Thank you for your comment, Michael Crow.

The comment tracking number that has been assigned to your comment is SolarM60261.

Comment Date: September 14, 2009 19:41:38PM
Solar Energy Development PEIS
Comment ID: SolarM60261

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Attachment: BLM Comments & Attachments 09-14-09.pdf

Comment Submitted:

ARIZONA STATE UNIVERSITY

September 14, 2009

Attn: Lisa Jorgensen
and Linda Resseguie
Solar Energy PEIS
Argonne National Laboratory
9700 S. Cass Avenue
EVS/900
Argonne, IL 60439

Re: Identification of Solar Energy Study Areas in the Development of a Programmatic Environmental Impact Statement pursuant to Title II, Section 211 of the Energy Policy Act of 2005, in accordance with Executive Order 13212, Actions to Expedite Energy-Related Projects, and in response to the Secretary of the Interior's Secretarial Order No. 3285 issued March 11, 2009

Dear Ms. Jorgensen and Resseguie:

On June 30, 2009, The U.S. Department of Energy ("DOE") and the Bureau of Land Management ("BLM") (DOE and BLM together the "Agencies") issued a *Federal Register* Notice of Availability informing the public of the availability of the solar energy study area maps, and soliciting public comments for consideration in identifying environmental issues, existing resource data, and industry interest with respect to the proposed study areas. These comments are offered by the Arizona Board of Regents for and on behalf of Arizona State University ("ASU") in response to the June 30, 2009 Notice of Availability.

ASU files these comments in support of the overall objective of identifying federal land and overall procedures that can be used to speed the development and use of solar energy for the benefit of residents and businesses in areas served by the Region. Finding pathways to develop renewable energy resources in an environmentally responsible way, and with minimal delay, is a national objective we share. We at ASU are actively working toward that goal in a collection of multidisciplinary initiatives conducted with significant federal and private support. *However, our comments below also offer specific observations and suggestions centered on the strong belief that the current effort to identify solar study areas in Arizona significantly and unnecessarily understates the opportunity to advance an appropriate solar agenda in the Region.*

Background

The Agencies are preparing a draft Programmatic Environmental Impact Statement ("PEIS") pursuant to the National Environmental Policy Act to evaluate utility-scale solar energy development in six Western states: Arizona, California, Colorado, Nevada, New Mexico, and Utah (collectively the "Region"). On the basis of the information and analyses developed in the PEIS, the Agencies will develop and implement agency-specific programs that would establish environmental policies and environmental impact mitigation strategies for optimum solar energy development throughout the Region. In the course of the PEIS analyses, the Agencies have identified a number of tracts of BLM-administered land for in-depth study. Some or all of the proposed solar energy study areas identified in the analyses may be found appropriate for designation as "solar energy zones" in the future.

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Thus far, out of over 12 million acres of BLM land in Arizona, three solar energy study areas have been identified by BLM in Arizona: Brenda (4,321 acres), Bullard Wash (8,201 acres), and Gillespie (3,970 acres) (collectively the "Arizona Study Areas"). As discussed in more detail below, the preliminary selection of the Arizona Study Areas resulted from a methodology and process that we believe was far too restrictive in its approach. Its current direction yields dramatically inconsistent results within the Region and fails to satisfy the objective of creating a pathway for streamlined optimization of appropriate use of federal lands to enhance the use of solar energy in Arizona and the southwestern United States.

Our recommendations for corrective action in this process are included below. They are proposed to ensure that: (1) analyses related to the subject PEIS achieve their intended objectives; and (2) study areas and "solar energy zones" are ultimately identified within parameters that leverage the full potential for responsible deployment throughout the Region and particularly in Arizona…the state most agree has the greatest solar resource of any state in the country.

Preliminary Selection of Study Areas in the Region

The criteria suggested by BLM for the selection of solar study areas in the Region were framed in an effort to identify those parcels on which solar energy could be reasonably and responsibly developed, without undue delay. The apparent objective was to create opportunities for early solar deployment in conjunction with the development of the PEIS. It was suggested that land be designated for analyses, outside "sensitive resource areas" [1]:

- in areas with solar insolation of 6.5 kilowatt-hours per square meter per day or above;
- with slope less than 5%;
- within 25 miles of transportation corridors or transmission lines; and
- on tracts of 2,000 acres or more.

The methodology chosen in the selection of the Arizona Study Areas amended the general criteria by: (1) tightening the general selection criteria (e.g. increasing the minimum tract size to 2,500 acres) [2]; and (2) employing different criteria that significantly limited the eligibility of BLM land for review.

Variant and supplemental criteria that further reduced the inventory of BLM land considered for solar study area treatment in Arizona involved:

1. excluding areas of "high sensitivity"; [3]

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[1] For purposes of study area selection, "sensitive resource areas" included:
(1) National Landscape Conservation System lands (except that lands within the California Desert Conservation Area that have no other special designation may be included in a solar energy study area);
(2) Threatened and endangered species designated critical habitat;
(3) Back-country byways;
(4) Areas of known Tribal concern;
(5) Areas of known high cultural site density; and
(6) Areas designated for right-of-way avoidance or right-of-way exclusion in BLM land use plans. Such areas include BLM areas of critical environmental concern, areas with important visual resources, special recreation management areas, areas allocated to maintain wilderness characteristics, wildlife movement corridors, and areas where the BLM has made a commitment to take certain actions with respect to sensitive species habitat.

[2] It is not clear if the 6.5 insolation rating and the suggested 25 mile criterion were used in the selection of the Arizona Study Areas. Reports of consideration of "high" isolation and areas "near" transportation and transmission lines were reported.

[3] "High Sensitivity" criteria included: Areas of Critical Environmental Concern, Areas Allocated to Maintain Wilderness Characteristics, Desert Tortoise Habitat Category 1 and 2, Visual Resource Management (VRM) Classes I and II, Wildlife

2. excluding areas of "medium sensitivity"; [4]
3. excluding Arizona Game & Fish Territories; and
4. excluding area that is the subject of an existing solar development application.

The additional exclusions employed in Arizona in 1 and 2 above may well be necessary in some measure to protect environmentally sensitive areas. The effect of exclusions 1 and 2 have on the process should be examined in the final analysis. However, even though we do not know how much BLM land was removed from consideration based on 1 and 2, for the purposes of these comments, their impact is secondary compared to the effects of 3 and 4 above.

The additional exclusions noted in 3 and 4 above eliminate virtually all BLM land in Arizona by application and all land of current commercial development interest by definition. As shown in Attachment 1, the filter utilized to exclude Arizona Game & Fish Territories blanket the entire state. Arizona is blessed with abundant wildlife and land that needs to be carefully preserved to support it. However, the related land exclusion here requires qualitative analysis to be meaningful, not an automatic application. Likewise, there is no need to categorically exclude all land under current application. To do so, in combination with all of the supplemental layered exclusions applied in Arizona, produces tracts of land that no one will presumably have an objection to...but that no one has a stated interest in developing.

The current Arizona Study Areas are the product of a risk adverse approach that is not as productive or informative as it should be at this stage in the process. The approach taken so far in Arizona was well intentioned. It was an attempt to minimize objection for speedy processing while identifying new sites for development. Unfortunately, it offers minimal room for review and study in the state with the most opportunity and potential.

Each of the BLM offices in the other states in the Region reported that study areas were identified in using criteria that were not as restrictive as those used in Arizona. None reported such blanket exclusions as those prompted by the use of Arizona Game & Fish Territories. None reported that areas subject to existing applications were excluded.

The total acreage included in the proposed study areas in each state throughout the Region is summarized in Attachment 2. It shows that differences in approaches in each state resulted in dramatically different results:

- Arizona Study Areas represent the smallest total acreage proposed in any state the Region.
- Three states propose study areas of more than 100,000 acres each compared to 16,492 acres for Arizona's total study area.
- Nevada suggested the study of seven separate sites totaling nine times the total area designated in Arizona.
- In a percentage comparison of total study area acreage to total BLM land in each state, Arizona has the smallest proposed total study area of the five states with significant areas of solar isolation over 6.5.

Movement, Wild Horse and Burro Herd Management Areas, Sensitive Species Habitat, Right-Of-Way Avoidance Areas, Back Country Byways, Areas of Tribal Concern. The degree to which these criteria differed from the general guidelines is not yet available.

[4] "Medium Sensitivity" criteria included: Special Recreation Management Areas, VRM Class III, Areas inventoried as having Wilderness Characteristics, Allocated Utility Corridors, and Desert Tortoise Habitat Category 3. The degree to which these criteria differed from the general guidelines is not yet available.

- California has only 19% more BLM land than Arizona, but its total proposed study area is more than 21 times, or 2,100%, greater than the size of the Arizona Study Areas.

The disparity in approaches and uneven results suggest that an alternative procedure and objective is necessary.

Recommendations

First, the identification of solar study areas should begin with the consideration of BLM land that is not likely to present environmental concern. There are over 12 million acres of BLM land in Arizona. As shown in Attachment 3, over 4 million acres of BLM land in Arizona are considered to be of "moderate" or "low" known sensitivity. As shown in Attachment 4, after consideration of solar insolation and slope as suggested in this matter, Arizona offers almost 1 million acres of "moderate" and "low" sensitivity BLM land. In fact, over 780,000 acres of BLM land in Arizona has insolation of over 6.5, slope of less than 5%, and "low" known environmental sensitivity. If further reduction of that filtering process is warranted due to environmental concerns, it should be conducted in phased review of study areas as they are honed to produce the most appropriate areas in which to promote solar development. Wholesale application of Game & Fish Territories should be replaced with objective review and analysis.

Second, areas that are the subject of existing applications should not be excluded. Apparently no other state did so in designating study areas. Given the ultimate need to actually develop the land, exclusions in this vein are unproductive.

Third, uniform minimum tract size for study areas should be established for all states in the Region. Given current and expected advances in technology minimum tract size should be re-considered.

Fourth, the approaches in each of the states of the Region should be normalized for uniform assessment of opportunities to develop solar energy. The disparities among the six states in the Region noted above and in Attachment 2 should not be allowed to stand. Any process that places the lowest priority on the state of highest potential is suspect and needs to be modified, to at least assure consideration of all states on equal terms.

Fifth, the Restoration Design Energy Project, an effort to examine remediation of disturbed or previously developed BLM land, should be directly connected with this review.

Sixth, a collaborative effort by representatives of the Agencies and each of the states in the Region should be initiated within the next thirty days to further advise the Agencies. As soon as the appropriate experts can be identified by all concerned, they should convene to refine, normalize, and finally establish the criteria that will determine where areas should be studied. Even more importantly, the group could thereafter also help to identify and prioritize the opportunities to develop solar energy in each state after careful review of the individual characteristics of proposed sites.

Summary

The solar study area approach taken so far in Arizona focuses on identifying land where virtually no one will have an objection and which in all probability will not be developed by commercial interests. It simply "looks through the wrong end of the telescope". There is no compelling reason why more restrictions and exclusions should be applied to the study of opportunities for solar development in the state with the most solar insolation. Instead, areas of study should be considered with a uniform approach that favors maximum results. The process should involve deeper examination of circumstances in each category considered. Opportunities should be sorted with a goal of identifying the best possible sites that

have the real potential to produce a targeted amount of energy…on terms that are consistent throughout the Region.

Should our suggestion that the collaborative effort mentioned above be accepted, ASU is willing to host and organize the effort. We are also interested in helping to sort through the important environmental and development issues that attach here in any way that we can be of assistance.

Sincerely,

Michael Crow

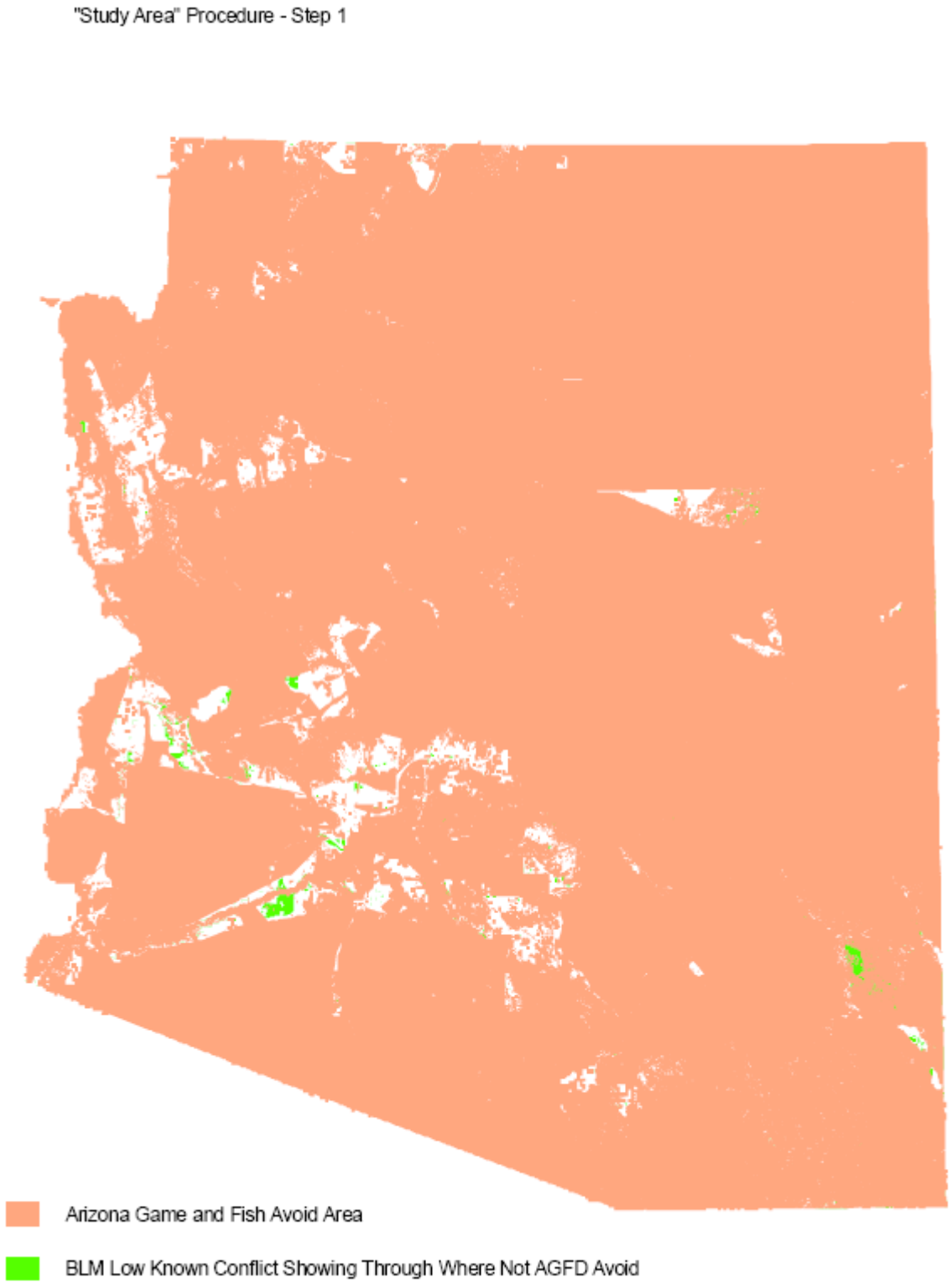
Michael M. Crow
President

MMC:th
/c

Attachments (4)

c: Jim Kenna
State Director
Arizona State Office
Bureau of Land Management
One North Central Avenue
Suite 800
Phoenix, AZ 85004-4427

Arizona Game and Fish Territory



Source: Map provided from the BLM Arizona State Office. It was produced for the BLM Renewable Energy Conflict Analysis report as one of the procedure steps for Solar Study Area selection. BLM Arizona State Office obtained the data from the Arizona Game and Fish department.

ARIZONA

Solar Energy Study Areas	Acreage
Brenda	4,321
Bullard Walsh	8,201
Gillespie	3,970
Total	16,492

Total Managed BLM Surface Acres of Public Lands	12,200,000
Percentage of Solar Study Areas over Total BLM Managed Area	0.14%

CALIFORNIA

Solar Energy Study Areas	Acreage
Imperial East*	12,830
Iron Mountain*	109,642
Pisgah*	26,282
Riverside East*	202,295
Total	351,049

Total Managed BLM Surface Acres of Public Lands**	15,200,000
Percentage of Solar Study Areas over Total BLM Managed Area	2.31%

COLORADO

Solar Energy Study Areas	Acreage
Antonito Southeast	9,598
De Tilla Gulch*	1,522
Fourmile East	3,882
Los Mogotes East	5,909
Total	20,911

Total Managed BLM Surface Acres of Public Lands	8,300,000
Percentage of Solar Study Areas over Total BLM Managed Area	0.25%

NEVADA

Solar Energy Study Areas	Acreage
Amargosa Valley*	32,699
Dry Lake*	16,516
Delamar Valley	17,932
Dry Lake North	49,775
East Mormon Mountain	7,418
Gold Point	5,830
Miller's	19,205
Total	149,375

Total Managed BLM Surface Acres of Public Lands	48,000,000
Percentage of Solar Study Areas over Total BLM Managed Area	0.31%

NEW MEXICO

Solar Energy Study Areas	Acreage
Afton*	55,810
Mason Drew	17,984
Red Sand	47,666
Total	121,460

Total Managed BLM Surface Acres of Public Lands	13,400,000
Percentage of Solar Study Areas over Total BLM Managed Area	0.91%

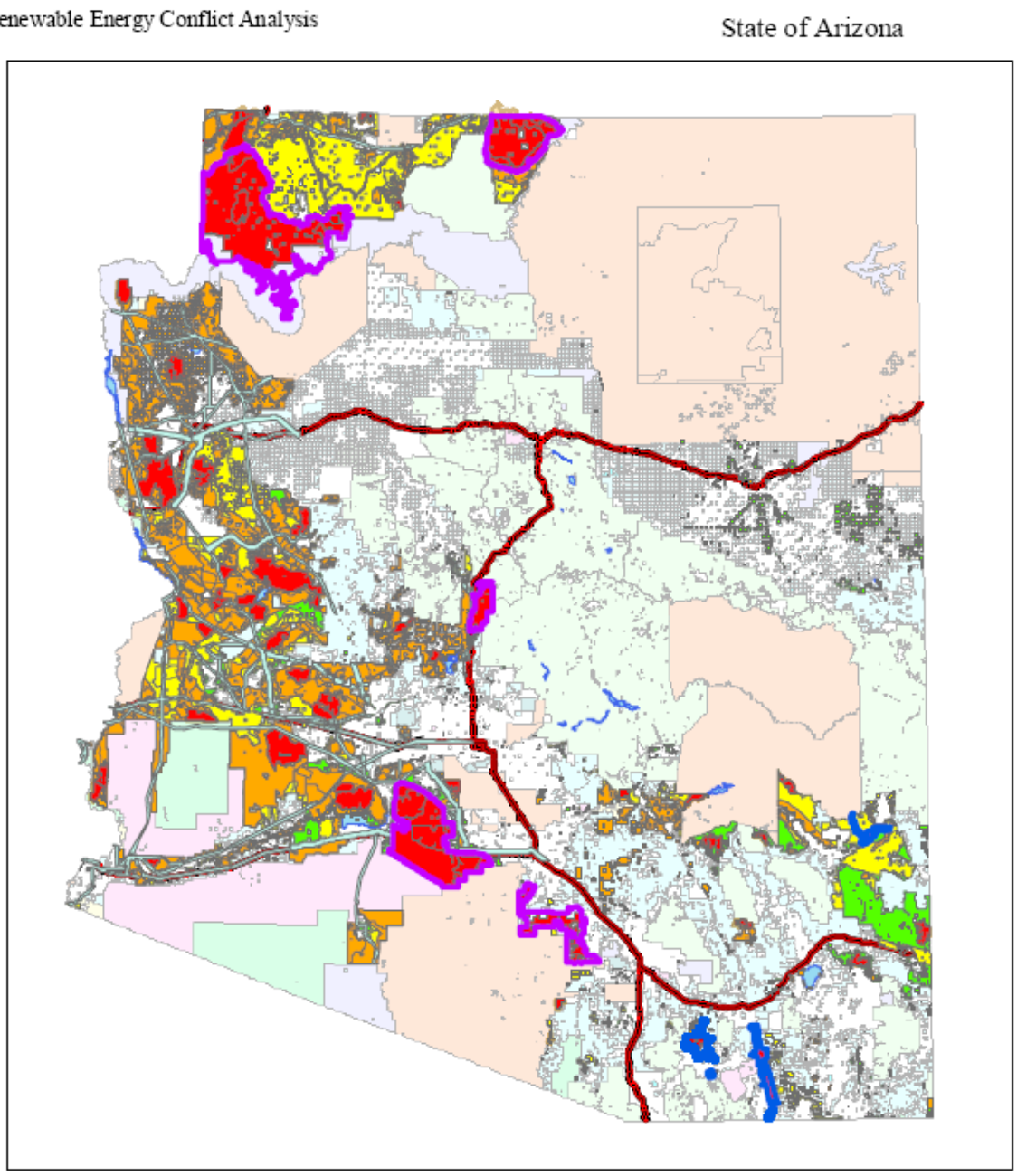
UTAH

Solar Energy Study Areas	Acreage
Escalante Valley	6,648
Milford Flats South	6,440
Wah Wah Valley	3,676
Total	16,764

Total Managed BLM Surface Acres of Public Lands	22,900,000
Percentage of Solar Study Areas over Total BLM Managed Area	0.07%

**Study area includes pending applications*
***California also manages 1.4 million acres in northwestern Nevada, which is excluded for this purpose*
Note: Total BLM Managed Area refers to Total Managed BLM Surface Acres of Public Lands

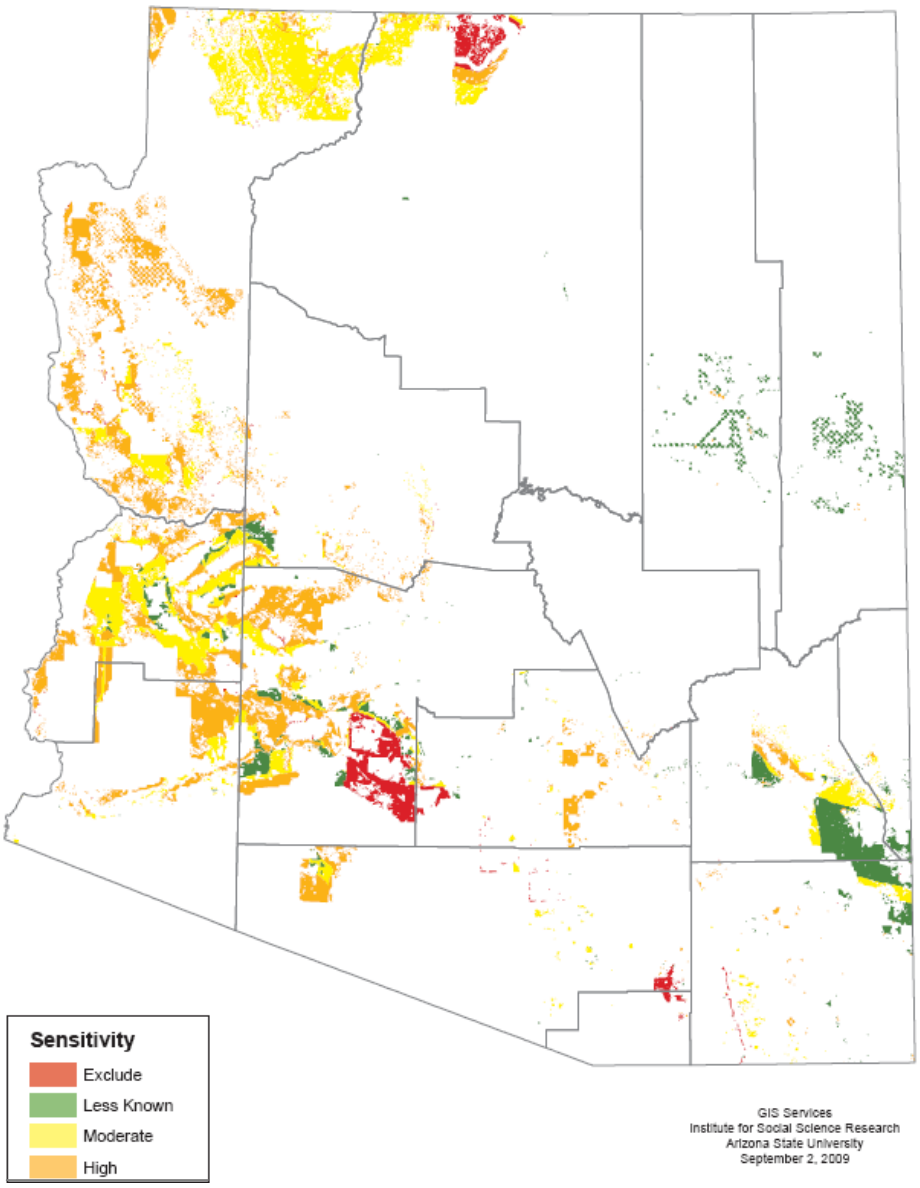
BLM Acreage with Environmental Sensitive Zones Overlay



Areas	Acreage
Exclude-Red	2,943,290
Low Known-Green	1,077,505
Moderate-Yellow	3,070,540
High-Orange	5,090,530
Total	12,181,865

Source: Map obtained from the BLM Renewable Energy Conflict Analysis report produced by the BLM Arizona State Office

BLM Acreage with Environmental Zones and Solar Radiation Overlap



Areas	Acreage
Exclude-Red	412,957
Low Known-Green	783,412
Moderate-Yellow	1,891,037
High-Orange	2,315,431
Total	5,402,837

Sources: Environmental Sensitivity Zones were determined and provided by the BLM Arizona State Office. The data for Solar Radiation (at less than 5% slope and above 6.5 kWh/m2/day) was provided by NREL.