E&E PUBLISHING, LLC

Mojave project tests Interior strategy for stemming habitat losses

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Tuesday, January 28, 2014

MESQUITE, Nev. -- The Obama administration has begun a bold conservation experiment in a desert ripped several years ago by wildfires that charred native plants, fragmented critical tortoise habitat and created a foothold for noxious weeds.

The Bureau of Land Management is hoping the solar industry can help mend the ecological wounds.

Here's the plan: Solar companies that build power plants at the Dry Lake solar energy zone 30 miles west of here would agree to pay a mitigation fee for every acre of habitat they destroy.

BLM would use that cash to restore lands of similar character at the Gold Butte Area of Critical Environmental Concern. For example, it would plant native creosote-bursage vegetation on burn scars and abandoned roads, beat back noxious weeds, mitigate future wildfires, and bolster ranger patrols.

The draft Dry Lake solar regional mitigation plan is part of a broader Interior Department effort to stem the loss of habitat on public lands from development of massive solar and wind projects, oil and gas wells, transmission lines, pipelines, and roads.

The Gold Butte Area of Critical Environmental Concern was designated by the Bureau of Land Management in 1998 for its cultural, scenic and wildlife values. All photos by Phil Taylor.

Interior's landscape-scale mitigation effort, piloted by former Secretary Ken Salazar and expanded by Secretary Sally Jewell, signals a shift in public land management in the West.

"We have an unprecedented opportunity," Jewell said in October at the National Press Club in Washington, D.C., "using science and technology to create a better understanding of landscapes than ever before to advance important conservation goals and achieve our development objectives."

Mitigation isn't sexy, but the administration considers it key to large-scale infrastructure

development. Jewell codified the policy in her first secretarial order in October (Greenwire, Oct. 31, 2013).

The order envisions "a simpler, more straightforward approach" for industry to invest in conservation on a regional scale, said Jewell, who last month delivered a keynote address to Western governors promising it would also bring faster permits.

How the policy moves from planning exercise to protocol is a work in progress, Jewell said.

"It's easy to talk about it," she said. "How do we actually operationalize it?"

That's where projects like the Dry Lake plan come in. The pilot project, which is expected to be finalized soon, is the first of nearly 20 solar regional mitigation plans BLM intends to implement in six Southwestern states.

The project has early buy-in from conservation and sportsmen's groups, the solar industry, and Las Vegas-area officials.

Ken Johnson, vice president for communications at the Solar Energy Industries Association, the D.C.-based trade group that participated in the drafting of the Dry Lake plan, said the regional mitigation plans could offer more certainty for developers while yielding better conservation.

"For solar developers, that means knowing what the mitigation projects and costs will be up front and the certainty that those mitigation efforts will be 'enough,'" he said.

'More efficient permitting'

The roots of the Interior mitigation plan go back nearly a decade.

BLM tested large-scale off-site mitigation in a 2006 pilot in southwest Wyoming's Jonah gas field, a sagebrush patch where Encana Oil & Gas Inc. and other developers had proposed an unusually dense concentration of wells -- more than 3,000 pads amid 30,000 acres -- threatening harm to sage grouse and pronghorn that could not be avoided.

Burn scars from 2005 are still visible at Gold Butte. Mitigation fees from solar development would help BLM restore native vegetation.
Operators offered to pool $24.5 million to establish a mitigation fund that helped purchase tens of thousands of acres of private conservation easements, grazing improvements and wildlife-friendly fences, among other steps. Juniper trees were chained and sod seeded to restore sagebrush, and millions of dollars was spent on wildlife monitoring.

"They were big-time players with big checkbooks," Peter Aengst, senior director for the Wilderness Society's northern region in Bozeman, Mont., said of the operators, who stood to receive a windfall of about $30 billion. "They've done some real good on the ground."

But there was little consensus among environmental groups that the mitigation steps were universally effective, Aengst said. Nevertheless, the project was seen as precedent-setting in its size and scope.

Jewell's order seeks to bake mitigation into Interior's planning regimen.

Instead of piecemeal, ad hoc efforts, Jewell's order calls for crafting regional mitigation plans before projects are even proposed. The plans, which take stock of regional ecological trends, will also help industry invest with clarity and consistency, Jewell said.

"The promise is a more efficient permitting system, a resolution much more quickly and not on the back end of the project," said David Hayes, former Interior deputy secretary who was a key architect of the mitigation initiative before retiring last year to teach law at Stanford University. "There's a healthy skepticism about whether the federal government can pull this off."

But the potential payoffs could be huge, Hayes said. Eventually, state and federal agencies could coordinate mitigation investments to address multiple ecosystem needs, including watershed health, species and habitat health, and landscape fragmentation -- maximizing investments.

"Permitting agencies could then simplify the permitting process by requiring developers to make one-time, direct payments to private conservation banks and other third parties who will have the responsibility to apply these investments on private and public lands in accord with already-approved regional plans," Hayes wrote in a recent article in the Environmental Law Reporter.

Hayes said agencies too often require "post-age-sized, localized mitigation" with minimal results.

He recalled a recent dinner with a wealthy rancher from California's Bay Area who constructed a new driveway on his property. Since it crossed an ephemeral stream, regulators required him to build a $500,000 bridge, despite the fact that there were ephemeral streams all across the landscape.

The rancher built the gold-plated bridge but said the $500,000 could have been spent more efficiently on broader watershed improvements, Hayes said.

'They're looking for the sweet spot'

The 350,000-acre Gold Butte ACEC is named for a ghost town where about 1,000 miners plied their hands for gold, mica, magnesite, copper and zinc in the early 1900s.

Today, the area's multihued rocks, petroglyphs and slot canyons make it a destination for hikers, campers, off-highway vehicle riders and mountain bikers who come to escape the bustle of nearby Las Vegas.

Much of the area is in ecological tatters.

Burn scars from 2005 are still visible on the hillsides at Gold Butte, where the charred stumps of Joshua trees still bake in the sun. Red brome, an exotic European grass, has colonized much of the landscape, crowding out native shrubs and forbs for the federally threatened desert tortoise.

Rob Mrowka, a scientist at the Center for Biological Diversity, said environmental groups will support solar projects as long as they stay in designated BLM zones.

With mitigation cash, BLM could acquire native seed to restore burn areas and reclaim closed roads, while treating noxious weeds and maintaining fuel breaks. It would also like to hire new rangers to monitor off-highway vehicle riders and treat human impacts like dumpsites and target shooting.

"There's a need and an opportunity for mitigation," said Rob Mrowka, a senior scientist for the Center for Biological Diversity in Las Vegas who is involved in the Dry Lake mitigation pilot.

Without human intervention, recovery takes centuries in the Mojave Desert, one of the driest landscapes in North America, said Mrowka, a former Forest Service supervisor. Amid the rock and scrub, you can still see traces of the historic Spanish Trail that opened trade from New Mexico to Los Angeles in the early 1800s.

Still, much is unknown about how fast humans can accelerate the restoration process, Mrowka said.

Gold Butte was chosen as a mitigation site for Dry Lake because it harbors similar plant and animal life, including the desert tortoise, and because it is ineligible for special funding available to BLM's National Landscape Conservation System.

In addition, Gold Butte's native creosote-bursage vegetation is expected to persist longer under climate change than other ACECs, and its tortoise habitat is expected to persist even as it shrinks or disappears in the surrounding region.

As acres are developed at Dry Lake, mitigation fees would help pay for restoration of similar acres at Gold Butte.

But establishing a fair mitigation price has proved to be a challenge.

"That is the part of this plan that's generated the most controversy," said Mike Dwyer, a project manager for BLM in Las Vegas, who said the draft plan is under review at the agency's D.C. office. "They're looking for the sweet spot."

According to the draft, it would cost a solar developer $42.7 million to support off-site restoration at Gold Butte that would offset the destruction of Dry Lake's 3,000 developable acres.

However, since solar developers must also pay to mitigate tortoise habitat -- listed under the Endangered Species Act -- and because Dry Lake is already significantly disturbed with transmission towers, gas plants and roads, the Dry Lake plan would chop overall mitigation fees to a one-time payment of $10.5 million.

That's likely a small percentage of the total cost to develop Dry Lake, which could support a solar project of up to 694 megawatts. By comparison, the 377 MW Ivanpah Solar Electric Generating System under construction south of Las Vegas will cost well over $2 billion.

While Jewell's mitigation order aims to provide certainty for developers -- companies can be confident regulators won't double dip on mitigation requirements -- some warn it could also lead to abuse.

"A lot of companies sort of like that idea. We write a check and we're done with it," said Rebecca Watson, Interior's assistant secretary for land and minerals management during the George W. Bush administration who is now a lawyer in Denver. "But in another way, it seems like there could be the potential there for extortion."

Others worry BLM could use the policy to raise scarce budget dollars or to require restoration of resources that aren't affected by the energy projects they're designed to mitigate.

Conservation groups say mitigation steps have to be durable, and they must be on top of activities that would already occur. For example, Gold Butte is already a protected area, so industry investments must be in excess of BLM's existing obligations, said Alex Daue, a renewable energy coordinator for the Wilderness Society in Denver.

"These are going to be the tools that are needed if we're going to continue to meet our clean energy goals," he said. Those goals , set last summer by President Obama, call for doubling the amount of renewable energy generated on public lands to 20,000 MW by 2020, in addition to continued growth in oil and gas wells, pipelines, and transmission lines.

The 5,700-acre Dry Lake solar energy zone north of Las Vegas is already significantly disturbed. This will make mitigation cheaper, according to BLM.

Outside Nevada, BLM has additional tools for off-site mitigation in the purchase of private lands for permanent conservation.

But in the Silver State, where roughly 90 percent of lands are federally controlled and land acquisitions are politically unpopular, restoration is key, said John Hiatt, conservation chairman for the Red Rock Audubon Society in Las Vegas.

"If mitigation is to be meaningful here in Nevada it really needs to include active restoration of already degraded, disturbed or impacted lands," Hiatt wrote in comments to the Dry Lake plan. "Lands which have been heavily disturbed, with loss of topsoil generally require centuries to recover and we generally don't have much experience in accelerating that process."

What's next?

It's unclear when the Dry Lake plan will become final and to what extent it will serve as a template for BLM's other 18 solar energy zones covering roughly 300,000 acres in California, Arizona, Nevada, Utah, New Mexico and Colorado.

"Dry Lake is a low-hanging fruit," in part because it is already significantly disturbed, BLM's Dwyer said.

Other solar zones that have experienced less disturbance -- and therefore will require more off-site mitigation -- could prove trickier.

The agency has started work on a regional mitigation plan for the Dry Lake Valley North solar energy zone in Lincoln County, Nev., and last month led a field tour for stakeholders, Daue said.

Conservationists say the focus on regional mitigation has signaled a sea change in the culture at BLM that could help it better reconcile its dueling mandates to develop and preserve its 250-million-acre estate.

"Solid, strategic planning on a macro level will resolve many of the conflicts and problems we've been seeing over the energy planning and development process," said Ed Arnett, director of the Theodore Roosevelt Conservation Partnership's energy programs. "BLM and DOI simply need to commit to doing it."

BLM last summer took steps to expand regional mitigation in a memorandum and draft update to its policy manual calling for a shift in "BLM's mitigation focus from a permit-by-permit perspective to a proactive regional-scale mitigation planning perspective."

Some are concerned it will add another layer to an existing labyrinth of federal regulations.

"Some folks are excited. Some folks are concerned. A lot of folks really don't know where it's all going," Montana Gov. Steve Bullock (D) said at the Western Governors' Association winter meeting last month in Las Vegas. "The BLM guidance seems like it could be a potentially cumbersome process."

Jewell's policy should come into better clarity later this month when a task force of Interior bureau chiefs is expected to report on ways their agencies can better harmonize landscape mitigation policies, avoid redundancies and expedite permitting.

"My job is to make sure the Department of Interior takes the long view," Jewell told the Western governors last month. "The last thing I want to do is make the process more difficult."