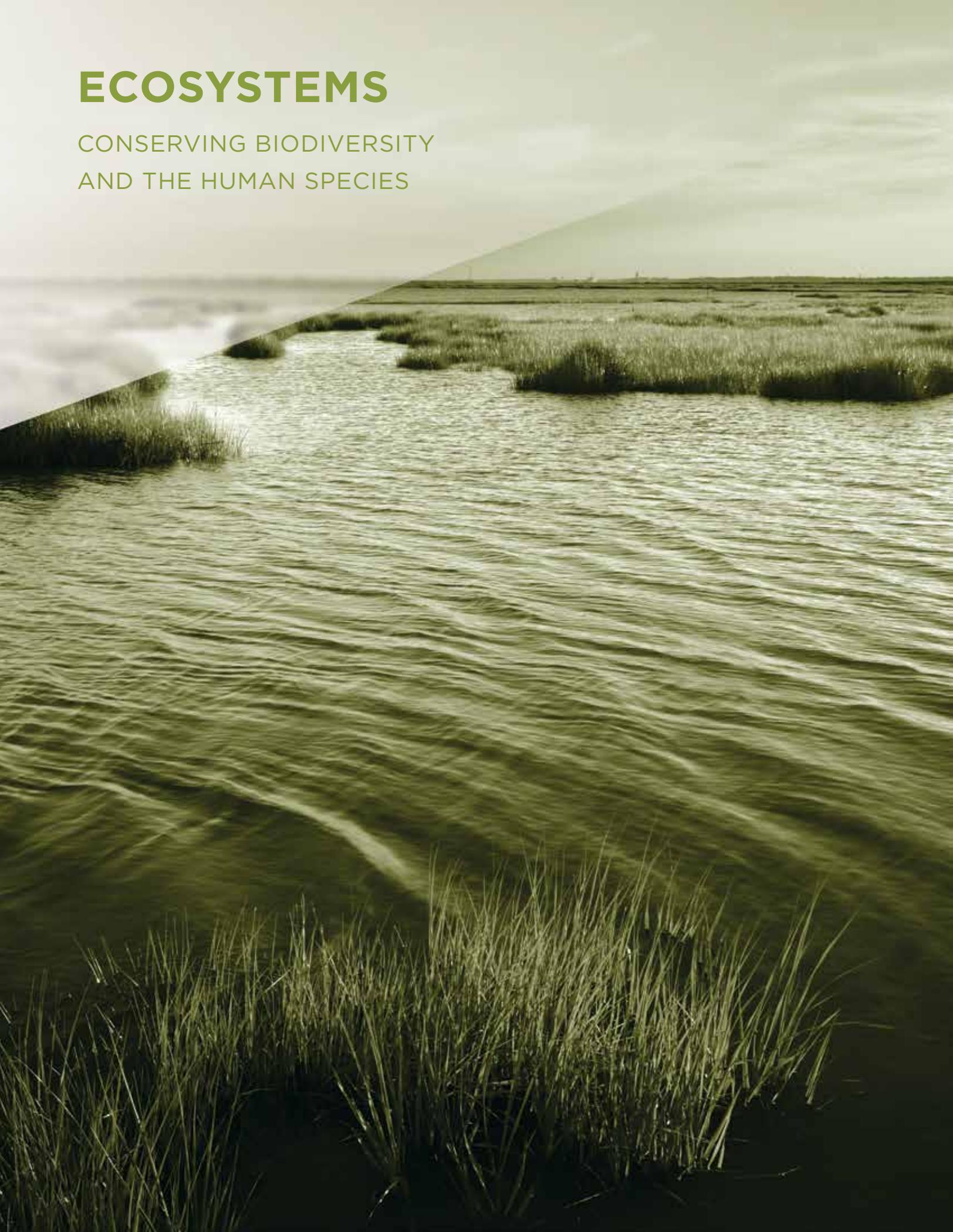


ECOSYSTEMS

CONSERVING BIODIVERSITY
AND THE HUMAN SPECIES



At the beginning of the 21st century, scientists and environmentalists began to pay more attention to the understanding of ecosystems and ecosystem services, a marriage of systemic thinking and ecology that works to understand the relationship between the basic elements of nature — air, water, soil, forests, etc. — and human beings. While the focus on cities and energy, two fundamentals of environmental work today, is largely about human beings and their world, the focus on ecosystems broadens the parameters to include all life on the planet. For us, this dimension has been essential to our holistic approach.

In what constitutes a conceptual advance in the understanding of nature and our relationship to it, it is the *interaction* between the human species and nature that is the focus, rather than a more traditional view of nature as something that is outside or separate from the human domain. While nature is still regarded by many as a support system or supply depot for human beings, value is now being placed on the myriad things nature does, without which humanity could not exist.

“An ecosystem is a dynamic complex of plant, animal and microorganism communities and the nonliving environment, interacting as a functional unit,” note the authors of the *Millennium Ecosystem Assessment*. “Humans are an integral part of ecosystems.”

“Ecosystem services are the benefits people obtain from the ecosystems,” the authors continue. “These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services, such as nutrient cycling, that maintain the conditions of life on Earth.”



A number of ecological pragmatists are convinced that unless some way is found to put a value on the protection of those services — specifically a monetary value — there would be no way to protect them from further degradation as humanity continues to plunder the planet to satisfy its needs. “Even today’s technology and knowledge can reduce considerably the human impact on ecosystems,” the assessment notes elsewhere. “They are unlikely to be deployed fully, however, until ecosystem services cease to be perceived as free and limitless, and their full value is taken into account.”

**THE ROLE OF
GLOBAL BUSINESS
AS STEWARDS OF
THE LAND**

WORLD RESOURCES INSTITUTE
BUSINESS-ECOSYSTEM
LEADERSHIP GROUP



When asked why these companies were starting to embrace ecosystem protection, Craig answered that they all realized that we were entering an age of resource scarcity, and if they did not do something to preserve the lands they were exploiting, they would someday be out of business.

The first organizational partner to introduce us to the world of ecosystem services was the World Resources Institute (WRI), a leading global environmental think tank that works with businesses and governments to educate them about the environment and encourage them to develop more ecologically responsible practices. One of our early advisors and a member of the BRI planning team, Phillip Gibbs, introduced us to WRI and would later introduce us to the National Geographic Society. Both would prove to be productive and congenial relationships.

WRI had been working on the development of an ecosystem services review to offer businesses as a way to monitor their relationship with the environment, particularly on lands that they worked. Craig Hanson, who had worked at McKinsey & Company prior to coming to WRI, was coordinating the production of the review and an initial assembly of interested businesses. WRI had put its own resources into building early relationships with the companies and finalizing the review. Craig wanted to launch the effort by bringing the group together in early 2008 but needed funding to take that first step. BRI provided the first philanthropic grant to what WRI was calling The Business-Ecosystem Leadership Group, a small group that included Coca-Cola Bottling Division, Syngenta, Plum Creek, John Deere, and Staples.

WRI operates on a global level and works with wealthy companies; so if it develops a successful program, it can usually secure funding. But it was no different than other organizations for which the greatest challenge was to secure the first investment — often in the tens of thousands of dollars — to get something new off the ground. Craig referred to that initial funding as “our most precious resource.” Once we provided that early grant, and the founding companies had a chance to meet, things started to move. The plan was for the companies to provide membership dues to keep WRI involved as a consultant, and those companies would be the ones to reach out to other companies to build the network.

At the time, there was still a widespread consensus among many — one that was based on much evidence — that large corporations cared little about protecting the environment. But that was beginning to change. Just as Amy Larkin had come to see the necessity of oil company involvement in large-scale transformation of the energy landscape, there were those who saw global companies as critical to reversing the exploitative trends that had pushed virtually all environmental indicators into the danger zone. When asked why these companies were starting to embrace ecosystem protec-

tion, Craig answered that they all realized that we were entering an age of resource scarcity, and if they did not do something to preserve the lands they were exploiting, they would someday be out of business.

Within months of that first meeting, the International Finance Corporation integrated elements of the ecosystem services review into its sustainability framework and performance standards for its loan applications. The IFC, a member of World Bank Group, provides loans to lending institutions in countries around the world that finance new ventures by companies and entrepreneurs. The IFC offered loans amounting to \$7.6 billion in fiscal year 2014.

The Business-Ecosystem Leadership Group also inspired the formation of a similar group among businesses in Brazil (of which Walmart was a member) that used the WRI model. As the program developed, company leaders in each main sector (minerals, timber, water, etc.) would approach professional associations and suppliers in an effort to work out ways to value an ecosystem service that was essential to their work. The idea was to build the network one success at a time.

While WRI has not monitored the adoption of the review in any systematic way, Craig indicated in a 2014 conversation that, by then, they knew of about 300 companies that used the review in their management protocol, and a parallel galaxy of consulting firms and smaller companies had also picked up on it. This was a big step toward integrating an ethic of stewardship into corporate behavior, which would be one of the ways to get large economic forces to alter their behavior toward the environment in the years ahead. It was an early example to us of how our grants could help catalyze action that would quickly go to scale and have major global impact.



A few years later, in 2012, WRI launched another ecosystem initiative to which we provided a first grant. It was intended to sell municipalities in North America on the value of developing watersheds as an ecologically and economically better way to preserve freshwater systems for their citizens than spending large amounts of money on water treatment plants.

WRI leveraged initial funding from BRI to develop a collaboration with Earth Economics and the Manomet Center for Conservation Sciences to synthesize the work of 56 experts with experience in source water protection across the American landscape. Their work resulted in the publication of a resource guide that makes the business case and lays out the scientific

PROTECTING NATURAL WATERSHEDS FOR MUNICIPALITIES

WORLD RESOURCES INSTITUTE
WATERSHED INVESTMENT
INITIATIVE

underpinnings for making smart investments in freshwater ecosystems. It is recognized as the most comprehensive and instructive publication on the subject to date.

“Now is a critical moment facing water resource managers and beneficiaries nationwide,” notes the resource guide, titled *Natural Infrastructure: Investing in Forested Landscapes for Source Water Protection in the United States*. “Much of America’s aging built infrastructure for drinking water is nearing the end of its useful life (American Society of Civil Engineers 2013). Yet funds for investment in water infrastructure are drying up in an era of fiscal austerity. As utility rates for drinking water are increasing faster than inflation and household incomes, the need is clear for lower cost, integrated solutions to meet water infrastructure demands of the 21st century.

“Promising efforts across the country have secured natural infrastructure for water management objectives through a variety of means — from land acquisition, zoning ordinances, and conservation easements to catastrophic wildfire risk mitigation and payments to private landowners for best management practices.”

Todd Gartner, who wrote much of the resource guide and who is building the campaign for WRI, has made presentations on the initiative at leading conferences and has been an advisor on water infrastructure investments. The effort has evolved into a global consortium of natural infrastructure champions among government agencies, water utilities, conservation groups, and the private sector. Among them are the United Nations Environment Program (UNEP), The Nature Conservancy, American Water Works Association, the International Union for Conservation of Nature, and multinational corporations such as Nestlé and AB InBev.

**THE CHANGING
LANDSCAPES OF THE
AMERICAN WEST**
DIABLO TRUST, CENTER
FOR COLLABORATIVE
CONSERVATION, AND
WESTERN LANDOWNERS
ALLIANCE

Another group that was developing an interest in the role of ecosystems was a group of ranchers in the American West. We had spent a few years on the lookout for initiatives that would address the challenges of ecologically responsible land management in Western states. The American West was one of the last places in the world with large properties that provided open living space for other species, but much of it was degraded or reduced to agricultural monocultures because of prevailing land management practices.

A small but growing number of ranchers, some with vast properties, were devoted to practices that cultivate rather than detract from the biodiversity

that is inherent on their lands. We were introduced to the Diablo Trust in northern Arizona in 2009 by an early advisor, Ron Hubert of Northern Arizona University. Diablo Trust is the nonprofit arm of two large family-owned ranches and federal land near Flagstaff that has been pioneering sustainable ranching practices for several years. The owners are among a number of ranch owners throughout the West who have been looking for ways to be better stewards of their lands and manage them more successfully. Frustrated by the challenging economics of privately owned ranching operations in an age of agribusiness, and more often than not by the endless complexities of federal regulation, they were looking for ways to diversify their means of generating revenue from their properties.

The monetization of ecosystem services appealed to those who cared about their land and were intrigued by the notion that they might receive financial compensation for the services that their properties often provided to nearby communities and visitors — such as clean water, pollination, natural beauty, and, for some, hunting and fishing. Small groups of academics were starting to work on the development of economic models for putting a price on such precious commodities, often with great difficulty in finding ways that would be convincing to investors or municipalities.

Gary Nabhan, a highly regarded academic, writer, and ethnobotanist working out of the University of Arizona, was part of a nucleus of academics, ranchers, and land management specialists who were trying to build support for an ecosystems approach. He had been among the first to start writing about the value of ecosystem services in the late 1990s. He pointed out that the best-managed lands in the West were not necessarily federal lands anymore but large, landscape-scale properties that were privately owned. He and Derrick Widmark of Diablo Trust requested a grant to fund a small gathering of ranchers in Phoenix in early 2010 with the intent to catalyze a movement of early adopters among some of the ranching networks they knew. We provided the grant because we saw this at the time as a new way forward for ecologically responsible ranching in the West.

The group in Phoenix consisted of academics and ranchers, but none of the investors who would ultimately have to decide whether the finance models were trustworthy enough for real investment were present. At that time there were very few investors, even among those concerned with conservation in the West, who saw any financial advantage to investing in ecosystem services. Important concerns were raised, but little in the way of tangible action emerged from that particular gathering. Without money to invest in



ecosystem services, they would remain an enticing idea but not much of a reality. The gathering did inspire a follow-up at the Center for Collaborative Conservation at Colorado State University in Fort Collins, which was organized by participants who had been at the Phoenix meeting.

“Your initial meeting definitely laid the groundwork for our workshop last week by providing an intellectual foundation and the motivation to continue pursuing the development of environmental markets,” wrote Robin Reid, director of the center, in a 2011 letter to BRI.

“At your meeting in Phoenix, I understand that you emphasized the need to make sure to pursue potential buyers of ecosystem services on ranchlands, and thus we designed our workshop to emphasize that aspect. These are still very early days for environmental markets for ranchers, but it is meetings like these that push front-running initiatives forward and allow all those working in this area to leverage the work of others.”

As we discovered in other instances, our model of placing early bets on provocative innovations made an impression as well, which in some cases was as important as the initiative we were funding.

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– Robin Reid,
Center for Collaborative
Conservation

“Learning about the Blackstone Ranch Institute inspired me to design the Center for Collaborative Conservation in a different way,” Robin continued. “Your vision, to support initiatives when they are in the risky and very early stages, is exceptionally important. My Center has a permanent platform through an endowment, and I view it as our job to take risks in a similar manner, to promote sustainable action on conservation, local economies, and livelihoods. As a consequence of your example, I am constantly searching for ways that we can push innovation in conservation, by supporting people and initiatives to take their impact on the ground to the next level.”

While we were intrigued by the ecosystems effort, and wanted to be able to catalyze something that would change land management practices in the West, that moment was still elusive. Something was emerging, but it seemed clear that much more work was to be done to provide a convincing model for investment in ranchers’ efforts to market ecosystem services.

By then, there were a number of ranching alliances forming in the West, largely to provide ranchers with a way forward that was independent of the federal government and larger, corporate entities that controlled so much of the nation’s agricultural system. We had come to the conclusion that the

American West was a jigsaw puzzle of largely parochial interests, of people who were committed to their particular lands. Many ranchers had neither the time nor the perspective to consider involvement in large, regional associations, the benefit of which to them might not be initially clear. But our involvement to date had given us a vision of an archipelago of ranches in the West that could collectively change the way land was managed — to everyone’s benefit.

One organization that was working on assembling that archipelago was the Wildlands Network, which was stitching together a Western network of wildlife corridors for various species, including some that were endangered. They were advocates of wolf protection, which often put them at odds with ranchers who saw the wolf as a danger to their cattle. Board member Michael Soulé, a pioneer of conservation biology, was working with Paul Vahldiek, a Texas attorney and owner of the High Lonesome Ranch near Grand Junction, Colorado — a property measuring almost 440 square miles. Paul was interested in conservation and biodiversity and wanted to develop practices that would honor those interests. He and a small group of like-minded ranchers and conservationists were working with Kenyon Fields, a conservation ecologist on contract with the Wildlands Network, to bring together ranchers who might be part of a network that would be receptive to protecting endangered species, among other goals. The group that Kenyon was assembling included some of the largest landowners in the West; due to the very high level of interest on the part of the landowners, they eventually decided to form a 501(c)(3) that would be separate from the Wildlands Network. The members of the founding group owned outright, or controlled grazing leases on, close to 10 million acres.

Richard Pritzlaff of the Biophilia Foundation — who had been part of the group at the first ecosystems gathering in Phoenix, as well as the follow-up workshop at the Center for Collaborative Conservation — had introduced us to Monique DiGiorgio. Monique, who is now executive director of the Chama Peak Land Alliance in northern New Mexico, was at the time a consultant to the alliance and was also working with Kenyon to build the new network of Western ranch owners. She quickly saw the similarity between the vision we had and the vision behind Kenyon’s work. When she introduced us to Kenyon, it was immediately clear that he was organizing the kind of network we were hoping to find. At one of their early, formative

WESTERN LANDOWNERS ALLIANCE REGION



Source: Western Landowners Alliance



meetings, in the late summer of 2012 at Ted Turner's Vermejo Park Ranch on the eastern edge of the New Mexico-Colorado border, we offered a challenge grant on the condition that it be matched with enough money from participating ranchers to fund the nonprofit's launch. A number of them were still cautious and wanted to see how things would develop. The challenge was met by the following morning, and the Western Landowners Alliance (WLA) was officially named. A start-up board of directors was selected, with Kenyon Fields as interim executive director.

The WLA evolved rapidly after that and was the only network made up of ranchers, intended to work *for* ranchers. Its geographical scope of interest is the entirety of grazing country in the West, from the eastern Sierras to the Front Range of the Rockies. Its mission is to develop holistic and ecologically responsible management practices without sacrificing the financial viability of the properties. Since many of them were very large, there would be opportunities to cultivate healthy wetlands and other supportive habitats for a variety of flora and fauna and to promote a degree of biodiversity that was disappearing on many ranches in the West. The alliance was getting a good reception from politicians and a number of prominent funders — including the Walton family and the Moore Foundation — who appreciated WLA's independence from environmental groups and agricultural interests. Given the size of the ranches, the prominence of several of their owners, and those owners' dedication to conservation science (several of them had ongoing scientific research projects on their ranches), WLA would soon have a unique and influential voice in the continuously evolving conversations about land management.

By the summer of 2015, WLA was proactive in a number of areas. It was developing landowner state advocacy plans on water use, forming an energy council for ranchers dealing with oil and gas development, offering support for wildlife conservation and recovery efforts, launching an effort to improve tax structures in ways that better support land stewardship, and hosting various meetings, workshops, and film projects on the science and practice of their work. In doing so, it was becoming an increasingly influential voice with public agencies, policy makers, and partner organizations. WLA has filled an important niche in the emerging progressive networks of Western ranchers. It has added its landscape-scale properties to networks such as the Quivira Coalition, which has so effectively united a growing variety of ranch properties at more modest scale that are practicing sustainable management. Ultimately, they want to be in a position to influence how future buyers of Western lands manage them — thus responding to the initial challenge framed by the Diablo Trust and others we had met earlier.

Other lands in the West are also prime candidates for ecosystem work. In the summer of 2013, we were approached by Ernie Atencio of Land and Culture Consulting in Arroyo Hondo, New Mexico. Ernie was working with the Center for Whole Communities in Vermont on an initiative to convene a historic gathering that would bring together Native land trust leaders with the leadership of the Land Trust Alliance (LTA), the largest confederation of land trusts in the United States. The idea had come out of a study Ernie had done with Peter Forbes, the founder of the Center for Whole Communities. The study suggested that land trusts needed to be better partners to address local land and community issues, including working with Native tribes. Native Americans control a huge amount of land in the greater United States, an estimated 2 billion acres. Few of those lands had ever been part of the larger land trust effort in the United States.

THE INTEGRATION OF THE NATIONAL LAND TRUSTS

LAND AND CULTURE
CONSULTING, AND CENTER
FOR WHOLE COMMUNITIES

The convening was intended to start repairing decades of misunderstanding and mistrust between Native and largely Anglo land trusts, and to lay the groundwork for future collaboration. BRI provided a grant to bring Native American land trust leaders to that historic first gathering in California in early 2014, an event that was made



possible with an initial grant from the Kalliopeia Foundation. The summit was a first step, and it resulted in greater recognition of Native land trusts and their importance in the greater national equation. The process yielded a few initial collaborations that strengthened the fledgling relationship.

Participants at the Summit for Native and Anglo Land Trusts in Pescadero, California, in May 2014. *Courtesy of Ernie Atencio*

A year and a half later, this little-known dimension of the land trust community was featured as the cover article in LTA's *Saving Land Magazine*, along with a commentary from one Native conservationist about recovering from the historical trauma stemming from the loss of land and cultural identity. At the 2015 LTA national conference in Sacramento, local-tribe representatives gave a formal welcome and blessing at the opening, and several Native lands workshops and activities were featured, including a new film about collaboration with tribes.

Ernie, Peter, and members of the Native land trusts are planning additional work to develop consistent standards and practices for conventional land trusts to engage effectively with tribal communities and Native values.