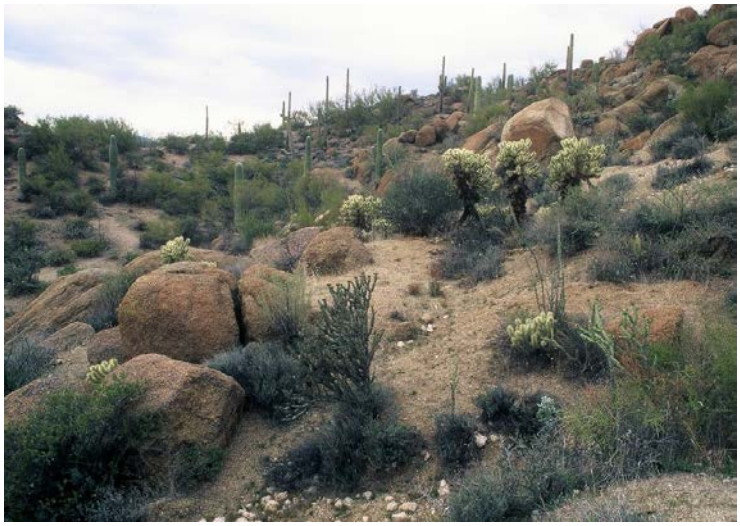
WESTERN GOVERNORS' ASSOCIATION

case study

State Crucial Habitat Assessment Tool (CHAT) Information Utilized in Arizona BLM Project to Map Sites for Renewable Energy Development

Arizona Game and Fish Department's CHAT data supported the Bureau of Land Management's plan to identify areas of high potential for renewable energy development, while ensuring consideration for the state's wildlife management values.

Arizona's vast expanses of sunny, unoccupied land are ideal for large solar energy farms, generating a total of 173 MW per year.[1] The state is also expanding wind energy development, and in 2012 was one of the fastest states to grow its percentage of wind power capacity.[2]



Sonoran desert vegetation. *Photo courtesy AGFD.*

Arizona's lands are also teeming with wildlife that create more than $2.8 billion dollars of economic impact to the state through hunting, fishing and non-consumptive wildlife-related recreation. Additionally, wildlife-related recreation supports more than 32,000 jobs and generates $115 million in state tax revenue.[3] Arizona has a rich diversity of wildlife species, including several that are federally protected under the Endangered Species Act, such as the Sonoran Pronghorn.

In 2009, the Bureau of Land Management (BLM) initiated the Restoration Design Energy Project (RDEP) to map areas where renewable energy development – both solar and wind – would be most suitable. Lands with minimal wildlife value, already disturbed, and close to population centers were proposed for designation as Renewable Energy Development Areas (REDAs). More than 192,000 acres in Arizona have been identified and are included in the RDEP Final Environmental Impact Statement. A Record of Decision is scheduled for release in January 2013 amending BLM resource management plans to identify lands suitable for renewable development and make recommendations for development practices.

In order to support the development of renewable energy while accurately accounting for important wildlife habitat, the BLM partnered with the

[1] http://www.seia.org/research-resources/solar-industry-data#state_rankings

[2] http://www.awea.org/learnabout/publications/reports/upload/AWEA_First_Quarter_2012_Market_Report_Public.pdf

[3] http://www.azgfd.gov/w_c/survey_results.shtml

Arizona Game and Fish Department (AGFD). The AGFD provided statewide data layers to help identify areas with the least relative value for habitat conservation and where energy development may have the least impact to wildlife resources.

"Given the jurisdiction states have over most wildlife, it is important to involve them as early as possible to quickly identify areas not just of conflict with wildlife, but areas which are more suitable for development," said Lane Cowger, Deputy Project Manager for RDEP.

After the final Record of Decision is released, the RDEP will be available for energy developers to use in advancing new renewable project sites in Arizona. For those outside of the state, the RDEP project offers valuable insight on how the BLM and the western states can work together to promote energy development that minimizes impacts to wildlife and the habitats that support them.

Arizona's Data

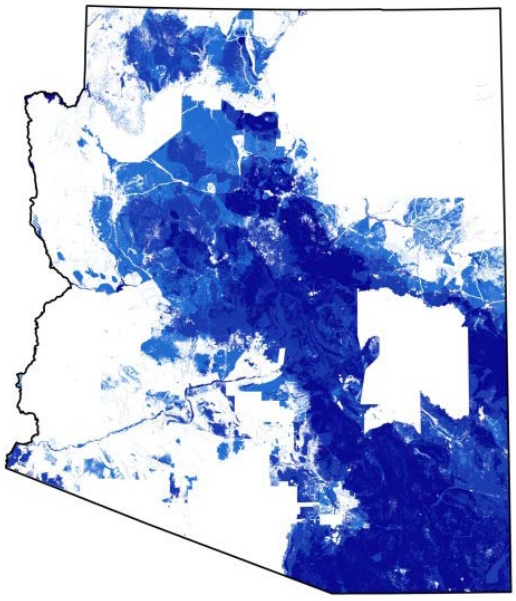
In order to assess wildlife values in Arizona, BLM utilized AGFD's maps of prioritized wildlife habitat that now are publically available in their state-wide crucial habitat assessment tool, HabiMap™ Arizona.

More than 300 data layers representing important wildlife habitat and species information are compiled into a single model of conservation potential that AGFD termed the Species and Habitat Conservation Guide (SHCG). The SHCG combines key components from Arizona's State Wildlife Action Plan – such as Species of Greatest Conservation Need, Species of Economic and Recreational Importance, and habitat connectivity information – into an easy to understand landscape-level prioritized format.

BLM used the three (out of six) highest tiers of AGFD's SHCG layer as an initial screen to identify areas of the state with the most conservation potential for species and their habitat. BLM also used the state's information on big game habitat, such as black bears and bighorn sheep, which are species of high economic and recreational value to the state.

"Arizona Game and Fish Department's data layers were very important in shaping the project," said BLM State Director Ray Suazo. "They provided us with invaluable information to assess a suite of wildlife values from a broader scale than we typically are able."

Ultimately, the utilization of Arizona's wildlife data will help ensure protection of wildlife resources, enhancement of Arizona's renewable portfolio, and streamlined planning processes for developers.

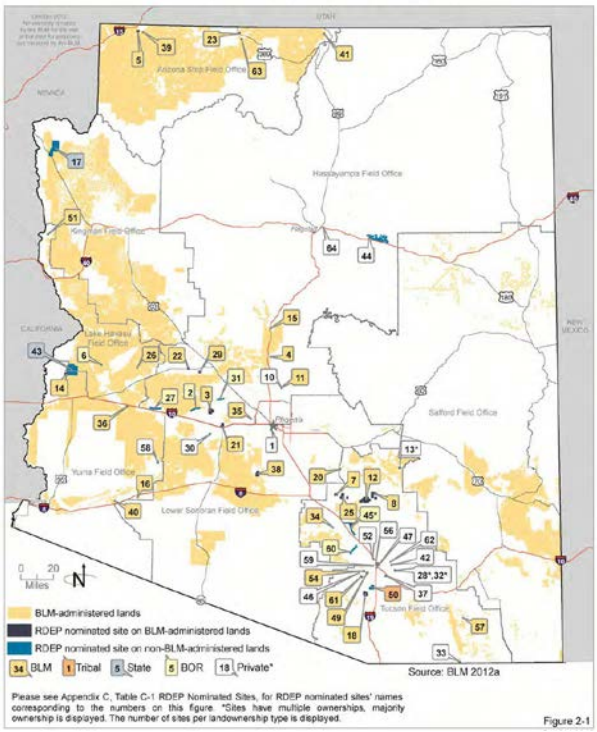


Species and Habitat Conservation Guide (SHCG) data used by BLM (top three tiers). *Photo courtesy AGFD.*

"Our data helped show that there are many places in the state to develop renewable energy, while minimizing impacts to wildlife that generate a significant amount of revenue for the state through hunting, fishing, wildlife watching and other forms of outdoor recreation," said Bob Broscheid of AGFD. "Our ability to provide sound data and information earlier in the process ensures better transparency and allows land managers to make well-informed decisions with regard to proposed actions."

Partnership

AGFD often partners as a cooperating agency with the BLM state office on projects concerning wildlife. AGFD's cooperating agency status throughout the RDEP process ensured a continuous and productive role for the state agency throughout the project.



RDEP Nominated Sites. Based on an extensive public outreach process, the BLM and public identified potentially suitable previously disturbed sites on BLM-administered, state, municipal, private, tribal and other federal lands. *Photo courtesy Arizona BLM.*

"Decision-making for BLM lands doesn't happen in a vacuum – we maintain good relationships with other managers, including the state wildlife managers," said Cowger. "We engage with the Arizona Game and Fish Department on pretty much every project we do; they have good data and good people."

Over the course of the RDEP project, the two agencies met frequently to ensure wildlife information was incorporated appropriately to add maximum value to BLM's decision-making process. Because the landscape-level wildlife data provided by AGFD was already aggregated and analyzed with values for priority – or "crucial" – habitats -- over the state-wide scale, much of the initial wildlife analysis was done when BLM first engaged the state in the RDEP project.

"Having our state-wide crucial habitat analysis ready-to-go gave our staff more time to devote to site-specific evaluation throughout the RDEP process, resulting in a more proactive approach to wildlife conservation," said Laura Canaca of AGFD.

Results

With the release of its Final EIS, BLM identified 192,100 acres for designation as Renewable Energy Development Areas (REDAs). In addition, the EIS proposes establishing the Agua Caliente Solar Energy Zone (SEZ) on 2,550 acres near Dateland in western Arizona. BLM designates SEZs as areas within which the BLM will prioritize and facilitate utility-scale production of solar energy.

The REDAs identify sites that have "low conflict potential," meaning that wind and solar projects have a greater chance of approval on those sites. BLM was able to make this determination, in part, because of the availability of state-wide data from

AGFD, which was used to identify those areas of low conflict potential for wildlife.

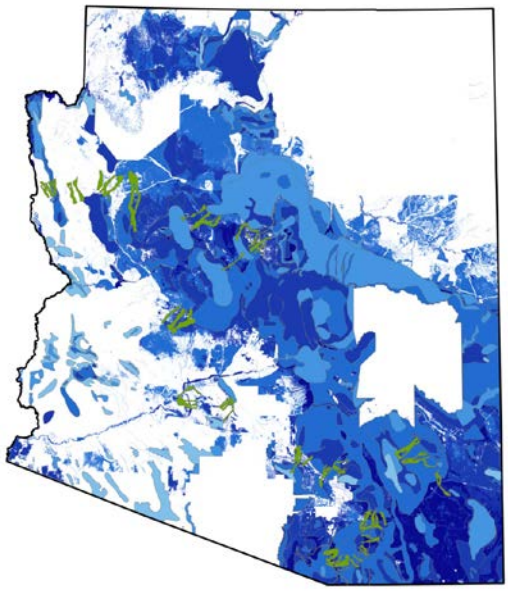
"We're getting in front of renewable energy in Arizona," said Cowger. "To this point, projects and their proposed locations have been very applicant driven. We can use the RDEP analysis to provide sideboards to development and identify go-to areas."

The BLM intends to use the EIS as a basis to amend its land use plans across Arizona to identity areas that are considered to be most suitable for renewable energy projects. While these amendments will only apply to BLM-managed lands, the EIS examines all lands in Arizona and serves as a resource to the public, policy makers and energy planners.

Lessons Learned

Federal regulations require the BLM to engage the public in any large-scale planning project of this type, but the cooperative relationship between the BLM and AGFD has gone beyond standard requirements to create a resource that will both help wildlife and simplify planning for renewable projects.

The transparent process and the multiple consultations between BLM and Arizona's wildlife professionals produced a resource to conserve wildlife and assist renewable energy developers.



All data provided by AGFD used by BLM, including data on individual species, big game, and aggregated data recognizing conservation values. *Photo courtesy AGFD.*

"When it comes to siting solar power plants, this takes one of the stages out of the process because the land is already identified," said Michael L. Neary, Executive Director for the Arizona Solar Energy Industries Association. "This means lower costs and a significantly more streamlined process."

Just as RDEP has streamlined the process for developers, AGFD streamlined the analysis of their wildlife data using HabiMap™ Arizona. Their work on HabiMap™ Arizona – as well as their continuing partnership with BLM – will help encourage both conservation and renewable energy in the state.

This case study is one of a series of documents that will highlight the ways BLM utilizes state Crucial Habitat Assessment Tools (CHATs), which map priority wildlife areas according to consistent definitions agreed upon by the Western Governors' Wildlife Council. For more information, visit westgov.org/wildlife or contact Madeleine West at mwest@westgov.org.