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LandScope America: Bringing Conservation into Focus

by Rob Riordan

From Meriwether Lewis to John Muir and Harriet Chalmers Adams to Barry Lopez, the lure of exploring natural places is an enduring theme of the American experience. What modern-day lover of the American landscape hasn't from time to time imagined walking in their footsteps, gazing longingly at a map of faraway places and wondering what he or she would find there?

Embracing this spirit of exploration, NatureServe and the National Geographic Society are collaborating to develop LandScope America, a new website that promises to empower people to explore natural places from their desktop in exceptionally vivid and useful ways.

Billed as "the conservation guide to America's natural places," LandScope America will be a comprehensive online resource that supports and enables the work of land trusts and the broader land protection community. The goal of this ambitious effort is to inform and inspire collaborative place-based conservation in the U.S. by increasing the pace and effectiveness of land-protection investments in every state. Planned for release in late 2008, this state-of-the-art interactive website will draw together maps, reliable data and compelling information about the environment from many sources and present them to the public in dynamic and accessible formats.

LandScope will *inspire* by combining great writing, photography, audio and video to tell compelling stories about America's living lands and waters and the people whose livelihood depends upon them. Through these stories and its dynamic visual approach, LandScope will engage the broader public and demonstrate how conservation makes our neighborhoods, our communities, and our country a better place.

The project is the vision of Carl W. Knobloch Jr., a Wyoming-based businessman and philanthropist who is the

founder and chair of the West Hill Foundation for Nature. Knobloch emphasizes that the key to convincing the public—and elected officials—about the importance of conservation is to communicate how healthy lands and waters are the foundation of our quality of life and economic prosperity.

"America's natural



resources—things like clean water and fresh air, habitat for wildlife, and productive farmland and ranchland—are just as important to sustaining our economic strength as the things we measure in the GNP," says Knobloch, adding that "I hope this project can create a sense of urgency" around the need for increased national investment in conservation.

Exploring Natural Places

LandScope America aims to meet a crucial need of the conservation community by making reliable scientific data and basic online mapping tools freely available to anyone with a computer. Because half of land trusts are all-volunteer, and another



16 percent have only one or two staff, most have little time or capacity to use Geographic Information Systems (GIS) in their conservation planning. That makes doing strategic conservation more difficult. “With limited time and resources, it is essential for land trusts to pick the most important places to conserve and help guide development to those areas appropriate for our communities,” says Rand Wentworth, president of the Land Trust Alliance, who also serves on the LandScope America project advisory council. “LandScope America will help land trusts make good choices for strategic conservation.”

By displaying multiple sets of priorities in a single view, LandScope will show how these various approaches relate to each other and where they overlap. Land trusts in turn will be able to compare and align their own local priorities with these efforts, thus guiding conservation toward the places that need it most.

The **land ownership and management theme** will include existing parks and protected areas as well as working landscapes, such as farms and ranches. The project team is exploring ways to depict the conservation value of private lands in a way that is consistent with landowner privacy. Another goal is

to collaborate with willing land trusts to show the conservation easements they hold—something that has already been done by state agencies in Montana, for example.

The **threats and impacts theme** will include land cover, analyses of development pressures, and current and emerging threats (habitat loss and fragmentation, invasive species, climate change, energy development, etc.).

The **plants, animals and ecosystems theme** will include information on common species as well as declining and imperiled ones, ecoregions, habitat types, ecosystems and their functions, including the economic value they provide.

The **strategies and actions theme** will include topics such as land protection strategies, conservation planning, conservation policy and finance, inventory and monitoring, and stewardship practices.

The **people and the land theme** will include stories about people and their connections to place, natural and cultural history, economic uses of the land, recreational opportunities, and the importance of the land (and waters) in the state’s history.



View from a ranch protected by the Big Sur Land Trust (CA) / Francesca Dallio

The website will feature a cutting edge online map viewer, requiring no special expertise or GIS software to use, which will let users zoom smoothly from a national view of the landscape to state and local perspectives. Navigating across the American landscape via the map viewer, users will be able to access credible and current data, maps, stories and photos about places of interest to them. Information will be organized into several relevant themes:

The **conservation priorities theme** will include maps and data on local, state and national conservation priorities (including public agency plans, Nature Conservancy ecoregional plans, State Wildlife Action Plans, regional greenprints, and so on).

Evolution in Online Mapping

The idea for LandScope America comes at a time when technological evolution is abetting changes in how people interact online—both with website content, and with each other. Often summed up as “Web 2.0,” this trend focuses on connecting communities of people with shared interests and empowering them to create and contribute content themselves.

Advances in online mapping technology are playing an important part in this trend. Millions are familiar with MapQuest, perhaps the first widely used website that changed how people made use of maps in their everyday life, allowing drivers to ditch traditional road maps in favor of typing in an address

THE NATURESERVE BOOTH at Rally 2007 in Denver introduced LandScope America to the land trust community. This article's author, Rob Riordan, is on right.

and printing a customized map and driving directions.

In the past few years, new technologies and increased computing capacities have allowed online mapping tools to move beyond static, two-dimensional views, incorporate aerial and satellite imagery, and truly take off. As more people become accustomed to these much more powerful tools (of which Google Earth may be the best known), online mapping seems poised to remake a number of activities, just as online shopping has substantially reshaped the retail industry in the past decade.

A parallel trend is that online mapping is becoming ever more democratized, as inventive Internet users add their own layers of content to existing map views. These so-called “mash-



Eve Wolf

ups” show nearly anything you can think of—from the broadly useful (locations of banks, restaurants, low-priced gas stations, or wi-fi hotspots) to the highly targeted or purely personal (routes for favorite runs, birding spots, the best canoe put-ins along a local river). No high-cost software or particular expertise is required to take advantage of these tools—signaling that we have perhaps entered the era of “GIS for dummies.”

LandScope America takes advantage of this evolution in several ways. For the website user, the experience of zooming through the map viewer will be faster and smoother than ever. High-resolution aerial imagery will provide exceptionally detailed views of the landscape. (One highly practical application of this may be its usefulness as a tool for monitoring conservation easements). The website will also become a platform for users to create new, conservation-oriented mashups: how about adding labels and comments to an online map that depicts the most important old growth forests or scenic vistas in your area? Site visitors will also eventually be able to upload and share their own place-based photos, comments and success stories.

What's in it for Land Trusts?

With numerous conservation-oriented websites already available, several of which provide downloadable GIS data layers for specific regions or states, why should land trusts take special notice of LandScope America? LandScope will be the first conservation website to take full advantage of emerging web-based technologies to present many important datasets in a single location. The site will also assemble these resources within an exciting multi-media setting that integrates maps, photos, stories, audio and video—all centered around exploring and experiencing America's natural places.

The involvement of the Land Trust Alliance has been critical to the planning and design of LandScope America. NatureServe and the Alliance are working to ensure that the website meets the needs of land trusts and complements other resources and services offered by the Alliance. For example, LandScope can be a valuable tool for meeting the objective of helping local land trusts do strategic conservation planning, as outlined in the Alliance's updated Standards and Practices Curriculum. By providing access to relevant data and analyses, aerial imagery, maps, and simple GIS tools, LandScope can help land trusts perform many of the tasks needed to take a strategic approach to their work.

For all its promise and ambitious scope, LandScope America faces difficult challenges. Some are purely technical, while others relate to the availability of data and to user participation. In many places, key parcel-level data related to land ownership is simply not yet available in digital form. Elsewhere, some land

How Land Trusts Can Use the LandScope America Website

Through a nationwide survey, one-on-one conversations, discussions with Land Trust Alliance staff, and workshops at Alliance conferences and at Rally, NatureServe has reached out to land trusts to learn what resources and tools you need most. Based on what we've heard, we're building website features that empower you to do things such as:

- **Learn about, view and understand conservation priorities** in your area and display your projects in the context of regional or national conservation priorities;
- **View detailed current aerial photography** of your service area, and use simple online mapping tools to create, share and print maps of your existing or planned conservation projects;
- **Find baseline data** and potentially create a baseline documentation map useful for planning and for complying with IRS requirements;
- **Create and save customized map views** of interest to you, link to them, and share them via e-mail with partners, constituents and potential funders;
- **Create an organizational profile** that depicts your land trust's mission, goals, priorities and land holdings;
- **Establish and connect with online communities** of people who care about the land;
- **Expand your constituencies** and share your organization's conservation vision with policymakers, partners and local supporters.

trusts have felt that publicizing local conservation priorities may risk the unintended effect of making highly valued land more difficult to acquire. Then there is the simple reality that over-worked land trust staff members and volunteers might not find the time, energy and attention to take advantage of a new tool.

These barriers aside, initial reactions from the land trust

With the support of land trusts and other partners, LandScope America hopes to draw new and significant public attention to the urgency and importance of land conservation. By bringing conservation into better focus, the effort will serve the entire land protection community while enriching public appreciation for the value of our natural lands and open spaces.




National Geographic Image Collection / Phil Schermeister

community have been overwhelmingly positive. Every land trust, large or small, will have the opportunity to tell its own stories on the website about special places it has saved. The opportunity to reach a wide audience, be associated with the National Geographic name, and gain valuable recognition will, it is hoped, provide strong incentives to participate.

Project Status

With website design and development still underway, the full launch of the LandScope America site is anticipated for late 2008. For the past year, NatureServe and National Geographic have been working closely with several key partner organizations, including state natural heritage programs in five pilot states (Florida, Virginia, Colorado, Washington and Maine), the Land Trust Alliance, ESRI, The Nature Conservancy and others.

In the meantime, the LandScope America “preview” website at www.landscape.org offers considerable detail about planned features and gives a taste of what’s to come. Unveiled at Rally 2007, this site generated buzz around the project among curious land trusts. NatureServe is now reaching out to engage land trusts across the country that would like to become “early adopters” and contribute stories about their own projects and accomplishments (see box at right).

Sums up Rand Wentworth, “This will be a great resource for the nation’s 1,700 land trusts, matching easy-to-use technology with the inspired hearts of thousands of community volunteers, working together to save lands they love.” 

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INTERESTED IN PARTICIPATING?

If you would like to contribute content and tell your land trust’s story on LandScope America, please contact Kyle Copas, senior online editor, at kyle_copas@natureserve.org. You can also send comments or sign up to receive periodic project updates via the website at www.landscape.org. Finally, look for NatureServe sessions and demonstrations of the LandScope America website at the Alliance’s regional conferences this year.