

Thinking Big

DAVID J. HAYES was deputy secretary of the interior in the Clinton administration under Bruce Babbitt and served in the same position in the Obama administration under Ken Salazar and Sally Jewell. In a lecture delivered at Stanford University in May as he stepped down from that second posting, he argues for a landscape-level approach to managing our public lands and open spaces. His remarks have been updated, and edited for space constraints

The natural resource challenges facing our nation never seem to go away. When I walked back into the Interior Department in January 2009 for my second tour of duty, I felt like Bill Murray in the movie *Groundhog Day*. I found a department that seemed to be frozen in place. In areas of my special interest — protecting important landscapes, responsible energy development, Indian land and water rights, water supply, and the environment — eight years had gone by with little or no progress. And some things had clearly gone backwards, including a drill-anywhere philosophy and a near-complete neglect of Congress's call for renewable energy project siting on our public lands.

We know that addressing resource conflicts and protecting threatened landscapes are really hard. Do we need to simply acknowledge that any vital issue will remain unresolved for decades, perhaps forever? Do we need to accept that the days of solving major issues over large swaths of our lands are over? It was not always so. History shows that in decades past, a more activist view of managing our lands prevailed, when interior and agriculture secretaries, and their presidents, made bold moves to protect landscapes: Teddy Roosevelt and Gifford Pinchot, FDR and Harold Ickes, Kennedy and Johnson and Stewart Udall, and, yes, Bill Clinton and Bruce Babbitt. They set aside public lands for iconic National Parks, for National Forests, and National Wildlife Refuges. Today, we have more than 400 million acres of public lands in those three categories.

As Ken Burns and Dayton Duncan's wonderful PBS series *America's Best Idea* revealed, before any big park could be created, some determined, resourceful individuals needed to enter the scene, preferably with money and power, typically with far-sightedness and sometimes with courage — whether it was Abraham Lincoln introducing the concept of a protected landscape at Yosemite during the Civil War, or John D. Rockefeller Jr. quietly buying up land that would later become Grand Teton National Park. In more recent times, such big plays have been harder to come by.

The question is whether times have changed and we are relegated to thinking smaller when it comes to managing our open spaces. Perhaps our public lands and our farms and ranches and other working landscapes are simply in too much demand for too many things these days, beginning with the pressures of population growth and sprawl. Plus our political system has shut down bold, big-scale action on vir-



**Photo by
Kate Hayes**

tually any subject. And when it comes to managing our public lands, Congress has not been able to make forward progress in the last four years..

Given these bleak data points, must we give up on making progress in resolving thorny resource management disputes and developing sensible management approaches to large landscapes? My proposition is that we should not be discouraged. Resource conflicts need not fester. We should note the emergence of a new generation of forward-leaning, landscape-level planning and management initiatives that are blossoming under the Obama administration and that hold the promise of providing more up-front clarity on how we might best use and protect our public lands and working landscapes for the long term.

The Obama administration has had a progressive view of the role that government can play in acting like any responsible landlord should. That means working with all of the constituencies who are interested in our public lands — from local communities, to hunters and anglers and other recreational enthusiasts, to companies seeking access to minerals and energy opportunities — and developing thoughtful, integrated management approaches that make sense, and that reconcile potentially conflicting demands. The administration believes that the American people — whose public lands occupy a full third of the U.S. landmass — do not want their government to act as the type of absentee landlord that we have seen in previous administrations.

There are seven forces at play that provide grounds for optimism that we can still think big.

FIRST, THE Interior Department increasingly is fielding applications for large-footprint projects on our public lands. Projects that include thousands of oil and gas wells are moving forward in Utah and Wyoming. In California and Nevada, Interior's Bureau of Land Management has permitted, or is processing,

solar projects that cover several square miles each. And new transmission lines extending across hundreds of miles of public lands are under review. We are building the largest solar energy projects in the world in the Nevada and California deserts. The administration has approved more than 30 utility-scale renewable energy projects on public lands, the equivalent of 20 coal-fired power plants.

The magnitude of the projects under review is necessitating a more holistic review of the potential impacts that projects may have on large swaths of our public lands and open spaces. Because President Obama has committed to demonstrating that our public lands could support large solar and other renewable energy projects, the Department insisted on moving forward in the right places and in the right way. In particular, we identified sound projects early, we pushed developers to work side by side with conservationists, state officials, tribes, and federal officials to address concerns about specific projects, and we then adjusted those projects — or did not proceed with them — based on the results of these collaborations and application of our legal and regulatory guideposts.

Perhaps because of our success in siting these large projects, and the corollary push to expand oil and gas development on our public lands, it has become obvious that we need more active management. The result has been important landscape-level management initiatives.

In particular, we developed the Western Solar Plan for the six southwestern states, identifying “solar energy zones” in which the Bureau of Land Management provides incentives for the development of new large-footprint solar energy projects in specified areas where there are fewer environmental conflicts as well as proximity to transmission. The plan also provides clarity for industry and other interested stakeholders by identifying BLM lands that are excluded from solar development, and other “variance” lands that potentially can be developed, but only if the applicant can make appropriate showings.

The Desert Renewable Energy Conservation Plan is going one step further by identifying, for more than 20 million acres of lands in the deserts of southern California, “development focus areas” where renewable energy development will be encouraged, while also targeting significant areas that will be protected for wildlife, recreation, and open space values.

In a similar vein, Interior has initiated the Smart from the Start program of managing our offshore waters to encourage the siting of wind projects in the best areas, rather than being passive and simply processing applications. More specifically, we have worked with federal agencies, states, and tribes on the eastern seaboard to identify “wind energy areas” that promise the least conflict in terms of environmental sensitivity as well as shipping and military needs.

In the oil and gas world, our evaluation of the 77 leases that Secretary Salazar cancelled early in the administration showed that many were in areas where there was very heavy recreational use (including in BLM lands and nearby National Parks) and little or

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no major oil and gas infrastructure or industry interest. This episode underscored the need to introduce more thoughtful management in our oil and gas leasing program, which has led to the Master Leasing Plan approach. Master Leasing Plans focus on areas in which new development potentially could come into conflict with recreation or other potentially non-compatible uses. Under the MLP concept, early, up-front analysis – informed by public input — helps to identify areas appropriate for oil and gas leasing and areas that should not be leased.

EMERGING NEEDS for key wildlife species are providing a second major force that is encouraging — and even requiring — that federal land managers and their state and private counterparts take a more active approach when managing large landscapes.

By way of example, the Western Governors' Association has recognized that a number of factors, including sprawl and climate change, are threatening traditional patterns of wildlife movement. The WGA has responded by developing a collaborative initiative to identify and protect wildlife corridors. Working closely with the Department of the Interior and other partners, the WGA has been overseeing the development of a science-based mapping tool that identifies important wildlife corridors and that facilitates efforts to protect them.

A number of wildlife actions arising under the Endangered Species Act also are triggering management activities on large landscapes. The prospect of potentially listing the greater sage grouse has led to a frenzied effort across 11 states to identify and protect habitat. Because a significant portion of remaining habitat is on BLM lands, the bureau is in the process of revising a large number of its resource management plans to protect that habitat. At the same time, many private landowners are looking to enter into Candidate Conservation Agreements with the Fish & Wildlife Service and commit to protect key habitat in return for assurances that they will not be impacted if the bird is listed.

Similar efforts are underway in the five-state range of the lesser prairie chicken. And a year ago, a joint effort involving BLM, ranchers, and the oil and gas industry succeeded in protecting hundreds of thousands of acres of prime habitat for the dunes sagebrush lizard in New Mexico and Texas, prompting the service to conclude that the lizard need not be listed. In the forests of the Pacific Northwest, the latest challenge of balancing logging activity and species protection is beginning to play out in a more positive way, with the Fish & Wildlife Service rolling out a more sophisticated concept of critical habitat for the northern spotted owl — one that allows for some log-

ging activity in some previously off-limits areas in order to maintain healthy forests needed for the species, and one that anticipates more active management of predator species such as the barred owl. Meanwhile, BLM and the Forest Service are beginning to employ “ecological forestry” principles to facilitate, and expand, sustainable logging practices across large landscapes. The combination of these developments is prompting a more sophisticated effort to manage the large forests in the Pacific Northwest, moving beyond the tract-by-tract dogfight between loggers and environmentalists that has not been good for the forests or the communities that depend on them.

A final example of how wildlife considerations are requiring the rethinking the management of large landscapes is the near collapse now facing the largest estuary on the west coast of the Americas: California's Bay Delta, where the state's most important rivers, the Sacramento and San Joaquin, converge. California is paying the price for years of over-engineering in the delta. After building flood levees and operating the world's largest water pumping stations, designed to pull water (and fish) against the natural flow to thirsty farms and cities in central and southern California, the ecosystem is collapsing and many fish species are threatened with extinction. There can be no piecemeal answer to the water and wildlife conflicts that have reached crisis proportions. Over the last 25 years, smaller-bore efforts of every stripe have been tried and have failed. Only an integrated, landscape-level management strategy has the potential to address the unsustainable status quo

In all of these cases, it is the broad scope and severity of impacts on wildlife that is prompting attention on the management of large landscapes. Like it or not, land managers must now “think large” when it comes to addressing pressures on wildlife.

CLIMATE CHANGE is the third major force triggering a focus on managing our resources on a landscape-level basis. Global warming already is having discernable impacts on many of our natural resources, including changes in hydrology in key watersheds, sea rise and storm surges on our coasts, changes in land types from the spread of invasive species, massive tree die-offs, earlier springs and milder winters, and resulting changes in wildfire risk and in wildlife health and behavior. The common thread is that the projected impacts affect large regions. Information about the impacts need to be gathered on a regional basis, and responses also need to be coordinated across jurisdictional lines.

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This is why the Department of the Interior has responded to climate change with a policy that emphasizes the importance of developing large landscape adaptation and conservation goals, avoiding development in ecologically sensitive landscapes, protecting and restoring contiguous blocks of unfragmented habitat, and enhancing connectivity among habitat blocks. BLM's Rapid Eco-Regional Assessment process is developing the information that can do just that, and the department's support for 22 Landscape Conservation Cooperatives on a regional level, backed by eight regional Climate Science Centers, is facilitating the type of science-based, cooperative interaction among different land, water, and wildlife managers that provides the opportunity — but not the requirement — for compatible responses to climate change impacts.

The response to Hurricane Sandy is providing a case example of the type of regional, cooperative, landscape-level attention that climate change-related impacts require. Rebuilding damaged infrastructure and increasing the resilience of the New Jersey, New York, and Connecticut coasts from sea rise and future storm surges requires a multi-jurisdictional, unified effort. Good choices need to be made up and down the coastline regarding the criteria for rebuilding structures, for rebuilding barrier islands, for enhancing wetlands and other green infrastructure alternatives. With significant funding made available by Congress to make these types of longer-term resilience planning and implementation decisions in the wake of Hurricane Sandy, the Interior Department and its partners will be putting landscape-level management principles to the test on our nation's heavily populated East Coast.

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FISCAL CONSTRAINTS provide a fourth impetus for looking at landscape level opportunities for conservation. When conservation dollars are scarce — as they are now — agencies need to combine and leverage their funds. By way of example, federal land management agencies have woken up to the fact that if they pool their limited Land and Water Conservation Fund dollars and focus a significant proportion of their spending on larger landscapes, they can get a bigger conservation bang for the buck. That is why the Interior Department, working in tandem with the Forest Service, now asks land management agencies to rank the landscapes that can make the most use of LWCF monies, and the agencies are targeting a significant portion of their LWCF dollars to those larger-payoff opportunities. Large landscapes such as the Crown of the Conti-

ment and the longleaf pine forests in the southeastern states have emerged as early winners.

Fiscal constraints also are prompting federal land managers to work more closely with state and private entities to stretch their conservation dollars. As a result, a broader lens and more inclusive goals are being served by conservation investments as communities band together to protect larger tracts of threatened lands. Also, federal agencies are pooling funds to purchase conservation easements, rather than outright land purchases. Easements are substantially less costly than fee purchases and they have the co-benefit of tying federal investments into private holdings and community-based, landscape-level interests.

Donations of easements to federal entities also are on the rise, the most spectacular recent example being the 167,000 acre easement donation to the Fish & Wildlife Service by Louis Bacon and his Blanca Trinchera Ranch in the Sangre de Cristo Mountains bordering the San Luis Valley in Colorado. The protection of this large landscape forms one of the building blocks of the newly formed Sangre de Cristo Conservation Area. It serves as a reminder that when government entities take ownership of an easement — whether by purchase or donation — private owners can be assured that the easement owner will not be turning over, and that the owners' landscape will remain intact through the generations.

A FIFTH FORCE concerns working landscapes. Traditionally, federal land management agencies have tended to myopically focus their attention on maintaining or expanding the federal land estate. Land agencies historically have been content to proudly spend their time delving deeply into federal lands-specific issues, taking little heed of nearby state or private lands. After all, federal lands typically have been the big dog. Federal land management agencies have come to recognize that the public land base — while large — cannot deliver anywhere near the healthy landscape benefits that can be achieved with the cooperation of private landowners. The Nature Conservancy, the Trust for Public Lands, and many other land trusts have known this for years. Now, led by the U.S. Fish & Wildlife Service and the Department of Agriculture's Natural Resources Conservation Service, federal officials have been teaming up with willing farmers and ranchers to protect working landscapes as a key part of a broader, integrated management strategy. The NRCS, for example, is partnering with the Fish & Wildlife Service on a “Working Lands for Wildlife” funding strategy that targets conservation investments with private landowners who are managing critically important habitat for imperiled species such as the greater sage grouse, the lesser prairie

chicken, the willow flycatcher, and the golden winged warbler. The NRCS is ensuring that its partnership with farmers and ranchers is tied into a landscape-level habitat protection strategy that is backed by sound science, that covers a broader territory that extends beyond public lands, and which will, because of its scope, enable development to move forward in other, less sensitive areas.

Likewise, the Fish & Wildlife Service and the Forest Service have teamed up to work with private landowners in Montana's Blackfoot Valley in the Crown of the Continent to protect that magnificent area. And virtually all of the 10 new National Wildlife Refuges that have been created in the Obama administration are driven by interests of the farmers and ranchers who live within their borders and who are working cooperatively with their federal partners to protect their working landscapes for the benefit of their children, and for the generations that will follow.

THE SIXTH FORCE in play is technology. New new tools are fueling interest and attention on larger landscapes and facilitating more sophisticated, integrated planning efforts that can balance conservation and development needs. Landsat images are readily accessible through both government and private sources. Landsat-based time lapse sequences show the dramatic changes that have taken place over the past 30 years.

Even more importantly, easily accessible geospatial information system mapping tools have burst onto the scene. We are reaping the benefits of years of investments in mapping technology by the federal government (coordinated through the United States Geologic Survey and the Federal Geospatial Data Committee) and private companies. Through these GIS tools, interested users have access to a wide variety of datasets that can be mixed and matched with base GIS maps. Scientists and conservationists and businesses can hop on the internet, dive into GIS software, and use sophisticated mapping tools to identify imperiled landscapes or prime development opportunities.

It is difficult to underestimate the impact that these newly accessible technologies will have on integrated land management and planning efforts. GIS maps that chart current development, wildlife patterns, and other resources provide a starting point for communities to debate alternative visions for their futures. Better informed discourse and more fact-based decisionmaking at the community level is always a good thing, and new GIS mapping tools are making that possible.

THE FINAL FACTOR that reinforces our attention on the importance of managing large landscapes is the

recognition that failing to do so could imperil some of our nation's most recognizable, iconic vistas. The on-going restoration of the sea of grass in the Everglades, the steps taken to protect the Grand Canyon from potentially destructive uranium mining, concerns about water withdrawals from the Great Lakes, and the continued effort to bring back the richness of the Chesapeake Bay all serve as reminders that even our most treasured landscapes need attention.

After the Deepwater Horizon's disastrous oil spill, the beautiful and fragile wetlands and beaches along the Gulf Coast emerged in the national consciousness as a landscape in need of attention. The Arctic National Wildlife Refuge has long been recognized for its migrating caribou herds and unique remoteness and wildness and, more recently, the landscapes in the western Arctic — including the 23 million acre National Petroleum Reserve-Alaska — are beginning to be more broadly recognized for similar values, particularly as they are balanced against oil and gas development. Indeed, it is the combination of the uniqueness and sensitivity of the Arctic environment, and new development pressures in the region, that led an interagency group that I led to recommend adoption of a landscape-level "integrated Arctic management" approach to decisionmaking in a report delivered to the president last March. Likewise, the beauty and importance of the California desert is getting more headlines as renewable energy project development has heightened awareness of the region's special landscapes, triggering the ambitious Desert Renewable Energy Planning effort that seeks to sort out focal areas for potential development from conservation areas.

Given these seven powerful and helpful forces that favor a more integrated approach to managing our landscapes, I am optimistic for the future. The golden age of honoring our nation's special landscapes is not over. We are not fated to a future that is marked by one-off and random development projects strewn across fragmented landscapes.

Instead, with the active leadership of the Obama administration and many state, community, and NGO leaders, we are moving forward with a variety of new initiatives, using an integrated management approach, to make thoughtful conservation and development decisions on a landscape level. It is a new model for conservation. One that fits the needs of the 21st century, and one that would make a modern-day Teddy Roosevelt proud. •

"Using an integrated management approach, we are making conservation and development decisions on a landscape level"