



Wild Utah Project

2016 Annual Report

Celebrating 20 Years of Science in Service of Wildlife and Wildlands



Map Legend

-  Heart of the West Wildlands Network Design by Wild Utah Project
-  Western Wildway Network





Science in Service of Wildlife and Wildlands

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Learn More at our new web site wildutahproject.org

Wild Utah Project

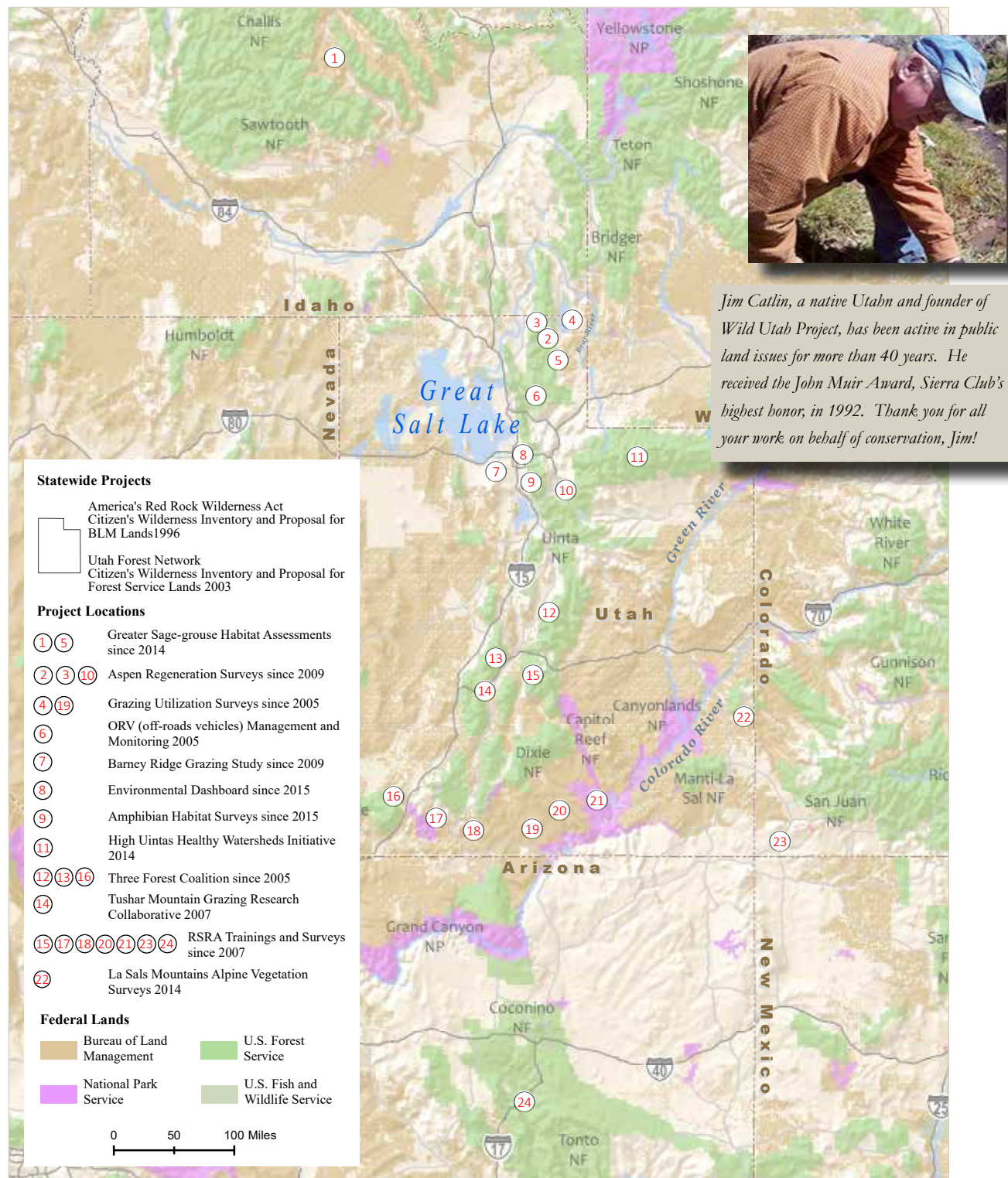
The mission of Wild Utah Project is to provide science-based strategies for wildlife and land conservation.

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Photo this page: Fall colors Utah's Wasatch Range © Howie Garber. Photos front cover, clockwise from upper left: Lynx © Howie Garber; map of the 6,000-mile long Western Wildway — the world's most extensive network of protected, connected lands, featuring Wild Utah Project's Heart of the West Wildlands Network Design for NE Utah, GIS by Emanuel Vásquez, Wild Utah Project; Wild Utah Project founder Jim Catlin checks grazing exclosure in Rich County grazing allotment; Rocky Mountain bighorn sheep © Howie Garber; Mancos River Restoration Stakeholder Group at Rapid Stream Riparian Assessment training. Front/back background map: Multi-directional hillshade by ESRI.

20 Years of Science in Service of Wildlife and Wildlands



Wild Utah Project has worked primarily in Utah, but also in adjoining states, for the past 20 years. Our ecological and GIS studies have the potential to inform best available science to benefit wildlife and land management throughout the Intermountain West. GIS by Emmanuel Vásquez, Wild Utah Project.

Celebrating 20 Years

by Allison Jones, Executive Director, Wild Utah Project

As I reflect on Wild Utah Project's 20th anniversary, I marvel at how far we've come as an organization serving the conservation community in Utah. It started with our origins in the Lamb's Grill restaurant basement on Main Street, with a team of other Utah conservation groups, including Save Our Canyons and Utah Environmental Congress, as well as the origins of HEAL Utah, Western Resource Advocates, and Western Wildlife Conservancy — all of which had different names back then!



"Seeing Wild Utah Project's evolution — from citizen roadless inventories, through holding agencies' feet to the fire, to landscape-level ecological studies and our blossoming Citizen Science program — makes me proud to be both a conservation biologist and advocate for using science to make better wildlife and land management decisions."

Allison Jones, Executive Director, Wild Utah Project (2013-present) and Conservation Biologist, Wild Utah Project (1999-2013)

I joined the staff in 1999, enlarging the two-person staff by 50%, just 3 years after Jim Catlin founded Wild Utah Project in 1996 with a single grant and one assistant. Using some of the early applications of a Geographic Information Systems, we cut our conservation teeth on organizing, leading, and digitizing the Utah Wilderness Coalition's Citizens Roadless Re-inventory of BLM Lands, which resulted in America's Red Rock Wilderness Bill in Congress, first introduced by the late Rep. Wayne Owens.

As Wild Utah Project's first conservation biologist, I helped kick off and grow the Heart of the West Coalition which completed the Heart of the West Wildlands Network Design in 2003, and then the Heart of the West Conservation Plan in 2004. These documents offered a science-based

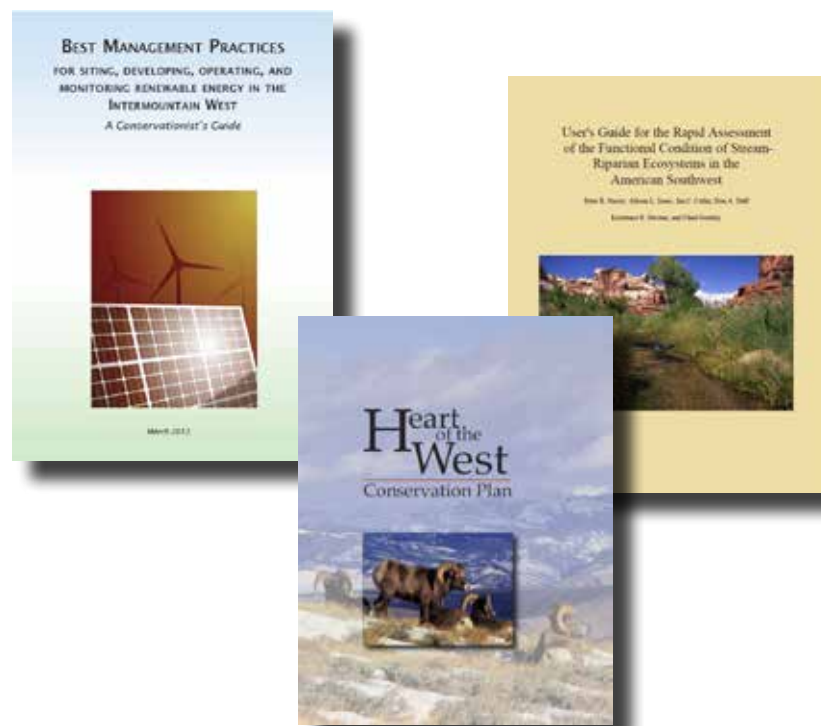
approach for strategic land protection, by identifying wild core areas and wildlife migratory linkages. Today, we are working with land managers and other partners to implement this vision across the Middle Rockies region of Wyoming, Northern Utah, and North-west Colorado.

And so began our role as the primary Utah scientific support service for our non-profit conservation partners. Over the last 20 years, whatever has happened at the intersection of science and public land management in Utah — whether field work, new public policy, research, hearings, or negotiations — Wild Utah Project has provided science and GIS expertise, not usually conspicuous, but often indispensable. Wild Utah Project has performed an often quiet, but essential role of brain trust, skill center, knowledge base, facilitator, and catalyst for the work of many other individuals and conservation groups in Utah.

This critical service for our non-profit partners continues and is going strong. We are committed to our 'outside-in' strategy: serving our non-profit and agency partners by bringing the hard facts and science to wildlife and land management by joining advisory groups, submitting conservation alternatives for land use plan revisions, and bringing the scientific basis to our partners' legal efforts.

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As we start down the path of our next 20 years, we increasingly seek to inform public land and wildlife management through the ‘inside-out’ approach. This means that we seek to engage inside groups who are in a position to make on-the-ground decisions about resource management. Ongoing examples of this approach are discussed in this annual report, including Wild Utah Project’s role in helping to develop and implement both the State of Utah’s Wildlife Action Plan and the Mountain Accord process for future planning in the Central Wasatch. We will continue to seek out even more opportunities to work within collaborative projects with state and federal agencies at the ground level. This dual approach, using both ‘outside-in’ and ‘inside-out’ efforts, provides Wild Utah Project with the

foundation for a strong strategy to affect positive change for conservation management and policy in the coming years.

We thank all of you who are reading this — our non-profit partners, agency collaborators, funders, conservation activists, academics and elected officials — for your trust and support over the past 20 years. We could not have reached this 20th anniversary milestone without all of you. We look forward to the next stage of our journey as long-time partners with our conservation friends here in Utah.

Allison Jones

Allison Jones
Executive Director, Wild Utah Project



Documents top left: Some of Wild Utah Project’s key scientific publications over the years. Photo right: Wild Utah Project’s founding board, from left: Amy Barry, Jim Catlin, Stephen Trimble, Bill Newmark, Jeff Kessler. Thanks for your years of service! Photo below: © Howie Garber. View of La Sal Mountains with Bureau of Land Management red rock canyon country in foreground.



A Few Wild Utah Project Accomplishments

- *A method to assess which Utah public lands qualify for Wilderness designation.* The method we helped create has been used in many other western states.
- *Heart of the West Conservation Plan.* Meant to implement wildland networks of core wild areas and landscape linkages, the plan was designed to ensure the future health of the Middle Rocky Mountains ecosystem. Many conservation groups are now working to implement the vision on the ground. (See map on this annual report cover for the entire Western Wildway.)
- *An ecologically-based stream health assessment method to identify priority stream reaches for protection and restoration efforts.* Our method is now being used by dozens of conservation partners, municipalities and agencies in the Four Corner States.
- *Lynx Least-cost Corridor Model for Utah, Wyoming, Idaho & Colorado.* This model helped our partner The Nature Conservancy of Utah prioritize lands within the lynx corridor for conservation easements.
- *Science-based Best Management Practices (BMPs) for Off-Road Vehicle use on National Forests.* The Forest Service used our BMPs in an early draft of their national guidance for Travel Plan revisions.
- *The landmark Duck Creek grazing decision.* By documenting grazing management through collecting detailed field data, we created the basis for a favorable decision by an Interior Board of Land Appeals judge which could positively affect grazing management on millions of acres of Bureau of Land Management land.
- *Science-based Best Management Practices for siting, constructing, operating, and mitigating solar and wind power in the West, that is smart from the start for wildlife.* This has helped many conservation partners advocate for wildlife-smart renewable energy production across the West.

History and Vision — Collaboration is key to Successful Wildlife and Land Conservation

Wild Utah Project has been engaged in many collaborations over its 20-year history and we will continue to seek out diverse partners as we go forward. Collaborations have set the stage for important teamwork needed to resolve often difficult natural resource challenges. Below are highlights of our work with partners since Wild Utah Project's inception in 1996.



“Our partner support services, including GIS and ecological analyses, form a critical part of our collaborative approach. We continue to improve and bring new ways to apply GIS and ecological knowledge to the conservation work of our partners”

Emanuel Vásquez, GIS Director, Wild Utah Project

(see page 17 for more information about Partner Support Services)

The Utah Wilderness Coalition, 1996 – present: Wild Utah Project has played an instrumental role in this coalition of non-profit conservation groups since the group's inception. We acted chiefly as one of the leaders behind the organization, deploying and mapping the Citizens' Roadless Inventory and re-inventory of Bureau of Land Management roadless areas. This work resulted in the present-day Red Rock Wilderness Act before Congress, which was first introduced in 1989 and has been reintroduced in Congress in 2017.

Heart of the West Coalition, 1999 – present: This coalition of non-profit conservation groups from Utah, Wyoming, and Colorado worked together to design and publish the Wildlands Network Design for the 'Heart of



US Forest Service, Utah Division of Wildlife Resources and Wild Utah Project staff, along with Citizen Science volunteers, at Aquatic Habitat and Amphibian survey training in Big Cottonwood Canyon.

the West' region in the Middle Rockies and Wyoming Basins area. The coalition is still working together and engaging land management agencies to implement this vision of core areas and wildlife linkages on the ground.

Rich County Coordinated Resource Management (CRM) Working Group, 2002 – 2007:

Wild Utah Project worked on this multi-agency and stakeholder collaboration to help guide land use decisions, including grazing decisions, in Rich County. We shared our ongoing field research data and findings on the degraded Duck Creek allotment with the other stakeholders. We became a member of the subcommittee of the CRM that wrote the Rich County sage-grouse conservation plan in 2006. We worked on a number of different approaches to solutions for grazing management in the County, including bringing the Duck Creek appeal to the Bureau of Land Management, which resulted in a landmark decision in favor of manag-

ing for the ecological health of sage-grouse habitat.

Three Forests Coalition, 2005-present: This collaboration between a dozen conservation organizations works to inform Forest Service management and to increase ecosystem health of the three national forests in southern Utah: Fishlake, Manti La-Sal,

and Dixie. Just a few examples of our work include assembling Citizen Conservation Alternatives for the National Environmental Policy Act process for Forest Plan revisions on these forests, and two successful appeals on grazing permit renewals on the Fishlake and Manti La-Sal National Forests which resulted in improved grazing management. In addition, the appeal on the Fishlake allotments resulted in the Tushar Grazing Collaboration.

Tushar Grazing Collaboration, 2007-2009: We participated in a consensus-based collaboration, triggered by Three Forests Coalition's successful appeal on two grazing allotments on the Fishlake National Forest. The collaboration involved U.S. Forest Service, Utah Farm Bureau, Utah Division of Wildlife Resources, ranchers on the two allotments at issue in the appeal resolution, and two other conservation groups from Three Forests Coalition (Grand Canyon Trust and Great Old Broads for Wilderness). This collaboration developed consensus recommendations for improved management of the allotments

including: reduced grazing utilization rates, agreed upon monitoring methods that the collaborators performed jointly, and establishment of a 47-acre research grazing exclosure to serve as non-grazed control in the reference area — all important to measure progress and recovery of the allotments.

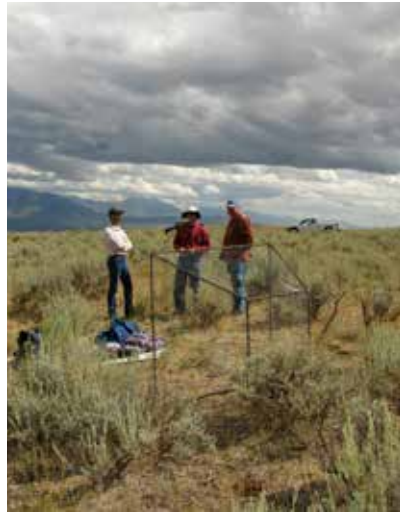
Wildlife Action Plan Working Group and Steering Committee, 2012 – present: Wild Utah Project has been an instrumental player in the recent revision of Utah's Statewide Wildlife Action Plan, which directs all conservation and management activities for the most rare and imperiled native species managed by Utah Division of Wildlife Resources. A wide variety of state and federal agencies are involved with this working group, including U.S. Forest Service, Bureau of Land Management, and other wildlife and habitat management agencies. Wild Utah Project helped develop the algorithms that determined the list of Species of Greatest Conservation Need and 10 Key Habitat Types. We are now actively involved with the collaboration to implement the conservation actions laid out in the plan.

Mountain Accord and Central Wasatch Environmental Dashboard, 2015 – present: This Central Wasatch collaboration includes over 200 stakeholders. Wild Utah Project has been an active participant from the beginning stages of development. See page 10-11 of this annual report for details.



The Heart of the West Conservation Plan for areas within Utah, Wyoming and Colorado, which Wild Utah Project helped create in 2004, was designed around the needs of focal species including the American Martin, shown here.

2016 Wildlife Science Program



Since 2009, Wild Utah Project has partnered with the USDA-Agricultural Research Service and Kennecott Utah Copper on a long-term, large-scale research study. We are investigating the interaction between mechanical 'sagebrush treatments' and the timing of livestock grazing. The resulting scientific publications will fill a huge hole in the ecological restoration and livestock grazing literature.

Wild Utah Project undertakes fieldwork and monitoring efforts, conducts and publishes original peer-reviewed research studies to fill known data gaps, and supports informed agency management decisions affecting wildlife and associated habitat in Utah. We also engage in landscape-level planning processes in Utah to ensure that wildlife corridors, migration routes, and habitat connections are identified, maintained, and improved where needed. We strive to provide novel studies, literature reviews and GIS support to aid management and planning processes for wildlife and their associated habitats.

In 2016, our wildlife science program focused on areas of Wild Utah Project's historic expertise: our 20-year study of sagebrush treatment and grazing, assessment of sage-grouse habitat condition, ongoing analysis of bighorn sheep habitat and domestic sheep grazing in the Uinta Mountains, and our continued efforts to bring best science to the Mountain Accord process in the Central Wasatch.

Sage-grouse Habitat Studies

Shortly after U.S. Fish and Wildlife Service decided not to list sage-grouse under the Endangered Species Act in the Fall of 2015, the principal western land management agencies and sage-grouse researchers released

a new protocol to assess sagebrush habitat health and function for sage-grouse. The Sage-grouse Habitat Assessment Framework (HAF) protocol brought together many other past protocols into one document. This is the method that will be used to determine whether U.S. Forest Service and Bureau of Land Management are meeting new habitat standards and thresholds that have been laid out in the new agency land use plans. Importantly, the new Land Use Plan amendments are what helped avert the Endangered Species Act listing of the sage-grouse.

While in most cases, the HAF is a solid method to ascertain the status of sage-grouse habitat, some aspects of the protocol need to be improved. For example, while it is important to have tall grass under shrubs to hide sage-grouse nests, it is just as important to have tall grass between shrubs, to hide chicks from predators as they forage for insects. Unfortunately, the HAF does not require that you break out the heights of grasses and forbs under shrubs and those in the open. Additionally, the HAF is missing metrics for prey insect availability in early sage-grouse brood-rearing habitat. These are both topics we are currently working to address in a journal article that we will write on



"I have enjoyed my experiences with Wild Utah Project immensely! The organization provides opportunities to learn from experts while having wonderful outdoor experiences. I have a greater understanding of the interactions between government agencies and non-profit groups, and the importance of the data that Citizen Science outings obtain and share. Wild Utah Project has helped me feel more connected to the well-being of our unique ecosystems."

Kathy Pope, one of a dozen Citizen Science Volunteers who participated in our forage capability study in the Uinta Mountains Wilderness.

the outcome of our sage-grouse HAF testing in 2016.

Bighorn Sheep – Forage Capability Model for the Uinta Healthy Watersheds Initiative

The Uinta Mountains cover over 456,700 acres and stretch nearly 60 miles east-to-west. The only high elevation, forested link between the Southern Rockies and the Greater Yellowstone ecoregions, the Uinta Mountains are jointly managed by the Wasatch-Cache-Uinta and Ashley National Forests. This region includes a critical mega-linkage for high elevation, wide-ranging carnivores such as lynx, wolverine and wolf. The east side of the Uinta Range is also home to a small but struggling population of Rocky Mountain bighorn sheep.

Along with our partner Dr. John Carter, Executive Director of the Yellowstone to Uintas Connection, we are currently working on a GIS-based forage capability model, using available forage data collected by our trained Citizen Scientists and staff. This model can predict how much herbaceous vegetation (biomass of grasses and forbs) is available in the High Uintas Wilderness for herbivores. This is a pressing question because, in addition to the native bighorn sheep, over 30,000 domestic sheep are allowed to graze in the Wilderness area. A comprehensive capability study has never been completed for this area. This data gap means



Last year, Wild Utah project initiated a new collaboration with sage-grouse experts and scientists to fill a substantial hole in the habitat assessment realm. We are working towards a new field assessment protocol that takes into account the prey insect base available to chicks during the critical brood-rearing period. Photo by board member Lindsey Christensen Nesbitt.

that any decisions U.S. Forest Service makes about domestic sheep stocking rates today are not based on the actual forage production of the land. Therefore, domestic sheep stocking rates may or may not be in line with what grazing pressure the land can support while still providing forage for wild species like the native Rocky Mountain bighorn sheep.

Domestic sheep also pose a threat to the native bighorns through disease transmission. Any overstocking of domestic sheep may have the unintended consequence, not only of further degrading the range but also of increasing domestic/wild sheep interactions, thus exacerbating the chances of transmitting diseases from the domestic to the wild sheep. In addition, studies have shown that the domestic sheep are having a significant damaging effect on the watershed, a water supply for much of Utah.

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2016 Wildlife Science
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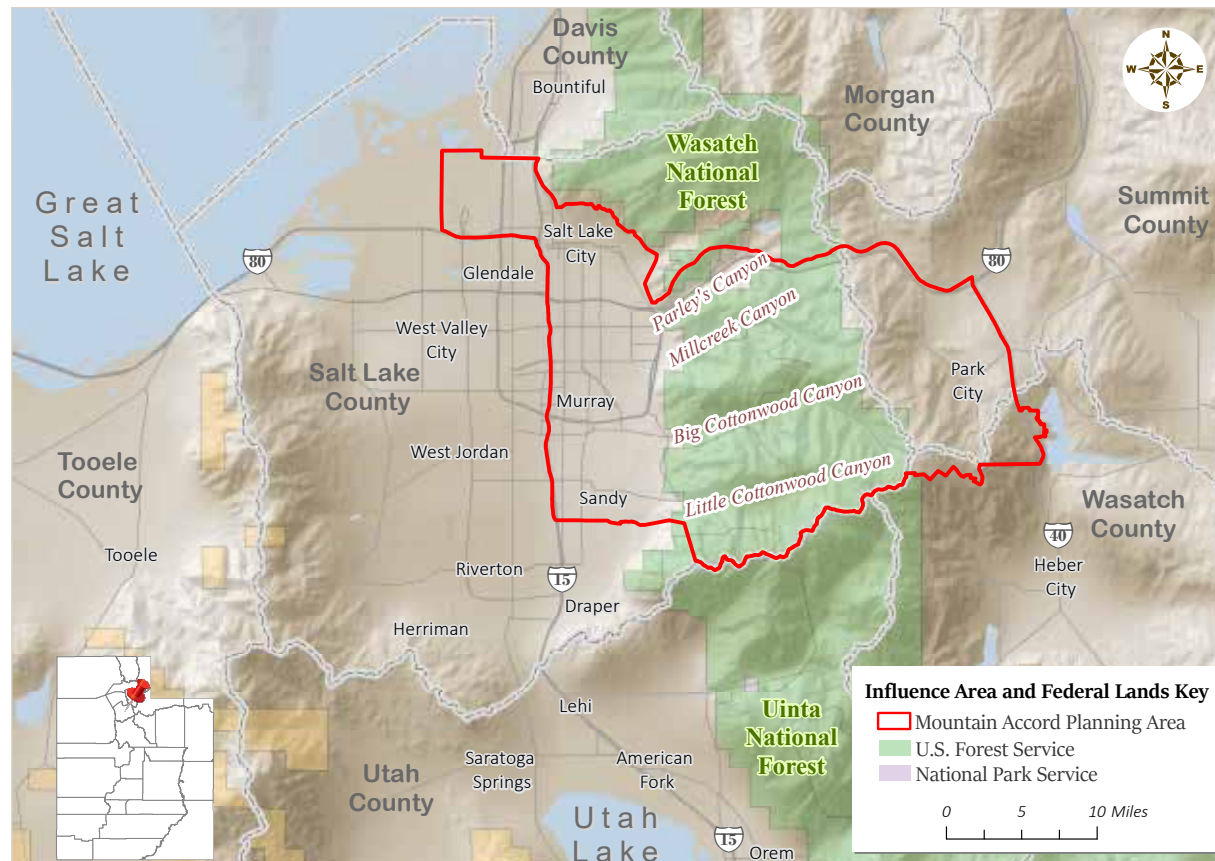
Through the combined use of GIS mapping, data analysis and development of the forage capability model, we are urging U.S. Forest Service biologists to make informed decisions in their planning process on reduction or removal of domestic sheep on allotments in the High Uintas Wilderness.

Landmark Collaboration in Eco-regional Planning

The Central Wasatch Mountain ecosystems face many pressures, including an overtaxed transportation system,

water quality challenges, habitat loss for native wildlife, and increasing recreational use.

The Mountain Accord is a landscape-level transportation, recreation, and environmental planning process for the Wasatch Mountains (www.mountainaccord.com); over 20 organizations and nearly 200 stakeholders including citizens, municipalities, academic institutions, non-profits, and state and federal agency representatives participated in the multiphase and cooperative planning process. The historic



Central Wasatch Mountain Accord planning area. The Mountain Accord is a landscape-level transportation, recreation, and environmental planning process for the Central Wasatch Mountains. See www.mountainaccord.com for details. GIS by Emanuel Vásquez, Wild Utah Project.



“It is my great pleasure to work with such a knowledgeable and innovative group of people on the development of what is really a precedent setting decision-informing-tool, the Environmental Dashboard, that will allow the public, scientists, and managers to make a relative comparison of ecosystem conditions across the landscape in a biologically meaningful way for our connected watersheds and habitat types of the Central Wasatch.”

Mary Pendergast, Ecologist and Conservation Biologist, Wild Utah Project

agreement, the Accord document signed in 2014, outlines visions, directives and principles intended to guide future decision-making

processes in the Central Wasatch. One of the issues recognized in the Accord was the lack of baseline data describing existing habitat and ecosystem functions in the area. To make informed planning decisions for the future of our Wasatch Mountains, these data gaps need to be filled.

Significantly, the Mountain Accord Executive Committee voted to fund the development of an Environmental Dashboard, a tool for decision-makers to track the environmental health and condition of ecosystem elements including air, soil, water, plants and wildlife. Wild Utah Project, along with our partnering team members at the University of Utah DIGIT Lab, Colorado Natural Heritage Program, and the Brendle Group, were chosen by the Salt Lake and Summit County selection committee to develop an Environmental Dashboard Framework for the Central Wasatch Mountains. The Environmental Dashboard will be an applied ecosystem assessment tool as well as a guidance document and open source database for informing adaptive management planning efforts. The spatial and non-spatial database along with the framework document

will provide a necessary understanding of the current level of function and condition of critical ecological systems in the Central Wasatch Mountain Accord planning area.

Wild Utah Project has been an active member of the team engaging with other local experts, scientists, and managers as well as planning and executing advisory panel meetings during the development of the first Environmental Dashboard framework in 2016. We will continue our work as one of the developers of the first Environmental Dashboard document through December of 2017. Wild Utah Project will remain involved in the follow-up of the Environmental Dashboard and strive to assist in the filling of critical data gaps in the Central Wasatch. We hope that our efforts will make the database more robust and able to support land managers and decision-makers in making informed choices for the future.



Wild Utah Project and our partnering team members at the University of Utah DIGIT Lab, Colorado Natural Heritage Program, and the Brendle Group were selected to develop an Environmental Dashboard Framework for the Central Wasatch Mountains.

2016 Wildlife Policy Program

“Wild Utah Project was a steady and reliable partner to UDWR throughout the development, implementation, and – in particular – the review and revision of the original, 2005-2015 Wildlife Action Plan. We look forward to many more years of results-oriented partnership as we implement the 2015-2025 Wildlife Action Plan.”

Jimi Gragg, Project Leader Utah Wildlife Action Plan, Division of Wildlife Resources (below, native Utah milksnake, photo by Jimi Gragg)

Wild Utah Project assembles, delivers, and advocates for the best available and up-to-date science to effectively inform wildlife and habitat policy and management decisions in Utah. Our 2016 policy program work supported science-based wildlife policies at both state and federal levels.

Bureau of Land Management Land Use Plan Amendments for Sage-grouse

Greater sage-grouse populations have dwindled from a population in the millions to between 250,000 and 450,000 individuals today. The species has lost more than half of its historic

range due to habitat degradation. In order to avoid a listing of the greater sage-grouse under the Endangered Species Act, Federal Land Use Plan Amendments (LUPAs) were implemented in September 2015 to require stronger protection of occupied sage-grouse habitat on 99 Forest Service and Bureau of Land Management (BLM) districts in ten western states.

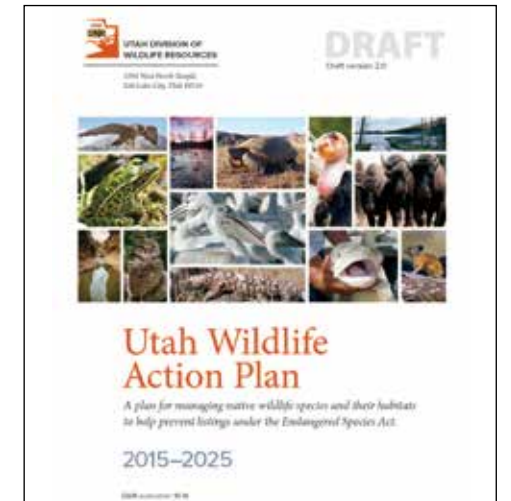
The amendments give hope for overdue and critical changes in grazing management across millions of acres of our western public lands. Specifically, many of the amendments require new and detailed standards for native

grass height and cover in sage-grouse range. If standards are not met due to current livestock grazing, then BLM is legally obligated to change grazing management before renewing grazing permits.

Last year, with the help of some of our conservation partners who have been using field monitoring to bring about changes in BLM grazing management, we identified a specific BLM grazing allotment in central Idaho (the Warm Springs allotment) for a proof-of-concept exercise for the effectiveness of the new LUPAs, as well as the analysis of the new Habitat Assessment Framework (HAF) protocol (see pages 8-9 for the Wildlife Science component of this work). We chose an Idaho allotment because the Idaho LUPA has specific height requirements for grass in sage-grouse brood-rearing habitats.

We spent one week in June 2016 conducting the HAF assessments in multiple pastures of this allotment. Upon analyzing the data, we found that some of the pastures were not meeting the new standards for grass height. We have alerted the BLM and are waiting on their response to this problem. This is an important exercise, in terms of assessing the strength of the new Land Use Plan Amendments, and whether changes in land

During the summer of 2016, Wild Utah Project conservation biologist, Mary Pendergast, testifies at the Utah Wildlife Board meeting regarding cougar hunting permits allowed in Utah. On the state Cougar Working Group that updated the 10-year cougar management plan, Mary brought scientific literature to the body of knowledge used to inform the plan revision.



Wild Utah Project was an active member on the steering committee and working group which developed the current Utah Wildlife Action Plan.

use happen when sage-grouse habitat assessments indicate that new habitat standards are not being met.

Working to Implement Utah’s 2015-2025 Wildlife Action Plan

In 2015, the Utah Division of Wildlife Resources, along with many stakeholders and conservation and agency partners, revised the State’s old Wildlife Action Plan (WAP), and unveiled the new, 2015-2025 WAP. The new plan identifies ‘species of greatest conservation need’ and their habitats, analyzes threats to those species and habitats, develops goals and objectives for improving conservation and management of those species and their habitats, and outlines data gaps that need to be filled. Because Wild Utah Project is an active member on the steering committee and working group which developed the WAP, we continue to play a role in implementing the plan.





2016 Citizen Science Program

Wild Utah Project offers unique hands-on experiences to volunteers and interns involving the gathering and application of wildlife research data. We train citizens in the field to collect data and fill data gaps for species and associated habitats. Our Citizen Scientists support our wildlife science and policy programs that contribute to positive outcomes for wildlife and habitat management. In 2016, our volunteers ranged from high school students to retirees.

Rowland Hall Students Study Sage-Grouse Habitat

We continue to enjoy our long-time partnership with the Environmental Studies Class at Rowland Hall High School, as we mentor our up-and-coming conservationists. Wild Utah Project staff and the students, along with two Rowland Hall faculty, spent a day with one of Utah's premier sage-grouse biologists, Dr. Nicki Frey from Utah State University.

The students studied conditions of sage-grouse habitat near Alton, Utah, after a pinyon juniper removal project took place near the Alton Coal Hollow mine. The students were divided into 4 groups, each developing their own research hypothesis concerning habitat conditions and their impact on sage-grouse. They picked a field method and described how they used their data to either accept or reject their hypothesis. The next morning, the students

were handsomely rewarded after the grueling, cold and wet field day, when they were treated to magnificent mating displays by the male sage-grouse at the Alton lek.

Citizen Scientists Study Idaho Sage-Grouse Habitat

In 2016, Wild Utah Project engaged in field testing of both the federal land agencies' new Sage-Grouse Habitat Assessment Framework (HAF) and a proof-of-concept test of the new Federal Land Use Plan Amendments, which negated the need to list the sage-grouse (see pages 12-13 for the Wildlife Policy and pages 8-9 for the Wildlife Science components of this work). Both tests came together in a grazing allotment in central Idaho, called the Warm Springs allotment. The field tests provided a superb Citizen Science opportunity.

We invited our long-time partners at Great Old Broads for Wilderness to join us in these field tests. About 20 volunteers stayed in the beautiful GreenFire Lodge on the GreenFire Preserve on the banks of the East Fork of the Salmon River, courtesy of the new lodge and reserve owners who took over management of the property from Western Watersheds Project in 2015.

Both our current and former executive director accompanied the volunteers

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Photo left by Emanuel Vásquez: Citizen Scientists conduct aquatic habitat/amphibian survey in the Wasatch Mountains. Inset left: Dr. Pete Stacey trains Citizen Scientists to use a riparian assessment method Wild Utah Project helped develop in 2008. Inset right: Volunteers identify road intrusions in a roadless area during Utah Wilderness Coalition's BLM Roadless Inventory in the 1990's.

Some Great Old Broads for Wilderness Citizen Scientist volunteers relax at our Idaho sage-grouse study site.



2016 Citizen Science continued from page 15

for the whole week (including a mid-week rest day for hiking in the nearby Sawtooth Mountains), as we coached our trainees in the HAF method and used it to assess sage-grouse habitat in four different pastures within the allotment.

We were also joined by the local Bureau of Land Management Field Office range staff, one of the ranchers who runs cattle on Warm Springs, and a wildlife biologist from the Idaho Department of Fish & Game. Wild Utah Project summarized the HAF data and provided it to the local BLM Field Office, while highlighting that a couple of the pastures did not meet the new habitat standards for brood-rearing sage-grouse.

Other participants followed up with their own letters and photos to the Field Office Director, outlining their concerns about degraded conditions found in the allotment. Many of our Great Old Broads for Wilderness participants told the Bureau of Land Management staff who were in the field with us that they would be willing to come back on a volunteer service trip to help build a much needed fence on one of the riparian pastures that was degraded. We will be following up on our Idaho work in 2017!



Boreal toad. In collaboration with Utah Geological Survey, we have modified our data collection forms to include aquatic habitat attributes that will be included in a statewide analysis and predictive computer model for boreal toad habitat in Utah. Photo by Utah Division of Wildlife Resources.

Amphibian Habitat Assessments

For 3 years, Wild Utah Project has participated in a collaborative effort to fill biological data gaps, originally for the Cottonwood Canyons, and, in 2016, throughout the Central Wasatch Mountains. The data can be used to inform upcoming management and transportation planning decisions like the Mountain Accord. Our collaborators have included Friends of Alta, U.S. Forest Service, Hogle Zoo, Utah Division of Wildlife Resources, Utah Geologic Survey and Westminster College. Baseline biological data we have been collecting include water quality, boreal toad presence/absence, and aquatic habitat conditions. These data are needed to inform sustainable development and effective land-use planning in the face of a growing population and changing climate.

The results of our surveys have contributed new information on amphibian habitat and presence/absence of boreal toads to the aquatic habitat data layers that agencies use to inform wildlife and land management decisions, including possible boreal toad reintroduction sites.



"I have worked with Wild Utah Project for many years. We have jointly conducted field monitoring on livestock grazing and riparian and sage-grouse habitats to document habitat conditions. Our data and use of science and mapping analysis have enabled us to challenge the land management agencies to do a better job. We have confronted them in the longest court hearing on livestock grazing in the U.S. and prevailed. Our large database and analysis was instrumental in that effort. Today, we are working to address the domestic sheep/bighorn sheep issue in the Uinta Wilderness."

John Carter, Executive Director, Yellowstone to Uintas Connection, and former director, Utah office of Western Watersheds Project

2016 Partner Support Services

Wild Utah Project provides a variety of services for our non-profit and academic partners. Whether teaming up on a research grant, participating in a competitively bid contract, or providing fee-for-service work, Wild Utah Project helps partners meet their conservation planning goals through our GIS Services, eco-regional planning expertise, or designing and carrying out novel ecological studies in the field. Our 2016 partner support services assisted with projects throughout the West.

GIS Services

Cycle Greater Yellowstone: Designed and created maps that showed facilities for cyclists during the 2016 Cycle Greater Yellowstone event which spreads awareness about the Greater Yellowstone ecosystem.

Oil and Gas Noise Distribution and Impact Analysis in the Ashley National Forest: This is a multi-year effort to assess the noise impacts of oil and gas production on local populations of Greater sage-grouse. We completed data collection for Western Resource Advocates that will help build a model to predict noise impacts.

Save Our Canyons GIS Support: We continue to provide Save Our Canyons with data mapping and web GIS tools to facilitate their communications and community engagement.

Ecological Analysis & Studies

Headwaters Stream Crossing Assessment in National Forests: We worked on behalf of Western Resource Advocates to develop a field protocol and do the field work to assess dozens of U.S. Forest Service dirt roads that may not be meeting best management practices for design and management, and thus contributing unnecessary levels of sediment erosion into headwater trout streams on our national forests.

Biological Analysis of San Rafael Master Leasing Plan: At the request of the Southern Utah Wilderness Alliance, we submitted scoping comments on Bureau of Land Management's comprehensive plan for new oil & gas leases in the San Rafael Swell. Our comments emphasized wildlife needs.

"Save Our Canyons works toward the establishment of policy that is backed by data and science. In working with Wild Utah Project for the past several years, we've been able to create compelling data visualizations and interactive maps that aid our communities and decision-makers in understanding their environments and the importance of conservation."

Carl Fisher, Executive Director, Save Our Canyons



Wild Utah Project Intern Spotlight — Thank you!

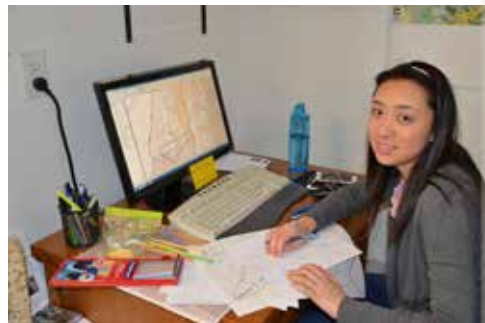
2016 Field Biology Intern: Levi Simmons

Levi Simmons came to us highly recommended by the Dean of the College of Natural Resources, Utah State University, where Levi graduated with a B.S. in Fisheries and Aquatic Sciences. He is passionate about aquatic ecology and went above and beyond the call of duty while investigating stream crossing impacts for us and our partner Western Resource Advocates, spending hours analyzing the data and helping with a number of other efforts. He is a firm believer that better management decisions are intrinsically linked with proper application of science. We wish him luck in his pursuit of further work on behalf of conservation.



2016 GIS Intern: Vivian Chan

Vivian is studying sociology and urban ecology at the University of Utah. She has interned with us for almost a year. She explains: “I love the working environment at Wild Utah Project and the opportunity to apply my skills on behalf of the environment.” We appreciate Vivian’s eye for detail and are delighted that she has re-joined our team for a second internship.



2016 GIS Intern: Liz Dickman

Liz has a background in environmental studies (BS) and urban studies (MS). She has taught and studied in France, Spain and Belgium and is fluent in French and Spanish. We are grateful for her help in creating an ArcGIS hosted story-map website. She says “Interning for Wild Utah Project was a good way to make my GIS skills count, especially because I care for native wildlife in Utah.” Best of luck, Liz!



2016 GIS Intern: Daniel Harris

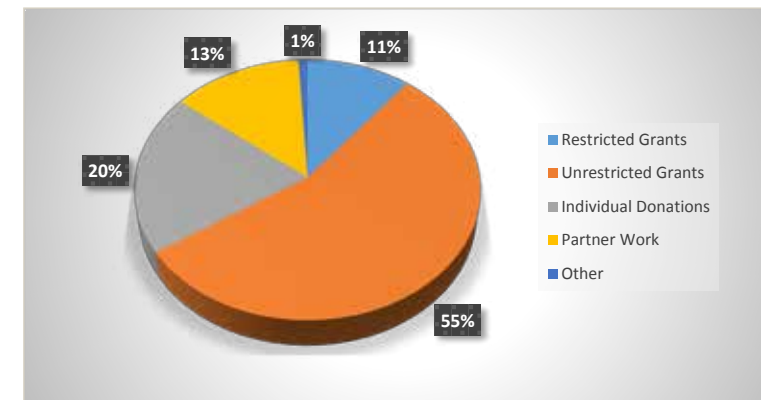
Daniel worked with us to further our Uinta Mountains grazing capability model. We were thrilled to have Daniel on our team and appreciated his interest and skills in GIS. He explains: “At Wild Utah Project I learned how to research data and perform geospatial analyses.” After leaving Wild Utah Project, Daniel was hired as a GIS analyst at a local company. Congratulations Daniel!



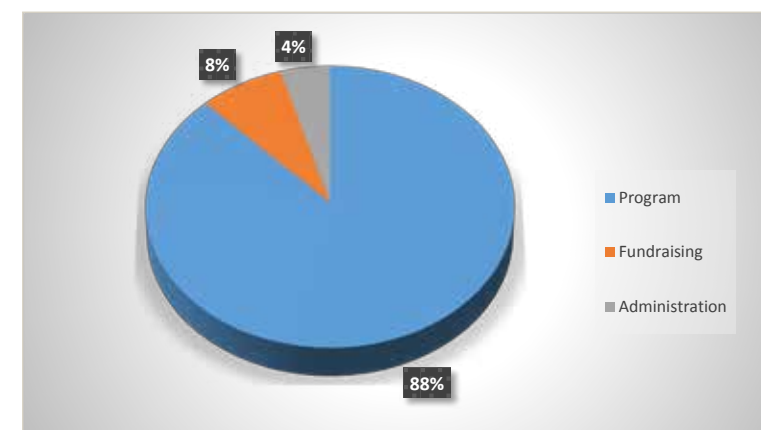
All photos, except that of Liz Dickman, by Emanuel Vásquez.

2016 Wild Utah Project Finances

Income: \$285,781



Expenses: \$224,953



Our 20th Anniversary year, 2016, was our most successful year financially. Not only did we surpass previous fundraising records, but Wild Utah Project received a \$1,000,000 endowment from Utah philanthropist Jennifer Speers via the Walbridge Fund. This endowment will increase Wild Utah Project’s long-term sustainability and ability to provide science-based strategies for wildlife and land conservation.

STATEMENT OF ACTIVITIES 2016 (January - December 2016)

REVENUE AND OTHER SUPPORT	
Restricted Grants.....	\$30,500
Unrestricted Grants	\$157,330
Individual Donations.....	\$57,044
Partner Work	\$38,218
Other.....	\$2,689
Total Revenue	\$285,781
EXPENSES	
Program.....	\$197,557
Fundraising.....	\$17,285
Administration.....	\$10,111
Total Expenses	\$224,953
ENDOWMENT	
Endowment fund value	\$1,000,000

20th Anniversary Fun Fact: Long-time donor and Utah philanthropist Jennifer Speers honored Wild Utah Project with a \$1,000,000 endowment! We are grateful for this vote of confidence in our ongoing work to provide science in service of wildlife and wildlands.



“Wild Utah Project occupies the strategic high ground in lands and species protection. Their research and advocacy for the sage-grouse is a case in point. Our work together towards the survival and success of this iconic bird species is a gauge for the health of the whole Sagebrush Steppe Ecosystem. Vast landscapes and dozens of species are the beneficiaries of Wild Utah Project choosing the right work.”

Mark Clemens, Chapter Manager, Sierra Club

Photo of sage-grouse by Wild Utah Project board member Lindsey Christensen Nesbitt.

Wild Utah Project's Long-Term Strategy

As we look to the next 20 years, Wild Utah Project will continue to work with many partners as we provide science-based strategies for wildlife and land management. Our long-term strategy includes the following:

- Conduct original research and field studies, often with our Citizen Scientists, to identify unanswered questions critical for improving wildlife and habitat management and policy
- Provide science that fills data gaps and publish the findings in ecology and conservation biology journals
- Collaborate with and recommend science-based solutions to state and federal agencies for addressing issues concerning wildlife habitat and wildlands management on public lands
- Provide critical data for better management of imperiled wildlife in Utah and surrounding states (e.g., sage-grouse, native amphibians, special status plants, etc.)

Thanks to our Partners

Our work would not have been possible in 2016 without support from the following:

Boulder Mountain Lodge
 The Community Foundation of Utah
 Lawrence T. & Janet T. Dee Foundation
 ESRI Conservation
 Fanwood Foundation
 George S. and Dolores Doré Eccles Foundation
 Hogle Zoo
 JEPS Foundation
 Jones Family Charitable Foundation
 Richard K. & Shirley S. Hemingway Foundation
 Maki Foundation
 Melling Family Foundation
 My Good Fund Trust
 Patagonia Inc.
 R. Harold Burton Foundation
 Steiner Foundation
 Steven B. Achelis Foundation
 Tracy Aviary Conservation Fund
 The Walbridge Fund
 Wild & Scenic Film Festival
 Wilburforce Foundation
 Wilcox-Smith Charitable Foundation
 XMission
and all of our generous individual donors

Agency and University Collaborators:

Brigham Young University
 Bureau of Land Management
 Colorado Natural Heritage Program
 National Park Service
 Natural History Museum of Utah
 Natural Resource Conservation Service
 University of Utah, The Digit Lab
 University of Utah, Department of Geography
 U.S. Department of Agriculture -
 Agricultural Research Service
 U.S. Forest Service
 U.S. Fish and Wildlife Service
 Utah Division of Wildlife Resources
 Utah State University

Weber State University
 Westminster College
 Wyoming Natural Diversity Database

Wild Utah Project works closely with:

Alta Environmental Center
 Brendle Group
 Center for Biological Diversity
 Cycle Greater Yellowstone
 Friends of Alta
 Grand Canyon Trust
 Grand Canyon Wildlands Council
 Great Old Broads for Wilderness
 HawkWatch International
 Round River Conservation Studies
 Save Our Canyons
 Sierra Club
 Society for Conservation Biology
 Society for Conservation GIS
 Southern Utah Wilderness Alliance
 The Nature Conservancy
 The Wilderness Society
 Tracy Aviary
 TreeUtah
 Trout Unlimited
 Uinta Mountain Club
 Utah Conservation Corps
 Utah Farm Bureau
 Utah Friends of Wildlife
 Utah Wants Wolves
 Wasatch Mountain Club
 Western Resources Advocates
 Western Watersheds Project
 Western Wildlife Conservancy
 Western Wildway Network
 Wild Earth Guardians
 Wildlands Network
 Wolf Creek Ranch Homeowners Association,
 Environmental Preservation and Ecodiversity
 Committee
 Yellowstone to Uintas Connection

Thank you to everyone who has allowed Wild Utah Project to use their photographs to enhance our messages over the past 20 years, with special appreciation to the photographers who have allowed us to use their amazing images pro bono, including: Jeff Clay, Howie Garber, Scott Smith, Stephen Trimble, Ray Wheeler.

20th Anniversary Fun Fact: Today, Wild Utah Project's office, along with a number of our partner conservation organizations' offices, is located in Artspace Commons, where we moved in 2011.

Wild Utah Project 2016 Board of Directors



Top to bottom: Kirsten Allen, Mark Bailey, Veronica Eagan, Scott Berry, Lindsey Christensen Nesbitt, Kathleen Metcalf

A sixth generation Utahn, **Kirsten Allen** holds a B.A. in English from Westminster College and a Master of Public Health degree from the University of Utah. She is the Publisher and Editorial Director at Torrey House Press. Her previous professional background includes public health data analysis, college writing instruction, private piano instruction, and freelance writing and editing. She loves to travel, read, hike, and cook. She has two grown children.

Mark Bailey is a retired partner from Wasatch Advisors, Inc., an investment management firm headquartered in Salt Lake City. A sixth generation Utahn, Mark grew up in Utah, California, and Florida before returning to Salt Lake City in 1974 to study engineering and finance at the University of Utah. Founder at Torrey House Press, Mark is also a private pilot, cross-country and downhill skier, amateur astro-photographer, and avid reader. He writes about the intrinsic value of wilderness. He has two grown children.

Scott Berry is a lifelong resident of Utah, citizen conservationist since 1973, trial attorney, Wayne County home owner, and public lands explorer, on foot, raft, skis, and bike.

Lindsey Christensen Nesbitt graduated in Wildlife Biology from Brigham Young University, followed with grizzly bear and caribou research as a Wildlife Biotechnician in Alaska for three seasons. Dr. Nesbitt went on to receive her Ph.D. in Ecology from Colorado State University where she took a “systems” approach to understanding ecosystems. She continued this method while conducting postdoctoral work at the Center for Environmental Science and Policy at Stanford University. After her post-doc, she stayed in academia where she worked as a research scientist at Colorado State

University. Her work focused on the effects of climate on western U.S. watersheds. She moved back to Utah where she taught at the University of Utah. Currently, Dr. Nesbitt is a Research Associate in the Department of Geology and Geophysics, University of Utah, and the PMST Environmental Science Track Director. Her research focuses on the effects of climate, topography, and ecological factors on mountain streamflow.

Veronica Egan Born in Cleveland Ohio, Veronica (Ronni) has been an advocate for the environment and its creatures all her life. She and her siblings were not allowed near the water because of its toxicity, so the notion of a damaged environment became familiar to her at an early age. Her family moved to New Mexico in the mid 60s. There, she was a pack trip operator and used “her saddle as a soapbox” while enabling guests from around the world to experience some of the West’s wildest places. She served on the boards or volunteered with no fewer than seven non-profit civic, animal and/or conservation groups, including Great Old Broads for Wilderness, which she eventually directed from Durango, Colorado starting in 2005. In 2014 Ronni moved to Teasdale, UT, where she now resides.

Kathleen Metcalf holds a Masters in Environmental Humanities from the University of Utah and is Creative Director at Torrey House Press. Her previous professional background includes Art Director for Patagonia, Inc., and Designer & Marketing Director/Owner of Wingspan Design in Park City. A twenty-five year resident of Utah, she was raised on the West Coast which accounts for her love of the water. She and her husband Peter are longstanding conservation activists. She has three grown children, loves rivers and non-fiction, and is an avid Laser sailor, private pilot, and artist.

Wild Utah Project Staff



Left to right: Allison, Emanuel, Mary and Amy, on a staff retreat at ‘Keisha’s Preserve,’ near Bear Lake.

Allison Jones, Executive Director, received her B.A. in Environmental Studies at the University of California at Santa Cruz under the guidance of her mentor and advisor, Dr. Michael Soulé. She completed her M.S. in Conservation Biology at the University of Nevada, Reno, in 1996. She then worked as an ecological consultant where she performed habitat assessments and surveys for federally threatened birds, small mammals and plants. Allison joined Wild Utah Project as staff conservation biologist in 1999. In 2014, she received the Jasper Carlton Conservation in the Trenches Award from Rocky Mountain Wild. Allison has led the organization as its Executive Director since 2013.

Emanuel Vásquez, GIS Director, joined the staff of Wild Utah Project in 2010 as our GIS Analyst. He worked for ten years in many conservation efforts that include

the creation of a municipal park and the preservation of 82,000 acres of forestland in the highlands of Guatemala, including 9 of the country’s 23 volcanoes. He earned an Associate’s degree in Forestry from the National School of Agriculture in Guatemala and a B.S. in Business by Galileo University, Guatemala. He also received a certificate in GIS with emphasis in Remote Sensing at the University of Utah. In 2015 Emanuel received his Master’s degree in Geographic Information Science from the University of Utah.

Mary Pendergast, Ecologist and Conservation Biologist, joined the Wild Utah Project in February 2014. Mary received her Ph.D. from Utah State University in Biology and Community Ecology under the guidance of her mentor and advisor, Dr. Jim MacMahon. Mary has worked as an ecologist and wildlife biologist with a local consulting firm where

she coordinated and conducted biological resource studies and habitat assessments with various stakeholders including federal and state agency biologists, the public, and project developers. Dr. Pendergast also taught ecology and field biology as an adjunct faculty member at Westminster College.

Amy O’Connor, Development Director, brings 30 years of development experience to Wild Utah Project. While she began her career with a M.S. in biology from the University of Utah (1988), she spent eight years building the Southern Utah Wilderness Alliance’s membership and outreach efforts. Subsequently, she ran an organization development consulting business for 17 years, serving hundreds of non-profits nationwide and specializing in fundraising, board development, and strategic planning. Amy previously worked for ACLU of Utah and Wild Utah Project.

Thank You!

Dear Friends,

Our supporters — foundations, individuals, agency and nonprofit partners, photographers — have helped make Wild Utah Project's 20th Anniversary milestone possible. You are what makes us tick!

It is because of you that we have been able to bring science, ecological analyses, and GIS (geographical information systems) analyses to Utah's wildlife and land management issues for 20 years. Together, we have filled scientific data gaps critical to decision-makers for making fact-based choices that affect not only wildlife and land, but all Utahns and the amazing quality of life we enjoy in this biodiverse and beautiful state.

It is your support that allows us to continue our work in Utah and to influence management decisions throughout the West. All of us at Wild Utah Project are grateful for your past support and hope that you are inspired to continue to give your time, talent, and financial contributions, or to partner on projects that will serve the interests of our wildlife and wildlands.

With gratitude —
on behalf of the board and staff of Wild Utah Project,

Amy O'Connor
Development Director, Wild Utah Project



How you can invest in Wild Utah Project:

Make a contribution of cash

Become a Sustaining Donor by giving monthly

Leave a legacy gift in your will

Give to our new endowment — your gift will keep on giving!

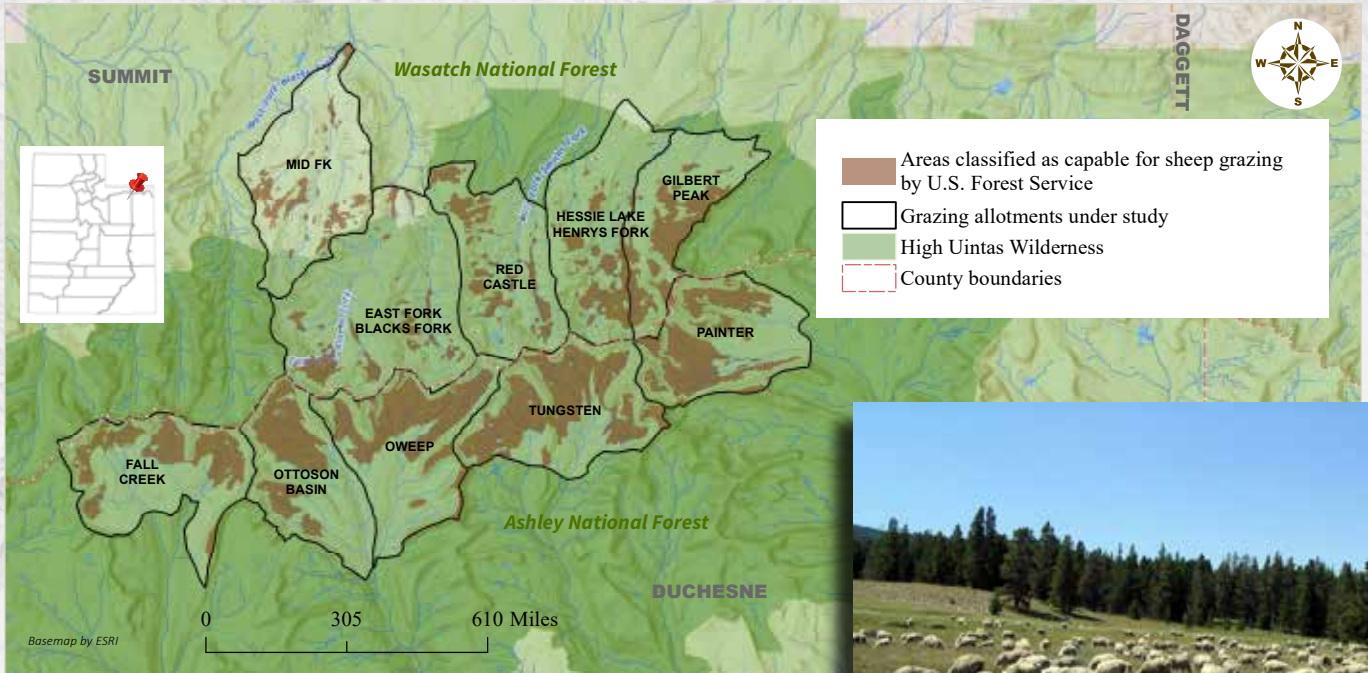
Join one of our Citizen Science field trips

Apply for an ecology or GIS internship

Donate your 4-wheel drive vehicle, a huge help for our field trips

For more information about Wild Utah Project and opportunities to get involved, visit us at our brand new website wildutahproject.org

Photo © Jeff Clay Clayhaus Photography. View of Hatch Point in the Greater Canyonlands area from Lockhart Basin. Lockhart Basin is one of the many areas in America's Red Rock Wilderness Act. In the late 1990's, Wild Utah Project was instrumental in guiding the Roadless Re-inventory and digitizing the boundaries for areas proposed by citizens for Bureau of Land Management wilderness. Now the area shown here is part of the new Bears Ears National Monument.



Above: Map shows areas classified as capable for domestic sheep grazing according to U.S. Forest Service. Wild Utah Project is conducting a study to model and ground-truth grazing capability that balances needs for both domestic and bighorn sheep populations. Photo right: Some 30,000 domestic sheep utilize the Uinta Mountains. Photo by Ken Lund. Below left: Wild Utah Project staff and intern plan a forage capability survey in the Uinta Wilderness, summer 2016 (see page 9-10 for story). GIS by Emanuel Vásquez, Wild Utah Project.



“At a time when many of our country’s leaders are replacing science with ‘alternative facts’, the role of the Wild Utah Project is pivotal to restoring evidence and rationality to the future of our wild places.”

Jim Catlin, Founder, Wild Utah Project (photo ca 1989)

Wild Utah Project

The mission of Wild Utah Project is to provide science-based strategies for wildlife and land conservation.

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