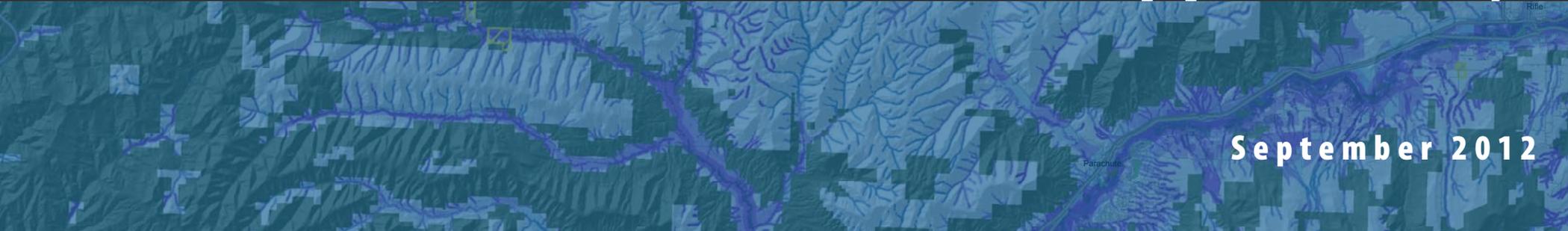




Garfield County

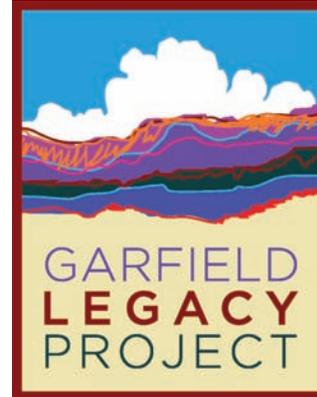
GREENPRINT

For Conservation & Economic Opportunity



September 2012

Parachute



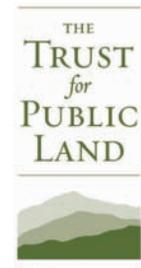
PROJECT CONVENERS

Garfield Legacy Project
The Trust for Public Land
Sonoran Institute

PROJECT PARTNERS AND FUNDERS

Aspen Valley Land Trust
Doris Duke Charitable Foundation
Garfield County
Garfield Legacy Project
Great Outdoors Colorado
Sonoran Institute
The Trust for Public Land

The information in this document does not necessarily represent the ideas or opinions of project funders.



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Garfield Greenprint Steering Committee

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PREFACE

When I first came to Garfield County almost 40 years ago, it was a splendid sight. Snow blanketed Glenwood Canyon and steam rose from the hot pots in the Colorado River. The drive from Glenwood Springs to Carbondale was a drive through the country, with big ranches sprawled along the Roaring Fork. Going along the new I-70 Interstate to Parachute, which was called Grand Valley (and Battlement Mesa was not yet conceived), I saw ranchlands on both sides and dramatic views of the Book Cliffs and Grand Hogback. Rifle was off the highway on the north side of the road, and a drive through New Castle meant taking a frontage road through the two-block commercial district anchored by Pete Mativi's gas station and Monk Dawson's taxidermy shop.

Today, Garfield County is still a splendid sight but one that is increasingly suburbanized and a bit more like many other places. Commercial and residential developments have sprung up along the major rivers and roadways, and the towns are growing together. Large expanses like Battlement Mesa, Missouri Heights, and Silt Mesa, which were once ranch and habitat lands, have become densely developed and now require urban-type services from our county government.

A group of local citizens concerned about losing the qualities that made us want to live here in the first place has spent the past three years studying ways to quantify the natural resources that make Garfield County an attractive place for businesses and residents.

The Greenprint is a discussion with the residents of Garfield County to identify what they value about living here and what they feel is worth protecting for our future. This objective, science-informed project quantifies, ranks, and maps natural assets on private land that Garfield County residents say are important to them. These natural resources are not just "pretty land" or "quaint" tourist attractions; they are clean and ample water; ranches for local food production; quality wildlife habitat for hunting, fishing, and watching wildlife; as well as trails and public access for locals and tourists. These resources, like other assets, such as mineral or timber, provide important economic benefits to our region. However, these resources do not need to be extracted or depleted to serve the local economy; in fact, the loss of these resources could have negative economic impacts over the next decades.

The Greenprint provides a vision for the future of Garfield County based on what residents say they value and want to conserve. It provides a roadmap, but how to travel down that road is the next step for residents to decide.

Conserving natural resources can be done in one of two ways – by government regulation, or by purchasing land or development rights from landowners who want to sell them. This fall, Garfield County residents will be asked to decide if conservation of these resources is important to them and if they want to join other Colorado counties in establishing an open land program to be funded by a ¼ of one cent sales tax. The funds will be used to purchase development rights on properties that have been identified through the Greenprint as having valuable natural resources, or for municipalities to purchase land that is important for public access. In all cases, a landowner's decision to sell development rights or sell their land for conservation is strictly voluntary.

As someone who has made a home in Garfield County, I think about how I want this home to be for my children and granddaughter. When I think of what has given me joy over the past 40 years, it isn't the convenience of a new shopping center or a new house where a hayfield used to be; it's a camp in the high-country, a walk along the river with my dogs, and the pleasure of a farmer's market dinner with the family.

I want those things for the next generation and the one after that. To have those experiences for them, I realize we have to act now. The Greenprint is a vision for that, and we have an opportunity to make it reality.

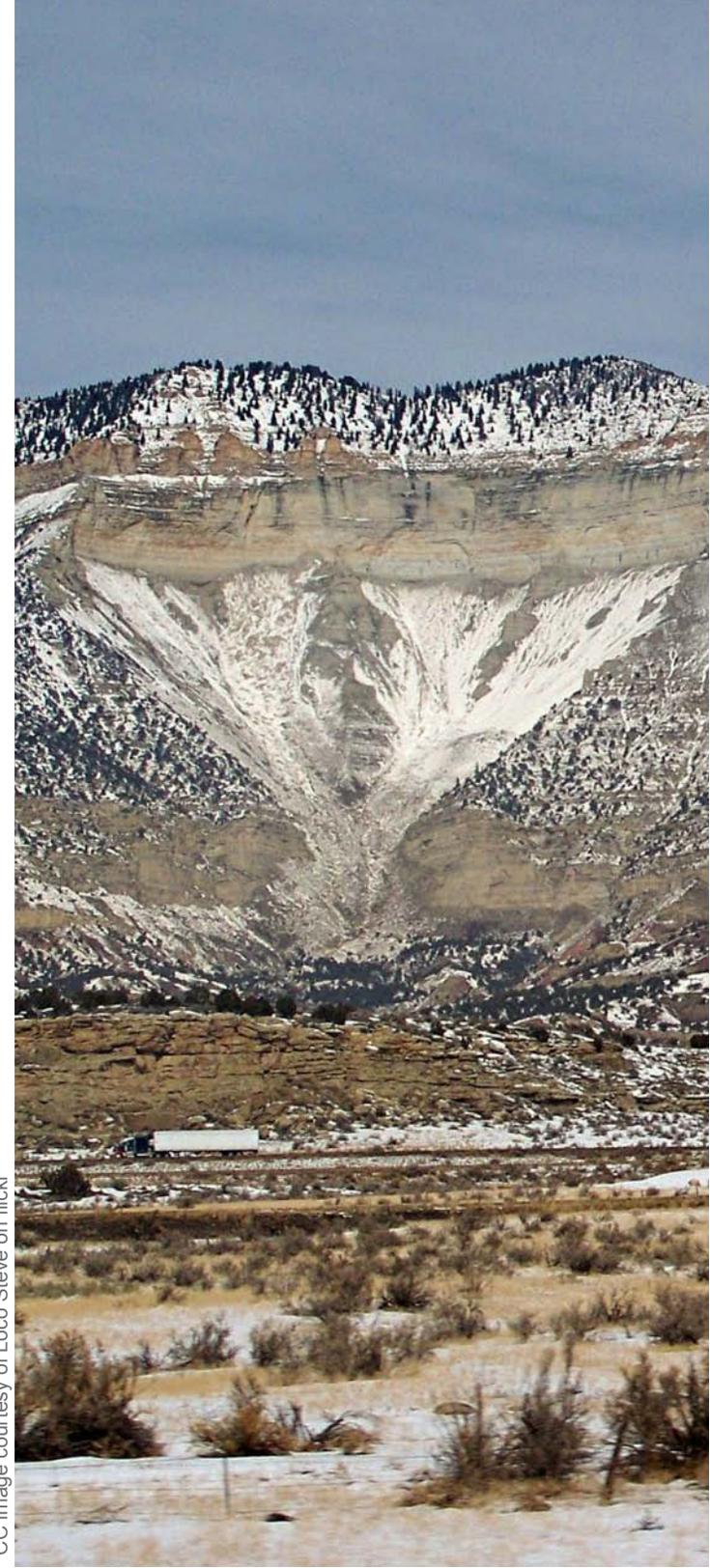
Martha Cochran
Glenwood Springs Resident
August 2012

EXECUTIVE SUMMARY

The Garfield Greenprint for Conservation and Economic Opportunity creates a framework for strategic conservation in Garfield County, Colorado. Recognizing the relationship between open land, quality of life, and economic development, the Greenprint provides a series of maps representing the county's most valuable natural assets. Through public listening sessions, citizen interviews, and the participation of a diverse and thoughtful Steering Committee, the Greenprint project identified seven primary conservation goals:

- » Conserve working ranches and farms
- » Preserve and enhance recreational/tourism opportunities
- » Preserve water quality and quantity
- » Create open land buffers around communities
- » Enhance trail systems
- » Protect wildlife habitat and native plants
- » Restore impaired waters

Working with a local Steering Committee and Technical Advisory Committee, the Greenprint collected publicly available science-based data related to each goal, and mapped that data across the landscape. The Steering Committee evaluated each goal map and, using the results of a recent countywide public opinion survey, applied weights to each map in order to aggregate them into one composite map. The composite map shows the places across the county where multiple natural assets exist. The Steering Committee then developed a list of action planning items that could advance the goals identified in the Greenprint. The project ran from September 2011 to November 2012.

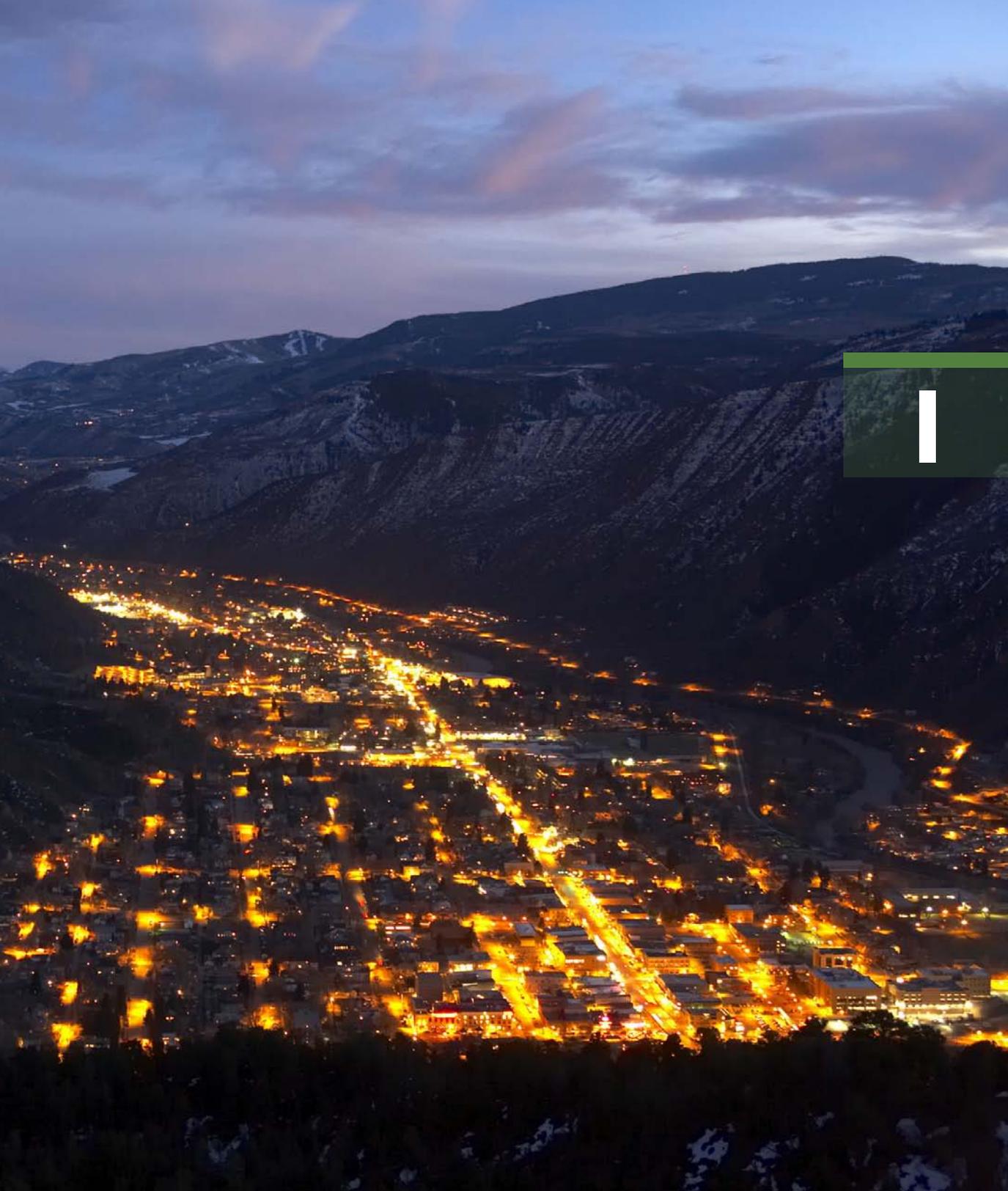


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Introduction

Garfield County is a land of change. Its county seat, originally established as the town of Defiance is now known less boldly as Glenwood Springs. The river once referred to as the Grand, remains so in purpose but is better known as the Colorado. The Grand Valley today is home to thousands of people stretching from Glenwood Canyon to Rulison. And a population of almost 60,000 people is projected to double in 20 years.

While much about Garfield County may have changed, a few things have stayed the same. Our ability to meet change head on and persevere is as hardy as ever. Our resources and recreation drive a robust and diversifying economy. People are visiting and moving here to enjoy what we have to offer. This is a place that cares about its heritage, and values the legacy it will leave.

Change will occur in Garfield County, of that we can be sure. And the landscapes and open

The Garfield Greenprint for Conservation and Economic Opportunity is the result of county residents identifying their priorities for lands to protect in the future. Working with willing landowners, future conservation partners can refer to the Greenprint to ensure their investments are strategic, cost-effective, and representative of community values.

land are a large part of the reason people and businesses will move here. This is the Garfield County paradox: the things attracting people to the county could disappear because of the additional people they attract. An important question facing Garfield County will be how we preserve our quality of life in the face of this change.

Recognizing that change will inevitably occur, and that open land is a driver of this change, a group of citizens began to think about what areas of the county are most valued because of their open land assets, and how these areas might be protected as new residents arrive. The Greenprint project is the result of community input and collaboration in an attempt to address these issues and questions.

WHAT IS A GREENPRINT?

A Greenprint is a visual roadmap for voluntary land conservation based on local goals and priorities. It is intended to serve as a guide for voluntary land conservation with willing landowners, and ensure that future conservation investments are strategic, cost-effective, and representative of community values.

The project brought together people representing different perspectives from around the county to

identify specific conservation goals, which were translated into maps showing areas that best reflect each goal. A composite map shows areas meeting multiple goals, and therefore offering a high “bang for the buck” for future conservation investments. The result is a vision for strategic conservation based on local values and the best available data.

The Garfield Greenprint also highlights linkages between strategic land conservation and economic development. This is particularly important in Garfield County. Agriculture, hunting, and fishing are all important to the local economy; and access to parks, trails and recreation is central to the quality of life that attracts tourists, residents, and businesses to the area. The Greenprint uses public participation and computer modeling to identify, prioritize, and depict a community’s open land assets. It blends science and outreach in a way to help local governments and communities make informed land use decisions, guiding where growth and development should ideally occur in relation to the protection of important natural, cultural, and recreational resources. The Greenprint is used only to help guide voluntary land conservation with willing, private landowners.





II

The Greenprint Process

In order to understand what matters most to people, the Garfield Greenprint focused on public engagement and outreach. The project included organized activities and events to ensure that the broadest range of interests had a seat at the table. In turn, participants helped achieve the following project goals:

- 1) Create broad community outreach
- 2) Identify community conservation goals
- 3) Map priorities for each goal
- 4) Create action plan for implementing project objectives

THE GREENPRINT PROCESS IN A NUTSHELL

Community Outreach

- » **Conducted** personal interviews with residents
- » **Created** local Technical Advisory Team to guide mapping process
- » **Defined** project objectives

Identify Community Conservation Goals

- » **Analyzed** existing conditions
- » **Conducted** four community workshops
- » **Identified** conservation goals
- » **Developed** guiding principles

Map Priorities for each Goal

- » **Assembled** existing Geographic Information System (GIS) data
- » **Created** GIS models
- » **Ranked** goals and criteria
- » **Created** asset maps
- » **Held** four community open houses

Action Planning

- » **Determine** realistic steps for implementation



The Trust for Public Land

COMMUNITY OUTREACH

A project Steering Committee helped to build awareness of the project and provide guidance. The Steering Committee offered suggestions for defining and identifying open land assets, assisted with planning and conducting public events, provided advice to the Technical Advisory Team and Project Team, and helped communicate project goals and objectives to interested parties.

To ensure a diversity of perspectives, the Steering Committee was composed of over 60 people from all major geographies and industries in Garfield County.

The Steering Committee also helped organize two other important building blocks to this important public outreach:

Personal Interviews. Project partners held over 20 interviews with landowners and residents, asking them a variety of questions about land conservation and public process methods.

Technical Advisory Team. The Technical Advisory Team included experts from the public and private sectors. Members provided input on the development and refinement of the maps, recommended available data sources for mapping analysis, and helped ensure the use of sound science in the mapping of open land assets.

During the initial Steering Committee meetings, participants developed these objectives to guide the project:

- » Work with people in Garfield County to identify open space goals and values.
- » Explain the potential value of voluntary land conservation.
- » Develop maps that show opportunity areas for conservation with willing landowners.
- » Help guide a county-wide open space program to ensure that investments are strategic and representative.
- » Include action steps for implementing the Greenprint results.

IDENTIFY COMMUNITY CONSERVATION GOALS

The Greenprint relies on the contributions of community members and technical experts to help identify and prioritize local conservation values.

Existing conditions. Project partners researched existing information and conducted an in-depth analysis of the county's economics, land-use, demographics, geography, and historic and natural resource features. Results of this report are included in Appendix I.

Goal-Setting Workshops. In November 2011, people came together in four listening sessions held throughout the county. The sessions attracted a variety of perspectives as landowners, residents, ranchers, businesses, and civic leaders discussed local open land goals. In addition, an online poll drew out more information about residents' open land values.

Conservation Goals. Participants at the goal-setting workshops identified several conservation goals, which the Steering Committee combined into a final set of seven specific goals (in no order of importance):

- Conserve working ranches and farms
- Preserve and enhance recreational/tourism opportunities
- Preserve water quality and quantity
- Create open land buffers around communities
- Enhance trail systems
- Protect wildlife habitat and native plants
- Restore impaired waters

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“We are the custodians of this beautiful place and all that lives on it; it is so very, very precious.”

– Wendy McNulty

“All the communities are learning to embrace each other, understand each other’s strengths, and are cooperating. Modern economic growth will be based on this sense of regionalism.”

– Marianne Virgili

Guiding Principles. Throughout the Greenprint process, residents provided a range of ideas and comments concerning land conservation. These ideas transcended the primary purpose of the project, but are valuable for considering larger land conservation efforts. The Steering Committee captured these comments and developed a set of Guiding Principles, which are intended to help guide the Greenprint project, both in terms of the planning process and Greenprint implementation.

Use conservation to create economic opportunity. Open land conservation enhances economic security by protecting valued natural resource assets that are a branch of the county’s economy. Conservation of these assets protects and increases tourism opportunities; increases the value of private property; provides places for people to play, visit, and recreate; provides access for hunting, fishing, and wildlife watching; and perpetuates viable agriculture operations. Incentive-based conservation provides alternatives to traditional options of development or sale of land.

Reflect local needs and values. This is Garfield County. Successful land conservation must reflect local needs and values. This means working with willing landowners, respecting private property rights, and making sure public investments in conservation are efficient and impactful.

Keep water on agricultural lands. Garfield County’s agricultural lands provide jobs, locally grown food, wildlife habitat, and a link to our Western heritage. A productive agricultural sector relies on the availability of water. Investments aimed at conserving agricultural land should ensure that water needed to keep the land productive is also conserved. The project supports the continued use of agricultural water rights.

Provide for multiple uses and multiple benefits. Open land in Garfield County serve multiple purposes. For example, while land along rivers and streams may help to shade and filter water, it also provides important habitat for wildlife and access to fishing. The project recognizes the potential for multiple benefits of open land protection, and strives to maximize those benefits.

Conservation is voluntary. The program only supports conservation efforts with willing landowners. Partners do not support the use of eminent domain or regulatory actions intended to result in conservation. The county and towns are encouraged to work with willing landowners to determine future conservation needs.

Avoid incompatible uses of conserved lands. Certain activities are incompatible. In the same way that conservation investments should seek to provide multiple benefits, they must also avoid or mitigate conflicts with or impacts to adjacent lands. For example, recreational trails can impact agricultural lands. An effective program will ensure that these conflicts are identified and addressed prior to making conservation investments.

Energy development and conservation can coexist. Energy exploration is and will continue to be an important part of Garfield County’s economy, and many of the county’s largest landowners are energy companies. Because land conservation is a voluntary action taken by a private landowner, the project does not seek nor intend to interfere with these operations, and will work with willing energy companies to conserve important open land assets that companies own or lease. A successful program in Garfield County will not only avoid investments that are incompatible or interfere with energy development, but will also take advantage of potential opportunities that arise from energy development activities.

CONSERVATION GOALS AS COMMUNITY ASSETS

Communities able to protect open land enjoy a competitive economic advantage over those who cannot. As the nation's workforce evolves, workers have more flexibility in choosing where to live, and a quality of life defined by open land, recreation, and scenery will become a major factor in their choice of where to live. Communities are realizing that protected open land is an economic asset.¹

For this reason, the Greenprint maps are referred to as “asset maps.”

1. Sources:

Measuring the Economic Value of Land Conservation”. Belvoir Ranch, City of Cheyenne, WY. June 2008. Prepared by Wenk Associates, Inc, et al.

Crompton, John L., Lisa L. Love, and Thomas A. More. “An Empirical Study of the Role of Recreation, Parks and Open Space in Companies’ (Re) Location Decisions,” *Journal of Park and Recreation Administration*, 1997: 37-58.



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MAP PRIORITIES FOR EACH GOAL

Input from the Steering Committee and public goal-setting workshops generated the conservation goals. Next, the Technical Advisory Team, the Steering Committee, and others gathered and combined the data to create individual goal maps.

Assemble Existing Data. The Technical Advisory Team (TAT) gathered existing Geographical Information Systems (GIS) data relating to each goal. Project Steering Committee members and others sought data from reliable sources. All data sources used in the creation of the individual asset maps are included in appendix III.

Create Computer Model. GIS experts from The Trust for Public Land developed a computer-based model to combine the data gathered for each of the open land assets. The model served as the platform to combine the data for each goal.

Rank Goals and Criteria. The TAT evaluated the data for completeness, accuracy, and reliability to ensure that its inclusion in the individual asset maps was sound and defensible. The TAT “weighed” the individual data sets based on reliability and based on the degree to which the data was important to achieving the conservation goal. The rationale and methodology that the TAT employed in making these weighting determinations is included in appendix III.

Create Asset Maps. That TAT created asset maps depicting the location of each of the goals that stakeholders identified.

Community Open Houses. To provide residents an opportunity to comment on the asset maps before the maps were finalized, four open houses were held – in Rifle, New Castle, Glenwood Springs, and Carbondale. Participants reviewed the asset maps, provided comments, and reviewed posters explaining the project and process.



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ACTION PLANNING

Action planning entails developing a series of ideas for communicating the goals of the Greenprint project and identifying steps needed to implement the project's objectives. During the Steering Committee's last two meetings, members considered how to achieve the conservation goals depicted in each of the asset maps. Their ideas are documented below and are organized based on their relevancy to Greenprint goals and other topics that could complement the Greenprint project.

Greenprint Goal: Conserve working ranches and farms

- Target outreach to agriculture: landowner forums; one-on-one meetings; meet with partners/organizations (e.g., conservation districts, cattlemen, farm bureau).
- Work with local food group to identify and overlay potential areas for local crops (soil and water) or where greenhouses may be compatible.
- Work with existing farm/ranch planning efforts (e.g., conservation districts, Natural Resources Conservation Service).

Greenprint Goal: Preserve and enhance recreation and tourism opportunities

- Improve access to rivers and streams, where appropriate, with consideration of environmental impacts.
- Purchase access and access agreements from private landowners where appropriate.
- Identify important access points for fishing and boating.
- Encourage access for hunting in new conservation transactions.
- Develop a map of existing river/stream access points.
- Share information more broadly, and encourage others to share information.
- Find information related to trafficked areas, user days, and mode preference.

Greenprint Goal: Preserve high water quality and adequate water quantity

- Share these maps with organizations.
- Educate on multiple values of conservation along rivers and streams.
- Educate on how some values may be in conflict (e.g., trails along riparian areas).
- Coordinate with the source water protection

efforts underway (municipal and homeowner associations).

- Work on keeping water here.
- Encourage the purchase of water rights, which helps keep water in the area (related to recreation/tourism).

Greenprint Goal: Create open land buffers around communities

- Identify and develop tools to preserve buffers between communities.
- Encourage coordination between local governments (e.g., intergovernmental agreements between city/county).
- Identify areas with high wildfire potential and incorporate them into maps (e.g., wild land/urban interface).

Greenprint Goal: Enhance the trail systems

- Develop a map and then a brochure that shows all existing trails, including trailheads (this map should include all public trails).
- Install kiosks at trailheads that include trail maps.

- Develop a Garfield County trails plan. It could consolidate and build on towns' existing trails plans; it could also identify then resolve conflicting uses and spillover areas (existing and potential). As part of this, identify appropriate uses for trails and sign them accordingly, such as mountain bike vs. equestrian, etc.
- Provide for multi-use trails (such as equestrian).
- Explore further mechanisms to enhance and maintain trails.

Greenprint Goal: Preserve and enhance wildlife habitat and native plants

- Develop a process to ensure thoughtful planning for future use of new public land with high habitat value.
- Consider and plan to avoid impacts, but balance with need for public access.
- Provide education regarding the potential conflicts and use compatibility that may exist between wildlife conservation and other forms of conservation (e.g., trails).

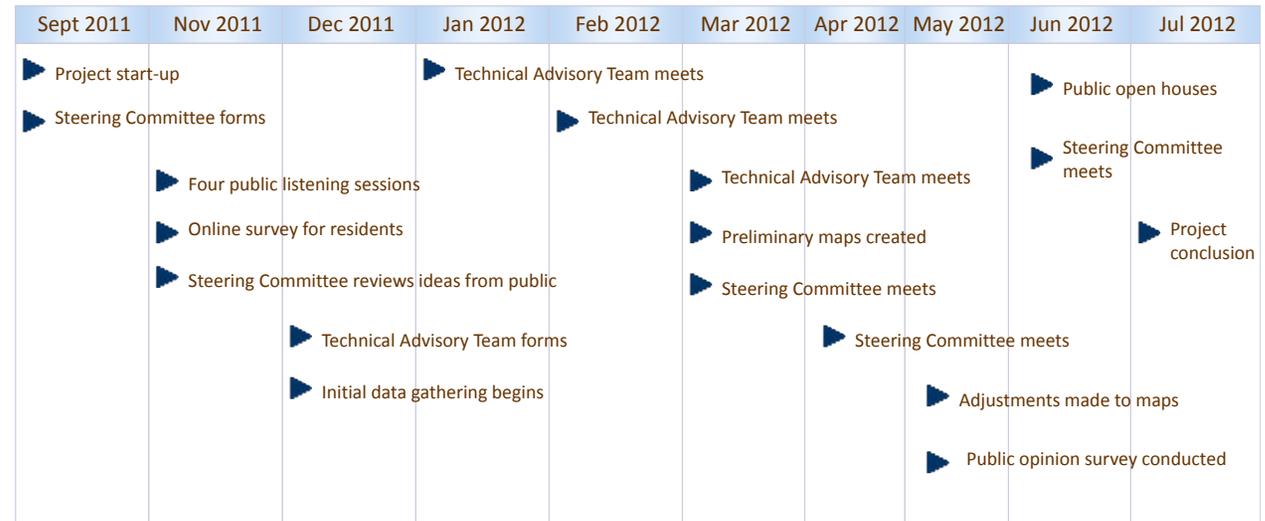
Greenprint Goal: Restore impaired waters

- Collaborate with watershed groups to gather better information.
- Encourage entities to restore impaired waters.

Other Action Planning Ideas

- Expand agriculture goals; include local foods as a specific goal.
- Be clear about what the Greenprint is/is not.
- Identify and promote economic benefits of strategic conservation/recreation development. For example, the City of Rifle has been looking at recreational amenities to attract investment, such as trail development. There is already a tourism-based industry in the county.

Figure 1. Calendar of major project events



- Highlight successes of previous Greenprints and related programs from other areas.
- Present to town councils.
- Pursue tabling opportunities to get Greenprint before public at already scheduled events.
- Develop further partnerships.
- Reach out to other affected organizations.
- Conduct municipal outreach.
- Project partners should identify several “candidate” properties that could be conserved if an open land program is funded.
- Identify other funding sources (e.g., donations, fee in lieu).
- Help people understand threats to open land.
- Illustrate value of Greenprint as a planning tool to county/cities, and recommend adoption.

PROJECT WRAP-UP

After a set of draft asset maps were created, the project management team convened four open houses around the county (in Carbondale, Glenwood Springs, New Castle, and Rifle) to provide the public with another opportunity to “gut check” the maps and learn more about the Greenprint project. Attendees reviewed maps with the project team to ensure they were accurate and that relevant data had been collected, as well as to offer recommendations or changes regarding specific areas or features.

Finally, the Steering Committee reviewed the results of a public opinion survey conducted in May 2012 to “weigh” each asset map as it was aggregated into a composite map. The poll results informed the Steering Committee’s approach for weighing the assets, as the Steering Committee gave the greatest weight to those assets that polled highest. The assets that were weighted the highest are more visible in the composite map.



Garfield Greenprint Asset Maps

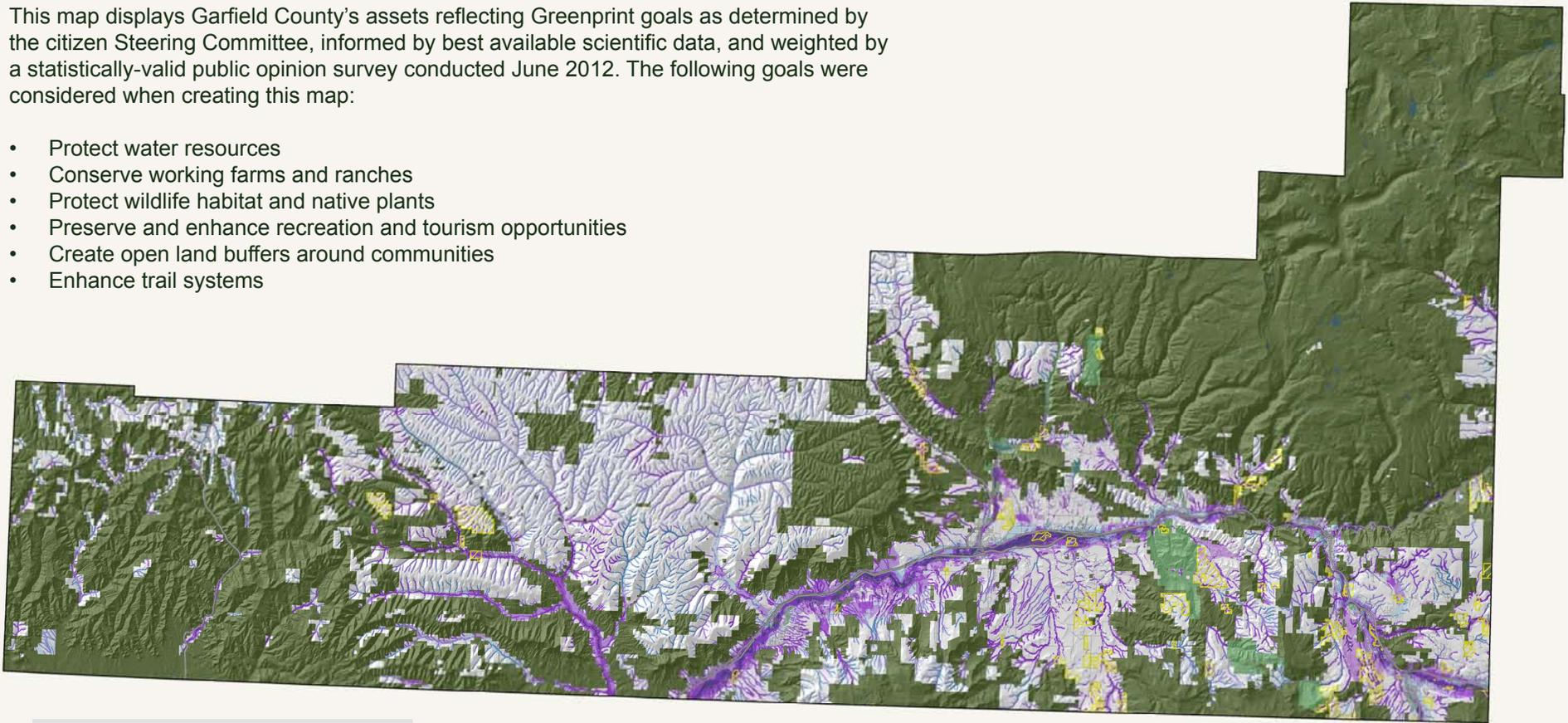
The Greenprint process produced six individual asset maps to represent each of the seven open land goals. Trails information was merged into the recreation and tourism map. One composite map aggregates the individual maps together to illustrate where multiple assets exist in the same place.

While these maps show many areas that have conservation potential, it is unrealistic to think that all of these lands will be conserved. It is important to remember that these are just opportunity maps illustrating which lands might be appropriate for conservation based on landscape features and landowner interest.

The maps are color-coded based on the criteria weightings, and they identify where conservation efforts can most efficiently and effectively direct their resources to meet the Greenprint goals. The most intense colors represent areas where the most conservation assets are present. Because the Steering Committee decided to color-code water resources independently, the composite map distinguishes areas of land and water economic assets.

This map displays Garfield County's assets reflecting Greenprint goals as determined by the citizen Steering Committee, informed by best available scientific data, and weighted by a statistically-valid public opinion survey conducted June 2012. The following goals were considered when creating this map:

- Protect water resources
- Conserve working farms and ranches
- Protect wildlife habitat and native plants
- Preserve and enhance recreation and tourism opportunities
- Create open land buffers around communities
- Enhance trail systems



Conservation & Economic Assets

Water Resources

- High
- Moderate To High
- Moderate

Land Assets

- High
- Moderate To High
- Moderate

Protected Lands

- Park, Recreation, and Wildlife Area Lands
- Federally Managed Lands
- Conservation Easements



Based on existing information, this map is not intended for use in a regulatory context, but rather to identify opportunities for working with willing landowners on voluntary land conservation. Because land conservation is voluntary, Greenprint maps do not seek to interfere with energy extraction operations, and project partners encourage conservation experts to work with willing energy companies to conserve open land assets.

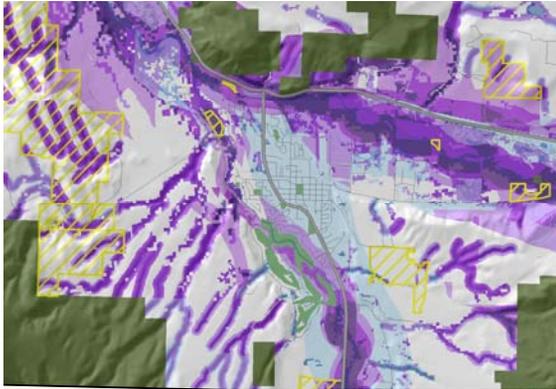
COMPOSITE MAP

The composite map brings together the individual asset maps, showing areas where multiple goals could be accomplished in one place. To create the composite map, the Steering Committee applied “weights” to the individual asset maps so that some of the goals would have more of an emphasis than others. To the degree that lands shown on the composite map are conserved in the future, those efforts will ensure the biggest “bang for the buck” in the county in terms of achieving

multiple conservation objectives, meeting several community values, and leveraging funds.

A Greenprint project partner, the Garfield Legacy Project, commissioned a statistically valid public opinion survey in May 2012, and included questions about the Greenprint goals in the poll. Respondents were presented with the seven Greenprint goals, and asked about the conservation importance of each.

CARBONDALE



GLENWOOD SPRINGS



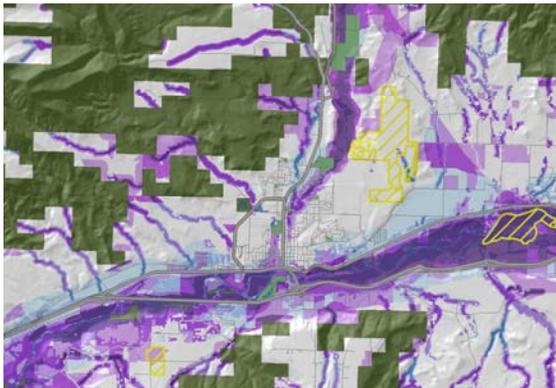
NEW CASTLE



PARACHUTE



RIFLE



SILT



The Steering Committee relied primarily on the results from the public opinion survey when determining weights for the composite map. The goal that received the highest poll response was weighted proportionately the heaviest, and so on down the list. Information gathered in the May 2012 poll of county residents resulted in goal priorities being weighted as follows:

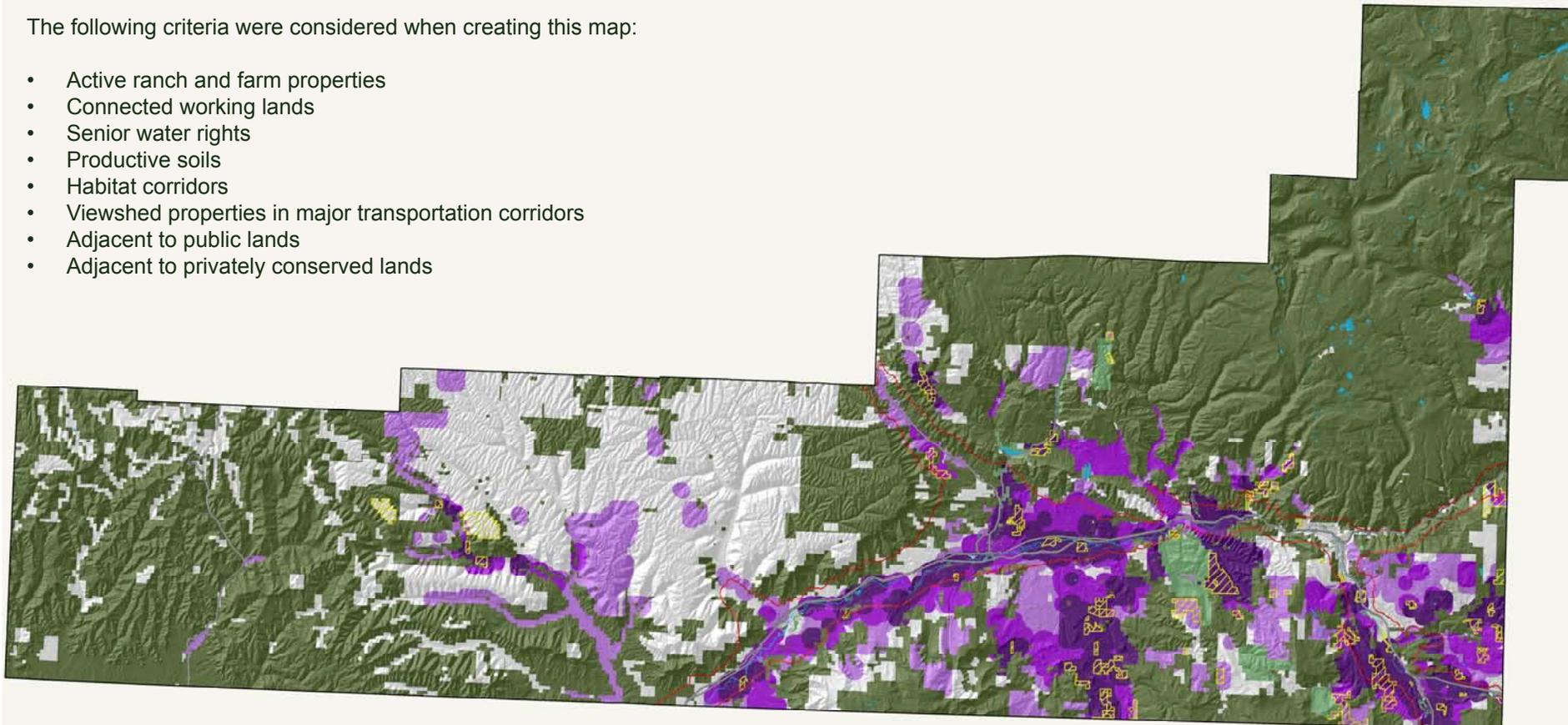
Water Resources	19%
Working Ranches and Farms	16%
Wildlife Habitat and Native Plants	16%
Recreation/Tourism Opportunities	15%
Impaired Waters	14%
Buffers around Communities	10%
Trail Connections Opportunities	9%

Please note that table does not add to 100 percent because numbers are rounded

However, the Steering Committee also sought to differentiate water resources in the composite map because (1) the public opinion survey clearly showed that people highly value water and (2) water resources affect significantly more than just drinking water sources, also providing benefit to the agricultural sector, wildlife habitats, and recreation. As a result the water priorities are indicated with a separate and distinct color palate.

The following criteria were considered when creating this map:

- Active ranch and farm properties
- Connected working lands
- Senior water rights
- Productive soils
- Habitat corridors
- Viewshed properties in major transportation corridors
- Adjacent to public lands
- Adjacent to privately conserved lands



Conservation and Economic Assets

- High
- Moderate To High
- Moderate

Protected Lands

- Park, Recreation, and Wildlife Area Lands
- Federally Managed Lands
- ▨ Conservation Easements

Context

- ▭ Transportation Corridor Viewshed



Based on existing information, this map is not intended for use in a regulatory context, but rather to identify opportunities for working with willing landowners on voluntary land conservation. Because land conservation is voluntary, Greenprint maps do not seek to interfere with energy extraction operations, and project partners encourage conservation experts to work with willing energy companies to conserve open land assets.

CONSERVE WORKING RANCHES AND FARMS

Stakeholders across the county placed a high value on the protection and sustainability of working farms and ranches. This reflects both the desire of many residents to preserve a traditional economy, the area’s scenic character, and rural way of life—as well as a growing focus on a local food economy. The map shows areas that, if protected, could help to preserve this type of

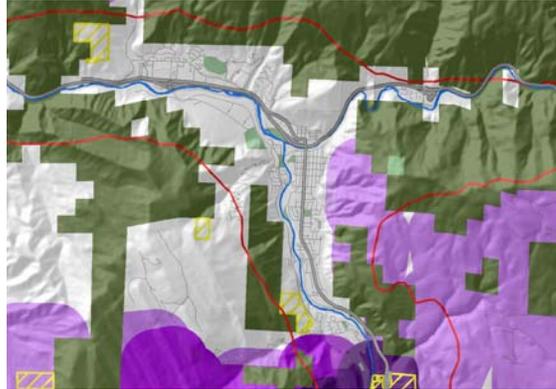
landscape and livelihood for the region.

While properties already being used for farming and ranching constitute an important element in the creation of this asset map, there are other factors beyond present use that can contribute to a sustainable farm and ranch economy. For example, properties that have access to any one or a combination of senior water rights, suitable soils, favorable slope and aspect, adjacency to existing working lands or public lands all have the potential to serve as excellent working lands.

CARBONDALE



GLENWOOD SPRINGS



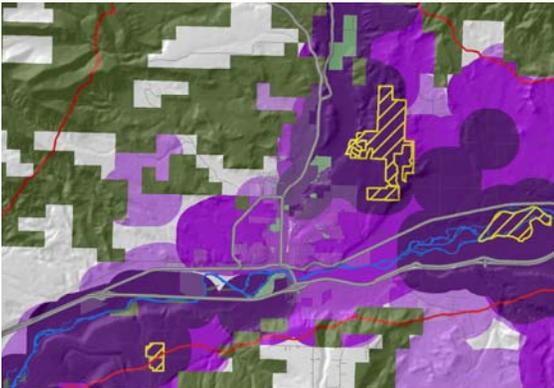
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Therefore, this map shows properties that have the potential to be high quality working lands, not just those properties that already are working lands.

Countywide, the vast majority of these priority agricultural lands are not yet protected with working land easements, easements that would guarantee that the land would always be available for farming and ranching purposes.

CC image courtesy of mikeccross on flickr



The following criteria were considered when creating this map:

- Public access to federal lands
- Opportunities for new river access (fishing)
- Opportunities for new river access (kayaking, rafting, tubing)
- Locations for hunting
- Opportunities for managed target practice (gun and archery)
- Historic buildings, structures, and features
- Park gaps within communities
- Golf courses and ski mountains

- Multi-use recreation areas (winter and summer non-motorized recreation)
- Climbing areas
- Camping areas
- Existing trails
- Opportunities for new connections*

*Some proposed trail connections near Silt and Rifle are depicted with a thicker purple line where a specific route has not yet been defined.



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Conservation and Economic Assets

- High
- Moderate To High
- Moderate

Protected Lands

- Park, Recreation, and Wildlife Area Lands
- Federally Managed Lands
- Conservation Easements

Trails

- Existing
- Planned

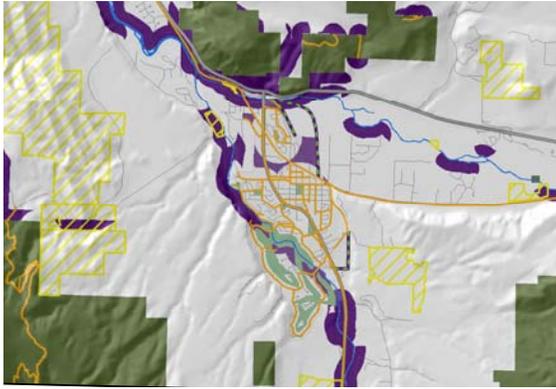
PRESERVE AND ENHANCE RECREATIONAL/TOURISM OPPORTUNITIES

This map indicates the areas that provide the best opportunity for improving recreational, tourism, and trail opportunities in Garfield County. Because trails are an important part of an increasingly tourism-based economy, this map incorporates both opportunities for trail enhancement as well as areas for more recreation and tourism.

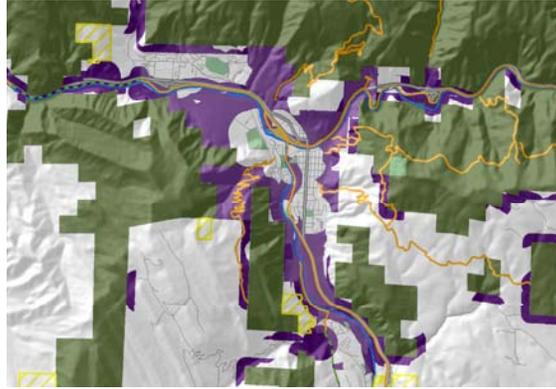
Areas important to tourism and recreation were generally described as those areas that provide, or could provide, access to the county's public lands and rivers/streams. Hunting and fishing, mountain biking, hiking, four-wheel driving, snowmobiling, and numerous other recreational and tourism activities rely to a certain degree on access to the backcountry. There are an estimated 3,723 tourism-related jobs in Garfield County, and they are expected to grow at 1.7 percent - 3.8 percent per year.¹

1. "Regional Social-Economic Profile, Region 11". Colorado Department of Public Affairs, State Demography Office. Updated October 2010.

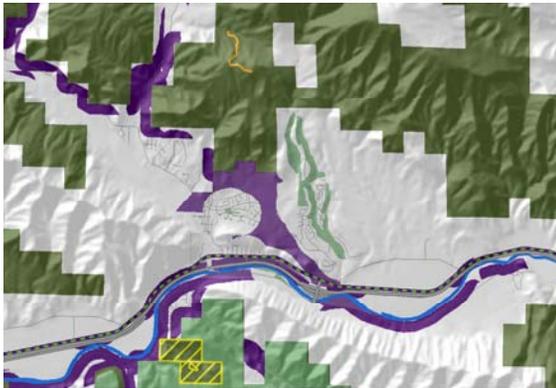
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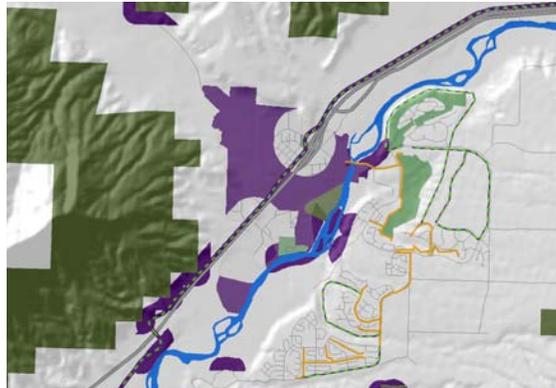
GLENWOOD SPRINGS



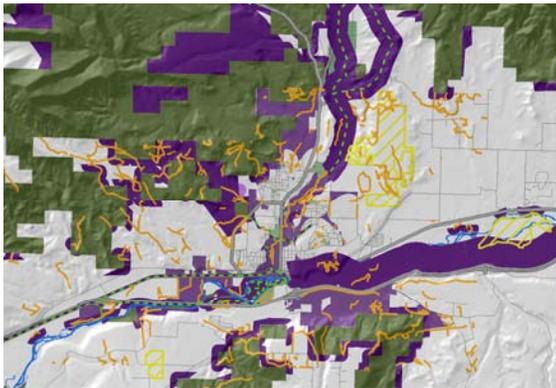
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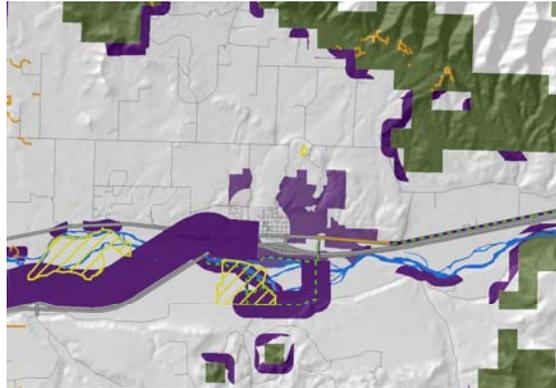
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Many of the areas depicted along public lands and rivers/streams as priority area for conservation are so depicted because they are potential access points. In addition, many of the priority areas could provide park opportunities along river/stream areas and closer to urban centers.

A green dashed line indicates areas that may be suitable for enhanced trails. Some of these are depicted with a thin underlying purple line, whereas others are depicted with a thick purple line. The reason for this distinction is that trail planners, primarily the Lower Valley (LoVa) trails group, do not currently have specific plans for certain parts of the trail, and the thicker line represents this uncertainty.

Glenwood Springs Chamber Resort Association



The following criteria were considered when creating this map:

- Functioning stream buffers
- Functioning buffers for ponds and reservoirs
- Soils with high erosion rates
- Soils with low infiltration capacity
- Riparian areas and wetlands
- Steep slopes and aspect
- 100-yr. floodplain
- Alluvial aquifer locations



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Conservation and Economic Assets

- High
- Moderate To High
- Moderate

Protected Lands

- Park, Recreation, and Wildlife Area Lands
- Federally Managed Lands
- Conservation Easements

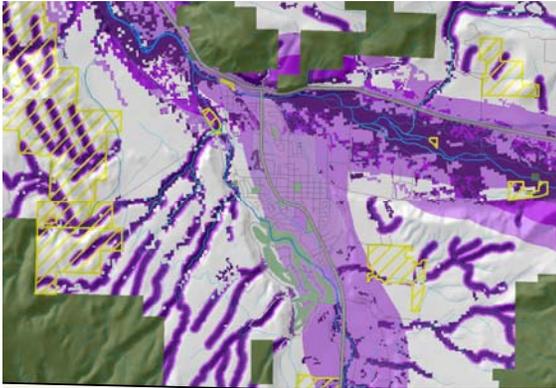
PRESERVE WATER QUALITY AND QUANTITY

Water is the lifeblood of Garfield County. Residents identified the protection and care of drinking water and surface water features as the predominate issue in the county. Its availability is the hub around which several other conservation goals revolve. From providing sustenance to wildlife and native plants, to offering a playground

for recreationalists of all stripes, to irrigating the county's fertile fields and beyond, water is the goal that runs through it. One study estimates that if people stopped using the Colorado River and its tributaries for recreation, and did not spend their dollars elsewhere in the state, Colorado's unemployment rates would increase by approximately 3.5 percent.²

2. "Economic Contributions of Outdoor Recreation on the Colorado River & Its Tributaries". Prepared by Southwick Associates, May 2012.

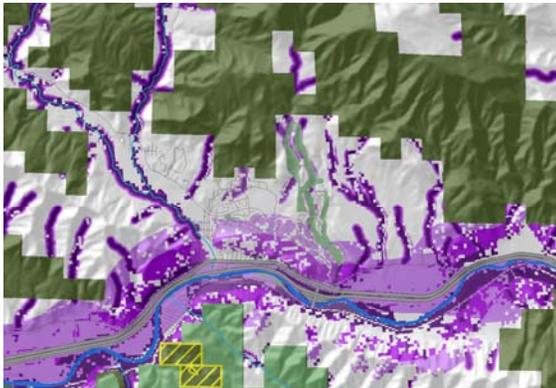
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GLENWOOD SPRINGS



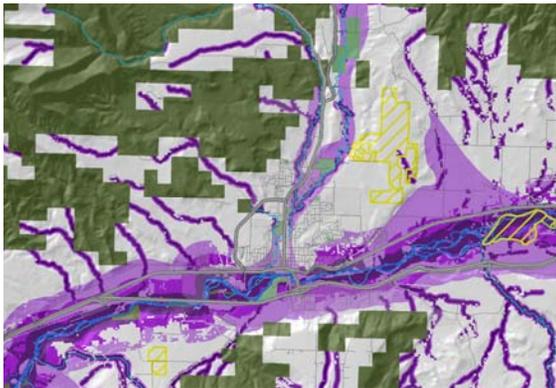
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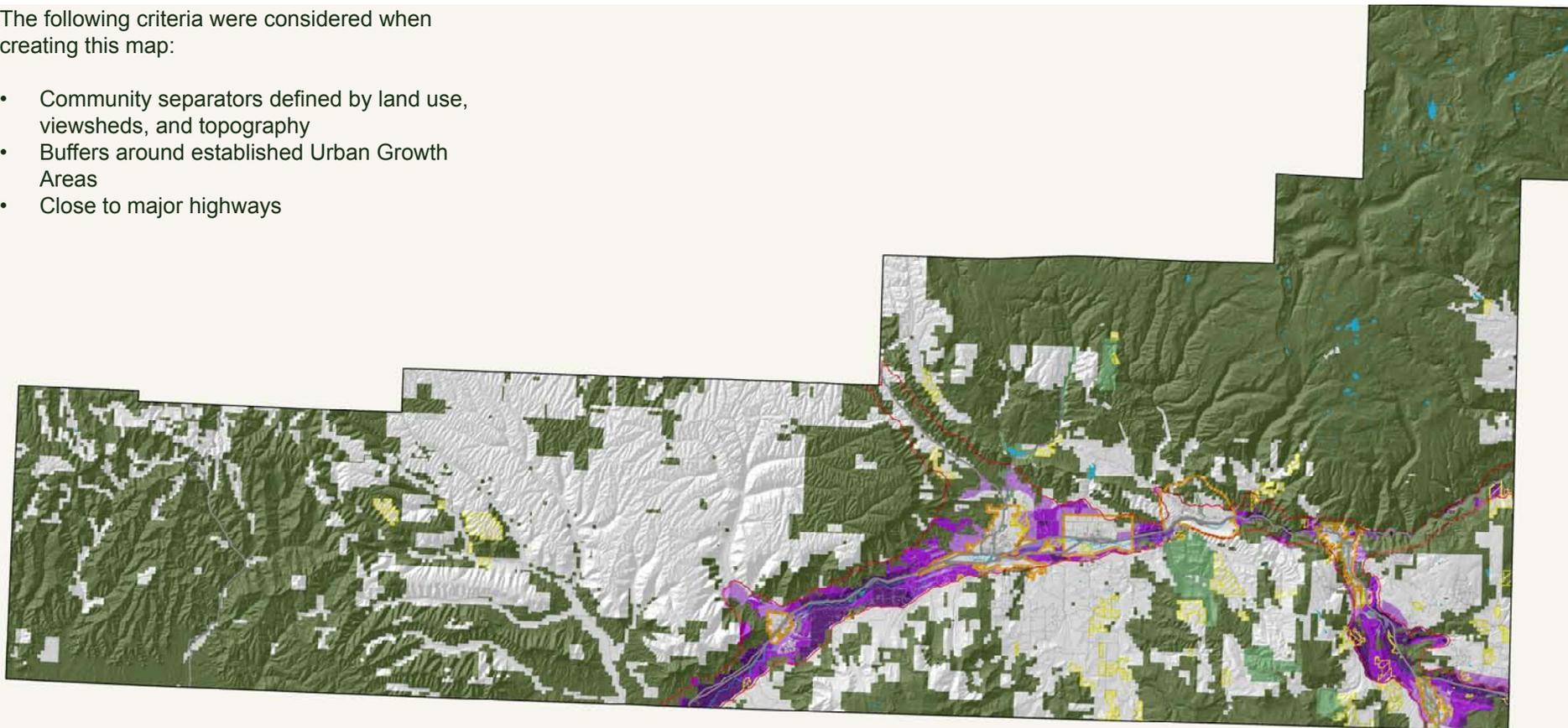
SILT



Glenwood Springs Chamber Resort Association

The following criteria were considered when creating this map:

- Community separators defined by land use, viewsheds, and topography
- Buffers around established Urban Growth Areas
- Close to major highways



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Conservation and Economic Assets

- High
- Moderate To High
- Moderate

Protected Lands

- Park, Recreation, and Wildlife Area Lands
- Federally Managed Lands
- Conservation Easements

Context

- Urban Growth Areas
- Transportation Corridor Viewshed

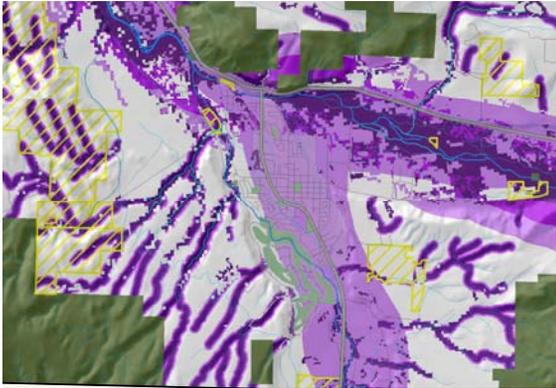
CREATE OPEN LAND BUFFERS AROUND COMMUNITIES

This map displays the areas of the county that could best provide a scenic “break” between communities. Participants valued the distinction between the urban and rural portions of the county as a means of preserving small-town character and as a way to provide visual

relief between towns. Scenery is known to be an economic driver for parts of the county, particularly for Glenwood Springs. A recent study reports that people agree that the best aspects of the town are its hot springs, scenery, and small town appeal. Glenwood Springs is predominately a town known for its beauty and intimacy.

Two significant pieces of data went into the creation of this map: the Urban Growth Area (UGA) defined by each municipality in its comprehensive plan and the highway viewshed

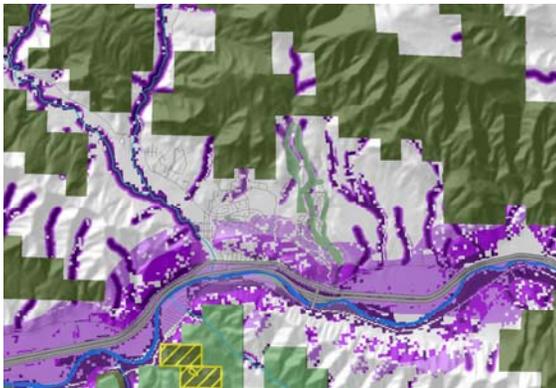
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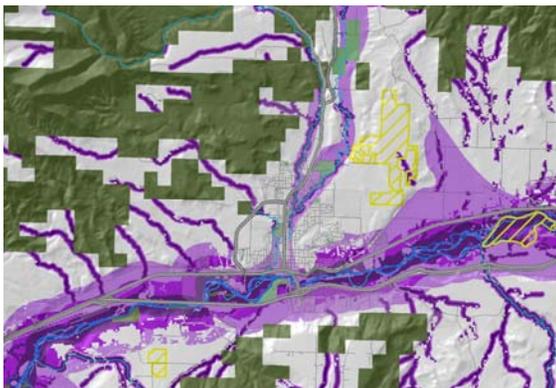
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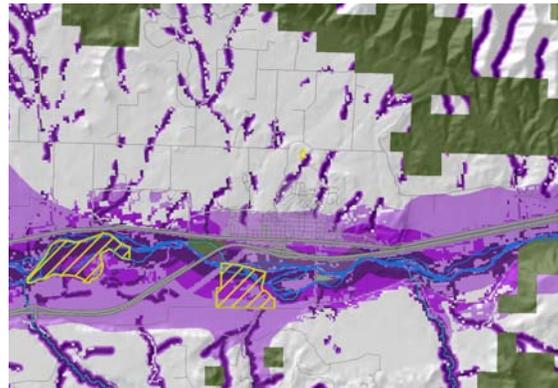
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corridor, which is generally described as the land that a driver can see from behind the wheel. The highest priority areas are indicated by where those two criteria overlap.

The Urban Growth Areas are generally understood as those areas a municipality envisions growing into. Therefore, those areas are not included as conservation priorities in the community buffers asset map. Beyond the UGA, lands received a graduated weighting, with lower priority lands directly adjacent to the UGA and higher priority lands beyond a mile of the UGA.

Lands closer to the highway viewed corridor were ranked higher than those further away based on the visual connection between areas immediately adjacent to travel lanes as compared to areas further in the distance.

Sonoran Institute



The following criteria were considered when creating this map:

- Large unfragmented blocks of natural habitat
- Landscape integrity
- Habitat connectivity and movement
- Potential conservation areas
- Terrestrial habitat
- Riparian and aquatic habitats
- Native vegetation



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Conservation and Economic Assets

-  High
-  Moderate To High
-  Moderate

Protected Lands

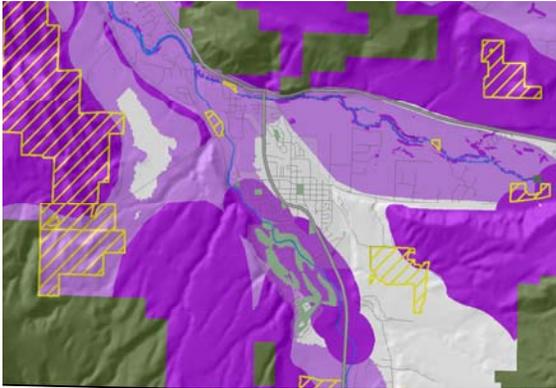
-  Park, Recreation, and Wildlife Area Lands
-  Federally Managed Lands
-  Conservation Easements

PROTECT WILDLIFE HABITAT AND NATIVE PLANTS

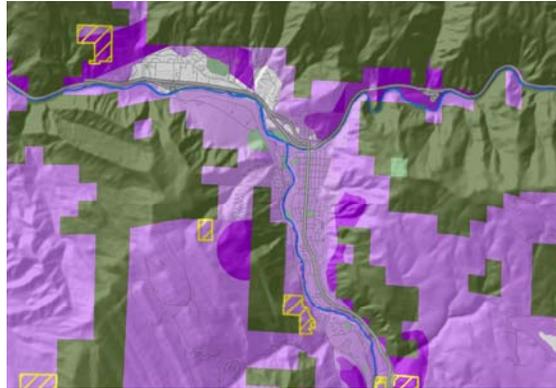
This map illustrates lands that provide important habitat for threatened and endangered plants and animals, as well as wildlife corridors within the region. The map prioritizes large, unfragmented blocks of natural habitat, riparian and aquatic habitats, and habitat connectivity and movement.

Garfield County enjoys healthy populations of mule deer and elk, which are favored by hunters. One study calculates that hunting and angling combine for an economic impact of \$544,200 in Garfield County and support 579 jobs. In addition, wildlife watching supports over 12,000 jobs in Colorado.

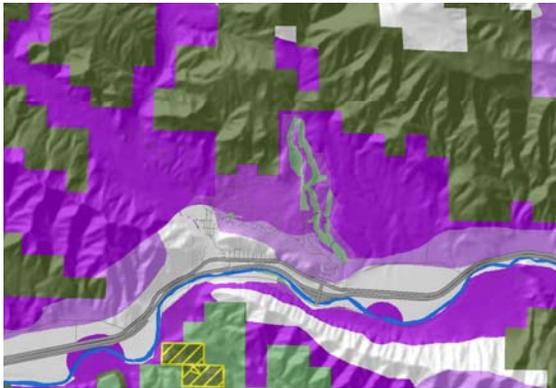
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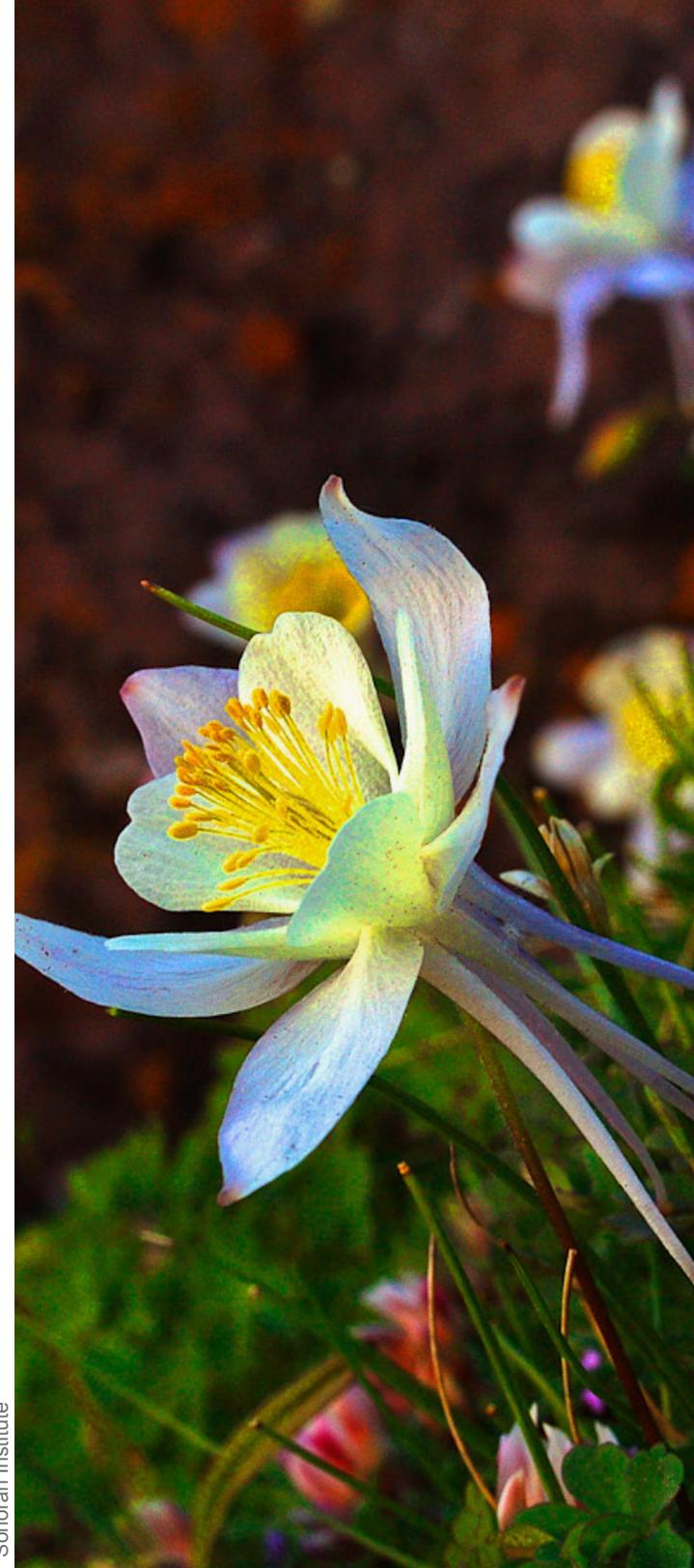
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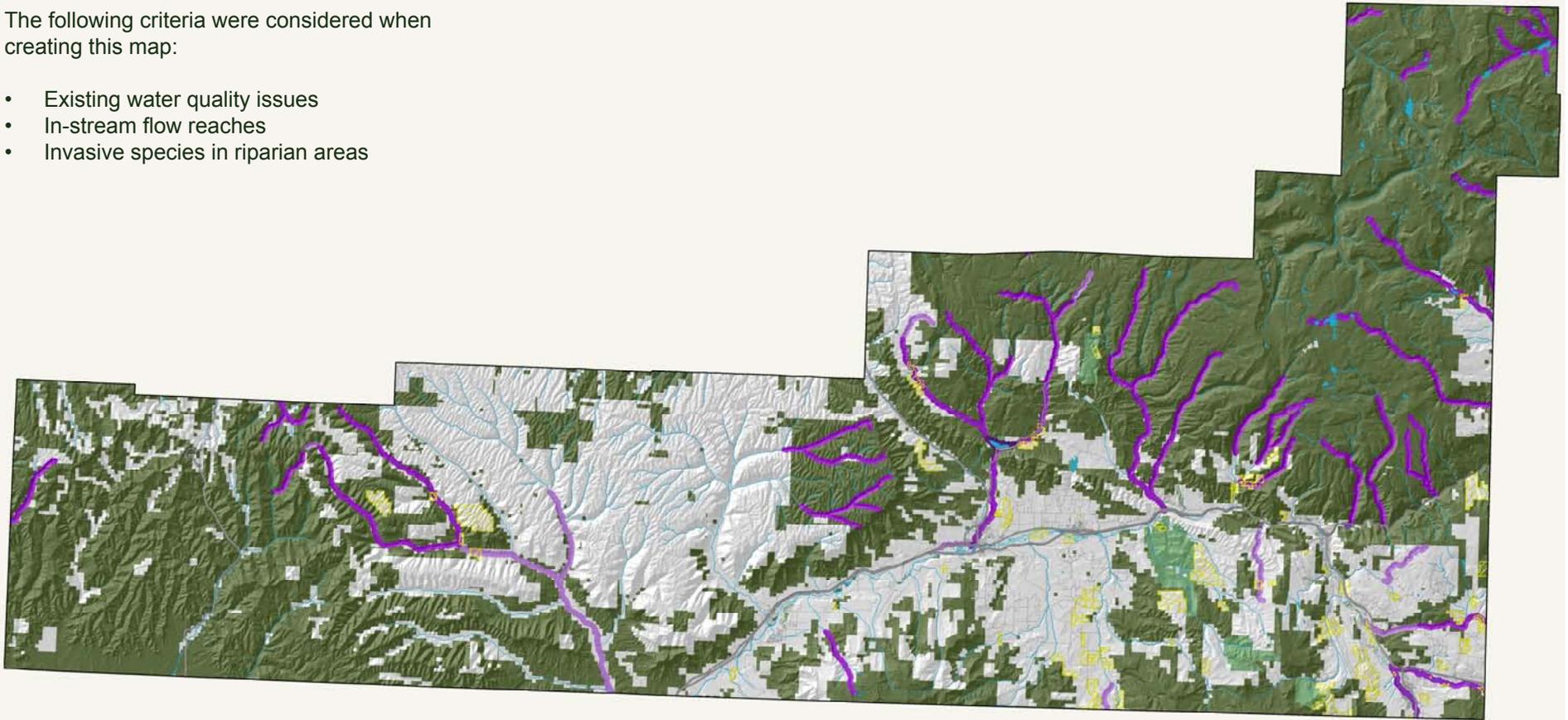


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The following criteria were considered when creating this map:

- Existing water quality issues
- In-stream flow reaches
- Invasive species in riparian areas



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Protected Lands

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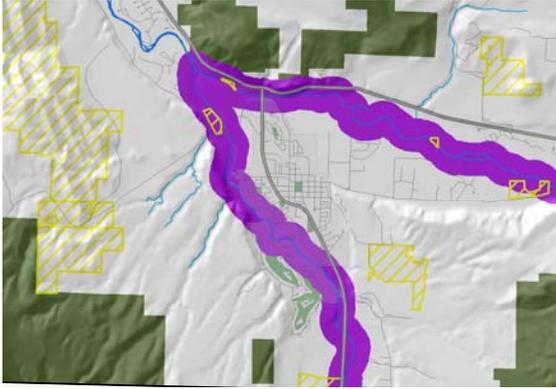


RESTORE IMPAIRED WATERS

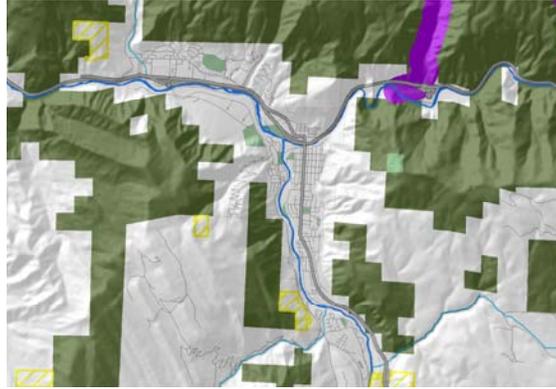
This goal emerged when the TAT examined the data and drew a distinction between protecting waters that had a relatively high degree of health versus waters already deemed “impaired” by the Environmental Protection Agency’s 303(d) impaired list. Because strategies are

fundamentally different between protecting health and restoring health, restoring impaired waters was created as a sub-goal.

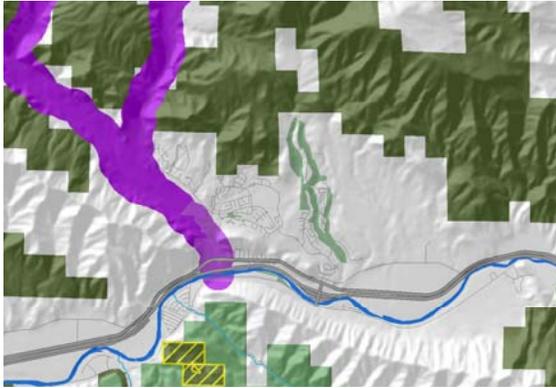
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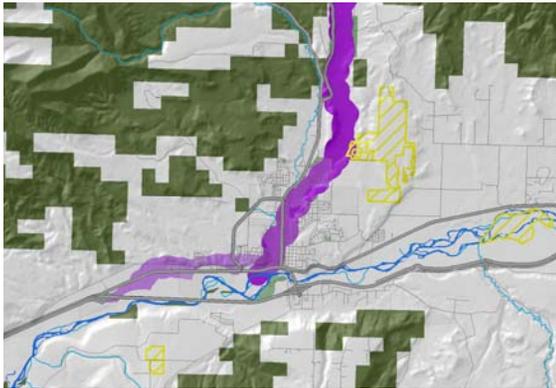
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REPORT CARD ANALYSIS

The Trust for Public Land completed a “report card” for the county, showing the level of protection already afforded each of the identified goals. This is represented in Figure 2, below. The report card evaluated federal or state managed lands, as well as private properties that are conserved via conservation easement. Together these protected lands represent 1.2 million acres. Note that Garfield County covers 1.893 million acres. Federal and state governments have varying degrees of management activities, and the degree to which these lands are “conserved” is a question the Steering Committee contemplated. See Figure 3 for a breakdown of protected land ownership. Because the Greenprint guides conservation efforts with willing private landowners, federal and state managed lands were not examined for additional conservation potential.

FIGURE 3. PROTECTED LANDS STATUS

Protected Lands Ownership	% of Total Protected Lands (1.2M acres)
Bureau of Land Mangement	48%
Forest Service	41%
Department of Energy	4%
Private Conservation Easement	4%
State of Colorado	1%
Colorado Division of Wildlife	1%
Local Parkland	1%

FIGURE 2. GREENPRINT REPORT CARD

Open Lands Asset	High Value Acres*	% of County***	Protected High Value** Acres	% of High Value Land Already Protected***	% of High Value Land Currently Unprotected***
Working ranches and farms	169,931	9%	18,525	11%	89%
Opportunities for new trail connections	6,522	0.3%	1,054	16%	84%
Recreation and tourism opportunities	72,881	4%	29,341	40%	60%
Buffers around communities	124,246	7%	52,641	42%	58%
Lands that protect water resources	585,267	31%	339,730	58%	42%
Wildlife habitat and native plants	1,468,087	78%	922,746	63%	37%
Impaired waters	88,717	5%	59,043	67%	33%

* High Value Acres reflect areas that scored as moderate to high in 2012 Garfield County Greenprint analysis.
 ** Protected Acres includes parks, federally managed lands, and private conservation easements.
 *** Percentages rounded



Sonoran Institute



IV

The Economics of Open Space

Land conservation helps protect the bottom line. Dozens of existing studies provide ample evidence of the correlation between conserving important lands and economic development. Here are some of the many ways conservation helps advance economic goals:

Supports a Strong Agriculture Industry

- Agriculture is critical to Colorado's economy. The industry provides around \$20 billion to the state's economy annually according to the Colorado Department of Agriculture.¹
- Agriculture has a \$30 million annual economic impact in Garfield County.²
- In 2007, Garfield County farms sold \$22.2 million in agricultural products.³
- The industry also provides jobs for county residents. There are over 1,200 agribusiness

1. National Agricultural Statistics Service Colorado Field Office, "Colorado Agricultural Statistics 2011." August 2011.

2. Headwaters Economics, "A Socio Economic Profile, Garfield County, CO." Produced by the Economic Profile System, February 2009.

3. USDA 2007 Census of Agriculture

jobs in Garfield County.⁴ In 2007, the number of farm operators totaled 1,080, excluding seasonal workers.⁵

Attracts Investment in Local Communities

- Parks and open space create a high quality of life that attracts talented workers and new businesses to Garfield County.⁶ In 2012 Colorado ranked 8th out of all states in quality of life in CNBC's top states for business ranking.⁷
- As the national economy transitions towards knowledge-based industries in which companies and workers have greater geographic flexibility,⁸ the county's open land, access to recreation, and scenery are critical for maintaining a high quality of life and long term economic sustainability.

Leverages Other Funding Sources

- Colorado's existing local open land programs are able to leverage additional funding from other sources such as the state's Great Outdoors Colorado and the federal Farm and Ranch Lands Protection Program among others. Between 1998 and 2011, investment in conservation from state, local, and private sources leveraged \$209 million in federal conservation funding for Colorado.⁹
- Local funding is crucial for attracting federal and state matching funds. Counties that leverage funds similar to Garfield County include Gunnison which, on average, leverages \$12 in funds for every \$1 of local

funding. Similarly, Routt County leverages an average of \$4 of other funds from every \$1 of local funding invested.¹⁰

Reduces the Cost of Community Services

- Residential development has consistently been shown to require more in government services than the taxes it generates. Conversely, farm and forest land require less in community services than the taxes they generate.¹¹
- In Garfield County it was estimated that 35 acres of agriculture land converted to residential land would require \$1.22 in services for every \$1 generated in tax revenue. Preserving agricultural and forest land makes smart fiscal sense because these areas pay for themselves. Conversely, residential development, on average, is a net drain on county coffers.¹²

Boosts the Local Tourism and Outdoor Recreation Economy

- Outdoor recreation is big business in Colorado. The active outdoor recreation industry, which includes things like hiking, fishing, and biking, contributes over \$10 billion annually to Colorado's economy and supports 107,000 jobs across the state.¹³
- The economic activity generated by outdoor recreation generates nearly \$500 million in annual state tax revenue. Retail sales and services account for \$7.6 billion in Colorado, representing 4 percent of the entire gross

state product.¹⁴

- People visit Garfield County because of its beautiful mountain parks, small towns, and western atmosphere.¹⁵ These visitors spend money in local communities on things like food, lodging, and equipment. On average, visitors to the county spend \$287 per person related to outdoor trips. Skiers, meanwhile, spend upwards of \$900 per person.¹⁶
- Over 3,700 jobs in Garfield County are tourism based. These jobs continue to increase with the county's growing tourism industry.¹⁷

Provides Access to Public Lands

- Conserving private lands with willing landowners adjacent to public lands can help provide access to new or threatened public spaces.
- Public lands provide a host of recreation opportunities such as hunting, fishing, wildlife watching, OHV riding, hiking, horseback riding, and mountain biking – all of which contribute to the economy.

Enhances Motorized Recreation Opportunities

- Open space lands also provide access to areas for motorized recreation including motor bikes, all-terrain vehicles (ATVs), and snowmobiles.
- These "off-highway vehicles" (OHV) represent a growing component of the outdoor recreation industry. Registration for OHVs increased 145 percent between 2001 and

4. Department of Local Affairs, State Demography Office. "Regional Socio Economic Profile Region 11." October 2011.

5. USDA 2007 Census of Agriculture.

6. "Measuring the Economic Value of Land Conservation." Belvoir Ranch, City of Cheyenne, Wyoming. June 2008. Prepared by Wenk Associates, Inc, et al.

7. CNBC, America's Top States for Business 2012.

8. "Measuring the Economic Value of Land Conservation." Belvoir Ranch, City of Cheyenne, Wyoming. June 2008. Prepared by Wenk Associates, Inc, et al.

9. The Trust for Public Land's Conservation Almanac. <<http://www.conservationalmanac.org>>

10. Gunnison County Land Preservation Fund Summary, received from Mike Pelletier; <http://www.co.routt.co.us/index.aspx?nid=110>

11. "Rural Land Use and Your Taxes: The Fiscal Impact of Rural Residential Development in Colorado." Agricultural and Resource Policy Report, Colorado State University Extension. March 2003, APR-03-02.

12. "Rural Land Use and Your Taxes: The Fiscal Impact of Rural Residential Development in Colorado." Agricultural and Resource Policy Report, Colorado State University Extension. March 2003, APR-03-02.

13. "The Active Outdoor Recreation Economy." Outdoor Industry Foundation, 2006.

14. "The Active Outdoor Recreation Economy." Outdoor Industry Foundation, 2006.

15. Glenwood Springs Exploratory Consumer Research. Prepared for Glenwood Springs Chamber of Commerce. Prepared by Kelton Research, September 2006.

16. 2012 Regional Trails, Biking and Walking Summit, Power-Point Presentation. Prepared by Colorado Tourism Office.

17. "Regional Social-Economic Profile, Region 11." Colorado Department of Public Affairs, State Demography Office. Updated October 2010.

2008.¹⁸

- Across Colorado, OHV pursuits account for \$784 million in annual economic activity and support 10,000 jobs representing \$294 million in labor income.¹⁹
- In our region (including Garfield, Rio Blanco, Moffat, and Routt), OHV recreation accounts for \$38 million in direct sales and over 600 jobs.²⁰

Enhances Water Recreation Opportunities

- Open space lands can provide key public access points to ponds, rivers, and streams.
- The number of adults who use the Colorado River and its tributaries for recreation is 2.2 times greater than the population of the Denver metropolitan area.²¹
- Spending related directly to the use of the Colorado River in the state is over \$6.4 billion annually. This spending generates nearly 80,000 jobs and over \$1.1 million in federal, state, and local taxes.²²
- If people were to stop using the Colorado River and its tributaries for recreation and did not spend their dollars elsewhere, then Colorado's unemployment rate would increase by approximately 3.5 percent.²³

18. "Economic Contribution of Off-Highway Vehicle Recreation In Colorado." Colorado Off-Highway Vehicle Coalition. July 2009. Completed

by the Louis Berger Group, Inc. Lakewood Colorado.

19. "Economic Contribution of Off-Highway Vehicle Recreation In Colorado." Colorado Off-Highway Vehicle Coalition. July 2009. Completed

by the Louis Berger Group, Inc. Lakewood Colorado.

20. "Economic Contribution of Off-Highway Vehicle Recreation In Colorado." Colorado Off-Highway Vehicle Coalition. July 2009. Completed by the Louis Berger Group, Inc. Lakewood Colorado.

21. "Economic Contributions of Outdoor Recreation on the Colorado River & Its Tributaries." Prepared by Southwick Associates, May 2012.

22. "Economic Contributions of Outdoor Recreation on the Colorado River & Its Tributaries." Prepared by Southwick Associates, May 2012.

23. "Economic Contributions of Outdoor Recreation on the Colorado River & Its Tributaries." Prepared by Southwick Associates, May 2012.

Increases Hunting and Fishing Activity

- Open spaces provide access to places hunters and anglers visit and use for their sport. Sportsmen spend significant amounts of money in Garfield County.
- Hunting and fishing activity accounts for \$300,000 in direct expenditures each year in Garfield County. On average, each hunter or angler spends \$216 per day on expenses related to their trip. This activity supports over 550 local jobs.²⁴
- Non-resident hunters and anglers bring money into the Colorado economy that would probably have gone to another state if not for Colorado's variety of hunting and fishing opportunities like those found in Garfield County.²⁵

Increases Property Values

- Open space is a highly desirable amenity for homebuyers, which translates into higher property values because buyers are willing to pay extra for access to trails, recreation, and protected lands.²⁶
- Studies have shown that in rural areas the value of property adjacent to open space is measurably higher than for comparable properties without this amenity. The value is even greater when the adjacent open land is permanently protected.²⁷
- A National Association of REALTORS®, survey found half of respondents would pay 10 percent more for a house located near a park or open space.

24. "The Economic Impacts of Hunting, Fishing and Wildlife Watching in Colorado. Final Report." Colorado Division of Wildlife. September 26, 2008. Prepared by BBC Research and Consulting. Denver Colorado.

25. "The Economic Impacts of Hunting, Fishing and Wildlife Watching in Colorado. Final Report." Colorado Division of Wildlife. September 26, 2008. Prepared by BBC Research and Consulting. Denver Colorado.

26. "Land Conservation Remains as Popular as Ever." Edward T. McMahon. November 28, 2011.

27. United States Department of Agriculture. Cooperating Across Boundaries: Partnerships to Conserve Open Space in Rural America. USDA Forest Service, 2006.

- A recent report from the Association of REALTORS® found the premium for homes near parks and open space can extend three blocks and start at 20 percent for those homes directly adjacent.²⁸
- Provides Valuable Natural Goods and Services
- Preserving open land provides a variety of natural goods and services including grazing, water quality protection, air pollution removal, and others.
- A study of conservation easements in Colorado found that every \$1 invested in conservation returns \$6 in natural goods and services. The easements examined in the study provide natural goods and services valued at \$3.52 billion.²⁹

28. National Association of Realtors. On Common Ground. Winter 2009.

29. "A Return on Investment: Colorado's Conservation Easement Tax Credit." The Trust for Public Land. 2009.



V

Case Studies

Voluntary land conservation is already happening in Garfield County. The following case studies are about properties already conserved in Garfield County. They illustrate the diversity of open land resources in the county and the variety of Greenprint priorities.



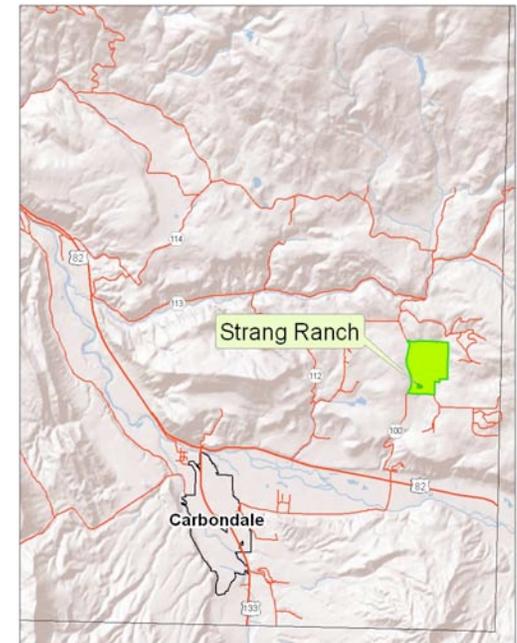
CASE STUDY: AGRICULTURE – MIKE AND KIT STRANG

Mike and Kit Strang bought 450 acres in Missouri Heights in 1964. They currently run a diversified agricultural/ranching operation, which includes a cow/calf operation, a small farm flock of sheep, a 40-acre turf farm, grass and alfalfa fields for hay production, and an equestrian business of boarding, training and lessons. They also host several local horse shows during the summer and hosted the 2011 sheep dog trials.

The Strang's saw the rapid pace of development in the Roaring Fork Valley. They decided to place a conservation easement on their land in order to keep the ranch intact as a sustainable working operation. This has been accomplished in several

separate phases. The final phase will be signed in 2012. They wanted to keep operating the working ranch because they value the working landscape and its ties to Garfield County's agricultural heritage.

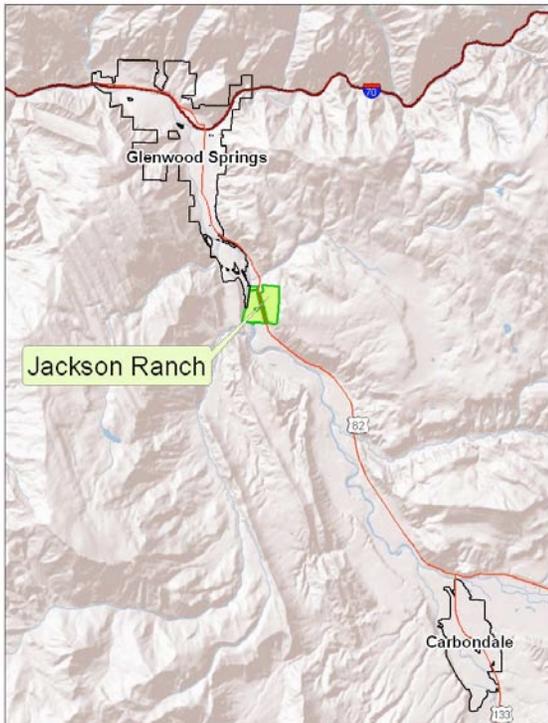
According to Max Macdonell, the Strang's long-time ranch manager who essentially grew up on the Strang property, the conservation easement provides the Strangs flexibility to keep their working ranch in operation while also providing a few extra building sites for the Strang's children to live on the ranch. Placing an easement on the land ensures that no matter who owns the property in the future, it will not be developed. In planning for the future, the Strangs wanted to make sure the ranch would stay intact and also provide for each of their children to build on it if they wanted to.



CASE STUDY: COMMUNITY BUFFER – CARTER AND LOUISE JACKSON

Carter and Louise Jackson have called their ranch -- just south of Glenwood -- home since the 1950's. While they may not have known it at the time, their 300-acre property would one day be valued for more than just agriculture. Its location along Highway 82 in between Glenwood Springs and Carbondale provides commuters in this now-populated stretch of Colorado with a scenic view and a break from the development now spreading across the valley.

In 1995, the Jackson's decided to place their land in a conservation easement. With three different easements, the entire 300-acre property has



been conserved. The property, which was bought as a ranch and functions to this day as a ranch, will ultimately be inherited by the Jackson's four daughters – each of whom supported the decision to conserve the property.

As Carter tells it, “Some people see us as putting a blockade in front of progress, but I see it another way. It’s saving some of the past for the future.” He believes that there is a need for housing in this growing area, but that it should have its own place. Open land and development are not incompatible; rather, as Carter says, “There is room for open space, and there is room for houses.”

CASE STUDY: RECREATION – TOWN OF SILT

The Town of Silt is giving visitors to Garfield County one more reason to stay – and spend. Its recent acquisition of the Valley Farms property – formerly proposed to be developed into a 1,300 home and golf course community called “Stillwater” – will soon be transformed into a diverse recreational site.

The town plans to develop several recreational amenities on the 132-acre site, including a boat ramp to access the Colorado River, a community garden, picnic area, and a trail network linking it all. Additionally, the site is home to a perennially nesting bald eagle pair, providing a great show for bird watchers. The remainder of the site will be rehabilitated with grasses and leased to a local rancher for cattle grazing, further enhancing the uses of the property.

By developing the preserve as anticipated, town officials believe they will see an uptick in sales and visitors in downtown Silt. Gerry Bates, the town's public works official and chief preserve manager, says that the proximity of the preserve to town will encourage recreationalists to visit Silt.

Great Outdoors Colorado, Garfield County, Encana, Antero, and several other organizations chipped in to make this project a reality. While full completion of the preserve will take several years, Gerry notes that people are already visiting the preserve to watch the bald eagle, get to the river, and walk the site.

Sonoran Institute



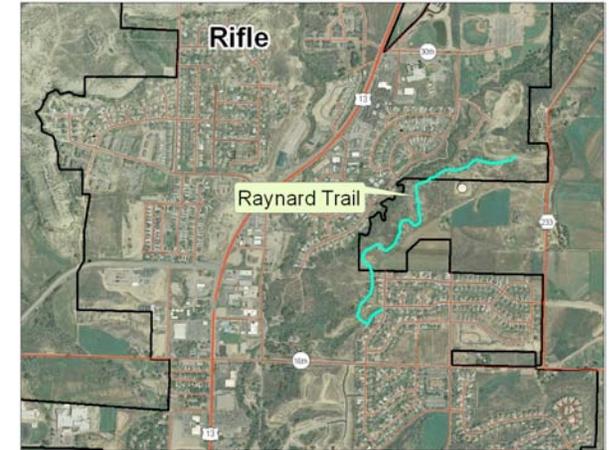
CASE STUDY: TRAILS – CITY OF RIFLE AND COOPERATING LANDOWNERS

The City of Rifle is working to develop a comprehensive system of trails in town, with plans to connect them to a larger regional network outside of town.

The Raynard is a soft-surface trail that hugs the hill on the east side of town, providing great

views of town and the Book Cliffs beyond. The trail was built over the top of the former Raynard Ditch. The Raynard trail is just one way the city is working proactively with landowners to add to this network.

The city would like to see the Raynard connect with other trails in the area, including the Rifle Creek Trail, which someday may serve trail users with access to Rifle Gap reservoir. Then, if a connection can also be made to the sidewalks on 16th Street, the Raynard would provide through access to the larger trail system. According to Rifle's Recreation Director, Aleks Briedis, "The city cares about its parks, recreation, and trails."

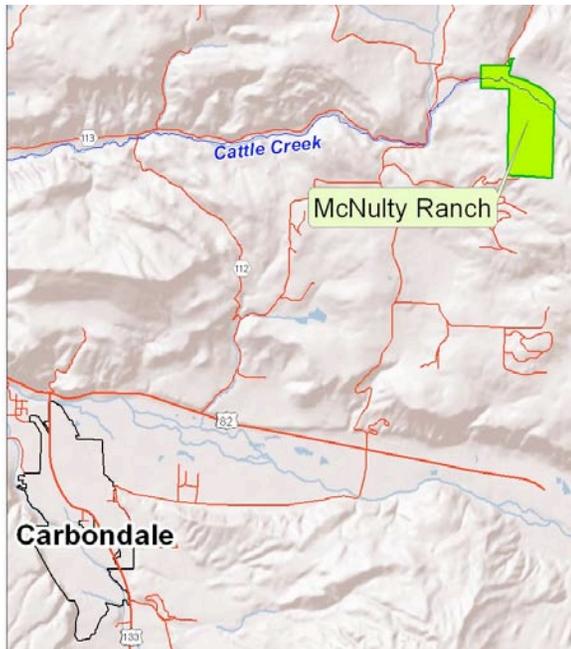


CASE STUDY: WATER – MCNULTY FAMILY RANCH

Wendy McNulty's 1,000-acre ranch straddles the Eagle/Garfield county line.

Over one mile of Cattle Creek flows through the property, providing refuge for many species of birds, elk, deer and other wildlife, including trout. Water from Cattle Creek is diverted through the ranch's hay fields, and for year-round livestock watering. As the creek meanders across the ranch, it is lined by healthy stands of willows, alder, and grasses.

Illness in the family and financial strain prompted Wendy to look for ways to reduce debt, but also continue to maintain and run ranch operations. With assistance from Eagle County's open space program and the Aspen Valley Land Trust's counsel and guidance, she placed most of the Eagle County property in a conservation easement in 2007 and 2008.

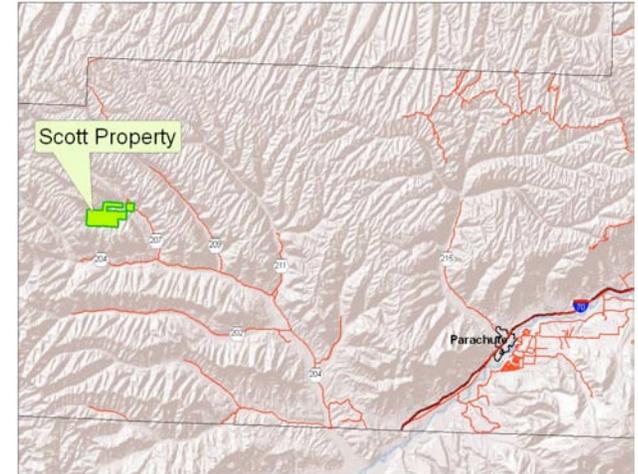


"Good friends and ranching neighbors of mine were somewhat critical of my endeavors to deed restrict our ranch with conservation easements, chastising me for devaluing the land for future generations," Wendy says. "I explained to them my thinking: First, there are plenty of subdivisions already in the valley. Tourism is one of our main industries; people come here to look at mountains and ranches, not subdivisions. Secondly, I am being paid to keep the ranch a ranch. How great is that? Thirdly, you can still sell it as a ranch here in the mountains of Colorado. It takes careful planning of course, and I have left a few small parcels of land on the periphery of our ranch to sell if we have to. My two daughters and I feel it is a win/win/win situation for the community, the ranch, and for us as a family. Later, I found out that my friends who were initially skeptical of my decisions got conservation easements on their place not long after we had that discussion."

CASE STUDY: WILDLIFE – TOM AND SUE ANN SCOTT

"We're about the outdoors," says Tom Scott, sitting at the table in his refurbished cabin –where timbers of an old barn were turned into building blocks for a new hand-crafted home.

Tom and his wife Sue Ann, own roughly 1,760 acres in the Carr Creek drainage of Garfield County north of DeBeque. They purchased the property in 1997, and placed a conservation easement on the first 160 acres in 2006. They plan to place the remaining 1,600 acres under easement in two phases, starting in 2012. They appreciate being surrounded by open land and were concerned that the property could someday be turned into trophy homes. Mineral rights on the property are severed from the surface rights, and Tom wants to make sure he can negotiate best practices when companies come to develop



those resources. For all these reasons, Tom says a conservation easement was the right decision.

Populations of mule deer, elk, and turkey live on the property, where the Scott's have run a successful outfitting business for several years. They host around 25 clients a year, who together take 25 bulls every year. Tom says they could attract more hunters, increasing the elk harvest, but he and his wife understand the connection between smart conservation strategies and the pocketbook. Tom says that by increasing harvests, the population of resident elk could drop below healthy numbers, putting him out of business over time.

A genetically distinct Colorado River Cutthroat Trout survive in streams on the property, which Tom describes as "a real bonus." These "Greenbacks," as they are known, are found in no other waters of Colorado.

The Scott's are able to combine conservation with profitable economics, such that they and the wildlife can maintain a lasting coexistence.



VI

Next Steps

The Greenprint provides a vision for the conservation potential and priorities in Garfield County. The Action Plan developed by the Steering Committee describes many ways to realize the Greenprint, but it ultimately comes down to the willingness of landowners and the tools available at the local level.

And that is the key to conservation in Garfield County: that a landowner sees the benefit of conserving a way of life or a special property for future generations. The case studies featured in this report describe several families who have already made that decision. Fittingly, these properties have high conservation value according to one or several Greenprint asset maps.

Others seek the benefits of conserving their property, but are finding themselves caught between their desire to preserve their property in an undeveloped state and their need to realize financial gain from it. Thousands of landowners all across the West have faced this same dilemma. In response, many local governments have taken proactive steps to develop programs to assist these landowners. In Colorado, alone, several different counties have created an open land program – sometimes also called “Purchase of Development Rights” program or “Open Space” program. Garfield County does not currently have an open land program, but the Greenprint would provide a valuable guiding document should it ever create one.



VII

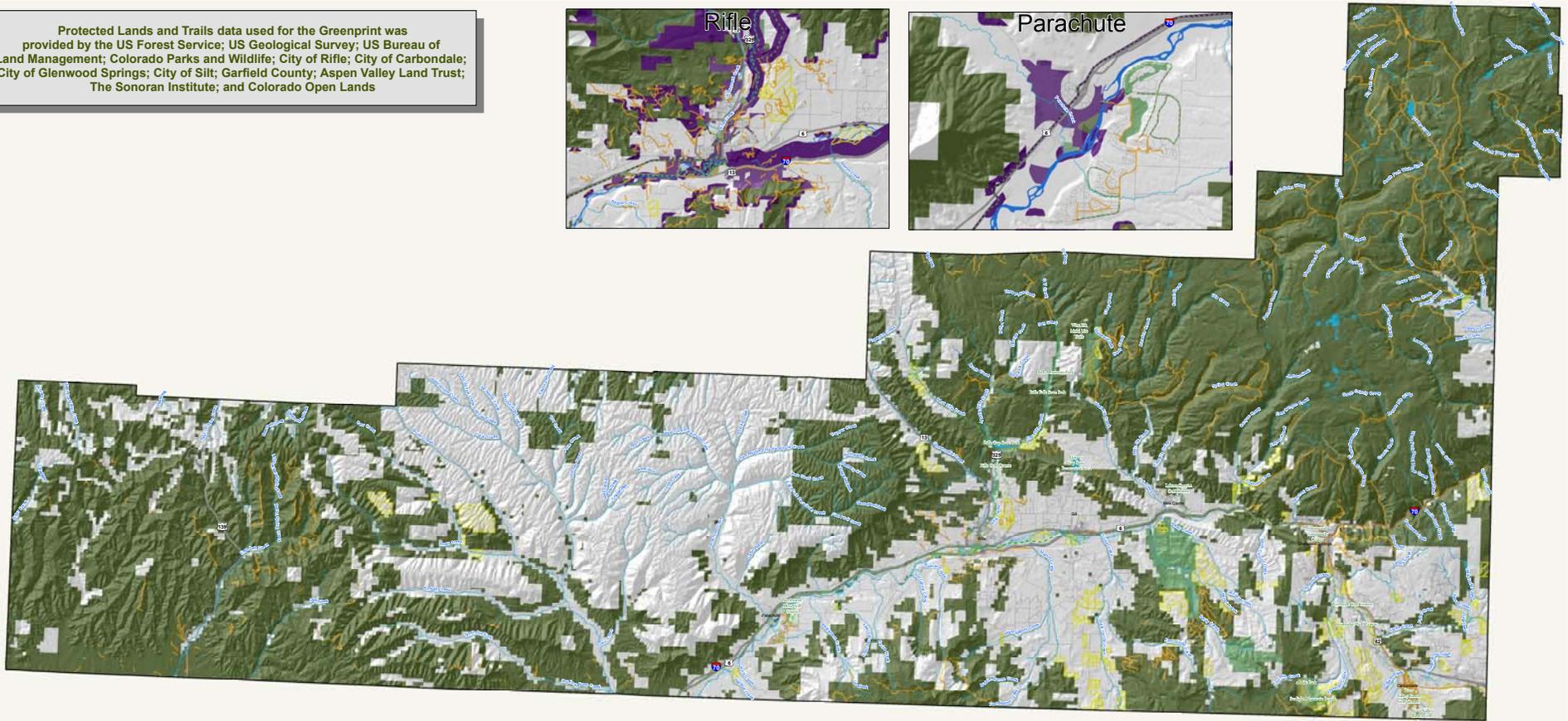
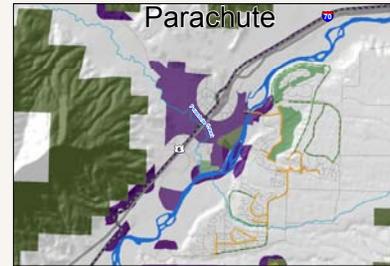
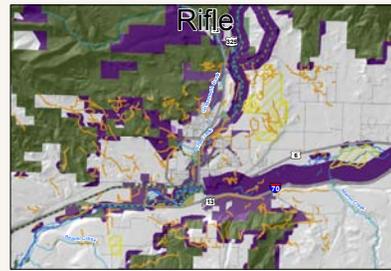
Appendices

CC image courtesy of Scott Ingram Photography on flickr

APPENDIX I. CURRENT CONDITIONS REPORT

Garfield County Context Map

Protected Lands and Trails data used for the Greenprint was provided by the US Forest Service; US Geological Survey; US Bureau of Land Management; Colorado Parks and Wildlife; City of Rifle; City of Carbondale; City of Glenwood Springs; City of Silt; Garfield County; Aspen Valley Land Trust; The Sonoran Institute; and Colorado Open Lands



Protected Lands

- Park, Recreation, and Wildlife Area Lands
- Federally Managed Lands
- Conservation Easements

Trails

- Existing
- Planned

Project Context

Garfield County is located in the northwestern portion of Colorado, bordered by Rio Blanco and Routt counties to the north, Eagle County to the east, Pitkin and Mesa counties to the south, and the state of Utah to the west. Interstate 70 runs generally east-west through the center of the county, connecting with Denver and graduating into the vast deserts and red rock country in the west. Beginning in Glenwood Springs, Highway 82 is an arterial corridor through the Roaring Fork Valley leading to the resort town of Aspen.

The county seat and most populous municipality, Glenwood Springs, is situated at the confluence of the Colorado and Roaring Fork rivers where Highway 82 intersects with I-70. Because of the relative proximity to the resort towns of Aspen and Vail, as well as the regional commercial and employment center of Grand Junction, many of the county's municipalities serve as home for commuters.

The county contains roughly 3,000 square miles of land mass. It is approximately 110 miles long, 50 miles wide at its eastern end, and 20 miles long at its western end. It is the eighth-largest county in the state.

There are six incorporated municipalities within Garfield County: City of Glenwood Springs, City of Rifle, Town of Carbondale, Town of New Castle, Town of Silt, and Town of Parachute. Each of the municipalities has adopted a comprehensive plan to guide future development and each, to a certain extent, supports the value of open spaces and sustained agriculture. Several of these municipalities have recently updated their comprehensive plan, and at the time of this document's preparation, the Town of Carbondale was in the middle of an update process. In addition, the county itself has recently adopted a comprehensive plan, which addresses open space issues.

Population and Demographics

The 2010 U.S. Census provides a recent and accurate snapshot of the statistical and demographic makeup of Garfield County. The population grew rapidly in the past decade. According to the census, Garfield County had a population of 56,389 permanent residents in 2010 – a 28.8 percent increase from the 2000 Census.¹ In addition to the six municipalities within the county, there are also six Census Designated Places (CDP). Table 1 compares the population growth within Garfield County to statewide growth in Colorado. Overall, Garfield County is growing at a faster rate than the state, and several of its municipalities – like New Castle – are growing especially fast.

The percent of the total population living in the unincorporated areas of Garfield County has

1. 2010 U.S. Census, American Fact Finder.

Table 1. Population growth between 2000 and 2010, U.S. Census

	Population (2000)	Population (2010)	Percent Change
Colorado State	4,301,261	5,029,196	16.9%
Garfield County	43,791	56,389	28.8%
Glenwood Springs City	7,736	9,614	24.3%
Rifle City	6,784	9,172	35.2%
Carbondale Town	5,196	6,472	23.7%
New Castle Town	1,984	4,518	127.7%
Silt Town	1,740	2,930	68.4%
Parachute Town	1,006	1,085	7.9%
Battlement Mesa CDP	3,497	4,471	27.9%
Catherine CDP	ND*	228	ND*
Cattle Creek CDP	ND*	641	ND*
Chacra CDP	ND*	329	ND*
Mulford CDP	ND*	174	ND*
No Name CDP	ND*	123	ND*

*ND = No Data. Source: 2010 U.S. Census.

declined from 48 percent in 2000 to 41 percent in 2010. Nearly six out of ten new residents are choosing to live within the incorporated cities and towns of Garfield County. Due to the healthy rate of growth over the previous ten years, the population density of the county has increased from 14.5 people/square mile in 2000 to 18.8 people/square mile in 2010.

Age distribution is relatively consistent across 5-year cohort groupings, with the largest being children under 5 years old at 8 percent of the total population. Overall, 29.4 percent of the age bracket is under the age of 19, 21.4 percent is between 20 and 34, 21.9 percent is between 35 and 49, 21.8 percent is between 50 and 69, and 5.5 percent are 70 and older. The median age is 34.5. Males make up 51.6 percent of the population, females 48.4 percent.²

Population growth in Garfield County is expected to continue. The Colorado Department of Local Affairs (DOLA) projects that Garfield County will reach 119,216 by 2030, and upwards of 140,000 by 2040.³

2. Id.

3. Colorado Department of Local Affairs, (DOLA) State

HOUSING AND REAL ESTATE

The number of housing units in Garfield County increased commensurately with the growing population (see Table 2). In 2010, there were 23,309 total housing units in the county, with a 87.3 percent occupancy rate. The average household size in 2010 was 2.73.

Table 2. Housing units increase from 2000 to 2010, U.S. Census

	Housing Units (2000)	Housing Units (2010)	Percent Change
Colorado State	1,808,037	2,212,898	22.4%
Garfield County	17,336	23,309	34.5%
Glenwood Springs City	3,353	4,113	22.7%
Rifle City	2,586	3,626	40.2%
Carbondale Town	1,821	2,468	35.5%
New Castle Town	731	1,718	135%
Silt Town	668	1,077	61.2%
Parachute Town	415	539	29.9%
Battlement Mesa CDP	1,631	2,351	44.1%
Catherine CDP	ND*	101	ND*
Cattle Creek CDP	ND*	190	ND*
Chacra CDP	ND*	122	ND*
Mulford CDP	ND*	187	ND*
No Name CDP	ND*	60	ND*

Source: 2010 U.S. Census.

ECONOMICS

Garfield County's present economic portfolio is similar to the one that helped shape the area over 100 years ago. It includes robust natural resource development, agriculture, regional services, and burgeoning tourism industries. However, its future will largely be a tale of two regions, with economic bases shifting significantly the farther one travels up the Roaring Fork Valley, and the farther one travels west on I-70.

Garfield County as a whole is increasingly becoming a service and residential center for a diversifying regional economy.¹ While Mesa County and the city of Grand Junction to the west offer the Western Slope's largest concentration of services, retailers, and housing, recent commercial development in Glenwood Springs and Rifle are expected to draw shoppers away from traditional shopping destinations in Grand Junction.

The eastern portions of the county, and the Roaring Fork Valley in particular, have a healthy tourism industry, including world-class skiing and nightlife. Adding to its recreational appeal, Glenwood Springs was recently named America's "Most Fun" small town by Rand McNally.² Meanwhile, the oil and gas industry largely dominates economic activity west of Glenwood Springs. Rio Blanco County to the north has large gas and energy reserves but very little housing or support infrastructure. As a result, the Rifle area is home to many Rio Blanco County workers and may be subject to significant growth pressures if oil shale or natural gas activity expands in the future.

Tourism is becoming more of a staple of the Garfield County economy, thanks to the hot springs attractions in Glenwood Springs, proximity to world-class skiing, overnight accommodations associated with I-70, and a strong hunting and fishing service industry. Rifle is primed to capture more of this industry as it continues to develop an attractive urban center and capitalize and expand

1. BBC Research and Consulting, White paper: Garfield County Economic Base Analysis and Population Forecasts.
2. PRWeb, "Glenwood Springs, Colorado, Named Most Fun Town in America by Rand McNally and USA Today." http://www.prweb.com/releases/glenwood_springs/most_fun_town/prweb8666577.htm.

Table 3. Percentage employment by industry, 2000 and 2008

Industry	Percentage Share of Workforce, 2000	Percentage Share of Workforce, 2008
Construction	19.1%	17.6%
Retail Trade	15.4%	12.6%
Accommodation and Food Service	11.6%	10.3%
Mining	1.1%	9.9%
Health Care and Social Assistance	8.5%	8.5%
Other Services and Public Administration	9.4%	8.5%
Educational Services	9.3%	8.2%
Wholesale Trade, Manufacturing, Transportation, Warehousing	6.6%	7.7%
Information, Finance and Insurance, Real Estate, Rental and Leasing	6.5%	5.8%
Professional and Technical Services, Management of Companies and Enterprises	4.7%	4.9%
Administrative and Waste Services	3.9%	3.3%
Arts, Entertainment, and Recreation	1.8%	1.2%
Utilities	1.2%	0.9%
Agriculture, Forestry, Fishing & Hunting	1.0%	0.6%

Source: BBC Research and Consulting, White paper: Garfield County Economic Base Analysis and Population Forecasts.

its nearby recreational opportunities, including access to the Colorado River, world-class rock climbing at Rifle Mountain Park, and a growing community of outdoor enthusiasts.

EMPLOYMENT

In recent years, Garfield County has enjoyed a well-balanced economy based on natural gas development, tourism, recreation, and regional services. Between 2000 and 2008 county employment grew by 9,000 jobs or about 4.5 percent per year. During this same period of rapid economic expansion, there was a significant shift in the pattern and location of employment. Table 3 shows the county's employment base and recent growth trends.

While the nearby ski towns in Pitkin and Eagle counties bolster the tourism industry in Garfield County, much of the tourism funding generated in-county is derived from business located in Glenwood Springs, Carbondale, Rifle, and the surrounding areas. Local chambers of commerce are active in promoting the county's outdoor amenities and attendant quality of life aspects in their marketing. Further, there is a growing interest in outdoor and natural recreation-based enterprises.

PLANNING CONTEXT

Garfield County. The county completed an update to its comprehensive plan in November of 2010. It envisions open spaces, recreational trails, parks, and access to rivers and public lands being preserved and enhanced. Acknowledging the role of recreation and tourism in the county's economic portfolio, the comprehensive plan articulates support for these industries in appropriate locations throughout the county.

Five broad goals are enumerated within the plan: (1) assure that new residential development provides appropriate recreational opportunities for county residents, (2) consistent with federal policy, ensure public access to federal lands is preserved, (3) provide opportunities for the tourism industry to utilize recreational resources as well as to preserve recreation resources for local access, (4) support the development of a trail system along both major river corridors, and (5) support the development of a land conservation program to provide tools for land owners and the public to conserve property.

Policies to support each goal provide that actions regarding open space and trails must respect the property rights of land owners, and must provide for just compensation or mutual benefit to landowners, residents, and visitors. Furthermore, the county has a continuing history of supporting

and contributing to the efforts of organizations seeking to create trails in the county, such as Lower Valley Trails group (LoVa). In this respect, the comprehensive plan suggests that broader county policy regarding trail systems should "... reflect regional goals and be consistent and complementary with other jurisdictional efforts."

The comprehensive plan articulates as an action item "Research, and present for public consideration, options appropriate to Garfield County regarding feasible/legal means to acquire open space/recreational easements." In August 2011, the Board of County Commissioners voted to make the comprehensive plan an "advisory" document. How this decision might address any of the stated goals, policies, or actions remains unclear.

City of Glenwood Springs. Glenwood Springs, the most populous municipality in Garfield County, completed its comprehensive plan update in March of 2011. The city lies at the confluence of the Colorado and Roaring Fork rivers, and is surrounded by steep hillsides to the north, east, and west. Much of the city has grown within these physical constraints, and therefore many of the natural resource-related goals identified in the plan are oriented around protection and enhancement of river corridors, increasing access to and linking trail systems, directing growth inward, and providing attractive civic spaces in the form of urban parks, promenades, and plazas, which "provide a location for the community to socialize and build bonds – a small town tradition and part of the culture of Glenwood Springs."

The city recognizes that a key strategy for directing growth inward is to consider developing a strategy to preserve open land within and around the perimeter of the Urban Growth Boundary. Important to this effort is the city's commitment to participate in regional planning

efforts for natural resource issues that reach beyond city limits.

City of Rifle. The city's comprehensive plan recognizes the value open land provides to citizens by acknowledging that, while the city is proximate to large tracts of public lands, "permanent, accessible open space within the community is equally important to quality of life." In describing the character of open spaces within the city, the comprehensive plan states that, "Open space is not land left over after development, or land waiting to be developed. It is an essential element of the character and livability of the city." The plan provides a categorical delineation of four distinct types of open space land cover: ecologically valuable areas, recreation, natural hazard areas, and agriculture-with special emphasis placed on agricultural open land.

The city identifies five open space objectives in their comprehensive plan: (1) acquiring open space through dedication, donation, or acquisition from willing landowners, (2) monitoring land transfers between private parties and the Bureau of Land Management (BLM), and voicing the intention that some of these lands remain as open space, (3) providing future land use designations for lands of ecological value and natural hazard, (4) ensuring new development maintains irrigation delivery systems to agricultural uses, and (5) committing to work with partner organizations to explore common interest in open space programs.

Town of Carbondale. At the time of this writing, the town is engaged in a process to update its existing comprehensive plan. The first draft of the updated plan is expected in the winter of 2012. The results of early visioning exercises conducted by the town's hired consultant indicate that residents value open space resources and the ability to travel to and between them.

The town's effective comprehensive plan, which was adopted in 2000, articulates a vision where the natural environment is a very important component within Carbondale and its surrounding area. The plan promotes the implementation of a regulatory structure that creates a compact development pattern to accommodate its future growth while minimizing land consumption. The plan further describes the importance of trails and connectivity between parks.

Importantly, in describing the specific vision for open spaces within and around the town, the plan asserts that it recognizes the inherent benefits of its adjacent agricultural areas, including the fiscal benefits derived by the town in the avoided costs that might otherwise be required to service residential development in those areas.

Town of New Castle. The town's comprehensive plan, adopted in 2009, considers a long-term planning horizon out to 2050. New Castle envisions itself as a thriving West Slope town that continues to value its heritage and community. In so doing, it sees a future of connected trails, parks, and open space that offer non-motorized pathways, access to public lands, wildlife corridors, and recreational areas. The plan states, "Developed parks serve a variety of purposes and have grown in acreage with the town. Passive open space protects high-quality wildlife habitat, conserves native vegetation, maintains view corridors, safeguards riparian areas, and preserves other environmental resources."

New Castle developed a Parks, Trails and Open Space plan in 1999. This comprehensive document provides detailed policy recommendations, implementation strategies, and opportunity assessments of open space and recreation resources within and surrounding the town. The plan addresses the following elements: identify the needs and desires of the citizens for outdoor recreational activities; identify existing

conditions of the area; identify opportunities for locations of recreation facilities and open spaces; prepare preliminary standards and plans for recreational facilities; establish priorities for acquisition and development of facilities; identify opportunities for cooperative development and operation of recreational facilities with other public and private agencies; identify methods whereby the plan can be implemented; and identify methods to maintain public education and involvement. The 2009 comprehensive plan recommends that the 1999 Parks, Trails and Open Space plan be updated.

Town of Silt. In its comprehensive plan update of 2009, the town recognizes that "existing open space and opportunities for recreation in and around Silt currently contribute to a high quality of life for its citizens." The plan identifies four primary open space goals and a series of specific policies and actions necessary to achieve the goals. The town's open space goals are oriented to (1) develop an interconnected open space and trail network, linking neighborhoods, downtown, and jobs, (2) promote the town as a tourist destination, (3) promote the area's natural features as a high quality attraction, and (4) coordinate and collaborate with surrounding communities and agencies to integrate open space and trails at the regional level.

Town of Parachute. The town's most recent comprehensive plan was completed in 2002. It recommends several actionable projects that would advance the overall goal of providing for parks and open space. It recommends planning for new neighborhood parks in residential areas, planning for open space and trail networks along Parachute Creek and the Colorado River, and planning for linkages within the town to connect open space and trail areas.

RELATED PLANS, INITIATIVES, AND DOCUMENTS

Colorado Division of Parks and Wildlife. In 2006, the Colorado Division of Parks and Wildlife (DOPW) finalized the "Colorado Wildlife Action Plan," a non-regulatory document that conveys "the state's wildlife conservation needs in order to foster greater consistency in conservation efforts among all members of Colorado's wildlife conservation community and others with a stake in Colorado wildlife conservation." The plan depicts habitats (at the state-wide scale) for watersheds and vegetative communities that are closely associated with Colorado's Species of Greatest Conservation Need (SGCN). Much of the land area within Garfield County is within the Colorado River Headwaters Basin – an area depicted in DOPW's Wildlife Action Plan as containing several high priority watersheds home to a diversity of SGCN. Furthermore, Garfield County contains key sagebrush and shrub dominated wetlands habitats as identified in the Wildlife Action Plan.

Colorado Natural Heritage Program. In July of 2010, the Colorado Natural Heritage Program (CNHP) produced a "Statewide Potential Conservation Areas" map depicting CNHP's "best estimate of the primary area required to support the long-term survival of targeted species or natural communities." Areas are indicated as having a range of biodiversity significance from "general interest" to "outstanding significance." Garfield County is depicted as having areas of potential conservation interest that contain the entire range of CNHP's biodiversity rankings. For example, areas to the south and west of the community of Battlement Mesa are identified as having "outstanding biodiversity significance." Lands around the City of Rifle are identified

as containing lands of “very high biodiversity significance.”

Garfield Legacy Project. The Garfield Legacy Project (GLP) is an existing coalition of citizens and organizations seeking to create a funded and voluntary open land conservation program in Garfield County.

Economic Development Initiatives.

There are several active economic development organizations located within Garfield County, including the Rifle Regional Economic Development Corporation (RREDC), the Roaring Fork Business Resource Center, Glenwood Springs Downtown Development Association, and the Carbondale Economic Development Council. The county recently initiated a strategic economic development planning process, which is intended to ultimately lead to the formation of a countywide economic development corporation.

Historic Preservation. Several of the county’s municipalities, including Glenwood Springs, Carbondale, and Rifle, initiated historic preservation programs within their respective governments to preserve and enhance their historical heritage and ensure new development is consistent with the area’s architectural past.

EXISTING CONSERVED AREAS

The Aspen Valley Land Trust (AVLT) is an active and effective conservation organization working in and around Garfield County. Since 1967, it has conserved several thousands of acres in Garfield and Pitkin Counties, and 9,264 acres in Garfield County alone.

Other organizations also provide land conservation support in Garfield County, such as Cattleman’s Agricultural Land Trust, Rocky

Mountain Elk Foundation, The Trust for Public Land, and Colorado Division of Parks and Wildlife. In addition to the acreage supported by AVLT, there are 25,261 acres of conserved land within Garfield County.

EXISTING NATURAL RESOURCES

Garfield County lies primarily within two geologically distinct regions: the plateau country in the western portion of the county, and the Rocky Mountains in the east. The boundary between the two regions is roughly defined by the “Grand Hogback” – a rocky feature that runs north to south through the county. The Rocky Mountain section in Garfield County is within the White River Plateau, one of three areas in the state that are capped by volcanic rock.³ The White River Plateau includes the Flat Tops, the Glenwood Canyon area, and the Roaring Fork Valley. Major features within the western plateau area are the Roan Plateau and the Book Cliffs.

The western plateau portion of Garfield County supports the activities of several oil and gas exploration companies. The Roan Plateau, most of which is under the management of the BLM, is a heavily explored area.

Although nearly 50 percent is designated wilderness, the White River National Forest provides a limited timber resource industry. There are few mills within the National Forest that make timber haul economically viable. Additionally, the forest continues to suffer from epidemic-level insect infestations.⁴

3. Survey of Critical Biological Resources of Garfield County, Colorado. Colorado Natural Heritage Program. 2002.

4. White River National Forest 5-Year Monitoring and Evaluation Report, October 2002 – September 2007, United States Forest Service, Rocky Mountain Region.

EXISTING TRAILS & RECREATION AREAS

Garfield County and its communities have progressed in linking areas with non-motorized paths for many years. Each of the county’s municipalities has an internal pedestrian network in the form of sidewalks and trails connecting parks to neighborhoods.

At the regional level, the Rio Grande trail, originating in Glenwood Springs at the confluence of the Roaring Fork and Colorado rivers, parallels the Roaring Fork River and forms a well-marked and continuous path into Aspen. Similarly, the Colorado River canyon trail is a multi-modal, non-motorized trail extending from Glenwood Springs to Denver. This trail will be extended to Rifle along the I-70 corridor, and plans envision the trail someday reaching Grand Junction.

Mountain biking and scenic hiking trails extend through the valley, but are more predominant in the Roaring Fork area from Glenwood Springs to Carbondale and points south. The White River National Forest to the north of Glenwood Springs offers many miles of off-road, 4-wheel drive trails for motorized vehicle enthusiasts. Even further to the north, the Flattop Wilderness offers several hundred miles of backpacking and equestrian trails to remote and rugged wilderness.

Hunting and fishing are an important part of the recreational portfolio in Garfield County and the local economy.

HISTORIC AND ARCHAEOLOGICAL RESOURCES

Garfield County is rich in history. There remain many indications of the area's past in several historical downtown structures. Likely the most well-known of these is the Hotel Colorado in Glenwood Springs, home to the large hot springs pool and vapor caves.

Significantly, much of the area's resource extraction and mining history remains intact. South of Glenwood Springs the Cardiff Coke Ovens were used to prepare coal and are important for their association with the railroading and mining history of the Roaring Fork Valley.

All of Garfield County was once the home and hunting ground of the Ute Indians. Many archaeological sites, including extensive rock art sites, exist in the western part of the county and in the White River National Forest.

SUMMARY OF LAND COVER OWNERSHIP

Table 4 shows the primary land ownership and jurisdictional composition of the county. Approximately 64 percent of the land area is federal land, managed by BLM, U.S. Forest Service, or the Bureau of Land Reclamation.⁵

⁵ Data Source: Garfield County GIS Department. Analytics by TD Consulting Inc, 2011.

Table 4. Land Cover Status

Protected Lands Ownership	Acreage	Percent
Private Ownership	791,457	41.8 %
Bureau of Land Management (BLM)	613,295	32.4 %
U.S. Forest Service	489,152	25.8 %
Bureau of Land Reclamation	32	0.0 %
TOTAL	1,893,935	100 %

APPENDIX II. INTERVIEW RESULTS

During August and September of 2011, project staff conducted 20 interviews with residents of Garfield County. In determining who to interview, the Garfield Legacy Project created a list of stakeholder interests. However, all the themes and quotes provided below are to be considered those of citizens of Garfield County, rather than as representative of any particular interest group or organization.

While each interviewee was asked the same questions, common themes emerged. Therefore, interview responses are reported thematically, rather than in direct response to each question.

Length of Residency. The average length of residency in Garfield County for interviewees is 26 years. Several people are generational residents who have lived in the county for most, if not all, of their lives.

Balancing Act. By and large, when describing what might be the single biggest challenge facing the county in the next 5 – 10 years, interviewees responded that it will be striking the right balance between economic growth and preservation of quality of life.

Central to this idea is the role human habitation and residential development play in both generating economic activity and impacting quality of life, understanding that quality of life is a subjective term. As one example, while one may appreciate the quality of life benefits created by golf courses, another may prefer sage and grassland landscapes.

Given the tension between the need to continue to attract new residents and visitors and at the same time protect and enhance the area's quality of life factors, there is remarkable optimism about the future. Many pointed out that, although the county will continue to experience growth pressures, there is an opportunity to actively

work toward protecting the quality of life that many places have lost. One respondent said, "I think there are places and ways to accommodate population growth without carving up our ground."

Collaboration and Trust. There may be an emerging sense of regionalism, where communities are learning to understand, embrace, and capitalize on each other's strengths. This collaborative and cooperative spirit is seen by many as crucial for local economies to be sustainable and resilient. At the same time, there is a clear sense of a lack of trust between citizens and local officials; decisions are sometimes seen as being made arbitrarily or in contrast to clearly defined citizen sentiment. However, far and away, the one relationship that respondents said needed more work is the three-way relationship between citizens, elected officials, and the oil and gas industry.

The Economic Lull. Described by one interviewee as "a double-edged sword," the slowdown in the local economy is seen as both a challenge and an opportunity. The slowdown provides the county and municipalities an opportunity to "take a breather" to fully evaluate policies and rules to determine if they are truly competitive. At the same time, there is an urgency to provide more people with jobs and opportunity.

Oil and Gas Extraction. There are fewer more polarizing topics in Garfield County than the presence of the oil and gas extraction industries. Interviewees recognize that there are economic benefits rewarded not only to the county in terms of property taxes, but also with respect to employment. However, they also feel that the industry could take more measures to reduce the impact and visibility of the extraction industry's necessary infrastructure, including access, night lighting, and land area disturbed.

The Future of Agricultural Lands. Interviewees are mixed in opinion regarding the future of agriculture and the fate of large land holdings in Garfield County, and generally fall into two camps: those who believe these areas will be subdivided or leased to mineral extraction industries, and

those who believe that the residential housing market is changing, or has changed, to the point where people are no longer interested in large-lot rural living. Some believe that the subdivision of large land holdings could result in a net positive for local agriculture: as we continue to move toward a "farmer's market economy," small producers will be favored.

List of Interviewees:

- Bruce Kime
- Nathan Lindquist
- Ron Velarde
- Marianne Virgili
- Lynne Cassidy
- Michael Gorman
- Chris Harrison
- Brad Tyndall
- Cassie Cerise
- Raymond Langstaff
- Robert Burry
- Jack Pretti
- Chad Rudow
- Gary Miller
- Donna Gray
- Sharon Clarke
- Sher Long
- Calvin Lee
- Sandy Jackson
- Jim Neu

Interview Questions:

- 1) How long have you been a resident of Garfield County?
- 2) What is the biggest positive change that has occurred over the past 5-10 years in Garfield County?
- 3) What is the biggest negative change that has occurred over the past 5-10 years in Garfield County?
- 4) What is the single biggest challenge facing Garfield County over the next 5-10 years?
- 5) Parts of Garfield County still have large agricultural properties. Do you think they will remain intact? Why or why not?
- 6) Are there particular areas or features within Garfield County that have special meaning to residents? What and where are they?
- 7) What are the most important factors that contribute to your quality of life in Garfield County today?
- 8) Public polling indicates that people value water quality, wildlife habitat, quality of life, and protecting and encouraging agriculture, and view these as reasons to preserve open land. Do you agree? Are there other things you value missing from that list?
- 9) Are there adequate trail systems for bikes, pedestrians, and other non-motorized users right now? How could they be improved?
- 10) There have been previous efforts to create an open land program in Garfield County. Are you aware of these efforts? What can you tell me about them?
- 11) If you were to give advice to a group like the Garfield Legacy Project that is working on creating an open land program in Garfield County, what would you say are some of the important elements such a program would address? What do you see as the most significant challenge to creating an open land program in Garfield County?

APPENDIX III. GREENTPRINT CRITERIA

Goal	Criteria	Criteria Weights	Methodology	Data (Description, Date)	Data Source
Wildlife habitat and native plants			<i>Weighting Rationale: Riparian habitat and large unfragmented habitat blocks were weighted highest. These criteria identify specific areas of critical habitat. Connectivity and terrestrial habitat were also considered important in characterizing critical habitat, but were weighted slightly lower, since the data used was less exact. PCA's from the Colorado Natural Heritage Program were also given a high rank; these areas highlight unique plant habitats, as well as areas with threatened and endangered species. Native Vegetation and landscape integrity were ranked lower, due to the more general nature of the data, and due to the observation that these characteristics are addressed with better specificity via the PCA data.</i>		
	Large unfragmented blocks of natural habitat	19%	This model identifies contiguous areas with natural landcover that are at least 200 feet away from development and improved roads. Natural landcover is defined as all cover types except: developed, agricultural, barren lands and waterbodies. Areas were ranked based on contiguous block size, using a scale of 0-5 (a 5 indicates highest conservation priority). A natural breaks algorithm was used to rank the data according to size.	Roads Undeveloped lands City Boundaries	Garfield County LANDFIRE (US Department of the Interior and USFS) Garfield County
	Landscape integrity	6%	This model identifies areas where the integrity of the landscape is impacted by development threats including: Agriculture; Urban Development; Oil and Gas Development; Surface Mining; Roads; and Utility lines (electrical transmission and pipelines). For example, according to data from COGCC, the number oil and gas wells in Garfield County have increased by 40% since October 2009. Areas were ranked using a scale of 0-5, where a 5 indicates highest conservation priority. Areas of lowest disturbance to landscape integrity were assigned high priority for conservation (5). Areas of medium disturbance were given medium-high priority (4). Areas of high disturbance were assigned medium priority (3).	Landscape integrity study Wells	Colorado Natural Heritage Program CO Oil and Gas Conservation Commission
	Habitat connectivity and movement	16%	This model prioritizes habitat movement corridors, using a scale of 0-5, where a 5 indicates highest conservation priority. Colorado Parks and Wildlife (CPW) polygon movement corridor analysis and BLM lynx linkage areas are ranked 5 (provided by agency experts with on the ground knowledge). Modeled wildlife linkages are ranked 4 (based on expert opinion and modeling). CPW linear movement patterns are buffered to 4 km and ranked 3 (because buffering does not take into account terrain or vegetation). Core and corridor areas from regional conservation plans ranked 3. The maximum rank for any area is used.	Elk Migration Patterns (linear)/2011 Mule Deer Migration Patterns (linear)/2011 Bighorn Sheep Migration Patterns (linear)/2011 Elk Migration Corridors/2011 Mule Deer Migration Corridors/2011 Lynx Corridors/2005 Modeled wildlife linkages/2010 Southern Rockies Wildlands Network Design conservation plan/2003 Heart of the West conservation plan/2004 2010 Statewide Potential Conservation Areas	LANDFIRE (US Department of the Interior and USFS) Colorado Natural Heritage Program (CNHP)
	Potential Conservation Areas	16%	This model depicts the 2010 Statewide Potential Conservation Areas (PCA) developed by the Colorado Natural Heritage Program (CNHP). The PCA's represent CNHP's best estimate of the primary area required to support the long-term survival of targeted species or natural communities. PCA refers to the ability of a conservation area to maintain healthy, viable, targets over the long term (100+ years), including the ability of the targets to respond to natural or human-caused environmental change. The PCAs do not necessarily preclude human activities, but their ability to function naturally may be greatly influenced by them. PCAs at all scales may require ecological management or restoration to maintain their functionality and long term persistence. PCA's were ranked on a scale of 0-5, with 5 representing highest conservation priority: B1: Outstanding Biodiversity Significance = 5 B2: Very High Biodiversity Significance = 4 B3: High Biodiversity Significance = 3 B4: Moderate Biodiversity Significance = 2 B5: General Biodiversity Interest = 1		Colorado Natural Heritage Program For more information: http://www.cnhp.colostate.edu/download/gis.asp
	Terrestrial Habitat	16%	This model assigns priority to terrestrial species habitat zones, using Colorado Parks and Wildlife Impact and Status rankings included in the 1298 Species Impact Statement. The following species habitats were considered in the analysis: Bald Eagle - Active nest site and winter night roost site Bighorn Sheep - Production area and winter range Columbian Sharp-tailed Grouse - Lek Site and production area Elk - Production area and critical winter range Greater sage grouse - Lek Site and production areas Gunnison Sage Grouse - Lek Site and production areas Mule deer - Critical winter range and migration Corridor Plains Sharp-tailed Grouse - Lek site and production area Kit Fox - Overall range Moose - Summer range, concentration area, and priority habitat Pronghorn antelope - winter range	Bald Eagle - Active nest site and winter night roost site Bighorn Sheep - Production area and winter range Columbian Sharp-tailed Grouse - Lek Site and production area Elk - Production area and critical winter range Greater sage grouse - Lek Site and production areas Gunnison Sage Grouse - Lek Site and production areas Mule deer - Critical winter range and migration Corridor Plains Sharp-tailed Grouse - Lek site and production area Kit Fox - Overall range Moose - Summer range, concentration area, and priority habitat Pronghorn antelope - winter range	COGCC (Colorado Oil and Gas Conservation Commission) CDOW (Colorado Department of Wildlife)
	Riparian and Aquatic Habitats	19%	This model prioritizes riparian and aquatic habitats, using a scale of 0-5, where a 5 indicates highest conservation priority. Rankings shown below are based on expert consultation with Rocky Mountain Wild: FWS Colorado Pikeminnow Designated Critical Habitat - 5 FWS Razorback Sucker Designated Critical Habitat - 5 COGCC Aquatic Designated Cutthroat Trout Habitat - 5 CWCB Instream Flows - 5 COGCC Aquatic Gold Medal Waters - 4 CDOW Boreal Toad Observations - 4 Riparian Areas (see designations below) - 4 NHD Flowlines and waterbodies (100 ft. buffer) - 3 Riparian designations: Open Water Herbaceous Wetlands Rocky Mountain Montane Riparian Systems Rocky Mountain Subalpine/Upper Montane Riparian Systems Introduced Riparian Vegetation Recently Burned Herbaceous Wetlands	FWS Colorado Pikeminnow Designated Critical Habitat FWS Razorback Sucker Designated Critical Habitat COGCC Aquatic Designated Cutthroat Trout Habitat COGCC Aquatic Gold Medal Waters CWCB Instream Flows CDOW Boreal Toad Observations NHD Flowlines and waterbodies Riparian	FWS (US Fish and Wildlife) COGCC (Colorado Oil and Gas Conservation Commission) CWCB (Colorado Water Conservation Board) CDOW (Colorado Department of Wildlife) USGS NHD (National Hydrologic Dataset) LANDFIRE (US Department of the Interior and US Forest Service)
	Native Vegetation	6%	Native vegetation types are ranked based on the statewide need for conservation, using the CNHP Biodiversity Scorecard ranking for ecological systems (2008). A scale of 0-5 was used for the ranking, where a 5 indicates highest priority for conservation action. Native vegetation types that are part of ecological systems that are weakly or poorly conserved are ranked 5, that are moderately conserved are ranked 4, and that are effectively conserved are ranked 3. Native vegetation types that are part of ecological systems that were not evaluated by CNHP are ranked 5. Non-native vegetation types consisting of vegetated developed non-agricultural areas (e.g., open spaces), open water, and areas with introduced vegetation are ranked 1. Non-native vegetation types consisting of developed areas without significant vegetation and agricultural areas are ranked 0.	Native vegetation A Biodiversity Scorecard for Colorado	Landfire (US Department of the Interior and USFS) CNHP (Colorado Natural Heritage Program)

Goal	Criteria	Criteria Weights	Methodology	Data	Data Source
Protect water resources			<i>Weighting Rationale:</i> Functioning stream buffers, riparian areas, and wetlands were assigned highest weight for the key role that these areas play in overall water quality protection for the county. Protection of aquifer locations and recharge areas were also considered as significant locations for insuring groundwater quality and adequate water quantity. Slopes and soils were ranked lower, to reflect a secondary consideration in characterizing the higher ranked stream buffers. The floodplain data for the county is incomplete, and therefore was ranked lowest for overall influence.		
	Functioning stream buffers	24%	This criterion identifies landcover types that provide passive filtering for stream protection. The model assigns conservation priority on a scale of 0-5 (5 = highest conservation priority) to areas within stream buffer distances as follows: Colorado and Roaring Fork Rivers (use CDPHE buffer zones): Zone 1: 1000 ft – Highest conservation priority (5) Zone 2: ½ mile beyond Zone 1 – Med-high priority (4) Zone 3: ¼ mile beyond Zone 2 – Medium priority (3) Other Perennial Streams: Zone 1: 0-200 feet– Highest conservation priority (5) Zone 2: 200–300 ft – Med-high priority (4) Zone 3: 300-400 ft – Medium priority (3) Intermittent Streams: 100,200,300; Zone 1: 0-100 feet– Highest conservation priority (5) Zone 2: 100–200 ft – Med-high priority (4) Zone 3: 200-300 ft – Medium priority (3)	Streams Functioning buffer landcover (no developed or agricultural tilled lands)	USGS National Hydrologic Database LANDFIRE (US Department of the Interior and US Forest Service)
	Functioning buffers for ponds and reservoirs	8%	This criterion identifies landcover types that provide passive filtering for water body protection. The model assigns conservation priority on a scale of 0-5 (5 = highest conservation priority) to areas within water body buffer distances as follows: Zone 1: 0-200 feet– Highest conservation priority (5) Zone 2: 200–300 ft – Med-high priority (4) Zone 3: 300-400 ft – Medium priority (3)	Lakes, ponds, reservoirs Natural landcover (no developed or agriculture lands)	USGS National Hydrologic Database LANDFIRE (US Department of the Interior and US Forest Service)
	Soils with high erosion rates	8%	Soils with high erosion rates The water erosion potential of the soil is based on those soil properties or a combination of soil properties and landscape characteristics that contribute to runoff and have low resistance to water erosion processes. Those soil features that contribute to water erosivity are surface-layer particle size, saturated hydraulic conductivity, and high runoff landscapes. Conservation priority was mapped on a scale of 0-5 as follows: Highest priority (5) = Soils with very high erosion potential Med-high priority (4) = Soils with high erosion potential Medium priority (3) = Soils with moderate erosion potential	Soils	USDA Natural Resources Conservation Service SSURGO Soils database
	Soils with low infiltration capacity	8%	This model identifies soils with low infiltration capacity using SSURGO hydrologic groupings. Soils with low absorbcency characteristics are likely to generate overland flows that carry non-point source pollutants to streams and water bodies. These areas should be protected from development. The model assigns highest conservation priority to hydrologic Group D (These soils have very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.) The model assign medium-high priority to hydrologic Group C (These soils have slow infiltration rates. These soils that have layers impeding downward movement of water, or soils that have moderately fine or fine textures.)	Soils	USDA Natural Resources Conservation Service SSURGO Soils database
	Riparian areas and wetlands	24%	This criterion prioritizes riparian areas and wetlands.	Riparian areas and wetlands Natural landcover (no developed or agriculture lands)	LANDFIRE (US Department of the Interior and US Forest Service)
	Steep slopes and aspect	8%	This model assigns significance to areas in close proximity to surface water with steep slopes (greater chance for runoff/erosion). These areas should be protected from development. Northern facing slopes were given a slightly higher priority for conservation. Areas were scored using a scale of 0-5, with 5 representing highest significance for protecting surface water. Areas were ranked using a combination of aspect, distance to surface water, and steepness: 0-1/4 mi from surface water: 4: 7.9% - 812% slope 3: 3.9% - 7.9% slope 2: 1.7% - 3.9% slope 0: 0% - 1.7% slope 1/4 - 1/2 mi from surface water 3: 7.9% - 812% slope 2: 3.9% - 7.9% slope 1: 1.7% - 3.9% slope 0: 0% - 1.7% slope South and southwest facing slopes (which are more sparcely vegetated) were scored as 1 level higher than above.	Digital Elevation Model (DEM)	US Geologic Survey
	100 yr Floodplain	4%	High conservation priority was assigned to floodplain areas. Note that this dataset is incomplete for Garfield County.	Floodplain	Garfield County
	Alluvial aquifer locations	16%	This model identifies alluvial aquifer locations. Alluvial aquifers were given highest conservation priority, since water flow is very slow and they are very difficult to remediate, if contaminated.	Alluvial aquifer	Colorado Water Conservation Board

Goal	Criteria	Criteria Weights	Methodology	Data	Data Source
Working ranches and farms			<i>Weighting Rationale:</i> Active operations, senior water rights, and the existence of habitat corridors were identified as the most critical indicators for working land conservation and economic opportunity in Garfield County. Working lands connectivity was identified as significant for maintaining a contiguous working landscape, and therefore was weighted moderately high. Moderately high influence was also assigned to land with development pressure which jeopardize the viability of working operations and inform an urgency for conservation action. The economic value of working lands in characterizing and preserving visitor viewscapes was identified as significant also. Similarly, adjacency to public lands and privately conserved lands decreases the chance of subdivision and adds to the viewscape from protected areas. Productive soils were weighted lower, since irrigation via water rights (weighted high) is a requirement for soil productivity in this region. For mapping purposes private property lines have been obscured.		
	Active ranch and farm properties	15%	This model identifies active ranch and farm properties. Properties are ranked based on property size. Properties were extracted from the Garfield County Assessor's database based on Current Use Class for any of the following: Agricultural Land, Dry Farm Land, Farm/Ranch Residence, Grazing Land, Irrigated Land, and Meadow-Hay Land. Large corporate operations are excluded. Properties were ranked based on property size, using a scale of 0-5 (a 5 indicates highest conservation priority) as follows: 5 = 1000-5000 acres 4 = 500-1000 acres 3 = 100-500 acres 2 = 40-100 acres	Working ranch and farmland parcels	Garfield County
	Connected working lands	10%	This model prioritizes working ranch and farm properties based on connectivity to other working land properties. Properties were extracted from the Garfield County Assessor's database based on Current Use Class for any of the following: Agricultural Land, Dry Farm Land, Farm/Ranch Residence, Grazing Land, Irrigated Land, and Meadow-Hay Land. Each property was ranked based on the role it plays in maintaining large connected swaths of working lands. Based on a scale of 0-5 (a 5 indicates highest conservation priority), a natural breaks algorithm was used to rank the data based on the size of the swath of connected working land properties.	Working ranch and farmland parcels	Garfield County
	Senior water rights	15%	This model identifies irrigated parcels and prioritizes them based on their appropriation date as recorded by the CO State Department of Water Resources. Properties were ranked based on appropriation date, using a scale of 0-5 (a 5 indicates highest conservation priority), with oldest water rights receiving the highest rank. 5=1881-1922 (date of Colorado River Compact) 4=1923-1960 3=1961-2000 0=Everything else	Irrigated parcels	Garfield County Colorado Department of Water Resources
	Productive soils	5%	This model identifies areas with most productive farmland soils, using data from the Natural Resources Conservation Service soils database. Note: The data used for this analysis does not account for adequate irrigation supply. Areas were ranked using a scale of 0-5 (a 5 indicates highest conservation priority), based on soil productivity as follows: 5 = Prime farmland if irrigated 4 = Farmland of statewide importance	Soils of statewide importance Prime agricultural soils	Natural Resources Conservation Service (NRCS) ... SSURGO Soils database
	Habitat corridors	15%	This model identifies working ranch and farm properties that also serve as critical wildlife habitat and/or working lands that support habitat connectivity and movement. Data for Terrestrial Habitat, Riparian Habitat and Habitat Connections was incorporated from the Greenprint Goal for Habitat Protection. Working land properties that intersect with priority habitat areas were prioritized.	For details on species and studies incorporated, see methodology and data sources for Habitat Protection Goal.	Garfield County US Department of the Interior and USFS Colorado Natural Heritage Program Colorado Parks and Wildlife Colorado Oil and Gas Conserv. Commission US Fish and Wildlife Colorado Water Garfield County
	Viewshed properties in major transportation corridors	10%	This model prioritizes working ranch and farm properties that are within the view experienced by residents and visitors driving along major transportation corridors (including I70, CO 82, and CO 13). Properties were extracted from the Garfield County Assessor's database based on Current Use Class for any of the following: Agricultural Land, Dry Farm Land, Farm/Ranch Residence, Grazing Land, Irrigated Land, and Meadow-Hay Land. Working lands properties that intersect the view corridor were ranked using a scale of 0-5 (a 5 indicates highest conservation priority), based relative traffic volumes: 5 = Areas visible from I-70 4 = Areas visible from CO 82 3 = Areas visible from CO 13	Viewshed Analysis Working ranch and farmland parcels	Garfield County
	Historic working lands and structures	5%	Will include if data becomes available. Note: Structures built prior to 1972 should be ranked as a priority.	Not available	
	Adjacent to public lands	8%	This model prioritizes working ranch and farm properties that are adjacent to public lands or trails. Properties were extracted from the Garfield County Assessor's database based on Current Use Class for any of the following: Agricultural Land, Dry Farm Land, Farm/Ranch Residence, Grazing Land, Irrigated Land, and Meadow-Hay Land. Working lands properties that are adjacent to public lands or trails were identified as high priority.	Working ranch and farmland parcels Public Lands	Garfield County
	Adjacent to privately conserved lands	8%	This model prioritizes working ranch and farm properties that are adjacent to public privately conserved land. Properties were extracted from the Garfield County Assessor's database based on Current Use Class for any of the following: Agricultural Land, Dry Farm Land, Farm/Ranch Residence, Grazing Land, Irrigated Land, and Meadow-Hay Land. Working lands properties that are adjacent to privately conserved lands were identified as high priority.	Working ranch and farmland parcels Conservation easements	Garfield County Sonoran Institute
Lands with development pressure	10%	This model identifies working land properties whose viability may be at risk due to near-by development activity. Using a scale of 0-5 (a 5 indicates highest conservation priority), working lands within the designated Urban Growth Area for any municipality were ranked 5. Working lands within ¼ mile of existing or proposed development were ranked 4.	Working ranch and farmland parcels Parcels with development activity	Garfield County	

Goal	Criteria	Criteria Weights	Methodology	Data	Data Source
Buffers around communities			<i>Weighting Rationale:</i> Community separators defined by existing openspace provide the greatest opportunity for conservation impact in maintaining open lands buffers around communities. Community Growth Areas recognize that municipalities need to be able to gradually expand into immediately surrounding areas, while maintaining community separation. Areas close to major highways help to maintain the counties rural character when travelling between communities, along I-70 and Highway 82. All three criteria were weighted equally.		
	Buffers around established Urban Growth Areas	33%	This criterion recognizes the need for municipalities to be able to gradually expand into immediately surrounding areas, while maintaining community separation. The model prioritizes areas adjacent to the outside edge of each community's established Urban Growth Area (UGA). Using a scale of 0-5 (a 5 indicates highest conservation priority) and a simple buffering algorithm, community buffers were ranked as follows: 0-½ mile from UGA boundaries = 3 (moderate priority) ½ - 1 mile from UGA boundaries = 4 (moderate/high priority) 1 - 10 miles from UGA boundaries = 5 (high priority) Within UGA boundaries = no priority	Urban Growth Area boundaries	Garfield County
	Community separators defined by landuse, viewsheds, and topography	33%	This model prioritizes contiguous lands with "open space" landcover that may serve as buffers to developed areas. Open space landcover is defined as all cover types except for roads and developed lands. Areas considered as optimal for community separation are those that are within the view experienced by residents and visitors driving along major transportation corridors (including I70, CO 82, and CO 13). These areas are frequently defined by steep slopes, cliffs, and overhangs that establish unique natural backdrops for the communities in Garfield County. Areas within the transportation corridor viewed were ranked based on proximity to municipal boundaries, using a scale of 0-5 (a 5 indicates highest conservation priority) as follows: Adjacent to municipal boundary = 3 (moderate priority) Within 1 mile of municipal boundary = 4 (moderate/high priority) Within 3 miles of municipal boundary = 5 (high priority)	Natural and agriculture lands (no developed) Roads City Boundaries Transportation Corridor Viewshed	Landfire (Department of Interior and US Forest Service) Garfield County
	Close to major highways	33%	This model prioritizes areas close to major highways. These areas are considered important because they help maintain the rural character of the county when travelling between communities along the major transportation corridors. Using a scale of 0-5 (a 5 indicates highest conservation priority) and a simple buffering algorithm, community buffers were ranked as follows: 0-½ mile from highways = 5 (highest priority) ½ - 1 mile from highways = 4 (moderate/high priority) 1 - 3 miles from highways = 3 (moderate/high priority)	Highways (I-70 and 82)	Garfield County
Recreation, and other tourism opportunities			<i>Weighting Rationale:</i> Areas with significant tourism value were weighted highest (river access, camping, multi-use recreation, and access to public lands). Park gaps within Communities was assigned moderately high weight, to highlight local needs for community recreation spaces. Motorized recreation, locations for hunting, and opportunities for target practice were assigned a moderate weight, given that most opportunities exist on public land, but public access to these locations must be maintained. Climbing areas were assigned a lower weight due to a smaller population with this interest. Historic structures were also weighted low, since mapped locations already have some protection via state historic registry. Golf courses and ski areas were weighted low since these are all existing areas that provide public access.		
	Public access to federal lands	13%	This model identifies existing locations and new opportunities where trails and roads provide walk-in access to federal lands. Access to these areas does not imply ADA compliance. BLM existing access points were buffered by 1/8 mile. No other existing access locations were available in GIS data. Locations where roads and trails come within 1/8 mile of Federal lands were identified as access opportunity areas. Highest priority (5 on a scale of 0-5) was given to access areas that are within 5 miles of a public highway. Medium priority (3) was assigned to access areas that are more than 5 miles from a public highway. Highways considered include: I-70; Frontage Rd.; CO 13, 133, 139, 325, 82; Old Highway 82; Rifle Bypass; US 6.	Federal lands BLM access points Roads Trails	Garfield County BLM Garfield County Garfield County, USFS, BLM
	Opportunities for new river access (fishing)	13%	This model identifies gaps in fishing access along the Colorado, Roaring Fork, Rifle, Cattle Creek, and Crystal Rivers. The analysis was performed on both sides of the river. "Gaps" were identified as locations along the river with no current fishing access within 1/8 mile. Within these gaps, the model prioritizes areas that provide at least a 1 acre stretch along the river AND have near-by access via road or trail. Access to these areas does not imply ADA compliance.	Existing access Rivers Roads (no highways) Trails	Mike Shook's fishing maps NHD and CDOT Garfield County Garfield County, USFS, BLM
	Opportunities for new river access (kayaking, rafting, tubing)	13%	This model identifies gaps in paddling access along the Colorado, Roaring Fork, Rifle, Cattle Creek, and Crystal Rivers. The analysis was performed on both sides of the river. "Gaps" were identified as locations along the river with no current fishing access within 2.5 miles. Within these gaps, the model prioritizes areas that provide at least a 1 acre stretch along the river AND have near-by access via road or trail. Access to these areas does not imply ADA compliance.	Existing boat ramps Rivers Roads (no highways) Trails	Mike Shook's fishing maps and Garfield County NHD and CDOT Garfield County Garfield County, USFS, BLM
	Locations for hunting	4%	Priority was assigned to winter range habitat for big horn sheep, elk, mule deer, and pronghorn. City boundaries were buffered by 1 mile and removed from prioritized areas. Developed areas were also removed from prioritized areas. Winter range habitat was selected based on Colorado hunting season for the species listed above (ranging from late fall to winter). The hunting season for each species can be referenced here: http://wildlife.state.co.us/Hunting/SeasonDatesAndFees/Pages/BigGameDatesAndFees.aspx . Areas that are on private lands were ranked higher, while recognizing that access is pursuant to etiquette/rules for responsible hunting	Species winter ranges City Boundary Developed landcover	CDOW Garfield County CDOW
	Opportunities for managed target practice (gun and archery)	7%	Following the methodology developed by Department of Energy in the document "Range Design Criteria" (http://www.hss.doe.gov/SecPolicy/pfs/Range_Design_Criteria.pdf) potential areas for new outdoor target practice were identified. These are flat areas (with less than 2% slope) that are at least 2 acres in size, and are adjacent to a southwest facing backdrop (greater than 45% slope). Only those areas with reasonable access to roads (within 1000 meters) were selected. Areas within ¼ mile of town limits and immediately adjacent to roads and water bodies were removed.	Slope Aspect Roads City Boundaries Lakes and Rivers	USGS DEM Garfield County USGS NHD
	Historic buildings, structures, and features	2%	Mapped locations from Colorado National Register of Historic Places (http://www.nationalregisterofhistoricplaces.com/co/Garfield/state.html). Locations included: Battlement Mesa Schoolhouse, The Little Red Schoolhouse at Canyon Creek, Cardiff Coke Ovens, Citizens National Bank Building in Glenwood Springs, Earnest Ranch, Glenwood Springs Hydroelectric Plant, Havemeyer-Willcox Canal Pumphouse, Hotel Colorado, Missouri Heights School, Rifle Bridge, Satank Bridge, South Canon Bridge, Starr Manor, Edward T. Taylor House, Rifle Post Office., Coal Seam Camp	Historic structures and locations	National Register of Historic Places
	Park Gaps within Communities	11%	Identified locations within established communities that do not have walking access to a park. Gaps were identified as locations within city boundaries that were not within walking distance (1/4 mile) of an existing park. School district properties were included as walkable recreation spaces within communities.	Parks City Boundary School district properties	Garfield County and City of Rifle Garfield County TPL digitized
	Golf Courses and Ski Mountains	2%	Mapped locations for golf courses and Ski Sunlight.	Parks	Garfield County
	Multi-use Recreation Areas (winter and summer non-motorized recreation)	13%	This map includes areas used for winter and summer non-motorized recreation. Included are West Elk Park, 4-mile Park, Red Hill, and the JQS Area, as well as RAMBO priority areas for non-mechanized recreation including: Cedar Mountain; Hogback South; Fish Hatchery East, and Fish Hatchery West.	Multi use areas Red Hill/BLM Areas Rifle Area Mountain Biking Organization (RAMBO)	TPL BLM Aleks Briedis (City of Rifle)
	Climbing areas	2%	High priority is given to popular rock climbing areas.	Climbing areas	Dave Pegg
	Camping areas	13%	This model buffers existing designated camping areas by 1/4 mile and assigns them high priority for recreation conservation.	Campsites (waiting BLM response)	USFS Created by TPL
	Motorized recreation access	7%	Will include if data becomes available.	Not yet available	

Goal	Criteria	Criteria	Methodology	Data	Data Source
Enhance trail systems		<i>Weighting Rationale: Opportunities for new trail connections were assigned highest priority for focusing new land conservation and easement efforts.</i>			
	Existing trails	40%	Prioritize a 30-ft corridor along all existing trails (including trails on public lands).	Existing trails	Garfield County, USFS, BLM
	Opportunities for new connections	60%	Prioritize a corridor along all proposed trails (including LOVA and local community trail plans). A 100-ft corridor was used for all trails where a specific route has already been established. Other planned routes were buffered as follows to allow for uncertainty of route location: <ul style="list-style-type: none"> - Rifle Creek: 1/8 mile buffer. - LOVA trail: 200 ft buffer north of Rt 6 from S. Canyon to Canyon Creek. - LOVA trail: 1/8 mile buffer for the section crossing the CO river, south of Silt, to the planned River Reserve Park. - LOVA trail: 1/2 mile buffer north of Route 6, Silt to Rifle. 	Planned trails	Garfield County, Jeff Jackel Aleks Briedis Larry Dragon
Restore impaired waters		<i>Weighting Rationale: Water quality and in-stream flow issues were considered of higher importance in identifying opportunity areas for water quality restoration. Invasive species play a secondary role in water quality impairment.</i>			
	Existing water quality issues	50%	This criterion prioritizes a 1000 foot buffer along stream corridors with known water quality impairments, including EPA 303d Impaired Waters listings and USGS Colorado Water Quality Data Repository listings, effective March 13, 2012. Identified water bodies were ranked on a scale of 0-5, with 5 indicating highest priority for restoration action. <u>Impaired Water Bodies</u> Priority = 5: <ul style="list-style-type: none"> • Rifle Gap Reservoir; Aquatic Life Use (Hg Fish Tissue); High 303d priority; (note - uranium mining in the 60's) Priority = 4: <ul style="list-style-type: none"> • Tributaries to Colorado River, Roaring Fork to Parachute Creek; Se; Medium 303d priority • Tributaries to CO river from Government Highline Canal diversion to Salt Creek (south/southeast border of Garfield County); Se; Medium 303d priority Priority = 3: <ul style="list-style-type: none"> • Mainstem of Roan Creek from Kimball Creek to the CO river; Se; Low 303d priority • East/West Rifle Creek, Rifle Creek; E. coli; Se; Low 303d priority; • Salt Creek (south/southeast border of Garfield County); sediment; Low 303d priority; Medium Greenprint priority <u>Monitored Water Bodies</u> Priority = 3: <ul style="list-style-type: none"> • Colorado River, Roaring Fork to Rifle Creek; monitored for sediment • South Canyon Creek; monitored for Cu, Se, E. coli (May-Oct) • South Canyon Hot Springs; monitored for D.O., Pb • Clear Creek from Tom Creek To Roan Creek; monitored for E.coli, Fe(Trec) • Cattle Creek, • Landis Creek 	303d Streams and streams of concern	US Environmental Protection Agency Colorado Division of Water Resources
	In-stream flow reaches	40%	This model assigns restoration priority to designated in-stream flow reaches within Garfield County. In-stream flow reaches are those reaches where a minimum amount of water has been identified to protect in-stream flows. Minimums are often not met if they are newer appropriations, since these would be junior water rights and only intended to provide a minimum amount of water for streams. In-stream flow requirements do not provide flows for such things as channel maintenance or riparian vegetation or aquatic organisms besides trout.	In-stream flow reaches	Colorado Water Conservation Board (CWCB)
	Invasive species in riparian areas	10%	This model assigns restoration priority to Tamarisk and Russian Olive growth within riparian areas.	Tamarisk and russian olive habitatT	amarsik Coalition