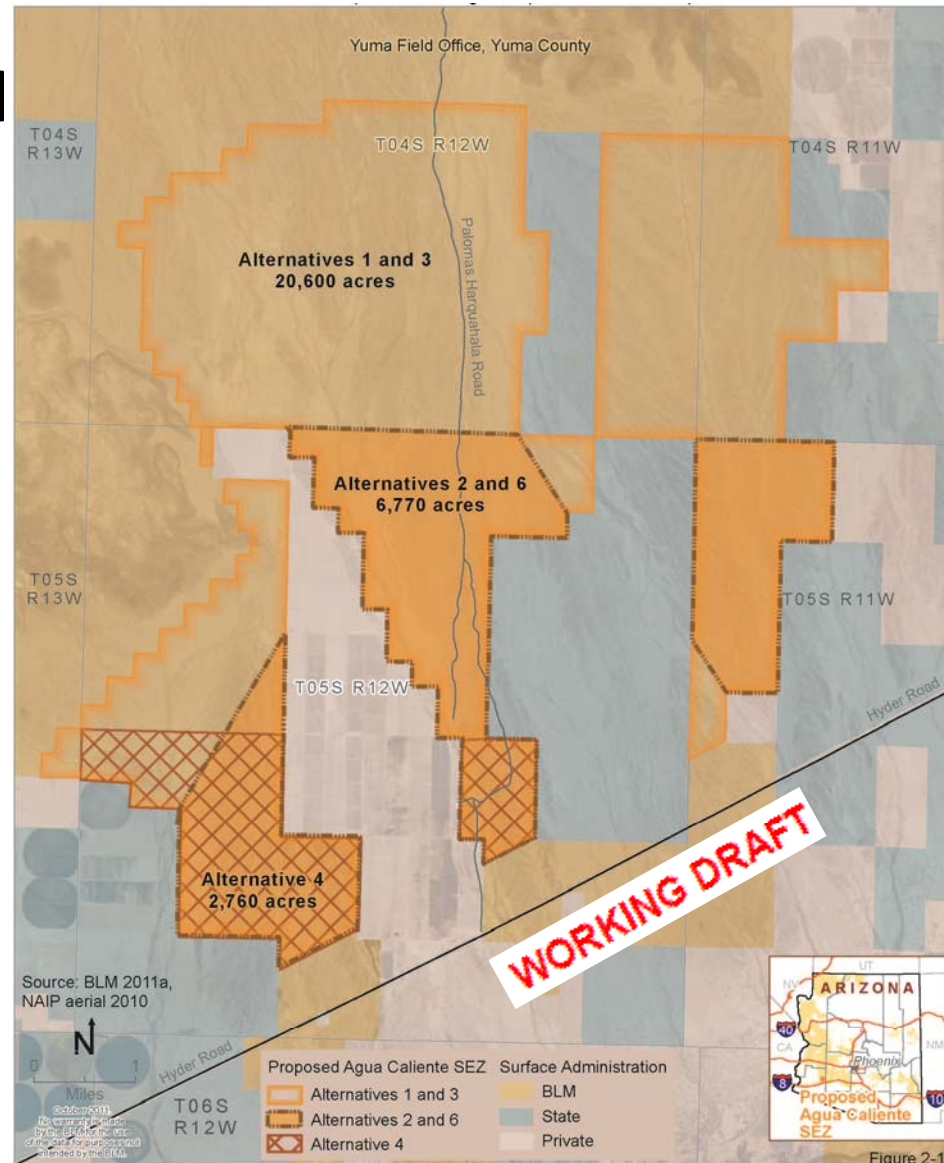
Consider opportunities for additional SEZ

- Utility scale solar (e.g., >20WM) on BLM lands
- Higher level of inventory and analysis
- Coordinated extensively with the DOI/BLM WO; identified various SEZ options
- Agua Caliente best met the objectives for a SEZ
- RDEP to include **analysis** of the Agua Caliente SEZ



RDEP – Agua Caliente SEZ

- Large tract of BLM land
- Next to an active solar development
- Limited known environmental constraints
- Near transmission
- Near access roads
- Existing application



Proposed Allocation Decisions

- Designate REDAs (*Where we want development*)
 - Screening factors:
 - Environmental and cultural constraints
 - Location of load
 - Transmission
 - REDA key elements:
 - Disturbed lands
 - Areas of low resource sensitivity
 - Opportunity for multi-jurisdictional partnership
 - All REDAs within the Solar PEIS Program Lands
- Potentially designate the Agua Caliente SEZ



Included in RDEP

BLM Management Actions

- Common to All Alternatives
 - Goals/management actions
 - Land tenure goals/management actions
 - Land reuse goals/management actions
 - Remediation
- Specific to Agua Caliente SEZ
 - Actions from Solar PEIS
 - Specific RDEP goals/management actions (see above)



Included in RDEP

- Renewable Energy Design Features
 - Means, measures or practices integrated into project-specific design (PODs, POUs, etc.) to reduce or avoid adverse environmental impacts
- Best Management Practices
 - Techniques that guide or may be applied to action to aid in achieving goals/management actions



Alternative Development

- Focus on the purpose and need for action
- Allocation decision is focusing on where we want development –
 - Not just exclusion/avoid
- Alternatives serve as building blocks for analysis
- No Action = guidance in current land use plans



Alternative 1: Maximum REDA

Areas with Known Sensitive Resources (Eliminated from REDA Consideration)

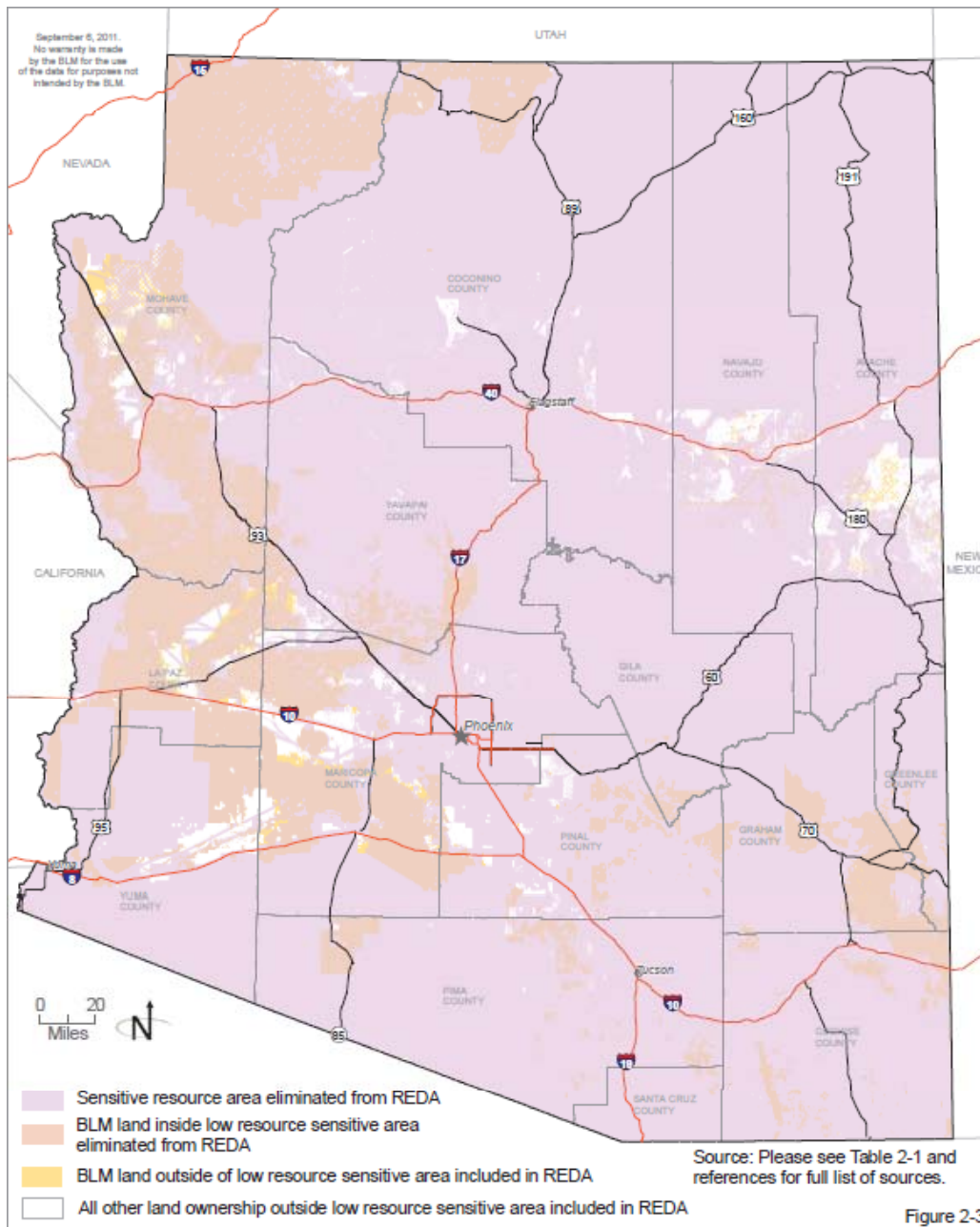
BLM Areas of Critical Environmental Concern	Indian lands, Military lands	AZ Game and Fish Dept. wildlife corridors
BLM Backcountry Byways	State Parks, State Wildlife Areas	USFWS critical habitat for Threatened and Endangered Species
BLM Designated Wilderness & WSA	US Fish and Wildlife Service Lands	BLM sensitive species habitat
BLM Land with Wilderness Characteristics	US Forest Service Designated Wilderness	Tortoise habitat category 1, 2, 3
BLM Lands with Wilderness Inventory areas	US Forest Service Established Research Natural Areas	National Wetland Inventory wetlands
BLM Visual Resource Management Class 1, 2, 3	US Forest Service Inventoried Roadless Areas	Water bodies (lakes and dry lakes)
BLM Special Recreation Management Areas	US Forest Service Heber Wild Horse and Burro area	Federal Emergency Management Agency 100-year floodplains
BLM Right-of-Way exclusion or avoidance areas	US Forest Service Special Interest Management Areas	Severe soils
National Monuments	Airports (1/4 mile buffer)	>5% slopes (or >15% for areas with wind potential)
National Conservation Areas	Urban areas	Easements (The Nature Conservancy, Audubon Society, and private)
Wild and Scenic Rivers	AZ Game and Fish Dept. Crucial Habitat	BLM herd management area
National Parks System Units (including Petrified Forest Expansion Act of 2004)	AZ Game and Fish Department big game	Areas with known mineral deposits
National Parks System National	Special Status Species or T and F	

Alternative 1: Maximum REDA

1. Allocate all REDAs
2. Allocate Agua Caliente SEZ

REDAs =

- Disturbed lands
- Areas of low resource sensitivity



Alternative 1: Maximum REDA

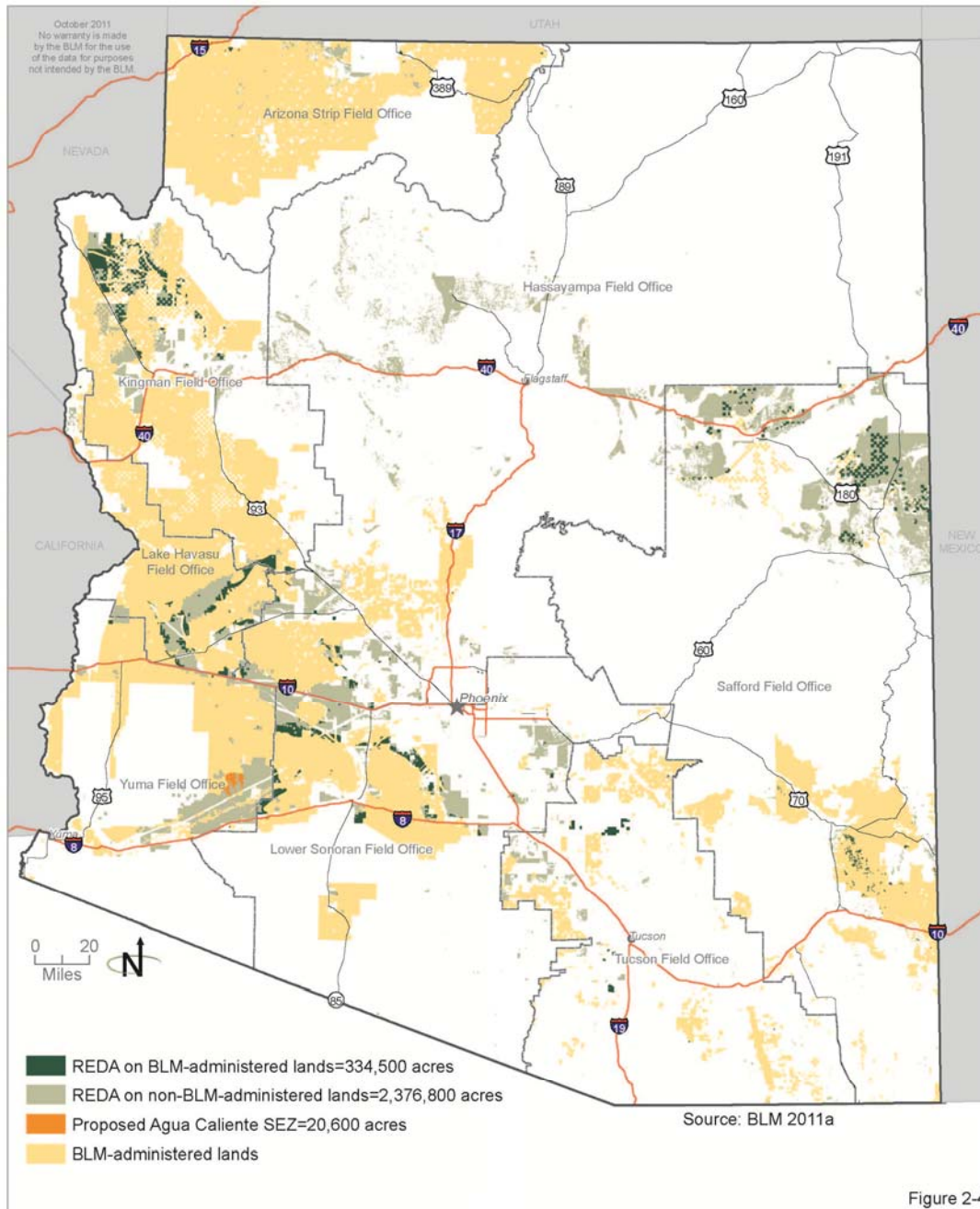


Figure 2-4

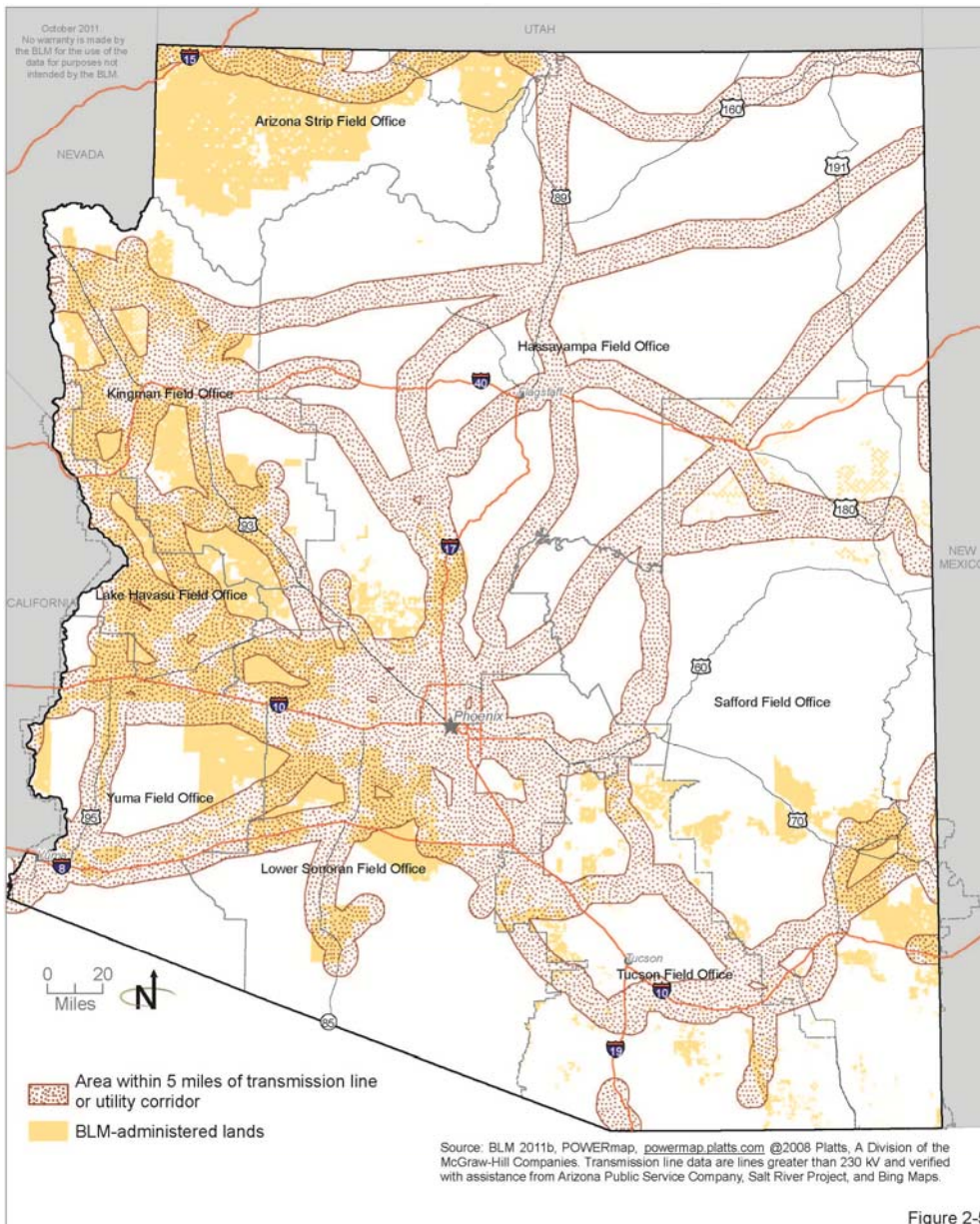
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Alternative 2

Transmission Line and Utility Corridor REDA

Allocate REDAs/SEZ within 5-mile buffer of transmission, designated utility corridors, and reasonably foreseeable lines.



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Alternative 2

Transmission Line and Utility Corridor REDA and SEZ

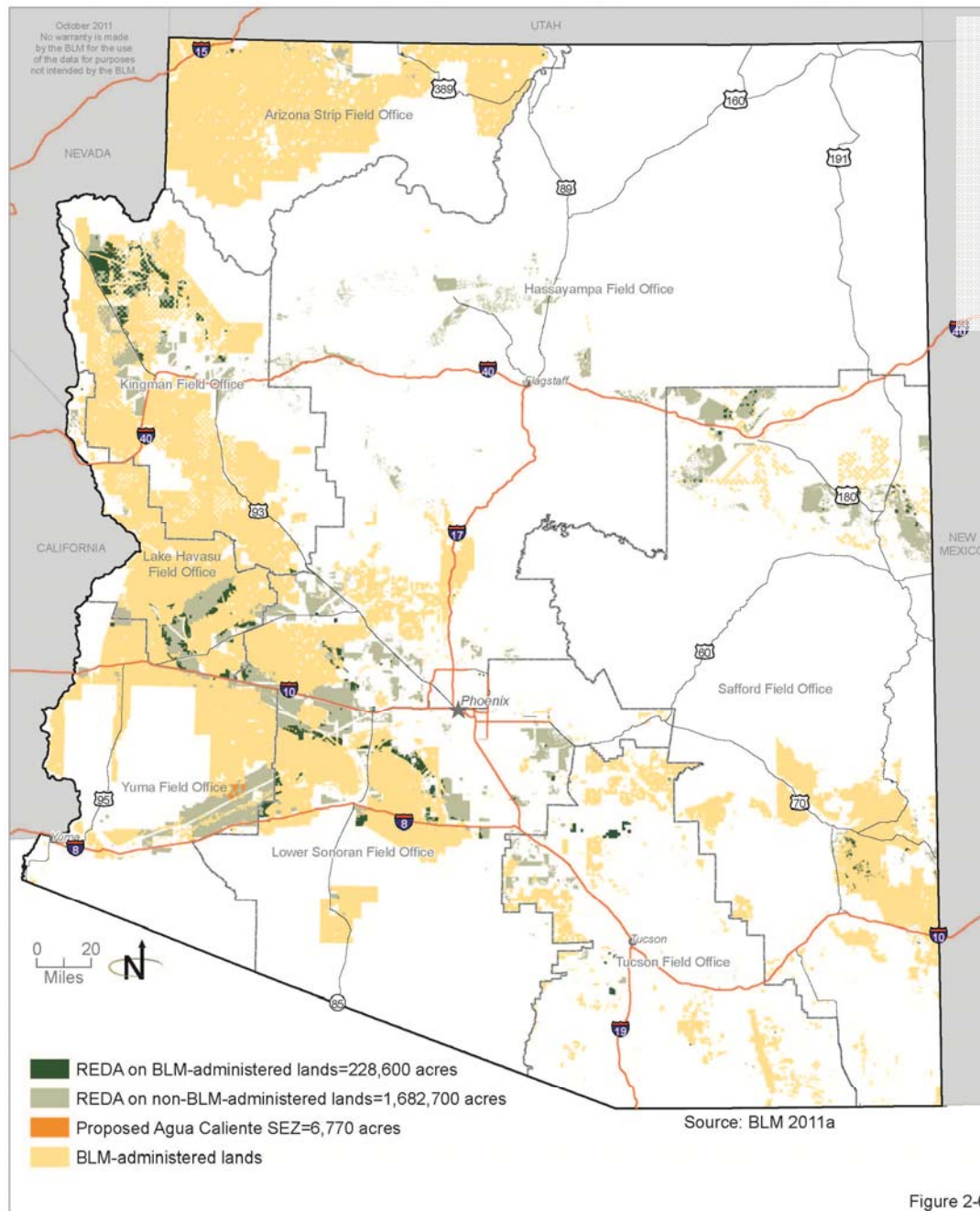
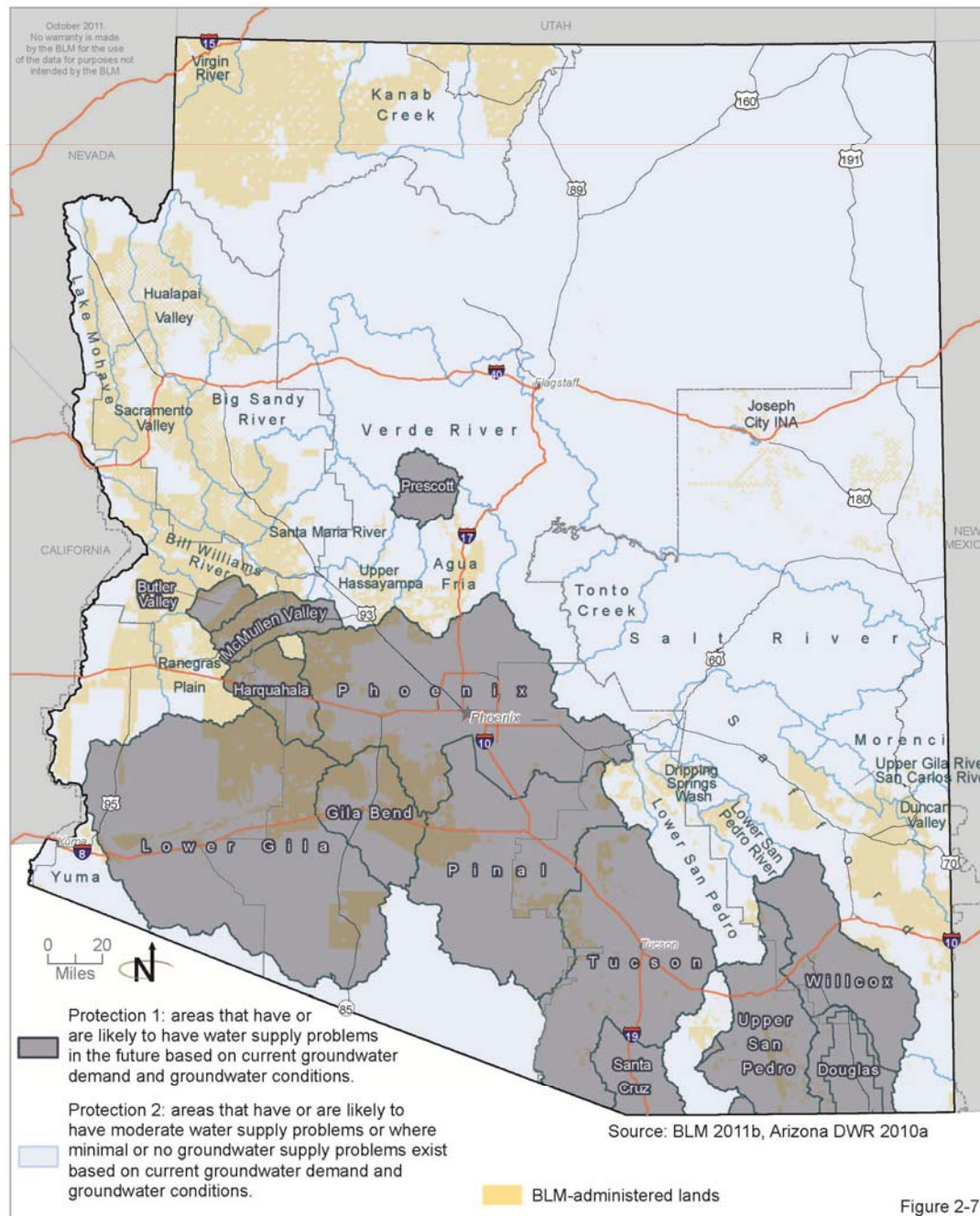


Figure 2-6

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Alternative 3

Water Conservation and Protection

Based on groundwater vulnerability levels, this alternative categorizes REDAs and SEZ into two water management classes that offer different design features to protect water resources.

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Alternative 3

Water Conservation and Protection

Protection Class 1 has more stringent design features than Protection Class 2.

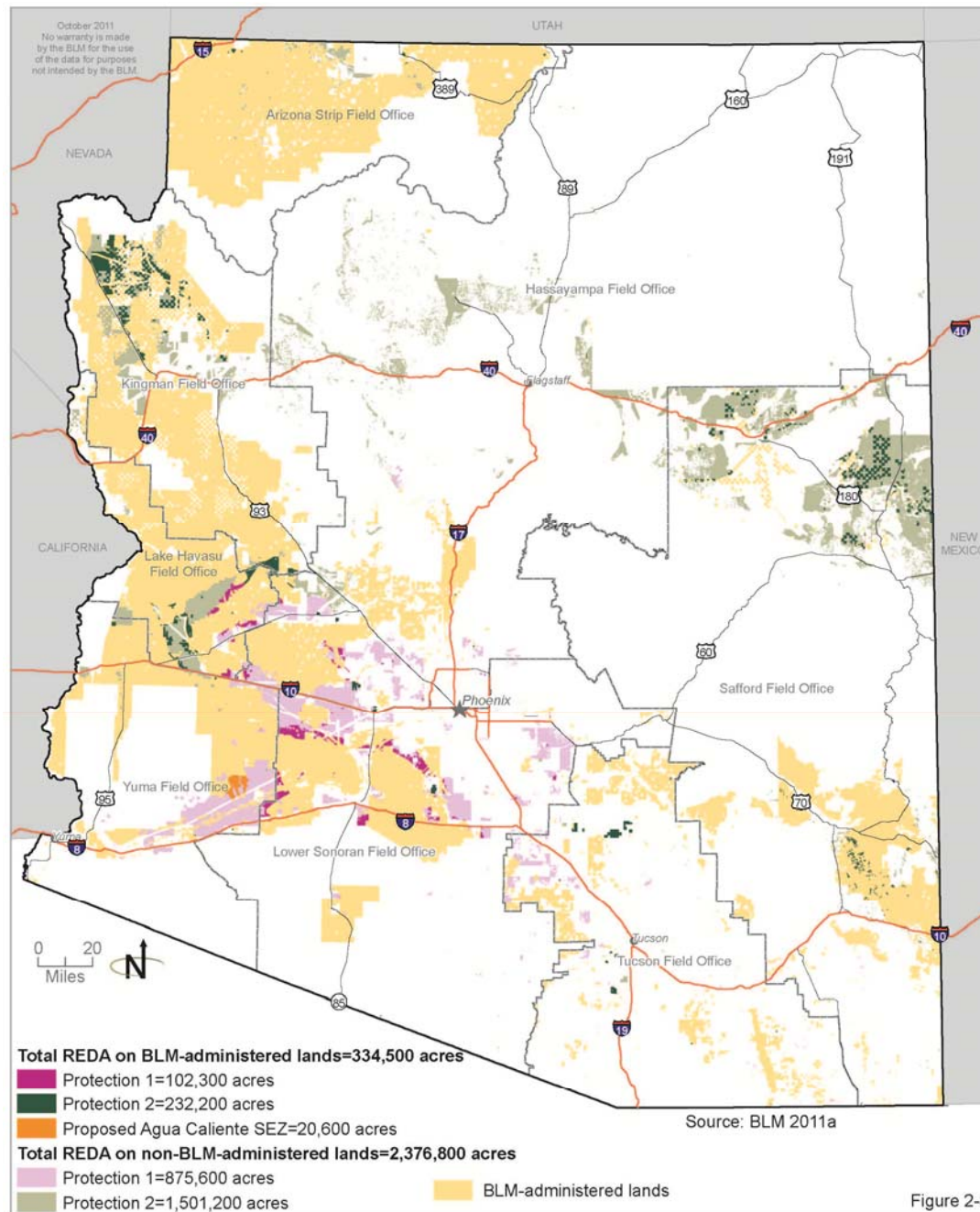
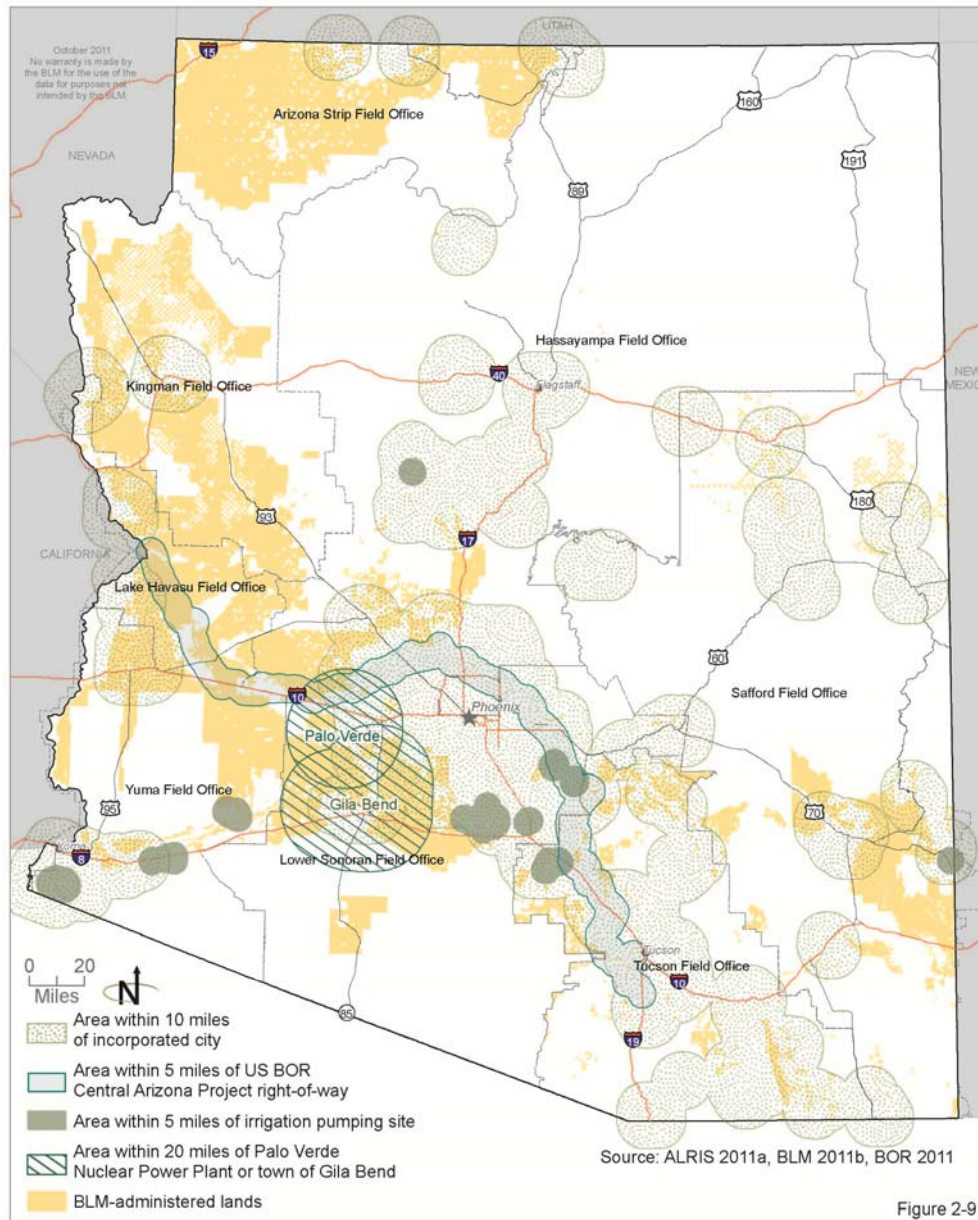


Figure 2-8

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Alternative 4

Load Offset REDA

Allocate REDAs/SEZ near load demand:

- Towns and cities (*10 miles*)
- CAP project features and irrigation pumps (*5 miles*)
- Palo Verde Nuclear Power Plant and Town of Gila Bend (*20 miles*)

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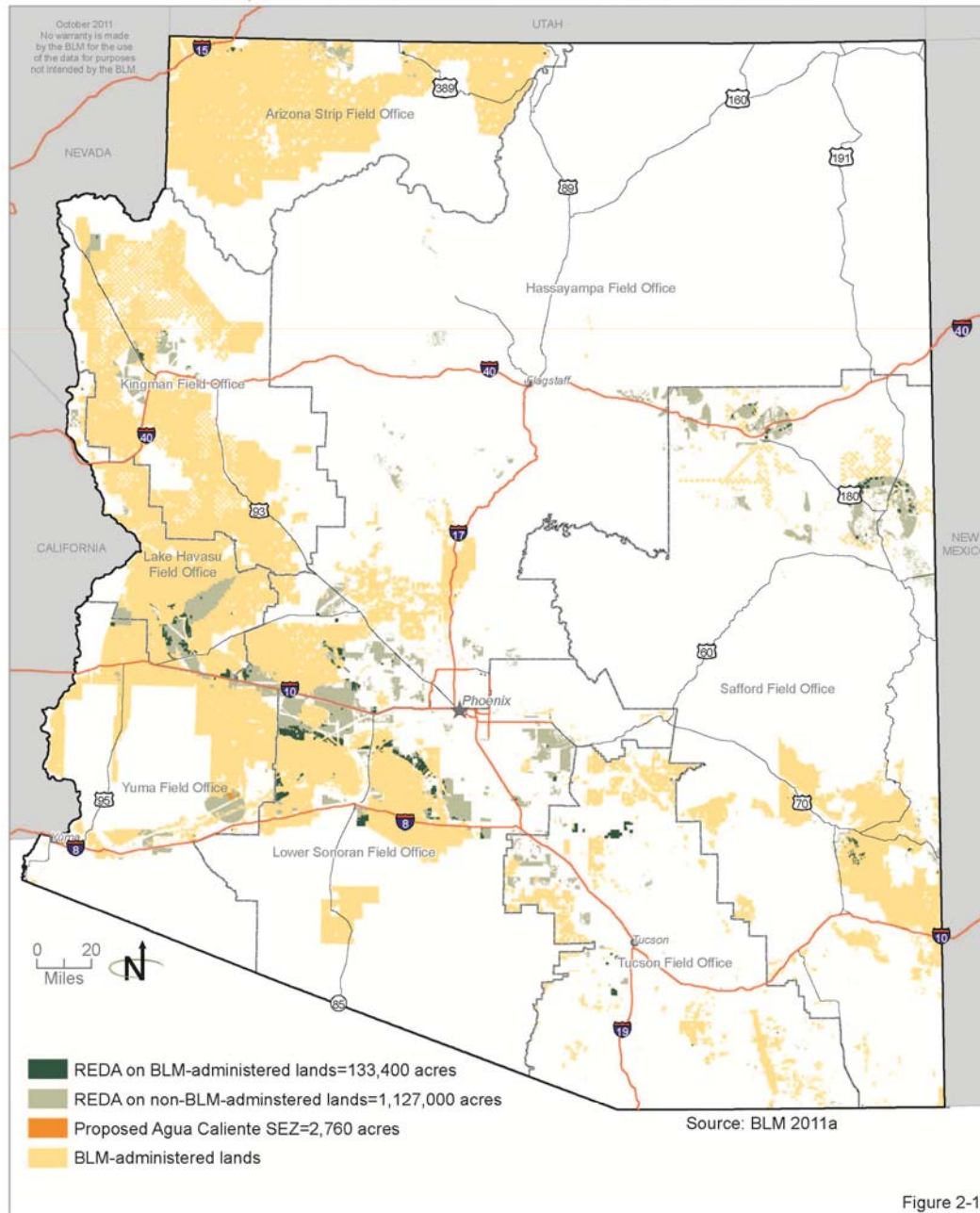


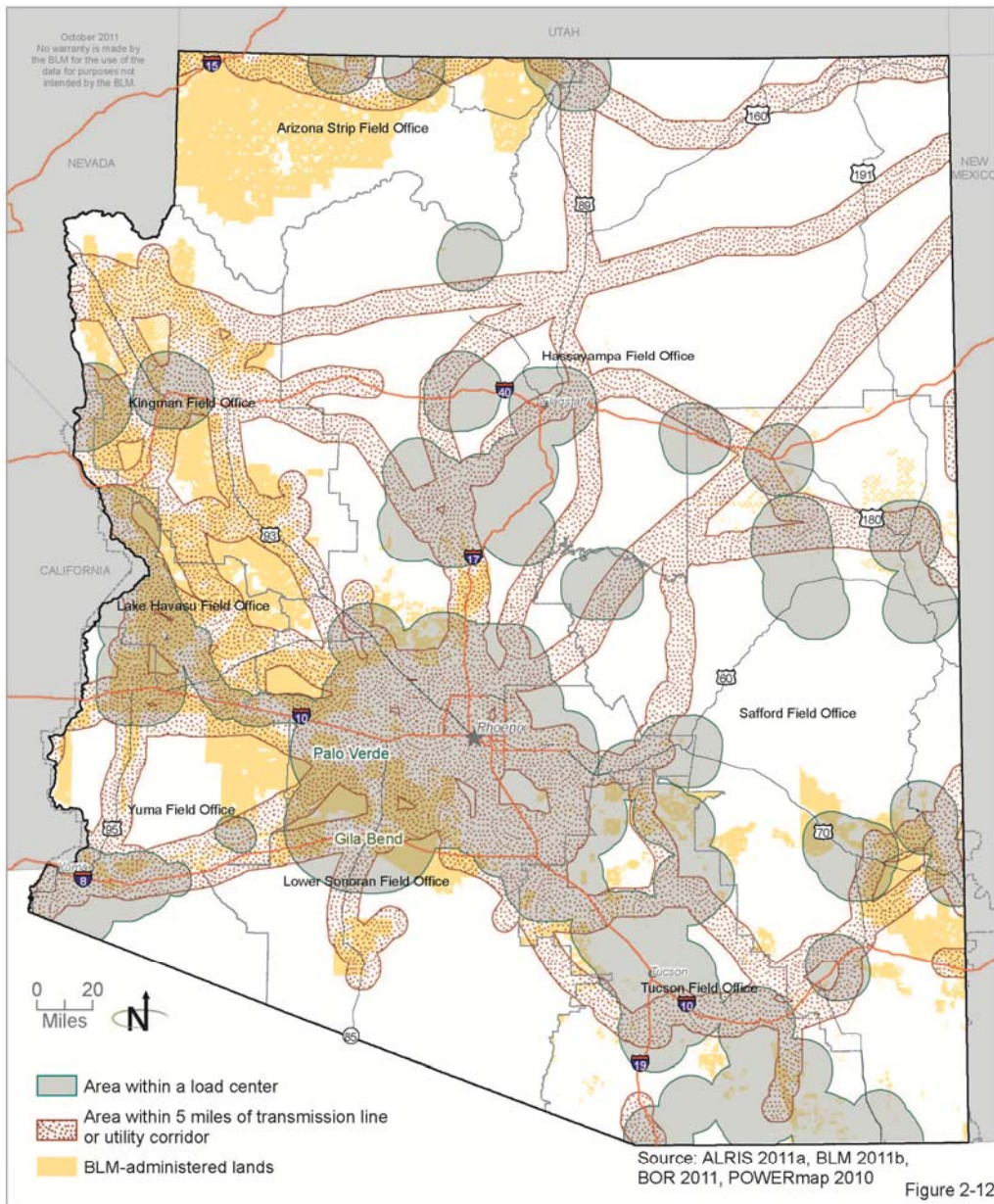
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Alternative 4

Load Offset REDA

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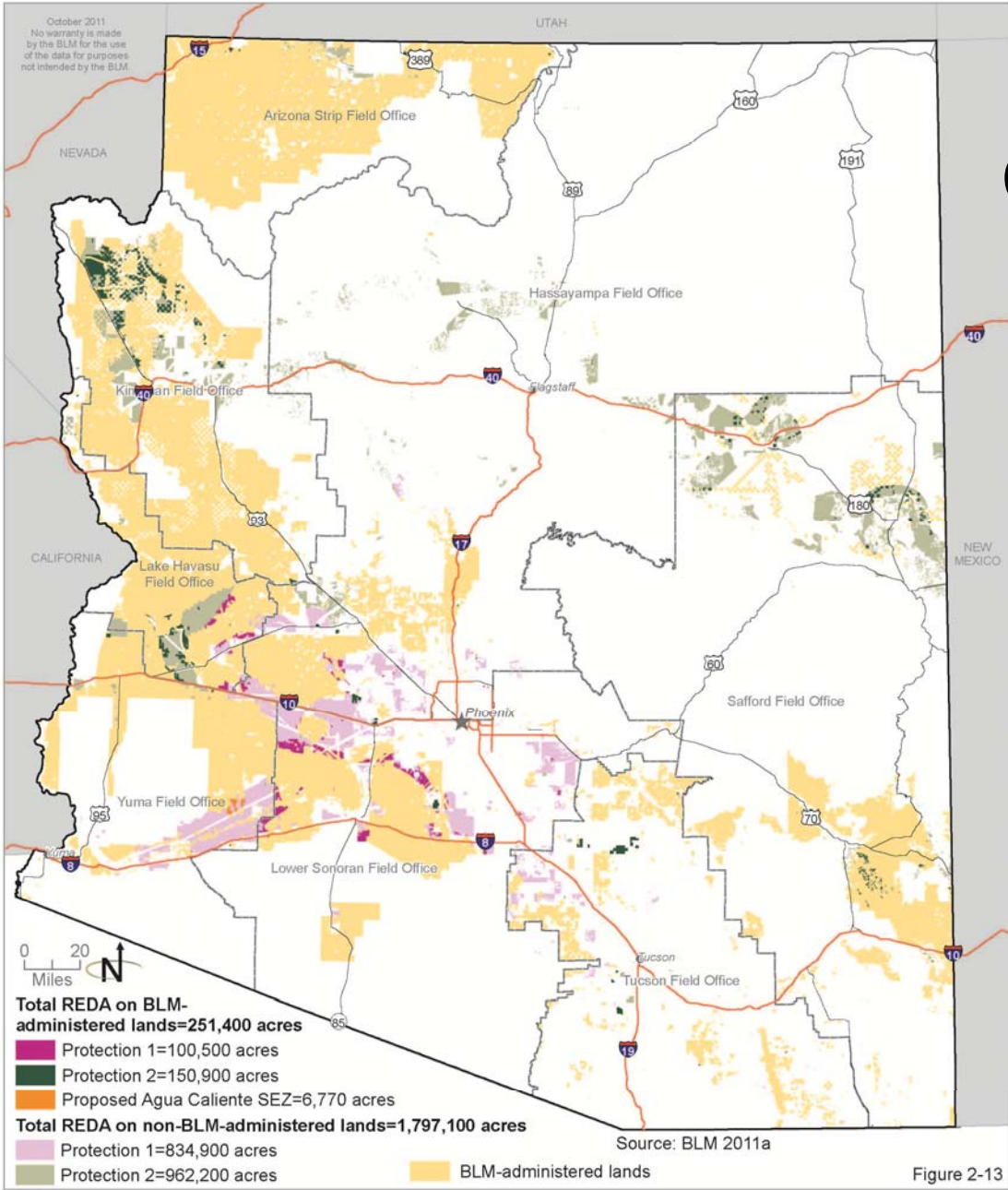
Alternative 6

Collaborative-Based Renewable Energy Development Areas

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Alternative 6

Collaborative-based Renewable Energy Development Areas



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In the end....

- Development in SEZ: Streamlined permitting for utility scale solar energy development.
- Development in REDAs: Streamlined permitting for renewable energy development (solar, wind, and other), at different scales and with potential for multi-jurisdictional partnerships.
- Clear set of expectations and guidance for developers.



Schedule

Milestone

Target Timeline

Solar PEIS Supplemental Document	Fall 2011
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Draft RDEP EIS	Winter 2012
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Final RDEP EIS/ROD	Late 2012
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Questions?

Kathy Pedrick

Bureau of Land Management, Arizona State Office

One North Central Avenue, Suite 800

Phoenix, AZ 85004-4427

602-417-9235 (office)

az_arra_rdep@blm.gov

