Madison Valley courtesy of Chris Boyer (cfboyer.com) and LightHawk

# High Divide Workshops

## *Ranchlands – Recreation – Forests*

April 4-5, 2017 - Dillon, Montana

REPORT

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### Acknowledgments

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Cover photo by Chris Boyer with aerial support from LightHawk.

This report was compiled by Heart of the Rockies Initiative staff.

# HIGH DIVIDE WORKSHOPS

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# REPORT

## Overview

The High Divide is an expansive landscape that stretches across eastern Idaho and southwest Montana along the spine of the continent. Here the Continental Divide separates the headwaters of two of North America's great rivers, the Missouri/Mississippi and the Snake/Columbia rivers that flow in opposite directions to their respective oceans. At the same time, the High Divide's wide ranging wildlife, cultural heritage, and indomitable rural people pull together a landscape that is ecologically and socially cherished for its communities and natural treasures.

Because the High Divide is not centered around a protected icon like Yellowstone or Glacier National Park, the High Divide is often referred to as "the land in between." The High Divide landscape is a continentally significant centerpiece for biological connectivity between the Greater Yellowstone Ecosystem, the Crown of the Continent, and the vast wildlands of Central Idaho. This land in between is not only ecologically rich; the region features a deep cultural heritage, vibrant rural communities, large working ranches that graze livestock on private and public lands, and outstanding recreation opportunities.

Rural communities throughout the High Divide landscape have long histories of working in local partnerships to address conservation issues. The High Divide Collaborative scales those efforts up to a larger landscape perspective. The Collaborative is an effective partnership of landowners, local community leaders, public land managers, state wildlife agencies, scientists, and conservation groups who work together to conserve and restore resources of importance for local communities and to protect ecological and social integrity at the landscape scale.

This report documents the April 2017 High Divide Workshop, the fourth annual working meeting of the High Divide Collaborative. The workshop's focus was on three of the Collaborative's eight shared goals: conservation of working ranchlands, healthy forests & recreation resources. The Heart of the Rockies Initiative (a land trust partnership in the Northern Rockies) plays a key role in facilitating and coordinating the High Divide Collaborative.

*We believe that conservation at the landscape scale starts locally at the community level, includes civil and open dialogue among all interested stakeholders, is coordinated collaboratively, and looks to science to support the conversation.*

# Introduction

Our High Divide Collaborative rests upon a foundation of local community engagement and derives its direction from grass-roots conservation needs. We invite all stakeholders to the table, listen to stakeholder viewpoints, and incorporate their needs into our collaborative goals. As such, our conservation planning for the High Divide landscape is open source as we strive to give all who wish to participate a voice in setting our direction. In this effort, we rely on local knowledge from landowners and community members and the latest science as derived from local, state and federal agencies and non-governmental partners.

Many High Divide families have been on the land for generations, and these families have dreams for the landscape as a secure place for wildlife and other natural resources, for families, and for family business. Our landowner partners participate with trust that collaborative partners will remain engaged for the long-term, and that ongoing participation will be rewarded with conservation results that benefit local communities. Similarly, public land managers who work in the High Divide share that appreciation for the landscape's resources and the people and communities that make it a special place to live in and raise a family.

In the High Divide, we work across administrative and cultural boundaries to define the collaborative landscape through reference to ecological and social connections. Those connections require us to apply an all lands and all hands approach to conservation.  High Divide private lands in the lower elevations are productive lands vital to rural communities and to ecological connectivity across the landscape. Public land represents a high percentage of the High Divide landscape: High Divide counties are 60 to over 90 percent public lands. The High Divide region features a rural way of life where working ranchlands are central to the region's communities and economy. Ranching is the primary land use on private lands with strong ties to public lands through grazing allotments that are essential to the sustainability of ranching operations. Recreation on public lands is also a strong economic driver for High Divide communities. Even though there are strong economic and cultural connections to public lands in the region, there has been a general mistrust of federal and state government agencies and outside interests. Through the High Divide Collaborative, we work to overcome such barriers as we seek common ground solutions to meet shared conservation goals.

## Overall

We are essentially a landscape scaled partnership of locally based collaboratives. Our core premise is that we can best provide lasting conservation outcomes at the big picture scale if we can engage the power of community-based conservation toward shared landscape goals.

## Geography

Where is the High Divide?

The High Divide is often referred to as the "land in between" two of the West's iconic landscapes: the Greater Yellowstone and the Crown of the Continent. It straddles the Continental Divide along the Idaho/Montana border.

What is the High Divide Collaborative's area of interest?

The High Divide Collaborative's area of interest is determined by the stakeholders involved in the partnership. This area is a subset of the full High Divide landscape and it brings in some parts of adjacent landscapes, like the GYE, Crown of the Continent, and the central Idaho. Our interest in cultural and ecological connectivity necessarily bleeds into these adjacent systems as we envision our conservation future for the High Divide.


*A more in depth explanation of maps and the High Divide's various boundaries is in Appendix A.*

# Background of the Collaborative

## How we started

We originated our High Divide Collaborative to a make our case for heightened deployment of federal Land and Water Conservation Fund resources in the High Divide landscape. As we worked together to articulate our shared conservation goals, we took the concept of stakeholder engagement far deeper than federal decision makers may have imagined. It was simply clear as we brought people together that we needed to build a platform of trust and open sharing of viewpoints if we were going to engage honestly and respectfully with the High Divide's diverse interests. We built a foundation upon which people from all sectors could come together, share perspectives, find common values, and jointly discover new ways to respond to the challenges of our ever-changing environment.

The Collaborative's success at bringing people together for a shared effort to capture increased conservation funding led stakeholders to acknowledge that by working together at scale we could add value for communities and nature in many other ways. Here was the genesis of our ongoing work together to flesh out goals, develop conservation strategies, and collaborate for on the ground conservation delivery.

## Vision

High Divide Collaborative stakeholders have identified and stated eight primary conservation goals, which are to conserve:

- Ecological Linkage among core habitat areas to conserve wide-ranging fish and wildlife populations that are resilient to climate change
- A cultural legacy of traditional food sources, tribal treaty lands, and travel ways such as the Nez Perce, Continental Divide, and Lewis & Clark Trails
- Working Ranchlands that are central to communities, economy and way of life
- Nationally important dispersed recreation lands and waterways where people enjoy nature
- Clean & abundant water for headwaters fisheries, wildlife, healthy riparian communities, and human uses.
- Intact, resilient sagebrush steppe ecosystems that support sustainable ranching communities and are critical for many wildlife species, including the greater sage grouse
- Healthy forest lands managed for sustained economic, social and ecological values
- Open land in the wildland urban interface to protect life and property, reduce fire costs, and allow wildfire to play its natural role.

## Framework

Beginning in late 2015, we adopted Landscape Conservation Design (LCD) as a process framework for our ongoing collaboration. Our premise is that we can inform the Collaborative in its goal setting and development of conservation strategies with actionable science if we can better understand and display current conditions for the resources that we collectively value and incrementally gain consensus around where we want to go. We start with providing stakeholders ample opportunity to find common ground and build trust. Our goals come from the stakeholders. The hoped for result is that our conservation strategies will be owned and supported long term by the stakeholders, and that we can thus create durable conservation outcomes. We build from the middle—the outliers are then clearly outliers.

The eight characteristics of this LCD framework are:

1. Collaborative / Multi-sector / Partner-Driven
2. Shared Goals

3. Holistic / System Level
4. Conservation Features
5. Desired Future Conditions
6. Assessment / Situation Analysis
7. Strategies
8. Iterative / Adaptive

### Progress

Land and Water Conservation Fund. We submitted successful proposals for LWCF funding for fiscal years 2016 and 2017. For the 2016 funding, our agency and land trust partners are working with willing landowners to complete 17 projects—some already completed, with a funding allocation of nearly $16 million. Congress recently allocated another $14.5 million for FY2017. Altogether, these projects allow public land managers and partnering conservation groups to work with private landowners to conserve more than 23,000 acres across the High Divide landscape.

March 2016 workshops This High Divide Collaborative conference focused on our goals to conserve ecological connectivity, clean and abundant water, sagebrush steppe ecosystems, and the wildland urban interface. We explored current conditions, data needs, challenges and opportunities. Workshops in prior years focused upon building our collaborative base of trust and inclusion, identification of our landscape, and development of shared landscape conservation goals.

## Workshop Approach and Proceedings

### Workshop Goals

These workshops focused on three goals that we had not yet explored in depth: conservation of working ranchlands, recreation opportunities, and forested lands of ecological and economic importance. Teams of stakeholders helped us formulate the workshop agenda, and our Landscape Conservation Design science team pulled together spatial data to depict current conditions. We also updated our partners on connectivity analysis that is arising from a deeper partnership with the state wildlife agencies wherein we are using some incredible new empirical data to model connectivity habitats. We will share these models with stakeholders as they are developed to inform decision-making.

### Goals

In these workshops, we advanced our planning process to help High Divide Stakeholders express their vision for the desired future condition of the High Divide Landscape, a vision that sustains vibrant local communities, economies and resources. To this end, we identified the following workshop goals:

- Confirm stakeholder community and conservation goals for the High Divide
- Share current information on the status of some of our High Divide priority resources and issues: Wildlife Connectivity, Rangelands, Forests, Recreation
- Update one another on resource issues and conservation
- Learn stakeholder perspectives of the future for three more of our primary goals: Rangelands, Forests, Recreation

Advance the High Divide Collaborative

- Continue to build trust and credibility within the collaborative and amongst stakeholders
- Continue to discover added value through collaboration
- Build capacity to work toward our collaborative goals

## Participants

As coordinators of the High Divide Collaborative, the Heart of the Rockies Initiative recruited a team of stakeholders to help plan the workshops. Teams were set up around our three themes: ranching, forests and recreation. Those teams set the agenda, and identified and recruited speakers.

The workshops included 105 participants from throughout the region, representing:

- 7 ranching operations
- 5 other businesses
- 10 researchers
- 7 watershed and river groups
- 5 ranching organizations and conservation districts
- 8 recreation and conservation advocacy groups
- 7 land trusts and conservancies
- 3 national forests and the Region 1 office
- 4 units of the Bureau of Land Management
- US Fish and Wildlife Service
- Natural Resource Conservation Service
- Four state natural resource agencies from Montana and Idaho

## Workshop Proceedings

The workshop framework was created to encourage open discussions among a broad array of stakeholders and provide a platform for participants to share their values and vision for ranching, forests, and recreation in the High Divide landscape. Preliminary presentations introduced the University of Montana Western's conservation research in the High Divide, information about the current state of our three resource themes, updates on agency planning processes and our wildlife connectivity work, and a presentation on avian habitat used by migratory species. Panel discussions then set the stage for each of the three primary topics, followed by small break out groups that fostered expression of stakeholder values, concerns and ideas for solutions.

Experience One educational model

*Dr. Rob Thomas – University of Montana Western Professor of Geology/Regents Professor, Environmental Sciences Department*

The University is using the High Divide region as a natural lab to educate students, benefit the local community and promote natural resource sustainability. Dr. Thomas described the university programs related to environmental science offered at UMW, the variety of field research occurring and its long history in the region, and offered that students are searching for new projects.

Current Situation for our Resources of Interest: Forests, Working Ranchlands, & Recreation Resources

### *The Current State of Forest Resources*

This presentation was led by Bray Beltrán, Science Coordinator for the Heart of the Rockies Initiative, and Bill Baer, Vegetation Program Manager at the Salmon-Challis National Forest.

Bray presented GIS maps that display forest health, tree mortality, and fire risk related to some key forest insects and disease in the High Divide. Data for the maps originated from Forest Service aerial detection surveys for Douglas-fir beetle, spruce beetle, spruce budworm and pine beetle across several forests units: Salmon-Challis, Beaverhead-DeerLodge, Caribou-Targhee, Custer-Gallatin, Bitterroot, Lolo, Lewis and Clark, and Sawtooth. *Maps are available in Appendix B.*

Bill spoke about the status of forested lands, public and private, in the High Divide landscape. He introduced the values of forested lands for our communities and landscape and he spoke about the health of our forests and primary threats to forest health and productivity in the High Divide.

Typically, forest types are related to elevation, with ponderosa pine found in lower elevations, Douglas-fir and mixed conifer at mid elevations, and spruce-fir at high elevations. The highest forest type above 8,000 feet is whitebark pine. At the lower forest boundaries, trees are encroaching into rangelands. Without disturbance, these margins will continue converting to forest communities. Embedded throughout are pockets of aspen, which are also losing ground to conifer encroachment caused by fire exclusion.

Unplanned wildland fire results in recycled carbon and is important in dry, cold climates that have slow decay. Historic fire regimes have included:

- Frequent, low severity fires in understory of low elevation ponderosa stands
- High severity, stand replacement fires every 100-300 years in lodgepole pine and spruce-fir
- Mixed severity in mid elevation Douglas-fir stands, every 35-100 years.

In recent past, with drier, warmer weather, this region is experiencing more frequent and larger fires. Public land policy has dictated aggressive fire suppression. There may be opportunities to turn the corner and let more burn with upcoming Forest Plan revisions.

Land use management as tools: timber harvest can mimic disturbance processes and grazing can manage fine fuel components.

The structure and age class distribution in the region is generally multi-storied, multi-aged forests. The trajectory is toward smaller, more dense trees that can exacerbate insects spread and increase occurrence of crown fires.

### *The Current Situation for Working Ranches and Public Land Grazing*

This presentation was led by Zachery Miller from the Idaho Farm Bureau and a public land grazing permittee. It included short talks by Brent Brock, a Wildlife Biologist and Modeler with Holoscene Wildlife Services LLC, and Bray Beltrán.

Zak talked about the current state of working ranches and threats to ranch viability in the High Divide and the importance of public land grazing and the impacts of permitting rules and changes. Overall, his main emphasis was on bringing more localized management into the picture. He is a proponent of giving local staff the flexibility to work with lessees and adapt to local conditions, which vary greatly by year and throughout the season.

He shared some socio-economic information to consider, using Fremont County, Idaho, as an example:

- Public grazing allotments
  - AUM's 26,715 on 21 allotments
  - Cost is $1.87/aum
  - Improvement cost lies upon permittee (some cost-sharing is available): troughs, wells, fences, some weed control
- Private grazing
  - Cost is $40/aum
  - Improvement costs are wholly on landowner
- Statistics
  - Average age of producer is 57.3
  - Average age in the community is 36.3
  - Ag sales $141,967,000
  - Livestock was 12% of that sales total, or $16,662,000

Idaho Statistics on Agriculture

- $25.1 billion is sales, which is 20% of the total output for Idaho
- 124,000 jobs (1 out of 7), 23% are in livestock
- $3.8 billion in wages, 12% are in livestock
- $9.1 billion in value-added

Zak also talked about the realities of grazing on federal land. His view is that it is a privilege and not a right, and with any landlord they dictate the terms of what is expected. Permits cannot be sold. The low aum rate is the result of efforts that are expected of permittees. Other issues on the land must be weighed, like grizzly, wolf, sage grouse. Find ways to co-exist and the environment can be healthy and productive. Some of his wish list for grazing on public lands include water development, fire load management, reasonable management tools for co-existing with wildlife, multiple-use continuation, and localized management decisions.

Brent presented a draft model of private ranchlands at greatest risk to development based upon current and projected residential growth. The results illustrate general areas where development pressures might provide an incentive for land transformation into subdivisions. Bray Beltrán presented draft maps of current public land grazing allotments with grazing statistics.

*The Current Status of Recreation Resources*

This presentation was led by Noelle Meier, Forest Recreation Program Manager for the Beaverhead-Deerlodge National Forest, followed by a joint presentation from Kathy Rinaldi and Brooke Regan of the Greater Yellowstone Coalition, and a short display of mapping efforts by Bray Beltrán.

As a Forest manager with a deep family history in Southwest Montana, Noelle is very interested in providing the full measure of recreation opportunities to visitors to the Beaverhead-Deerlodge National Forest. Noelle described the different types of recreation uses on the forest and current challenges and opportunities.

The main types of recreation include:

- Hiking
- Driving for pleasure/wildlife viewing
- Hunting
- Fishing
- Camping
- Visiting historic sites
- OHV riding
- Snowmobiling
- Boating/floating

Elk hunting in this region (MTFWP Region 3)

- Nearly 50% of the annual Montana harvest
- Hosted 42% of state resident and non-resident hunters, combined
- Accounts for 48,325 hunters for 410,756 hunter days
- Median 2 night visit

General Visitation and Statewide Numbers

- 46% of people visited 5 times a year or more
- Top zip codes show lots of localized use from surrounding communities
- Nearly 50% of visits came from within 50 miles. 14% greater than 200 miles
- 70% of businesses in the state say outdoor lifestyle is big reason for being located here
- Montana is 6th in per capita tourism receipts
- Travelers generate $294 million in local and state taxes
- 67% of first time visitors come for Glacier and Yellowstone National Parks
- 80% return for a second visit

Noelle described some of the current challenges, including the limited capacity and internal challenges faced by agencies, impacts to resources, the deferred maintenance backlog, user conflicts, limited landscape-specific data, and highly interested, engaged public from a broad range of perspectives. While meeting the needs the public is a challenge, she also described it as an opportunity that brings national and local attention to recreation and access issues, presents opportunities for stewardship, and support for addressing the maintenance backlog.

Kathy and Brooke discussed preliminary data from Greater Yellowstone Coalition's recreation inventory for the Greater Yellowstone Ecosystem and discussed

their ongoing project to provide a measure of recreation activity. The full study is scheduled for completion in April 2018.

The recreation field is changing, with recent frays in historic alliances evidenced by two recent bills looking to lift the mountain biking ban in designated Wilderness and to allow paddling in Yellowstone, continued increase in visitation and population, advances in technology taking people into the backcountry farther and faster, and expanding wildlife conflicts.

GYC's vision is for managers, decision-makers and recreational users to engage in a coordinated, integrated approach for recreation planning that enhances recreation experiences while protecting the lands, waters and wildlife of the Greater Yellowstone Ecosystem. They want to foster a new ethic of stewardship where we rely on users to steward and police themselves, similar to the Leave No Trace ethic.

Their study's long-term goals are to understand the role of recreation in the GYE, establish a set of shared values between the recreation and conservation communities, and provide land managers and recreational users with well-informed guiding principles for sustainable recreation planning and design. GYC is now collecting preliminary data, reviewing literature, developing intensity proxies, and exploring user created data (phone apps). This information will serve as a backdrop to the symposium next spring at Montana State University. That symposium will convene stakeholders, share what is known, unknown and needed, identify shared values, and ultimately launch the effort to identify principals and guidelines for recreation management and planning in the GYE.

Bray concluded this session by displaying a draft map that shows recreation access points (877 total) throughout the High Divide and summary statistics for recreation resources. This map is available in Appendix B.

<u>Public Lands Planning Processes – Forest Service and BLM updates</u>

Gina Knudson with the Salmon-Challis National Forest and Mary D'Aversa of the Idaho Falls District of the Bureau of Land Management described the federal agency planning updates currently underway in the Salmon region. Alex Dunn, the Environmental/NEPA Coordinator for Beaverhead-Deerlodge National Forest then talked about examples of stakeholder led collaboratives that can lead to all lands conservation at large scale.

The Forest Service and BLM are entering plan revision processes at the same time and they saw an opportunity to synchronize the process in the Salmon region. Gina and Mary discussed what these plans are and where they are in the process. Federal land management plans guide what agencies do, where they do it, and how they do it for 15+ years. They do not authorize site-specific activities or prohibitions. Those must be proposed and comply with the approved plan. Generally, the planning process includes four phases: prepare, assess, plan, and monitor.

The Salmon-Challis National Forest is currently in the very early public launch phase of the process. They are guided by a 2012 rule that has unprecedented emphasis on public involvement and they are taking full advantage of the public's willingness to help shape the new forest plan. Many public meetings are taking place in communities throughout the forest's region. The next step will assess existing conditions, which sets the foundation for determining what is still working in old plans and what needs to change. They will conduct rapid assessments that evaluate current resource conditions and trends, and factors that influence those conditions and trends. They will use existing scientific data and local and native knowledge to understand the area's ecological, economic and social dimensions.

The Bureau of Land Management is waiting for approval of their preparation plan by their Washington office. The preparation plan lays out the budget, personnel needs, and preliminary issues and concerns. Once they receive approval, the BLM will begin assessing current resource information, host listening sessions, and discuss public concerns and issues. The BLM's Analysis of the Management Situation phase is similar to the Forest's assessment phase and includes public input on issues and management concerns.

Learn more about engaging in forest planning with The Citizen's Guide to National Forest Planning:
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd509144.pdf

For more information on the Salmon-Challis National Forest process:
Contact Josh Milligan, Team Lead 208-756-5560
Gina Knudson, Collaboration Specialist 208-756-5551
Visit the Salmon-Challis National Forest website and click on Forest Plan Revision,
https://www.fs.usda.gov/scnf/

For additional information relating to the BLM Process:
Mary D'Aversa, Idaho Falls District Manager 208-524-7540
Ben Swaner, RMP Team Lead 208-524-7549

Alex Dunn spoke of past and ongoing collaborative resource planning efforts on public lands that have occurred elsewhere in western states. He offered these examples not to suggest that his forest or others in the High Divide are currently planning to implement such measures, but to help High Divide stakeholders broaden their perspectives on planning approaches that could be pursued. Alex spoke about the tension built into National Environmental Policy Act (NEPA) processes between the regulatory need to certainty in outcomes and the resource need for adaptive management. He emphasized the importance of taking all values into consideration, acknowledging the uncertainty in collaborative processes, and allowing for experimentation and adaptive management.

Updated information on wildlife connectivity in the High Divide
Brent Brock, wildlife biologist and modeler with Holoscene Wildlife Services, and Scott Bergen with the Idaho Department of Fish and Game led this session.

Brent provided an update of efforts to model wolverine connectivity in the High Divide for the current and future conditions, and as an example for how to look at scenario analysis.

Scott introduced our cooperative effort to model elk core habitats and connectivity across state boundaries in the High Divide with use of maps of elk GPS locations, seasonal herd movements, and key seasonal habitats. He presented a species distribution modeling approach using the maximum entropy technique which is taking managers beyond drawing polygons on maps to identify habitat. This modeling approach integrates current GPS data to show seasonal ranges and is the base to model migration routes across a region. The model results are habitat suitability, not animal abundance. The procedure can be automated to update with the most recent data, including changes in species use, changes in covariate distributions like fire dynamics, changes in vegetation and weather. The models also have predictive scenario analysis capability. IDFG has finished a statewide modeling effort and we are expanding models onto the Montana side of the High Divide using data provided by Montana Department of Fish, Wildlife and Parks and input from Kelly Proffitt, one of MTFWP biologists working on ungulates in the region.

Cowboys & wetlands: connecting water, wildlife, and working lands in the Intermountain West
*Patrick Donnelly, Intermountain West Joint Venture, US Fish & Wildlife Service*

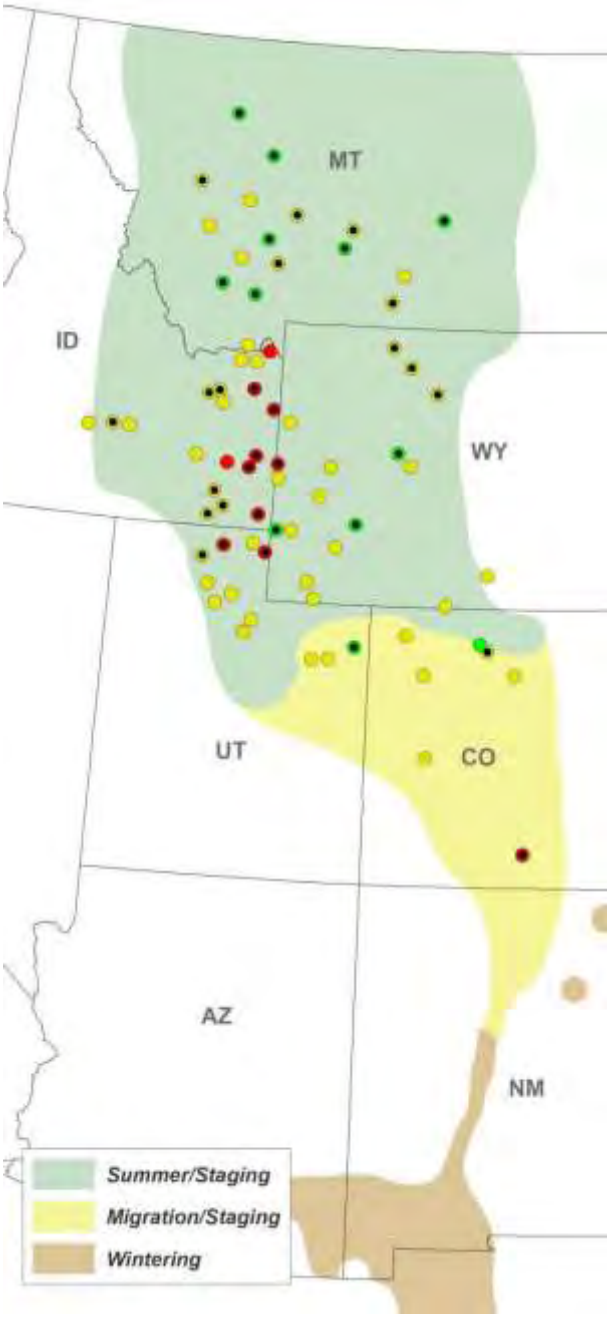
Patrick described his ongoing work to characterize the core and connectivity habitat needs for key avian species that use the High Divide, including sage grouse, sandhill cranes and water birds.

The Working Wet Meadows Initiative's wetland dynamics project is currently covering SONEC (southern Oregon, northeast California and northwest Nevada). Patrick has developed a decision support tool that is a spatially explicit inventory and monitoring effort to assess long-term trends in wetland availability and estimate landscape carrying capacity seasonally within migratory bird populations. It identifies the probability of wet areas at certain times. When species movements are tied to the model, it allows for better decisions and investments to be made. Within the next 18 months, the model will be built for the entire IWJV region.

Another new strategy for the Intermountain West Joint Venture is aimed at conserving and restoring mesic habitats important for sage grouse brood rearing and many other species. Patrick helped develop a spatial and temporal analysis of these habitats across the West. Mesic sites are a small portion of the landscape (those green wet areas along streamsides, wet meadows and springs, seeps and irrigated fields), but are very important. This tool can help strategically target conservation actions and investments.
It is available at https://map.sagegrouseinitiative.com/

Patrick is also investigating sandhill crane demographics and the effects of rural land use changes and wetland conditions over space and time. Sandhill cranes use wet areas in the High Divide for summer habitat, nesting and staging. Very high percentages of these areas are on private land and are subject to changing land uses and development. This decision support tool is looking at the changing development patterns and the underlying pattern of seasonal hydrology to identify priority places for conservation.

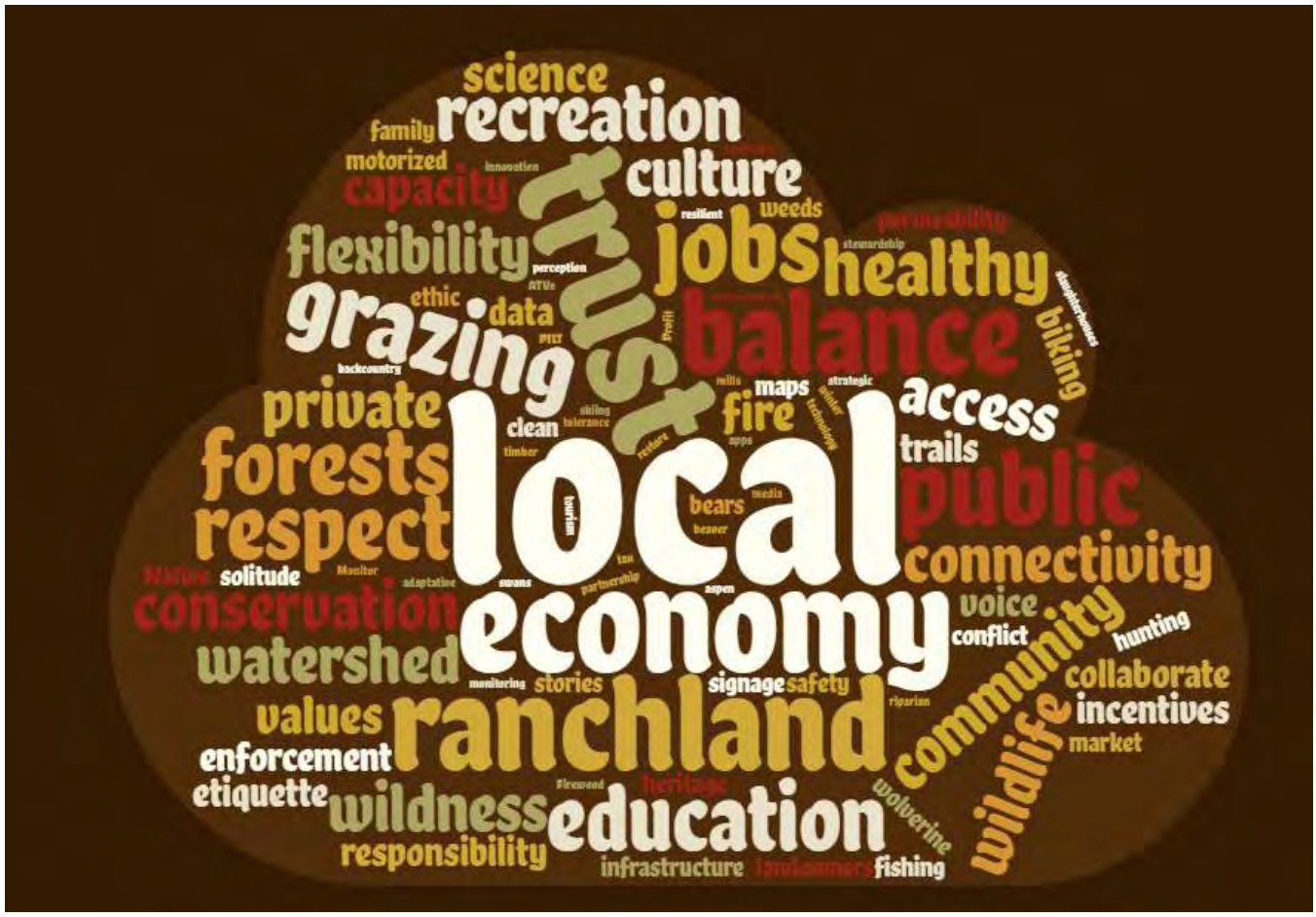
All three of these tools can be combined to show areas that are likely utilized by avian species throughout the early, mid and late summer periods.




## Sandhill Crane Rocky Mountain Population seasonal distribution and study area map from Donnelly presentation.

Locations represent fall staging sites. Colors indicate population trends from 1996 - 2013; green = increase, yellow = stable, and red = decline. Black points identify highest bird densities and represent >90% of the known population. Rates of rural landuse change will be measured in these areas (black points) and proximal breeding habitats to examine factors impacting crane distribution and abundance.

## Our Language: Most popular words submitted by participants during our break-out sessions




### Forested Lands

*Our goal—To conserve healthy forest lands managed for sustained economic, social & ecological values*

### Socio-Economic Values of our Forests

Dane Buk, Founder and Owner of Terra Firma Organics, Inc., and Bill Baer, Vegetation Program Manager for the Salmon-Challis National Forest led an open discussion among meeting participants on the current socio-economic considerations related to forest management.

Dane has an in depth understanding of the challenges that timber producers face in their work on public lands in the current working environment. He is the founder of TerraFirma Organics, a waste solution company based in Jackson, Wyoming.

Dane discussed the challenge of having few options to get timber products to market in the region. Infrastructure has declined significantly. The paradigm may shift to Forests paying companies to take fuel timber to biomass plants. Operators also face the uncertainty of supply. They typically need a 15-year supply in order to make investments and see a return. The current federal system is not designed to make a long-term commitment. Other challenges participants discussed were the community investment in collaboration with the Forest Service to create a local plan with shared objectives, only for it to be derailed by litigation from an organization who wouldn't participate in the collaborative process. Agency representatives also expressed the need for proponents

to make positive comments during the NEPA process. By far, the comments they receive are negative. Bill cited some examples on the Salmon-Challis that have been successful for firewood and post and poles, but they also face infrastructure challenges. It was suggested that we pay attention to Governor Bullock's effort with the Western Governors Association to unite in recommendations for forest management.

The session closed with the notion we need to find solutions and common ground. Timber production in the 1970s and 80s was heavy and now the pendulum is way on the other side of too little management. With the condition of the forests today, we don't have a choice but to manage vegetation.

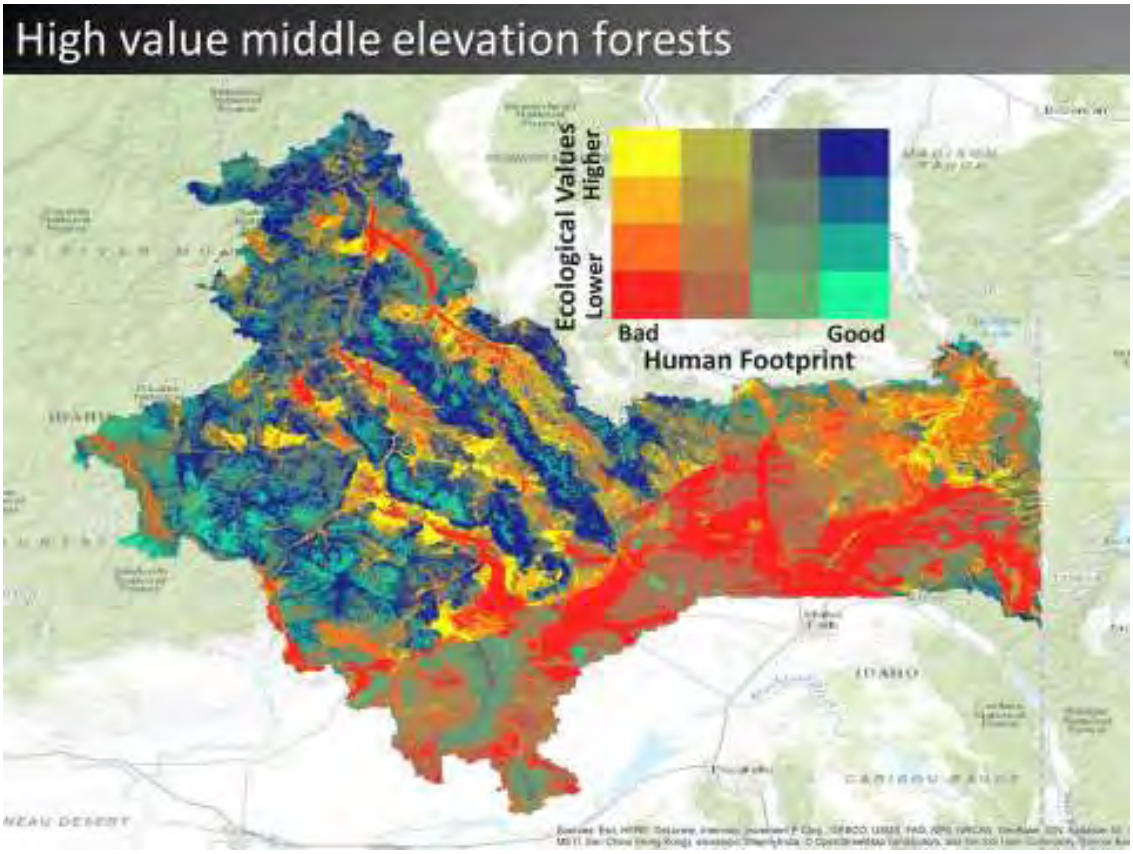
## Ecological Values of our Forests

Travis Belote, Research Ecologist with The Wilderness Society spoke about the ecological values of the forested lands of the High Divide landscape focusing on wildness, wildlife and water.

His first question was, "What is the wildest national forest in America?" He did a spatial analysis considering primitive, intact, remoteness, and solitude values, and the Salmon-Challis National Forest rose to the top of the list. Secondly, he analyzed the historic fidelity of wildlife species across the nation. What areas retain the wildlife that was historically in that region? The High Divide rose to the top 5%.

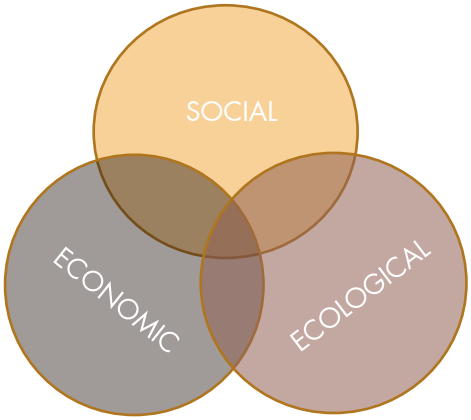
Another spatial analysis assessed the ecological value of middle elevation forests in the Idaho portion of the High Divide. *See map below*.

Travis also talked about vulnerabilities to our forest resources (historical management, fire and climate), as well solutions (connect, protect, restore).



## Breakout Session Summary - Forests

### Vision, Values, Objectives




The discussion of values resulted in a common theme: the economic, social and ecological values of forested lands are all intertwined.

Some of the recurring values included: they are publicly owned, forest products, watersheds, recreation and multiple use, hunting/fishing, firewood, wildlife habitat, viewshed and scenery, wildness/solitude, jobs, local economies, and heritage.

Visions statements from the groups held similar views around healthy forests that contribute to local economies: robust diversity, resilient and resistant to disturbance, positively contribute to health and economy of local communities – managing for optimal return, requires active management to emulate natural disturbance, restore natural fire regimes.

Objectives included:

- increase local collaboration and trust, look at existing successful collaborations
- flexibility/adaptability in the permitting process
- strategic plan developed by the community
- somehow give local contractors preference points in bidding processes
- encourage watershed approach in forest plan updates that allows for needed flexibility within adaptive management

### What can stakeholders do?

Some of the concrete suggestions for how stakeholders can engage included:

1. Be involved in Forest Plan updates. Participate in collaborative processes.
    a. Encourage watershed approach in updates: forests need flexibility within adaptive management to react faster that management plans allow them to
    b. Encourage flexibility to include emerging science and data into plans
2. Invite diverse groups into the process, including naysayers
3. Analyze stakeholders and what power they have to influence change
4. Identify and map existing collaboratives for cross-learning and to identify gaps
5. Pool voices of collaborative efforts across a bigger high divide landscape
6. Find key stakeholders to serve as good example to the rest of the industry, ambassadors
7. Use our High Divide platform to influence policy changes for stewardship contracting, to include some preference to local contractors. The ability to include localness in the consideration and give it some weight would help local contractors compete, contribute to the local economy, and would help tamp down the anti-federal sentiment.
8. Identify and map existing collaboratives for cross-learning and to identify gaps

### Community Engagement in Monitoring

Citizen volunteers were encouraged with the understanding that they need specific tasks and the training to do them well. Managing and training volunteers takes time on the part of agencies, but it can increase their capacity.

Several examples of existing citizen science projects and resources were listed:

- Idaho and Montana Master Naturalists
- UM Western students
- Projects in Idaho where citizens are counting/locating roadkill, trumpeter swans, monitoring beaver
- BLM has existing agreements with local organizations and they provide training:
    - Dillon office and MSU students monitoring leks
    - Salmon office working with IDFG and Forest Service and locals on fish monitoring and data collection
    - Working with University of Idaho to develop apps for grazing permittees to collect and report data while in the field

*The full Breakout Session notes are available in Appendix C.*


*Zak Miller moderating the working ranches panel discussion with Stacey Barta, Merrill Beyeler, Jim Hagenbarth, and Erik Kalsta.*

## Rangelands

*Our Goal—To conserve working ranchlands central to communities, economy and way of life.*

### Panel Discussion: The Benefits of Sustaining Working Ranches in the High Divide

This panel consisted of Stacey Barta, Rangeland Resource Program Coordinator with the MT Dept. of Natural Resource Conservation, and ranchers Merrill Beyeler of Leadore, Idaho, Eric Kalsta of Glen, Montana, and Jim Hagenbarth of Dillon, Montana.

Jim Hagenbarth talked about the responsibility to develop a functioning working landscape to take care of the resource and to mimic Mother Nature to retain the ecologic benefits. Public land ranchers have responsibility to manage the resource, but it is difficult within agency rules. He warned that the resource will suffer if we lose public lands grazing.

Erik Kalsta talked about the changes they are experiencing. His ranch has been collecting data through journals since 1890: timing of winter snowmelt and runoff, when birds arrive, etc. They are seeing earlier runoff and longer frost-free growing seasons. This year, the run off peaked three weeks ago (mid-March), and in the past they didn't even start measuring run-off until April 1st. That real early runoff was lost for this season. It didn't flood the subsoil aquifer. He suggests that we need to look at water rights and adjustments to period of use in order to have the ability to use some of this earlier runoff. Additionally, the industry and conservation efforts have been focused on water efficiency, which doesn't allow additional water in the subsoil aquifer. They are now experimenting with flooding some fields to see the impact on local hydrology.

Merrill Beyeler talked about ranching and the social fabric it weaves among communities. In Leadore, in the mid 1990s they were facing challenging times, losing salmon and at the same time their rural

community was diminishing. They saw dropping school enrollment. The community worked together to adapt through partnership, allowing them to diversify. They evaluated projects with three main questions: Is there a biological outcome? Will ranches be healthier? Is there an opportunity to build the economy? They've been able to bring families back to their community by diversifying into restoration associated with the recovery of salmon. They found a path out of the downward spiral.

Stacey Barta described the role of the Rangeland Resource Program of the Montana Department of Natural Resources. They work with conservation districts, producers and other groups to encourage rangeland management. Stacey, in her position with DNRC in Montana, facilitates and coordinates programs for landowners, often connecting the dots so good things get promoted throughout the state. She presented information about rangelands in Montana provided by the Montana Rangelands Partnership. According to their research, rangelands:

- Provide watershed services worth $14/acre, including water collection, groundwater filtration and aquifer recharge
- Provide forage to support Montana's $2.2 billion livestock industry
- Provide opportunities for hunting and fishing, which generated $1.3 billion for Montana in 2015
- Sequester more than 20% of the world's terrestrial carbon, and provide erosion control and nutrient cycling services valued at $106/acre

## Conservation activity for working ranches and public land grazing in the High Divide

Kristin Troy, Executive Director at the Lemhi Regional Land Trust led off this panel discussion, followed by Tracie O'Neill, Rangeland Management Specialist for the Natural Resources Conservation Service, Cornelia Hudson of the Dillon Field Office of the Bureau of Land Management, and Jeff Laszlo with Granger Ranches, of Ennis, MT.

Kristin Troy talked about how land trusts and conservancies have worked with many ranchers in the High Divide to conserve ranchlands through conservation easements. However, conservation easements are not the only conservation tool in the toolbox. Many land trusts, watershed groups, conservation districts and others in the region go way beyond easements in the name of furthering conservation and supporting ranchers and the ranching community.

Kristin works with the Central Idaho Rangelands Network, a group of landowners and ranchers who work together toward improving health of the landscape and their bottom line. Together they operate on 80,000 acres of private ground and 1.5 million acres of public BLM, Forest Service and Idaho Department of Lands land. They look for innovative approaches to grazing systems, water management, and monitoring.

Lemhi Regional Land Trust also is helping young, local farmers to purchase farm ground for a community supported agriculture organic farm, has helped with the Salmon Schools garden, and has piloted a project to illuminate the historical significance of private lands in the Salmon region. This project engages the public by connecting the cultural heritage to the properties they protect through stories.

Tracie presented information on how the NRCS and Conservation Districts assist ranchers with conservation programs and responds to the need to coordinate with other resource issues such as sage grouse conservation. NRCS' mission is to provide resources to farmers and landowners to aid them in conservation. NRCS administers three Farm Bill programs: Conservation Stewardship Program, Agricultural Conservation Easement Program, and the Environmental Quality Incentive Program, including national incentives such as the Sage Grouse Initiative. NRCS' cost-share programs are designed to absorb some of the risk to landowners.

Corne Hudson talked about the Dillon field office's ongoing watershed program and over a decade of collaborative work with grazing permittees to enhance the watershed health of grazing lands. The Dillon field office manages 395 allotments over 16 watersheds. In 1999, they were required to perform site-specific NEPA analysis on each of the allotments. In 2002, they began a new process to group allotments by watershed. That analysis identified streams that were functioning at risk and required plans for improvement. They worked with permittees to develop plans to improve the resources and not have negative impact on permittees. They have some days on each end of the permit period for flexibility. Permittees have contributed great ideas to improve management. They have many years of data showing what actions have worked and what haven't. They have some areas that continue to need to improvement, but overall it's been a positive process.

Jeff talked about restoration efforts on his multi-generational ranch in the Madison Valley and the impact to their operations. His ranch has been in the family since 1936. During the 1950s much of the valley's wetlands were drained. They recently undertook a large restoration project, closing the drainage canals and restoring wetlands and streams. They've seen improvements in water quality and quantity, forage production, soil moisture and carbon storage. Plant species richness has increased tremendously through natural regeneration. More than 200 species have been identified by botanists, some globally rare. Bird

use has also increased; 120 species have been documented. It's been a collaborative project with many partners. The goal has been to figure out how to do this restoration and stay in ranching, not only for his family but for future generations. It's not about one thing, but about how you do all those things the best you can and they work synergistically. To learn more about the project, check out this Western Landowners Association video: Stewardship with a Vision Episode 1.

## Breakout Session Summary - Rangelands

### Vision, Values and Objectives

Again, the discussion of values resulted in a common theme: the economic, social and ecological values of rangelands are all intertwined.

Some of the recurring values included: natural cycles, economic engine, social fabric, wildlife habitat, grazing, hunting opportunities, clean water, open space, soil retention, sense of place, heritage, and identity.

Objectives included:

- Telling the many positive stories to key decision-makers, our local communities and youth, and the general public
- Develop more private land owner incentives
- Advocate for public land grazing with some local flexibility and adaptation to benefit the resource and operations

### What can stakeholders do?

Three main themes arose from these break-out discussions: communication/education, incentives for private landowners, and public land grazing/agency issues.

Communication and education suggestions

- Outreach to the general public about grazing, what it really entails, the challenges, the emotional ties, what permittee responsibilities are, and crucial ecological processes
- Get kids out on ranches to learn about operations. Integrate benefits of ranching into formal education.
- Build content to help us tell positive stories: videos, photos
- Rural values need a strong voice in DC - Integrate High Divide with Western Landowners Alliance and other groups that provide that voice. Collective voices from diverse perspectives has power. This points to the merit of working at this large High Divide scale.
- Tell the story that ranching and conservation are compatible. Recognize good work already going on.

Private landowner incentives

- Host a dedicated workshop to work through incentives and how public can share the burden that landowners have providing public value
- Identify tools to share the burden of ecosystem services
- Funding to increase availability of slaughterhouses (like consolidation of infrastructure in timber mills). Keep it local, accommodate local ranchers
- Branding opportunities for High Divide ag products Farm to Fork, Food to Schools, etc.

- Develop more value-added ag products

Agency related issues

- Have seat at table with policy makers
- Agencies are desperate for local public involvement – local citizens who want to be involved, collaborate and be productive - the only comments they get are interest groups or negative, not local landowners or industry
- Encourage local flexibility and adaptation, based on science, for permittees and agencies.
- Learn from others and advocate for more tools. Federal funding is changing and we need to look to other sources to bridge the gap. (examples: Colorado, Blue Forest in PNW)

## Recreation Resources

**Our Goal – To conserve nationally important dispersed recreation lands and waterways where people enjoy nature**

### Recreation needs and challenges—World Café

*This session was organized with tables focused on specific recreation interests hosted by business or organizational leaders working in that specific arena. Participants rotated among the tables to talk about recreation needs, user groups, and impacts.*

***The topics and hosts included:***

***Motorized Recreation*** *– Greg Bitter, Performance Motors Sports, Ashton, ID*

***Mountain Biking/Trails*** *- Cory Birkenbuel, Beaverhead Trails Committee, Dillon, MT*

***Hunting Outfitters*** *-Bill Kemp, Montana Bucks & Ducks, Dillon, MT, and Mac Minard, MT Outfitters & Guides Association out of Helena*

***Wildland Recreation*** *- Rob Mason, Central Idaho Representative, The Wilderness Society*
*Sally Cathey, Southwest Montana Field Director, Montana Wilderness Assoc.*
*John Gatchell, Senior Conservation Advisor, Montana Wilderness Association.*

***Economic Values of Fishing*** *- Brandon Hoffner, Executive Director, and Jamie Laatsch, Conservation/Outreach Coordinator, Henry's Fork Foundation, Ashton, Idaho*

### Breakout Session Summary - Recreation

After robust discussion in the World Café session, participants broke out in small groups to discuss priorities for recreation opportunity and key concerns.

Stakeholders talked about several priorities for recreation opportunity, including:

- Key priority for many users is solitude, quality of experience, keeping wildland recreation opportunities that exist
- Need for broad scale recreation planning and building trust
- Accessible to all – affordable mix of fee and free – as a means to help pay for facilities and maintenance costs
- Multiple diverse opportunities, including opportunities for universal accessibilities: older recreationists, range of physical abilities
- Highlight correlation between recreation and economic stimulation

Key concerns of participants can be groups into these major issues: cumulative impacts, access, safety, funding, enforcement, ethics and etiquette.

Cumulative Impacts/Management

- Maintaining balance between new opportunities and increased populations with conservation. Tragedy of the commons challenge
- Quality of experience – can we say yes to everything?
- Overuse of sensitive habitat like backcountry skiing in winter range
- Education behind decisions of sharing, balance, regional/seasonal appropriateness so people understand and maybe even support
- Educate rec users how weeds are spread
- User-created trails are increasing and we need to get it front of it
- System should be designed to minimize conflicts

Access

- Balance conflicts with wildlife and access is important
- Increase information availability for access – digital apps, maps, websites, social media, and food storage orders
- Keep public lands public to continue to provide opportunities
- Maintain and increase public land access as it legally blocks people from entering public land
- Create incentives to private landowners to provide an access easement

Safety

- Lack of knowledge around safety issues, like bears and bear spray
- New technology equipment may contribute to more people in further backcountry who are not really prepped
- Messaging around living with bears
- How to pay for community services such as ambulance when people recreate on public lands
- Workload on agencies/counties/state to deal with lost and injured?

Funding

- Decreased budgets are concern and capacity to manage resource, provide infrastructure and enforce rules
- How can third parties help fill gaps?
- Public must take more responsibility to lands and trails where we recreate
- Registration of ATVs: outside revenue for maintenance, fund signage, policing, infrastructure
- Lack of capacity to manage – options to consider: gear tax like hunters and fishers have, non-motorized fee structure
- Policy change to get tourism money back to natural resources

Enforcement

- Police by peers instead of authorities. In the interest of the user group to police their own bad people
- Concern for all = losing privilege to use resource

Ethics and Etiquette

- Tools, maps, apps and signage: communicate to users what is appropriate where to avoid conflicts
- Need for self-policing
- Strong messaging from within user groups on etiquette
- Respect private lands

- Ethics – how do we build that norm across recreating public
- Increase respect and tolerance between users – Increase dialogue and cooperation
- How do we develop conservation ethic? Opportunities with spokespeople.

## Discussion and Recommendations

### Committee structure and governance

Participants supported the formation of a coordinating committee to guide the progress of the High Divide Collaborative. Up to this point, the Heart of the Rockies Initiative has been the primary facilitator and coordinator with ad hoc involvement from participants. The steering committee structure will create a more formal and committed leadership team, while Heart of the Rockies staff will retain facilitation and coordination roles.

The coordinating committee will create technical teams called together around specific goals. These teams will include stakeholders willing to participate on an as needed basis. The committee will also make recommendations on the best method for disseminating information from committee and technical team meetings, with a clearinghouse on the www.highdivide.org website. Meeting participants suggested some deliberate overlap of technical team interaction and communication.

Participants also suggested building upon the reputation of the Collaborative and finding some issues of strong common ground to pursue policy or rule changes. Some also offered a reminder to continue to reach out to our networks who are not in the room. Expand the invitations to participate.

UPDATE (July 2017): The High Divide Coordinating Committee continues to develop. The committed leaders include:

Private Landowners, Ranchers
Merrill Beyeler, Beyeler Ranches; Leadore, ID
Zachary Miller, Rancher & Idaho Farm Bureau
Heath Martinell, Martinell Ranches; Dell, MT
John Crumley, Madison Valley Ranchlands Group, rancher from McAllister, MT

Watershed Groups/Community Based Groups
Jen Downing, Big Hole Watershed Committee
Brandon Hoffner, Henry's Fork Foundation/HF Watershed Council
Toni Ruth, Salmon Valley Stewardship
Jamie Cottom, Beaverhead Watershed Committee

Land Trusts/Conservancies
Jim Berkey, The Nature Conservancy - Montana
Kristin Troy, Lemhi Regional Land Trust

Public Land Conservation Advocates
Kim Trotter, Yellowstone to Yukon Initiative, Idaho
*Vacant, Montana organization*

Tribes
*vacant*

MT and ID State Wildlife Agencies
Renee Lemon, Montana Department of Fish, Wildlife & Parks
Rob Cavallaro, Idaho Department of Fish & Game

Federal Agencies
Scot Schuler, Dillon District Ranger, Beaverhead-Deerlodge National Forest
Bill Davis, Dubois District Ranger, Caribou-Targhee National Forest
Jim Tucker, Supervisors Staff Officer, Salmon-Challis National Forest
Mary D'Aversa District Manager, Idaho Falls, Bureau of Land Management Idaho
Cornelia Hudson, Field Office Manager, Dillon, Bureau of Land Management Montana
Sandi Fisher, Team Leader, U.S. Fish and Wildlife Service, Eastern Idaho Field Office
Yvette Converse, Coordinator, Great Northern Landscape Conservation Cooperative

Natural Resources Conservation Service
Tracie O'Neill, Rangeland Management Specialist, Division 6 Idaho
*Vacant, Montana*

## How can we advance achievement of our collaborative conservation goals?

**ECOLOGICAL LINKAGE** (High Divide Collaborative Workshop 03-16-16)
Sub-goals: Sustain regional fish and wildlife and biodiversity; Secure networks of connected habitats; Healthy and resilient ecosystems; Recognize people and wildlife interactions and problems and resolve people/wildlife conflicts.
Data needs: Fine scale data for key terrestrial, aquatic and avian species to identify priorities
Key messages:

- Recent empirical research by wildlife agencies and NGO scientists are confirming that the High Divide is of continental significance for wide ranging wildlife.
- Habitat connectivity is critical for healthy and abundant fish and wildlife populations, access to seasonal habitats, gene flow, a means of repopulating areas, and sustained biodiversity.
- In the High Divide, we must think big picture (landscape scale) when we consider connectivity.
- Even species like sage grouse are moving great distances between important seasonal ranges.
- Connectivity modeling can leverage telemetry data to predict wildlife movement over broader areas and into the future under predicted environmental changes.

Challenges/opportunities:

- Need resources to study migrations and locate weak links—the bottlenecks.

- The quality of the connectivity habitat is vital as it determines how rapidly wide-ranging species must move.
- Identify and mitigate significant barriers to wildlife movement.
- Work collaboratively to resolve people/wildlife conflicts with respect for private land issues
- Recognize and respond to challenges of invasive species and disease.
- Public awareness and education, public safety.
- The Collaborative can be a partnership and information clearinghouse.

CULTURAL LEGACY—TRIBAL and TRADITIONAL – *to come*

WORKING RANCHLANDS (High Divide Collaborative Workshop 04-05-17)
Sub-goals: tell the story of working ranchlands to key audiences, develop more incentives and tools for private landowners, advocate for public land grazing with flexibility and adaptation
Data Needs: understanding run-off timing and subsoil aquifer hydrology
Key Messages: Ranching in the High Divide is integral to economy and communities and provides a host of ecological services and public benefit. Stories illustrating these services and benefits need to be told to correct misconceptions. Many resources and partnerships are available to assist with conservation and restoration that can increase productivity/profitability.
Challenges/Opportunities:

- Changing hydrology, runoff patterns and irrigation efficiencies need to be considered and adjustments made to capture earlier runoff
- The Collaborative can help to build and collect content for storytelling
- Opportunity to join with similar rural organizations to have strong voice in DC
- Workshop dedicated to incentives and tools, value-added ag products and branding opportunities
- Intermountain West Joint Venture continues to develop decision support tools for conservation action and investments.

RECREATION (High Divide Collaborative Workshop 04-05-17)
Sub-goals: access, planning, safety, ethics and education, funding needs, minimizing conflicts
Data Needs: landscape-specific data, rec user impacts, broad range planning
Key Messages: Increasing populations are recreating on public land, with improving technology. User etiquette is a great concern, as well general safety knowledge. Infrastructure, maintenance and enforcement budgets are a concern.
Challenges/Opportunities: Several agencies are undergoing plan updates, which are an opportunity for stakeholders to provide input. GYC's recreation summit in April 2018 in Bozeman. Maintaining balance of providing opportunities and conserving resources is big challenge. How can the Collaborative help or support educating public about living with bears, safety in the backcountry, etc.? Explore new funding mechanisms.

CLEAN AND ABUNDANT WATER (High Divide Collaborative Workshop 03-15-16)
Sub-goals: Water quantity and quality, protect native fish, sustain working farms and ranches, drought resiliency, wetland & riparian habitats, flood control, natural storage, supply for downstream users.
Data needs: Need to integrate local knowledge into regional picture; regional picture of water infrastructure; landscape mapping of native fish occurrence, connectivity, resilience, priority;
Key messages:

- High Divide is in a precipitation shadow, relatively arid, water supply primarily from snow melt.

- Changes in water management may create a greater challenge to natural water flow than does climate change.

Challenges/opportunities: Manage ground water recharge; restore floodplain connectivity; retain traditional irrigation systems (limit groundwater withdrawl); drought resilience planning needed.
Challenges/opportunities: Good network of local NGOs, agencies, but need sustained local organization capacity funding; coordinated data collection and improved monitoring; shared learning and training.

SAGEBRUSH STEPPE ECOSYSTEMS (High Divide Collaborative Workshop 03-16-16)
Sub-goals: Habitat for many sage dependent wildlife species; important rangeland for many ranching operations.
Data needs: Resilience/resistance assessment regarding climate change, soil moisture, temperature
Key messages:

- Sage steppe ecosystems are important for many wildlife species, including sage grouse.
- The High Divide supports high quality sage grouse habitats that are in better condition than are many Great Basin habitats.
- Wildfire induced vegetation conversion is a major habitat threat.

Challenges/opportunities:

- Build private/public partnerships to build trust.
- Land protection/conservation easements to maintain sagebrush habitat.
- Restoration, particularly in mesic (wet/green) areas.
- Manage vegetation to reduce conifer encroachment and increase rangeland health.
- Rangeland fire protection partnerships with landowners and pro-active management of agency fire-fighting resources to more effectively contain wildfire.
- Reduce wildlife conflicts from invasive species, pesticide use, fence collisions, etc.

HEALTHY FOREST LANDS (High Divide Collaborative Workshop 04-04-17)
Sub-goals: active management for robust diversity and resilience, local economies, watersheds, fire, disease
Data Needs: infrastructure, harvests, forest types and age class, fire activity
Key Messages: High Divide forests are some of the most intact, remote, and primitive in the lower 48, retaining more wildlife species than other regions. Infrastructure is a continued problem for getting forest products to market.
Challenges/Opportunities:

- Pay attention to Governor Bullock's effort with the Western Governors Association on forest management.
- Engage more citizen science in monitoring.
- Be involved in Forest Plan updates. Participate in collaborative processes. Encourage watershed approach in updates: forests need flexibility within adaptive management to react faster that management plans allow them to. Encourage flexibility to include emerging science and data into plans.
- Analyze stakeholders and what power they have to influence change
- Identify and map existing collaboratives for cross-learning and to identify gaps
- Pool voices of collaborative efforts across a bigger high divide landscape
- Find key stakeholders to serve as good example to the rest of the industry, ambassadors
- Use our High Divide platform to influence policy changes for stewardship contracting, to include some preference to local contractors. The ability to include localness in the consideration and give it some weight would help local contractors compete, contribute to the local economy, and would help tamp down the anti-federal sentiment.

**WILDLAND URBAN INTERFACE** (High Divide Collaborative Workshop 03-15-16)

Sub-goals: Promote community and personal safety and reduce fire-fighting costs; keep natural fire functions on the land; conserve habitat and watershed values in WUI.

Data needs:

Landscape-scaled wildfire risk modeling can provide for integrated risk assessment.

Inclusion of WUI in landscape scaled conservation planning.

Key messages:

- Across the West, fires are bigger, burn longer and hotter with a longer season. More homes are being built in WUI, more homes are burning.
- Fuels have changed dramatically on the landscape, in part because of past fire management.
- Change in climate is creating more extreme wildfire conditions.
- Counties with very little private land are very limited in where they can build and avoid wildfire risk.
- Vegetation management (fuel treatment) options are limited due to lack of mills and harvest capacity, high treatment costs, and in some cases, social opposition to vegetation management.

Challenges/opportunities:

- Community planning assistance for wildfire, in some cases derived from detailed fire modeling.
- Find opportunities to put fire back in the landscape.
- Find ways to more efficiently and more cost effectively manage fuels.
- Community based collaborative projects can gain broad support and positive outcomes.
- Use land conservation and land use management tools in WUI.

# Appendix A – What is the High Divide Landscape?

When we consider wildlife movement and cultural and social connections, it is difficult to draw a boundary around a landscape or an ecosystem. The High Divide Landscape is no exception. In this appendix, we provide greater clarity to our descriptions of the High Divide Landscape through presentation of several maps that have been shown with that title.

## The High Divide Plan (Map1)

Launched in 2008, the Heart of the Rockies Initiatives' (HOTR) High Divide stakeholder driven planning process culminated in presentation of "*Connecting The Landscape, A Proposal for Collaborative Conservation in the High Divide Region of Montana and Idaho"* in 2010. HOTR's High Divide planning area included over 21 million acres, extending across a large belt of mountain valleys, from the Lost River, Lemhi and Salmon River Valleys in Idaho across western Montana to the Smith River in the east. A diverse group of local land trusts in Idaho and Montana and statewide and national land conservation organizations partnered with local community leaders, representatives from state wildlife agencies, state and federal land management agencies, and non-governmental organizations to develop this plan. The plan goal was to map the conservation values found on private lands in the High Divide region. The planning partners deployed the best available biological, agricultural and cultural information to identify lands of high value for conservation in an effort to focus conservation resources. Although the plan was focused upon private lands, it recognized that private lands account for only 31% of the High Divide landscape as defined in this planning effort. These private lands are disproportionately important ecologically and economically given their locations, but are also tightly linked to the region's public lands.

HOTR's High Divide Plan version of the High Divide Landscape is the "land between", in other words the "lands that connect," the Greater Yellowstone Ecosystem (GYE) to the vast Central Idaho Wilderness to the west and to the Crown of the Continent or Northern Continental Divide Ecosystem to the north. The High Divide is an important east-west linkage zone between the Greater Yellowstone Ecosystem and the vast Salmon-Selway Wilderness, and a north-south linkage to the Crown of the Continent ecosystem and beyond into Canada. This varied region, with lower elevation river corridors, valley meadows, sagebrush steppe, and wetlands and higher elevation montane forest and alpine terrain, is tremendously important to the continued viability of large, mobile ungulates and carnivores and many other fish and wildlife species in the region. It is also a landscape of working lands where ranches, farms, and timber operations are integral to the social and economic fabric of the entire region.

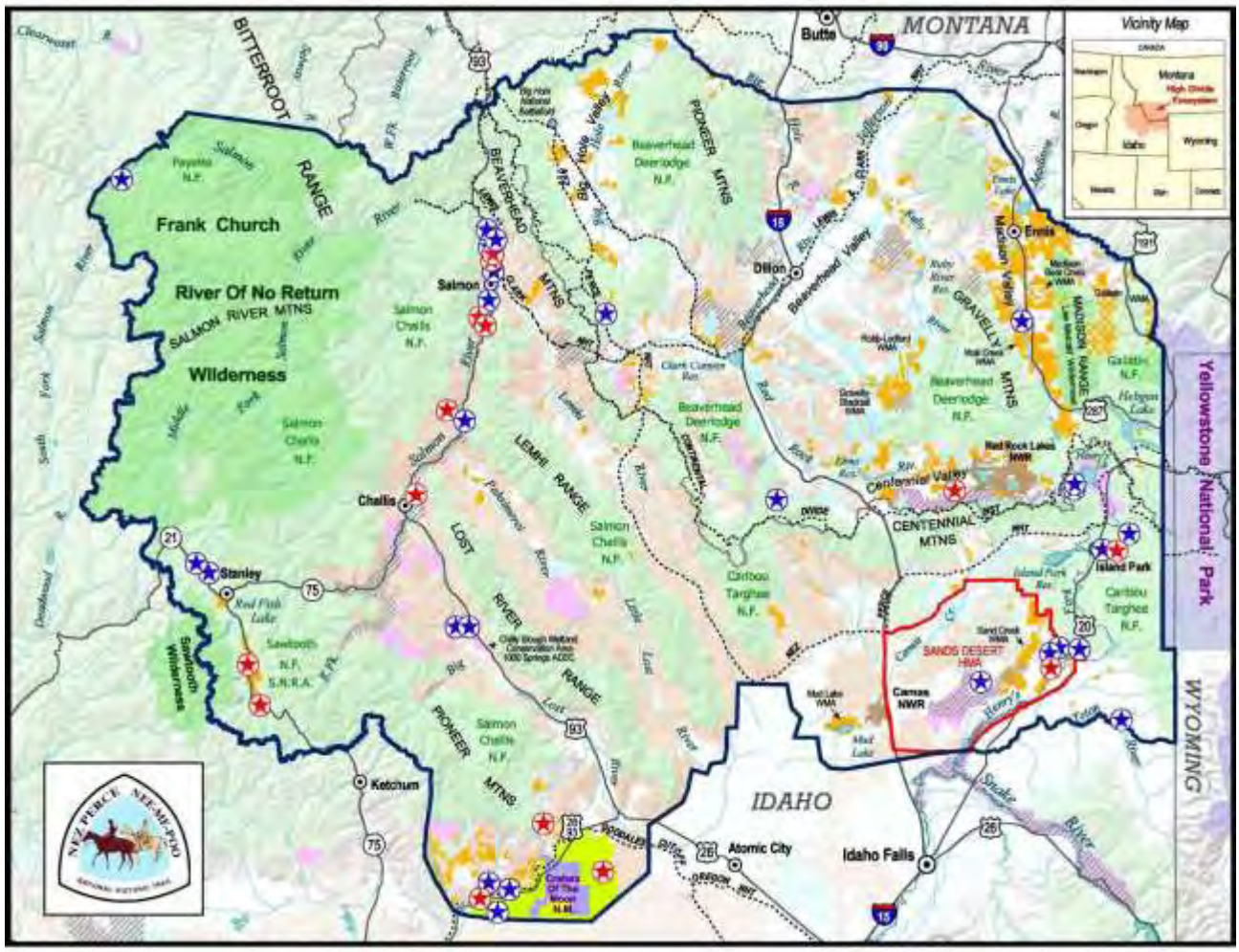
Map 1- High Divide Plan map from Heart of the Rockies Initiative 2010 proposal

## The High Divide Collaborative Land and Water Conservation Fund Landscape (Map2)

In late 2012, High Divide stakeholders came together to initiate formulation of ideas for a proposal to bring enhanced levels of federal Land and Water Conservation Fund (LWCF) resources to the High Divide. The partners recognized that the High Divide's continentally significant conservation values were a good match for the federal government's relatively new Collaborative Landscape Program within LWCF. Each year from 2013 to 2015, a growing group of High Divide stakeholders formulated proposals for enhanced federal LWCF funding for fiscal years 2015 to 2017. Ultimately these proposals generated significant conservation resources for the High Divide in fiscal years 2016 and 2017.

A key step in the formulation of these LWCF proposals was preparation of a High Divide Landscape map. Federal LWCF coordinators counseled the High Divide proponents to be very focused and somewhat circumspect in identification of this landscape to make a clear case for LWCF investments. Considerable discussion among stakeholders led the group to emphasize the social and ecological connections that link the GYE and Southwest Montana to Central Idaho, essentially the western portion of the larger High Divide landscape coupled with connecting lands in the Greater Yellowstone Ecosystem that demonstrate linkage between Yellowstone National Park and Central Idaho. This High Divide LWCF map does not include more northerly and easterly portions of the greater High Divide landscape and their connecting lands in the GYE and Crown of the Continent.

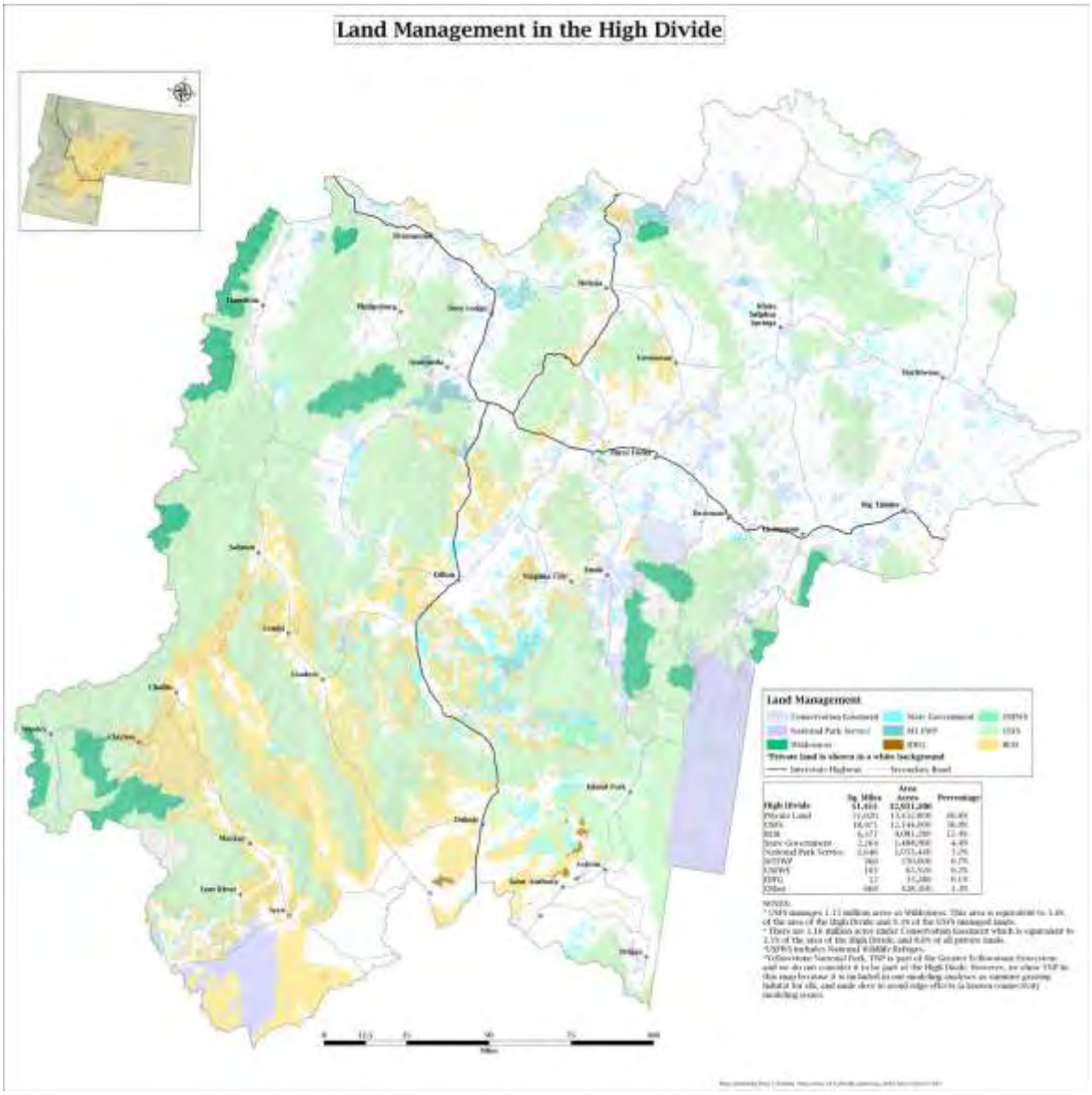
Map 2 - High Divide Collaborative Land and Water Conservation Fund Landscape



## The High Divide Landscape Conservation Design Study Area (Map3)

As the High Divide Collaborative formed, initially around the Land and Water Conservation Fund proposals, regional stakeholders began to push for a broader focus both geographically and in identification of landscape conservation opportunities. Throughout formulation of the High Divide Collaborative LWCF proposals, a key effort was identification and mapping of landscape resources. This effort matured into a more robust High Divide Landscape Conservation Design process as stakeholders further fleshed out their conservation goals and sought greater stakeholder networking and landscape planning. HOTR's High Divide Landscape Conservation Design study area is broader geographically than the High Divide Conservation Plan area and includes connected landscapes in the GYE and Crown. This broader area of analysis facilitates a more thorough assessment of ecological, social and cultural linkages as we seek information and data relevant to planning for conservation actions in the High Divide landscape.

### Map 3 – High Divide Landscape Conservation Design Study Area

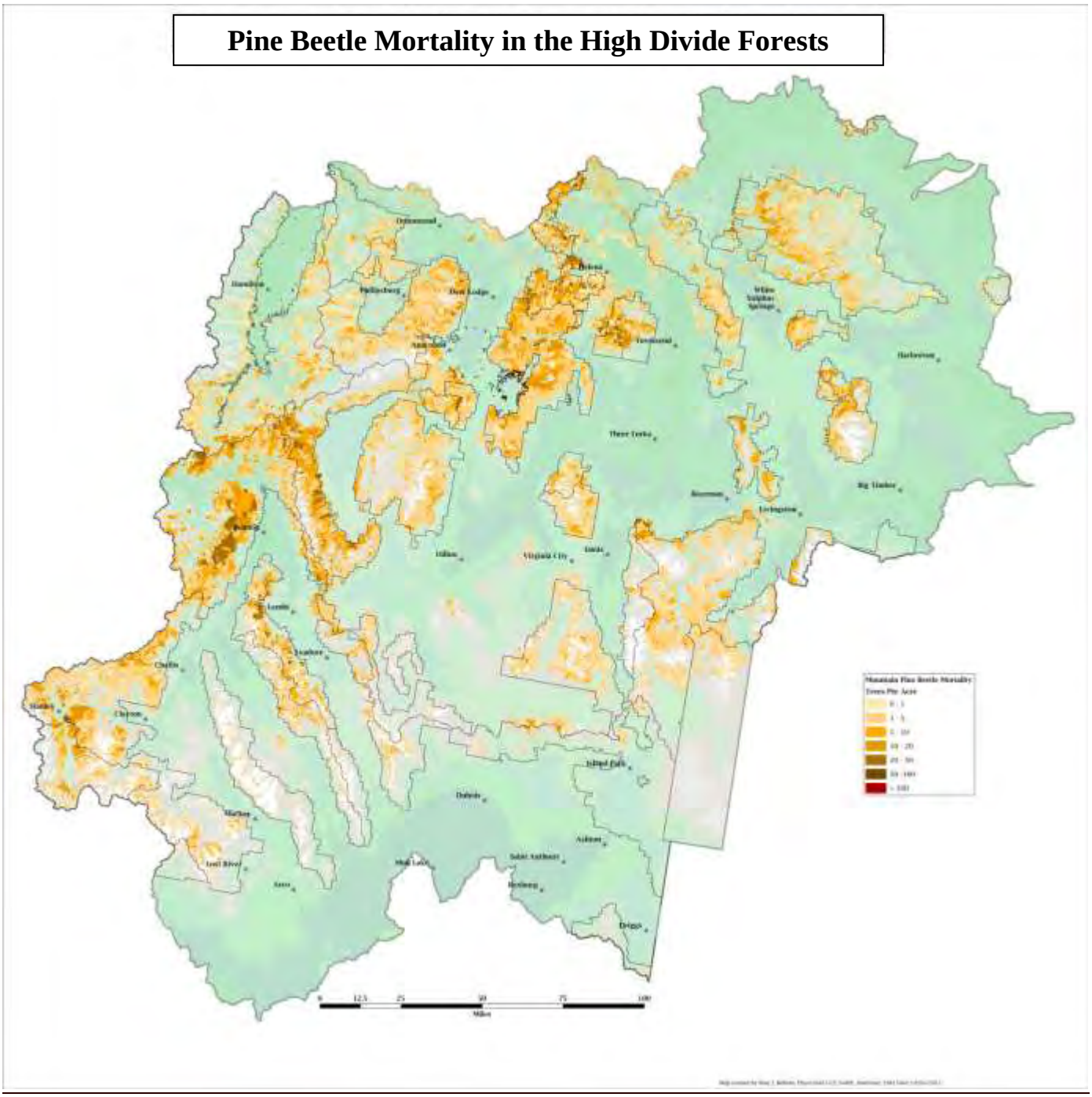


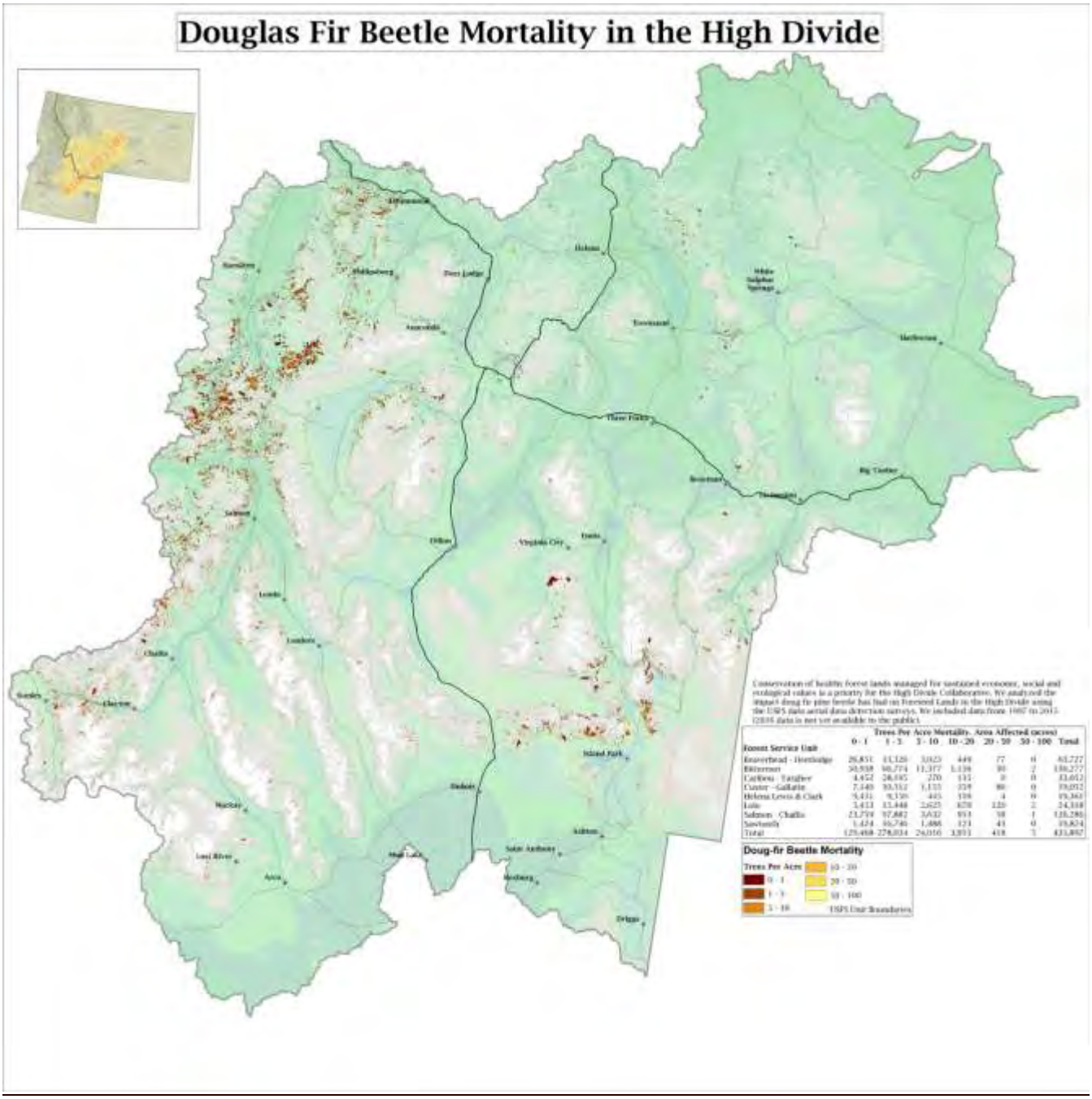
## The High Divide Collaborative Area of Interest (Map 4)

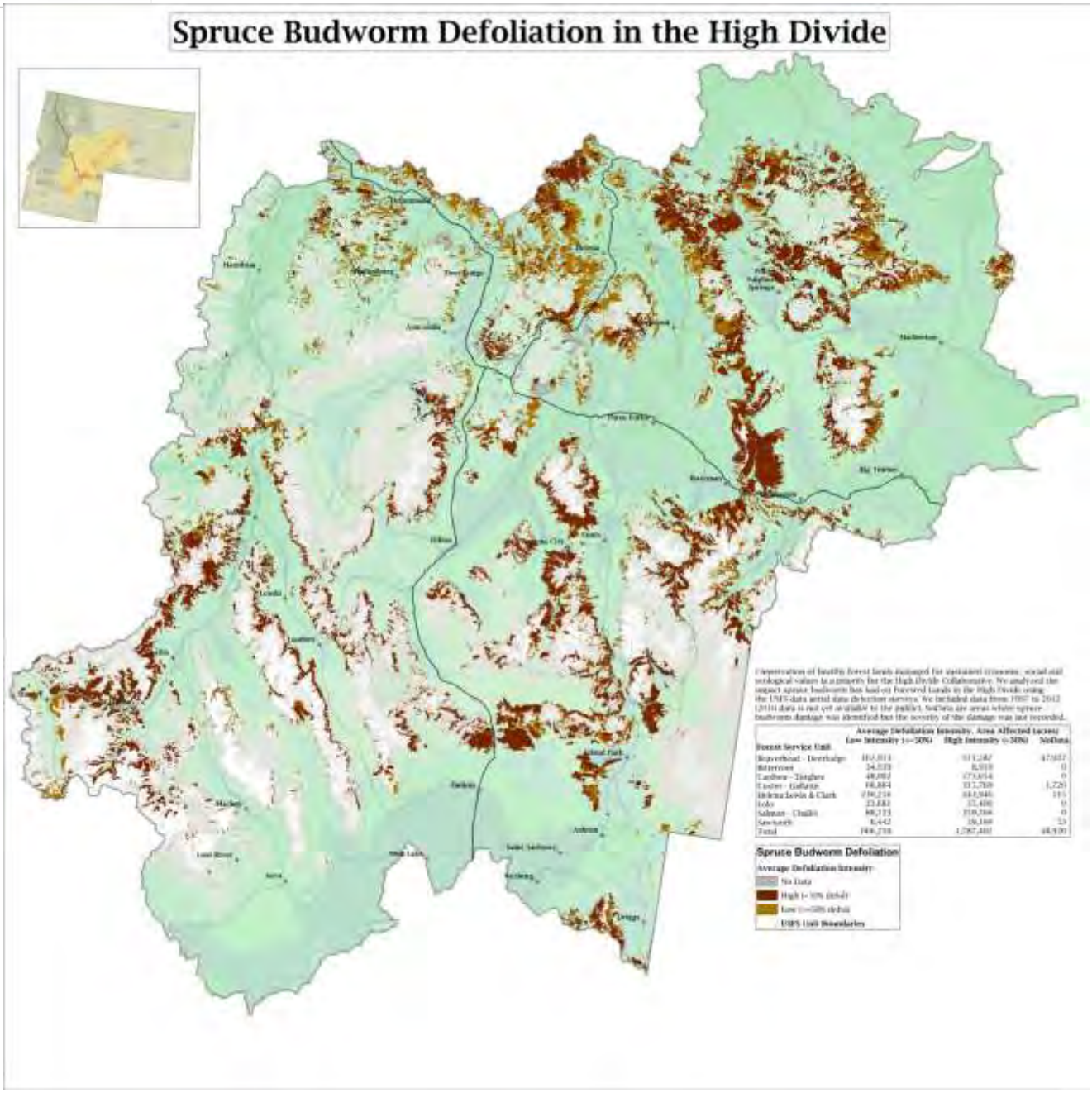
The High Divide Collaborative has matured into a partnership among more local conservation initiatives with the potential to bring together many conservation opportunities for the High Divide Landscape. But once again, we struggle to define a boundary. Our map of the High Divide Collaborative Area of Interest is defined loosely as the geography within which we have a high level of engagement among High Divide stakeholders. The area features a great deal of commonality in cultural and resource values and social connections. The broader Landscape Conservation Design Study Area enables us to better understand some linkages, but the Collaborative does not include stakeholder engagement from the entirety of that study area, and the Collaborative's stakeholder led development of conservation strategies will necessarily focus on a narrower Area of Interest, at least for the foreseeable future.

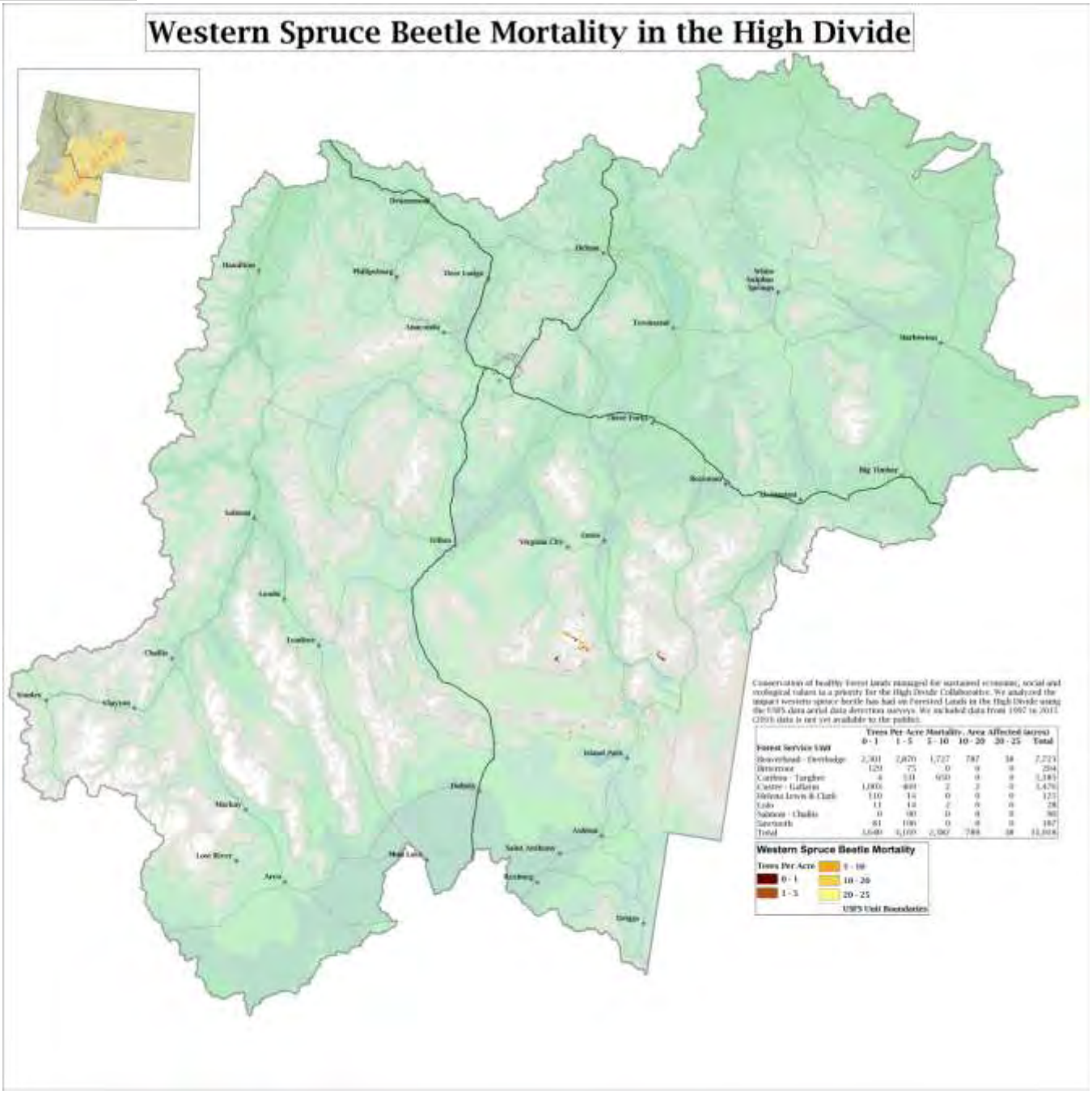
Map 4 – The High Divide Collaborative's Area of Interest

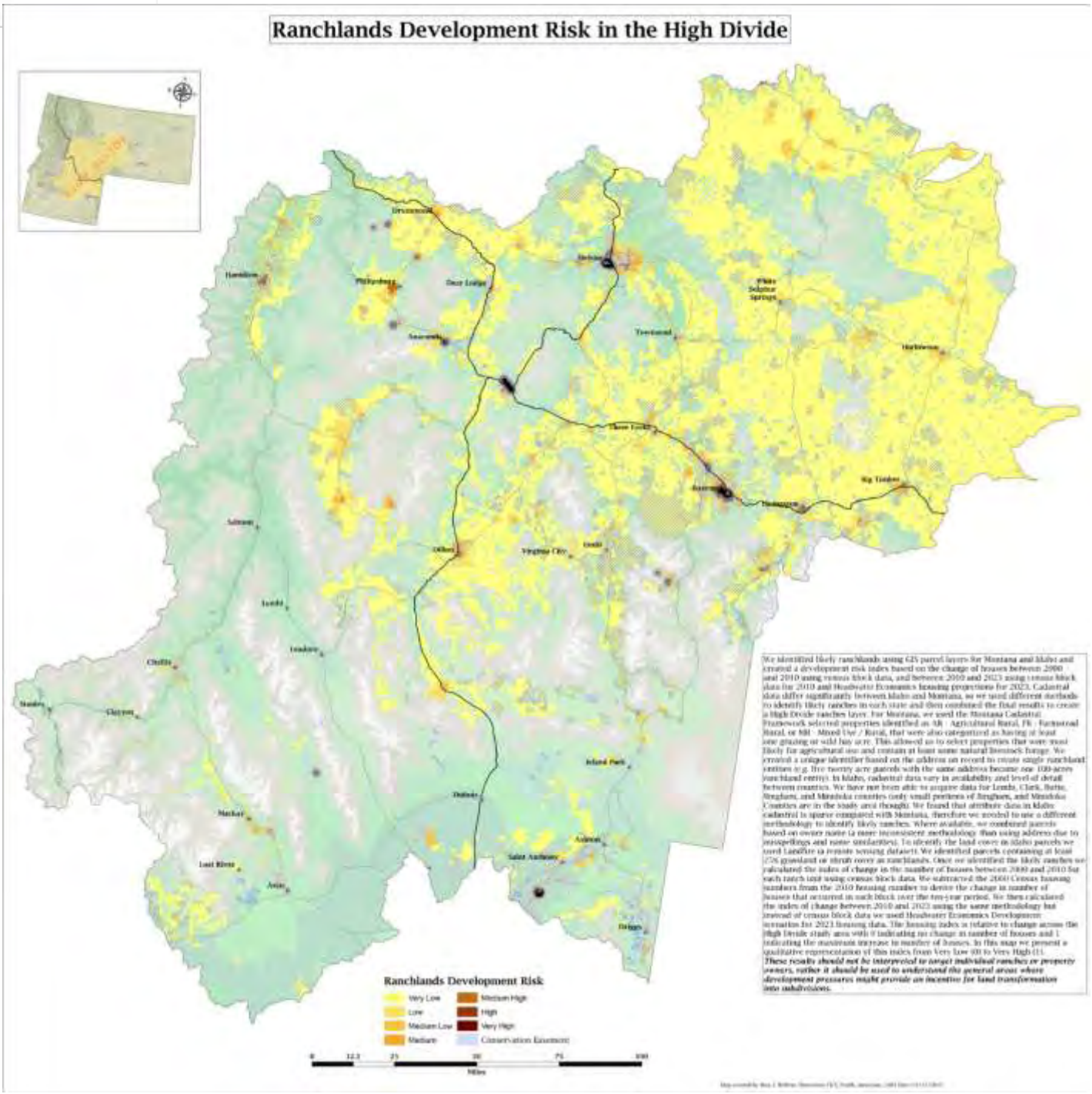
# Appendix B – Maps depicting Current State of Resources in the High Divide Landscape Conservation Design Study Area



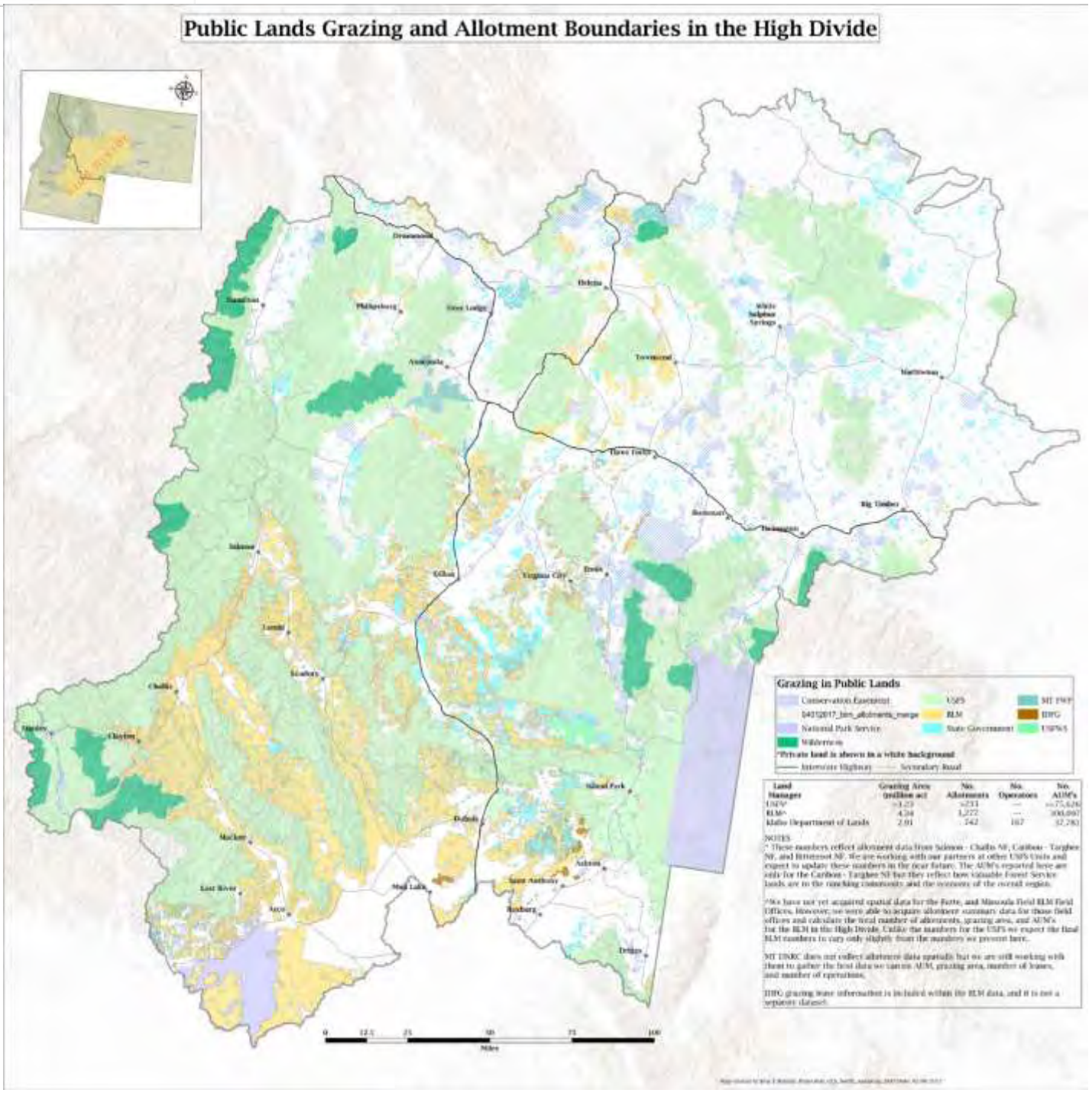

Douglas Fir Beetle Mortality in the High Divide
Doug-fir Beetle Mortality

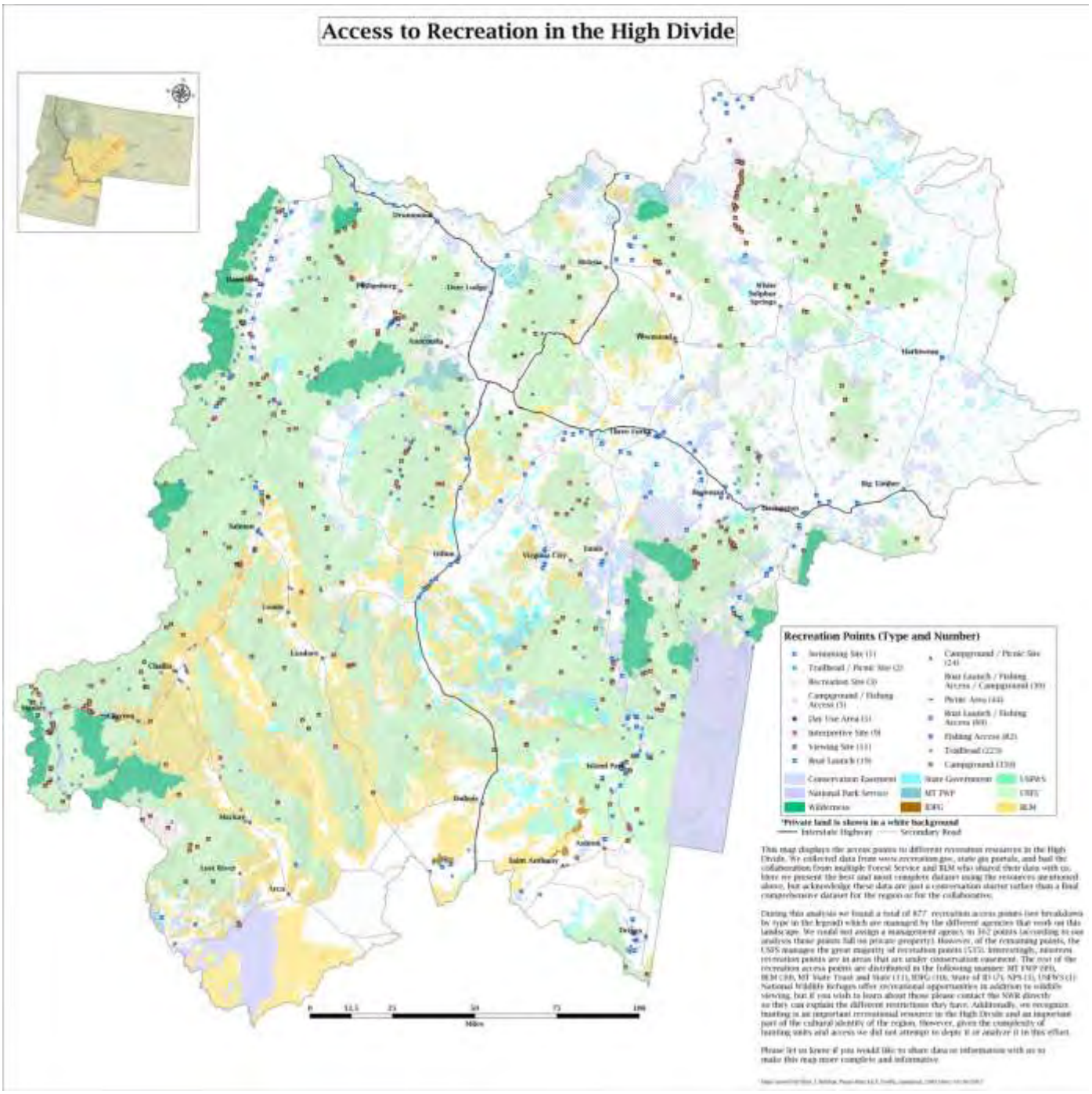

Spruce Budworm Defoliation in the High Divide
Spruce Budworm Defoliation
Average Defoliation Intensity
No Data
High (> 50% defol)
Low (<=50% defol)
USFS Unit Boundaries


Western Spruce Beetle Mortality in the High Divide
Western Spruce Beetle Mortality
Trees Per Acre
0 - 1
1 - 5
5 - 10
10 - 20
20 - 25
USFS Unit Boundaries




These results should not be interpreted to target individual ranches or property owners, rather it should be used to understand the general areas where development pressures might provide an incentive for land transformation into subdivisions.


Public Lands Grazing and Allotment Boundaries in the High Divide
Grazing in Public Lands
Conservation Easement
04152017_lam_allotments_merge
National Park Service
Wilderness
*Private land is shown in a white background
Interstate Highway
Secondary Road
USFS
BLM
State Government
MT DNRC
IDFG
USFWS
Land Managers
Grazing Area (million ac)
No. Allotments
No. Operators
No. AUM's
USFS*
BLM^
Idaho Department of Lands
2.01
242
107
37,783
NOTES
* These numbers reflect allotment data from Salmon - Challis NF, Caribou - Targhee NF, and Bitterroot NF. We are working with our partners at other USFS Units and expect to update these numbers in the near future. The AUM's reported here are only for the Caribou - Targhee NF but they reflect how valuable Forest Service lands are to the ranching community and the economy of the overall region.
^We have not yet acquired spatial data for the Butte, and Missoula Field BLM Field Offices. However, we were able to acquire allotment summary data for these field offices and calculate the total number of allotments, grazing area, and AUM's for the BLM in the High Divide. Unlike the numbers for the USFS we expect the final BLM numbers to vary only slightly from the numbers we present here.
MT DNRC does not collect allotment data spatially but we are still working with them to gather the best data we can on AUM, grazing area, number of leases, and number of operations.
IDFG grazing lease information is included within the BLM data, and it is not a separate dataset.
Miles


Access to Recreation in the High Divide
Recreation Points (Type and Number)
Conservation Easement
National Park Service
Wilderness
State Government
MT FWP
BMG
USFWS
USFS
BLM
*Private land is shown in a white background
Interstate Highway
Secondary Road
Miles

# Appendix C – Common Acronyms

ACEC – Area of Critical Environmental Concern

AUM – amount of forage needed by an "animal unit" (AU) grazing for one month

BDNF – Beaverhead-Deerlodge National Forest

BHA – Backcountry Hunters and Anglers

BHNB – Big Hole National Battlefield

BHWC – Big Hole Watershed Committee

BLM – Bureau of Land Management

BMP – Best Management Practices

BPA – Bonneville Power Administration

BSU – Boise State University, Idaho

CCAA – Candidate Conservation Agreement with Assurances

CDNST – Continental Divide National Scenic Trail

CE – Conservation Easement

CFLRP –Collaborative Forest Landscape Restoration Program

CFS – stream flow measurement in cubic feet per second

CHAT – Crucial Habitat Assessment Tool

CIRN – Central Idaho Ranchlands Network

CLLC – Center for Large Landscape Conservation

CLP – Collaborative Landscape Proposal

CRP – Conservation Reserve Program

CVA – Centennial Valley Association

CWMA – Cooperative Weed Management Area

DEQ – Department of Environmental Quality

DNRC – Montana's Department of Natural Resources Conservation

DSS – Decision Support System

EQIP – Environmental Quality Incentive Program

ESA – Endangered Species Act

FHA – Federal Highway Administration

FLTFA – Federal Land Transaction Facilitation Act

FO – Field Office

FRPP – Farm and Ranch Protection Program

FWP – Fish, Wildlife and Parks

FY – Fiscal Year

GIS – Geographic Information Systems digital mapping format

GNF – Gallatin National Forest

GPS - Global Positioning System

GRP – Grassland Reserve Program

GVLT – Gallatin Valley Land Trust

GYC – Greater Yellowstone Coalition

GYE – Greater Yellowstone Ecosystem

HFF – Henry's Fork Foundation

HMA – Habitat Management Area

HOTR – Heart of the Rockies Initiative

IDFG – Idaho Department of Fish & Game

IOGA – Idaho Outfitters and Guides Association

IWJV – Intermountain West Joint Venture

ISU – Idaho State University in Pocatello

LCC –Landscape Conservation Cooperative

LCD – Landscape Conservation Design

LCNHT – Lewis & Clark National Historic Trail

LRLT – Lemhi Regional Land Trust

LWCF – Land and Water Conservation Fund

MILES – Managing Idaho's Landscapes for Ecosystem Services

MLR – Montana Land Reliance

MOGA – Montana Outfitters and Guides Association

MTFWP – Montana Department of Fish, Wildlife & Parks

MOU – Memorandum of Understanding

MSU – Montana State University in Bozeman

MVRG – Madison Valley Ranchlands Group

MWA – Montana Wilderness Association

NAWCA – North American Wetland Conservation Act

NDRP – National Drought Resilience Partnership

NEPA – National Environmental Protection Act

NF – National Forest

NFWF – National Fish & Wildlife Foundation

NGO – Non Governmental Organizations
NHT – National Historic Trail
NMFS – National Marine Fisheries Service
NOAA – National Oceanic & Atmospheric Administration
NP – National Park
NPNHT – Nez Perce National Historic Trail
NRCS – Natural Resources Conservation Service
NST – National Scenic Trail
NWR – National Wildlife Refuge
OHV – Off Highway Vehicle
OSC – Office of Species Conservation
PILT – Payment in Lieu of Taxes
REA – Regional Ecosystem Assessment
RMEF – Rocky Mountain Elk Foundation
SCNF – Salmon-Challis National Forest
SNRA – Sawtooth National Recreation Area
SRMA – Special Recreation Management Area
SWAPs – State Wildlife Action Plans
T&E – Threatened and Endangered
TCF – The Conservation Fund
TRCP – Theodore Roosevelt Conservation Partnership
TNC – The Nature Conservancy
TPL – Trust for Public Land
TWS – The Wilderness Society
UMW – University of Montana Western in Dillon, MT
USFS – United States Forest Service
USFWS – United States Fish & Wildlife Service
WCS – Wildlife Conservation Society
WGA – Western Governors Association
WLA – Western Landowners Association
WMA – Wildlife Management Area
WRLT – Wood River Land Trust
WRP – Wetland Reserve Program
WUI – Wildland Urban Interface
YNP – Yellowstone National Park