Adopting a Landscape-Level Approach to Managing our Nation's Public Lands and Open Spaces

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Thank you for the introduction, David, and for the opportunity to give a lecture here at the Lane Center. It is an honor.

I am a long-time admirer of David Kennedy as an historian, teacher and writer, but perhaps I am most impressed with his passion for the west, and for the big issues that animate the western landscape. After my first tour in the government, between the Clinton and Obama Administrations, David invited me to speak to his students one September in a "sophomore college" class focusing on the west. I spoke that day on water issues and, in particular, on the structural water challenges that California faced in 2001 when I left the Department and then – in September 2007, when I participated in David's class -- and that it still faces today. The irony is that I could give virtually the same talk today as I did then!

That story is relevant to my talk tonight because it speaks to the point that the natural resource challenges that we find across our nation never seem to go away. When I walked back into the Interior Department in January of 2009, with Ken Salazar and a handful of Obama appointees merging into a workforce of 70,000 career employees, I found a Department that seemed, at best, to be frozen in place.

In areas of my special interest –in protecting important landscapes, in engaging in responsible energy development, resolving long-standing Indian land and water rights matters, and in addressing challenging conflicts between water supply and the environment – like we have here in California – eight years had gone by and it seemed that little or no forward progress had been made. And some things had clearly gone backwards, particularly on the energy development side, where the leadership had been unresponsive to the call that Congress had made in 2005 and again in 2007 to develop renewable energy on our public lands, and where Interior Department managers were getting performance bonuses based on the sheer quantity – and not the quality -- of new oil and gas drilling permits that they were approving.

So my question in reentering the historic Interior Department building on January 21, 2009, was whether my feeling that it was "groundhog" day – where I was encountering what seemed to be the same problems and hot spots that were on my desk when I walked out of the same building on January 19, 2001 – reflected

the necessary reality of today's world. We know, after all, that addressing resource conflicts, and protecting threatened landscapes, are really hard. Do we need to simply acknowledge that any resource issue worth its salt will remain unresolved for decades – and, perhaps, forever? And do we simply need to accept as fact the proposition that the days of solving big issues, making big moves, and rationalizing the use and conservation of large swaths of our lands are over?

It was not always so. History suggests that in decades past, a more activist view of managing our lands prevailed, at least during some periods when previous Interior and Agriculture Secretaries, and their Presidents, made bold moves to protect large landscapes: Teddy Roosevelt and Gifford Pinchot, FDR and Harold Ickes, Kennedy and Johnson and Stewart Udall, and, yes, Bill Clinton and Bruce Babbitt.

The traditional bold, landscape-level moves involved setting aside public lands for iconic Parks, for National Forests, and National Wildlife Refuges. Usually with the help of Congress, but not always. (Teddy Roosevelt figured out that National Wildlife Refuges could be created with the stroke of a Secretary's pen.) We have more than 400 million acres of public lands in those three categories alone today.

You all watched Ken Burns and Dayton Duncan's wonderful series on our National Parks: "America's Best Idea." It seemed that before any big-time new National 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, with Jimmy Carter's Alaskan gambit, and Bruce Babbitt's monument push at the end of the Clinton Administration, being notable exceptions.

The question on the table, then, is whether times have changed and, due to a variety of circumstances, 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 just about shut down any bold, big-scale action on virtually any subject. Witness Congress' inability to pass a coherent budget. And when it comes to managing our public lands – Congress has been able to do virtually nothing after enacting the omnibus lands act of 2009, which was the first major legislation signed by President Obama early in 2009 – and the last one presented to him in this space for signature. That legislation designated two

million acres as wilderness, identified more than 1,000 river miles as wild and scenic, and statutorily recognized the National Conservation Landscape System and its 27 million acres of world-class landscapes *outside* of our National Park system.

Given these bleak data points, must we give up on making progress in resolving thorny resource management disputes and in developing sensible management approaches to large landscapes – approaches that include the conservation of the large, unique and beautiful landscapes and open spaces that are so much a part of what we know of as America?

My proposition to you tonight is that we should not be discouraged. Resource conflicts should not – and need not -- fester for decades upon decades. **The light in the forest, so to speak, is 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.**

Part of the reason for optimism, I will admit, is that the Obama Administration has a progressive view of the role that government can play in acting like any responsible landlord should: 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 on our public lands – and developing thoughtful, integrated management approaches that make sense, and that reconcile potentially-conflicting demands on our landscapes. We in the Obama Administration believe that the American people – whose public lands occupy a full third of the United States' land mass -- do not want their government to act as the type of near-absentee landlord that we have seen in previous Administrations – one that eschews management responsibilities and is quick to approve whatever projects come in the door, without regard to their impacts on increasingly disconnected and fragmented landscapes.

But in addition to our Administration's bent toward engaging in sensible, high level management and planning, there are other forces at play that provide grounds for new optimism that we can still think and act on a big scale when it comes to managing our nation's lands for the future. Simply put, a number of forces are emerging and pushing back against the all-too-familiar, recent pattern of ignoring resource conflicts until they blow up into unmanageable disasters that chop up our lands and the precious resources that they hold for all Americans.

I am going to focus here on seven forces in play that give rise to my optimism and that are helping us – and, in some cases, forcing us – to play a more active and positive role in managing our lands more thoughtfully, and with a longer-term horizon in mind:

1. Large Footprint Projects

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.

Indeed, today we are building the largest solar energy projects in the world in the Nevada and California deserts. Overall, our Administration has approved more than 30 utility-scale renewable energy projects on our public lands, accounting for more than 12,000 megawatts of renewable energy – the equivalent of more than 20 large, coal-fired power plants.

The sheer magnitude of the projects that are being reviewed for potential development on our public lands is necessitating a more holistic review of the potential impacts that these projects, and others, may have on large swaths of our public lands and open spaces. Even the most ardent laissez-faire types among us recognize that the helter skelter deployment of large projects has the potential to negatively impact certain aspects of our public lands including, for example, the attractiveness and/or utility of other uses of our jointly-held lands, whether they be National Parks or other tourist destinations, or more remote hunting and fishing areas or wilderness-quality areas.

Because President Obama and Secretary Salazar and our team have been committed to demonstrating that our public lands could support large solar and other renewable energy projects, we insisted on moving forward on these projects 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 -- particularly in areas where oil and gas deposits are newly accessible due to horizontal drilling and hydraulic fracturing techniques -- it has become obvious that we need to more actively manage the landscapes that we have an obligation to oversee on behalf of all Americans. The result has been important landscape-level management initiatives, including the following:

- We have developed the "Western Solar Plan" for the six southwestern states, identifying "solar energy zones" in which the BLM incentivizes the

development of new large footprint solar energy projects in specified areas where there are fewer environmental conflicts, proximity to transmission, and other attractive features. The Western Solar 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, recreational and open space values.
- In a similar vein, our Department has initiated our "Smart from the Start" program of managing our offshore waters to encourage the siting of offshore wind projects in the best areas, rather than being passive and simply processing applications in offshore areas that individual project applicants have selected. More specifically, we have worked with federal agencies, states and tribes on the eastern seaboard to identify – up front – "wind energy areas" that, based on information gathered affirmatively by the federal government, working with states and others, hold the promise of having the least conflict in terms of environmental sensitivity, shipping and military-related conflicts, and the like. These are the areas that are studied and then offered for competitive leases on a preferential basis.
- In the oil and gas world, our evaluation of the 77 leases that Secretary Salazar cancelled early in the Administration showed that many of the leases were in areas where there was very heavy recreational use (including in BLM lands and nearby National Parks) and little or 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 a "Master Leasing Plan" approach. Master Leasing Plans focus in areas in which new development potentially could come into conflict with recreational and/or other potentially non-compatible uses of lands. Under the MLP concept, early, up-front analysis helps to identify areas appropriate for oil and gas leasing on the one hand, and areas that should not be leased, on the other hand.

2. Wildlife Needs

New, 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, large-scale approach when managing large landscapes.

By way of example, the Western Governors' Association has recognized that a number of factors, including sprawl, lease activity and climate change, are

threatening traditional patters of wildlife movement across our landscapes. The WGA has responded by developing a collaborative initiative to identify and protect wildlife corridors. More specifically, working closely with the Department of the Interior and other partners, the WGA has been overseeing the development of a mapping tool that identifies important wildlife corridors and that facilitates efforts to protect those corridors. Known as the Western Wildlife Crucial Habitat Assessment Tool or "CHAT," this data-rich mapping initiative will give project planners and the general public access to credible scientific data on a broad scale for use in project analysis, siting and planning, including large-scale development projects spanning multiple jurisdictions.

In addition to the Western Governors' wildlife corridor initiative, a number of wildlife actions arising under the Endangered Species Act are triggering management activities on large landscapes:

- The prospect of potentially listing the greater sage grouse as an endangered species has led to a frenzied effort across eleven western states to identify key sage grouse habitat and develop plans to protect remaining habitat strongholds. Because a significant portion of remaining habitat is on BLM lands, BLM 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 as endangered. In sum, federal, state and tribal officials, and private landowners, are all working on an unprecedented landscape-level management effort as they identify and protect large areas of key habitat for the greater sage grouse across many states.

- 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 Interior Department's Fish & Wildlife Service to conclude that the dunes sagebrush lizard need not be listed as an endangered species.

- 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 logging activity in "critical habitat" 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 in a more holistic way, moving beyond the tract-by-tract dogfight between loggers and environmentalists that has not been good for either the forests, or for the communities that depend upon 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 now paying the price for years of over-engineering in the Delta. After building levees to stop the periodic inundation of hundreds of Delta islands, and after years of operating the world's largest water pumping stations, pulling water (and fish) against the natural flow of the Delta to thirsty farms and cities in central and southern California, the ecosystem is collapsing and both pelagic and anadromous fish species (salmon) are threatened with extinction.

There can be no piece-meal answer to the water and wildlife conflicts that have reached crisis proportions in California's Bay Delta. Smaller-bore efforts of every stripe have been tried, and have failed, over the past twenty-five years. Only an integrated, landscape-level management strategy has the potential to address the unsustainable status quo has the potential for success: a strategy that confronts the reality that water will continue to need to be shipped south, through or "around" the Delta, while also recognizing that major, landscape-level investments must be made in habitat and more natural ebbs and flows (unimpeded by river-reversing pumps, perhaps by separating out exported water from the Delta).

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.

3. Climate Change

Climate change is the third major new force in play that is triggering an increased focus on managing our resources on a landscape-level basis. Climate change 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 of climate change is that the 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, on a large landscape basis.

This is why the Department of the Interior has responded to climate change impacts with a new Departmental 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. The Bureau of Land Management's Rapid Eco-Regional Assessment process is developing the type of information that can do just that, and the Department's support for 22 Landscape Conservation Cooperatives on a regional level, backed by 8 regional Climate Science Centers (staffed jointly by USGS and university personnel), 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 management 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 near the coast and choosing among coastal protection strategies, including rebuilding barrier islands, 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.

4. Fiscal Constraints

Fiscal constraints provide yet another (and somewhat counterintuitive) 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, rather than divide a small pie into even smaller, potentially-ineffective pieces.

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 (LWCF) dollars and focus a significant proportion of their spending on larger landscapes, they can get a bigger conservation bang for the buck than if they divide up their dollars and spend it on smaller, more fragmented acquisitions. 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 Continent and the longleaf pine forests in the southeastern U.S. have emerged as early winners. And there are many more with strong followings.

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 more of their 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 U.S. 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. Which brings us to the next factor in play . . .

5. Working Landscapes

Traditionally, federal land management agencies have tended to myopically focus their attention on maintaining and/or expanding the federal land estate. Land management 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" in the neighborhood.

Times are changing. 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, Trust for Public Lands and many other land trusts have known this for years, of course. Now, led by the U.S. Fish & Wildlife Service and the Department of Agriculture's Natural Resources Conservation Service (NRCS), feds 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, has initiated 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 ten 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. Examples include the Dakota Grasslands Conservation Area, the Hackmatack (Illinois) National Wildlife Refuge, the Flint Hills (Kansas) Legacy Conservation Area, and the Everglades Headwaters National Wildlife Refuge and Conservation Area.

6. **Technology**

New technology tools also 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. Casual internet users can access a birds-eye view of large landscapes through their computers and smart phones. And Landsat-based time lapse sequences show the dramatic changes that have taken place over the past 30 years on many landscapes.

Even more importantly, easily-accessible geospatial information system (GIS) 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 data sets that can be mixed and matched with base GIS maps. Citizen-scientists and citizen-conservationists as well as John Q. Public can hop on the internet, dive into GIS software, and use sophisticated mapping tools to identify imperiled landscapes on the other hand, and prime development opportunities, on the other hand. And then they can share this information through a variety of social media outlets. Consider, for example, the run-away success of the Department of the Interior's "Instagram" pictures of our Department's special places.

It is difficult to underestimate the impact that these newly-accessible technologies will have on integrated land management and planning efforts. As they say: a picture is worth a thousand words. GIS maps that chart out 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 decision-making at the community level about land management choices is always a good thing, and new GIS mapping tools are making that possible.

7. Iconic Landscapes

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 landscapes. 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 iconic landscapes need sound, landscape-level management attention.

In addition to reminders of familiar old "friends," new landscapes worthy of our attention are emerging and competing for national attention. After the Deepwater Horizon's disastrous oil spill, the beautiful and fragile wetlands, waters and beaches along the Gulf coast emerged in the national consciousness as a landscape in need of attention. And many are cheering the fact that billions of dollars will now be headed toward a major restoration effort in the Gulf.

Other important landscapes also are beginning to command national followings. 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 decision-making in the Arctic in a report delivered to the President in March of this year. (*See* "Managing for the Future in a Rapidly Changing Arctic -- A Report to the President.")

Likewise, the beauty and importance of the California desert is getting more headlines as renewable energy project development has heightened awareness of the desert's special landscapes, triggering an ambitious 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. It need not be “groundhog” day at the Interior Department, with old conflicts never getting resolved and coming back to haunt land managers again and again.

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.