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Green Is Good

How Smart Policy Can Sustain Growth of Private Investment in Conservation

By Ryan Richards April 2017

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Introduction and summary

Bedrock environmental legislation, such as the Clean Water Act and the Endangered Species Act, has helped inspire innovative solutions to complex environmental issues. Today, there is a fast-growing industry that encourages private investors and businesses to work independently or in partnership with public agencies and apply market-based approaches to conservation.[1]

Recent data suggest that environmental markets in the United States facilitate at least $2.8 billion in transactions annually.[2] From 2014 through 2015, more than $1.15 billion in private capital was injected into markets for habitat conservation and water management, reflecting a new trend in business to find investment opportunities that also deliver social and environmental benefits.[3] This new approach provides several advantages, including:

- More options for conserving or restoring natural resources
- A larger pool of resources for addressing environmental problems
- Potential to mobilize resources quickly
- Shorter permitting times

Unfortunately, the economic and environmental gains provided through these sectors are under threat. On March 28, 2017, the Trump administration ordered federal agencies to rescind or remove mitigation policies that help balance impacts to natural resources from development.[4] U.S. Department of the Interior Secretary Ryan Zinke followed suit, ordering his land management agencies to review their mitigation policies with a view to ensure that they do not "burden" oil and gas development.[5]

Although these executive actions claim to unleash economic growth, they may have the opposite effect. Reversing or removing the very mitigation policies designed to provide certainty and predictability to industry will mean that conservation investments stay on the sidelines. Additionally, the action may expose proactive and voluntary conservation efforts, such as those to conserve the greater sage-grouse, to mandatory measures and legal battles. This change in course will also make it more difficult for agencies to support innovation in natural resource management, placing the momentum of fast-growing restoration and outdoor recreation industries in doubt.

In short, without a solid foundation of policies that provide regulatory certainty and reduce risk for individuals and companies to invest in projects, the fast-growing conservation investment industry may stall out. Policy changes, especially the weakening of environmental legislation, place these gains in economic productivity and environmental quality at risk.

Greater investment in conservation is a win for America's natural heritage and a boon for local economies. A 2012 report by the Outdoor Industry Association found that the outdoor recreation economy generated $646 billion in economic activity annually and directly supported 6.1 million jobs.[6] Rural counties with more than 30 percent of their area managed as public lands—an anchor of the outdoor economy—benefited the most, showing higher growth rates and per-capita incomes.[7]

Investments in habitat restoration also contribute immensely to local economies, even in areas without high concentrations of public land. Estimates place the annual economic contribution of restoration at roughly $9.5 billion, including the direct employment of more than 125,000 workers.[8] This has a greater local impact than most forms of infrastructure investment because a larger portion of the investment is devoted to labor.

This report provides an overview of recent trends in conservation investments. It also proposes several recommendations that the federal government can take to help strengthen collaborations and provide greater benefits to the American public, including:

- Restoring agency commitments to standardized mitigation policies that promote voluntary conservation and reduce risk for landowners, businesses, and communities

- Supporting development of mitigation programs that use science-based guidelines, transparent planning, and monitoring

- Funding public-private efforts, such as the U.S. Department of Agriculture's Conservation Innovation Grants, that promote improvements in conservation practice

- Piloting a pay-for-performance program in forest restoration or green infrastructure to help field-test a novel strategy for attracting greater resources into conservation

Strong growth in conservation investments stretches back decades

Private groups have always played a leading role in conservation. Some of the earliest efforts to protect iconic threatened species, such as the American bison, were led by philanthropic institutions and zoological societies.[9] Civil society played an important role in bringing environmental problems, such as pollution and threats to ecosystems, into the policy sphere in the 20th century.

These historical approaches to land conservation, research, and advocacy are now complemented by new ventures that invest in conservation to pursue financial as well as social and environmental goals. (See text box below) Data on these types of investments have only recently been aggregated in the United States, but they show a clear positive trend in investment patterns. In its 2017 report on the state of private investment in conservation, Ecosystem Marketplace reports that more than $1.15 billion was invested in water and habitat conservation projects in North America from 2014 through 2015 by firms seeking a financial return.[10]

Private investments have been made in pursuit of a wide range of conservation goals. Cities have sought partnerships with upstream landowners to improve their drinking water supplies and have invested with private firms to reduce the downstream impacts of urban stormwater runoff.[11] Wetlands loss and habitat restoration on private lands have been the target of other investors. More than 1,200 mitigation banks were in operation as of 2016 to create and protect new wetlands and aid in endangered species recovery.[12] Investors have partnered with startups to address other conservation challenges—such as fuelwood removal and wildfire risk in the West—through innovative bond measures and "pay-for-success" models.[13]

Glossary of important terms

Mitigation banking: Purchase or management of land to create, restore, or preserve a quantifiable amount of species habitat or ecosystem function—for example, water quality and/or flow—that can be sold as credits to other parties in order to mitigate environmental impacts elsewhere. The most common form is wetland banking, in which private firms or nongovernmental organizations purchase and/or create wetland features to sell as credits that compensate for environmental damage from development elsewhere. Species banking, in which land is managed to provide habitat for species conservation, is becoming increasingly common.

Land and habitat conservation: Similar to mitigation banking, described above, but often accomplished through easements, land purchases, or adoption of sustainable management practices to protect land from alteration or development.

Habitat restoration: Conducting land management activities with the goal of returning some ecological function to an area. Examples range from thinning overgrown forests and rebuilding wetlands to removing aging dams.

Forest management: Investing in thinning, planting, or otherwise restoring forests to desired conditions. This can be conducted for a range of objectives, including reducing the risk of devastating wildfires or protecting drinking water sources for cities.

Watershed protection: Investments in land and river management in a watershed with the goal of improving water quality and quantity. Activities include forest management, river and stream restoration, conservation through land purchases and/or easements, and collaborative efforts with private landowners, such as tradable water rights, water quality trading, and payments for ecosystem services.

Investment trends are driven by smart public policy

One of the first regulatory drivers for private investments in conservation was the Clean Water Act. Section 404 of the act regulates the impacts of development on freshwater resources—including wetlands—and has created an opportunity for developers to compensate for unavoidable impacts through beneficial restoration or conservation activities elsewhere.[14]

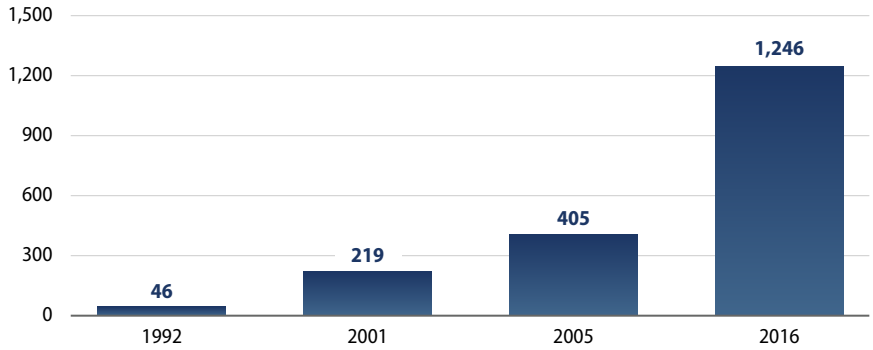
In 1989, the U.S. Environmental Protection Agency, or EPA, and the Army Corps of Engineers, acting under the direction of President George H.W. Bush, initiated compensatory mitigation under Section 404. Their memorandum of agreement set a goal of "no net loss" for the nation's wetlands, meaning that any development had to compensate for all wetlands that were converted or lost during construction.[15] A 2008 rule, issued by the EPA and the corps, clarified some debate over the concept of "no net loss" by defining wetlands for mitigation purposes and describing how and where compensatory mitigation could be sited and managed. The rule also better defined mitigation for streams—opening new potential for mitigation projects—and ensured that these standards are applied to all forms of mitigation.[16] In the years following the promulgation of the 2008 rule, growth in mitigation banking has increased significantly, suggesting that clarified definitions have provided sufficient certainty for private investors. The restoration industry now employs more than 125,000 people and creates roughly $9.5 billion in economic output annually.[17]

The growth in the wetland mitigation banking industry has influenced the development of similar programs for species conservation. Sections 7 and 10 of the Endangered Species Act require developers to consult with the U.S. Fish and Wildlife Service, or USFWS, to avoid impacts to at-risk flora and fauna and grant the USFWS the authority to grant "incidental" take permits for developments that unintentionally harm these species.[18] This logic created the legal framework for mitigation strategies in species conservation. In 1995, California passed legislation to develop conservation banks for listed species, in partnership with the USFWS. The number of banks grew quickly in several parts of the state, especially where

there was limited public land available for conservation. In 2003, the USFWS introduced guidance on the use of conservation banks based largely on their implementation in California.[19] This model has since been adapted in 12 other states, with more than 125,000 acres now being managed as conservation banks for 88 threatened species.[20]

FIGURE 1

Number of mitigation banks in operation in the United States



Note: Operational banks include those banks that are actively selling credits and those that have sold all credits and are being managed to fulfill the terms of mitigation agreements.

Sources: Jessica Wilkinson and Jared Thompson, "2005 Status Report on Compensatory Mitigation in the United States" (Washington: Environmental Law Institute, 2006), available at https://www.eli.org/sites/default/files/eli-pubs/d16_03.pdf; U.S. Army Corps of Engineers, "RIBITS: Regulatory In-lieu Fee and Bank Information Tracking System," available at https://ribits.usace.army.mil/ (last accessed October 2016).

The Obama administration embraced this growth and attempted to reduce the uncertainty that might limit further investments.[21] In 2013, former Department of the Interior Secretary Sally Jewell issued Secretarial Order No. 3330, which established conservation goals for mitigation projects and directed all agencies in the department to develop mitigation policies that set standards for successful mitigation projects intended to benefit trust resources.[22] In 2015, President Barack Obama issued a memorandum directing the agencies responsible for natural resources—including the USFWS; the Bureau of Land Management, or BLM; and the Forest Service—to refine their mitigation policies using the principle of "no net loss" of trust resources.[23] The USFWS and the BLM released updated policies for the use of mitigation to protect listed species on federal land in late 2016, but the March 2017 announcements from the Trump administration place the future of these efforts in doubt.[24]

Mitigation banking is not the sole area in which private investment in conservation is driven by regulation. In 2014, the water utility for the District of Columbia, DC Water, launched a $25 million environmental impact bond, the first of its kind for a municipal water authority.[25] Sold in 2016 to Goldman Sachs, the goal of the bond is to improve compliance with Clean Water Act standards for stormwater runoff by financing green infrastructure projects, which are built to mimic natural processes for water filtration and retention near DC Water's water treatment facilities.[26] Similar bond measures have been suggested as opportunities to finance projects that reduce stormwater runoff and protect drinking water sources elsewhere.[27] The Obama administration acknowledged the importance of these types of green infrastructure and ecosystem services through another presidential memorandum issued in October 2015, which should help attract further investment into restoration and conservation.[28]

Risks to the conservation investment industry

In general, investments are driven by the demand for a good or service and the potential to earn a return. The same logic applies in conservation investments, with the demand being shaped by either statutory requirements driven by regulation or by social interest in conserving or improving natural resources on their own or as part of an environmentally friendly supply chain. Although interest in conservation and sustainable production has grown in parallel with broader public demands for responsible corporate stewardship, regulatory requirements have had an enormous influence on the recent uptick in conservation investments.

Perhaps the greatest threat to the conservation investment industry is the uncertainty introduced by the president's recent executive orders, which place the future of mitigation policy in doubt. Eliminating federal guidance that provides certainty for private investors threatens the capacity for front-line staff working on federal lands to collaborate with the private sector and provide economic and environmental gains.

In fact, project managers working on watersheds, imperiled species, forest carbon, wetlands, and streams all report regulatory uncertainty as their greatest concern regarding the stability of their business.[30]

Uncertainty is one of the greatest obstacles to participation in markets, and regulatory conservation markets are no different. This is especially true for mitigation banking, as permitting typically requires that credits are ready at the time of

"This is a product-limited market … There aren't enough products, whether direct deals or funds, out there to absorb all of that capital."

– Eric Hallstein, The Nature Conservancy[29]

development—meaning that banks need to have purchased land and met certain management benchmarks in order to sell to developers. Regulatory uncertainty increases risk for bankers—they are not sure whether anyone will be interested in buying their credits despite their best efforts and investments.

This uncertainty has a ripple effect on development in other ways. If investors are not comfortable with the risk involved in providing environmental services and decide to avoid the industry, developers—the buyers of credits—may face restricted credit supplies, leaving them unable to mitigate the impacts of their projects.

Uncertainty may also affect developers who are in the process of purchasing credits, as they lose confidence that the banks offering credits will remain in operation once demand dries up. This has potentially major complications, as credits often are not fully realized for 5 to 10 years. These credits are typically guaranteed for just such an event, but it may still cause delays in permitting, erasing the efficiencies that these markets were created to provide.

Overall, the recent growth in private conservation investment is encouraging but vulnerable to collapse. The new administration has an opportunity to recapture the momentum by restoring certainty and opportunity through its mitigation policies.

Promising signs for conservation investments

Programs encouraging conservation investment now target more regions and address a wider range of challenges than ever. In addition to the wetlands mitigation and green infrastructure investments mentioned above, conservation initiatives now tap private investment to improve habitat for threatened species, mitigate the effects of public and private development, and restore important ecosystems. Here are just a few examples of specific policies and projects engaging private actors for conservation.

Nevada's Conservation Credit System for greater sage-grouse

In 2010, the USFWS announced that the greater sage-grouse warranted protection under the ESA but precluded the listing for five years and requested that states develop management plans for protecting their sagebrush steppe habitat.[31]

The bird's listing would affect land use across millions of acres in the West, and this decision gave states the leeway to find appropriate strategies to arrange conservation on public and private lands to reverse the decline of the sage-grouse.

In Nevada, where mining and ranching are two of the most economically important land uses, conservation banking was seen as a unifying strategy. It linked mining companies, which want to mitigate the heavy disturbance of their activities, with ranchers, who are uniquely positioned as stewards of sage-grouse habitat—two interests that are especially vulnerable to land use restrictions that listing might cause.

The USFWS, the BLM, the state of Nevada, and the mining company Barrick Gold of North America Inc. established a conservation credit system that allows the company to quantify its effects on sage-grouse habitat.[32] The credit system also defines units of habitat for greater sage-grouse, which allows private landowners to offer defined portions of their land for compensatory mitigation. Barrick Gold can then purchase credits for successful mitigation projects, helping resource agencies and states meet their conservation targets for the bird and its habitat.

Paying farmers for water in the Everglades

When Everglades National Park was created in 1947, it was one of the first protected areas that attempted to conserve an entire ecosystem: the so-called River of Grass that slowly flowed through southern Florida and harbored unique wildlife. But the northern portion of the ecosystem was left out because ranchers and farmers were established there. Over time, it became evident that their land use affected the health of the park downstream by altering water flows and releasing phosphorus, which in turn changed plant communities.

In 2005, Florida state agencies—in partnership with the World Wildlife Fund, the University of Florida, and the Department of Agriculture—organized a six-year demonstration project with several ranchers that paid private landowners to hold some water on their fields for longer periods of time.[33] This practice helped replicate historical flow regimes and provided an incentive that compensated landowners for their contributions to conservation. The demonstration project ended in 2011, and more than $46 million in contracts was allocated through 2016 in a follow-up program that pays farmers based on their contributions to reducing nitrogen and phosphorus loads leaving their properties.[34]

Farmers and Fort Hood establish a credit bank for songbird recovery

The golden-cheeked warbler and black-capped vireo are songbirds that depend on the juniper woodlands in central Texas for breeding. Both birds have also been listed under the ESA, as habitat loss restricted their range. The Texas habitat they depend on happens to overlap with Fort Hood, one of the most important military installations in the country.

Although the U.S. Department of Defense, or DOD, has long supported the conservation of golden-cheeked warblers and Fort Hood was home to the largest known population of the bird, the military base's readiness requirements required land uses that, in isolation, would inhibit the bird's recovery.[35] In 2005, to address this impact on ESA-listed species, the DOD, the USFWS, Texas state agencies, and nongovernmental organizations partnered to establish a habitat credit trading program that defines mitigation "units" to quantify losses due to military activity and enroll landowners in contracts to conserve bird habitat.[36]

The Fort Hood Recovery Credit System, or RCS, has two major benefits. It allows the DOD to compensate for the environmental impacts of its training programs instead of approaching the issue through lawsuits or land use restrictions. The system also allocates contracts to landowners based on a reverse auction system, in which the landowners who can provide habitat at the lowest cost receive contracts first. This saves money for the DOD and means that land use commitments are awarded to the landowners most interested and best suited to conserve warbler habitat. The RCS worked well enough that it was expanded in 2012 to 34 counties in Central Texas and to include credits for the black-capped vireo.[37]

The BLM adopts regional mitigation strategies to support solar energy development and investments in habitat mitigation

The BLM is responsible for more than 240 million acres of public land, primarily in the West. It is mandated to manage land for multiple uses and sustained yield. This is challenging because multiple uses include energy development, mining, ranching, outdoor recreation, and management of ESA-listed species. Balancing these uses makes mandatory land use planning arduous, with plans taking an average of eight years to complete.

One of the emerging issues affecting BLM lands is the demand for large-scale solar energy projects on public lands in the desert Southwest. In order to accommodate this demand efficiently, the BLM has tasked its regional offices with the development of solar energy zone plans. These documents give energy companies insight into the most appropriate sites for future development. They also identify areas near public lands where trust resources—for example, ESA-listed species—are located, as well as publish regional mitigation strategies for these resources to guide mitigation investments, giving private firms insight into opportunities to invest in conservation and develop suitable habitat credits.[38] Since 2010, the BLM has arranged leases with companies to build out more than 9,000 megawatts of solar energy that powers nearly 3 million homes. The regional mitigation strategies will help with siting and permitting of more than 15,000 additional megawatts of clean energy for millions of Americans.[39]

Recommendations

Given the positive trends in private investment in conservation, policymakers should continue to promote consistency and clarity for these emerging markets. The Center for American Progress suggests the following steps:

- **Restore agency commitments to standardized mitigation policies that promote voluntary conservation and reduce risk for landowners, businesses, and communities.** Rescinding policies implemented under the November 2015 presidential memorandum creates confusion for landowners and businesses who would otherwise invest in mitigation to help offset impacts of the energy and infrastructure development that is a priority of the administration. These mitigation options would help avoid delays from permitting and litigation.

- **Support development of mitigation programs using science-based guidelines, transparent planning, and monitoring.** The administration should recognize the opportunity for mitigation policies to protect trust resources if agencies use the best science available to set standards for mitigation projects and metrics for success. It should support efforts by agencies and partners to use the Department of the Interior's planning efforts, such as the Bureau of Land Management's solar energy zoning program, to inform mitigation siting that shortens permitting times.

- **Fund innovation in public-private conservation efforts.** Congress should allocate additional resources to programs that pursue more efficient opportunities to address environmental challenges, such as the Department of Agriculture's Conservation Innovation Grants.

- **Pilot a pay-for-performance mitigation program.** Pay-for-performance—or pay-for-success—projects, in which private investors fund an activity and receive repayment based on third-party evaluations of project outcomes, have been used in social policy programs to incentivize improved practices. Some environmental projects are testing this approach. For example, DC Water's

green infrastructure bond has variable payments based on water quality benchmarks. The administration should support a similar project in environmental restoration, such as fuelwood reduction in forests or coastal restoration. This would spur private investment to achieve environmental goals in a cost-effective manner and determine whether the model is appropriate for natural resource management at the federal level.

Conclusion

Investments in conservation and natural resource management have grown to historical highs. This growth is still fragile, however, and dependent on consistent regulatory drivers to shield investors from risk. Consistency in some fields, such as compensatory wetland mitigation, has encouraged dramatic growth in private investments. Under the Obama administration, agencies charged with natural resource management took strong steps toward clarifying policies and attracting private groups to collaborate on projects that protect and improve America's natural heritage. The Trump administration's recent steps challenge this progress to the detriment of the economic development it wants to support. It should take steps to restore regulatory certainty and ensure that this new trend in investment becomes a consistent and effective component of America's conservation toolkit.

About the author

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