



2009 Colorado Sustainability Roundtable Series Report

March 2010

By Janna Six and Kelly Landau

Alliance for Sustainable Colorado
www.sustainablecolorado.org

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Note

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Alliance for Sustainable Colorado
1536 Wynkoop St, Suite 4A
Denver, CO 80202
303-572-1536
www.sustainablecolorado.org

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Summary

The Alliance for Sustainable Colorado (the Alliance) hosted a series of six regional Sustainability Roundtable meetings across Colorado between April and October, 2009. The purpose of the Roundtables was to bring together leaders from nonprofit, business, government and academic sectors to determine the key issues and challenges, as well as best practices and immediate opportunities, related to sustainability for each region. More than 350 members of the communities participated.

The Roundtables are just one of a variety of collaborative activities hosted by the Alliance that enable people in multiple sectors to make contacts and build relationships to foster a statewide sustainability network.

Roundtable Format

Participants in each region were presented with three focused questions in a World Café setting to foster collaborative dialogue from diverse perspectives. In small groups, these questions were discussed:

- What local sustainability efforts are in place and working?
- Which opportunities are ripe for development?
- What next steps are needed to improve collaboration locally and statewide to achieve those opportunities?

Key Findings - Common Issues

Sustainability is booming in Colorado! It is apparent that community leaders across all sectors and regions are incorporating sustainability concepts and practices in planning and shaping economically viable, vibrant and quality places to live in Colorado.

The Roundtables revealed a long and comprehensive list of sustainability initiatives and programs that are in place, and meeting goals, around the state. The list includes efforts in many areas: local food and agriculture; energy efficiency and renewable energy development; sustainability education; business and economic development and green jobs; transportation; cultural heritage tourism; open-space preservation; and water conservation.

Successful activities, as described by participants, shared common factors. Projects were generally built by collaborations among organizations from multiple sectors. Strong leadership at the organizational and individual levels was key. And, projects stemming from comprehensive plans with written, tangible goals appeared to be much more effective.

Despite the many successes and future opportunities, participants also described three common barriers to sustainability: lack of political will, financial disincentives, and marginal commitment to sustainability policies by the general community.

Next Steps

To overcome obstacles and increase effectiveness of sustainability goals, participants described opportunities that are ready for implementation that revolved around these principles:

- Create a sustainability culture by get community leaders, elected officials, businesses and citizenry to commit to and internalize sustainability principles;
- Expand education in schools and public domains;
- Increase collaboration;
- Share sustainability resources.

Participants proposed dozens of tangible activities to address these opportunities. The majority of the remarks agreed on these next steps:

- Create local, sustainability hubs in each region to enhance coordination;
- Determine what services and resources exist and develop systems for sharing information and resources;
- Establish comprehensive recycling and composting facilities;
- Create infrastructure for local food production, processing, storage and distribution.

A Look to the Future

The value of simply getting together to exchange ideas with such a broad spectrum of sustainability experts and advocates was appreciated by participants at the Roundtable meetings. As a catalyst for such activity, the Alliance plans to continue in 2010 to host Roundtables in eight or more communities to work toward a definition of what a sustainable Colorado looks like. We will encourage community efforts to develop strong leadership, collaborative networks and comprehensive sustainability plans. We will help to build consensus on how to move forward on a local sustainability opportunity that is ready to implement. Finally, we will encourage collaboration on statewide sustainability campaigns, such as increasing resource efficiency in the built environment.

Background

The Alliance for Sustainable Colorado (the Alliance), a 501c3 nonprofit, was founded in 2004 on the evidence that the long-term sustainability of the planet is at risk and there is a lack of constructive engagement and collaboration between stakeholders to develop solutions. The Alliance's mission is to advance sustainability through collaboration among business, nonprofits, government and education ("the sectors"). To accomplish our mission, we bring organizations together to develop policies and implement practices that ensure economic, environmental and social impacts ("the triple bottom line") are considered to promote a sustainable future. The Alliance hosts a variety of collaborative activities that enable people in various sectors to make contacts and build relationships that foster a statewide sustainability network.

One such program area is the Alliance's series of regional Sustainability Roundtable meetings across the state, which we introduced in 2007. The goal of the Roundtables is to bring together leaders in each of the sectors to determine the key issues and challenges, as well as the lessons learned and best practices, for the region. A key take-away from our roundtable events is that people need a catalyst to come together and share information and a better infrastructure to maintain those relationships. The Sustainability Roundtables are one way we foster these relationships and infrastructure.

Five Sustainability Roundtable meetings were held during the fall of 2007 in Telluride, Colorado Springs, Durango and Denver. More than 100 people participated, in total. In 2009, we expanded the meetings to six locations, based on the Colorado Department of Local Affairs (DOLA) regions. More than 350 people participated in the 2009 Roundtables, including DOLA representatives. Both years, the meetings confirmed the Alliance's views that sustainability is a universal, salient and urgent concern.

Reports of the Sustainability Roundtable meetings are shared with: participants, serving as a collection of their notes and projects; state agency staff to document needs; donors; and the media. The 2009 report will be available as a download from the Alliance Web site: www.sustainablecolorado.org.

2009 Sustainability Roundtable Series

This section of the report describes the format and highlights of the 2009 Sustainability Roundtable Series.

Definitions of Sustainability

The Alliance staff presented the concept of sustainability using a combination of three common descriptions:

- Sustainability development means “*Meeting the needs of the present without compromising the ability of future generations to meet their own needs*” (1987 UN World Commission on Environment and Development, the Brundtland Commission).
- Creating sustainable communities requires a holistic approach to understanding all of the stakeholders, individual value systems, and economic and social barriers acting in any community or system.
- Sustainability is often operationalized by making decisions that benefit the triple bottom line of people, planet and profit over the long term.

Why were the 2009 sustainability Roundtable meetings held?

The goals of the 2009 roundtables were to bring local community leaders together across government agencies, non-profit organizations, businesses, and educational institutions to:

- Share a common definition of sustainability
- Collect information about local and regional sustainability efforts
- Provide a venue for true cross-sector collaboration
- Offer information about sustainability trends
- Invite participation and support for 2010 statewide sustainability efforts

Who was invited to the Roundtables?

Roundtable locations were chosen based on the eight regional divisions of the Colorado [Department of Local Affairs](#).

Meetings were held in Durango, Pueblo, Grand Junction, Steamboat Springs, Fort Collins, and Salida between April and October. A final statewide meeting was held via web conferencing in December 2009 for community leaders representing areas that were not visited, in order to collect additional examples of successful sustainability projects and opportunities across Colorado. More than 350 sustainability stakeholders participated in the roundtables, bringing a diversity of knowledge, experience and ideas which produced rich, constructive conversations.

What were the topics of discussion?

Participants were presented with three focused questions in a [World Café](#) setting to foster collaborative dialogue from diverse perspectives, create active engagement and collect constructive ideas. In small groups, everyone was able to address each question and contribute information, insights and discoveries. Questions presented to 2009 roundtable participants were:

1. What local sustainability efforts are in place and working?
2. Which opportunities are ripe for development?
3. What next steps are needed to improve collaboration locally and statewide (to achieve those opportunities)?

What was learned?

This report presents a summary and a detailed list of the ideas gathered from all three questions for each roundtable region. Because sustainability is quickly becoming a comprehensive and required approach to meeting the economic, environmental and social challenges for businesses, local governments and organizations across the state, conversations sorted themselves into the topic areas below. These topics are listed in the order of importance as voted upon consistently by roundtable participants around the state (and summarized in Section IV):

1. Local Food and Agriculture
2. Energy Efficiency and Renewable Energy Development
3. Recycling
4. Sustainability Education
5. Sustainability Practices at Educational Institutions
6. Green Building
7. Business and Economic Development/Green Jobs
8. Transportation
9. Cultural Heritage Tourism
10. Open-Space Preservation
11. Water Conservation

The sustainability topics mentioned in all communities were: local and sustainable agriculture; energy efficiency and renewable energy development; community recycling infrastructure; and standardized and efficient green building codes. In every region, sustainability curriculums and campus greening programs are being developed for institutions, from grades K-12 in public schools, to community and trade colleges, to universities.

The issues of water conservation and transportation received less attention. There was little discussion on population growth or climate change directly. Also, it was interesting to note that dialogues focused on stewardship of natural resources, although the economic and social benefits/ impacts of activities were constantly noted.

It also became clear as the roundtables progressed, that the language being used to describe sustainability was really a discussion about *self-sufficiency* and *local resiliency*. In trying to face the challenges of population growth, energy demand, energy security, climate change, and economic instability, community leaders are realizing the need to be equipped to produce and

manage their own resources, and to rebound quickly if a technological, economic or natural disaster occurs.

Insights

We discovered that each successful sustainability activity described at the Roundtables shared these common factors:

- **Community collaborations**, which benefit from the enhanced resources and outreach of cross-sector partnerships.
- **Strong leadership**, which must come from all sectors and is demonstrated through political will, community ethic, collaborative innovation and access to capital.
- **Comprehensive sustainability planning**, which took on a variety of forms, but always involved a written plan that was based on community input, defined sustainability goals, and identified tangible priorities for implementation. In several Roundtable meetings, it was a city's or town's comprehensive plans that seemed to bind and guide community efforts.

Conclusions

The most salient conclusion to be drawn from the Roundtables is that sustainability is “booming” in Colorado. The long list of sustainability initiatives and programs that are in place and working in these regions is comprehensive. These efforts illustrate that community leaders across all sectors are incorporating sustainability concepts and practices because it is wise planning—whether it be in transportation and land use planning, business plans, or educational lesson plans. They may see sustainability planning—using triple bottom line thinking over a long term—as a way to shape economically viable, vibrant places to live in Colorado that offer quality of life.

Lastly, despite the many described successes across Colorado, barriers to sustainability are still prevalent and were identified by participants as lack of political will, a needed increase in widespread commitment to sustainability policies, and not having financial incentives in place. Each community agreed that addressing these issues is critical to truly advancing a sustainable Colorado and that we must strive at local and statewide levels to identify creative solutions to broaching these barriers.

2010 Roundtables

Information gathered in this Roundtable report may be a useful resource to local and state leaders in non-profits, business, government and education. Noted solutions include:

1. Develop interagency and interdepartmental collaboration and decision-making to provide the most benefits to the most involved.
2. Invest in a long-range comprehensive, sustainability plan for each community.
3. Set priorities that offer the best opportunity for success and highest return on investment, such as standardizing building codes that are more water, resource and energy efficient.

4. Invest resources to build a sustainability infrastructure, concentrating on policies, practices and education simultaneously.
5. Develop local business and industry self sufficiency, such as food production facilities, or materials recycling facilities (MRFs).
6. Identify and work with organizations that are already active, and have the community experience, clout and resources to advance sustainability efforts.
7. Borrow models of tried and trusted practices, learning from others' experiences.

Evaluation of the meetings

Participants in the six Sustainability Roundtable meetings overwhelmingly (89% to 100%) rated the meetings as either “extremely useful” or “helpful.” Some of the most positive aspects of the Roundtables the participants mentioned were: making new contacts, networking, hearing ideas and solutions, brainstorming, exchanging information, learning about initiatives underway in Colorado, and collaborating.

Many participants said they would like to see more politicians get involved in the Roundtables, as well as more business people.

What is working and what opportunities are ripe for development?

Sustainability conversations sorted themselves into the following topics, summarized in order of how much they were discussed in the groups, beginning with the most-discussed topic.

Local Food and Agriculture

Participants in all six regional roundtable meetings expressed a strong desire to develop a comprehensive culture and system of local food production and consumption through farmland protection, collaboration, policy development, financing programs and educational resources. Many local food initiatives are thriving across Colorado. The types of local food initiatives and community efforts already in place are as diverse as the geography of each region in Colorado.

The most common is Community-Supported Agriculture (CSAs), where community “share-holders” pay in advance, regardless of the actual season’s output, to receive fresh vegetables and fruits throughout the growing season from a local farm. This model involves both the consumer and producer in sharing the benefits and risks of local food production. Backyard CSAs, which use a CSA model for food distribution, involve a local group that uses neighborhood backyards in agreement with the owners to produce the food. A popular and rapidly increasing initiative is farmer’s markets, which sell locally-produced products directly from the farm to the consumer. Also growing in popularity are community gardens, greenhouse construction, food processing, farm/garden supplies and services co-ops, and farmer training programs.

For a state that is moving to aggressively reduce its reliance on energy produced from fossil fuels, create jobs, and reverse childhood obesity rates, the benefits of healthy and sustainable food production are becoming more relevant to Colorado communities every day. Although, as participants frequently, and loudly, noted, only a tiny percentage (3%) of Colorado’s food is produced within the state.

The conversation, however, did not always differentiate between *local agriculture* and *sustainable agriculture*, even though it was assumed that the two were synonymous. Sustainable agriculture involves food production that is pesticide and hormone-free, humane to animals, provides fair wages to farmers, and incorporates environmental stewardship. Therefore, any local food movement needs to incorporate sustainability at its roots, building a local agricultural infrastructure that will enrich the soil, protect air and water quality, minimize energy, offer food that is healthy and nourishing, create local jobs and develop skills in self-sufficiency (such as food preservation).

Energy Efficiency and Renewable Energy Development

The incorporation of energy efficient equipment and practices is the “lowest hanging fruit” for attaining sustainability and provides the best return on investment. Renewable energy

development is also well underway across the state. More than 20 solar companies providing installation and products can be found in Colorado.

There are now enough demonstration projects for energy efficiency programs to provide all types of businesses, governments, non-profits, and educational institutions with models. The Garfield County Clean Energy Communities Initiative, for example, has saved the Roaring Fork School District more than \$24,000 in energy bills in 2009; doubled the City of Glenwood Spring's solar portfolio by installing solar PV arrays on five households and three businesses; and replaced street lights with 50% more efficient LED bulbs throughout the City of Rifle.

The priorities of Governor Ritter's cabinet to promote the New Energy Economy and the outreach of the Governor's Energy Office (GEO) and its many programs were highlighted throughout Roundtables. Many discussions of current activities described rebates, energy audits, grants and loan programs; new energy communities' initiatives; and successful partnering with local groups to provide weatherization programs for low-income families. A casual show of hands revealed that approximately half of the Roundtable participants subscribed to the GEO newsletter.

Two opportunities for future energy efforts are ripe for development. First, every roundtable group gave a high priority to figuring out how to create a revolving loan fund for energy retrofits, building on Boulder County's Climate Smart Loan Program. Second, there was broad agreement that there was political will and technology to increase energy efficiency codes in buildings. If a very high efficiency, standardized code were adopted statewide for new and remodeled buildings, it would significantly reduce emissions, save money, and help streamline processes for building and construction professionals across the state.

Recycling

Although there is a large disparity in recycling levels around the state, private or public recycling facilities exist in each region. Types of recycling programs ranged from community curbside pick-up, hazardous waste collection and organic waste composting, to simple drop-off sites for aluminum. Depending on the community infrastructure and population size, standard materials (cans, glass, and plastic bottles), hazardous household waste, electronics, and construction material are being recycled.

The most innovative programs were pay-as-you-throw (in Fort Collins), and co-op membership (in Pueblo). Several areas like Pueblo, Grand Junction and Steamboat Springs have in-place or beginning pilot programs to offer organic waste drop-off for composting capabilities and products.

While waste diversion and recycling are a high priority for participants, they mentioned that geographic location, weak political leadership, lack of funding, and few materials recycling and/or processing facilities are thwarting comprehensive recycling across Colorado.

A 2008 [report](#) prepared for the Colorado Department of Public Health and Environment compared Colorado recycling rates and state performance to three other states across the U.S. The report substantiates Roundtable findings that Colorado:

- Is in the lowest 20% of states in terms of recycling rates

- Has fewer materials recycling facilities (MRF), and those are mostly clustered in the Front Range
- Lags far behind the other states in both curbside and drop-off recycling access

The report concluded that without legislation mandating comprehensive plans for solid waste management, funding, and increased education and services, very little would move forward in establishing a strong diversion and recycling program for Colorado.

Opportunities exist to improve comprehensive waste diversion and materials reuse plans on local, state, and regional levels. Governments can assist in creating financial and regulatory incentives, as well as coordinating multi-jurisdictional efforts. One company's waste could become another's raw material. This kind of planning can jump-start local industries, creating green jobs to convert electronic waste, organic waste, old tires and even commodities such as aluminum into valuable raw materials.

Sustainability Education

Although significant progress has been made in both K-12 and higher education, participants reiterated at every meeting that sustainability education is needed on multiple levels and in every sector. Whether education is a simple community brochure on the hazards of radon, or as comprehensive as a masters degree in sustainability, there needs to be more. Participants felt that investments in education and outreach would go a long way in leveraging current sustainability programs to be more effective.

The resources and examples provided for this report focus on documenting the details of what education institutions ranging from K-12 to 4-year universities across the state are doing in terms of sustainability. In every region, school districts, community colleges, mountain college campuses and universities are developing specific classes or entire programs that focus on the sustainability issues of clean energy development, sustainable business, and green jobs training.

Public and higher education institutions throughout the state are also educating staff and students about sustainability practices by "greening their campuses." Illustrations include constructing and retrofitting buildings to U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) standards, installing solar PV panels or buying wind power, and establishing comprehensive recycling programs.

Colorado State University in Fort Collins is proving itself to be a sustainability leader through its many collaborative sustainable research programs and its extensive on-campus efforts to conserve energy and reduce waste. Their Global Social & Sustainable Enterprise Program provides an intensive summer program in which student teams work domestically and abroad to work on projects addressing clean energy, irrigation technology, clean water supply and growing organic foods in developing countries.

Informal education to community members is accomplished mostly through governmental and non-profit programs. Some businesses are spreading the word about the values of sustainability by creating green requirements from their supply chain, and by educating their customers.

Education, in all shapes and sizes, is an opportunity that is ripe for development. It was felt that there is an urgent need to do more public education about sustainability, why it's important and what people can do. The problem with unsustainable lifestyles might just be a failure in marketing/ educating audiences about the impacts and benefits.

Green Building

Towns, counties, and state government agencies across Colorado are using American Recovery and Reinvestment Act funds to increase their green building inventory, with some buildings obtaining LEED certification. Efforts primarily focus on energy-saving features, materials efficiency and waste diversion, water efficiency and improving indoor environmental quality, all of which have tangible financial, environmental and social benefits.

Schools are also leaders in the green building movement. One notable statewide effort is the *Green Schools Advocacy Committee*, created by the Colorado Chapter of the U.S. Green Building Council, to reach each of the 172 school districts in Colorado to increase understanding of the benefits of new or remodeled green school buildings.

Highlighted at several of the meetings were green office buildings that house multiple nonprofit organizations, called *multi-tenant, nonprofit centers*, like the Alliance building in Denver. These buildings provide distinctive examples for a green remodel of an existing building that offer an affordable and collaborative home for nonprofit organizations. Two historical preservation projects were also highlighted for their efforts to incorporate energy-efficient retrofits.

Summit County was noted for its unique comprehensive Sustainable Building Ordinance program for residential properties that was enacted by all local jurisdictions in January 2009, and provides an owner's manual for efficient home operation and maintenance.

Less information was provided at the Roundtables about commercial and residential green building efforts. LEED-level construction and the ENERGY STAR New Homes Programs, which incentivize first-time homebuyers to purchase energy efficient homes, were mentioned.

Opportunities strongly supported by most participants are the implementation of consistent greener building codes for energy, water, and materials. Also mentioned was requiring that sustainable retrofits be applied in historical preservation efforts. Several participants noted that education is a key factor, pointing out that during this depressed economy and housing slump, efforts should focus on re-educating the construction, building and retrofitting industries in green building practices.

Business and Economic Development/Green Jobs

Businesses incorporating triple bottom line ethics into their operations ranged from small, local entrepreneurs to large corporations. Participants resoundingly agreed that the economic viability and resiliency of a community is dependent on nurturing locally owned and operated businesses. Some communities have set up "buy local" campaigns that offer discounts or coupon books for local products and services.

In most regions, business networks have been established to link local, sustainable businesses. Networks support businesses by providing consulting services for best sustainable practices, networking opportunities, marketing, incentives and awards.

The concept of “green jobs” has become an important part of the New Energy Economy dialogue and can be defined broadly as any job that is good for people and good for the economy, while still ensuring good stewardship of the earth. Workforce development programs throughout the state are expanding their outreach to develop the education and training needed for workers in emerging green job sectors. One notable collaborative project involves Southwest Conservation Corps and Veterans Green Jobs. They have created *Veterans Green Corps* (VGC), which provides training and employment in environmental conservation, habitat restoration and forestry, and residential energy conservation and weatherization services.

Transportation

Development of sustainable, clean transportation options and infrastructure is an issue that was raised less frequently by Roundtable participants, perhaps because alternative transportation is too large to be resolved at the local level. Comments were made along the line of, “small communities do not have the population base to justify alternative mass transportation options, particularly when citizens have to drive significant distances for basic services.” There was no discussion of ozone reduction or pollution levels, which has become a priority in 2010 for Denver and the Front Range after repeatedly being out of compliance with federal ozone standards.

Local efforts being explored are focused on increasing local bus routes, developing bike trails, and investing in local road improvements. Infrastructure for some public transportation has expanded in the past two years and resulted in increased ridership for many communities, such as Durango’s “Trolley” that travels up and down Main Avenue every 20 minutes, 7 days a week, and a regional bus system between Craig and Steamboat that has eliminated up to 17,000 car trips per year. In response to the call for reducing carbon emissions, Pueblo and Grand Junction communities completed school bus retrofit projects to reduce diesel emissions and cut fuel consumption. A unique program in the Steamboat Springs region encourages airport shuttle customers to contribute a small donation to their total fare to benefit the Colorado Carbon Offset Fund.

Some opportunities ripe for development were identified when the roundtables confirmed that Colorado has a strong biking community for both recreational and transportation purposes. Several suggestions were offered that would increase the safety and usability of current and planned trails and road systems for bicycle commuting.

Cultural Heritage Tourism

Roundtable participants listed cultural heritage tourism specifically as a sustainability practice, with several interesting programs noted. Cultural heritage tourism preserves and promotes local resources while contributing to the economic vitality of an area. Each program is unique to a region depending on its historical, natural and cultural assets.

Colorado communities are learning how to successfully take advantage of historical buildings and sites, unique geographical and natural attributes, agricultural products, and other features in ways that draw tourist dollars while enhancing quality of life and protecting the environment. Colorado's southeast region hosts a heritage tourism program that includes a loop tour for cemeteries of the plains, birding tours through a biologically diverse prairie ecosystem, and hikes through Canyon Country to see rock art and dinosaur tracks. The Collegiate Peaks Scenic Byway stretches 57 miles through the heart of three historic communities in Chaffee County, Buena Vista, Salida and Poncha Springs and offers visitors the luxury of commercially developed hot springs or rafting tours down the Arkansas River along its way.

One interesting opportunity being developed by the Northwest Colorado Cultural Heritage Tourism Program is in the initial stages of inventorying heritage sites and intends to expand current tourism offerings to include "agritourism." A fast-growing movement in Colorado, agritourism includes on or off-farm recreational and educational activities for visitors to experience and value the heritage, culinary and natural resources related to farming and ranching.

Open-Space Preservation

Well-established land trusts exist in each region to preserve large tracts of uninterrupted land for wildlife habitat, recreation, scenic beauty and agricultural use. According to the [Colorado Coalition of Land Trust](#), Colorado conservation organizations have protected nearly 2 million acres of wildlife habitat, working agricultural lands and significant natural landscapes. That's 3 percent of Colorado's total land area!

Participants expressed concern that development of roads, homes, shopping centers, offices and warehouses is proceeding faster than protection of land can be established. In the northwest region especially, 35-acre "ranchettes" that host a single house are replacing large traditional working ranches. In a way that has not been seen in 10 years, participants suggested that sprawling development is the root of many sustainability concerns.

Opportunities to expand open space preservation should be part of comprehensive land use planning done at every level of government. Roundtable participants expressed particular interest in preserving more land, even urban tracts, for open space or agricultural use, in view of a quickly-growing desire for locally-based and sustainable agriculture.

Water Conservation

Water conservation strategies and their role in developing sustainable communities were not mentioned as frequently as many other topics at the Roundtables, even though participants acknowledged that water conservation plans are a critical part of any sustainability management system. Participants also expressed the belief and understanding that water is a finite resource and vulnerable to the pressures of population growth and drought, particularly in the semi-arid climate of Colorado.

Several representatives described community-scale collaborative programs to share information and educate the public about local water conservation programs and guidelines. Websites offer water-wise best management practices, tips for xeriscape landscaping (which uses native and

drought-tolerant plants) and facts and information about water issues in Colorado. The 2009 Water Conservation and Drought Preparedness Plan in Routt County is a good example of a comprehensive effort to create a “water conservation culture” in Steamboat Springs and help protect a limited and essential water supply.

Examples of Sustainability Practices in Place and Working in Colorado

Local Food and Agriculture

Local food is food grown by family farmers who live in or close by a particular community. The practice builds a stronger collaborative community; supports a healthy and self-reliant local economy; and the food produced didn't travel a theoretical 1,500 miles to get from the farm to the dinner table, with the associated greenhouse gas emissions, energy costs and impacts on energy security. Local food and agriculture protect open space and create local, skilled and unskilled jobs.

Following is a listing of what was identified in the Roundtables as sustainable practices that are working in Colorado in local food and agriculture:

- The [Sustainability Alliance for Southwest Colorado](#) Website outlines a comprehensive list of Local Food Initiatives in this region and includes, among many, the Durango Slow Food Convivium, The Garden Project of Southwest Colorado, and a Manna Soup Kitchen Garden.
- [Healthy Lifestyle La Plata](#) is creating a food security collaborative in La Plata County over the next three years, which works to provide safe, nutritious and affordable food to all classes of people in a community. A community food assessment is also underway for San Miguel County and the west end of Montrose, Montezuma and Dolores Counties. It will identify infrastructure and training needed to increase food security and enhance the quantity and quality of local food available for local and regional markets.
- [The Garden Project of Southwest Colorado](#) offers access to labor, supplies and information to support gardening programs in La Plata County. In Telluride, Ophir, Norwood and Ridgeway, local nonprofits are also supporting existing and new community gardens and greenhouses.
- [Beginning Farmer Program](#) helps new farmers and ranchers learn how to successfully produce "local food" and other agricultural products. It includes a [Land-Link Initiative](#), which provides a bulletin board type listing of available land for prospective producers; conducts Colorado State University (CSU) Extension courses on production and business planning basics; and maintains a list of online resources to learn about financing, implementation, and expanding operations and programs across the country.
- The [New Community Coalition](#) is involved in the new [Slow Food USA Chapter](#) in Telluride and supports a local parent group working collaboratively with the Telluride schools to enhance local, fresh and organic school lunch offerings to students.
- The [La Familia Community Garden](#) is the result of a three-year effort by the Pueblo City-County Health Department and 23 local businesses and hosts fourteen urban plots of flowers and vegetables for local families.
- [Cameron Place Community-Supported Agriculture](#) provides more than 150 families with organically grown vegetables and fruit across Mesa County.
- [Simply Grown](#), located in Palisade, produces all organic, hand-picked fruit, vegetables and assorted herbs that can be pre-ordered and picked up at the local farmers market.

- The ***Downtown Development Authority*** and [LiveWell Mesa County](#) in Grand Junction partnered to give tickets/vouchers to residents who meet their quarterly personal LiveWell health challenges to be spent with farmers and farmer's markets for local, healthy food.
- [Deep Roots Local Food Trust](#), a local food trust in Steamboat Springs, works towards developing more local and sustainable food production through implementing strategic projects and developing educational programs. The Trust hosts a blog sharing best practices, [The Beet List](#).
- [Community Agricultural Alliance](#) works to preserve the agricultural heritage and landscapes of the Yampa Valley by supporting programs and policies that connect agricultural producers and consumers.
- [Happy Heart Farms CSA](#), Fort Collins, provides members with scheduled pick-ups of fresh veggies, fruits and herbs from a 20-week growing season, a newsletter, gourmet food tastings, recipes, and member-appreciation festivals. [Friends of Happy Heart](#) is a newly formed nonprofit to support the educational efforts of HHF.
- [Agricorps Colorado](#) is a program started by the owners of Happy Heart Farms where youth exchange work on the farm for learning about sustainable agriculture and training in greenhouse management, plant propagation and biodynamic farming.
- [Fort Collins Food Co-op](#) originated in the 1970's from a CSU student-buying club and is a successful model of a member-owned grocer offering a good selection of locally grown and produced goods.
- [Home Grown Food](#) in Fort Collins inspires people to develop organic food-producing gardens on donated public or private land or in their own backyards. Members give public talks and workshops, host a Google Discussion Group, and provide local mentors.
- [Central Colorado Food Shed Alliance](#), Chaffee County, was formed in 2007 to unite local food producers with consumers and assist members with development, marketing and promotion, product distribution and education of consumers about the value of local foods.
- [Guidestone](#) in Buena Vista trains farmers through education programs, internships, and volunteer opportunities. Also launching a new program, the *Land-Link Initiative*, that connects retired farmers and ranchers and absentee landowners to next generation farmers to provide long-term affordability, stewardship of resources, and security of tenure.
- [Backyard CSA](#), Salida, is a group of gardeners who formed a CSA project to use homeowner's yards and other unused spaces in Salida to produce vegetables, flowers and other value-added products. Produce is marketed through CSA shares, and at the Salida and Buena Vista farmers markets, local natural food stores and restaurants.
- [Jumping Good Goat Dairy](#), Buena Vista, is a family-owned goat dairy farm providing quality cheeses, and is dedicated to sustainable agriculture, community development and education.
- **Farmer's Markets** run successfully and are well-attended all across Colorado and offer fresh fruits and vegetables from local farmers, organic meat and dairy products, live entertainment, and local art. The Colorado Farmer's Market Association maintains a comprehensive list of Colorado Farmer's Markets at http://www.coloradofarmers.org/find_a_market.htm.

Energy Efficiency and Renewable Energy Development

Colorado's Governor has embraced the creation of a "New Energy Economy" by promoting innovative state policies and economic incentives; a trained workforce; a collaborative hub for research and development; an optimized abundance of natural resources across the state; and an Energy Office dedicated to helping Coloradans take advantage of renewable energy and energy efficiency opportunities. Around the state, these opportunities include:

- **Four Corners Office for Resource Efficiency** (4CORE) has been integral in promoting resource conservation, energy efficiency, and the use of clean, renewable sources of energy in La Plata County. It has brought in more than \$2M in energy-related grants to the region and is developing a **Climate Energy Action Plan** for the county that engages citizens, government, industries and business owners.
- **La Plata Electric Association** continues to offer "green power" purchases and rebates that guarantee some or all electricity for participating customers is generated from clean, renewable resources.
- **San Miguel Power Association** has just switched its "green cents" program to a "round-up program," where the money required to round up to an even dollar amount on their bills will go to energy efficiency and renewable projects. The Green Tags and Green Blocks programs are still available, which allow people to purchase green power in 100 kWh blocks on their regular power bill.
- San Miguel County and the towns of Ophir, Telluride, Mountain Village and Norwood have all signed a commitment to reduce GHG emissions by 20% by 2020. Telluride and Mountain Village are participating in **Telluride Renewed**, a mayoral challenge to get 100% of their electricity from renewable sources by 2020. The **Greening Gondola** campaign hopes to power 20% of the gondola linking these sister towns with on-site solar panels, through tax-deductible contributions that will fund a community-based carbon exchange.
- **The New Community Coalition** is working with funding partners San Miguel Power Association and GEO to administer solar rebates and provide *ENERGY STAR for New Homes* training throughout the region.
- **Pueblo County's Weatherization Program** offers a range of energy efficiency improvements to income-qualified homes that include a free home energy audit, appliance replacement, insulation and air leakage checks.
- **Energy Audits** are being conducted for all departments in the City and County of Pueblo, Pueblo School District 70, and Pueblo Community College.
- **Radon Monitoring** efforts in Pueblo have been distributing home radon test kits to residents for the last 4 years. A Colorado Department of Public Health and Environment (CDPHE) grant to reduce mercury contamination encourages the replacement of thermostats and thermometers; fluorescent bulb recycling; and provides amalgam separators for dentists.
- Mesa County has made a commitment to develop a ***Methane-landfill Collection System*** from the solid waste campus (landfill) to power the new county building facilities. The county has already installed an underground facility under the landfill system and is collecting methane for one year to measure the quality and quantity of methane and to determine precisely how much energy it generates.
- **Garfield Clean Energy** is hosted by the Garfield New Energy Communities Initiative and is a regional partnership of local and state governments, nonprofits and clean energy businesses that are working to build a clean energy economy in Garfield County. Current

programs have already resulted in the Roaring Fork District saving more than \$24,000 in energy bills and Garfield residents receiving more than 9,000 free energy efficient light bulbs.

- The **City of Grand Junction** [*Conserving our Resources Efficiently \(CORE\) Program*](#) was formed to assess and monitor the progress of proposed initiatives and current conservation practices in all city operations. These efforts focus on: mobility/fleet; energy and buildings/facilities; PV solar installations; converting digester gas to compressed natural gas for vehicle use; an employee education program with incentives/mandates/competition; and developing programs to reduce, reuse, and recycle.
- [*Housing Resources of Western Colorado*](#) provides affordable housing for those with low to moderate income and promotes the wise and sustainable use of resources. Their weatherization and educational program across eight western Colorado counties provides energy saving measures such as furnace tune-ups, window replacements, and insulation improvements.
- **KAFM** became the Grand Junction's first [*solar-powered radio station*](#) in 2008, generating enough electricity to power the station's broadcast studio and KAFM's monthly Radio Room concerts.
- The [*Confluence Energy Wood Pellet Plant*](#) in Kremmling is producing and selling wood pellets from mountain pine beetle-killed trees as heating fuel.
- Xcel Energy has added another 1000MW of wind power to the grid in the last year, which now allows wind credits to be purchased across the state. The Town of Avon is voluntarily paying a 28% surcharge to Xcel Energy to have 100% wind-generated power.
- [*Insulate Colorado*](#) is a partnership between the Governor's Energy Office and local Colorado organizations to offer rebates directly to qualifying homeowners who make energy efficiency improvements. [*Yampa Valley Sustainability Council*](#) (YVSC) partnered with Columbine Insulation to bring the 2009 pilot program to northwest Colorado.
- [*FortZED*](#) is a net-zero energy partnership in Old Town Fort Collins involving public, private and university collaboration. The project will implement Smart Grid and renewable energy technologies to achieve local power generation and energy demand management. It will also use thermal energy and transportation linkages, while developing key industries and new business opportunities.
- [*Vestas Turbine Blade Plant*](#) was opened in Windsor, CO in March 2008 and serves as the first blade manufacturing facility in the U.S. Over 600 local, green jobs have been created at this plant alone.
- The [*Northern Colorado Clean Energy Cluster*](#), a nonprofit economic development organization that includes groups such as ICE Energy, Spirae, Colorado State University, New Belgium Brewing Company, and Platte River Power Authority, is focused on growing clean energy primary jobs in the region through start-ups, existing businesses, and companies relocating to the area.
- [*Fort Collins Utilities*](#) has implemented progressive energy policies such as customer incentives and rebates, a business environmental program series, extensive outreach and education, and a partnership with FortZED to create a net-zero community.
- The [*Climate-Wise Program*](#) is a voluntary business outreach program throughout the City of Fort Collins that encourages greenhouse gas reductions by promoting energy efficiency, pollution prevention, solid waste reduction and travel reduction among local businesses. The program reached over 100k tons carbon avoided in 2008 and up to 130 businesses have saved \$7 million.

- [Larimer County Landfill](#) partnered with several entities to construct a methane recovery and processing system. This resulted in a 1.4-megawatt project that is expected to produce enough electricity to power about 900 local homes.
- Leading research at CSU's [Engines and Energy Conversion Laboratory](#) is focused on improving the efficiency and reducing the emissions from the burning of natural gas (which is an abundant resource in this region) in stationary and industrial engines.
- [Weld County](#) has purchased more clean and efficient compressed natural gas (CNG) vehicles for County use.
- [Poudre Valley Rural Electric Association](#) is currently installing an advanced metering infrastructure (AMI), a major part of smart grid technology, to accommodate rural energy needs.
- The **solar design and installation industry in South Central Colorado** is growing quickly because of a 30% tax credit and Xcel Energy rebates. Several local businesses such as [EcoDepot USA](#), [Peak Solar Designs](#) and [Colorado Solar Energy](#) offer solar products and services.
- The [Sangre de Cristo Electric Association Wind Program](#) provides customers with 100kWh blocks of wind power for a small monthly surcharge. Xcel Energy's *WindSource* Program offers customers a chance to purchase 100kWh blocks or 100% wind energy, which assures that all power needs comes from wind-generated sources.
- The [Chaffee County Energy Star Program](#) promotes federal tax credits and state rebates for new homebuilders. ENERGY STAR certified homes within the Sangre de Cristo Electric Association service territory may qualify for a \$300 rebate. Homes within Xcel Energy's gas territory offer rebates for ENERGY STAR homes that vary between \$400-\$800 per home.
- [The Gunnison Valley Office of Resource Efficiency's Energy Action Plan](#) is being adopted by the City of Gunnison, Gunnison County and the Town of Crested Butte to create an inventory of all emissions coming from buildings and transportation; reduce emissions from these sectors and produce jobs; implement programs focused on energy audits and weatherization for residential and commercial buildings; adopt more efficient building codes; and pursue renewable energy pilot projects.
- A San Francisco-based startup, **SunRun**, has partnered with local Colorado solar providers *Namaste Solar Electric*, *REC Solar* and *Real Goods Solar* to offer [solar leasing](#) to the Front Range and Summit County residential home market. Upfront costs are reduced to as little as \$1,000 and a small monthly leasing fee. System recommendation and design, installation, monitoring and insurance are covered by the leasing group.

Recycling

Recycling waste materials that would normally go to a landfill reduces energy consumption, conserves resources, creates local jobs and increases self-sufficiency if materials are remanufactured locally.

- [We Recycle](#), a privately owned recycling co-op located in Pueblo West, provides single-stream recycling, local business discounts and community education for a quarterly membership fee.
- [Happy Worm Herders](#) is a subsidiary program of Gaia Institute Wellness Center that offers composting, vermicomposting, materials recycling and reuse capabilities for the Pueblo area.

- [**Pueblo City-County Health Department**](#) provides drop-off sites for recycling of glass (all colors), newspaper, and aluminum and tin cans.
- [**Curbside Recycling Indefinitely**](#) is a locally owned business that provides residential curbside recycling in partnership with the City of Grand Junction. Electronics waste drop-off is available six days a week with an attendant on site to help off-load items. Collection is also available for local businesses, schools and churches through the commercial program.
- The [**Organic Materials Composting Facility**](#) in Grand Junction accepts organic waste free of charge (avoids landfill disposal fees) and then provides high-quality compost products for sale (closes the loop).
- [**Yampa Valley Recycles**](#) provides curbside and/or drop-off recycling for hazardous household waste, electronics and standard recyclable materials. YVR also supplies “Green Machines,” which are free, large event recycling containers that are easily transportable.
- The **City of Craig**, in a collaborative partnership with the City of Steamboat Springs, is implementing a brand new recycling program using Green Machines. The success of this recycling program will provide an opportunity to go to city council and establish a more comprehensive program.
- [**Home ReSource**](#) is the nonprofit arm of Milner landfill facilities in Steamboat Springs that provides construction material recycling and used material sales for reuse of building materials. They will help with the deconstruction of a building, donations of material for resale, avoiding disposal expense, green credits, computer recycling drop-off or pickup, bio-solids composting, use of wood chips and sawdust, and sale of screened TwinGro Compost.
- [**Twin Enviro Services Composting Program**](#): This commercial program is already composting beetle-killed wood and bio-solids from the wastewater treatment plant using 10 acres under static aeration. It is engaged in a pilot program with Steamboat Ski Resort to compost food waste and offer compost materials to residents.
- The [**Zero Waste Initiative**](#) was launched in June 2009 by the Yampa Valley Sustainability Council and incorporates zero waste practices into ski resort operations and throughout public events in Steamboat Springs. It aims to educate and involve The City of Steamboat Springs, Routt County, businesses and schools.
- The [**National Center for Craftsmanship**](#), Fort Collins, works with industry, institutional and government partners to provide education, training, community service and research to support the retention and extension of craft skills at all levels. The DeConstruct Training Program teaches youth and adults emerging deconstruction technology and LEED certification protocols. Efforts have resulted in the deconstruction of 9 buildings in the last 2 years, keeping 75-80% of materials out of the landfill.
- [**Waste-Not Recycling**](#), Loveland, provides comprehensive recycling services to commercial, institutional and government accounts. The company is developing a recycling curriculum for state schools, as well as a voluntary Environmental Stewardship Program for businesses.
- For the [**City of Fort Collins**](#), residential trash haulers apply a variable “pay-as-you-throw”(PAYT) rate to trash pick-up and must provide curbside recycling services at no extra charge. A recent amendment to the PAYT ordinance further requires haulers to provide a larger, lidded recycling cart upon customer request that will reduce collection schedules. This encourages customers to throw away less and, as a result, pay less.
- Loveland now provides six drop-off centers for [**glass recycling**](#) and ensures that 100% of the glass will be recycled back into new bottles and jars.

- [**Angel of Shavano Recycling**](#) provides a comprehensive recycling capability for Chaffee County, including plastics 1-7, with multiple drop-off locations throughout the county. It has provided commercial pick-up since 2007 and volunteers services for many community activities and events upon request.
- The **Recycling Resources Economic Opportunity Act** created a state recycling grant program that is intended to fund implementation projects that promote economic development through the productive management of recyclable materials. For a full description of grants that have been approved for Fiscal Year 2010 for community projects across Colorado, visit [RREO Grant Program](#).

Education

Campuses and educational systems provide a uniquely innovative forum and partnership of students, faculty and education leaders to develop rigorous sustainability programs and curricula and serve as a model for a “living laboratory” of sustainability.

- [**Durango Nature Studies**](#) is dedicated to providing hands-on nature, science and environmental education to the students and communities of Southwest Colorado. The organization owns and operates a 140-acre Nature Center, serves over 6,000 people annually, and is a member of the Durango School District 9-R Science Curriculum Review Committee.
- **Fort Lewis College**, Durango listed three initiatives:
 1. Developed a draft of a [Sustainability Action Plan](#) for the next 5 years and a Climate Action Plan for the next 50 years.
 2. [Pathways to Sustainability](#) is the culmination of over two years of work by students, staff and faculty to create a carbon-neutral campus by implementing initiatives on water, waste, energy and procurement operations on campus.
 3. FLC is applying for LEED-Gold certification on the new 38,000 sq ft Student Union addition and LEED-EB for renovation of the existing College Union building.
- **Heaton Middle School**, Pueblo, [received a StEPP Foundation Grant](#) to create an environmentally sustainable campus that integrates green technologies into both operations and curricula. Features include an on-site PV array and off-site wind-generator; a xeriscape demonstration garden; local food integration into school lunches; wetland creation for wastewater mitigation; and campus-wide recycling and composting programs.
- **Irving Elementary School**, Pueblo, [invested in a geo-exchange system](#) as part of a district-wide effort to establish long-term energy efficient projects across school buildings in the district. This exchange system will provide heating and cooling for the entire school building.
- **Pueblo Community College’s Technology Center** has an array of 60 solar panels that were purchased from a nearby business prior to its demolition.
- **Colorado State University-Pueblo** campus projects include a variety of green initiatives and energy performance measures in architectural and building system designs including movement sensitive light controls, water efficient fixtures, and more efficient cooling towers. CSU-Pueblo partnered with BP Solar and Black Energy Hills Energy to install a [1.2megawatt solar array](#) that covers 4.3 acres and will provide more than 10% of the school’s future power needs.

- **Mesa State College** has a pending LEED Gold certification for its new [Learning Center](#), which utilizes a ground source heating and cooling system. Student efforts are ongoing to implement curbside recycling and bins on campus.
- **Colorado Mountain College** is looking at all campus facilities and selecting groups to perform audits for retrofits in heating, doors and windows. A new program provides 3 Solar Industry certifications. They are also working with National Renewable Energy Lab (NREL) to integrate educational programs with workforce development. The Alpine campus has a proposed 40,000 sq ft facility that will use a geoexchange system to heat and cool the building and serve as a leader in geoexchange technology and education.
- **Colorado Northwestern Community College** [is developing](#) an 82-well, closed loop, ground-source heat pump utility to be shared by the academic and residential buildings on a newly-constructed campus.
- **Western State College** environmental groups merged and are now the *Sustainability Coalition* in an effort to become a real force in student government. This action led to the WSC President signing the University Climate Commitment Pledge and several green building efforts: three campus buildings (Business, Kelly Hall and the 2010-slated Student Center) have attained or applied for LEED Silver or Gold status.
- Through a myriad of collaborative and research efforts, **Colorado State University**: (CSU) is proving itself as a “green university.” Efforts include:
 1. [The Engines and Energy Conservation Lab](#) (EECL), with award-winning Director Bryan Wilson, has been finding solutions to global energy challenges for more than 17 years. Two current research projects are developing mass algae production for biofuels, and high-performance cook stoves for developing countries.
 2. [InteGrid Laboratory](#), part of EECL, ranks among the world’s most advanced centers for testing and development of renewable energy, distributed generation, and power system management.
 3. The [Institute for the Built Environment](#) fosters stewardship and sustainability of the built environment through a research-based, interdisciplinary educational forum. To see a full description of current projects and collaborations, visit <http://www.ibe.colostate.edu/projects/>.
 4. The [Global Social and Sustainable Enterprise](#) program produces global social entrepreneurs, whose focus and ethic is the triple bottom line: people, planet, profit.
 5. [Sustainability in Facilities Management](#) is a department committed to projects that conserve resources in order to create a more sustainable campus and community. Its Website provides 24/7 real-time data on resource consumption and emissions on the CSU campus and the impact of efficiency retrofits on those measurements.
- **Poudre School District**, in Northern Colorado, developed a *Sustainability Management System*, which applies energy conservation policies to all new construction and renovation of existing schools. One collaborative effort with the [Rocky Mountain Institute Built Environment Team](#) led to a LEED-New Construction Silver rating for Fossil Ridge High School, which has realized a savings of over \$270,000 since its completion 3 years ago. Poudre School District also strives to create a sustainability culture in K-12 education through a curriculum that involves worm-composting programs and a recent effort to connect students with farmers for local gardens on school grounds.
- The [Clean Energy Technology Program](#) at **Front Range Community College** was developed in partnership with more than 25 local organizations and businesses to

respond to the need for a job-ready workforce with the technical skills business and industry require in Colorado's New Energy Economy.

- Weld County and the City of Greeley are working with **Aims Community College** and **University of Northern Colorado** to do performance-based contracts with energy companies that retro-fit buildings. The resulting utility savings will go into a revolving loan fund instead of going to repay the company so that savings can be used to retro-fit more buildings.
- **Boulder Valley School District** is coordinating existing efforts and defining goals and visions around sustainability at a district level for the first time. In 2008, a sustainability coordinator was hired and a sustainability management system incorporated into operations. Long-standing successful programs like **Eco-cycle** and the **alternative transportation program** are still in place, with some newer programs including: detailing green design in Phase 1 bond projects, transitioning to green cleaning products in all schools, and participating in Xcel's new Smart Grid program.
- The **Green Schools Advocacy Committee**, created by the U.S. Green Building Council – Colorado Chapter, has a goal to reach each of the 172 school districts in Colorado to increase understanding of the benefits of new or remodeled green school buildings. The committee holds an annual Green Schools Summit and envisions holding other events around the state. Their vision is that by 2015, all new and remodeled schools in Colorado will be high-performing schools, making our state a national model and resource.

Green Building

The built environment consists of man-made surroundings that provide the setting for human activity, ranging in scale from residential dwellings to entire cities with large-scale commercial and civic buildings. U.S. Green Building Council **research** shows that the built environment in the United States alone accounts for 72% of electricity consumption, 33% energy use, 40% of raw material use and 14% of potable water consumption.

- The 4CORE-funded **Sustainable Building Education Program** involves bimonthly brown bag lunches and dinner seminars on educational topics, ranging from Insulation to LEED Certification for Homes. The program to date has resulted in 17 newly built ENERGY STAR-rated homes.
- The **Grand Mesa ENERGY STAR New Homes Program's** primary objectives are to increase consumer awareness of energy efficiency options in residential new construction and to actively support all participating local ENERGY STAR homebuilders.
- The **Durango Public Library** has recently been LEED-Gold certified. Its energy and cost-saving features include a raised-floor heating, cooling and ventilating air delivery system. San Miguel County completed a bus garage facility to LEED-Silver standards.
- Across **Southeast Colorado LEED certifications** were obtained or are currently being sought for several buildings, including **Maple Leaf Orthopedics**, **Pueblo West Library**, the new **Pueblo City-County Health Department offices**, and **Pueblo Animal Welfare Society**, PAWS for Life Animal Campus (seeking the first LEED Platinum for an animal shelter program in Colorado).
- The **Town of Fowler** has a **project** to convert historic Park School to a Town Hall, Library, and Courts. Historic preservation standards do not include retrofitting to improve energy efficiencies as part of the overall process to protect historic buildings. Team members, however, moved from the typical design-bid-build preservation process to

design-build that will ensure historic preservation compliance and performance, with life-cycle energy cost savings.

- [Chipeta Elementary](#) in Mesa County is LEED-Registered and seeking Silver certification for new construction features that resulted in 30% water reduction, 35% sustainable energy production from a roof PV solar system and wind power program, and 36% vegetative open space of the entire site.
- The [Salida Early Childhood Center](#) has LEED-Silver certification pending for new construction. Green features include passive solar and natural lighting, occupancy sensors, a high-efficiency water heater with separate-temperature water shuttled to kitchen, and all no-to-low VOC materials including linoleum, glues and paints.
- In the **Salida-Chaffee County Community Services Complex**, the old hospital in Salida is being remodeled to serve as a complex that will house all local community service entities. By using a performance contract to put in more energy efficient heating, air and electrical systems, the installation will reduce the annual costs for electric and gas use from approximately \$250,000 per year to an annual usage cost of \$50,000.
- The **City of Fort Collins** requires Gold or Silver LEED Certification for all new city-owned buildings of 5,000 sq ft or more. Existing buildings use the LEED standard as a guide for sustainable operation and maintenance. For comprehensive information on “green building” for the City of Fort Collins, residential homes, businesses and existing city codes, visit [here](#).
- Starting in 2009, [Fort Collin’s Housing Authority](#) began a focused effort to incorporate green building practices into its properties. This commitment includes participating in an Energy Outreach project to install energy-saving water heaters in all public housing properties; energy audits on all public housing units to identify specific opportunities for green building improvements; recycling all possible building materials and upgraded appliances including participation in the City of Fort Collins energy efficient appliance rebate program; and purchasing low VOC cabinetry, countertops and interior paint.
- Using federal and state grants, the **Town of Windsor** is completing a [Town Hall Renovation Project](#) that is restoring a historic landmark while integrating sustainable technologies to increase energy efficiency and maximize indoor environmental quality and function.
- Thriving [multi-tenant nonprofit centers](#) are found in several locations in Colorado, such as the [Alliance Center](#) in Denver, the [Smiley Center](#) in Durango, and the [Third Street Center](#) in Carbondale. The green remodel of an existing building provides a collaborative home for nonprofits and creates remarkable opportunities for important mission cross-pollination and synergy, while providing a stable, affordable gathering place to nonprofits and the communities in which they operate.
- [Summit County Sustainable Building Ordinance](#) is a comprehensive residential point-based program that was enacted by all local jurisdictions in Summit County in 2009 and includes a home owner’s manual that describes how to operate and maintain the home efficiently and safely.

Business and Economic Development/Green Jobs

The development of green jobs in the quickly-growing energy efficiency and renewable industry offers women in particular exciting employment opportunities. A 2010 collaborative project is working to develop a “Green Jobs Pipeline for Women in Colorado,” which will educate women on what green jobs are, and promote the education, training and placement of women throughout the state into the green jobs market.

- [**Local First**](#) is a collaborative effort to help locally-owned, independent businesses thrive in La Plata County. The Be Local Coupon Book offers coupons for products and services at over 100 local businesses for \$2,500 in savings.
- The San Juan Citizen Alliance conducts monthly networking [**Green Business Roundtable**](#) meetings involving local businesses and interested groups to focus on topics related to sustainability.
- [**Southeast Colorado Businesses Retention, Attraction and Expansion**](#) (SEBREA) is a 6-county regional economic development partnership designed to retain, expand and attract businesses to the Lower Arkansas Valley. This 3-year effort resulted from a loss of two major employers in the Arkansas Valley and approximately 450 skilled jobs, catalyzing an effort to rebuild and diversify the economy.
- The **Vestas Wind Blade Manufacturing Plant** built on the south side of Pueblo brings over 500 new jobs to this area, not including contracting and consulting employment. [Education, training and staffing is managed](#) by the Economic and Workforce Development Division at Pueblo Community College, a unique partnership for the college and Vestas Wind Systems.
- **Solar Roast Coffee** is a local Pueblo business that provides Eco-friendly coffee with their own [custom-built solar coffee roaster](#), and has a patent pending for their solar roasting process and multi-generational solar coffee roasters.
- [**Green Guides of the Grand Valley**](#) provides a directory of green and sustainable businesses for the Grand Valley. The organization aims to provide education among the businesses within the network and to the community.
- The [**Sustainable Steamboat Business Program**](#) includes 65+ businesses and is available through the Steamboat Chamber Resort Association. Participating businesses are provided a consultant to learn how to reduce energy use and waste in their operations, quarterly networking luncheons, a Green-link e-letter, and annual awards. At a higher level of certification, businesses can participate in “Cents for Steamboat,” which donates 1% from business sales to local sustainability efforts.
- The [**Buy Local Campaign**](#) was created through a partnership between the Steamboat Springs Chamber Resort Association and a dedicated group of local business owners to promote the importance of supporting local commerce.
- **Southwest Conservation Corps** (SCC) and *Veterans Green Jobs* (VGJ) have combined efforts to create [**Veterans Green Corps**](#) (VGC), which provides training and employment in a variety of green jobs including environmental conservation, habitat restoration and forestry, as well as residential energy conservation and weatherization.
- Residents of Chaffee, Fremont and Custer counties can pick up a free [**Project 350**](#) card at several convenient locations, which offers shoppers discounts at over 50 local participating businesses.
- **New Belgium Brewing Company** is a leader in business [sustainability efforts](#), achieved through many local collaborations, initiatives and extensive on-site sustainability practices. Highlights include wind-powered electricity since 1999; a culture of high employee involvement; and increased efficiencies in the brewing process.
- The [**Sylvan Dale Guest Ranch**](#) is a historic working horse and cattle ranch and incorporates sustainability practices into their business model and daily operations through open land conservation; a wildlife restoration project with the Department of Wildlife; efficiency retrofits planned for existing buildings; sustaining the history and legacy of dude-ranching; building a community of neighbors that share values; and switching to natural beef production.

- [Walmart](#) is working to become a profitable and efficient business through programs that promote fleet efficiency, locally-grown food initiatives and community-led projects.

Transportation

A sustainable transportation system provides transportation options that are safe, affordable, operate efficiently, minimize consumption of non-renewable resources and land use, and contribute to a strong local economy.

- The [Diesel School Bus Retrofit](#) project in Pueblo resulted from a settlement agreement from the Comanche 3 Power Plant for 200 city school bus retrofits to reduce diesel emissions and energy usage.
- [Grand Valley Transit](#) is far-reaching and has good ridership. It operates 11 routes that serve Grand Junction, Palisade, Clifton, Orchard Mesa and Fruita and ridership is up 20% in 2009. Every bus is equipped with bike racks with bike transport free of charge.
- Approximately 60 school buses in several school districts across Garfield County were [retrofitted](#) in the summer of 2009 with new equipment that will reduce emissions, cut fuel consumption and make busses safer for students.
- A **regional bus system** that now goes between Craig and Steamboat has eliminated 17,000 trips per year. The Steamboat Springs Transit (SST) provides a fixed route and daily transit service around town and between downtown and the Ski Resort Mountain Base area.
- [Go Alpine](#), a ground transportation service, has instituted a Colorado Carbon Offset Fund (<http://www.coloradocarbonfund.org/>) request for every passenger that calls in or places reservations online. Contributions of \$.50 to the Hayden Regional Airport and \$1.00 donations to DIA are calculated into the total fare. Efforts started in May 2009 and contributions are expected to go up exponentially when the ski season hits as Go Alpine transports 140,000 to 170,000 passengers during the season.
- The **biking community in Fort Collins** is strong and road construction requires the incorporation of bike trails. Through collaboration between The City of Fort Collins Transportation Planning Department, New Belgium Brewing Company and local businesses, five large bike racks were fabricated and installed in downtown Fort Collins. Many parking garages provide bike lockers.
- The [Colorado Front Range Trail](#), which envisions eventually connecting Wyoming to New Mexico, has completed many of its trails through dense population areas like Fort Collins, Loveland, Greeley and Denver and offers recreation and bicycle commuting opportunities throughout.
- **Salida** and **Buena Vista** are both pedestrian and bike-friendly, providing 300+ miles of biking, hiking and off-road recreational trails in Chaffee County.

Cultural Heritage Tourism

The National Trust for Historic Preservation defines Cultural Heritage Tourism as *traveling to experience the places, artifacts and activities that authentically represent the stories and people of the past and present, and includes cultural, historic and natural resources*. Linking tourism with heritage and culture creates a powerful economic development tool for local communities

and creates jobs and new businesses, while preserving, promoting and protecting local heritage and historic landmarks.

- [**Canyons and Plains Southeast Colorado Regional Heritage Taskforce**](#) (SECHORT) provides education and training, research, marketing of historic sites, technical support to private landowners and entrepreneurs, youth and preservation programs, stewardship, the promotion of adaptive reuse of historic buildings, and the introduction of heritage tourism as a viable new economic sector. A 2009 [report](#) on SECHORT for heritage managers, policy makers and community organization has just been published by Dr. Rudi Hartmann, CU-Denver.
- The [**Northwest Colorado Cultural Heritage Tourism Program**](#) is currently embarking on its initial objectives of heritage site inventory and marketing product development. The project intends to expand current tourism industries in this area to include local cultural and agri-tourism to directly benefit local economies throughout the region.
- [**Chaffee County Heritage Area Program**](#) seeks to preserve the heritage area of Chaffee County with a focus on natural landscapes, historic structures, and resource stewardship. Under this program, more than 2 acres of the working open space *Hutchinson Homestead* was donated to the Town of Poncha Springs for preservation as a Museum and Cultural Center.
- [**Buena Vista Heritage**](#) preserves and shares the history of Buena Vista and Chaffee County through restoration and operations projects like The Turner Farm and St. Elmo Schoolhouse.
- [**Collegiate Peaks Scenic Byway**](#) stretches 57 miles through the heart of three historic communities in Chaffee County: Buena Vista, Salida and Poncha Springs. It offers tourists commercially developed hot springs and rafting trips or fishing tours on the Arkansas River.
- [**Northern Colorado Cultural Tourism Alliance**](#), comprising nonprofits, businesses, restaurants, chambers of commerce, and museums, is working to create a shared vision and strategic plan for developing cultural tourism in Larimer and Weld Counties, including an initial survey to identify sites for cultural and historical tourism in Northern Colorado.

Open-Space Preservation

Open-space preservation provides a multi-faceted opportunity to conserve important wildlife habitat; perpetuate an area's rural landscape and agricultural heritage; and protect scenic views and historic properties unique to a geographic area.

- [**Fountain Creek Vision Taskforce**](#) worked to form the FC Watershed and Flood Control Greenway District to make Fountain Creek an amenity for the community to enjoy, provide economic development, and preserve wetlands.
- [**Mesa Land Trust**](#) efforts have resulted in preserving more than 55,000 acres that provide local food production (orchards, vineyards, cropland), large working ranches, and wildlife (deer, elk, and sage grouse) and riparian habitat.
- [**Routt County Purchase of Development Rights Program**](#) is a voluntary program that allows a landowner to sell the development rights of a property to a qualified conservation entity, such as a non-profit land trust, public agency, or historic preservation organization, which places a conservation easement on the parcel. The landowner retains full ownership and use of the property for purposes other than real-

estate development. Most recently, the DRP was responsible for holding a conservation easement on a 617 acre ranch north of Hayden, CO.

- [Yampa Valley Land Trust](#) is Northwest Colorado's nonprofit land conservation organization and focuses its preservation work on the Yampa River Basin in Routt County and the White River Valley in Rio Blanco County. To date, 65 conservation transactions have permanently protected 44,811 acres in Northwest Colorado.
- [Land Trust of the Upper Arkansas](#) advances the conservation and stewardship of agricultural lands, wildlife habitat, open space, scenic beauty and other diminishing natural and historical resources in Chaffee, Fremont and Lake Counties. The trust established a voluntary 1% tax program for conservation easements.
- [Larimer County Green Legacy](#) efforts have propelled Larimer County into becoming a national leader in land preservation by using tax-based acquisition, transfer of development rights and a user-friendly form of conservation development.
- [Rural Land Use Center](#) assists property owners in Larimer County who wish to develop their property while maintaining their land in agriculture or other open space.

Water Conservation

Water conservation programs and practices are the most cost-effective and sustainable approach to reducing the global demand for water: it requires less energy to pump and treat water, uses less water for household practices and protects natural places.

- [The Water Information Program](#) was created in cooperation with Southwestern Water Conservation District and several SW Colorado water agencies and entities to provide a common forum for communicating shared information and goals for water conservation and management.
- [Drought Response Information Project](#) (DRIP) is a collaboration between the Grand Junction Valley's domestic water providers and CSU Cooperative Extension to provide information and educate the public concerning the Drought Response Plan, the importance of water conservation, and how to reduce water use.
- The Routt County [Water Conservation and Drought Preparedness Plan](#) has been put into place in 2009 for the Yampa Valley. Implementation of parts of the plan was initiated this summer and included a workshop on xeriscaping and efficient irrigation practices.

Community Collaborations

Many community initiatives and programs are the successful result of cross-sector collaborations. The following efforts were given as examples of successful programs where nonprofits, local government, businesses, schools and citizens work together.

- [The New Community Coalition](#) (TNCC) is a nonprofit organization formed in 2007 to coordinate and manage efforts that direct regional sustainability projects. The annual work plan emphasizes energy conservation (including enhanced green building standards), renewable energy, food security, waste reduction, environmentally responsible waste disposal and recycling programs, and re-localization efforts. Five working groups have been developed to address these issues, and are comprised of TNCC staff and community members.

- **SASCO Committees**: Organizational committees are involved in collaborating with five other community organizations on “Appleseed events” to allow each organization to present their specific interests to the larger community; holding monthly meetings that are open to the public and focus on energy related topics, including federal legislations like carbon tax; and paying attention to local governmental activities and holding bi-monthly “dialogue” meetings focusing on popular local issues.
- **Mancos Valley Sustainability Initiative** was formed to understand and create healthy ecosystems and strengthen biodiversity and human conditions as Mancos faces rapid growth and development. A major project involves protecting, managing and enhancing the 800 square mile Mancos River Watershed.
- **Montezuma Climate Action Network** was formed in 2007 in Montezuma County with the goal of reducing the county’s carbon footprint. The organization has “Green Teams” that focus efforts and education on renewable energy, recycling, local food, technology and global warming science.
- **The La Plata Skills Trade Collective** is a group of individuals with skills, time, goods and equipment that wish to share and trade with others in the community to promote resilience and self-sufficiency. Members access an online “Skillbank,” ranging in services from business and administration to transportation to either post or request a given service.
- **Rocky Mountain Sustainable Living Fair** has occurred for the 10th successful year and features keynote speakers, exhibitors, youth workshops, live music and hands-on sessions. This year, RMSLA paired with Poudre School District to conduct a “green field day” for PSD High School students that connected over 500 local youth with national and regional sustainability expertise.
- **Chaffee Citizens for Sustainability** was created in opposition to Nestle Waters North America Plan to bottle water from two Nathrop Springs. The organization’s focus is to support programs that ensure long-term community viability and well-being.
- **Uncompahgre Plateau Citizen’s Training Project** is a collaborative project between the U.S. Forest Service and the Colorado Forest Restoration Institute to train citizen scientist volunteers to monitor treatments aimed at restoring healthy forest conditions on the Uncompahgre Plateau.
- **Yampatika** works to inspire environmental stewardship through delivering environmental education programs to nearly 20,000 residents and visitors per year. Collaborative efforts have grown to include partners in the private sector and the school systems in both Routt and Moffat Counties.
- **Yampa Valley Sustainability Council** partners with several local entities in efforts such as a yearly Education Sustainability Summit; the monthly speaker event series, *Talking Green*; the ENERGY STAR component of the newly adopted green building program for Steamboat Springs and Routt County; and the Yampa Valley Recycles and Zero-Waste Initiative.
- **NorthWest Colorado Products** is a collaborative effort of CSU Routt County Extension and Steamboat Ski and Resort Corp to establish and maintain a market for products and services that originate in NW Colorado.
- The **Community Indicators Project** was initiated by **Yampa Valley Partners** to document the regional quality of life in the Yampa Valley through social, economic, environmental and civic measurements. It is a result of the collaboration between the communities, organizations and counties in the Yampa Valley, and national and state organizations such as National Civic League and the Women’s Foundation of Colorado.

- The [Livability Index](#) is a 10-county collaborative project based on extensive data and analysis that provides a fact-based guide for the constituents and public decision makers of Routt County to make more informed choices about policies that affect their area.

Strong leadership

Although several regions believed that strong leadership was missing in local sustainability efforts, Fort Collins felt that leadership was one of the most notable sustainability efforts in place and working for their area, and listed the characteristics below that were critical to its success.

- **Political will:** Alignment of federal, state and local leadership, guidance from City Council.
- **Community ethic:** This area wants it and is making it happen.
- **Colorado State University:** A major research university that receives \$3million/yr for research. This environment creates the social capacity to think about the issues and propose solutions.
- **Innovation infrastructure:** For example, [Be Local Northern Colorado](#), an organization dedicated to building a local and globally-fair economy, reaches out to more than 300 local businesses.
- **Access to capital:** The Colorado Innovation Investment Tax Credit, which was passed in a struggling economy, provides a tax break for investing in start-up companies in Colorado. Venture capitalists are proving to be highly attracted to this region.

Comprehensive Sustainability Plans

The entities that are developing and managing these plans have a good map of sustainability goals and objectives in order to determine where future efforts need to proceed.

- [Fort Carson Sustainability and Environmental Management System](#) strives to set an Army model of comprehensive sustainability management and community involvement for Fort Carson soldiers and their families. The program focuses on issues of energy and water, transportation, procurement and zero waste in army operations.
- [Boulder County's Sustainability Practices and Programs](#) are extensive and include a Climate Smart Loan Program, Energy Corps, a Green Jobs Pipeline, Zero Waste/recycling, and a Sustainability Education Committee to promote internal employee education. The County is taking a holistic approach to serving all sectors of the community so that all programs are feeding into each other. Upcoming programs include a Climate Change Adaptation Plan and moving from a social marketing to a social mobilization approach.
- [City of Rifle](#) is rebranding itself as the "Energy Village." Recent sustainability efforts include: wastewater treatment and solar powered raw water pumps; all new buildings are built to LEED standards with Energy Star Habitat demonstration homes to teach energy efficient building practices to local contractors; active in re-write of Colorado Renewable Energy Standard regulations at the Colorado Public Utilities Commission; Rifle Mayor Keith Lambert was recently named to Governor Ritter's Climate Change Advisory Panel; City Council recently approved signing a performance contracting MOU with the Governor's Energy Office and considering a local solar PV/Thermal sales and

use tax rebate program to encourage the deployment of renewable energy; local Arts Council donated land and water for a community garden that is now flourishing; a Biomass feasibility study is underway; and pursuing the development of a green industrial park.

- [Town of Eagle](#) hired a sustainability coordinator in 2008 and implemented the following sustainability initiatives: established a free curbside recycling program and community bike sharing program; adopted the 2006 International Energy Conservation Code with code-exceeding standards for roof and wall insulation; integrated sustainability concepts in the Eagle Area Community Plan; created a Webpage devoted to sustainability outreach and education and three informative brochures on energy conservation, water conservation, and recycling; enacted a mandatory 3-day-per-week max watering schedule and provided residents with an online water schedule; and tracked its energy use for town buildings and town fleet after installing 34 programmable thermostats and motion sensors in several facilities.
- The [Town of Fowler](#), a town of 1,200+ in southeastern Colorado, is committed to a future of sustainability. Ongoing efforts include a renewable energy infrastructure using wind, solar, geo-exchange and feedlot biomass; LED lighting and waterless solar-powered toilets in the park; recycling of residential waste; and conservation education programs. It also just signed on as the 17th city/town in Colorado to join the Sierra Club's Cool Cities Campaign, which is a volunteer-led effort around the country to implement clean energy solutions in local communities that save money, create jobs, and help reduce greenhouse emissions.
- [Vision 2030](#) was released April 2009 and is a collaborative report of citizens' efforts to define the values that matter most to the people of Routt County in order to ensure the future of the Yampa River Valley. Pressing issues identified in need of action include affordable housing, agriculture and open space, government, heritage, sustainability and transportation (see the report for the complete list).

Sustainability Opportunities that are Ripe for Development in Colorado

The following projects were listed by roundtable participants as priorities. They are ready to be implemented if given the resources of funding, labor, collaboration and/or political will.

Southwestern Region (Durango)

Academia

- **Fort Lewis College (FLC)** is currently seeking a master lease on the Old Fort Lewis 6,300 acre **property** south of Hesperus. The college hopes to develop the site as a demonstration campus for sustainability projects with a 2MW solar array help offset its carbon footprint.
- FLC is seeking funding to pay a project manager that can lead an **energy performance contracting process** for the college.
- Other capital projects on campus that need development are acquiring a new **in-vessel composting system** and installing a truck scale to measure the amount of waste generated by the college.

Business

- Develop a **Green Business Recognition Program** that involves businesses in sustainability practices. 4CORE is in discussions with [Local First](#) and many other partners to initiate this program in 2010, but requires funding for success.
- Establish a **comprehensive sustainable business and nonprofit directory** for the SW region. Determine where redundant services exist and develop system for sharing resources (funds, volunteers, expertise).

Energy and Resources

- Find staff or intern to manage a **Carbon Club**, which gathers small groups of people together who challenge each other to reduce emissions. Participants create goals to decrease their carbon footprint, and follow up each month to see how everyone is progressing on set goals.
- Establish a **revolving loan fund program**, which provides low- to no-interest loans and grants for energy efficient residential and commercial projects. The program is lacking seed money and an institution to qualify loan applicants, grant loans, and track funds.

Recycling

- Durango's existing recycling center is 14 years old and has become insufficient to handle the amount and type of materials the community recycles. The City of Durango is working to install a **regional recycling and composting facility** with increased capacity.

Local Food

- Having a **storage and distribution center and/or community kitchen** would be a real boost to small producers and help the local food economy.

Southeastern Region (Pueblo)

Recycling

- **Comprehensive recycling program.** Collaboration among local stakeholders is needed to provide leadership, education, a broader and clear action plan. Participants expressed the need for a transfer station for a materials recycling facility that would include e-waste (electronics) for the southeast region and possibly extending into New Mexico. Need business and political support.

Energy

- **Performance Contracting:** Opportunities presented by performance contracting and an implementation of the Boulder-type residential and commercial energy efficiency and renewable energy program. This would also stimulate job creation, workforce development and green companies.
- **Solar energy development and PV manufacturing:** Take advantage of solar opportunities and manufacturing infrastructure that by promoting and marketing this region's resources.
- **Wind energy development and product manufacturing:** Expand existing interests and resources. Work with National Renewable Energy Lab and industry.
- **Black Hills Energy contract negotiation:** Utility contract is up for renewal in 2012. Who should the community work with to renegotiate this? Goal is to require utility company's investment in renewable energy technologies instead of building new gas-fired plant.
- **Establish gap-financing program or tax credits or utility rebates:** Through Aquila Energy, make it possible for customers to pay for energy efficiency and renewable energy retrofits.

Workforce Development

- **Green jobs training:** Returning veterans need retraining, huge potential to get them into 2-year skill-based degrees and certifications for green job industries. Vestas plant provides jobs for trained workers.
- **Heritage tourism:** Train veterans to work on historic restoration projects.

Local Foods

- **Establish and support local and organic food production and processing** via community supported agriculture (CSA), community gardens, and other sustainable agricultural programs.

Sustainability principles

- **Identify what sustainability looks like,** develop a list of principles, have them adopted and endorsed by the community and elected officials.
- A **Pueblo City-County Sustainability Team** has been formed to develop a community-wide energy strategy. The team consists of staff from both City and County Departments, as well as representatives from Black Hills Energy, Xcel, San Isabel

Electric Association, Pueblo Board of Water Works, Pueblo Community College, Colorado State University-Pueblo, Pueblo Economic Development Corporation (PEDCO), Pueblo Workforce Center, Colorado Department of Local Affairs, and the Governor's Energy Office. The beginning of an outline for an energy plan and the formation of sub-committees on specific sustainability topics will be developed in January 2010. Once the specific sub-committees are identified, other community members will be invited to participate.

Western Region (Grand Junction)

Energy and Resources

- Create a **Clean Energy Hub** in Western Colorado and identify an organization that is willing to coordinate efforts. This would involve pursuing the development of Improvement District Financing, which requires checking that codes are compatible and potentially seeding with stimulus money. To follow the [Boulder model](#) and get approved as a ballot issue requires a grass roots initiative and local government buy-in and participation. Also consider the financing mechanism, the [Architecture 2030 Plan](#), which proposes using energy efficiency incentive grants to buy down the interest rate on home mortgages used to buy new energy efficient homes or to remodel existing homes to meet energy efficiency standards.
- **ARRA Funded Workforce Training:** Partner with local training entities (Western Conservation Congress, career and workforce centers) and utilize expertise within the community to train unskilled workers for energy efficient and renewable energy industries.
- **Solar Technology:** The Western slope has abundant, available sunlight and is ripe for development for solar manufacturing and distribution.
- **Recycling Event Coordinator:** Need to create a paid position within Grand Junction city's recycling program to organize all events (there are too many) and capture the most recyclables possible.

Green Building

- **Re-educate builders and construction industries** to build "green" homes with both new and existing construction.
- **Green Mortgage Lending:** There is a lot of opportunity to provide funding loans for the "green needs" life, infrastructure and homes/development.
- **Construction and Demolition Waste:** Create capacity for recycling and reusing construction waste. Requires onsite separated bins, partnership with landfill for networking between groups that could use each other's waste (e.g., send waste to Habitat for Humanity). Get waste haulers to participate affordably; need to advocate public/private partnerships with an emphasis on re-use (LEED certified projects already have to revise).

Transportation

- The county is pushing for completion of the **Colorado Riverfront Trail**, a multi-modal transportation option that is also seen as a "transportation artery" for getting from the east to the west part of the valley. The goal is to complete the full trail from Palisade to Fruita in the next four years, which will require the cooperation of municipal and other riverfront partners.

Local Food

- The feasibility of a **local food co-op** is being considered by an emerging partnership involving Western Colorado Congress, CSU-Extension Service, and Mesa County.

Local Sustainability Entity

- **A centralized body to coordinate sustainability efforts** in this region (an Alliance satellite) is needed. Also requires an organized structure, established long-term goals, a definable project with reasonable success which can serve as green energy advocate and can coordinate marketing efforts. Don't start from scratch, use already established organization (ideally a neutral organization that can promote triple bottom line—people-planet-profit) and their resources, and/or individuals who already have an established credibility, expertise and relationships with government and community (suggestions include Jim Spehar, and Housing Resources). Best example is Clean Energy Economy for the Region (CLEER) in Carbondale.

Education and Innovation

- Critical to **invest in this generation's education**: breed the next Benjamin Franklin (Colorado Math and Sciences Center).
- **Public Access Channel**: A great way to reach many folks and create access for sustainability information and programs for the public.

Northern Mountain Region (Steamboat Springs)

Recycling

- **Establish more recycling programs** in businesses, hotels, and construction companies. Increase opportunities for recycling of cfl bulbs, steel and aluminum, electronics and cell phones.
- **Zero Waste Initiative**: This initiative, while currently showing success, needs increased composting capability, a means to transport/recycle waste, a standard of measuring effectiveness, and expanded public education. Also need to work on developing policies that incentivize all vendors and venues to be zero-waste.
- **Get pure glass recycling to market**, especially from bars and restaurants (a single stream program exists, but it has limitations).
- It was suggested that it might be time for **a statewide bottle bill** to increase aluminum and glass recycling.

Renewable Energy

- **Increase the use of** wind turbines, solar panel PV grids, thermal PV, geothermal, biomass, and pellet stoves to replace gas. It would be helpful to provide a list of products and installers, and to complete large-scale, high profile projects to show leadership (schools, local government).
- **Solar**: Solar panels should be on every building and house. Expand access to information about local suppliers, installers and installation requirements.
- **Geothermal**: Formed a Geothermal Task Force Group that is trying to come up with a project to serve as a demonstration and as an organized advocacy group for that kind of industry and technology.
- **Biomass**: A lot of different entities working with beetle-killed wood for biomass generation, but each off doing their own thing. Need to develop collaboration and

funding to focus these efforts. In order to establish biomass production at the landfill, need to tackle issues of land use and getting commissioners to change regulations on industrial sites and creating a new zoning classification for sustainable business.

- **Energy efficiency projects:** Need to develop a revolving loan program to fund EE projects like the one that exists in Boulder (or establish a statewide revolving fund that local entities can tap into).

Transportation

- **Build a light rail system for Yampa-Steamboat-Craig.** Also, obtain more city hybrid busses and develop better mass transit. Educate the public to reduce vehicle miles by riding bicycles to work and/or car-pooling.

Green Building

- **Codes:** Require mandatory commercial and residential green building codes that should also include historical preservation projects and retrofits. This will take the political will from commissioners and city council.

North Central Region (Fort Collins)

Community Agriculture: Develop a regional comprehensive culture and system of sustainable agriculture by supporting collaboration, policy, financing and resources that include:

- Future farmer training
- Open-land and water protection
- Year-round food production
- The use of urban and suburban lands for sustainable agricultural use
- Local markets and competitive opportunities for local growers
- Public and youth education

Workforce Development:

- There is a **flawed assumption that there is a core workforce available** to move all the sustainable technologies and projects forward. For example, solar technology is a well-developed and established industry. What is needed is skilled and certified installers - solar companies are bottlenecked with work because there are not enough trained employees. Same situation with efficiency auditors – weatherization programs starting up, but industry is not hiring and therefore training is not available.
- **Northern Colorado Workforce Initiative.** SmartGrid technology training RFP is pending, but a coordinator and a statewide collaboratory are needed to create a training curriculum.

Long-term visioning process: **What do we want this area to look like in 50 years?**

- Exponential population and economic growth – how sustainable is that model? How do we limit growth so it is sustainable, viable for businesses, and without threatening our resources? Need to make it politically “safe” to hold conversations on population at the local, state and national level.
- Use **LENSES model** (Living Environments in Natural, Social, & Economic Systems) to help this visioning process, a research effort of CSU’s Institute for the Built Environment. It has a goal of becoming a recognized framework that guides communities and project teams toward creating living, regenerative built environments. The growing LENSES

development team (including natural and social scientists, business and community leaders, and built environment professionals) envisions created environments that produce positive impacts (instead of a focus on “less-harmful” environments) which enhance people, planet, and prosperity. This statewide and potentially global initiative is still in its early development. With proper funding, the framework will be embedded with expert-driven principles, knowledge and metrics during 2010 and be ready for trial implementation in 2011.

Energy

- **FortZED:** The project would benefit by increasing public education about the program and securing funding for Smart Grid technology, because this and other local projects are based on this technology.
- The [CSU Green Power Project](#) is a collaborative effort between CSU-Fort Collins and Wind Holding LLC to develop a wind farm on Maxwell Ranch north of CSU. It ran into funding difficulties mid-2009. This installation could produce more power than CSU consumes. Current negotiations and an alternative funding source are needed to move this project to the development phase.
- The drawbacks of the **Boulder ClimateSmart Loan Program** is that it is only open to those that pay property taxes, thereby excluding renters, non-profits, and municipalities, and it requires a popular vote. Another option for groups that have their own utility is one where the payback comes through the utility bill instead of property-taxes. This program would cover all building segments and eliminates the conflicting owner/renter incentives. This can also be done through waste districts (attached to trash bill) and water districts.
- Another mechanism is **performance contracting**, which allows for up-front capital costs to be covered and for the payback to come from the energy savings. These savings are actually guaranteed by the energy services company and the financing does not count as long-term debt on the municipalities books, thereby avoiding TABOR issues.

Transportation

- [Mason Corridor](#) is an envisioned five-mile north-south byway within the city of Fort Collins. It includes a new bicycle and pedestrian trail as well as a planned Bus Rapid Transit (BRT) that will link major destinations and activity centers along the corridor including the downtown commercial, cultural, and business centers, CSU, Foothills Mall, and South College retail areas. The next steps for this project require continued funding to be secured from federal and state sources for transit system improvements.
- Develop **regional transportation service** from here to Denver and Colorado Springs and recreational points west.
- **Bussing with alternative fuel.** Support compressed natural gas (CNG) vehicles and stations.

Southern Central Region (Salida)

Education

- **Sustainability Model School and [BEST Grant](#).** Colorado Department of Education’s *BEST Grant* supports improvements in quality school facilities throughout the state. Salida School District R-32-J is currently preparing to resubmit the application and has a community-based facility planning committee that is working on the design elements of the revised proposal. The proposal includes the construction of a new high school and a new elementary school, with plans to retrofit the current middle school using geothermal

exchange technology. All new structures will meet or exceed LEED requirements. The plan allows for the potential of having at least one net zero campus and the others be as energy efficient as possible.

- **Public School Curriculum:** There is a need to develop and implement strong core sustainability curriculum in K-12 to establish a “culture” of sustainability early on.
- **Citizenry Education:** A handbook/pamphlet for residents could offer guidance on weatherization, energy efficiencies, other conservation practices and local resources.

Energy

- **Geothermal Plant:** The [Mount Princeton Geothermal Energy Project](#) would produce the first geothermal electricity in Colorado utilizing an air-cooled 10MW plant. It would be the first Colorado geothermal plant to provide up to 85% load for Sangre de Cristo Rural Electric Association (REA) in three counties. The co-op can be served through an existing transmission infrastructure. The project is entering its third phase development and requires additional funding to match potential DOE funds. There are also geothermal prospects for city-owned land in Poncha Springs.
- **Algae research, [BioVantage Resources](#):** Develops flexible growth systems for algae, for use by a broad range of industries serving the production of clean water, food and fuel. Working with local authorities (including Incite Consulting) to establish a “pilot” facility in Salida to validate the functional output of the algae growth system. The pilot facility would produce algae for local livestock feed use and after a period for validation, would likely be expanded to produce algae for a mix of uses.
- **Micro-hydro Power:** Energy can be harvested from small streams, canals, or irrigation ditches. It only takes a small amount of flow (as little as two gallons per minute) or a drop as low as two feet to generate electricity and can be delivered as far as a mile away to the location where it is being used. Commonly used on local ranches.
- **Hydroponics/Aquaculture:** This has been sufficiently tested at a local level. Funding is needed to expand its application. Hydroponic greenhouses could be located in backyards to allow easy and year-round food production.
- **Wind Turbine for Ski Resort and Monarch Pass:** Some studies show that wind conditions at Monarch Pass (~18mph) are optimal for wind-generated power to supply Monarch Ski Resort. Installation would include a community-sized Northwind 100 Turbine and could produce 110kW or 195,000kWh/yr.
- **Solar:** There is potential and interest to develop a medium to large scale Solar PV system at the local prison.
- **Woody biomass:** At Western State College in Gunnison, a \$21 million renovation project for Taylor Hall now includes plans to utilize a boiler system that relies on woody biomass for fuel, and grant funding is being pursued to help create the local infrastructure necessary to supply the product. In Chaffee County, 80% is public lands and the Bureau of Land Management (BLM) could provide a sustainable supply of wood. The Forest Service would potentially support the cull of standing dead wood to sell for pellets.

Green Building and Development

- Encourage and incentivize developers to create “cluster” development, which keeps open spaces. Rather than mandate solar, education should be used to encourage solar installations at the front end of development.
- **Educate owners about building codes and energy efficient options** (keeping in my cost competitiveness). For new owners and builders, provide a “Homeowner’s Guide”

that provides green building technologies, weatherization practices, information on how and what to recycle, list of local solar providers, Energy Star Incentives, and general education like turning off appliances, buy local, etc.

- For **ENERGY STAR-rated houses**, provide a refund on building permits and both federal and state tax credits.
- Conclusions from the final **2008 Buena Vista Citizen's Roundtable** resulted in a vision document for updating the Chaffee County Land Use Code. Included were recommendations for mixed-use development and clustered subdivisions to achieve more open space protection. For transportation projects, particularly redevelopment of the Highway 50 and 24 corridor, a holistic approach needs to be taken that involves plans for bike, pedestrian and transit-friendly options. The plan now needs to be made operational through code changes and policy implementation.

Transportation

- **Use abandoned Union Pacific Railroad track** for commuter rail from Leadville to Canon City and/or a proposed "Rail-n-Raft" project that could transport the proposed 380,000 visitors down the canyon during the Christo *Over the River* art installation.
- **Transition Salida**: A community-driven movement to address the challenges and opportunities of peak oil, climate change and economic stability through strengthening more locally-based and sustainable energy and food systems. Future plans include an inventory of community awareness, determining key areas of quality of life, and developing an Energy Descent Action Plan.

Education

- **The Salida Citizen**, an online publication and tool for building community, provides the *Causes* and *411* pages, which are an ongoing attempt to aggregate information about local resources for sustainability, education, nonprofit and civic issues.
- Salida Roundtable participants identified **creating a website that links to all local resources on renewable energy projects and sharing resources and experience to avoid duplication of efforts** as an opportunity ripe for development and these resources at Salida Citizen could provide that forum.
- The **Salida Greenmap** is being developed to serve as "local clearinghouse" for resources relating to sustainable, ecological and environmental aspects of the community. Conversations with several local schools and resource and sustainability groups have begun to gather information and plan collaborative projects for expanding the Greenmap.

Statewide

- **A new federal interagency partnership** between the Departments of Transportation, Housing and Urban Development and the Environmental Protection will be offering joint funding to develop sustainable communities through projects such as improved access to affordable housing, increased transportation options and lower costs, and engaged environmental stewardship.
- The Governor's Energy Office is investing \$2.3million of American Recovery and Reinvestment Act (ARRA) funds to hire eighteen **Regional Community Energy Coordinators** across the state of Colorado who will facilitate the design and

implementation of a regional energy efficiency and conservation strategy. Coordinators began work in January 2010.

- **Front Range Ozone Community Plan**. In November 2009, Governor Ritter appointed 29 local leaders to the Regional Air Quality Council (RAQC) with the priority to collaborate, develop and report on options to further reduce vehicle miles traveled, emissions from vehicles, and introduce other measures that yield reductions in emissions from the transportation sector. This effort is an attempt for Denver Front Range to come back into compliance with federal ozone standards.

Next Steps Needed to Improve Collaboration Locally and Statewide to Achieve Sustainability Goals

All regions identified common issues to be addressed in order to improve collaboration locally and statewide.

Create a Sustainability Culture

- Get community leaders, elected officials, businesses and citizenry to commit to and internalize sustainability principles.
- Establish education about the problem and urgency of climate change and the consequences of not being sustainable; quit preaching to the choir and convince the public that sustainability is a priority.
- Create region-appropriate language for “sustainability” that communicates a consistent message; that is, determine what issues and topics are important to a specific region and use that to draw groups into a conversation about sustainability. In the western region of the state, for example, participants agreed that using “climate change” as the focus point for sustainable community involvement will capture 20-30% of the community’s interest at best.
- Create a shared sustainability vision statewide so that we all have the same target no matter what project is being worked on. Stress holistically and financially why sustainability practices and policies are a good thing. Explain to people who don’t buy into climate change, for example, “Okay, but do you know you can run a more profitable business if you do these things, implement these practices?”
- Establish (elect) a local government that buys into sustainability policies and practices. Get commitments on sustainability issues before they are even elected by developing “environmental report cards/grades” for public officials who attend sustainable meetings and forums. Emphasize the economic advantages of sustainability, but help elected officials understand benefits of the triple bottom line approach.
- Establish a “gatekeeper” (organization or group) that can facilitate information and disseminate it.

Improve Collaboration

- Collaboration is challenging in many regions as people and organizations tend to operate independently. To get local leadership, nonprofits, businesses and local government working together, create a project that is small and achievable in order to prove the merits of collaborative efforts and use this success as momentum for larger projects.
- Continue sustainability networking meetings. Create a virtual statewide collaborative meeting to involve more people across the state and that allows active participation from all attendees.

- Create a “congress” of voices/representatives from each regional roundtable and bring them together for regular meetings.

Share Sustainability Resources

- Develop a common web portal that will allow interested people to quickly and easily connect to the sustainability groups and organizations within their area and that match their interests, and make that information available and updatable by participants in order to prevent program overlap.
- Develop an Internet-based communication forum for collaborative networking on sustainability issues for Colorado, using a model like <http://www.wiserearth.org/>.
- Join existing networks that focus on sustainable issues and projects; for example, [Creative Citizen](#), which is a whole model around critical and radical collaboration of sustainable efforts at the individual level.

Provide Better Education

- Institute a statewide sustainability curriculum for grades K-12.
- Increase awareness of LEED concepts for building retrofits and new construction. Develop standards for incorporating green building codes into historic building preservation.
- Advance education on energy conservation and renewables, not just at schools, but to the public. Types of information needed are the costs and benefits of actions, incentives and rebates, and advantages to the individual.

List of Participating Organizations in 2009 Roundtables

Government Sector

Boulder County
Chaffee County
City of Grand Junction
City of Craig
City of Loveland
City of Rifle
City of Salida
City of Steamboat Springs
Colorado Department of Labor and
Employment
Colorado Department of Local Affairs
Colorado Department of Public Health and
Environment
Colorado Geologic Survey
Custer County Conservation District
Denver Regional Council of Governments
Environmental Protection Agency Region 8
Fort Carson Directorate of Environmental
Compliance and Management
Governor's Energy Office
Gunnison County
LaPlata County

Larimer County
Larimer County Business and Enterprise
Larimer County Youth Conservation Corps
Mesa County
Mount Werner Water and Sanitation District
Poudre River Public Library District
Pueblo City-County Health Department
Pueblo County
Routt County Department of Environmental
Health
Routt County Economic Development
Cooperative
Southern Ute Tribe Council
State of Colorado, State Senator – District 5
Town of Avon
Town of Buena Vista
Town of Eagle
Town of Fowler
Town of Poncha Springs
Town of Windsor
USDA Natural Resources Conservation
Service

Education

Aims Community College
Colorado College
Colorado Mountain College
Colorado State University
Colorado State University Extension
Service– Pueblo County
Colorado State University Extension
Service– Chaffee County
Colorado State University Institute for the
Built Environment
Fort Lewis College

Heaton Middle School
Mesa County Valley School District #51
Mesa State College
Poudre School District
Pueblo Community College
Salida School District
University of Colorado – Board of Regents
University of Colorado – Colorado Springs
University of Northern Colorado
Western State College

Business Sector

Accounting and Benefit Solutions
Air Pear by AIRIUS LLC
Alpine Bank
Alpine Insurance Agency Inc.
Architecture West LLC
Atlasta Solar Center
Bella Energy
Big Agnes
BioVantage Resources
Brendle Group
Bwear Action Products
Cate Street Capital
Ciavonne, Roberts & Associates Inc.
CJR Homes LLC
Colorado Central Magazine
Colorado Solar Energy
Curbside Recycling Indefinitely Inc.
designKiln
Durango Fine Homes LLC
EcoDepot USA
Emerald Mountain Energy
EnergyWise Companies
Environmental Solutions Unlimited LLC
Fox Construction Inc.
Frostbusters & Coolth Co.
Go Alpine
Go Green Events
Green Team Real Estate
Grand Junction Daily Sentinel
Happy Heart Farms C.S.A.
Headwaters Energy and Finance
High Noon Solar
Horizons Specialized Services
Incite Consulting LLC
Insulated Component Structures-Rocky Mountain Inc.
JBrown Enterprises
Keep it Simple Coaching
Kornelly and Associates Professional Consulting Services
Land + Shelter
Lifespan Technology Recycling
MMA West
Mountain Mail Newspaper
Mountain Mapping
Mount Princeton Geothermal LLC
MVM Mortgage Group
National Energy Services Company
New Belgium Brewing Company
OAK Construction LLC
Prudential Steamboat Realty
Peak Solar Designs
Profuturus LLC
Public Technology Institute Inc.
ReDirect Guide Inc.
Redlands Canyon View Car Wash
Renewable Energy Investments
Renewable Energy Outfitters
RST Associates
Salida Greenhouse Produce
Saunders Company
Seven Generations
Simplicity Solar
Simply Radiant Heating Inc.
Solid Foundations Inc.
Soltec Shades
SoloVento
Steamboat Springs Chamber Resort Association Inc.
Steamboat Restaurant Group
Steamboat Ski & Resort Corp.
Stone Age Inc.
Sustainable Building Solutions
Sustainable Community Solutions Inc.
Sylvain/Dubois LLC
Sylvan Dale Guest Ranch
Tender Tooshies Diaper Service
Thomson Public Affairs Group
Toolbox Creative
Twin Enviro Services
U.S. Soil Inc.
Vector Group, The
Verde LLC
Wallace Futures Group LLC
Wal-mart Stores Inc.
Waste-Not Recycling
Web Works Design and Consulting
WE RECYCLE
Yampa Valley Partners

Utilities Sector

City of Fort Collins Utilities
Poudre Valley Rural Electric Association
Sangre de Cristo Electric Association

Xcel Energy
Yampa Valley Electric Association

Nonprofit Sector

Be Local Northern Colorado
Bessemer Historical Society – Steelworks
Museum of Industry and Culture
Bicycle Co-op
Center for the Advancement of the Steady
State Economy
Chaffee Citizens for Sustainability
Chaffee County Heritage Area
Clean Energy Economy for the Region
Community Agriculture Alliance
Community for Sustainable Energy
Colorado Solar Energy Industries
Association
Durango Nature Studies
EarthWorks Expo
Easy Green Home and Life
Fort Collins Food Co-operative
Fort Collins Sustainability Group
FortZED
Four Corners Office of Resource Efficiency
Fruita Chamber of Commerce
Gaia Institute Wellness Center
Grand Junction Daily Sentinel
Greater Arkansas River Nature Association
Green Guides of the Grand Valley
Happy Heart Farms C.S.A Agricorps
Program
High Country Citizen's Alliance
Home Grown Food
Home ReSource
Housing Resources of Western Colorado
iCAST
Kremmling Chamber of Commerce
LaPlata Skills Trade Collective

Legacy Land Trust
Legacy Women Voters – Chaffee County
Mancos Valley Sustainability Initiative
National Center for Craftsmanship
Nature and Raptor Center of Pueblo
New Community Coalition
Parkview Medical Center
Pueblo CAREs
Rocky Mountain Bird Observatory
Rocky Mountain Institute
Rocky Mountain Small Business Services
Rocky Mountain Sustainable Living
Association
Routt County Habitat for Humanity
Saguache County Sustainable Environment
and Economic Development
Southwest Conservation Corps – Los Valles
Sustainability Alliance of Southwest
Colorado
Sustainable Pueblo
Sustainable San Juan
Third Street Center
Transition Salida
UniverCity Connections
U.S. Green Building Council
Upper Arkansas Area Council of
Governments
Western Colorado Congress
Western Counties Action Network (WeCAN)
– Sonoran Institute
Wilderness Society, The
Yampa Valley Sustainability Council

About the Alliance for Sustainable Colorado

The mission of Alliance for Sustainable Colorado is to advance sustainability through collaboration among business, nonprofits, government and education. We foster the development of policies and the implementation of practices of sustainability through this statewide, multi-sector network.

Our vision of a sustainable Colorado is a state which:

- Respects the earth's biological and natural systems and the limits of the planet's finite resources
- Measures profitability not just in dollars, but in quality of life and equality of opportunity
- Builds community across political, racial, economic, social, and educational boundaries

The Alliance for Sustainable Colorado drives collaborative action for policies and practices of sustainability through three program areas: Alliance Center, Policy and Education & Outreach.

For more information about the Alliance, sustainability or this report, please contact:

Alliance for Sustainable Colorado

1536 Wynkoop St, Suite 4A

Denver, CO 80202

303-572-1536

www.sustainablecolorado.org