



CENTER
for
**LARGE LANDSCAPE
CONSERVATION**

2022 Annual Report



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Year-End Reflections

We Must Build the Deck for Conservation

The global conservation community has focused on the year 2030 as the target to bend the curve to save nature on the planet and, in the process, save humanity. A sense of urgency is at hand as the world grapples with dual climate and biodiversity crises. Often, I hear that this is an “all hands on deck” moment. My reaction to such sentiment is “What deck?”



The current deck is fragmented and sorely divided. We must **Build the Deck** so people can work together across cultures, across institutions, and across geographies. This is the heart of the mission of the Center for Large Landscape Conservation. We connect people so we can connect landscapes and repair the Earth—a concept known in the scientific realm as ecological connectivity conservation.

During this past year we’ve worked to *Build the Deck* in many ways, including:

We created a global measure to assess connectivity between parks and protected areas. Only 10% of the world’s parks are connected, impacting their ability to conserve nature. We seek to double that figure.

We co-led a connectivity assessment of 115 million acres of globally important sage steppe habitat in the American West.

With the Appalachian Trail Conservancy, we introduced a new 100-year conservation vision for the 2,000-mile-long Appalachian Trail and its surrounding landscapes.

We supported and advised the Biden administration’s efforts to restore, connect, and conserve 30 percent of U.S. lands and waters by 2030.

We welcomed the U.S. Biosphere Network—a joint effort with the National Park Service and the 28 biosphere regions in the U.S. to enhance landscape-scale conservation across the nation.

As we near the end of 2022, we thank our supporters like you, and assure you that we are making a difference. Join us in building the deck and, together, reconnecting our fragmented natural world.

Sincerely,

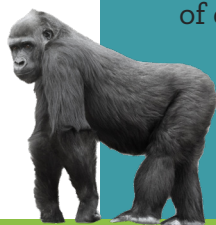
A handwritten signature in black ink, appearing to read "Gary Tabor".

Gary Tabor, President

2022 At a Glance



Co-authored more than
**20 publications
and papers**
related to connectivity
conservation.



Assessed impacts of
roads, rails & power
lines on **3 species**
of endangered primates
in **3 critical
landscapes** in
Asia and Africa.

3

5

Implemented
connectivity
planning efforts
to protect wildlife
corridors on **5
continents.**



47

Identified, along
with experts from
the PACHA region of
South America, **47
protected and
conserved
areas** that need
to stay connected for
jaguar movement.



Published guidance
to help more than
**17,000 marine
protected
areas** around
the world prioritize
connectivity
and underwater
corridors.

12

Conducted research
across **12 Asian
and African
countries**
to identify
opportunities to
protect biodiversity
from linear
infrastructure.



Worked with partners
to propose solutions to
connect and conserve
the Appalachian
Landscape, spanning
2,000 miles
from Alabama to
Canada.

3

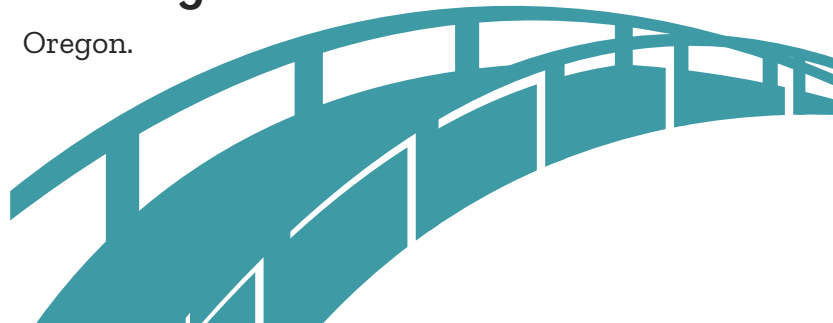
Provided technical
support to **3 Tribal
Nations** for
conservation projects
and land-use planning
for a changing climate.

8

Shared expertise
during the conceptual
design process
for **8 wildlife
crossings** in
Oregon.

7

Worked with
7 states on
connectivity policies
and projects.



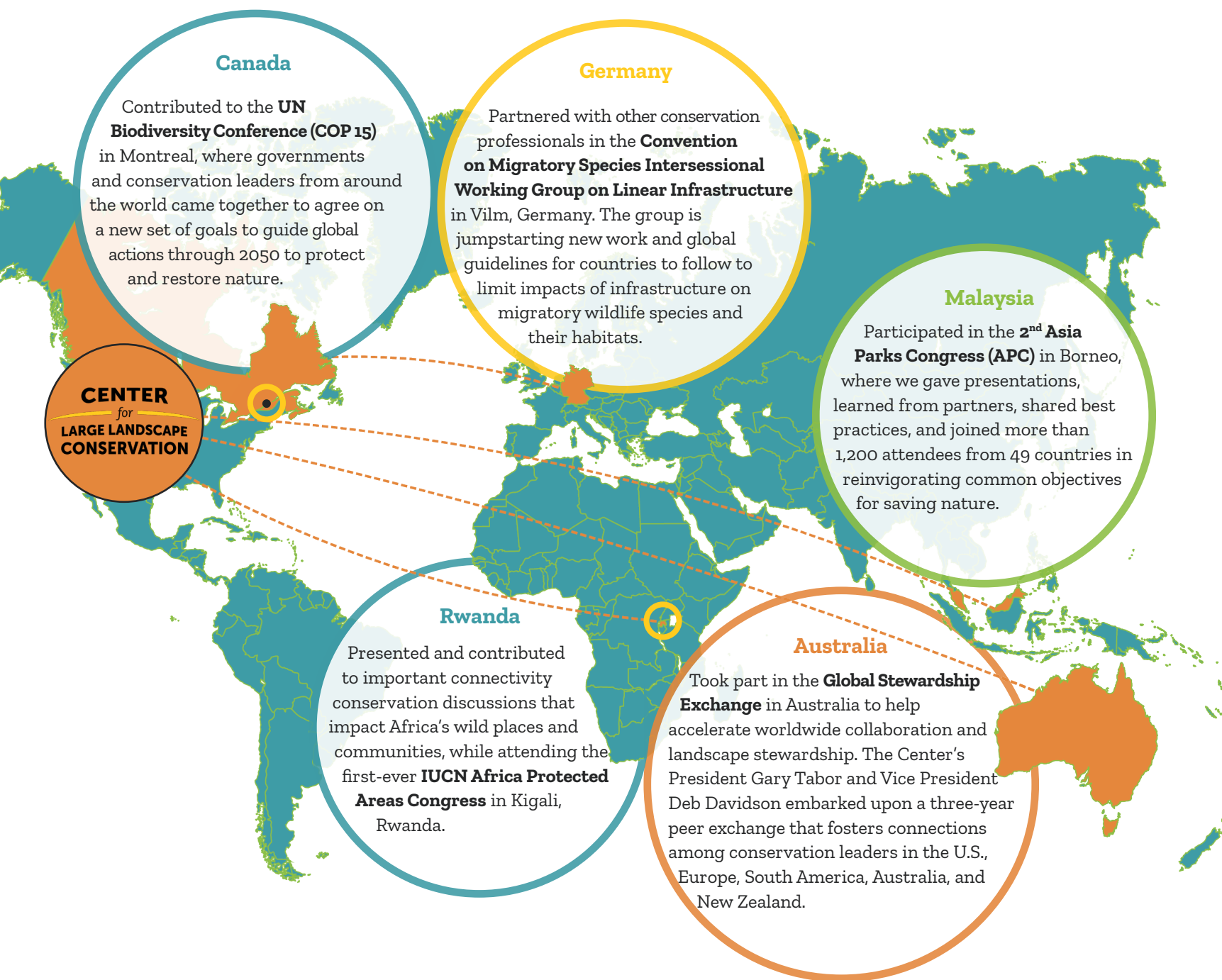
International Connectivity Program

CONNECTING PEOPLE

Working With Partners Around the World

The Center is focused on making connections every day—not only by connecting places, but also by connecting people. Over the past year, we traveled worldwide to meet in person with partners, promote connectivity conservation best practices, and provide international leadership on key issues. Through sharing expertise and ideas, we're combatting habitat fragmentation that inhibits wildlife movement and the flow of natural processes.

In 2022, Center staff participated in important gatherings across the globe:



Saving Asian Elephants

It is estimated that fewer than 52,000 Asian elephants remain in the wild and they are increasingly threatened by roads, rails, and canals. The Center coordinates the Asian Elephant Transport Working Group, an international group of more than 25 elephant biologists and infrastructure ecologists, to address threats to this endangered species. The group creates reports and guidelines, hosts webinars, and provides technical support for professionals involved in elephant conservation and infrastructure development in the 13 countries where Asian elephants still live in the wild.

Protecting Wildlife from Impacts of Linear Infrastructure Development in Asia and Africa

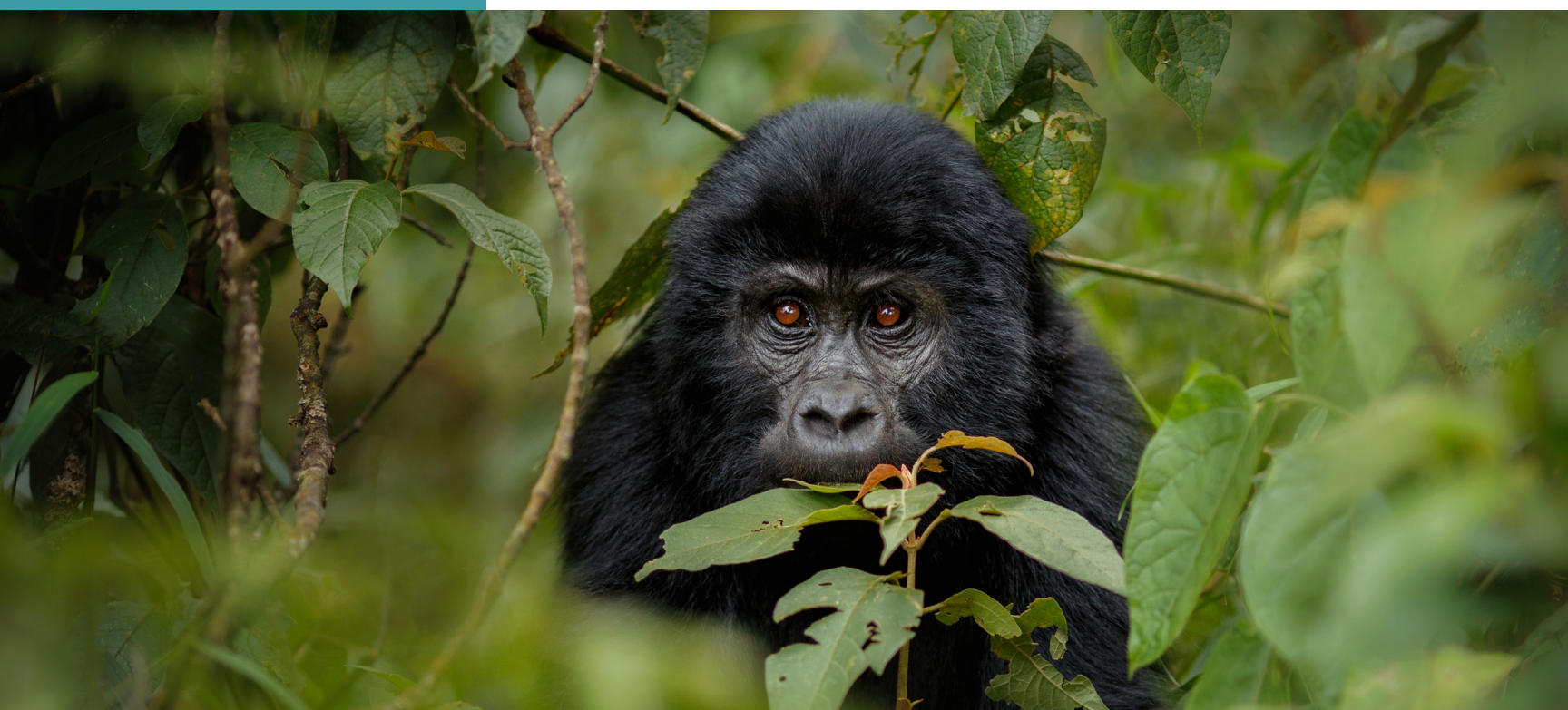
Linear infrastructure—such as roads, rails, power lines, and canals—can cause wildlife mortality from collisions, electrocutions, and numerous threats that result from habitat loss and fragmentation.

Launch of New Ape Protection Project

The Center is executing a one-year pilot project to **Assess, Protect and Evaluate** the impacts of roads, railways, and power lines on three endangered ape species. The A.P.E. Project aims to appraise threats and assemble best practices to reduce harm from existing and future linear infrastructure on three species and imperiled forests in their ranges: orangutans of Eastern Sabah, Borneo; Hoolock gibbons of Northern India; and gorillas in the Virunga landscape in Africa.

Assessing Impacts of China's Belt and Road Initiative

China's Belt and Road Initiative (BRI), with its goal of developing two new trade routes connecting China with the rest of the world, is one of the largest infrastructure initiatives ever undertaken. The Center conducted 12 country assessments of the potential impacts on Asian and African biodiversity from the BRI. The resulting reports provide actionable information for those directly involved in linear infrastructure building, funding, research, and policy to safeguard wildlife populations from the harmful effects of these developments.



International Connectivity Program

Science and Research to Connect Wildlife Habitat

Center Promotes Importance of Marine Connectivity

Under the leadership of the Center, the Marine Connectivity Working Group published the report *Connectivity Conservation 'Rules of Thumb' for Marine Protected Areas*. It provides guidance for system-based connectivity conservation approaches that can be applied to the more than 29 million square kilometers of Marine Protected Areas (MPAs) worldwide. Over the past year, the working group presented the Rules of Thumb at several international meetings, emphasizing that urgent action is necessary and tools are available to effectively conserve marine connectivity. The *Rules of Thumb* informed the UN Ocean Conference as it considered and ultimately adopted the 2022 Lisbon Declaration, which highlights “cooperative, ecologically representative, and well-connected” MPAs as essential for science-based ocean conservation. This is a major step forward for marine connectivity policy, with more than 150 governments collectively agreeing to prioritize connectivity in marine environments.

Innovation in Measuring Connectivity Applied to a Jaguar Landscape

One of the biggest challenges of connectivity conservation is measuring the degree to which habitat areas are connected. However, a new metric called ProNet—developed by David Theobald, a science advisor to the Center—is overcoming this challenge. Recently, ProNet was tested out in jaguar habitat in South America’s Pantanal-Chaco (PACHA) region, where climate and land-use changes threaten the area’s well-known biodiversity. Through a partnership with WWF called Wildlife Connect, Center scientists modeled optimal jaguar movement corridors among protected and conserved areas to inform efforts for keeping PACHA connected. The analysis focused on this species because they are wide-ranging and sensitive to human-caused landscape changes, suggesting that conserving connectivity for jaguars would also protect the movement of many other species. ProNet will be applied to monitor changes in connectivity in the PACHA landscape over time.

Preserving Ocean Corridors Worldwide

Corridors are as important for marine life like whales, turtles, fish, and seabirds, as they are for wildlife on land. Many marine species depend on linkages between ocean areas for daily movement, seasonal migration, and completing their life cycles. Until recently, collaborative research and guidance on marine ecological connectivity had been lacking. But now the Center is operating the Marine Connectivity Working Group with 90+ volunteer experts from six continents encouraging more consistent marine connectivity science, policies, programs, and practices worldwide.



United States Program

CONNECTING LANDSCAPES

Corridors & Crossings: Creating Safe Passage for People and Wildlife

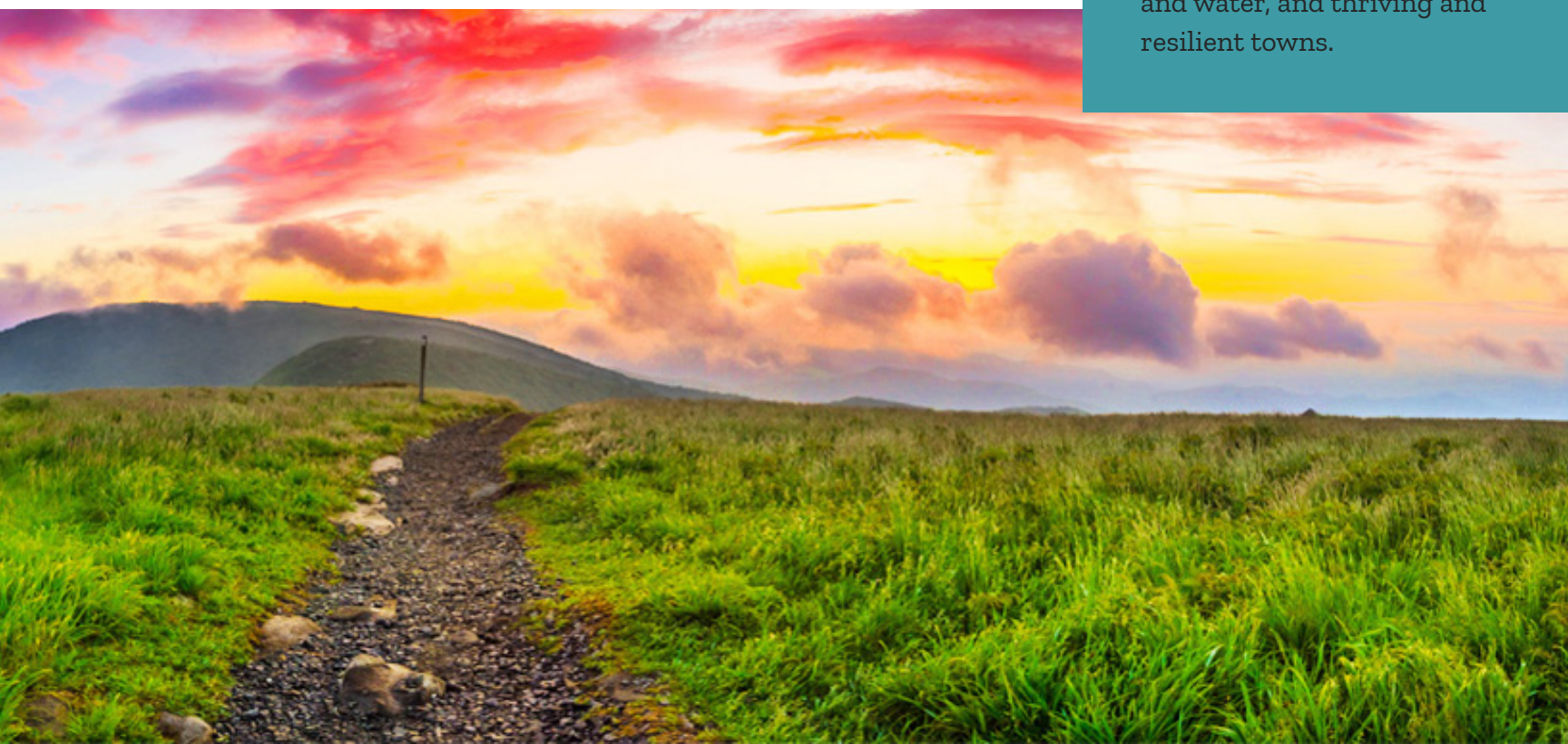
Animals need to move. By doing so, they shape and maintain the landscapes in which they live by transporting seeds, pollinating plants, and controlling pests. They also help shape the cultural identities of the people who live there. The Center uses science to help planners across the U.S. identify how and where animals move across the landscape, in what ways people help or hinder that movement, and solutions to protect vital ecological linkages in the face of increasing development and a changing climate.

Communicating Best Practices for Preventing Animal-Vehicle Collisions

The Center's road ecologists partnered with Montana State University's Western Transportation Institute to develop a *Best Practices Manual to Reduce Animal-Vehicle Collisions and Provide Habitat Connectivity for Wildlife*. They analyzed more than 100 research articles and reports to glean the most effective ways to prevent collisions on roads with large mammal species—including livestock—as well as small mammals, reptiles, and amphibians. This manual was part of a larger Wildlife-Vehicle Collision Reduction and Habitat Connectivity Transportation Project, with multiple U.S. states and Canadian agencies contributing funding. The project evaluates new technologies and improvements to traditional measures, last compiled nationally in 2011, to help state and federal agencies improve road safety.

Designing a Climate Corridor for a Healthy Future

The Center led the development of a new report, in collaboration with the Appalachian Trail Conservancy and the members of the Appalachian Trail Landscape Partnership, that proposes solutions for conserving the globally significant Appalachian landscape, which is increasingly under threat from climate change impacts. The vision of an "Appalachian Climate Corridor" laid out in the report would result in healthier forests and wildlife habitats, more diverse plant and animal communities, cleaner air and water, and thriving and resilient towns.



Maintaining Wildlife Movement Along Southwest Montana’s “Gateway to Yellowstone”

Extraordinary Biodiversity

Yellowstone National Park’s 2.2 million acres provide critical habitat for the largest concentration of wildlife in the lower 48 states. But this habitat doesn’t stop at the park borders. Herds of elk, deer and pronghorn move in and out of the park to access seasonal ranges, and predators like wolves and grizzly bears travel great distances. These species, along with bighorn sheep, wolverines, and others, move throughout the Greater Yellowstone Ecosystem—a richly biodiverse area composed of a patchwork of public and private lands, which are increasingly affected by growing traffic on roads and new subdivisions.

State-of-the-Art Assessment

The US-191/MT-64 Wildlife & Transportation Assessment is improving knowledge of wildlife movement and road safety along roads that connect Yellowstone National Park to the growing Montana population centers of Bozeman and Big Sky. A joint project of the Center for Large Landscape Conservation and Montana State University’s Western Transportation Institute, the Assessment is set to provide area communities and decision-makers with robust information on how and where land and aquatic species move, and opportunities to improve both road safety and habitat connectivity. Fortunately, properly sited and designed wildlife accommodation options—such as crossing structures over or under roads—can offer an 80% or greater reduction in wildlife-vehicle collisions, reconnect habitats, and result in a positive return on infrastructure investment.

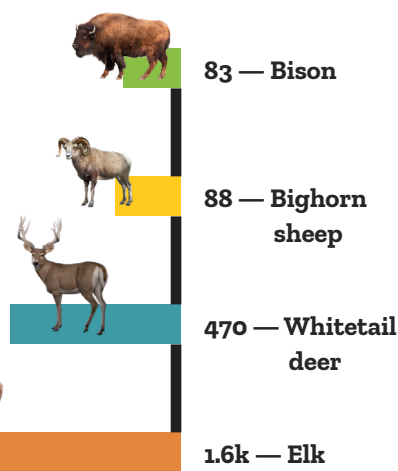
Collaborative Effort

Prepared with a landscape approach, the Assessment brings together data and disciplines—ranging from ecology to engineering—with local knowledge to devise solutions that convey benefits for both people and wildlife. Since the Assessment began in 2021, it has provided new insight into the impact of roads that unite local communities yet divide the landscape. It uses spatial analysis to create map overlays of wildlife-vehicle collisions, wildlife movement, and habitat data. It also incorporates live animal sightings and roadkill information gathered by citizen scientists. Further, because the road often crosses over the Gallatin River, world-renowned for its trout fishery, a Center team surveyed each of the culverts along study area roads to assess barriers to fish passage.

Citizen Scientists Contribute Data

Staff from the Center have connected with area businesses, homeowners’ associations, and nonprofit partners to engage staff and residents in use of the ROaDS Tool, which uses a mobile app to record wildlife sightings, and to provide local insight through an interactive map. Area residents logged more than 2,225 sightings of live and road-killed animals and provided 100 additional comments.

Animal Sightings Logged by Citizen Scientists

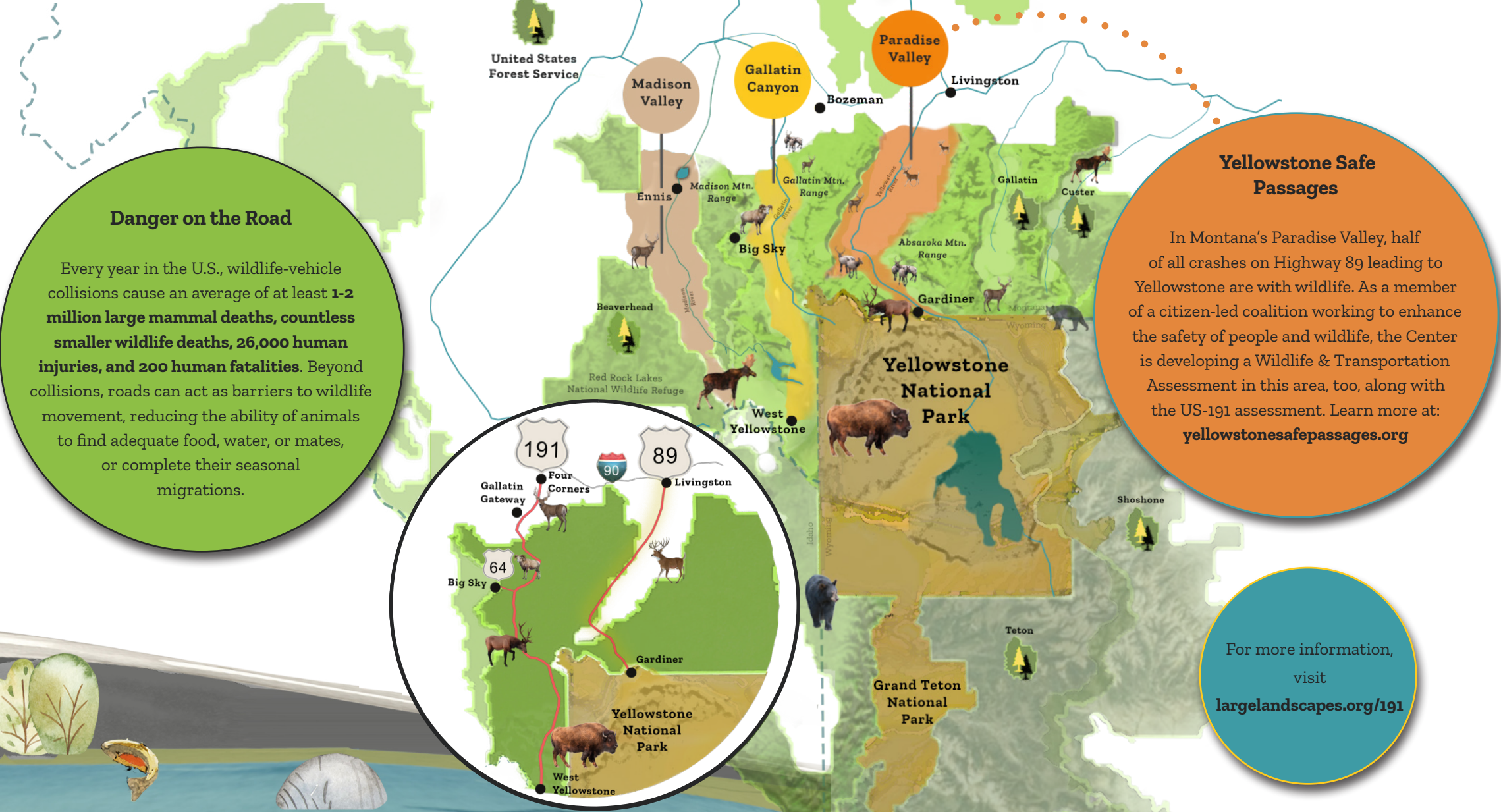


Next Steps

The final Assessment report identifies appropriate locations for prospective measures to reduce conflicts between transportation and wildlife, along with a cost-benefit analysis of various options.

Thank you to the Assessment’s generous supporters:

Big Sky Resort Area District, Moonlight Community Foundation, Yellowstone Club Community Foundation, and the Volgenau Foundation.



Reconnecting Habitat and Supporting Conservation at the Landscape Scale

Planning for Land-Use Management with the Blackfeet Nation

In collaboration with nonprofit partners, the Center continues to support tribally led conservation planning by the Blackfeet Nation. The Blackfeet Tribe finalized an Agricultural Resource Management Plan with consultation from the Center and adopted it in 2022. The Center also worked with the Blackfeet Nation to secure a National Fish and Wildlife Foundation Big Game grant to improve habitat connectivity and an "America the Beautiful Challenge" grant for conservation planning in the Ninnaastakoo (Chief Mountain) landscape near Glacier National Park. These activities will help build Tribal capacity for sustainable resource management and improve habitat connectivity for diverse native species, from elk to cutthroat trout.

Slowing the Loss of Sagebrush Habitat

A new report from the U.S. Fish & Wildlife Service and U.S. Geological Survey, and co-authored by staff from the Center, shows that 1.3 million acres of sagebrush habitat are being lost annually in the western U.S. New mapping tools in this report can make conservation efforts more effective and efficient by prioritizing the most important areas to restore sagebrush ecosystems.



United States Policy

The Center provides policy advice and expertise to decision-makers and works with stakeholders to collaboratively develop, advance, and implement policies that protect wildlife movement, reconnect habitat, and facilitate conservation at the landscape scale.

Historic Federal Policy Creates New Opportunities

The 2021 Bipartisan Infrastructure Law includes a new Wildlife Crossings Pilot Program, the first-ever dedicated federal funding for wildlife crossings. The Center and our partners developed the concept of this grant program, which aims to reduce wildlife-vehicle collisions and improve habitat connectivity. The federal legislation inspired seven states across the country to pass their own wildlife crossings bills in 2022. It has also galvanized partnerships to collaboratively identify habitat connectivity priorities and design projects to allow wildlife to safely cross roads. We expect to see a robust slate of proposals when the first round of competitive funding is announced in the coming months.

Center Offers Wildlife Crossing Resources for States and Partners

To assist eligible applicants to understand these new federal funding and policy opportunities, the Center has created several free resources, such as *A Toolkit for Developing Effective Projects Under the Federal Wildlife Crossings Pilot Program*. The Center also collaborated with partner organizations to co-host the recorded webinar series “Demystifying Wildlife Crossing Infrastructure Projects.” Learn more at largelandscapes.org/BIL

Collaboratively Charting the Future for Large Landscape Conservation

The Center has co-convened a series of events with fellow members of the Network for Landscape Conservation and state, tribal, and federal government agencies on the future of large landscape conservation. These events, each attended by as many as 400 participants, included briefings for policymakers, as well as dialogues with diverse sets of stakeholders in the U.S., Canada, and even Australia. The Center is working with partners to translate the key concepts that emerged from these convenings into innovative policy proposals for investing in the collaborative capacity of landscape and seascape partnerships across the country.

Influential New Legislation in Colorado

The Center is supporting Colorado to become a leader in habitat connectivity. In 2022, we worked with a coalition to develop and advance the Safe Crossings for Colorado Wildlife and Motorists Act, which establishes the state’s first dedicated funding for wildlife crossings (\$5 million). Center staff helped write the bill, testified in support of it before the state legislature, briefed the Governor’s office and agency staff on related federal funding opportunities, and co-created a public fact sheet signed by stakeholders spanning the political spectrum.

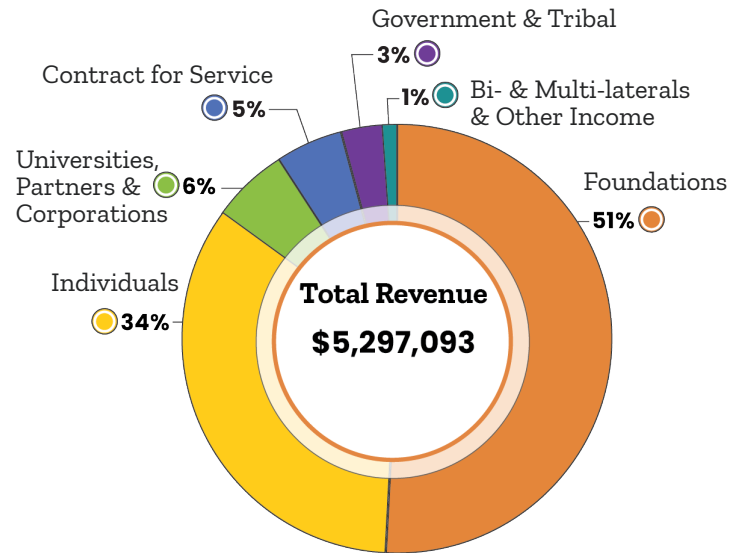


Financial Statements

Statement of Activities for July 1, 2021 — June 30, 2022

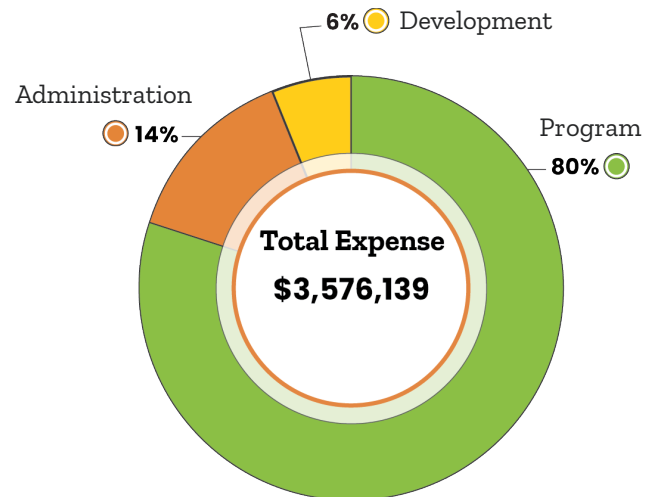
Revenue

Foundations	\$2,705,135
Individuals	1,803,228
Universities, Partners & Corporations	290,169
Contract for Service	272,485
Government & Tribal	167,999
Bi- & Multi-laterals	62,084
Investment Return/Other	(4,007)
Total Fiscal Year Revenue	\$5,297,093



Expenses

Program	\$2,846,574
Administration	501,685
Development	227,880
Total Fiscal Year Expenses	\$3,576,139
Change in Net Assets	\$1,720,954



Leave a Lasting Legacy for Planet Earth

To include the Center for Large Landscape Conservation in your estate or financial plans, or to explore other planned giving options, contact Deb Kmon Davidson at deb@largelandscapes.org



Financial Position as of June 30, 2022

The Center for Large Landscape Conservation is a 501(c)(3) organization supported by a broad network of foundations, government agencies, universities, and individuals. The Center finished the year with a very strong financial performance that resulted in an operating surplus of \$1.7 million. Approximately 35% of the surplus was tied to multi-year funding for restricted project work in the future, while 65% contributed to our unrestricted net asset pool. Most of these unrestricted funds have been used as seed capital for a Board Designated Cash Reserve of \$998,030, the equivalent to three months of operating expenses, created to invest in the Center's long-term financial sustainability.

The Center's financial position has continued to strengthen over the last year with an increase of 48% in Total Assets and only a 1% increase in Total Liabilities. Currently just over half of the Center's Total Net Assets are restricted for specific project activities that will take place over the next three years, with many of these flowing through the organizations that we fiscally sponsor.

Thank You!

We would like to extend our heartfelt thanks to our loyal donors who make all our work possible. To learn more about how your contributions are having an impact, visit us at largelandscapes.org

Assets

Current Assets

Cash & Cash Equivalents	\$1,398,048
Low-risk Investments	2,813,862
Grants & Other Receivables	1,054,482
Other Current Assets	6,686
Fixed Assets	9,610

Total Assets	\$5,282,688
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Liabilities & Equity

Current Liabilities

Accounts Payable	\$62,486
Credit Cards Payable	28,621
Payroll Liabilities	24,030
Accrued Vacation	88,453

Total Current Liabilities	\$203,590
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Net Assets

Without Donor Restrictions	\$1,381,006
Board Designated Reserve	998,030
With Donor Restrictions	2,700,062

Total Net Assets	\$5,079,098
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Total Liabilities & Equity	\$5,282,688
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Fiscally Sponsored Projects

The Center for Large Landscape Conservation fiscally sponsors three networks, providing them with strategic counsel, organizational infrastructure, and management to allow the networks to focus on carrying out their program goals. The Center was thrilled to welcome the United States Biosphere Network as a new fiscally sponsored network in 2022.



**United States
Biosphere Network**

The U.S. Biosphere Network (USBN) is a national community consisting of the 28 UNESCO designated biosphere regions in the U.S. and their partner organizations. USBN fosters local, national, and international connections among biosphere regions to facilitate their sharing of best practices and to support their work toward connecting people and nature.

The Center is excited to host USBN as they support biosphere regions' community-led, local conservation initiatives. We look forward to working with USBN to grow the 28 U.S. biosphere regions' effectiveness, reach, and connection to their global partners.

Learn more at biospherenetwork.org

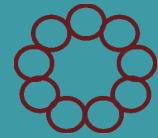


**Network for Landscape
CONSERVATION**

The Network for Landscape Conservation (NLC) stitches together leaders in landscape conservation across a variety of geographies. It is a nationwide community of nearly 300 organizational partners and 6,000 practitioners that works together to provide a common voice and vision for landscape conservation in the U.S. at the state, tribal and national level. NLC seeks to build new landscape conservation practitioners through the Landscape Conservation Catalyst Fund. The Fund made 13 new grant awards in 2022, bringing the overall total grants made during the past 4 years to 55 landscape partnerships across the country.

During the last year, NLC has advised Biden administration officials on collaborative landscape conservation networks, connectivity policies, and investments and grantmaking under the America the Beautiful Initiative.

Learn more at landscapeconservation.org



The **Roundtable on the Crown of the Continent** is a diverse, transboundary collaborative of leaders from Tribes, First Nations, government agencies, nonprofit organizations, and private interests. They work together to address climate change impacts and protect culture, community, and conservation throughout the important Crown Landscape that straddles the U.S. and Canada. In 2022, the Roundtable hosted its 11th annual symposium online, featuring the topic Co-Management & Conservation in the Crown: The Indigenous Experience. **Learn more at crownroundtable.net**



2022 Institutional Donors

The Center for Large Landscape Conservation would like to thank the following institutional donors and partners for their generosity and steadfast commitment to helping connect and conserve nature. Their support is greatly appreciated and makes an invaluable impact on biodiversity and a healthy planet.

Anonymous	National Parks Conservation Association
Appalachian Trail Conservancy	National Science Foundation
Arcus Foundation	The Nature Conservancy
The Arthur M. Blank Family Foundation	The Neall Family Charitable Foundation
The Baltoro Trust	The New-Land Foundation
Big Sky Resort Area District	Pallas's Cat International Conservation Alliance
Bunting Family Foundation	Patagonia
California Conservation Innovations, Resource Legacy Fund	Perez, APC (LISA/USAID Project)
Clif Family Foundation	Re:wild
Critical Ecosystems Partnership Fund	U.S. Endowment for Forestry and Communities
Doris Duke Charitable Foundation	U.S. Fish and Wildlife Service
Glassybaby Foundation	The Volgenau Foundation
Hewlett Foundation	Weeden Foundation
Highstead Foundation	Wilburforce Foundation
Klamath Siskiyou Wildlands Center	Wildlands Network
Liz Claiborne & Art Ortenberg Foundation	Woodcock Foundation
Maki Foundation	World Wildlife Fund Germany
Mighty Arrow Family Foundation	World Wildlife Fund International
Moonlight Community Foundation	World Wildlife Fund U.S. (ALIGN/USAID Project)
National Fish and Wildlife Foundation	Yellowstone Club Community Foundation



Our Staff

Gary Tabor, *President*

Kathy Perkes, *Chief Operations Officer*

Deb Kmon Davidson, *Vice President, Partnerships & Advancement*

Katie Deuel, *Senior Conservation Director*

Rob Ament, *Senior Conservationist*

Emily Blanchard, *Policy & Planning Specialist*

Abigail Breuer, *Senior Program Officer*

Melissa Butynski, *Conservation Program Coordinator*

Mary Collins, *International Program Conservation Associate*

Tyler Creech, *Spatial Ecologist*

Elizabeth Fairbank, *Road Ecologist*

Jamie Faselt, *Connectivity Science Coordinator*

Hannah Feltis, *Operations Coordinator*

Braden Hance, *Conservation Associate*

Kendra Hoff, *Conservation Program Coordinator*

Annika Keeley, *Senior Conservation Scientist*

Aaron Laur, *International Connectivity Program Manager*

Kat Lyons, *Conservation Project Coordinator*

Sarah Music, *Development Manager*

Gabriel Oppler, *Conservation Associate*

Megan Parker, *Senior Project Director*

Kylie Paul, *Road Ecologist*

Kristeen Penrod, *Connectivity Conservation Scientist*

Jonathan Peterson, *NLC Program Manager*

Katie Pidgeon, *Operations & Finance Manager*

Katherine Somerby, *Communications & Development Coordinator*

Emma Spence, *Wildlife Corridor Field & Lab Manager*

Terry Tatsey, *Senior Advisor*

Rebecca Watters, *Conservation Outreach Coordinator*

Anna Wearn, *Director of Government Affairs*

Christine Gianas Weinheimer, *Communications Manager*

Zachary Wurtzebach, *Corridors & Crossings Program Director*

Board of Directors

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Mary C. Pearl, *Vice Chairman, Macaulay Honors College (retired)*

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Vicky Collins, *Secretary, Land Preservation Trust (retired)*

Michael Hankin, *Brown Advisory*

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Mamie A. Parker, *Ma Parker and Associates*

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The Center for Large Landscape Conservation protects life on Earth by promoting ecological connectivity to support healthy wildlife habitats and safeguard nature's resilience to climate change.





CENTER
for
**LARGE LANDSCAPE
CONSERVATION**

Conserving Life on Earth by Reconnecting Our Natural World

largelandscapes.org



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