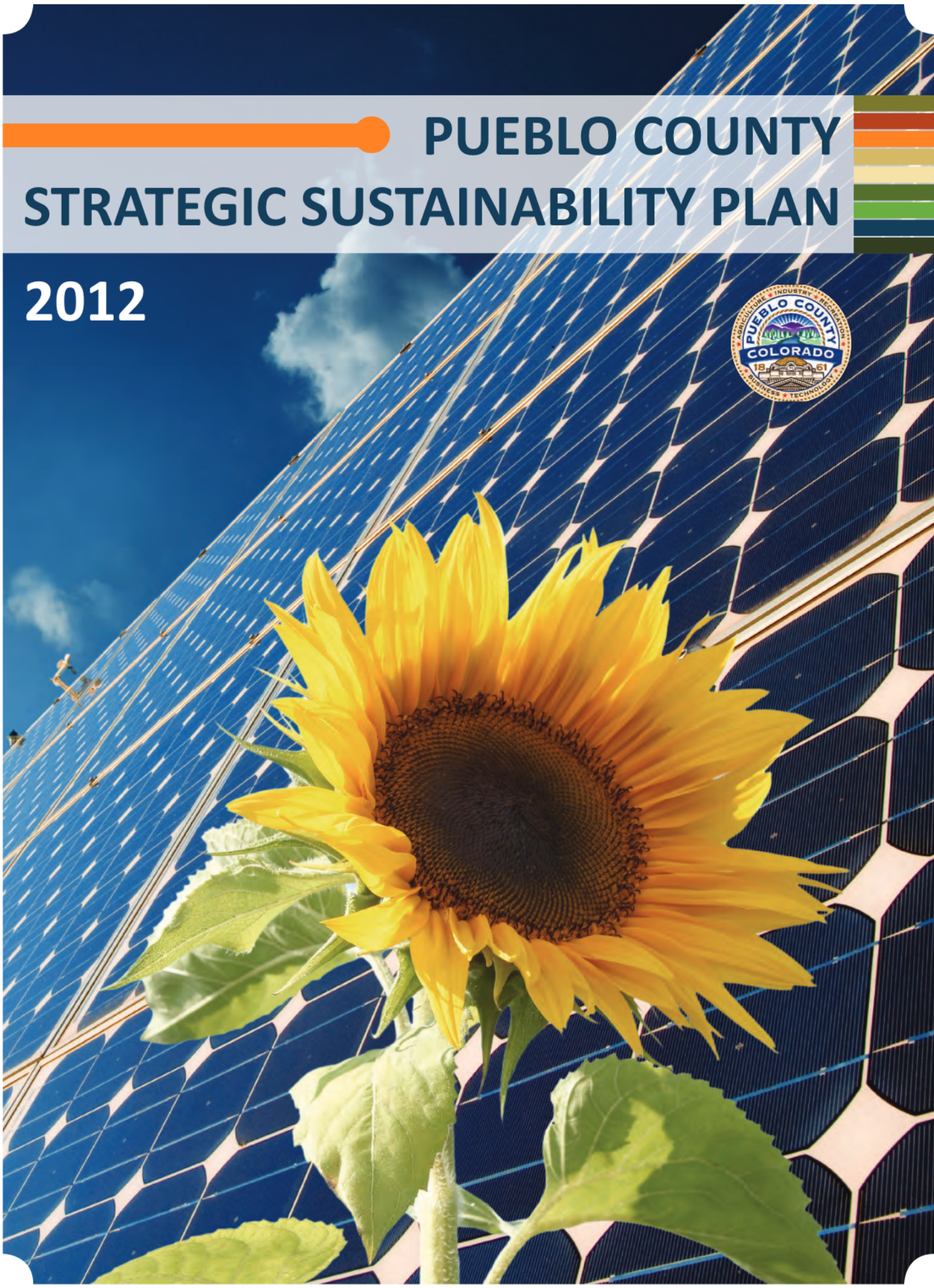


PUEBLO COUNTY STRATEGIC SUSTAINABILITY PLAN

2012



ANTHONY NUÑEZ
CHAIRMAN
DISTRICT 1

J.E. CHOSTNER
CHAIR PRO TEM
DISTRICT 3



JOHN B. CORDOVA SR.
COMMISSIONER
DISTRICT 2

DANIEL C. KOGOVSEK
COUNTY ATTORNEY

BOARD OF PUEBLO COUNTY COMMISSIONERS

June 26, 2012


Angie Fyfe, LEED AP
Associate Director, Operations
Colorado Energy Office
1580 Logan Street Denver, CO 80203

Re: Pueblo County Strategic Sustainability Plan

Our community strives to excel as a leader in progressive planning and forward thinking within the Southern Colorado region, and this strategic sustainability plan is the foundation from which we will accomplish that. As an honored recipient of grant awarded funds from the Governor's Energy Office, our community stepped up to meet the challenges and requirements of this funding while implementing energy efficiency, renewable energy and sustainability initiatives over the last several years. The result of this effort was a well defined plan with 10 goals, 26 objectives and 84 actions. It is a living document, with a three to five year planning horizon that will guide our community forward as we rise to challenges faced by every community finding a balanced, comprehensive and progressive approach in resolution. We, the Board of County Commissioners, support the mission of the Pueblo County Strategic Sustainability Plan which is to promote and implement sustainability policy and management systems including energy efficiency, use of renewable resources and conservation practices while fostering entrepreneurialism and economic development in Pueblo County, Colorado. Our community will build on its strengths, learn from its past and move forward with resilience through this commitment.

Sincerely,
The Board of Pueblo County Commissioners


Anthony Nuñez,
Chair


Jeff Chostner,
Chair Pro-Tem


John B. Cordova, Sr.,
Commissioner

PUEBLO COUNTY COURTHOUSE
215 W. 10TH ST., PUEBLO, CO 81003-2992
(719) 583-6000
FAX: (719) 583-6549
www.co.pueblo.co.us



Table of Contents

Acknowledgements	5
Executive Summary	7
Aspirations as a Community	10
Planning Process	11
Sustainability Goals	19
Sustainability Strategies	
Strong Leadership and Greening Government	20
Energy.....	23
Energy Efficiency	24
Renewable Energy	27
Land Use, Built Environment and Transportation.....	33
Public Health and Natural Environment.....	43
Materials Management and Waste Diversion	58
Our Way Forward	67
Implementation Tables	68
Appendixes	
Pueblo County Energy Assessment	93
Community SWOT Analysis	94
Pueblo Area Recycling Guide Spring 2011.....	95



BOARD OF COUNTY COMMISSIONERS

Anthony Nuñez

Chair, Commissioner, District 1

Jeff Chostner

Commission, Chair Pro Tem, District 3

John B. Cordova Sr.

Commissioner, District 2

CORE COMMITTEE

Planning Team

Robert C Schmidt II, Pueblo County Public Works Director / County Engineer

Pat Coffee, Pueblo County General Services Engineer

Julie Ann Woods, Director of Pueblo County Planning & Development

Heather Maio, Director of Environmental Health, PCCHD

Susan Finzel-Aldred, Environmental Coordinator II, PCCHD

Scott Hobson, Assistant City Manager, City of Pueblo

Tammy Imblum, Pueblo West Metropolitan District

Sarah Spencer-Workman, LEED AP, Community Energy Coordinator (SCG)

Karl Stickley, PE, Consultant (Guernsey)

Kelly Coffman, ASLA, LEED AP, Consultant (Guernsey)



Acknowledgements

Wade Broadhead, City of Pueblo
Anita Crain, Pueblo County Purchasing Department
Paul Fanning, Pueblo Board of Waterworks
Jane M Fraser, Colorado State University-Pueblo
Mark Gazette, Pueblo School District
Terry Hart, Pueblo County Attorney
Gene Mantei, Black Hills Energy
Chris Markuson, Pueblo County GIS
Lee Merkel, Department of Local Affairs-State of Colorado
Robin O'Day, San Isabel Electric Association
Kevin Pratt, Black Hills Energy
Alf Randall, Pueblo County Engineering Supervisor
Jack Rink, Pueblo Economic Development Corporation
Dan Smith, Black Hills Energy
Sean Tapia, Pueblo County Facilities Department
Amy Tihonovich, Pueblo County Budget Manager & Liaison to Local Businesses
David Valdez, Colorado City
Dave Vaughn, Pueblo Regional Building Department
Rhonda Venditti, Black Hills Energy
Nick Vunovich, Pueblo County Purchasing Department
Kathy Worthington, Xcel Energy

COMMUNITY ADVISORY GROUP

Action 22
Affordable Disposal
City of Pueblo
Colorado State University-Pueblo
Colorado State University Extension-Pueblo
Gaia Wellness
My SolStore
Pueblo Community College
SECRS
Sustainable Building Concepts, LLC
Sustainable Pueblo

Thank you to all citizens who actively participated in the plan development process!

The mission of the Pueblo County Strategic Sustainability Plan is to promote and implement sustainability policy and management systems including energy efficiency, use of renewable resources and conservation practices while fostering entrepreneurialism and economic development in Pueblo County, Colorado.

What does Sustainability Mean to Pueblo County and the Community?

Pueblo County is a community founded on railroad and steel industries, strong familial heritage and culture, located in the southern portion of the State of Colorado. Its population, just under 160,000 according to the 2010 US Census, resides within several communities initially established between the Arkansas River and Fountain Creek. Ever a hardworking community, Pueblo County has thrived since it became a Colorado territory in 1861.

In 2009, Pueblo County received a \$150,000 formula grant from the State of Colorado Governor's Energy Office, initially dispersed through the Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG) program. This program, funded as part of the American Recovery and Reinvestment Act (ARRA), provided funds to local and state governments, Indian tribes, and territories to develop and implement projects for the improvement of energy efficiency, energy use reduction, and fossil fuel emissions within grant awarded communities. Specifically, Pueblo County's grant was for a *Community Energy Coordinator* and the development of a *County Energy Assessment* with corresponding *Strategic Sustainability Plan*.

Pueblo County took this funding as an opportunity to build on its spirit of community commitment and look towards planning a sustainable future. Like other communities across the state, Pueblo County continues to look for ways to progressively navigate its future without losing its commitment to a great quality of life for its residents.

Facing these challenges while looking through the lens of sustainability, Pueblo County hopes to accomplish a comprehensive, strategic and balanced approach to reaching out to stakeholders and providing education in areas of importance from this plan. Planning for sustainability enables increased **energy efficiency and renewable energy** applications to reduce ratepayer dependence on increasing energy costs within the community while increasing security for its future. Sustainability also provides for smart **land use, built environment and transportation** planning resulting in livable communities that incorporate pedestrian friendly development patterns, alternative transportation options and infrastructure that is not beyond the means of the County to provide adequate community services. Sustainability also insures that the community's **natural environment** is devoid of manmade toxins and well managed for adequate water supplies and quality, ecosystem health, and solid waste management through **waste and material diversion**. **Public health** plays an integral role in that it serves to benefit from these sustainability changes. More importantly, benefits to quality of life will be realized resulting in a community that can provide for its future generations.



Executive Summary

Through this plan and process, Pueblo County clearly defined what sustainability means for the community and its future. This definition was crafted through a series of public meetings and public input during the Fall 2011.

Sustainability is the responsible management of Pueblo County’s social, economic, and environmental resources, which are mutually dependent for maintaining a healthy and vibrant community.

Pueblo County’s history lends strength to its future therefore it is important to acknowledge how all of the County’s plans and programs, both locally and regionally, provide the framework for developing the goals, objectives and actions within this strategic plan over a three-five year horizon.

History of Progress and Resilience¹

Since its establishment in 1861, Pueblo County is large enough to be its own metropolitan planning organization (MPO) and has its roots in the manufacturing sector. It is a community that was settled by Native Americans between the Arkansas River and Fountain Creek and a community that has been under ‘five flags’ representing the five countries and territories that held dominion over the Pueblo area during the last two centuries: France, Mexico, Texas, Spain and the United States.

As a community it has survived significant economic highs and lows starting with the establishment of the railroad industry and steel mill industry in the early 1900’s, then the eventual decline of both the railroad industry and the steel mill several times over from the 1940’s to the 1980’s. Following the steel crash and recession of 1982, which brought depression and an unemployment rate of 20% to the community, the resilient Pueblo decided to focus its efforts on its attributes: the downtown and Arkansas River. The Pueblo Economic Development Corporation (PEDCO) was formed to attract industry into the community and support urban revitalization efforts.



The Historic Arkansas Riverwalk Project, a recently formed downtown district, was born from these revitalization efforts spurring new retail development and attractions to the downtown area. Today, Pueblo is home to several new industries with a focus on Colorado’s New Energy Economy. Vestas, an internationally known wind turbine tower manufacturer, is a highlight of Pueblo’s industry and direction to support new industry. Evraz Rocky Mountain Steel continues to be in operation and is Colorado’s largest recycler and re-purposer of scrap steel.

¹ History of Pueblo, <http://county.pueblo.org/history>



A Call To The Community For Change

The County understands that change is difficult but recognizes the importance of not only asking the community to make these changes to improve the quality of life of its citizens, but to ask itself to do the same and more.

Today, Pueblo County has a population of approximately 159,000 residents with 90% living within two urbanized areas, the City of Pueblo or Pueblo West. The State Demography Office in Colorado shows Pueblo County's population growing to 241,156 residents by year 2035. As industry and new businesses within the community focus on cost efficiency by reducing energy consumption, being mindful of waste produced and where it goes, and conserving resources, the County is presented with the same opportunity and challenged by this shift from consumerism to less spending, more saving.

Fiscal responsibility is a clear direction for the County and one that works towards planning for a future that improves on buildings, energy efficiency and renewable energy, public health and natural resource conservation.

There is no silver bullet for sustainability planning and implementation; however the first step is to agree on a destination then to take deliberate, concerted steps to shape the community, make policy decisions, invest in ourselves and processes that are driven by benefits the Pueblo community wants for its future.





Aspirations as a Community

As a community, Pueblo County strives to excel as a leader in progressive planning and forward thinking within the southern Colorado region. It is one of the largest counties in the State of Colorado. Uniquely, it is its own Metropolitan Planning Organization (MPO), and is located in an area of the state that is affected by a warmer climate, mesas, low-lying areas, and mountains to the west. Like many communities, the population growth is affected by aging demographics, economic health and job growth. Agricultural production also plays a significant role in the County's population and growth. Investment into the community through industry is a key factor to the County's resilience and future. Therefore, the role of the local government is focused on leadership and success. This means focusing on how to turn a community with such a diverse population and geography into one of action that will address balancing aspects of energy consumption, land use planning, built environment, transportation, water, solid waste, natural resource conservation, and public health, while tying together all of these important areas into one strategic plan. The *Pueblo County Strategic Sustainability Plan* charts the steps necessary to do this.



Why and How Was Pueblo County's Strategic Sustainability Plan Developed?

In 2009, Pueblo County was awarded a 'Community Energy Coordinator' grant from the Governor's Energy Office (GEO), State of Colorado. The funding was through the State Energy Program (SEP) provided to the State of Colorado from the Department of Energy (DOE) ARRA funds. The purpose of this grant was to provide funding to those communities who were interested in conducting a community-wide energy assessment and deploying strategic efforts to improve energy efficiency, renewable energy applications, and greening government efforts at the local level. Pueblo County was honored to be a recipient of these funds and stepped up to meet this challenge, responding with the development of a *County Energy Assessment* and *County Strategic Sustainability Plan*. Pueblo County hopes to position themselves as a leader in Colorado through this plan and efforts engaged.

For many years, Pueblo County and the community have been focused on energy efficiency, renewable energy and sustainability initiatives. The Board of County Commissioners (BOCC) and County departments have been implementing policies and programs to fulfill these initiatives. A few recent efforts to highlight are the County installation of nine applications of renewable energy with rooftop solar arrays on County operated facilities. The County has also entered into an Energy Performance Contract (EPC) to retrofit and maintain energy efficiency in several of its owned and operated facilities. These are just some successful examples of the County moving progressively into the future.

Outside of County operations, many community organizations and jurisdictions have also been employing sustainability strategies that have resulted in significant efforts setting precedence for the increased growth of sustainability. For example, CSU Pueblo has installed significant renewable energy applications which provide for a large percentage of the campus's energy consumption needs.

This plan and planning process has brought together these existing efforts, County and City departments, community organizations and private sector interests under one purpose the *County Strategic Sustainability Plan* and *County Energy Assessment*. With this plan, the County can now elevate their efforts and bring recognition to the community for their programs. The *Pueblo County Strategic Sustainability Plan* integrates the balance of efficiencies in energy, environment, and economics, social and cultural thus weaving together a framework to inform policy decisions, programs and strategies to implement, and services Pueblo County delivers.

The mission of the Pueblo County Strategic Sustainability Plan is to promote and implement sustainability policy and management systems including energy efficiency, use of renewable resources and conservation practices while fostering entrepreneurialism and economic development in Pueblo County, Colorado.



Planning Process

A Plan of the Community

Unlike traditional government plans, this plan is active in nature and strategically focused on all of the Pueblo County community. This includes community organizations, universities and colleges, businesses and residents. Under this plan, within its three to five year planning horizon, the community unites and actively engages in the implementation effort to reach the goals set forth herein. It is a plan that delivers strategies with actions to coordinate efforts across County departments, while leading by example and promoting fiscal responsibility.

Through set goals, this plan addresses the following real issues with direct strategies:

- Reaction to increasing energy prices
- Potential investment in infrastructure
- Informs decisions and policies at the local and state levels
- Sets the stage for future community opportunities
- Use of local resources
- Innovation

Sustainability is the responsible management of Pueblo County's social, economic, and environmental resources, which are mutually dependent for maintaining a healthy and vibrant community.

The framework of the plan is designed to be changed as needs of the community change and progress into the future. It is anticipated that this plan will undergo regularly scheduled annual reviews with public involvement. This review will indicate how the County is doing with implementation efforts, program development and meeting its goals.

Partnerships between the County and the community have been established and grown through this planning process. These partnerships are critical to the long term success of this plan.

Community Advisory Group

Early in the grant process, a community advisory group was formed and led by County staff. This group consisted of community representatives, County and City staff, and community organizations. It identified priority areas for the planning process and a mission to guide their efforts. The Community Advisory Group continued to meet quarterly throughout the planning process and informed the plan development, including the definition of sustainability, the mission and the vision.

Core Committee

During the first year of the grant, it was realized by the County that a dedicated resource was needed to maintain, move forward and accomplish all the requirements of the grant during the three-year period (July 1, 2009- July 1, 2012). Pueblo County Public Works was identified and tasked with leading this planning effort with designated staff and hiring of an outside consultant with related expertise. A planning team was quickly formed. The director and his staff are skilled professionals in their fields and their input and ability to integrate the *County Strategic Sustainability Plan* and *County Energy Assessment* into their operations has been invaluable.

Once a consultant was retained, the planning team formed a Core Committee that consisted of key decision makers from government departments and community organizations. The Core Committee met formally on a monthly basis during the plan development process. Interdepartmental leaders were important to form a network of support in order to develop this sustainability plan. County and City staff understand the complexity and details to deliver services to the community such as parks and recreation, planning and development, road and bridge, infrastructure and more. Their support and participation in the planning process remains critical to the success of the plan.

Additionally, key decision makers from the community also participated on this committee such as representatives from the Pueblo City-County Health Department (PCCHD), CSU Pueblo, local utility providers (San Isabel, Black Hills Energy, and Xcel), and strategic regional agencies, including the Pueblo Board of Waterworks (BOWW), Pueblo Area Council of Government (PACOG), Pueblo Economic Development Corporation (PEDCO), Pueblo West, Colorado City, Pueblo School Districts and the Pueblo Regional Building Department (PRBD).





Planning Process

Core Committee members have been including sustainability initiatives into their operations for years and worked collaboratively during this planning process to share this knowledge as well as learn from each other on how to improve their efforts. Every participant in this group has given invaluable time, energy and expertise to help develop this plan, analyze data, direct strategies and set goals. Along with the planning team, they will continue on in the role of implementation partners leading the County and community forward.

Local Jurisdictions

At the onset of the planning process, a collaborative network with all local jurisdictions in Pueblo County was established. Representatives from these jurisdictions attended regular planning meetings to provide input from their communities and share knowledge. They have embraced *Pueblo County's Strategic Sustainability Plan* and brought forward recognizable leadership that will carry forward this plan into their communities while staying on through the implementation process.

Stakeholders and Partners

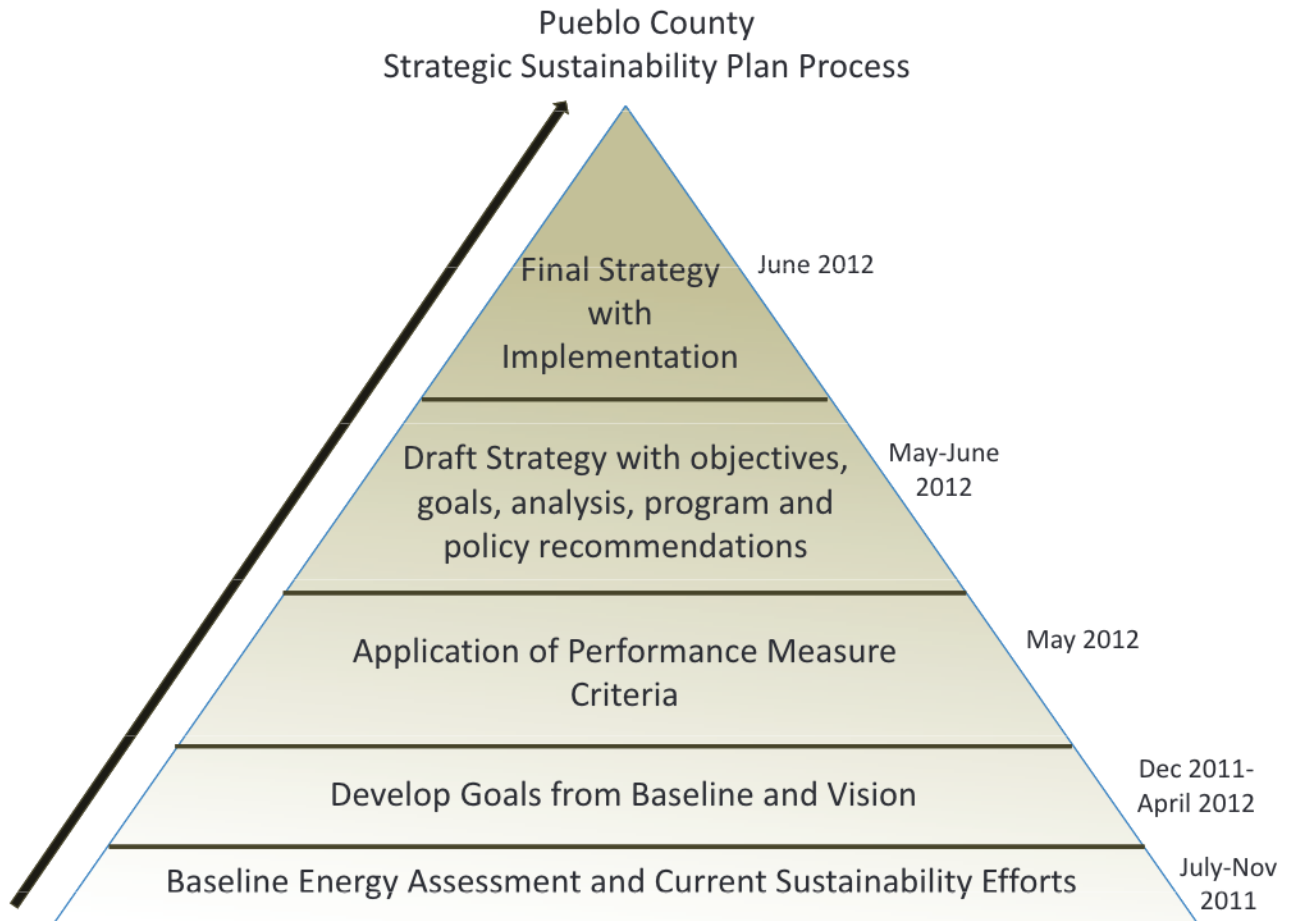
Including stakeholders and building successful, long-term partnerships are critical to the ongoing success of this plan and implementation. As part of the planning process, experts within the community were contacted to provide support, resources and expertise to the *Pueblo County Strategic Sustainability Plan* and *County Energy Assessment*. These stakeholders and partners included the State of Colorado Governor's Energy Office (GEO),



Community Energy Coordinators (CEC) across the state, State of Colorado Department of Local Affairs (DOLA), State of Colorado Department of Public Health and Environment (CDPHE), Alliance for Sustainability, EPA Region 8 office (Denver), Southwest Solar Transformation Initiative (SSTI), Southeast Colorado Renewable Energy Society (SECRES), Catamount Institute, Pikes Peak Area Council of Governments (PPACG), Clean Cities Colorado, and the Colorado US Green Building Council (COUSGBC). Each of these organizations have connected with the community through this planning effort and recognized the desire within Pueblo County to create a successful plan. Partnerships with the local utility providers, Black Hills Energy, San Isabel, and Xcel Energy, have been established with success. Their support through this planning process enabled the County to understand their existing energy uses and work towards improving the future of these uses. Continued communication and collaboration with both the stakeholders and partners will be essential to the implementation of this plan.

Milestones

"What gets measured, gets done"- Anonymous



The planning process is comprised of five key milestones that are a combination of best management practices for developing a strategic sustainability plan and community energy assessments collected from the Department of Energy (DOE), State of Colorado Governor's Energy Office, Office of Sustainable Communities-EPA, USGBC 'Greening Your Community', and more. Each milestone is defined based on the specific needs for Pueblo County to achieve results. The milestones are designed to evaluate and integrate all aspects of sustainability, as defined by Pueblo County, into programs, policies and services.



Planning Process

Milestone One: Conduct a Baseline Energy Assessment and Identify Current Sustainability Efforts

The planning process began with researching Pueblo County's energy use and assessing six areas of focus that link to sustainability: energy (renewable energy and energy efficiency), materials and waste diversion, land use & built environment, transportation, public health and natural environment.

Developing the *County Energy Assessment* focused on the gathering of energy usage data relevant to the entire community and the County operations. Contact was made with the local utility providers to assist with providing the data. Additional requests and research were conducted to identify the energy efficiency and renewable energy programs and practices currently deployed throughout the community. A copy of the *County Energy Assessment* is located in the Appendix of this plan.

Communication in the form of public outreach and education was critical to the beginning of this process. Therefore, a 'Sustainability Initiatives' page was built on the Pueblo County website to post updates on the planning process and keep the community informed of events, education and opportunities for participation. Contact information was readily available so that anyone seeking additional information could reach out to the County and receive a response. Ongoing communication was also conducted with the Governor's Energy Office through monthly reports, group dialogue with other community energy coordinators, and monthly meetings.

To insure community engagement, the formation of community groups early in the planning process was important. Once these were formed, representatives could gather and meet to inform, direct, and develop the plan. Both a Community Advisory Group and a Core Committee were formed. The Community Advisory Group consisted of approximately fifty representatives from Pueblo County and the region. They met quarterly throughout the plan development process. The Core Committee consisted of key decision makers who were County and City staff representatives as well as professionals from the local utility providers, university, and other regional agencies. They convened meetings once a month during the planning process.

At the first Community Advisory Group meeting, the definition of sustainability for Pueblo County and the mission for this plan were drafted. This set the stage for the planning process moving forward. Additionally, six areas of focus that link to sustainability were introduced and best practice information with other community examples were provided to the participants.

Following the first Community Action Group meeting, the Core Committee was convened. They finalized the definition of sustainability for Pueblo County and approved the mission for the strategic sustainability plan. Their role quickly became one of leaders and decision makers that synthesized the Community Advisory Group's input, data presented by the planning team, and findings.

At the second Community Advisory Group meeting, a community SWOT Analysis was conducted. This analysis strategically defined the priorities of the community as they related to the six focus areas of sustainability. Results from this analysis can be reviewed in the Appendix of this plan. These findings served as a guide for developing sustainability strategies and priorities through the planning process.

Milestone Two: Develop Goals from Baseline and Vision for Plan

Once a solid baseline and vision for the plan were defined in Milestone One, work began on developing goals which addresses challenges identified through the SWOT analysis, data findings, community input and more. For the Pueblo County Strategic Sustainability Plan, there are five main goal areas and 10 aspirational, yet achievable goals. These goals define the purpose and scope of the sustainability plan providing the community measurable direction to achieve results.

Milestone Three: Application of Performance Measure Criteria

As planning progressed, objectives and related actions were drafted with community input then analyzed for inclusion in the sustainability plan. The planning team applied 'performance measure criteria' to each of these in order to systematically prioritize those objectives and actions most suitable for the plan and the County. This analysis took into account ownership of actions, costs associated with implementation, benefits to the community, impacts to the community, and steps to seek results. This plan has 26 objectives and 84 actions to support the plan's 10 goals.

Milestone Four: Draft Sustainability Strategy with Goals, Objectives and Actions Including Data Analysis Findings, Program and Policy Recommendations

Drafting this plan and capturing 11 months worth of data analysis, community input and findings resulted in a strong plan with 10 goals, 26 objectives and 84 measurable actions to direct a sustainable future in Pueblo County. The plan details each sustainability strategy on how to achieve the set goals through actions with indicators to measure performance and timelines.



Planning Process

Milestone Five: Final Sustainability Strategy with Implementation Recommendations

The planning team, including the Core Committee and identified leaders for each action, is responsible for implementation of the sustainability strategies and ongoing monitoring to evaluate progress. Implementation tables have been provided as part of the plan and to serve as a quick ‘how to’ reference guide.

The plan is a three to five year action plan that does not supplant other Pueblo County planning documents, but rather works with them to build upon existing, complimentary components. It is anticipated that an annual report on the plan’s progress will be conducted and provided to the community for review.

The *Pueblo County Strategic Sustainability Plan* was developed to lead the community into a progressive future. It builds on existing knowledge while engaging stakeholders, providing outreach and education to the community, and leveraging partnerships to enhance initiatives. The success of this plan is dependent upon unification of the community under the commitment of growing a sustainable future.





PUEBLO COUNTY

**Strong Leadership and
Greening Government**



**Materials Management
and Waste Diversion**



**Energy Efficiency and
Renewable Energy**



**STRATEGIC
SUSTAINABILITY
PLAN**



**Public Health and
Natural Environment**



**Land Use and
Built Environment**



Strong Leadership and Greening Government

“Educating residents about sustainability is important. When speaking to them, it may be good to refer to sustainability as being about local people, local places and local prosperity. To bankers, speak about living off the interest not the principle. To farmers, speak about not eating your seed corn. To the elderly, speak about their grandchildren. To veterans speak about our nation’s security. To scout groups, speak about leaving your campsite better than you found it.... speak out”.

(Public Management magazine, a publication from ICMA, Reid)

This section of the *Strategic Sustainability Plan* is unique to Pueblo County and its community. The purpose is twofold: to show the commitment in leadership of the County and community towards embracing this plan, its goals and actions, and to demonstrate the community’s commitment that this plan is not a regular government plan which sits on a bookshelf, rather it is a plan of action focused on the betterment of the community and its future generations.

Tough challenges have to be faced to make changes set forth in this plan, but the County and community have already begun to make some of these changes and are on a pathway to success. Initial research and findings from this planning process indicate the need for County systems to become more efficient and aligned with daily, monthly and yearly activities and operations. For example, the County operations utility expenditure data from monthly bills is not easily accessible and located within one data file. It is also a paper system that provides difficulties when looking for information such as total energy consumption in buildings over a certain period of time. Similarly, County operations own and operate approximately 30 facilities. However, only 16 facilities are within the County’s waste procurement contract, which means that waste from some of the remaining facilities is handled through other departments, other contracts and leases of the building occupants. Both of these examples demonstrate the increased need for a more efficient approach to linking County systems and meeting longer-term goals such as a County operation recycling program and increased energy efficiency in facilities to increase utility savings.

Like many communities, Pueblo County does not have unlimited resources. As leadership makes changes to address the status quo and preserve their commitment to improve the quality from generation to generation, they are also committing to increasing public and private partnerships.



A willingness and commitment to create this plan with interest and innovation for sustainability was prevalent from the time the County was awarded the funding for this opportunity through the Governor's Energy Office (GEO), if not before. For many years, Pueblo County has demonstrated itself as a community with strong grassroots connections to pursuing sustainability at all levels of its government and foundation, which is evident today in the many self-established community organizations, action groups, and businesses.

Today, it is even more important to honor this willingness and commitment from the government leadership and community. Like many communities across Colorado, and nationally, Pueblo County struggles to keep its per-capita income from falling below state and national averages. The unemployment rate has hit all time highs over the last several years, ranging from 10%-11% and currently at 10.7%¹. Despite these tough economic turns, population forecasts from the state and the County show that growth will continue to occur. As these numbers steadily rise, the community deserves a quality of life improved with representation in the public decision making process.

The *Pueblo County Strategic Sustainability Plan* is no exception to challenges but provides a pathway and framework to meet these challenges while balancing efficiencies and improving the quality of life from generation to generation. The goals, objectives and actions set forth in the plan should be discussed regularly, and possibly changed over time. Like any community, it is anticipated that the needs authored within the plan will change, therefore the plan should change with those. To insure progress through the implementation of this plan support from the leadership and community is critical to its success. Many of the goals set forth in this plan have a foundation that builds upon existing efforts as well as existing partnerships and developing new ones.

¹ United States Bureau of Labor and Statistics, Pueblo County, Colorado



Sustainability Strategies

STRONG LEADERSHIP AND GREENING GOVERNMENT GOALS, OBJECTIVES AND ACTIONS

Goal: Be a leading community in the State of Colorado for sustainability and related efforts

Objective: Integrate sustainability and balance efficiencies in all government leadership systems

- o **Action:** Create a formal leadership structure for implementation of the County Strategic Sustainability Plan with a working group of department representatives, City of Pueblo, Pueblo West, Colorado City, Board of Waterworks, Pueblo Regional Building, utility providers, CSU Pueblo and other partner organizations to insure implementation of the plan's goals through all government processes
- o **Action:** Encourage all municipalities within the County to implement the plan
- o **Action:** Grow partnerships with organizations to support the growth of this plan and its goals
- o **Action:** Continue to participate in sustainability, and related efforts, regionally and across the State through partnerships, conferences and legislation
- o **Action:** Integrate elements of the Colorado 'Green Government' plan into the government strategic planning, business planning and fiscal decision making
- o **Action:** Create ongoing outreach, education, and dialogue with the community about the benefits of this plan and future efforts
- o **Action:** Review the County Strategic Sustainability Plan on an annual basis to document progress and measure efforts moving into the future





Energy: Energy Efficiency and Renewable Energy

Energy impacts the residents of Pueblo County in a myriad of ways. Generation of energy from traditional as well as renewable sources provides jobs to residents of Pueblo County. Depending on the process, the production of energy can negatively impact natural resources such as air and water. The availability of reliable, affordable energy helps attract economic development. Utility rates impact individual households and affect operational costs. Increases to energy costs can impact the level of public service that can be provided, and some are passed directly to the consumer.

Pueblo County has a vested interest in pursuing energy efficiency and renewable energy development opportunities. The County government has demonstrated leadership through actions including the installation of solar arrays, conducting energy audits on County owned facilities, implementation of energy efficiency retrofit projects at County owned facilities through an Energy Performance Contract (EPC), and by obtaining grant funding from the Governor's Energy Office (GEO) for the Community Energy Coordinator (CEC). The CEC's role is to assist the County with a strategic sustainability plan (Strategy) and to help position the community for future energy efficiency and renewable energy opportunities.

A *County Energy Assessment* was completed for Pueblo County as part of the County's commitment to the grant funding provided by GEO. The assessment is included in the Appendix of this plan. It focuses on energy consumption, energy efficiency and renewable energy. Data was collected from companies supplying electricity, natural gas, and propane for residential, commercial, industrial, agricultural, and governmental sectors. Current consumption of energy at County facilities is detailed in the assessment and compared to best practices.

In addition to the data collection and assessment, the process included multiple meetings between the planning team and Pueblo County staff, stakeholders, and energy providers. Both the Community Action Group and Advisory Committee reviewed a presentation of initial findings in December, 2011. Additional discussion in March 2012 refined the goals and objectives related to energy efficiency and renewable energy initiatives for Pueblo County. Two main goals were developed to guide future actions:

Goal: Establish a County-wide Comprehensive Energy Efficiency Program

Goal: Advance Pueblo County as a Statewide Leader in Renewable Energy Generation



Sustainability Strategies

These over-arching goals have been broken into key objectives. Specific actions have been identified to achieve the objectives and successfully meet the goals. Per the grant requirements set forth by the GEO, the following actions are included within this plan:

- Residential and commercial building audits and retrofits
- Outreach and education plan to inform and educate the public and provide a call to action of energy efficiency (EE) and renewable energy (RE)
- Plan to attract new EE and RE businesses to the community
- Plan to identify and address gaps in EE and RE training within the community
- Plan to identify and explore residential, commercial and utility scale renewable energy opportunities within the community

ENERGY EFFICIENCY

Goal: Establish a County Comprehensive Energy Efficiency Program

Pueblo County Government Operations

Pueblo County's inventory of buildings and properties reflects the complexity of multiple departments. No centralized system of record keeping exists at the County, so data collection was very challenging. Information was collected from specific departments, gas and electric providers.

Objective: Establish a central point of coordination for County-wide comprehensive energy efficiency and renewable energy projects and programs and to liaison with local utility providers

- o **Action:** The current Sustainability Committee will become a permanent body. The group will be led by a partnership of Pueblo County and the City of Pueblo, with co-chairs elected by the members. Leadership duties may eventually be assigned to a staff member.
- o **Action:** Consider designating a Community Energy Coordinator either as an internal position or as ongoing consultant services.
- o **Action:** Centralize utility billing and tracking for all county facilities, including production from on-site renewable energy installations. Consider ENERGY STAR's free Portfolio Manager tool, www.energystar.gov/istar/pmpam or a similar system. Utilize paperless billing to reduce waste. Generate reports and monitor use on an ongoing basis.

Sustainability Strategies

According to the data, the total number of kilowatt-hours used by the County in 2010 was 12,256,490 kWh. This is approximately 32 percent of the total government sector energy use reported for all public operations within Pueblo County. One of the main electricity costs to the County is associated with street lights and traffic lights.

Objective: Achieve a 5% reduction in energy consumption for County owned and operated buildings by 2015 through energy efficiency improvements, thus increasing air quality and reducing GHG emissions.

Track and monitor energy use and costs.

- o **Action:** Plan for additional Energy Performance Contracting (EPC) to implement additional energy efficient improvements, also known as Facility Improvement Measures (FIMs) to County-owned facilities by 2015.
- o **Action:** In addition to EPC projects, identify FIMs that the County will implement on an ongoing basis. Include details for specific improvements and commit to funding in annual budget.

Objective: New construction of County-owned facilities should be built to meet or exceed LEED standards and must be designed to current Energy Star standards

- o **Action:** All new construction projects shall include a procurement or contract requirement for consultants to design and build a facility that meets or exceed LEED certification and current Energy Star standards
- o **Action:** Consider retrofitting existing buildings to meet or exceed LEED standards

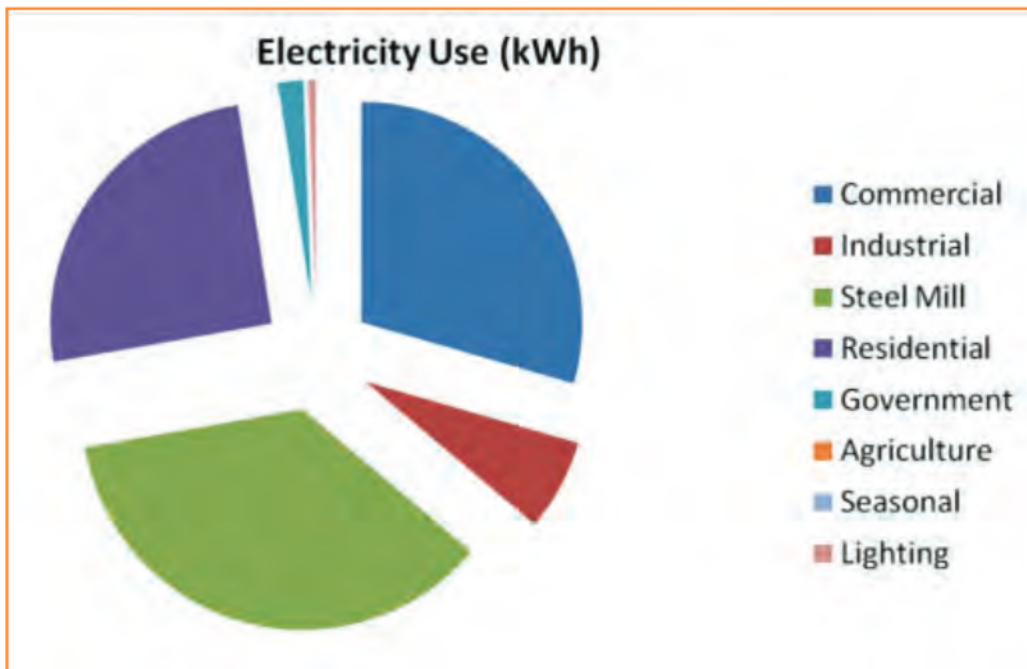


Sustainability Strategies

Residential, Commercial, and Industrial Uses within Pueblo County

Pueblo County can most easily influence the operations and practices under its direct control, which is the logical first step of the plan. The majority of energy consumed in Pueblo County is within the Residential, Commercial, and Industrial sectors; therefore a broader effort will be necessary in order to achieve significant reductions.

Energy efficiency measures provide benefits to the overall community and to individual consumers by reducing costs and conserving resources. Development of businesses geared for audits, retrofits, and other emerging best practices provides economic value to the community.



Objective: Develop an outreach and education plan to inform and educate the public and provide a call to action for energy efficiency and renewable energy initiatives. Provide energy efficiency education and information to the community by working in partnership with the local utility providers. Encourage consumer conservation of energy consumption. Encourage installation of innovative efficiency measures.

- o **Action:** Form a County and local utility partnership program to provide information and education to the community regarding demand-side management programs
- o **Action:** Work with local industry to permit heat capture/recycling from industrial processes

Objective: Plan to attract new energy efficiency businesses to the community

- o **Action:** Connect local business with local energy audit and retrofit efforts

Objective: Promote 5% energy efficiency in community for residential and commercial properties by 2020 to ensure energy reliability and maintain or decrease costs to ratepayers. Note: this objective supports the PUC requirement that Black Hills Energy has to meet 5% energy efficiency by 2020

- o **Action:** Implementation of IECC 2009 or greater for Regional building code to support energy efficiency (see *Land Use and Built Environment* section for building standards)
- o **Action:** Develop mechanism to promote residential and commercial building energy audits and retrofits

RENEWABLE ENERGY

Goal: Advance Pueblo County as a Statewide Leader in Renewable Energy Generation

Renewable energy reduces dependence on fossil fuels. The Governor's Energy Office (GEO) provides support and funding to Colorado communities interested in the environmental and economic benefits of renewable energy. According to the GEO's Renewable Energy Development Infrastructure (REDI) report, Colorado has 10 generation development areas capable of more than 96,000 MW of wind generation and 26,000 MW of solar generation. The potential of this capacity compares to the current installed capacity of 13,964 MW available in Colorado in 2008.

Pueblo County is already a major exporter of energy, specifically electricity produced by the Comanche Power Plant (Xcel Energy). Of the plant's maximum capacity, 1,400 MW, Evraz Rocky Mountain Steel uses approximately 90 MW. Therefore, at peak generation Comanche (Xcel) exports approximately 1,310 MW of electricity from Pueblo County to communities across Colorado.

The opportunity to build on this legacy of large scale energy production lies primarily within development of the County's wind and solar resources. Projects could be located at the existing industrial sites to provide power directly to the user and channel excess production to the grid via the existing transmission network. Other installations could be located in more remote locations of the County served by the transmission lines.

The GEO's REDI report recommends several actions to address the gap between emissions and existing goals. Actions include:

- Invest in demand-side management, demand response, and conservation
- Increase investment in renewable energy development, particularly utility-scale wind and solar
- Accelerate high-voltage transmission lines to deliver renewable energy from renewable resource generation development areas to major markets
- Strategically use natural gas-fired generation to provide new power and integrate naturally variable renewable resources
- Consider early retirement or decreased utilization of the oldest and least efficient coal-fired plants



Sustainability Strategies

Objective: Strengthen economic development and create jobs through energy efficiency and renewable energy development in conjunction with Southwest Solar Transformation Initiative (SSTI) , Governor’s Energy Office (GEO), and Department of Energy (DOE) efforts

- o **Action:** Optimize development opportunities for renewable energy by the following:
 - Large scale to take advantage of existing transmission lines
 - District or industrial-scale installations to offset major users
 - Pueblo Memorial Airport Industrial Park demonstration project for an energy district renewable energy development
 - Site-specific renewable energy applications
 - Colorado State Fairgrounds or other public facilities
 - Evraz Rocky Mountain Steel Mill
 - Vestas
 - Lake Pueblo

- o **Action:** Work with local utility providers to provide net metering to both residential and commercial consumers

- o **Action:** Track individual solar installations within the County using an existing database tool such as www.sunnyportal.com

- o **Action:** Develop ongoing partnerships for community outreach, workforce development, and new business development centered on energy efficiency and renewable energy

- o **Action:** Continue ongoing education efforts focused on efficiency and renewables similar to storm water education. Serve as a resource for smaller communities.

Smaller scale efforts at the County level can offset annual utility fees, support ongoing development of local renewable energy installers, and contribute to development of a workforce skilled in new technologies. Looking specifically at County facilities with the highest electric use in 2010, opportunities exist at the following locations:

- Justice Plaza (Jail and Dorm) (6,041,000 kWh)
- Courthouse (1,658,000 kWh)
- Department of Social Services (1,030,200 kWh)



The Arts Center would also be a top consumer if all the buildings were added together (1,170,390 kWh). These facilities are located in close proximity to one another in Downtown Pueblo. This zone is the area of most concentrated electrical use for County facilities. With rooftop solar arrays, these centrally located buildings provide an opportunity for a new localized renewable energy source to reduce the environmental impact of the buildings electrical use.

Objective: Increase implementation of renewable energy in County-owned facilities

- o **Action:** Identify County-owned facilities that would be recipients of renewable energy applications every year (minimum two facilities per year)





Sustainability Strategies

ENERGY GOALS, OBJECTIVES AND ACTIONS

ENERGY EFFICIENCY

Goal: Establish a County-wide Comprehensive Energy Efficiency Program

Pueblo County Government Operations

Objective: Establish a central point of coordination for County-wide comprehensive energy efficiency and renewable energy projects and programs and to liaison with local utility providers

- o **Action:** The current Sustainability Committee will become a permanent body. The group will be led by a partnership of Pueblo County and the City of Pueblo, with co-chairs elected by the members. Leadership duties may eventually be assigned to a staff member.
- o **Action:** Consider designating a Community Energy Coordinator either as an internal position or as ongoing consultant services.
- o **Action:** Centralize utility billing and tracking for all county facilities, including production from on-site renewable energy installations. Consider ENERGY STAR's free Portfolio Manager tool, www.energystar.gov/istar/pmpam or a similar system. Utilize paperless billing to reduce waste. Generate reports and monitor use on an ongoing basis.

Objective: Achieve a 5% reduction in energy consumption for County owned and operated buildings by 2015 through energy efficiency improvements, thus increasing air quality and reducing GHG emissions. Track and monitor energy use and costs.

- o **Action:** Plan for additional Energy Performance Contracting (EPC) to implement additional energy efficient improvements, also known as Facility Improvement Measures (FIMs) to County-owned facilities by 2015.
- o **Action:** In addition to EPC projects, identify FIMs that the County will implement on an ongoing basis. Include details for specific improvements and commit to funding in annual budget.

Objective: New construction of County-owned facilities should be built to meet or exceed LEED standards and must be designed to current Energy Star standards

- o **Action:** All new construction projects shall include a procurement or contract requirement for consultants to design and build a facility that meets or exceed LEED certification and current Energy Star standards
- o **Action:** Consider retrofitting existing buildings to meet or exceed LEED standards

Residential, Commercial, and Industrial Uses within Pueblo County

Objective: Develop an outreach and education plan to inform and educate the public and provide a call to action for energy efficiency and renewable energy initiatives. Provide energy efficiency education and information to the community by working in partnership with the local utility providers. Encourage consumer conservation of energy consumption. Encourage installation of innovative efficiency measures.

- o **Action:** Form a County and local utility partnership program to provide information and education to the community regarding demand-side management programs
- o **Action:** Work with local industry to permit heat capture/recycling from industrial processes

Objective: Plan to attract new energy efficiency businesses to the community

- o **Action:** Connect local business with local energy audit and retrofit efforts

Objective: Promote 5% energy efficiency in community for residential and commercial properties by 2020 to ensure energy reliability and maintain or decrease costs to ratepayers. *Note: this objective supports the PUC requirement that Black Hills Energy has to meet 5% energy efficiency by 2020*

- o **Action:** Implementation of IECC 2009 or greater for Regional building code to support energy efficiency (see Land Use and Built Environment section for building standards.)
- o **Action:** Develop mechanism to promote residential and commercial building energy audits and retrofits



Sustainability Strategies

RENEWABLE ENERGY

Goal: Advance Pueblo County as a Statewide Leader in Renewable Energy Generation

Objective: Strengthen economic development and create jobs through energy efficiency and renewable energy development in conjunction with Southwest Solar Transformation Initiative (SSTI) , Governor’s Energy Office (GEO), and Department of Energy (DOE) efforts

- o **Action:** Optimize development opportunities for renewable energy by the following:
 - Large scale to take advantage of existing transmission lines
 - District or industrial-scale installations to offset major users
 - Pueblo County Airport Industrial Park demonstration project for an energy district renewable energy development
 - Site-specific renewable energy applications
 - Colorado State Fairgrounds or other public facilities
 - Evraz Rocky Mountain Steel Mill
 - Vestas
 - Pueblo County reservoir

- o **Action:** Work with local utility providers to provide net metering to both residential and commercial consumers

- o **Action:** Track individual solar installations within the County using an existing database tool such as www.sunnyportal.com

- o **Action:** Develop ongoing partnerships for community outreach, workforce development, and new business development centered on energy efficiency and renewable energy

- o **Action:** Continue ongoing education efforts focused on efficiency and renewables similar to storm water education. Serve as a resource for smaller communities.



Land Use and Built Environment

"The greenest car is the one that is not needed for every trip to get from one place to another. Well-planned, compact development that reduces auto dependency is as critical to protecting the environment as cars that use less fuel."
— ULI Chief Executive Officer Rick Rosan.

LAND USE, BUILT ENVIRONMENT AND TRANSPORTATION

Pueblo County is a large and complex county in the State of Colorado that is also designated a Metropolitan Planning Organization (MPO). It has a population of 159,063, according to the 2010 United States Census facts. The total land area in square miles of Pueblo County is 2,386.10 with 66.7 persons per square mile.¹ In comparison, the State of Colorado has 5,029,196 in population and 103,641.89 square miles in land area with 48.5 persons per square mile.² Pueblo County is the 10th most populated County in Colorado with 90% of the population living within the urbanized areas of the City of Pueblo or Pueblo West.

Communities in Colorado benefit from the availability of land which is an asset from which communities can make sound investments. For the last several decades, with particular note in the early 1990's to early 2000's, Colorado's population drove land use towards unsustainable patterns of development that resulted in suburban sprawl.

Like many communities within the State, and across the nation, Pueblo County is shifting those sprawling patterns of land use and development to a more efficient land use pattern and development that focuses on compact, walkable, areas of value within the community that can be redeveloped to improve quality. The intent is that by focusing on areas within the County which are currently served by local government services and bring an identity to the community, these areas can be improved and raise the quality of life for residents. Like much of this *Strategic Sustainability Plan*, this is a shift in thought process and approach to planning, but one that the County recognizes is beneficial to the community now and in the future.

Pueblo County's land use patterns vary from urban to suburban, to rural and agricultural. The County recognizes that land use, the built environment, and transportation form the foundation of the community. Therefore, through this plan, it is a County priority to evolve goals that direct land use and development patterns so that they better serve the existing community and future generations.

¹ US Census Bureau, State and County Quick Facts <http://quickfacts.census.gov>

² Ibid



Sustainability Strategies

The County acknowledges the new federal livability priorities set forth by EPA's Sustainable Communities, HUD and the Department of Transportation. These livability principles are also acknowledged by the County at the State level through the Colorado Department of Local Affairs (DOLA):

- Intergovernmental and regional cooperation
- Mixed use development
- Linking affordable housing, transportation and land use
- Public health and safety
- Hazard mitigation
- Air and water quality
- Water supply

Livability principles, such as these, help to guide sustainable land use, built environment and transportation for the County. They set the framework and foundation from which the County can begin to plan a successful future for the community that takes into account all aspects of its man-made and natural environment. The County understands that as a community they will face many challenges moving forward and struggle daily with how to plan accordingly while creatively funding transit and infrastructure improvements. However, with these goals and objectives set forth, a framework is laid out to address such challenges at both the local government level and with the development industry.

When linking land use, built environment, and transportation, there are strong realities to be faced and gradual steps are recommended to move the County and community in the chosen direction. Following the lead of other communities in Colorado, the County also acknowledges top messages conveyed in Colorado regarding sustainability and the built environment, such as:

- How to make the built environment work for you instead of the other way around
- Design your day
- Is the built environment working for you or making you work harder?
- Do the places you live, learn, work and play work for you, or do they make you work harder?

These messages challenge the County, and community, to ask the most important question within this section of the plan, *'Can we (the County) provide a quality of life suitable for our communities through walkability, affordable housing and transportation choices, preservation of natural resources, and resistance to economic fluctuations?'*

As Pueblo County prepares to answer this question, it has set the following goal for this section of the *County Strategic Sustainability Plan*:

Goal: Implement smart growth and sustainable land use patterns within the community

Making the Connection

Through this *Strategic Sustainability Plan*, and provided herein, the information, goal, objectives and actions will address how the Pueblo Area Regional Plan and the County’s sustainability plan connect. Additionally, it will address how the County’s built environment and transportation play a significant role in land use and development patterns. Many of the goals, objectives, and actions listed at the end of this section also play a role in the ‘Public Health and Natural Environment’ section. Together these efforts direct the ultimate goal of creating a healthy, livable community for the future.

The Pueblo Area Regional Plan establishes general objectives and policies addressing where, and how, land development as well as conservation should occur. This plan is dated from 2002 with a planning horizon of 2030, when Pueblo County is anticipated to reach a total population of 200,000.³ The development plan is a joint venture of the City of Pueblo, Pueblo County, the Metro Districts of Pueblo West and Colorado City, the towns of Beulah and Rye, School Districts 60 and 70, the Pueblo Board of Water Works, and the Salt Creek Sanitation District under the auspices of the Pueblo Area Council of Governments.⁴

Through the sustainability planning process, it was realized by the City and County of Pueblo, as well as other involved communities, that the Pueblo Area Regional Plan does little to provide for and address a framework for sustainable development. It does not address the need to meet land capacity and projected needs of the community while linking transportation and housing choices. Therefore the County Planning and Development Department and the City of Pueblo Planning department are pursuing the appropriate actions to begin the update of the Pueblo Area Regional Plan with the intention of this update to be completed no later than 2014.

Land Use

Population drives land use, and therefore changes. It is certain that the population in Pueblo County will continue to grow as will the need for development. Through this planning process it was identified by the County that not only does the Pueblo Area Regional Plan need to be updated; it should address smart growth principles that meet the needs of current and future land use patterns. Highlights of this discussion and planning process can be summarized in the following:

- Connecting the economic engines of the community
- Focusing on core areas
- Improving corridors and connections providing transportation options for residents

The State of Colorado has worked with the EPA and their office to support local governments in creating a Colorado “Smart Growth Scorecard”. This resource enables local communities to assess their levels of smart growth so they can take action to move sustainability into the future by balancing the interconnectivity between land use, transportation and the built environment.⁵

³ Pueblo Area Regional Plan, July 25, 2002

⁴ Ibid

⁵ Colorado Smart Growth Scorecard
http://www.epa.gov/dced/scorecards/Colorado_Scorecard.pdf



Sustainability Strategies

Pueblo County is focused on using their land wisely. This means that of the 2,386.10 square miles of County land area, which consists of varied land use patterns from urban to suburban, rural to agricultural, direction and emphasis is given to efficiencies in urban form, location and configuration of all future development. Emphasis will be on development and intensification around neighborhood core areas identified through levels of activity, well-designed spaces, housing types, transit options and more. Renewal and rehabilitation of such areas may occur and become a priority with contiguous urban expansion driving the direction rather than sprawl.

Ultimately, this newly formed direction calls for clear integration of land use, transportation and the built environment establishing links between neighborhood core areas, outlying suburban and rural areas with employment centers and centers of activity. With the stated goal, objectives and actions in this section, an increased level of coordination between all levels of regional governance, including City and County agencies will be required.

Definition of Smart Growth:

Smart Growth encapsulates the qualities that make communities great places to live – thriving downtowns, vibrant public spaces, distinctive architecture, healthy natural environments – and give them a unique sense of place. The pattern of growth and development over the last century, often referred to as sprawl, threatens these qualities in many communities making them look much like the other. This sprawling, cookie-cutter pattern of development has also resulted in clogged highways, isolated residential subdivisions, sedentary lifestyles, and inequitable investment to the detriment of urban areas and downtowns across the country.

Source: Colorado Smart Growth Scorecard,
http://www.epa.gov/dced/scorecards/Colorado_Scorecard.pdf

Smart Growth Place Types

- *Metropolitan Center*
- *Urban Center*
- *Town Center*
- *Community Center*
- *Mixed Use Transit Corridor*
- *Special Use Center*
- *Rural Village*

Built Environment

Definition of Built Environment:

Human-made surroundings, ranging in scale from person shelters and buildings to neighborhoods and cities.

Source: Definition of Built Environment from Sustainable Roundtable Discussions - State of Colorado

For the purposes of this plan, the built environment encompasses the residential, commercial, industrial and government sector buildings. It also takes into account infrastructure to provide services throughout the County. In Pueblo County, the built environment consumes more than 70% of the total amount of energy consumed throughout the County. Moreover, the built environment connects most aspects of sustainability discussed in this plan including water, waste, energy, land use, public health and transportation. It is the apex of the community's daily life and shapes its foundation towards sustainability.

As of 2010, Pueblo County reported an estimated 68,923 dwelling units, which translates to approximately 2.9 persons per unit. It also reported an estimated 2,769 commercial building units. Each of these building units are governed under some of the most advanced, national building codes as adopted by the Pueblo Regional Building Department⁶ (PRBD), including IECC 2009. IECC 2009 brings technological and process advancements in the built environment that have substantial environmental and economic benefits ranging from new energy technologies to effective development of processes such as waste disposal.

Implementing this code has enabled Pueblo County and the community to embrace forward-thinking building practices that incorporate energy efficiency and encourage green building criteria. These practices reflect a mindset that Pueblo County makes building sustainably a priority. The County has already built one LEED certified building, the Pueblo City-County Health Department building, and is in the process of building another LEED building, the Justice Center.

Pueblo County, the City of Pueblo and the Pueblo school district have all entered into Energy Performance Contracts (EPC) within the last several years. These contracts have leveraged funding to retrofit many existing government operated and owned buildings with energy efficiency applications. Additionally one of the County's largest utility providers, Black Hills Energy (BHE), offers energy audits for non-profit organizations and some commercial buildings. Pueblo Community College offers several workforce-training programs for professionals to gain education and experience in energy efficiency applications. Pueblo Housing and Human Services (HHS) operates a long-term weatherization program that provides energy efficiency audits and updates to those households with qualifying incomes. Programs like these help to improve the existing built environment and reduce energy consumption and waste, which drives the community closer to its goals within this plan.

⁶ Pueblo Regional Building Department, www.prbd.com



Sustainability Strategies

Through this planning process, it was identified that the County would like to pursue more aggressive policy that requires new development or retrofitting of existing development to meet or exceed green building and Energy Star⁷ criteria for the built environment. Actions have been identified to proceed with this effort and serve as a way to measure the County's achievements moving forward.

Transportation

The five “Ds” of compact development—density, diversity, design, destination, and distance to transit—can lead to 12 to 18 percent reductions in vehicle miles travelled by 2050.

Urban Land Institute

Through the *County Strategic Sustainability Plan*, Pueblo County is addressing transportation as a way to move people not just move automobiles. This vision is replicated throughout progressive communities in Colorado and one that Pueblo County resonates with. Within this plan, the County called out the following objective to meet this direction:

Link transportation to people improving connectivity and mobility on the existing system and with new development while focusing on activity hubs and economic drivers

According to the 2008 US Census Bureau's American Community Survey, 8.9% of Pueblo households do not have access to a motor vehicle whereas 23.5% have access to three or more vehicles. Furthermore, 91% of the 65,000 workers living in Pueblo County work in the County whereas 6,000 workers commute daily outside the County to work in areas such as El Paso County and Fremont County⁸.

Five actions identified through this planning process focus on transportation infrastructure development to provide for an increased need in alternative transportation choices. These are as follows:

Action: Increase ridership through improved access to mass transit, such as the addition of commuter-hour bus loops or shuttles in outlying communities

Action: In coordination with PEDCO, local chamber of commerce, local universities, and workforce providers, support the formation of a carpool network throughout the County

Action: Require integration of alternative transportation in all new development and transportation infrastructure improvements

⁷ www.energystar.gov

⁸ Pueblo Area Regional Plan, July 25, 2002



Action: Attract and form a ‘car share’ program

Action: Work in partnership with Colorado Department of Transportation (CDOT) to support smart growth and sustainable land use patterns in transportation projects within the County

Much discussion, with both the Core Committee and Community Action Group, was given to the need to analyze current bus loops to determine whether or not they adequately serve residents outside of the larger urbanized areas of Pueblo West and the City of Pueblo. Additional consideration and discussion was given to the desire for increased bicycle lanes along popular transportation routes. Increased bicycle racks and support by employers for bicycling is desired as well. Pueblo currently celebrates ‘National Bike to Work’ day, however much needed support is necessary to continue and grow this effort so that it reaches a greater percentage of the community population. Finally, the community realizes that an automobile will be a common choice for transportation amongst its residents. However, the opportunity to create a ‘car share’ program could provide alternative options for reduced vehicle miles traveled (VMT) within the community. Support from both regional governance, non-governmental organizations, and major employers would be welcomed to encourage this opportunity for residents.

Vehicle travel on Colorado State Highways increased by 55% between 1990 and 2009, from 17.7 billion VMT to 27.4 billion VMT. Vehicle travel on Colorado State Highways is projected to increase by another 64% by 2035, to 44.9 billion vehicle miles of travel.

In 2009, the average delay in congested corridors was 17 minutes per commuter. That average delay is expected to increase to 48 minutes by 2035.

Source: Colorado Division of Transportation Development





Sustainability Strategies

Fuel Efficiency and Transportation

As the County examines opportunities to face challenges presented by rising costs in fuel consumption and vehicle maintenance, through this plan they are proposing an aggressive approach to reducing fuel costs and emissions.

Implement a vehicle fleet fuel-efficiency and zero emissions program in County-owned and operated vehicles

Currently, the County Fleet department takes measures to improve fuel efficiency in both off road and on road vehicles. However, they are working towards a 'zero emissions' effort and including these initiatives throughout their vehicle procurement policy, driving requirements for County employees, and ongoing maintenance of all vehicles.

The following three actions have been identified to proceed with the implementation of this objective:

Action: Conduct a fleet inventory analysis of County-owned and operated vehicles (on and off-road) to create a baseline

Action: Develop a yearly program for fleet inventory alternative fuel replacement and carpool or car-sharing opportunities (funding opportunities can be pursued through local Clean Cities program)

Action: Coordinate alternative fuel and fuel efficiency program development with County communities such as Pueblo West, City of Pueblo, Colorado City, etc such as shared alternative fuel stations

Each of these actions will enable the County to reach its objective of achieving a zero emissions program with integrated fuel efficiency.



LAND USE, BUILT ENVIRONMENT AND TRANSPORTATION GOALS, OBJECTIVES AND ACTIONS

Goal: Implement smart growth and sustainable land use patterns within the community

Objective: Use land in Pueblo County wisely with focus on linkages between transportation, housing, natural resource conservation, agricultural production and economic development

- o **Action:** Update the Pueblo Area Regional Plan, in partnership with the City of Pueblo, and incorporate Pueblo County Strategic Sustainability Plan to better integrate planning and prioritize investments for the future
- o **Action:** Focus on retrofitting and revitalizing developed communities in Pueblo County to provide support, value, and promote smart growth
- o **Action:** Promote infill development by exploring incentives and addressing the costs of infrastructure
- o **Action:** Prioritize infrastructure and service delivery to infill and redevelopment areas with consideration of varying standards throughout the County while weighing resource commitment from both the local government and private entities involved
- o **Action:** Implement energy efficient building codes, IECC 2009 or greater, for new construction and remodeling throughout the County
- o **Action:** Encourage green building business as usual in the new construction and remodel market
- o **Action:** Develop Pueblo County as a 'regional alliance in sustainability' with the State of Colorado Alliance
- o **Action:** Develop County/City regulatory policies to provide for varied housing types to meet the needs of the community
- o **Action:** Explore community food assessments with program support from the Colorado Department of Public Health and Environment (CDPHE) to local food production within the community



Sustainability Strategies

Objective: Link transportation to people improving connectivity and mobility on the existing system and with new development while focusing on activity hubs and economic drivers

- o **Action:** Increase ridership through improved access to mass transit, such as the addition of commuter-hour bus loops or shuttles in outlying communities
- o **Action:** In coordination with PEDCO, local chamber of commerce, local universities, and workforce providers, support the formation of a carpool network throughout the County
- o **Action:** Require integration of alternative transportation in all new development and transportation infrastructure improvements
- o **Action:** Attract and form a 'car share' program
- o **Action:** Work in partnership with Colorado Department of Transportation (CDOT) to support smart growth and sustainable land use patterns in transportation projects within the County

Objective: Implement a vehicle fleet fuel-efficiency and zero emissions program in County-owned and operated vehicles

- o **Action:** Conduct a fleet inventory analysis of County-owned and operated vehicles (on and off-road) to create a baseline
- o **Action:** Develop a yearly program for fleet inventory alternative fuel replacement and carpool or car-sharing opportunities (funding opportunities can be pursued through local Clean Cities program)
- o **Action:** Coordinate alternative fuel and fuel efficiency program development with County communities such as Pueblo West, City of Pueblo, Colorado City, etc such a shared alternative fuel stations



Public Health and Natural Environment

The health of a community relates directly to the well being of its citizens, the quality of its physical environment, and the ability to thrive economically. As stated in the Pueblo City-County Health Department (PCCHD) mission, the Health Department is committed to promoting the health and protecting the environment of the people of Pueblo County. PCCHD realizes the public health system is much broader and encompasses community partners and organizations serving the citizens of Pueblo County. Improving the health of the community and the environment will require partnerships and resources from entities and individuals throughout the County.

In 2011, the PCCHD prepared the *Community Health Status Report*¹. This report assimilates over 60 health indicators and summarizes the strengths and weaknesses of Pueblo's public health system. Based on the 60 indicators, two priorities were identified for the next five years. These priorities are reducing obesity and reducing teen and unintended pregnancy. The PCCHD is now utilizing the Status Report to create a Community Health Improvement Plan. This plan will be completed in August 2012 and will guide progress over the next five years.



On a statewide level, the State Office of Economic Development and International Trade (OEID) was directed by Governor Hickenlooper to conduct a new statewide economic development strategy. The strategy relies heavily on local collaboration. The result of this effort is the *Colorado Blueprint*², published in early 2012. The Blueprint will guide the State's assistance with economic development on a local and regional level. Key goals from the Region 7, Pueblo County section of the Blueprint, relate to **Public Health and the Natural Environment**.

Health and natural environment issues intersect and overlap. The development of five goals related to these areas will help advance quality of life for citizens of Pueblo County.

¹ Pueblo City-County Health Department *Community Health Status Report*
<http://county.pueblo.org/sites/default/files/documents/Status%20Report%202011%20Final.pdf>

² Colorado Office of Economic Development and International Trade *Colorado Blueprint*
<http://www.colorado.gov/cs/Satellite/OEDIT/OEDIT/1251595201376>



Sustainability Strategies

Goals

- **Reduce Obesity in Pueblo County**
- **Reduce Teen Pregnancy and Unintended Pregnancy in Pueblo County**
- **Improve Environmental Indicators in Pueblo County**
- **Promote Pueblo as a Regional Health Care Destination (Colorado Blueprint)**
- **Promote Local Agriculture in Pueblo County to Improve Local Economy and Consumption of Locally Sourced Food**

PUBLIC HEALTH

Public health services in Pueblo County have been provided by the PCCHD for more than 50 years. The policies and operations of the PCCHD are led by a five-member Board of Health appointed by Pueblo City Council and Pueblo Board of County Commissioners. PCCHD directly serves over 78,000 individuals through programs in four Divisions: Operations and Administrative Support, Community Health Services, Disease Prevention and Emergency Preparedness, and Environmental Health.

The main challenges of the PCCHD are similar to the challenges faced throughout the country. The U.S. Center for Disease Control (CDC) developed a list of public health priorities where federal, state, and local agencies can partner to make significant progress in a short timeframe. This list of six ‘Winnable Battles’ is expanded upon in the State of Colorado’s “10 Winnable Battles”. The top health concerns Pueblo will be addressing correspond to these 10 key areas:

- Clean air
- Clean water
- Infectious disease prevention
- Injury prevention
- Mental health and substance abuse
- Obesity
- Oral health
- Safe food
- Tobacco
- Unintended pregnancy

The key intentions of addressing these winnable battles are to improve quality of life and increase life expectancy. Additional benefits include improving education levels and socioeconomic status. Goals related to improved community health create a desired outcome of healthy, sustainable lifestyles for Pueblo County residents.



There are several strategies to address the winnable battles, including providing education, improving access to care, encouraging lifestyle changes, and safeguarding the natural environment. Efforts will not only benefit current citizens of Pueblo, but will also accrue to future generations by encouraging an active, productive community. Addressing health and wellness advances a thriving community where people are drawn to live, work, and play.

The PCCHD *Community Health Status Report* provides a baseline of existing conditions. The report provides an overview of the following:

- Physical Environment
- Social Factors
- Health Factors and Behaviors
- Behavioral Health
- Access, Utilization, and Quality of Care
- Population Health Outcomes

The information contained in the report helps identify current issues, which were used to develop the overall goals. Specific objectives relate to findings in the report.

Physical Environment

- National benchmark 17 recreational sites per 100,000 people; Pueblo has 8 sites per 100,000 people
 - Availability of recreational sites can impact individual choices to engage in physical activity
- Objective: Increase trails and ease of use in parks**

Social Factors

- Pueblo County ranks closely with the State of Colorado with per capita spending on public health

Health Factors and Behaviors

- 23 percent of residents over age 18 are overweight or obese, which is higher than the state average (19 percent) but lower than the national average (25 percent)
- 32.8 percent of children ages 2-14 are overweight or obese

Objective: Convene a group of diverse community partners and individuals to create a Community Health Improvement Plan outlining how Pueblo County should address obesity over the next five years

Objective: Create a comprehensive list of obesity initiatives currently occurring in Pueblo County including who is responsible for the initiatives, population served, information tracked and more



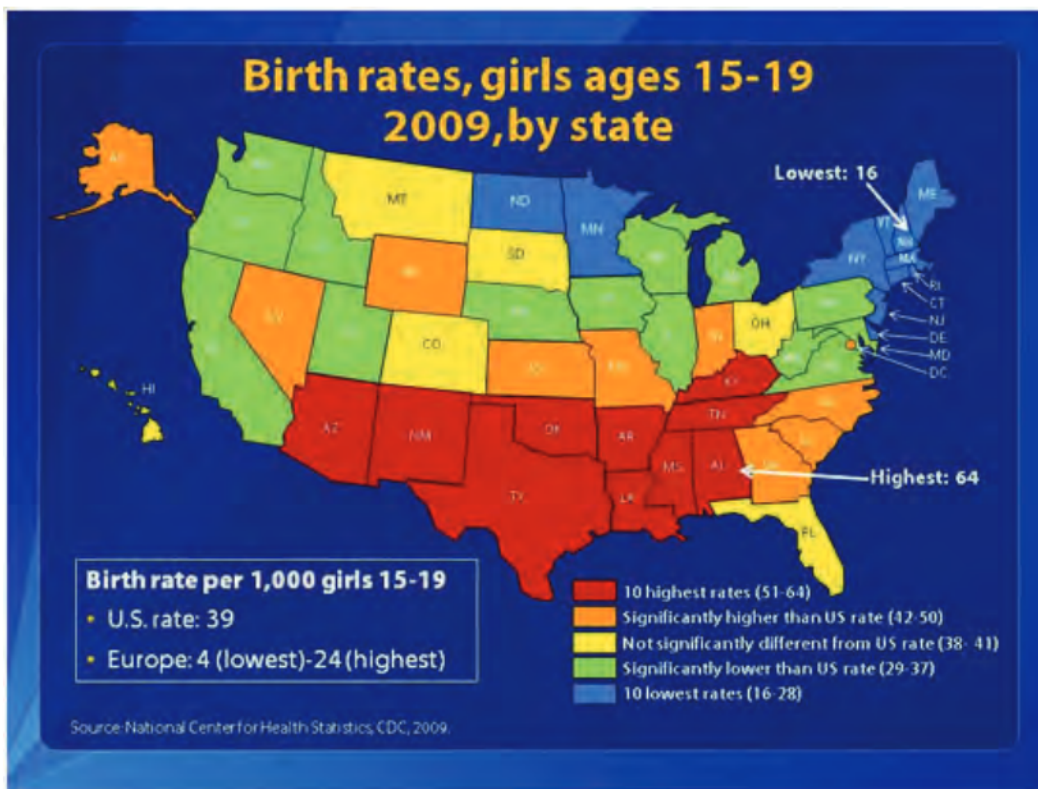
Sustainability Strategies

- Children ages 5-14 currently average the highest for hours of physical activity per week when compared to Mesa and Weld counties and the state
- 17 percent of all live births in Pueblo County are to teen girls, which is higher than the Colorado average

Objective: Convene a group of diverse community partners and individuals to create a Community Health Improvement Plan outlining how Pueblo County should address teen pregnancies and unintended pregnancy among 20-24 year olds over the next five years

Objective: Ensure current programs to address teen and unintended pregnancies are aligned as much as possible

Objective: Ensure school districts are aware of current state standards regarding sexual health education in schools and take action to comply with standards



- Babies born weighing less than 5 pounds, 8 ounces, are considered low birth-weight, and are at risk for serious health problems. 9.3 percent of babies born in Pueblo County were born low birth-weight, higher than the 8.3 percent national average



Behavioral Health

- Mental health issues can lead to substance abuse and suicide. Substance abuse has been cited as a concern by the Pueblo community. Suicide rates in Pueblo County are also a concern and exceed the national rates.
- Childhood mental health, defined as the achievement of expected milestones and social relationships, is a concern, with 24.9 percent of parents reporting problems with their children.
- Pueblo County residents reported an average of 3.9 poor mental health days per month, compared to a national benchmark striving for 2.3 poor mental health days.
- Bad mental health days exceeding 8 days was at 31 percent for Pueblo County residents ages 18-24.
- Overall health as a general quality of life issue as reported to be fair or poor by 15.9 percent of adults in Pueblo. The national benchmark is 10 percent.

Access, Utilization, and Quality of Care

- Oral health for ages 0-5 (28 percent) and 18-34 (33 percent) were far below state levels and the national goal of 49 percent
- 13.6 percent of Pueblo County residents are uninsured, however 95.7 percent of children eligible for Medicaid/Colorado Health Plan Plus are enrolled
- Pueblo County is slightly over the national average statistics for the number of physicians, Registered Nurses, and Nurse Practitioners per 1,000 people

Objective: Create Centers of Excellence to provide health care services to meet regional needs

Objective: Encourage a wide range of Pueblo County students to pursue careers in health-related fields by supporting post-secondary education opportunities for local students

Population Health Outcomes

- The cancer rate in Pueblo County is 478.9 diagnoses per 100,000 people, which exceeds the Colorado average of 437.9 diagnoses per 100,000 people
- Type 2 diabetes rate (7.4 percent) exceed the state average (5.4 percent)
- In Pueblo County, the occurrence of cardiovascular disease is 11.8 percent higher than the Colorado average
- Sexually transmitted infections (Chlamydia and gonorrhea) occur at higher rates in Pueblo County versus the Colorado average
- Pueblo's overall life expectancy is 77 years, which is lower than the Colorado average of 80.1 years

Objective: Ensure quality and diverse medical providers and health care professionals are available to serve Pueblo County residents



Sustainability Strategies

NATURAL ENVIRONMENT

The quality of the natural environment provides basic elements necessary for good quality of life. Contaminant-free soil, air, and water, are the foundation for a healthy and productive community. This section reviews the condition of resources including:

- Vegetation
- Air
- Water Availability
- Water Quality
- Potential Exposure Concerns
- Resource Conservation
- Local Agriculture

Vegetation

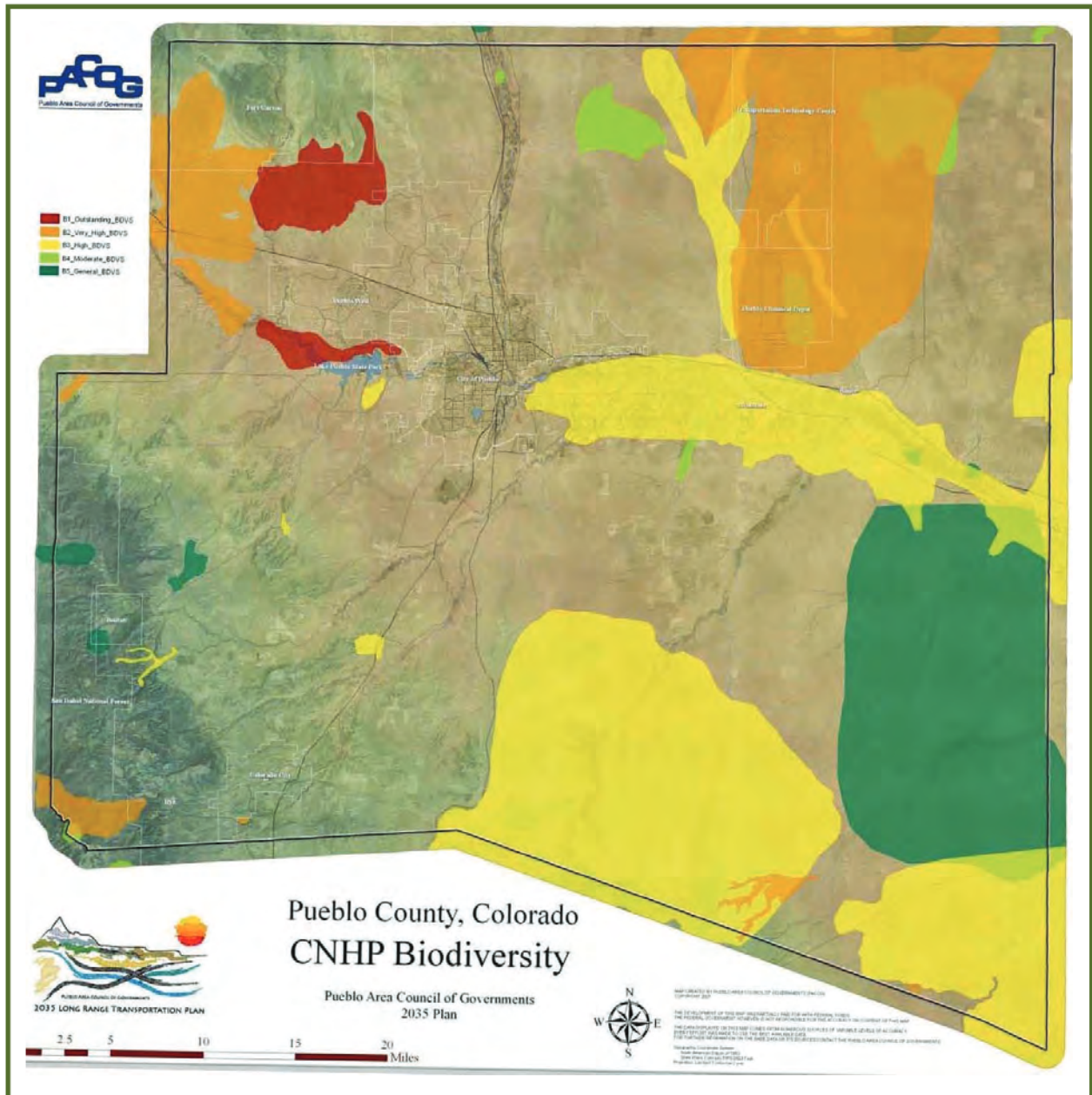
According to the USEPA, 94% of Pueblo County is located in the Southwestern Tablelands Ecoregion, which encompasses the southern reaches of Colorado's Front Range. An ecoregion denotes an area where ecosystems (a community of living and non-living things that work together) are generally similar.

Characteristics of the Southwestern Tablelands Ecoregion include canyons, mesas, badlands, and dissected river breaks. According to USEPA's description, most of the Southwestern Tablelands is in sub-humid grassland and semiarid range land, with little land used for crops. The typical natural vegetation is grama-buffalo grass, with a mesquite-buffalo grass mix in the southeast, juniper and scrub oaks on bluffs, and midgrass prairie with low shrubs along rivers.

The Colorado Natural Heritage Program assessed biodiversity within Pueblo County and mapped resources as part of the Inventory of Critical Biological Resources in the Upper Arkansas Watershed 1999 Final Report. Biodiversity benefits humans by supporting the natural ecosystem services provided by the environment. These services include air quality, soil stabilization and erosion control, and water purification. The following graphic indicates areas within Pueblo County with the highest rates of biodiversity, depicted in red.

Sustainability Strategies

All areas shown on this map should be considered part of a resource protection and management plan. The document recommends conserving biodiversity by protecting all levels of diversity: genetic, species, community, and landscape. The protection of existing resources must be considered in conjunction with siting new development.





Sustainability Strategies

Air

Air quality in Pueblo County is measured, tracked, and reported by the Colorado Department of Public Health and Environment's Air Pollution Control Division (APCD). The APCD maintains two particulate matter monitoring sites in Pueblo County, located at 211 D Street and at the Fountain Magnet School, 925 N. Glendale Ave. No gaseous monitoring sites are located in Pueblo County.

Particulate matter, also known as particle pollution, includes microscopic solids and liquid droplets suspended in air. It is made up of metals, organic chemicals, soil or dust particles, and allergens such as pollen and mold spores. Some particles are carcinogenic and some have effects on health due to size and other factors. Particle size is directly linked to the potential to cause health problems. The 2010 Annual Data Report states that Pueblo did not violate the annual average primary standard (USEPA 2010) for particulate matter.

Objective: Maintain the status of not exceeding the National Ambient Air Quality Standards in Pueblo County

Radon is found in outdoor air and indoor air of buildings and homes. Although it is colorless, odorless, and tasteless, radon is estimated to cause 21,000 lung cancer deaths per year nationally. Pueblo County homes have an average reading of 8.9 pCi/L. The EPA recommends mitigating homes with levels between 2-4 pCi/L. Sixty-seven percent of homes in Pueblo tested above this level.

Objective: Reduce radon exposure in Pueblo County residences

Water Availability

The average annual rainfall in Pueblo County is 11.2 inches, which is considered to be semi-arid desert. Pueblo's water comes from the Rocky Mountains via the Arkansas River. The water is stored in Lake Pueblo and treated and filtered at the Whitlock Treatment Plant. Operations are directed by a five member Pueblo Board of Water Works (BOWW) elected by the citizens of Pueblo. Pueblo West's water needs are served by the Pueblo West Metropolitan District.

The Board of Water Works (BOWW) has water supply in excess of its current needs. New growth in Pueblo will be accommodated by the currently excess supply and the BOWW has various strategies in place to continue reliable water service to a growing population. These strategies include: conservation, reuse, transfer of agricultural water rights to municipal use, and increased water storage. It is not anticipated that population growth in Pueblo will be limited by water supply in the foreseeable future.

Furthermore, the Pueblo Board of Water Works is one of a number of entities assisting in planning for a Source Water Action Plan (SWAP) and Non-Point Source Integration Action Plan. The Upper Arkansas Area Council of Governments is spearheading this effort.



A project to deliver water from the Pueblo Reservoir to the City of Colorado Springs, City of Fountain, Security Water District, and Pueblo West Metropolitan District (Participants) was recently approved by the U.S. Bureau of Reclamation. The project, known as the Southern Delivery System (SDS), would deliver Frying Pan-Arkansas (Fry-Ark) Project water and non-Fry-Ark Project water from the Arkansas River near the City of Pueblo to the Participants' service areas. The project is proposed in order to provide a safe, reliable and sustainable water supply for the Participants through the foreseeable future. Three needs fulfilled by the SDS include:

- To use developed and undeveloped water supplies to meet most or all projected future demands through 2046
- To develop additional water storage, delivery, and treatment capacity to provide system redundancy
- To perfect and deliver the Participants' existing Arkansas River Basin water rights

The proposed SDS Project would impact Pueblo County by constructing new pipelines and treatment facilities. It also would utilize existing structures to convey water.

Water Quality

Pueblo's water supply is routinely monitored and reported to the public in an annual water quality report. Over the past four years, reports show that the water contained low levels of Barium, Nitrate, and Selenium; however no violations or enforcement actions occurred.

Surface water concerns include the listing of portions of Fountain Creek as an impaired water body. The listing on the 303(d) list is caused by the failure to meet federally-defined water quality standards. Water quality concerns focus on two parameters: the bacteria *E. coli* and the mineral selenium. Mercury is also found in the creek.

E. coli is a result of animal and human waste being present in the water. Selenium is a natural element occurring in bedrock and soils, and is traced to natural dissolution from the Pierre Shale formation³. While selenium has been shown to cause birth defects in fish and birds, no effects have been noted in Fountain Creek. The Fountain Creek Watershed District formed the Vision Task Force in 2006 to address water quality issues. The district has developed a strategic watershed plan entitled the 2009 Fountain Creek Watershed Plan⁴.

A significant responsible party to this objective and related action will be the Fountain Creek Watershed Flood Control and Greenway District. They will be a major force in achieving improvements to the water quality and environmental and aesthetic improvements on Fountain Creek.

Objective: Assure adequate water quantity for area uses by agriculture, businesses and residents and improve water quality to meet state water quality standards

³ PACOG 2011 Water Quality Management Plan, Pueblo County and Pueblo Area Council of Governments, prepared by RNC Consulting, LLC

⁴ <http://www.fountain-crk.org/>



Sustainability Strategies

Potential Exposure Concerns

Certain industrial and military uses are associated with risks for exposure to toxins. The Pueblo Chemical Depot (PCD) is a U.S. Army installation 14 miles east of Pueblo. The current mission of the PCD is the storage of chemical munitions. The site stores 2,611 tons of mustard, a blister agent. The Army is currently assessing viable technologies for the disposal of the chemical weapons stored at PCD. Environmental Impact Statements are being developed and reviewed for the various impacts and alternatives available. Closure is anticipated to occur within five years.

The Colorado Department of Public Health and Environment pursued an environmental enforcement settlement with Rocky Mountain Steel Mills in 2009. The settlement funds are being used for mercury reduction initiatives and research in Pueblo County.

The Colorado Smelter site, operated by the American Smelting and Refining Co. (ASARCO) is located south of Downtown Pueblo. Soil at 47 houses east and south of the site have arsenic and lead levels well in excess of typical background levels. Pueblo City Council is considering a request by the Colorado Department of Public Health and the USEPA to support having the site added to the Superfund list.

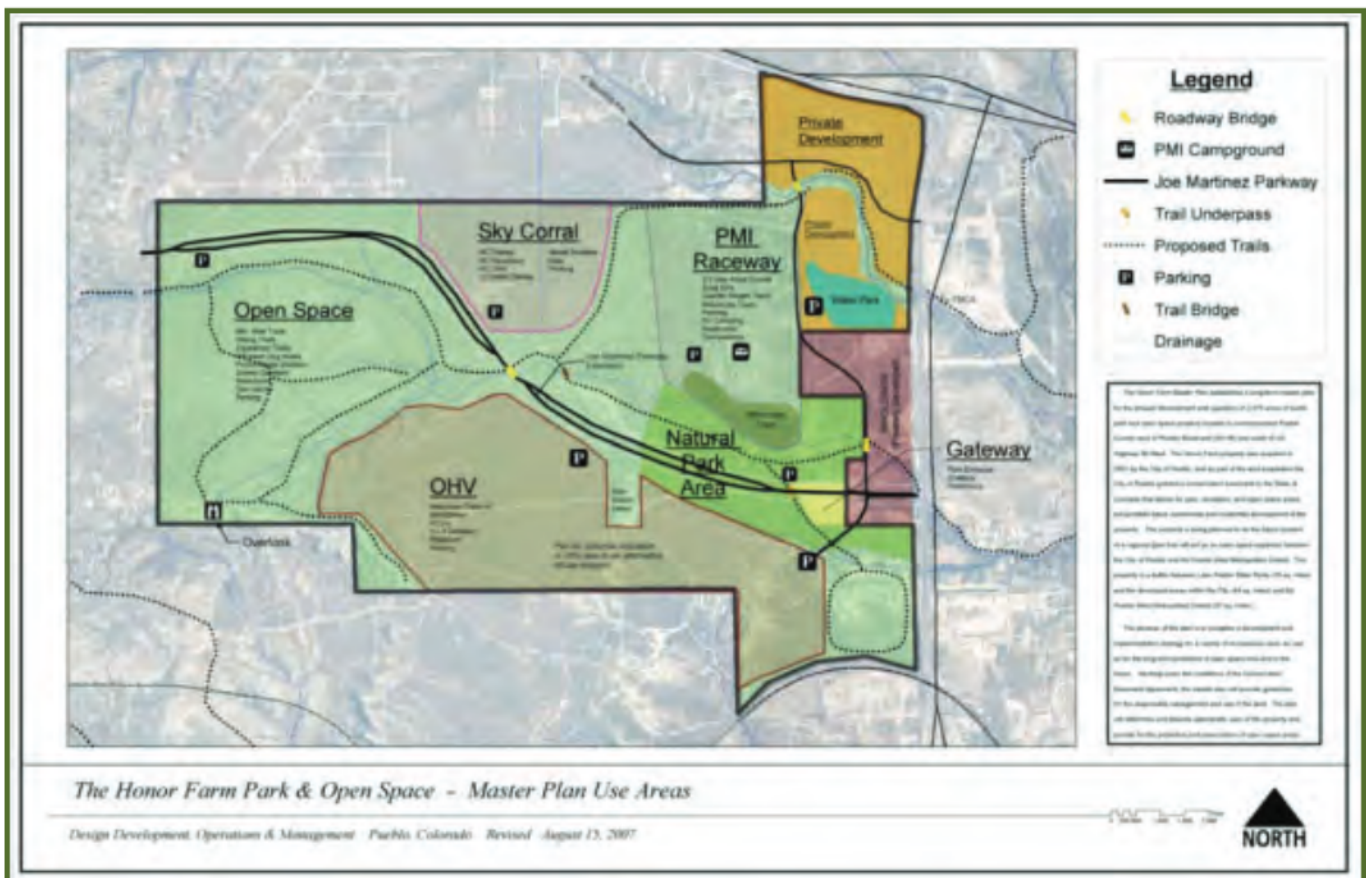
Resource Conservation

The Pueblo Board of Water Works (BOWW) promotes the wise use of water, including xeriscaping, low-flow fixtures, and limiting household use. Efforts to protect surface water quality are promoted by the City and the County through regional, collaborative efforts. Storm water education and litter prevention programs have been held in area schools. An informational booth was hosted at the Colorado State Fair. In addition, the Pueblo City-County Health Department posted signs and distributed flyers to educate the public about issues pertaining to Fountain Creek.

Proactive stewardship of air, water, trees, and soil resources yields valuable dividends at little cost. Direct benefits include recreation and tourism value, agriculture and economic development, and most importantly, human health. Healthy natural systems provide functions that are key for community development and quality of life.

Sustainability Strategies

Honor Farm is a 2,373-acre park and open space area purchased from the State of Colorado in 2001. A Master Plan adopted in 2007 sets the framework for the responsible management and uses of this tract, which is part of a Conservation Easement Agreement with the State of Colorado. The plan creates a long term strategy for the use of the Sky Corral and PMI Motor Sports Park as well as the protection and preservation of open space.





Sustainability Strategies

Local Agriculture



Agriculture is celebrated in the annual Wild Wild West Festival in May and the Pueblo Chili and Frijole Festival every fall. Farms on the Saint Charles Mesa east of town are famous for their Pueblo chiles, which can be purchased at local farmers markets, direct from farms, or at road-side stands. Other food products produced in Pueblo County include vegetables, fruits, wheat, corn, dairy, poultry, and beef.

The Pueblo County Commissioners adopted a resolution supporting agriculture called the Right to Farm and Ranch Policy. The resolution specifically protects the operations associated with ranching, farming, and agricultural operations, including open range livestock, open irrigation ditches, and other practices. The resolution adopts a mediation process to address potential disputes between residents, and a public education and information campaign about the Right to Farm Policy is being pursued in partnership with Colorado State University Cooperative Extension. A Guide to Rural Living publication prepared by the Pueblo County Sheriff's Office of Emergency Services Bureau is also available.

Objective: Coordinate efforts between local agencies, local producers, and consumers

Objective: Promote a USDA Know Your Farmer, Know Your Food (KYF2) program

Objective: Develop a collaboration between schools and local farmers



PUBLIC HEALTH AND NATURAL ENVIRONMENT GOALS, OBJECTIVES AND ACTIONS

Goal: Reduce Obesity

Objective: Convene a group of diverse community partners and individuals to create a Community Health Improvement Plan outlining how Pueblo County should address obesity over the next five years.

- o **Action:** Obesity work team will meet to decide on evidence based strategies to implement within Pueblo County

Objective: Create a comprehensive list of obesity initiatives currently occurring in Pueblo County including who is responsible for the initiatives, population served, information tracked and more.

- o **Action:** Conduct survey with community partners and organizations; create database of information; share database
- o **Action:** Analyze gaps in service based on current initiatives
- o **Action:** Determine ways to address gaps identified

Objective: Increase trails and ease of use in parks

- o **Action:** Determine parks in need of improved trails and resources necessary to add trails in order to increase and ease the use of parks

Goal: Reduce Teen and Unintended Pregnancy

Objective: Convene a group of diverse community partners and individuals to create a Community Health Improvement Plan outlining how Pueblo County should address teen pregnancies and unintended pregnancy among 20-24 year olds over the next five years

- o **Action:** Teen and Unintended Pregnancy work team will meet to decide on evidence based strategies to implement within Pueblo County
- o **Action:** Enhance teen and community involvement and feedback on plan

Objective: Ensure current programs to address teen and unintended pregnancies are aligned as much as possible

- o **Action:** Ensure work team has knowledge about current programs or initiatives and their goals
- o **Action:** Discuss how to reduce duplication and help achieve goals



Sustainability Strategies

Objective: Ensure school districts are aware of current state standards regarding sexual health education in schools and take action to comply with standards

- o **Action:** Meet with school district boards to provide education on state standards
- o **Action:** Provide technical assistance as necessary to assist with changes required by school districts

Goal: Improve Environmental Indicators

Objective: Maintain the status of not exceeding the National Ambient Air Quality Standards in Pueblo County

- o **Action:** Continue to monitor for Particulate Matter (PM) size of 10 microns or less as well as PM 2.5 as recommended by the Air Quality Control Division at the Colorado Department of Public Health and Environment.
- o **Action:** Implement special monitoring studies as issues arise concerning special types of contaminants such as Mercury whenever opportunities arise to monitor.
- o **Action:** Implement safe streets and promote incentives to encourage people to choose to bike or walk to work, leaving their vehicle behind at least one day a week.

Objective: Assure adequate water quantity for area uses by agriculture, businesses and residents and improve water quality to meet state water quality standards

- o **Action:** Establish watershed units associated with Pueblo West, Lake Pueblo, and the Arkansas River to more closely match the intent of the Colorado Storm Water Quality Master Plan
- o **Action:** Continue implementation of recommendations from the 2009 Fountain Creek Watershed Plan



Objective: Reduce radon exposure in Pueblo County residences

- o **Action:** Adopt a modified version of Appendix F of International Residential Code to include radon resistant new construction for new single- and two-family dwellings to include a passive radon mitigation system



Goal: Promote Pueblo as a Regional Healthcare Destination

Objective: Create Centers of Excellence to provide health care services to meet regional needs

- o **Action:** Form a consortium of health care providers and educators to identify current and emerging needs for Pueblo County and surrounding areas; develop specializations in appropriate care facilities

Objective: Encourage a wide range of Pueblo County students to pursue careers in health-related fields by supporting post-secondary education opportunities for local students

- o **Action:** Sponsor scholarships for local students, host summer health camps and presentations

Objective: Ensure quality and diverse medical providers and health care professionals are available to serve Pueblo County residents

- o **Action:** Actively recruit physicians and health care professionals
- o **Action:** Work with local Chambers of Commerce to develop informational packets to assist in recruitment

Goal: Promote Local Agriculture in Pueblo County to Improve Local Economy and Consumption of Locally Sourced Food

Objective: Coordinate efforts between local agencies, local producers, and consumers

- o **Action:** Develop a Leadership Council to promote and market agricultural products

Objective: Promote a USDA Know Your Farmer, Know Your Food (KYF2) program

- o **Action:** Conduct outreach and education in local K-12 schools, at area festivals, and at Pueblo County Farmers Markets

Objective: Develop a collaboration between schools and local farmers

- o **Action:** Host meetings to determine feasibility of a local food hub for distribution of local produce





Materials Management and Waste Diversion

Management of materials and waste generated by any community, including Pueblo County, contributes to multiple facets of sustainability such as energy consumption, natural resource conservation, public health, and more. The County’s approach to materials and waste diversion is to consider impacts across the full life cycle, not just end of life, and to consider actions and interventions across the full life cycle, not just discards management such as waste going into landfills. Strategies to manage and treat waste are equally important with the ultimate goal of diverting the bulk of solid waste from landfills, as stated below:

Goal: Reduce solid waste from County operations and divert materials from County landfills

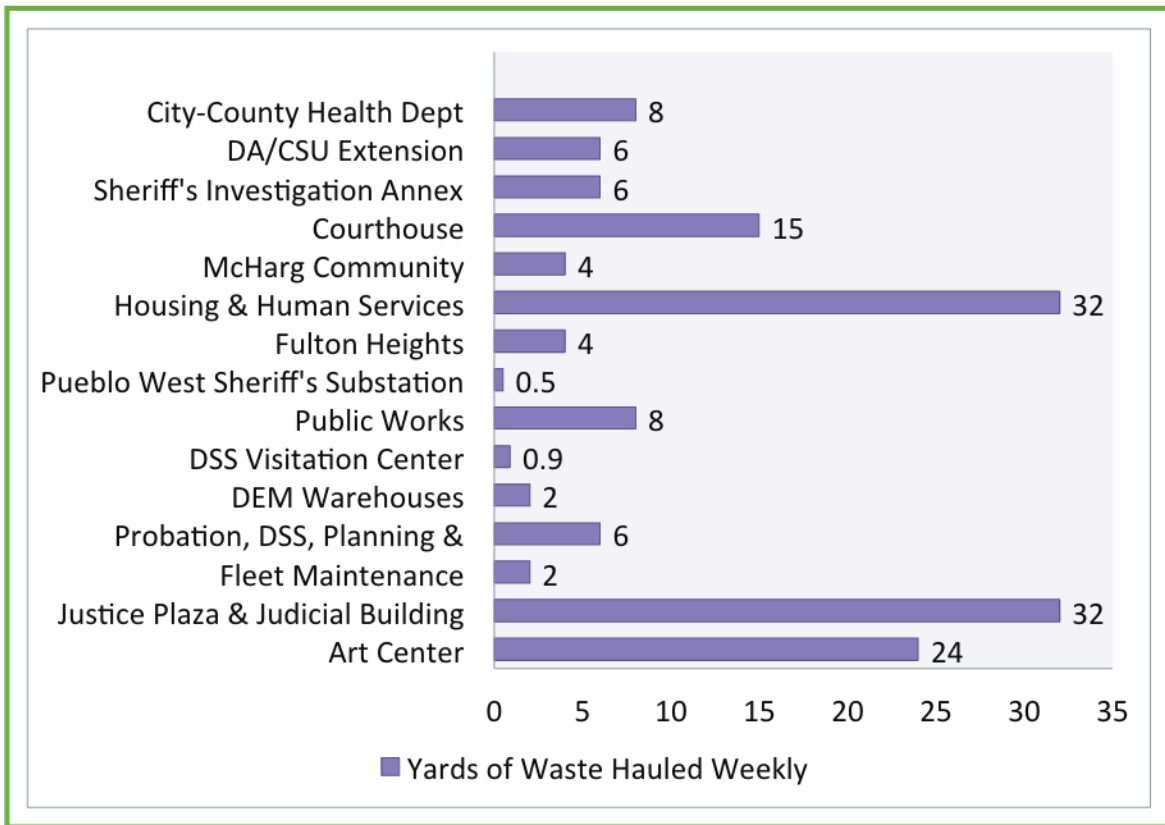
“Materials management is an approach to using and reusing resources most efficiently and sustainably throughout their lifecycles. It seeks to minimize materials used and all associated environmental impacts.”

Source: EPA Opportunities to Reduce GHG Emissions through Materials and Land Management Practices

Solid Waste and Recycling for County Operations

The first step in making a change to reduce solid waste, and divert it from the landfill, is to become aware of the amount of solid waste Pueblo County discards. This includes County-owned and operated facilities as well as households within the community. From this information, the County can then choose how to reuse or recycle items to divert them from the municipal solid waste stream. Inconsistent recycling efforts exist throughout County facilities, are specific to certain departments, and focus on various waste diversion efforts such as the collection of aluminum cans. These efforts are the beginning of a much greater need that should be addressed: the full deployment and coordination of a County operations recycling program that is accessible by all County employees, public and elected officials. The recycling program should be a part of the County operations waste collection effort and it should be a single stream service for all County facilities and operations.

Through this planning process, County department meetings and data findings indicate that the County currently contracts for waste disposal in 16 of its approximately 30 owned facilities. The quantity of waste hauled on a weekly basis from each of these facilities is noted below for a total of 151 cubic yards hauled weekly.



This quickly translates to approximately 19 dump trucks (those that carry 8 cubic yards) or 40.77 tons of waste.

40.77 tons of waste is equal to:

- 344 trees
- Conserving 507,000 gallons of water (enough water to fill 23 swimming pools)
- 31 cars on the road
- 668,895 KWh of energy (enough electricity to light 764 light bulbs for a year)
- 18,226 gallons of oil
- 117,188 pounds of greenhouse gasses

While the total amount of waste hauled on a weekly basis from these facilities appears to not be a significant amount, the effects this amount has on the natural environment and energy usage are significant. This amount is just calculated for County facility waste, not the total community. If the County could lead with a progressive action to implement a coordinated solid waste diversion program in all of its facilities, setting a measurable goal, then the community would follow.



Sustainability Strategies

However, a coordinated recycling or waste diversion program that is accessible to 100% of the County’s employees currently does not exist. The following is a list of County departments who have a paper-recycling program that is provided by a service outside of the County’s waste procurement contractor:

DSS	Planning & Development
Elections	701 Court
Courthouse	Judicial
Family Services Center	Jail
Public Works	County Annex
Housing and Human Services	City/County Health Department

Additionally, there are some informal recycling efforts across County departments. Pueblo West Metro District office has single-stream recycling for the entire office, and the Pueblo West Metro District Public Works & Streets recycles used metal for scrap. Some departments, like Pueblo County Engineering and Public Works, provide an impromptu collection effort of aluminum cans to be recycled. Unused cleaning chemicals are taken to annual recycling locations at the State Fair grounds or LeMasters for disposal. Old enamel paint and thinner is taken to the Pueblo Color Center for disposal. Old latex paint is taken to Concerned Parents of Pueblo for use in their anti-graffiti program. Old oil and antifreeze is taken to the County Fleet department for recycling. The Fleet department contracts with an outside provider to haul away these liquids. All County vehicles that are marked ‘out of commission’ are stripped of all usable parts and then hauled away for scrap metal. Old batteries are taken to the American Battery Corp. for recycling.

Materials Diversion

As the County plans to divert a portion of solid waste from the local landfill, it will also take a two-pronged approach to diverting alternative materials as well. The first approach is to include environmentally preferred purchasing (EPP) direction through the County purchase and procurement processes, where feasible. EPP is when the purchase and procurement of goods results in the decrease of greenhouse gas emissions and water consumption, while increasing recycled content and energy efficiency. Furthermore, this can also include the recommendation to ‘buy local’ which would ask that any County employee who seeks bids on products or services also receives bids from local providers to be considered in their decision-making efforts.



It is recognized that the County Purchasing office oversees a majority of the County's purchase contracts and provides necessary direction to insure the County is engaging in purchases that are beneficial to the County. However, purchases also occur at the County department level. For example, not all County departments purchase recycled content paper. Therefore, it is recommended that the County integrates language into their purchasing policy that asks for environmentally preferred purchasing, when feasible, through all purchasing decision-making efforts and contract procurement. The County Purchasing department is currently working on this effort and has reviewed the recommended State of Colorado Environmentally Preferred Purchasing (EPP) plan for reference.

The second approach is by diverting alternative materials, such as building and contracting materials, for County projects and encouraging the development community to follow this lead. The County is very active in pursuing materials management and diversion through construction lifecycles, which is evident in their current Justice Plaza development project. Direction for this effort has been given that materials management will continue through future development and infrastructure improvements while setting a precedent for the community to follow as well.

Solid Waste and Recycling in the Community

Through a coordinated waste diversion effort it is important to recognize that waste can benefit the economy, and the environment, if programs and policies are in place to address related challenges or issues within a community.

Pueblo County realizes that recycling is a sound investment for the County and the region. Elected officials recognize that recycling can create direct jobs, save money, boost local employment, increase tax revenue and produce economic development opportunities. Therefore, through this plan the County has set the following goal for materials and waste diversion in the community:

Goal: Reduce community solid waste within County and divert materials from County landfills

Since 1988, Pueblo City-County Health Department plays a significant role in providing solid waste diversion and recycling education to the public. Through their Environmental Health Division, they have an Environmental Coordinator Program that organizes and manages one-day neighborhood clean-ups and annual hazardous/recyclable waste collection events. They also promote anti-littering and stormwater pollution prevention through school and public presentations, and media sources. These efforts have been sustained by combined funding from the Pueblo City and Pueblo County landfill and transfer station user surcharge (City Ord. No. 6859 §2, July 2002), available grants, public donations and event gate fees. The following is a list of these current programs:

- Neighborhood Clean-Ups
- Solid Waste Assistance Program (SWAP)
- Stormwater Education and 'LitterBee' program
- Recyclable Waste Collection Day or Household Hazardous Waste and Recyclable Waste Collection Day-in May at Colorado State Fairgrounds

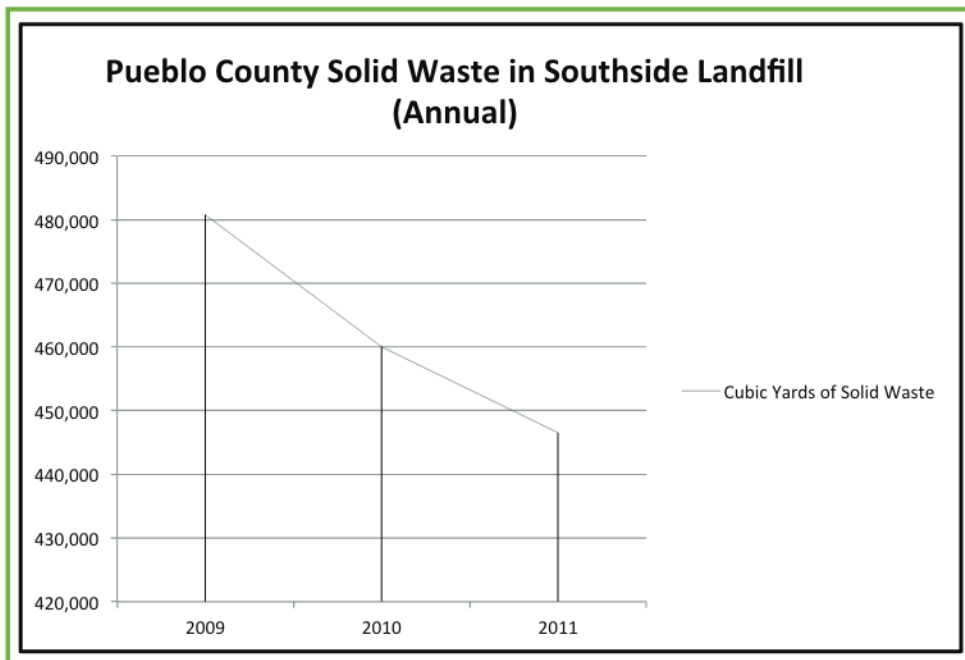


Sustainability Strategies

- Free community-wide Christmas Tree drop-off/mulching event each January
- Host and answer phone calls to Recycle Hotline (719) 583-4924 (~60 calls/month)
- Pueblo Area Recycle Guide – updated and printed four times a year, also posted online
- “America Recycles Day” November 15 – student poster contest, proclamations, ‘Buy Recycled’ campaign

In Pueblo County, several solid waste disposal options are available through private entities. However, current recycling services in Pueblo County are fragmented between many private waste haulers, none of which benefit from a processing facility within 50 miles. Therefore, Pueblo County government is pursuing the planning and development of a regional Materials Recovery Facility (MRF) to be located within the geographic boundaries of the County and provide service to both County residents and the surrounding region. This effort is in line with the State of Colorado Waste Stream Management planning efforts being developed by the Colorado Department of Public Health and Natural Environment. Pueblo County has positioned themselves as a ‘hub’ in this planning effort and support the development of ‘spokes’ throughout the County and surrounding areas. In this role, Pueblo County recycling services would become consistent and offer viable options for residents, businesses and partnership opportunities with waste haulers.

There is only one open landfill, Southside Landfill, in Pueblo County. It is located on Hwy 78 West, south of the City of Pueblo, and owned by Waste Connections of Colorado. It is open to public and commercial haulers. Waste Connections reported 480,770 cubic yards of MSW in 2009, 460,005 cubic yards of MSW in 2010, and 446,736 cubic yards of MSW in 2011¹. Free cardboard recycling is offered at the front entrance to households only. The following chart shows the amount of solid waste declining in the Southside landfill on an annual basis. The reason for this decline is unknown at this time, but the hope is that it is in part due to solid waste stream diversion options such as recycling.



¹ Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division Solid Waste Report <http://www.cdphe.state.co.us/hm/swreport/swreport.htm>

Waste Connections owns a second landfill called Broadacre Landfill. This landfill closed in 2008 and operates minimally. Also, Waste Connections owns a transfer station on the south end of Pueblo, which is used for their internal cardboard baling operations, and not open to the public.

C&C Disposal and Recycling owns and operates the Eden Transfer Station. Municipal solid waste collected there is transported to Midway Landfill in El Paso County. They offer curbside single-stream recycling (no glass accepted) and serve 450 residential subscribers bi-weekly. They have about 40 commercial recycling accounts. At Eden Transfer station, all recyclables are compacted into a semi-trailer and transported to Alpine Waste/Altogether Recycling in north Denver. The high fuel costs to Denver are cutting into profits from the sale of these materials. In the near future, the public will also be able to drop off waste and recyclables at this facility.

We Recycle Cooperative is a small operation offering residential curbside sacks and a drop off center to about 1,500 customers in Pueblo, Pueblo West, Colorado City and Beulah. They use hand labor for sorting the single stream recyclables and have two balers. They have less than ten commercial accounts at this time. We Recycle brokers their materials to a variety of end markets, some items through an intermediary.

Both C&C Disposal and Recycling, and We Recycle Co-op charge a monthly fee to households (\$5-\$10) for recycling, in addition to trash fees.

Illegal Dumping

Throughout Pueblo County illegal dumping is an issue of great concern. Illegal dumping is defined as illegally dumping waste somewhere else than in an authorized landfill or disposing of trash in an improper manner that is against the law. Both the County and the City expend costly efforts to monitor, control and clean up illegal dumped solid waste. In 2011, the cost of operations to clean up illegally dumped waste was over \$100,000. This cost takes into account the labor and equipment used to clean up the waste and the landfill fee cost to dump the waste. The County and the City of Pueblo conduct enforcement programs, however this problem continues to occur.

The Pueblo City-County Health Department (PCCHD) via the Environmental Coordinator (EC) program, has held neighborhood clean-up events in the City and outlying county communities since 1998. These annual, one-day events offer household residents the opportunity to dispose of large bulky waste items at highly reduced rates, at a convenient location in each particular neighborhood. Many tons of solid waste has been disposed of over the years, and scrap metal, yard waste and used tires are all sorted and recycled. These events have been funded with monies collected as a small local surcharge on every cubic yard of waste disposed at the only two landfills, Southside Landfill (City limits), and Broadacre Landfill (County limits), both privately managed. Surcharge fees allocated by City and County finance departments to the EC program have fluctuated greatly depending on many factors. Former landfill operators were delinquent in payments. The City retains much of the fees to mitigate weekly illegal dumpings in vacant lots, alleys and parks, and to cover expenses for waste disposal for general City operations. The Broadacre Landfill changed management and has all but closed since 2009, thus generating



Sustainability Strategies

no surcharge fees since that time to the County. A state grant was awarded to the EC program to continue the County clean-ups through 2011, but no funds exist for 2012, and these events will cease. The operational contract between the City of Pueblo and the Southside Landfill allows for two (2) free or reduced waste hauling days, but only residents within the City are allowed gate entry. Additional efforts need to be made as voiced by concerned citizens of the community. One recommendation the citizens have made is to increase community recycling options and availability. The County's pursuit of the MRF and building a long term 'hub and spoke' solid waste diversion plan would begin to address this while leveraging partnerships in the community to reduce illegal dumping efforts.

In addition to responding to illegally dumped waste, the County cleans up organic refuse that results from broken tree branches and the like on public property. Major tree trimming and removal is conducted through an outside contractor leaving the larger wood logs out for the general public to come pick up for fire wood. Some portions are chipped which is usually given away, free of charge, to area residents. Any wood not chipped or left as firewood is taken to a pile on County property and burned. It is not taken to the County landfill.



MATERIALS MANAGEMENT AND WASTE DIVERSION GOALS & OBJECTIVES

GOAL: Reduce solid waste from County operations and divert materials from County landfills

Objective: Develop and implement a County operations solid waste master plan that outlines reduce, reuse and recycle of waste materials

- o **Action:** Identify a team of County and City representatives to work on the plan development, include one representative from each County department at a minimum
- o **Action:** Review existing waste procurement contract for County and modify to include recycling services
- o **Action:** Identify current County waste rate and track diversion rate for facilities and operations
- o **Action:** Coordinate recycling services to service all County facilities and departments
- o **Action:** Provide employee education and updates for County recycling program
- o **Action:** Review current County purchasing efforts to include procurement of goods and services that focus on reduce, reuse and recycle, and include life-cycle cost analysis, where feasible
- o **Action:** Where possible, include in vendor/contractor contracts with the County recycling and/or use of materials that are reused from recycled content, follow State of Colorado 'Environmental Purchasing Program' (EPP), with reference to pages 30-33 of the State of Colorado EPP
- o **Action:** Encourage diversion of building materials from landfills through reuse, recycling or salvage of materials (includes both County and City facilities, existing buildings, infrastructure, and new development projects)



Sustainability Strategies

GOAL: Reduce community solid waste within County and divert materials from County landfills

Objective: Support the development of ‘spokes’ within community, and surrounding region, to link their recyclable materials to the County ‘hub’ (MRF)

- o **Action:** Plan and develop a materials recovery facility (MRF) within Pueblo County to service all communities within the County, and surrounding region, using the State of Colorado’s Public Health and Environment (CDPHE) waste stream master plan as a guide for location and service to the region.
- o **Action:** At a minimum, annually leverage available funds for the MRF through federal, state and regional organizations.
- o **Action:** Follow the CDPHE waste stream management plan for development of spokes within communities
- o **Action:** Continue and increase scheduled recycling drop off events for County and surrounding communities, support with adequate funding
- o **Action:** Increase and provide ongoing recycling opportunities, education and outreach to businesses within Pueblo County
- o **Action:** Encourage all hotels within Pueblo County to provide recycling services for their guests

Objective: Increase recycling opportunities for households within Pueblo County

- o **Action:** Maintain communications with local waste and recycling providers
- o **Action:** Require enhanced operations requirements to include waste stream management planning for all private haulers and landfills within City limits, and County jurisdiction
- o **Action:** Require all landfill sites within Pueblo County to offer an affordable drop-off program for compostable waste, such as yard waste (branches, leaves, grass), and encourage this waste to be used as alternative daily cover (ADC)



“It’s not the plan that is important, it’s the planning.”

Graeme Edwards

The *Pueblo County Strategic Sustainability Plan* is Pueblo County’s foundation towards building a community that can make healthy, safe and balanced choices for its future needs while being able to face challenges and sustain a good quality of life. This is the beginning. This plan provides an opportunity for the County to take steps towards a better future. Through its sustainability lens, the plan establishes specific sustainability strategies focused on the community and stimulating a vibrant economy. Building upon economic engines within the community, and transforming government operations into more sustainable practices, drive forward the basis of this plan. Additionally, it works to synchronize internal government and community-wide goals, initiatives, and measures while integrating with existing County efforts, community plans, and comprehensive plans.

The plan is intended to be general in nature and realizes that important benefits of the plan were not able to be quantified since they are new and developing. Therefore, the plan calls for the development of more specific measures such as a County operations coordinated solid waste management plan and ongoing energy efficiency measurement of County facility improvements. The plan is a broad rational basis for regulatory implementation tools that shape the future of sustainability for the community. It lays the foundation for thoughtful and data driven decision making to reach the goals.

As a guiding document, this plan sets forth the vision and goals of the County that cannot be fully accomplished unless referred to when considering new projects, policies and programs. The ability of the County staff and administration to implement the sustainability strategies within the plan is directly linked to the ultimate success of the community.

Some goals within the plan may be aggressive. The reduction commitments follow State recommendations and Colorado communities who are making similar efforts. It is important to remember that the plan represents the first step in a long-term journey, beyond its five-year horizon. The County can say they have achieved success when these goals become ‘business as usual’.





Implementation Tables

IMPLEMENTATION

Community sustainability plans are not like other community master and comprehensive plans. Generally, one of the differences is that sustainability plans have actions with timeframes and responsible parties attached to their goals and objectives to direct implementation. The timeframes are short, 5-10 years, compared to longer term timeframes associated with community master plans. Sustainability plans seek to be strategic for communities with the ability to be shaped and reviewed long after their initial publish date. Furthermore, sustainability plans come with implementation directions to guide local governments as they work to accomplish those goals set forth in the plan and to encourage interdepartmental cooperation within operations.

The following **Implementation Tables** serve as the ‘how to’ guides for this plan and the responsible parties or lead partners identified. They are illustrated in table format and bring in the goals and objectives discussed in the earlier sections of the plan under *Sustainability Strategies*.

- Strong Leadership & Greening Government
- Energy (Energy Efficiency & Renewable Energy)
- Land Use, Built Environment & Transportation
- Public Health & Natural Environment
- Materials Management & Waste Diversion

The tables outline the proposed actions needed to achieve the goals and objectives set forth in the plan. The tables designate overall strategies and specific initiatives with metrics and target goals identified. In many cases, the planning team will facilitate the initiative, with key support coming from interdepartmental teams and the Core Committee.

It is anticipated that these action plans may be updated as efforts are executed. It is hoped that the County will review these action plans on a regular basis and provide self-measurement results of how they are doing with implementation, on an annual basis. The result of this self-measurement should be a ‘sustainability score card’ for all of the community to see and review.





Implementation Tables



STRONG LEADERSHIP & GREEN GOVERNMENT

Lead & Partners	Metrics	Target Goal
GOAL: BE A LEADING COMMUNITY IN THE STATE OF COLORADO FOR SUSTAINABILITY AND RELATED EFFORTS		
Objective: Integrate sustainability and balance efficiencies in all government leadership systems		
Action: Create a formal leadership structure for implementation of the County Strategic Sustainability Plan with a working group of department representatives, City of Pueblo, Pueblo West, Colorado City, Board of Waterworks, Pueblo Regional Building, utility providers, CSU Pueblo and other partner organizations to insure implementation of the plan's goals through all government processes		
BOCC , Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering, PCCHD, City of Pueblo, Pueblo West, Colorado City, Board of Waterworks, Pueblo Regional Building, PACOG, PEDCO, utility providers, CSU Pueblo and other partner organizations	Leadership structure defined and deployed; Pueblo County Strategic Sustainability plan to serve as guide and framework	2012-Ongoing following adoption of plan
Action: Encourage all municipalities within the County to implement the plan		
BOCC , Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering, PCCHD, City of Pueblo, Pueblo West, Colorado City, Board of Waterworks, Pueblo Regional Building, PACOG, PEDCO, utility providers, CSU Pueblo and other partner organizations	Letters of commitment from municipalities and jurisdictions within County	2012-Ongoing
Action: Grow partnerships with organizations to support the growth of this plan and its goals		
BOCC , Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering, PCCHD, City of Pueblo, Pueblo West, Colorado City, Board of Waterworks, Pueblo Regional Building, PACOG, PEDCO, utility providers, CSU Pueblo and other partner organizations	Letters of commitment from organizations	2012-Ongoing



Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Continue to participate in sustainability, and related efforts, regionally and across the State through partnerships, conferences and legislation		
BOCC, Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering	Participate in Colorado Counties conference and submit County Strategic Sustainability Plan; Work with representatives at the local and state level to inform efforts and goals within plan; participate in the Colorado Alliance for Sustainability regional efforts; participate in other like-minded efforts such as SECRES, etc	2012-Ongoing
Action: Integrate elements of the Colorado 'Green Government' plan into the government strategic planning, business planning and fiscal decision making		
BOCC, Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering	Follow direction set forth in County Strategic Sustainability Plan and document achievements	2012-Ongoing
Action: Create ongoing outreach, education, and dialogue with the community about the benefits of this plan and future efforts		
BOCC, Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering	Maintain 'Sustainability Initiatives' web page on County website; quarterly host community update event either in a BOCC meeting or locally organized meeting; document achievements	2012-Ongoing
Action: Review the County Strategic Sustainability Plan on an annual basis to document progress and measure efforts moving into the future		
BOCC, Pueblo County staff, Core Committee, Pueblo County Public Works and Engineering	Document achievements and publish for community review	2012-Ongoing



ENERGY: ENERGY EFFICIENCY & RENEWABLE ENERGY		
Lead & Partners	Metrics	Target Goal
GOAL: ESTABLISH A COUNTY-WIDE COMPREHENSIVE ENERGY EFFICIENCY PROGRAM		
PUEBLO COUNTY OPERATIONS		
Objective: Establish a central point of coordination for County-wide comprehensive energy efficiency and renewable energy programs and liaison with local utility providers		
Action: The current Sustainability Committee will become a permanent body. The group will be led by a partnership of Pueblo County and the City of Pueblo, with co-chairs elected by the members. Leadership duties should be assigned to a specific staff member.		
Pueblo County; in partnership with City of Pueblo	Conduct quarterly meetings	Ongoing
Action: Consider designating Community Energy Coordinator position either internally or as ongoing consultant services.		
Pueblo County; in partnership with City of Pueblo	Availability of staff or consultant time to lead priority initiatives and coordinate partnerships with implementation of strategies set forth in Strategic Sustainability Plan	12/31/2012
Action: Centralize utility billing and tracking for all County facilities, including production from on-site renewable energy installations. Utilize paperless billing to reduce waste. Generate reports and monitor use on an ongoing basis.		
Pueblo County Budget and Finance Department, Pueblo County Facilities Department, Pueblo County Public Works and Engineering	A master inventory of all County utility bills and related facilities. Consider ENERGY STAR's free Portfolio Manager tool, www.energystar.gov/istar/pmpam or a similar system.	12/31/2012

Implementation Tables

Lead & Partners	Metrics	Target Goal
<p>Objective: Achieve a 5% reduction in energy consumption for County owned and operated buildings by 2015 through energy efficiency improvements, thus increasing air quality and reducing GHG emissions. Track and monitor energy use and costs</p>		
<p>Action: Plan for additional Energy Performance Contracting (EPC) to implement additional energy efficient improvements.</p>		
<p>Pueblo County Facilities Dept, County Budget and Finance Dept, Pueblo County Public Works and Engineering</p>	<p>Assess Facility Improvement Measures (FIMs) to save 10 % of current energy costs; develop and implement plan with annual improvements; document achievements starting from 2011</p>	<p>2013 – plan and EPC contract in place</p> <p>2015 – projects complete</p>
<p>Action: In addition to EPC projects, identify FIMs that the County will implement on an ongoing basis. Include details for specific improvements and commit to funding in annual budget.</p>		
<p>Pueblo County Facilities Dept, Pueblo County Purchasing Dept., Pueblo County Public Works and Engineering</p>	<p>Select ongoing improvements from overall plan and address in annual budgets</p>	<p>2015-2025 – Ongoing improvements</p>
<p>Objective: New construction of County-owned facilities should be built to meet or exceed LEED standards and must be designed to current Energy Star standards</p>		
<p>Action: All new construction projects shall include a procurement or contract requirement for consultants to design and build a facility that meets or exceed LEED certification and current Energy Star standards details for specific improvements and commit to funding in annual budget.</p>		
<p>Pueblo County Purchasing Office, Pueblo County Facilities Department, Pueblo County Public Works and Engineering, Pueblo Regional Building Department</p>	<p>Add LEED and Energy Star requirements to building standards for Pueblo County facilities; Document achievements, including # of new projects that meet these standards</p>	<p>2012</p>
<p>Action: Consider retrofitting existing buildings to meet or exceed LEED standards</p>		
<p>Pueblo County Facilities Dept, Pueblo County Purchasing Office, Pueblo County Public Works and Engineering, Regional Building Department</p>	<p>Assess costs and benefits of retrofitting main County facilities; Proceed with retrofit projects ranking in the top 10%; Document achievements</p>	<p>2013 – cost benefit analysis</p> <p>2018 – retrofits for top 10% completed</p>

Implementation Tables

Lead & Partners	Metrics	Target Goal
RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL USES WITHIN PUEBLO COUNTY		
Objective: Develop an outreach and education plan to inform and educate the public and provide a call to action for energy efficiency and renewable energy initiatives		
<p>Action: Provide energy efficiency education and information to the community by working in partnership with the local utility providers</p> <ul style="list-style-type: none"> • Encourage consumer conservation of energy • Encourage installation of innovative efficiency measures • Form a County and local utility partnership program to provide information and education to the community regarding demand-side management programs 		
<p>Pueblo County Public Works and Engineering, Core Committee in partnership with San Isabel Electric Cooperative, Xcel and Black Hills Energy</p>	<p>Provide web-based information linked to at least 5 entities with resources to provide energy efficiency; Conduct at least 2 community outreach events and workshops per year; Document resources and meetings to be available all the time to the entire community</p>	<p>2013 – Website operational</p> <p>2013 – Ongoing outreach events</p> <p>2013 – Initial implementation of Demand-side management</p>
Action: Work with local industry to permit heat capture/recycling from industrial processes		
<p>Pueblo County Public Works and Engineering – Core Committee, Pueblo County Planning and Development, PEDCO, private industry partners</p>	<p>Meet with largest energy consumers; Identify opportunities and challenges to implementation; Work to develop partnerships, address solutions and implement case study project; Document achievements and share with community to encourage precedence; Implement additional projects</p>	<p>2012 – initial meetings</p> <p>2013 – feasibility and funding discussions</p> <p>2015 – case study project in place</p> <p>Ongoing – additional projects and partnerships</p>



Implementation Tables

Lead & Partners	Metrics	Target Goal
Objective: Plan to attract new energy efficiency businesses to the community		
Action: Connect local businesses with local energy audit and retrofit efforts		
PEDCO, Core Committee, Pueblo County Public Works and Engineering, Pueblo, Pueblo County Local Government Business Liaison	Develop list of local EE/RE oriented businesses; Link list to County web information; Notify list of upcoming programs and opportunities	2012 – Initial list in place 2012 – Ongoing communication and updates
Objective: Promote 5% energy efficiency in community for residential and commercial properties by 2020 to ensure energy reliability and maintain or decrease costs to ratepayers. <i>Note: this objective supports the PUC requirement that Black Hills Energy has to meet 5% energy efficiency by 2020</i>		
Action: Implementation of IECC 2009 or greater for regional building code to support energy efficiency (see Land Use and Built Environment section for building standards.)		
Pueblo Regional Building Department, and Public Works and Engineering	Adopt and implement 2009 IECC or greater on a regular basis; provide local training and workshops several times per year with invitations to development community	2012
Action: Develop mechanism to promote residential and commercial building energy audits and retrofits		
Pueblo Regional Building Department in partnership with San Isabel Electric Cooperative, Xcel Energy and Black Hills Energy	Develop partnerships and seek funding as needed; Link to EE/RE outreach efforts; document resources on Pueblo County website and outreach to community via news and media	2013

Implementation Tables

Lead & Partners	Metrics	Target Goal
GOAL: ADVANCE PUEBLO COUNTY AS A STATEWIDE LEADER IN RENEWABLE ENERGY GENERATION		
Objective: Strengthen economic development and create jobs through energy efficiency and renewable energy development in conjunction with Southwest Solar Transformation Initiative (SSTI), Governor’s Energy Office (GEO), and Department of Energy (DOE) efforts		
Optimize development opportunities for renewable energy by the following: <ul style="list-style-type: none"> • Large scale • District/industrial • Site-specific 		
SSTI, Pueblo County Engineering and Public Works, Core Committee, Pueblo County Planning and Community Development, Pueblo Regional Building Department, City of Pueblo, Pueblo West, Colorado City, others: <ul style="list-style-type: none"> - CSU-Pueblo - Utilities - Solar professionals group through PRBD - Local and state agencies - SECRES - Sustainable Pueblo - Individual partners and community organizations 	Identify opportunities based on rating for solar installation, environmental constraints, and existing and planned transmission lines; Develop MOU for use at public sites; Investigate potential installations at proposed Pueblo County Materials Recovery Facility (MRF), Colorado State Fairgrounds, Pueblo Memorial Airport Industrial Park, Lake Pueblo; Encourage development of on-site renewables for major energy consumers and interested companies – Evraz, Vestas, etc. Document achievements and share with community on an annual basis	2/2012-2/2013 SSTI program 2013- Ongoing
Action: Work with local utility providers to provide net metering to both residential and commercial consumers		
Pueblo County Public Works and Engineering, Core Committee, City of Pueblo, in partnership with San Isabel Electric Cooperative, Xcel / Black Hills Energy	Meet with GEO and utilities; Address barriers; Create plan for implementation of net metering with access to community	2015



Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Track individual solar installations within the County using an existing database tool such as www.sunnyportal.com		
Core Committee, Pueblo County Public Works and Engineering, local partners and individuals	Leverage information provided for existing Pueblo County solar panel installations through Mainstreet Power Initiative; work to make this information available to the public via County website; Conduct outreach and promote participation of other facilities throughout community; develop plan and offer incentives	2012 Public Mainstreet Power Initiative information for County installations on County website ('solar dashboard')
Action: Develop ongoing partnerships for community outreach, workforce development, and new business development centered on energy efficiency and renewable energy		
Core Committee, Pueblo County Public Works and Engineering, PEDCO	Core effort of Core Committee supported by stakeholders and partners	2012-Ongoing
Action: Continue ongoing education efforts focused on efficiency and renewables similar to storm water education. Serve as a resource for smaller communities		
Core Committee, Pueblo County Public Works and Engineering	Core effort of Core Committee supported by stakeholders and partners	2012-Ongoing



Implementation Tables



LAND USE, BUILT ENVIRONMENT & TRANSPORTATION

Lead & Partners	Metrics	Target Goal
GOAL: IMPLEMENT SMART GROWTH AND SUSTAINABLE LAND USE PATTERNS WITHIN THE COMMUNITY		
Objective: Use land in Pueblo County wisely with focus on linkages between transportation, housing, natural resource conservation, agricultural production and economic development		
Action: Update the Pueblo Area Regional Plan, in partnership with the City of Pueblo, and incorporate Pueblo County Strategic Sustainability Plan to better integrate planning and prioritize investments for the future		
Pueblo County Planning & Development, City of Pueblo, PACOG, Pueblo County Public Works and Engineering	Development of Pueblo Area Regional Plan	June/July 2012- Initiate plan development 2013-2014 - Plan development and completion 2014- Plan adoption
Action: Focus on retrofitting and revitalizing developed communities in Pueblo County to provide support, value, and promote smart growth		
Pueblo County Planning & Development, City of Pueblo, PACOG, Pueblo County Public Works and Engineering, Core Committee	Establish priority areas and plan accordingly	2012-Ongoing
Action: Promote infill development by exploring incentives and addressing the costs of infrastructure		
Pueblo County Planning & Development, City of Pueblo, PACOG, Pueblo County Public Works and Engineering, Core Committee	Conduct a cost-benefit analysis or use a national best practice standard and apply to plan and development process	2014-Ongoing
Action: Prioritize infrastructure and service delivery to infill and redevelopment areas with consideration of varying standards throughout the County while weighing resource commitment from both the local government and private entities involved		
Pueblo County Planning & Development, City of Pueblo, PACOG, Pueblo County Public Works and Engineering, Core Committee	Conduct analysis to define priority areas and those areas challenged by service delivery from County	2014-Ongoing



Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Implement energy efficient building codes, IECC 2009 or greater, for new construction and remodeling throughout the County		
Pueblo Regional Building Department	2009 IECC code adopted and complimentary codes; implement and provide training workshops on an annual basis	July 2012 implementation 2013-ongoing for training
Action: Encourage green building business as usual in the new construction and remodel market		
Pueblo Regional Building Department, Core Committee	Provide education and outreach regarding green building practices; document achievements and example projects in County, such as the County Justice Center and PCCHD building	2012- ongoing
Action: Develop Pueblo County as a 'regional alliance in sustainability' with the State of Colorado Alliance		
Core Committee, Pueblo County Public Works and Engineering, Pueblo County Planning and Development	Phase progress on an annual basis with consideration of staff time and resource commitment	2012- Participation began Ongoing
Action: Develop County/City regulatory policies to provide for varied housing types to meet the needs of the community		
Pueblo County Planning & Development, City of Pueblo, PACOG, Pueblo County Public Works and Engineering, Core Committee	Draft policies suitable for inclusion in Pueblo Regional Plan update	2014-incorporate into Regional Plan Update
Action: Explore community food assessments with program support from the Colorado Department of Public Health and Environment (CDPHE) to local food production within the community		
Pueblo County Planning & Development, City of Pueblo, PCCHD, PACOG, Pueblo County Public Works and Engineering, Core Committee	Using the regional chili growing effort as one example, research and document other efforts for local food production in the community and share with public to increase community support	2014-Ongoing

Implementation Tables

Lead & Partners	Metrics	Target Goal
Objective: Link transportation to people improving connectivity and mobility on the existing system and with new development while focusing on activity hubs and economic drivers		
Action: Increase ridership through improved access to mass transit, such as the addition of commuter-hour bus loops or shuttles in outlying communities		
City of Pueblo, PCCHD, PACOG, Pueblo County Public Works and Engineering, Core Committee	Analyze current bus ridership and circulation; identify areas within County that could use improvement in transit system; work to develop plan for outreach to increase ridership	2014-Ongoing
Action: In coordination with PEDCO, local chamber of commerce, local universities, and workforce providers, support the formation of a carpool network throughout the County		
City of Pueblo, PCCHD, PACOG, Pueblo County Public Works and Engineering, Core Committee	Examine successful car pool programs in Colorado communities, and identify process for launching a program in Pueblo	2015
Action: Require integration of alternative transportation in all new development and transportation infrastructure improvements		
Pueblo County Planning & Development, City of Pueblo, PACOG, Pueblo County Public Works and Engineering, Core Committee	Develop a policy that encourages or requires integration of alternative transportation in all new development and transportation infrastructure improvements that is enforceable through the development review process; coordinate with update of Pueblo Area Regional Plan	2014-2015
Action: Attract and form a 'car share' program		
City of Pueblo, PCCHD, PACOG, Pueblo County Public Works and Engineering, Core Committee	Examine successful car share programs in Colorado, and across the nation, communities, and identify process for launching a program in Pueblo	2015



Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Work in partnership with Colorado Department of Transportation (CDOT) to support smart growth and sustainable land use patterns in transportation projects within the County		
Pueblo County Public Works and Engineering, City of Pueblo Planning and Pueblo County Planning & Development	Current efforts involving the I-25 corridor redevelopment as well as other regional highways are underway; document these efforts to show integration	2012-Ongoing
Objective: Implement a vehicle fleet fuel-efficiency and zero emissions program in County-owned and operated vehicles		
Action: Conduct a fleet inventory analysis of County-owned and operated vehicles (on and off-road) to create a baseline		
Pueblo County Public Works and Engineering, Pueblo County Fleet Department	County would like to adopt a zero-emissions policy, but a fleet inventory analysis should be in place first	2013-2015
Action: Develop a yearly program for fleet inventory alternative fuel replacement and carpool or car-sharing opportunities (<i>funding opportunities can be pursued through local Clean Cities program</i>)		
Pueblo County Public Works and Engineering, Pueblo County Fleet Department, Core Committee	Using the fleet inventory analysis and baseline, replacements can occur through a strategic plan focused on alternative fuel and zero-emissions	2013-2015
Action: Coordinate alternative fuel and fuel efficiency program development with County communities such as Pueblo West, City of Pueblo, Colorado City, etc such a shared alternative fuel stations		
Pueblo County Public Works and Engineering, Pueblo County Fleet Department, Core Committee	As the County develops their fuel and fleet program focused on alternative fuels, efficiency and zero emissions, they can share with other jurisdictions to encourage partnerships and implementation	2015-Ongoing



PUBLIC HEALTH AND NATURAL ENVIRONMENT		
Lead & Partners	Metrics	Target Goal
GOAL: REDUCE OBESITY		
Objective: Convene a group of diverse community partners and individuals (Obesity Work Team) to create a Community Health Improvement Plan outlining how Pueblo County should address obesity over the next five years		
Action: Obesity work team will meet to decide on evidence-based strategies to implement within Pueblo County.		
PCCHD, Community Health Assessment Steering Committee, City of Pueblo Parks and Recreation Department, community hospitals, PCHC, Pueblo StepUp, CSU-P, both school districts, CSU Extension, community members, and other community partners participating in the obesity work team	Conduct over next year to develop plan	June 2013
Objective: Create a comprehensive list of obesity initiatives currently occurring in Pueblo County including who is responsible for the initiatives, population served, information tracked and more.		
Action: Conduct survey with community partners and organizations; create database of information; share database		
PCCHD, Obesity work team	Conduct over next year to develop plan	June 2013
Action: Analyze gaps in service based on current initiatives		
PCCHD, Obesity work team	Conduct over next year to develop plan	June 2013
Action: Determine ways to address gaps identified		
PCCHD, Obesity work team	Conduct over next year to develop plan	June 2013



Implementation Tables

Lead & Partners	Metrics	Target Goal
Objective: Increase trails and ease of use in parks		
Action: Determine parks in need of improved trails and resources necessary to add trails in order to increase and ease the use of parks		
Pueblo County Parks and Recreation , City of Pueblo, Pueblo County, PACE, Pueblo County Planning and Development	Inventory and assess parks; develop prioritized list of improvements and submit annual budget items. Implement a minimum of 5 miles of trails per year	Annual projects beginning in 2014
GOAL: REDUCE TEEN AND UNINTENDED PREGNANCY		
Objective: Convene a group of diverse community partners and individuals to create a Community Health Improvement Plan outlining how Pueblo County should address teen pregnancies and unintended pregnancy among 20-24 year olds over the next five years.		
Action: Teen and Unintended Pregnancy work team will meet to decide on evidence based strategies to implement within Pueblo County		
PCCHD , Community Health Assessment Steering Committee, Teen & Unintended Pregnancy Work Team	Meet over next year to develop plan	Plan – 2013 Implementation - ongoing
Action: Enhance teen and community involvement and feedback on plan		
As above	Include teens and community in quarterly reviews	2012-2013
Objective: Ensure current programs to address teen and unintended pregnancies are aligned as much as possible		
Action: Ensure work team has knowledge about current programs or initiatives and their goals		
As above	Meet over next year to develop plan	2012-2013
Action: Discuss how to reduce duplication and help achieve goals		
As above	Meet over next year to develop plan	2012-2013

Implementation Tables

Lead & Partners	Metrics	Target Goal
Objective: Ensure school districts are aware of current state standards regarding sexual health education in schools and take action to comply with standards		
Action: Meet with school district boards to provide education on state standards		
As above plus all school districts including Pueblo School Districts 60 & 70	Conduct initial and follow up meetings with each school board	2012
Action: Meet with school district boards to provide education on state standards		
PCCHD	Check in annually to monitor	Ongoing
GOAL: IMPROVE ENVIRONMENTAL INDICATORS		
Objective: Maintain the status of not exceeding the National Ambient Air Quality Standards in Pueblo County		
Action: Continue to monitor for Particulate Matter (PM) size of 10 microns or less as well as PM 2.5 as recommended by the Air Quality Control Division at the Colorado Department of Public Health and Environment		
PACOG , PCCHD, local groups incl. Sustainable Pueblo, Citizens for Clean Air and Water, Env. Policy Advisory Committee	Conduct monitoring; provide air quality alerts via website as necessary	2012 - Ongoing
Action: Implement special monitoring studies as issues arise concerning special types of contaminants such as Mercury whenever opportunities arise to monitor		
PACOG		Ongoing as needed
Action: Implement safe streets and promote incentives to encourage people to choose to bike or walk to work, leaving their vehicle behind at least one day a week		
Pueblo County, City of Pueblo Planning Department , Pueblo County Public Works and Engineering	Review policy changes; adopt appropriate standards; require compliance	2013 review complete 2014 adoption complete Ongoing implementation



Implementation Tables

Lead & Partners	Metrics	Target Goal
<p>Objective: Assure adequate water quantity for area uses by agriculture, businesses and residents and improve water quality to meet state water quality standards</p>		
<p>Action: Establish watershed units associated with Pueblo West, Lake Pueblo, and the Arkansas River to more closely match the intent of the Colorado Storm Water Quality Master Plan</p>		
<p>PACOG, Upper Arkansas Area Council of Governments, Colorado Division of Water Resources, Division 2; Pueblo Board of Water Works; multi-jurisdictional partnerships between all affected parties</p>	<p>Convene stakeholder groups for each watershed</p> <p>Develop priority lists and determine required planning</p>	<p>2012-2013 group meetings</p> <p>2013-2015 plan development</p> <p>2015-Ongoing implementation</p>
<p>Action: Continue implementation of recommendations from the 2009 Fountain Creek Watershed Plan</p>		
<p>Fountain Creek Watershed Flood Control and Greenway District, Pueblo County, and community advocate groups such as Fountain Creek Sentinels</p>	<p>Achieve milestones outlined in the plan</p>	<p>Ongoing</p>
<p>Objective: Reduce radon exposure in Pueblo County residences</p>		
<p>Action: Adopt a modified version of Appendix F of International Residential Code to include radon resistant new construction for new single- and two-family dwellings to include a passive radon mitigation system.</p>		
<p>Pueblo Regional Building Dept, Pueblo County Commissioners, Pueblo City Council, Pueblo City County Health Dept, Community groups such as Sustainable Pueblo, Citizens for Clean Air and Water</p>	<p>Review and adopt requirements; inspect and enforce</p>	<p>2013 adoption</p>

Implementation Tables

Lead & Partners	Metrics	Target Goal
GOAL: PROMOTE PUEBLO AS A REGIONAL HEALTHCARE DESTINATION		
Objective: Create Centers of Excellence to provide health care services to meet regional needs		
Action: Form a consortium of health care providers and educators to identify current and emerging needs for Pueblo County and surrounding areas; develop specializations in appropriate care facilities		
<p>PCCHD, State of Colorado Healthy Communities and State of Colorado Office of Economic Development, PACOG, PEDCO, Pueblo StepUp Coalition; Community health care providers</p>	<p>Convene initial meeting with stakeholders; identify economic, health, and quality of life benefits to community</p> <p>Identify assistance available from state/federal funds and hospitals and foundations</p> <p>Develop MOU to develop and implement initiative</p>	<p>2013 initial meeting</p> <p>2014 MOU in place and efforts underway</p>
Objective: Encourage a wide range of Pueblo County students to pursue careers in health-related fields by supporting post-secondary education opportunities for local students		
Action: Sponsor scholarships for local students, host summer health camps and presentations		
<p>Southeastern Colorado AHEC (Area Health Education Center), Pueblo Schools, Pueblo School District 70, Colorado Health Foundation, Colorado Health Service Core, Pueblo Community College, CSU-Pueblo, Medical providers in Pueblo County</p>	<p>Enhance communication between health care providers and local schools</p> <p>Identify mutually beneficial programs; involve students in career exploration programs</p> <p>Endow scholarships to encourage a diverse population to pursue health-related fields</p>	<p>2013 Initial meeting</p> <p>Ongoing efforts</p>
Objective: Ensure quality and diverse medical providers and health care professionals are available to serve Pueblo County residents		
Action: Actively recruit physicians and health care professionals		
<p>Pueblo Chamber of Commerce, Parkview Medical Center, St. Mary Corwin Hospital, Centura Health, PCHC, Southern Colorado Family Medicine, Community health care providers</p>	<p>Develop recruiting packet; support efforts to develop local talent and recruit key specialties</p>	<p>2012 - Ongoing</p>



Implementation Tables

Lead & Partners	Metrics	Target Goal
GOAL: PROMOTE LOCAL AGRICULTURE IN PUEBLO COUNTY TO IMPROVE LOCAL ECONOMY AND CONSUMPTION OF LOCALLY SOURCED FOOD		
Objective: Coordinate efforts between local agencies, local producers, and consumers		
Action: Develop a Leadership Council to promote and market agricultural products		
CSU- Extension Office, PCCHD, Farmers' Marketers non-profit organization, Colorado Certified Master Gardeners (CMG) volunteers	Convene stakeholders and develop group to promote communication and interaction between producers and consumers and expand markets	2012 - ongoing
Objective: Promote a USDA Know Your Farmer, Know Your Food (KYF2) program		
Action: Conduct outreach and education in local K-12 schools, at area festivals, and at Pueblo County Farmers Markets		
CSU- Extension Office, Colorado USDA / Farm Service Agency Office	Work with USDA standard materials and school districts to promote healthy eating and local produce	2012 - ongoing
Objective: Develop a collaboration between schools and local farmers		
Action: Host meetings to determine feasibility of a local food hub for distribution of local produce		
PCCHD, Pueblo City Schools, Pueblo School District 70, Andrews Food Systems, local farmers, CSU Extension Office, Colorado Department of Public Health and Environment, local food co-ops and growers associations	Convene stakeholders and develop group to promote communication and interaction between producers and consumers and expand markets	2012 - ongoing



MATERIALS MANAGEMENT AND WASTE DIVERSION

Lead & Partners	Metrics	Target Goal
GOAL: REDUCE SOLID WASTE FROM COUNTY OPERATIONS AND DIVERT MATERIALS FROM COUNTY LANDFILLS		
PUEBLO COUNTY OPERATIONS		
Objective: Develop and implement a County operations solid waste master plan that outlines reduce, reuse and recycle of waste materials		
Action: Identify a team of County and City representatives to work on the plan development, include one representative from each County department at a minimum		
PCCHD, Core Committee, Pueblo County Public Works and Engineering	Development of a plan involving County operations with a goal of implementing waste diversion and recycling options for 100% of County employees	2013- Plan Development 2014-2015 Plan Implementation Ongoing education and outreach
Action: Review existing waste procurement contract for County and modify to include recycling services		
Pueblo County Purchasing Department, Pueblo County Public Works and Engineering, Pueblo County Facilities, PCCHD	Review waste procurement contract to identify waste diversion opportunities; revise accordingly with contracted waste hauler to include recycling, preferably single stream, or add onto existing contract for County operated facilities	2012-2013- Review and revise contract with waste hauler 2013- Roll out recycling and waste diversion services through private waste hauler (preferably single stream); initiate efforts in facilities with interest such as County Court building, PCCHD and Pueblo County Public Works and Engineering
Action: Identify current County waste rate and track diversion rate for facilities and operations		
PCCHD, Core Committee, Pueblo County Public Works and Engineering, Pueblo County Facilities	Using current waste rate baseline information for County facilities, as included in plan, establish tracking procedures; document achievements and share with community	2012- Identify County operations solid waste rate 2013- Deploy tracking Ongoing



Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Coordinate recycling services to service all County facilities and departments		
PCCHD, Core Committee, Pueblo County Public Works and Engineering, Pueblo County Facilities	Identify all County facilities that will participate; implement recycling and waste diversion program in priority facilities and roll out according to interest and participation	2012-2013 PCCHD, County Court building, Pueblo Public Works and Engineering, Pueblo Regional Building Department 2013-2014 Remainder of County operated facilities
Action: Provide employee education and updates for County recycling program		
PCCHD, Core Committee	Establish resources to be made available to all County employees; make resources accessible and informative, including communication on the Internet; build communication and education into solid waste master plan	2013-Ongoing
Action: Review current County purchasing efforts to include procurement of goods and services that focus on reduce, reuse and recycle, and include life-cycle cost analysis, where feasible		
Pueblo County Purchasing, PCCHD, Pueblo County Public Works and Engineering	Review State of Colorado Environmentally Preferred Purchasing guide for reference and resource; revise procurement standards to include a provision for procurement and contract services through the County that asks for 'buy local' bids to be included in bid requests and identification of all environmentally preferred products in bid requests; distribute changes to all County departments	2012-2013 Review and draft EPP and 'Buy Local' language 2013 Revise procurement standards accordingly and send to all County departments

Implementation Tables

Lead & Partners	Metrics	Target Goal
<p>Action: Where possible, include in vendor/contractor contracts with the County recycling and/or use of materials that are reused from recycled content, follow State of Colorado 'Environmental Purchasing Program' (EPP), with reference to pages 30-33 of the State of Colorado EPP</p>		
<p>Pueblo County Purchasing, PCCHD, Pueblo County Public Works and Engineering</p>	<p>Review State of Colorado Environmentally Preferred Purchasing guide for reference and resource; revise procurement standards to include a provision for procurement and contract services through the County that asks for 'buy local' bids to be included in bid requests and identification of all environmentally preferred products in bid requests; distribute changes to all County departments</p>	<p>2012-2013 Review and draft EPP and 'Buy Local' language</p> <p>2013 Revise procurement standards accordingly and send to all County departments</p>
<p>Action: Encourage diversion of building materials from landfills through reuse, recycling or salvage of materials (includes both County and City facilities, existing buildings, infrastructure, and new development projects)</p>		
<p>Pueblo County Purchasing, PCCHD, Pueblo County Public Works and Engineering, Pueblo Regional Building Department</p>	<p>Review building practice standards and revise accordingly to include language that states something like ' County requests diversion of building materials from landfills through reuse, recycling or salvage of materials (includes both County and City facilities, existing buildings, infrastructure, and new development projects) '</p>	<p>2012- In process, County Justice Center example</p> <p>2013- Address any needed changes to building department and permitting policies for inclusion</p> <p>Ongoing</p>



Implementation Tables

Lead & Partners	Metrics	Target Goal
GOAL: REDUCE COMMUNITY SOLID WASTE WITHIN COUNTY AND DIVERT MATERIALS FROM COUNTY LANDFILLS		
PUEBLO COUNTY AND COMMUNITY		
Objective: Support the development of 'spokes' within community, and surrounding region, to link their recyclable materials to the County 'hub' (MRF)		
Action: Plan and develop a materials recovery facility (MRF) within Pueblo County to service all communities within the County, and surrounding region, using the State of Colorado's Public Health and Environment (CDPHE) waste stream master plan as a guide for location and service to the region.		
Pueblo County Public Works and Engineering, PCCHD, Pueblo County Planning and Development, City of Pueblo, Pueblo West, Colorado City, and regional partners	Select site to locate MRF within County; design plan for site development; hire consultants as needed for MRF facility design; access resources from existing communities with success such as New Mexico and Boulder, CO	2012 (Fall) - Site Selection Process 2012 (Winter) - Begin Site Design and Development 2013 - Apply for CDPHE RREO grant funds to assist with MRF design and development 2014 - Complete design and development 2015 - Construction of MRF
Action: At a minimum, annually leverage available funds for the MRF through federal, state and regional organizations.		
Pueblo County Public Works and Engineering, PCCHD, City of Pueblo, Pueblo West, Colorado City, and regional partners	Follow CDPHE RREO Grant guidelines including establishment of MOU's with regional partners and submit application annually	2012 (Winter) - MOU's with regional partners (letters of commitment and support) 2013 (Jan) - Draft CDPHE RREO grant application 2013 (Feb/March) - Submit grant application
Action: Follow the CDPHE waste stream management plan for development of spokes within communities		
Pueblo County Public Works and Engineering, PCCHD, Pueblo County Planning and Development, City of Pueblo, Pueblo West, Colorado City, and regional partners	Work to identify 'spokes' in County and surrounding area; MRF in County designated Hub	2013-2017, Ongoing

Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Continue and increase scheduled recycling drop off events for County and surrounding communities, support with adequate funding		
PCCHD, Core Committee	Annually host at a minimum the following community events and resources as hosted through the PCCHD Environmental Coordinator Program: Neighborhood Clean-Ups Solid Waste Assistance Program (SWAP) Stormwater Education and 'LitterBee' program Recyclable Waste Collection Day/Household Hazardous Waste Collection Day Free Community-wide Christmas Tree Drop Off Recycle Hotline Pueblo Area Recycle Guide Presentations and information booths 'America Recycles Day' (Nov. 15th)	2012-Ongoing
Action: Increase and provide ongoing recycling opportunities, education and outreach to businesses within Pueblo County		
PCCHD, Core Committee	Develop outreach and education for local businesses to become knowledgeable about solid waste diversion and recycling opportunities through the community and private waste haulers; make information accessible through multi-media	2013-Ongoing

Implementation Tables

Lead & Partners	Metrics	Target Goal
Action: Encourage all hotels within Pueblo County to provide recycling services for their guests		
PCCHD, Core Committee	Develop outreach and education for hotels to become knowledgeable about solid waste diversion and recycling opportunities through the community and private waste haulers; make information accessible through multi-media	2013-Ongoing One hotel per year or more
Objective: Increase recycling opportunities for households within Pueblo County		
Action: Maintain communications with local waste and recycling providers		
PCCHD, Core Committee	Develop messaging from County and share with local waste and recycling providers; maintain open communication and meet annually to discuss in a forum with County representatives and other regional partners	2013-Ongoing
Action: Require enhanced operations requirements to include waste stream management planning for all private haulers and landfills within City limits, and County jurisdiction		
PCCHD, Core Committee, City of Pueblo, Pueblo County, Pueblo West, Colorado City and regional partners	Develop messaging from County and share with local waste haulers and landfill owners; maintain open communication and meet annually to discuss in a forum with County representatives and other regional partners	2013-Ongoing
Action: Require all landfill sites within Pueblo County to offer an affordable drop-off program for compostable waste, such as yard waste (branches, leaves, grass), and encourage this waste to be used as alternative daily cover (ADC)		
PCCHD, Core Committee, City of Pueblo, Pueblo County, Pueblo West, Colorado City and regional partners	Develop messaging from County and share with local waste haulers and landfill owners; maintain open communication and meet annually to discuss in a forum with County representatives and other regional partners	2012- Waste Connections offers one drop off day for the year; increase to one day per month Ongoing

Appendix A

Pueblo County Energy Assessment

Pueblo County Energy Assessment



June 1, 2012

Prepared by Sedgwick Consulting, LLC and C.H. Guernsey & Company

EXECUTIVE SUMMARY

Pueblo County has a vested interest in pursuing energy efficiency and renewable energy development opportunities. The County government has demonstrated leadership through actions including the installation of solar arrays, conducting energy audits on County owned facilities, implementation of energy efficiency retrofit projects at County owned facilities through an Energy Performance Contract (EPC), and by obtaining grant funding from the Governor’s Energy Office for a Community Energy Coordinator (CEC). The CEC’s role is to assist the County with a strategic sustainability plan (Strategy) and to help position the community for future energy efficiency and renewable energy opportunities.

The County-wide energy assessment is on part of the Strategy that focuses on energy consumption, energy efficiency and renewable energy. It establishes a baseline for energy consumption county-wide, creating a baseline of existing data. Data for this assessment has been collected from companies supplying electricity, natural gas, and propane for residential, commercial, industrial, agricultural, and governmental sectors. Of particular note, current consumption of energy at County facilities is detailed in this assessment. Patterns and opportunities are assessed with comparison to best practices, and then goals, objectives, actions, and responsible parties have been identified for future implementation. The assessment concludes by defining proposed initiatives and timeframes.



TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	i
Table of Contents	ii
1.0 Introduction.....	1
2.0 Data Collection	2
2.1 Sources	2
2.1.1 Electricity	2
2.1.2 Natural Gas	3
2.1.3 Propane	4
2.1.4 Renewable Energy	5
2.2 Notable Energy Consumers Within Pueblo County	6
2.2.1 Industrial Users	6
2.2.2 County Data	7
2.2.3 Public Entities	8
2.3 Data Standardization	9
2.4 GIS Data	9
3.0 Energy Assessment.....	10
3.1 Introduction	10
3.2 Electric Analysis	10
3.2.1 Electricity Sources.....	10
3.2.2 Electricity Distribution	12
3.2.3 Electricity Use Analysis	13
3.2.3.a Residential	14
3.2.3.b Commercial.....	15
3.2.3.c Industrial.....	17
3.2.3.d Government.....	18
3.2.3.e Lighting	19
3.2.3.f Water	20
3.3 Natural Gas Analysis	20
3.3.1 Natural Gas Sources.....	20
3.3.2 Natural Gas Distribution	20
3.3.3 Natural Gas Use Analysis	20
3.4 Propane Analysis.....	21
3.4.1 Propane Sources	21



3.4.2	Propane Distribution.....	21
3.4.3	Propane Use Analysis.....	22
3.5	Coal.....	22
3.6	Renewable Energy Analysis	23
3.6.1	Renewable Energy Sources.....	24
3.6.2	Solar.....	24
3.6.3	Wind	25
3.6.4	Geothermal.....	27
3.7	Conclusion.....	27
4.0	County Facilities Assessment.....	29
4.1	Introduction.....	29
4.2	Facility Inventory	29
4.3	Energy Consumption.....	29
4.4	Energy Efficiency and Renewable Energy Efforts.....	30
4.5	Water-Energy Nexus.....	33
4.6	Conclusion	34
5.0	Goals, Objectives, and Actions	35

Appendix A: Pueblo County Facilities Summary



1.0 INTRODUCTION

The following is a County-wide Energy Assessment. This assessment is the result of Pueblo County's Community Energy Coordinator (CEC) grant funded through the State of Colorado Governor's Energy Office (GEO). In this assessment, a profile of Pueblo County's existing energy use has been developed to help guide development of energy efficiency and renewable energy initiatives in the County.

The Energy Assessment includes community and government information regarding energy sources, consumers, and use patterns which sets the baseline for County energy use. From that baseline, and taking into account best practices, an analysis of the strengths, weaknesses, and opportunities related to energy sources and use patterns has been provided to guide the County's initiatives. Per the CEC grant requirements set forth by the GEO, the following actions are addressed in the goals and objectives set forth in this plan:

- ∞ Residential and commercial building audits and retrofits
- ∞ Outreach and education plan to inform and educate the public and provide a call to action of energy efficiency (EE) and renewable energy (RE)
- ∞ Plan to attract new EE and RE businesses to the community
- ∞ Plan to identify and address gas in EE and RE training within the community
- ∞ Plan to identify and explore residential, commercial and utility scale renewable energy opportunities within the community

In addition to the data collection and assessment, the process included multiple meetings between the CEC and Pueblo County staff, stakeholders, and energy providers. The advisory committee reviewed a presentation of initial findings in December, 2011. Additional discussion in March 2012 refined the initial goals and objectives related to energy efficiency and renewable energy initiatives for Pueblo County.

The following report outlines the data collection process, documents contacts and resources, and summarizes and analyzes the information gathered. Opportunities were identified, along with key goals and objectives for the County. The conclusions set forth initiatives for Pueblo County to implement.



2.0 DATA COLLECTION

In order to assess energy use in Pueblo County and assemble clear data, many sources were researched. Information was collected from energy producers, distributors, and consumers. This section presents the people and companies contacted during the data collection, and highlights some of the key information provided.

2.1 SOURCES

Energy is consumed in multiple forms within Pueblo County: electricity, natural gas, propane and renewable energy. Each form of energy has a number of providers. This section presents the contacts made with various energy producers and providers.

2.1.1 ELECTRICITY

Electricity is provided to most of Pueblo County by two entities: Black Hills Energy and San Isabel Electric Association. Black Hills Energy is part of the Black Hills Corporation, a publically-traded company providing power to 94,000 customers in southeastern Colorado. San Isabel Electric Association is a cooperative business owned by the consumers it serves. San Isabel Electric is a member of the Touchstone Energy network of cooperatives.

Mountain View Electric and the Southeast Colorado Power Association also provide electricity within Pueblo County. Both companies have limited service areas and do not service any County facilities.

Black Hills and San Isabel provided data broken down by geographic area (city/township) and the customer type (residential, commercial, industrial, etc.). Black Hills also provided data by zip code. Key contacts are:

- ∞ Black Hills Energy (Black Hills)
Dan Smith
Dan.Smith@blackhillscorp.com

- ∞ San Isabel Electric Cooperative (San Isabel)
Robin O'Day, Key Accounts Manager
(719) 647-6251
robin.oday@siea.com

The data provided by the electric companies is presented in Section 3 of this report. Figure 1 depicts the service areas of each electric service provider in Pueblo County.



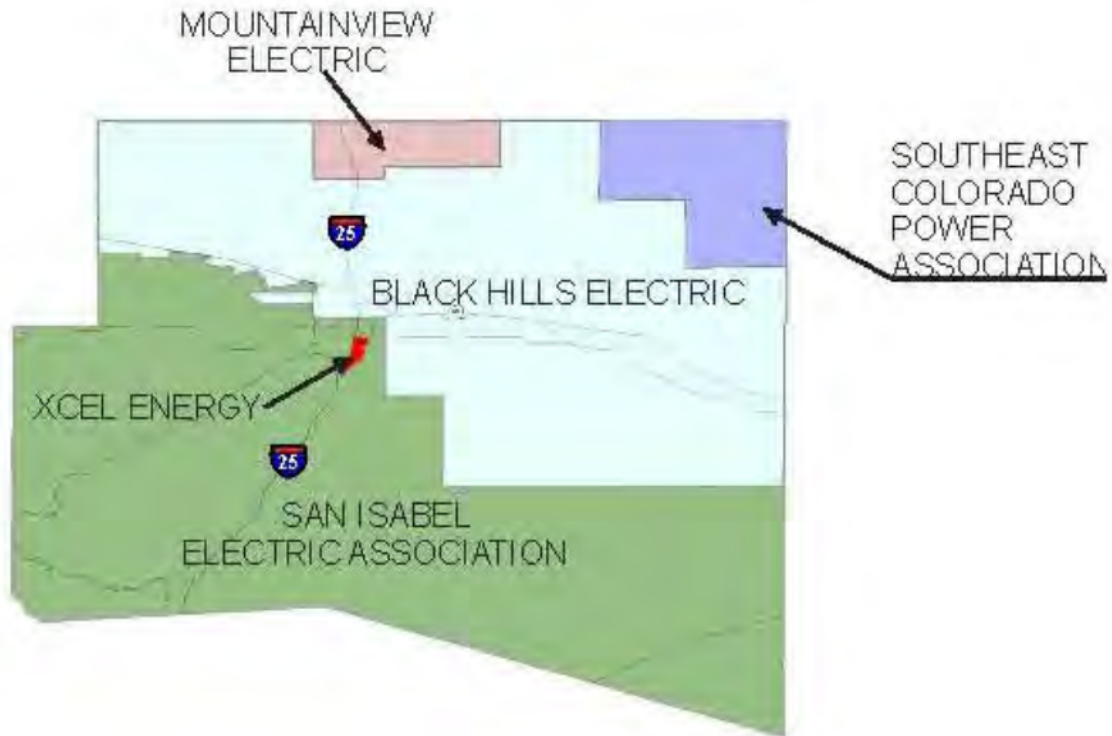


Figure 1: Electric Service Areas in Pueblo County, Colorado

2.1.2 NATURAL GAS

Natural gas is a heating option for areas of Pueblo that are served by natural gas lines. The contacts listed below provided information on the distribution and consumption of natural gas within Pueblo County.

- ∞ Colorado Interstate Gas Company
Stephen Newell
stephen.newell@elpaso.com
Information on the natural gas delivered by CIG to users in Pueblo County
- ∞ El Paso Corporation / Western Pipelines
Craig Williams, Market and Project Analysis
(719) 520-4333
craig.e.williams@elpaso.com
- ∞ Xcel Energy
Kathy Worthington, Area Manager, Southern Colorado
(719) 549-3611
kathy.worthington@excelenergy.com
Information on Xcel's natural gas sales within Pueblo County



- ∞ Seminole
Don Krattenmaker
(720) 214-5791

Note: Seminole has customers in Pueblo County, however, they use Xcel’s pipelines to transport the gas. Seminole believes that the gas they sold would likely have been included in data provided by Xcel.

2.1.3 PROPANE

Propane is another conventional energy source utilized within Pueblo County. This form of energy was the most difficult to assess, possibly because there is no permanent infrastructure associated with propane. Whereas electricity and natural gas must both be distributed to customers using a set path (electric lines or pipelines) propane is distributed by individual companies largely using trucks, allowing consumers within Pueblo County to obtain propane from sources located outside of the county.

Propane distribution companies can be small “mom and pop” operations, or large corporations that sell propane throughout the county. Propane providers were difficult to identify, and the providers contacted were very reluctant to share information.

A general inquiry was made to the Colorado Department of Labor & Employment to see if they require registration of residential propane tanks to provide an idea of the prevalence of propane use recognizing how many residential tanks were registered in the county. However, they do not require registration of residential tanks, only large capacity storage tanks at commercial facilities.

The Colorado Propane Gas Association (CPGA) was also contacted. They provided propane sales information for the entire state of Colorado from 2005 to 2010. Propane is used as heating fuel in approximately 103,000 households in Colorado, which equates to roughly 5.5% of households statewide. The main consumers of propane use it as heating fuel in rural areas where natural gas service is unavailable.

- ∞ Colorado Propane Gas Association
Baron Glasgow
(719) 549-3611
bglasgow@npga.org

An internet yellow pages search was performed for Propane providers in Pueblo County. All providers on the list were contacted and estimated propane sales within Pueblo County were requested. Information was received from:

- ∞ Blueflame Gas Inc.
(719) 543-7736
Approximately 750,000 gallons
- ∞ San Isabel Services Propane
(719) 547-1214
Sanisabelservicespropane@lbu.com
Approximately 58,000 gallons



- ∞ Wallace Oil Co Inc.
(719) 384-5424
Approximately 20,000 gallons

Other propane providers contacted included:

- ∞ Mar Gas Propane
(719) 547-4444
- ∞ Ferrellgas
(719) 776-9155
- ∞ AmeriGas
(888) 379-1546
- ∞ Suburban Propane
(800) 776-7263
- ∞ Ameri Gas Propane
(719) 545-1106
- ∞ Tallman Oil Co
(719) 544-0446

2.1.4 RENEWABLE ENERGY

There are currently a number of renewable energy installations within Pueblo County. The information on existing renewable energy within Pueblo County was provided by the sources listed below. This is not a comprehensive listing of all the renewable energy sources within Pueblo County as a portion of the renewable energy generation sources are owned by private individuals.

- ∞ Black Hills Energy (Black Hills)
Dan Smith
Dan.Smith@blackhillscorp.com
- ∞ CSU Pueblo
Jane Fraser, Chair, Department of Engineering
(719) 549-2036
Jane.fraser@colostate-pueblo.edu
Jane provided information about the small array serving the engineering building at CSU Pueblo. It has a rated capacity of 6.12 KW (0.00612 MW). The total electricity production for 2010 was approximately 8873.3 kWh. Black Hills provided information pertaining to the large solar array at CSU Pueblo (see below).



- ∞ Black Hills Energy (Black Hills)
Rhonda Latka
Rhonda.latka@blackhillscorp.com
The solar production from the large array at CSU Pueblo was 1,865,300 kWh annually.
- ∞ Pueblo County Solar Array
Pat Coffee
(719) 583-6541
patcoffee@co.pueblo.co.us
- ∞ Xcel Energy
Kathy Worthington
(719) 549-3611
Kathy.worthington@xcelenergy.com
Kathy provided information about efforts by Xcel to forecast wind generation to reduce use of coal-fired plants in Colorado.

2.2 NOTABLE ENERGY CONSUMERS WITHIN PUEBLO COUNTY

Major consumers in Pueblo County have been classified as Industrial, County, and other Public Entities. While the data previously collected from various utility providers can be organized according to residential, commercial, and agricultural users, the major consumer category provides insight into the consumption for Pueblo County's main industries and the County itself.

2.2.1 INDUSTRIAL USERS

Contacts with Industry:

- ∞ Evraz Steel Mill (previously Rocky Mountain Steel)
Thomas Hauter, Manager, Engineering
(719) 561-6871
Thomas.Hauter@EvrazIncNA.com
Typical Annual Use (based on 2010)
Electricity = 747,000,000 kWh
Natural Gas = 3,600,000 DTh
- ∞ Vestas
Jeffery Kosta, Environmental Engineer
(719) 288-2247
jekos@vestas.com
2010 Electricity (Black Hills): 24,885,600 kWh
2010 Natural Gas (Xcel): 63,237 DTh
Site Turbine Production: 3,187,600 kWh
Note: A wind turbine located at the Vestas facility produces electricity that is sold to Black Hills as REC's (Renewable Energy Certificates), and feeds directly to the grid. Vestas considered installing a 3.0 MW wind turbine, however those plans are currently on hold.



- ∞ GCC Cement Plant
 - Barbara Hodgson
 - (719) 647-6800
 - 2010 Electricity: 61,887,000 kWh
 - 2010 Propane: 101,253 gallons, purchased from AmeriGas
 - Coal: 67,171 short tons, procured from GCC's mine in Durango, CO
 - Coal is burned in the kiln. Propane is used for start-up gas. Eventually the plant will switch to natural gas for start-up gas.



Figure 2: Notable Energy Consumers Within Pueblo County

- ∞ Pueblo Airport and Industrial Park
 - Greater Pueblo Chamber of Commerce
 - (719) 542-1704, Ava; referred to the Economic Development Corp
 - Pueblo Economic Development Corp
 - (719) 544-2000, Julie
 - Requested data and a list of the businesses within the Airport Industrial Park; Julie was not able to provide any information

2.2.2 COUNTY DATA

The Pueblo County Accounting department provided account numbers for the County's utility accounts with Black Hills, San Isabel, and Xcel Energy. The usage information was then requested directly from



the energy providers for the County based on the provided account numbers. A breakdown of use by facility was also developed and is included in the Assessment section.

- ∞ Black Hills Energy (Black Hills)
Dan Smith
Dan.Smith@blackhillscorp.com

- ∞ Black Hills Energy (Black Hills)
Rhonda Latka, Utility Analyst
(719) 546-6406
rhonda.latka@blackhillscorp.com

- ∞ San Isabel Electric Cooperative (San Isabel)
Robin O’Day, Key Accounts Manager
(719) 647-6251
robin.oday@siea.com

- ∞ Pueblo County Government – Budget and Finance Department
Crystal Pacheco, Accounts Technician II
(719) 583-6553
pachecoc@co.pueblo.co.us
Aimee Tihonovich, Budget Manager and Liaison to Local Business
(719) 583-6541
aimee.tihonovich@co.pueblo.co.us

- ∞ Pueblo County Government
Pat Coffee
(719) 583-6541
patcoffee@co.pueblo.co.us

2.2.3 PUBLIC ENTITIES

- ∞ Board of Water Works of Pueblo County
Paul Fanning
(719) 584-0212
pfanning@pueblowater.org

- ∞ School District 70
Ryan Elarton
(719) 295-6545
eelarton@district70.org
Total Energy Use information (Honeywell Report)

- ∞ School District 60
(719) 549-7200, Facilities Management
Attempted to contact – no information provided



2.3 DATA STANDARDIZATION

The data collection process focused on assembling available information from numerous sources. The data was provided in a variety of formats. In order to accurately compare the information, it is necessary to convert all information to a standard unit of measure.

The standard unit of measure for energy used by the International System of Units (SI Unit) is joules. For ease of comparison within this report, the information provided by sources has been presented in joules as well as in the below referenced units for each energy form. In some cases, an initial conversion was required to standardize units from various providers within each category. For example, information provided in MWh has been converted to kWh as part of the standardization process.

Energy Form (unit used)	Conversion to joules
Electricity (kWh)	1 kWh = 3,600,000 joules
Natural Gas (dekatherm)	1 DTh = 1,055,057,000 joules
Propane (gallons)	1 gallon propane = 91,330 BTU* 1 BTU = 1,055.05585 joules 91,330 BTU = 96,358,251 joules
Electrical Generation Capacity (MW)	1 MW = 1,000,000 joules/second

Table 1: Standard Conversions

2.4 GIS DATA

The graphic representation of energy use in Pueblo County is depicted through the use of Geographic Information Systems (GIS). GIS datasets were obtained from the U.S. Census Bureau Tiger Line shapefiles. This data is used for the boundaries of place name locations in Pueblo County, generally called "Places". Zip code shapefiles were also obtained from the Census Bureau Tiger Line files. GIS files were used to geographically reference the energy use information.

- ∞ Pueblo County
 - Travis Douhit
 - (719) 583-6242
 - douthit@co.pueblo.co.us

- ∞ Tri-State Electric
 - John Tyll, GIS Manager
 - (303) 452-6111
 - jtyll@tristategt.org
 - Though we had numerous communications with Tri-State attempting to obtain GIS information, the attempts were unsuccessful, and no GIS data was provided by Tri-State Electric.



3.0 ENERGY ASSESSMENT

3.1 INTRODUCTION

This energy assessment addresses both the energy sources available within Pueblo County and how energy is used within Pueblo County. This approach allows a comprehensive view of energy flow into the county, out of the county, and within Pueblo County

3.2 ELECTRIC ANALYSIS

3.2.1 ELECTRICITY SOURCES

Currently there are two power plants operating within Pueblo County, Comanche Power Plant (Xcel Energy) and the Airport Industrial Power Plant (Black Hills). A third power plant, located in downtown Pueblo and owned by Black Hills, is listed for closure on documents filed with the Public Utilities Commission. In addition to the large capacity power plants, there are a number of other smaller electricity generating units within Pueblo County, a number of solar installations, and one wind turbine.

Comanche Power Plant:

Comanche Power Plant is owned by Xcel Energy. It is a coal fired, steam-electric generating station, with the generation of the three units totaling 1,410 MW. It is the largest power plant in Colorado.

- ∞ Unit 3: 750 MW went into service 2010, supercritical pulverized coal generation unit
- ∞ Unit 2: 335 MW went into service 1975, subcritical pulverized coal generation unit
- ∞ Unit 1: 325 MW went into service 1973

A portion of the electricity generated at the Comanche Power Plant used to be sold to Black Hills for local distribution; however, as of December 31, 2011, Xcel stopped providing electricity to Black Hills. The majority of the electricity generated at the Comanche Power Plant is sent to high-voltage electric lines and exported outside Pueblo County. Xcel also sells directly to the Evraz Steel Mill, the only direct electric customer in the immediate area. Evraz is the single largest commercial account for Xcel Energy in Colorado.

Airport Industrial Power Plant:

As a result of the termination of the purchasing agreement between Black Hills and Xcel Energy, Black Hills constructed a new natural gas power plant. The new plant is a joint effort between Black Hills and Colorado Electric. The Airport Industrial Power Plant is actually two power plants co-located at a site near the Pueblo Memorial Airport. It began producing electricity in 2012.

- ∞ Black Hills Energy - Colorado Electric owns two 90-MW, natural-gas-fired units (Total 180 MW)



- ∞ Black Hills Colorado IPP owns two combined cycle** units, each consisting of two 40-MW natural-gas-fired turbines and one 20-MW steam turbine (Total 200 MW)
- ∞ Total for new plant = 380 MW

Other Sources Utilized by Black Hills:

Black Hills operates a 42 MW coal fired power plant located in Canon City, which sometimes provides power to the grid that serves Pueblo. The coal plant is scheduled to be retired in 2013 in compliance with the Colorado Clean Air Clean Jobs Act (HB 1365). After that point, Black Hills will provide electricity solely from natural gas and renewable resources.

Black Hills also owns a natural gas fired power plant in downtown Pueblo (105 S. Victoria Ave, Pueblo, CO 81003). This plant is scheduled for closure in documents filed with the PUC.

In March 2011, Black Hills proposed the addition of an 88 MW natural-gas fired turbine at the Pueblo Airport Industrial Power Plant. The additional generation is proposed as a replacement to the Canon City facility, however the application was denied by the PUC due to overall rate increase issues between Black Hills and Xcel. Black Hills then filed a settlement agreement reached with the Colorado Office of Consumer Counsel, Board of Water Works of Pueblo, Fountain Valley Authority, Noble Energy, Inc., and EnCana Oil and Gas, Incl. to construct and operate the new turbine. Appeals to the decision are pending.

Renewable Electricity Sources Utilized by Black Hills

Colorado State University Pueblo (CSU Pueblo) has a large 1.2-megawatt solar array. This installation is one of the largest at an educational institution in the US. The solar array covers 4.3 acres with more than 6,800 photovoltaic panels, and is capable of generating approximately 1,800 megawatt hours of electricity per year.

BP Solar operates and maintains the system at CSU Pueblo, selling the zero-carbon electricity to the university. Project funding was provided by BP Solar and supplemented by Black Hills Energy, CSU-Pueblo's local electric utility company, as part of its solar rebate program. Black Hills Energy will also purchase the renewable energy credits created by the project from BP Solar . In addition to the large array owned by BP, the University has a 6.12 KW solar panel array that provides electricity to the engineering building.

Vestas operates a 1.8 MW wind turbine at their manufacturing facility. The electricity produced by the wind turbine currently feeds the grid rather than the facility itself. Black Hills purchases the electricity from Vestas along with the renewable energy credits. Vestas plans to install a new 3.0 MW turbine in the near future, and may use the power for their operations.

Pueblo County owns nine systems that produce approximately 658 KW of solar generation. The City of Pueblo's waste water treatment plant has 309 KW. There are multiple smaller-scale residential systems in addition to these installations, however there is not currently a method to track the production occurring at these less concentrated sites. Dan Smith of Black Hills Energy estimated there is approximately 7.0 MW total of solar generation within Pueblo County.



Power Plant	Energy Source	Generation Capacity (MW)
Comanche Unit 3	Supercritical Pulverized Coal	750
Comanche Units 1 & 2	Subcritical Pulverized Coal	660
Black Hills Airport CE	Natural Gas	180
Black Hills Airport IPP	Natural Gas Combined Cycle	200
CSU Pueblo – BP array	Solar	1.2
Vestas Wind Turbine	Wind	1.8
County Solar (9 systems)	Solar	0.66 (658 KW)
City Waste Water Trtmt Plant	Solar	0.31
	Total	1,793.97

Table 2: Renewable Electricity Sources in Pueblo County

The total number of kilowatt hours used within Pueblo County in 2010 was 1,325,586,920 kWh (this excludes the steel mill), divided by the number of hours in a year (8,766 hrs/year), gives kW per year 151,219. Converting to MW results in a total of 151 MW. This is a very simplified calculation, however, it provides a reasonably accurate idea of average demand. Though average demand can be useful for assessing some aspects of energy use, peak demand is more important when determining how much generation is necessary.

With an estimated generating capacity of 1,793.97 MW and an average use of 151 MW, Pueblo County has the ability to generate nearly ten times as much electricity as it uses. With an average electricity demand of approximately 90 MW, the steel mill uses nearly as much energy as all other users within the county combined.

3.2.2 ELECTRICITY DISTRIBUTION

There are two electric distributors that supply electricity to Pueblo County, Black Hills Energy and San Isabel Electric Cooperative. Electricity distributors either buy or generate electricity that feeds the local grid, then sell the electricity in the grid to the customer. The electric distribution companies own the distribution power-lines and are responsible for line construction and maintenance. A third electricity generation and distribution company, Xcel Energy, provides electricity to the steel plant. Below the electricity provided by each company is broken down by user category.

User Category	Xcel Energy	Black Hills	San Isabel	Combined
Commercial		527,099,203	83,870,578	610,969,781
Industrial		138,781,592		138,781,592
Steel Mill	747,000,000			747,000,000
Residential		432,020,281	93,238,690	525,258,971
Government		38,509,656		38,509,656
Agriculture			19,074	19,074
Seasonal			596,259	596,259
Lighting (County Gov)		11,451,587		11,451,587
			Total	2,072,586,920 kWh

*This does not include the 299,498,800 kWh Black Hills attributed to "Wholesale" as it is not possible to determine if the wholesale energy was sold to San Isabel or to another entity outside the county therefore we were unable to account for it.

Table 3: Electricity Consumption in Pueblo County



Evaraz Steel Mill alone consumed the most electricity in the county, more than any other user class. After the steel mill, commercial users had the highest total number of kWh, followed by residential customers.

The total electricity used within Pueblo County was 2,072,586,920 kWh. Of this new total the steel plant alone accounts for 36 percent of the county electrical use, and Industrial (Evaraz and other industrial users) accounts for 43 percent of the County’s electrical use. Commercial users are 29 percent of the total and residential users are 25 percent of the total. Together these three user categories make up 97 percent of the electricity use.

3.2.3 ELECTRICITY USE ANALYSIS

The previous section provides a clear understanding of the type of customer that consumes the most energy within Pueblo County, this section takes a more in-depth look at each use category and addresses where each use type is located, and if the use is concentrated around a single location or evenly distributed throughout the county. A graphic representation of the total electricity use is as follows:

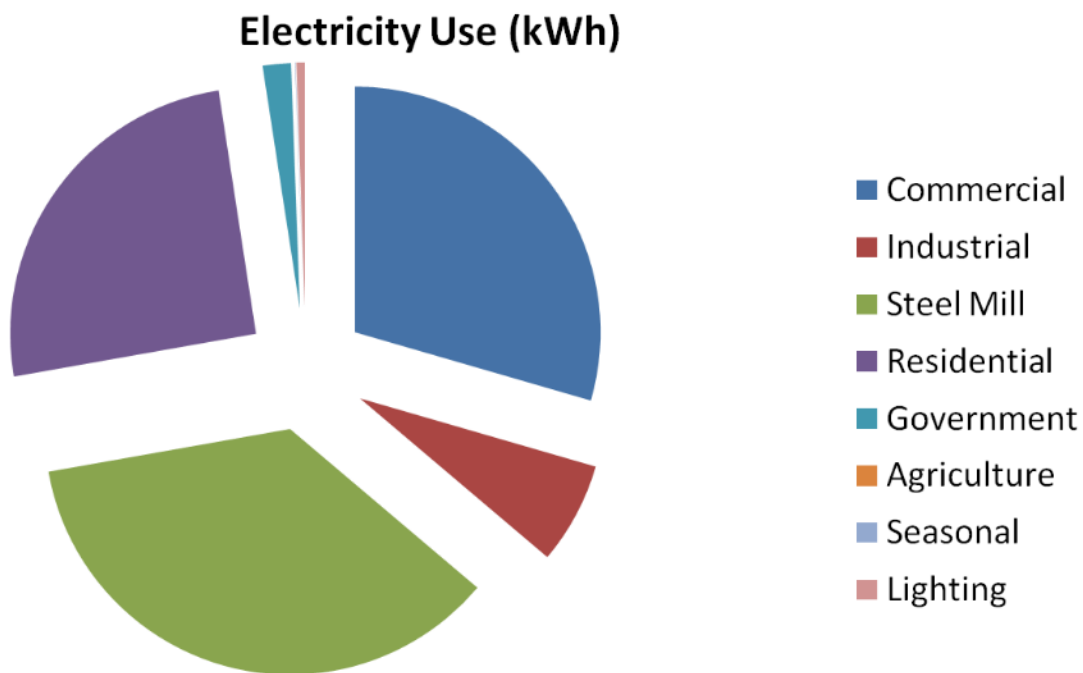


Figure 3: Electricity Use by Sector in Pueblo County



Residential Electricity Use

With 317,292,302 kWh, the City of Pueblo residential users consume the largest overall amount of electricity within the county. Sixty percent of the total electricity used by residential customers is consumed within the City of Pueblo. However, the usage rate per consumers is one of the lowest in the county, with kWh per customer ratio of 7,001.

Pueblo West has the highest amount of residential use with 111,041,744 kWh, 21 percent of all the electricity consumed by residential consumers. Pueblo West has a higher kWh to customer or co-op member ratio ranging from 9,844 kWh/member (San Isabel) to 10,459 kWh/customer (Black Hills).

The use per consumer varies due to many factors: overall size of home, use for air conditioning, use for heating, and the energy efficiency of the home. Some residential use figures include use for irrigation and other activities related to agriculture.

Black Hills			
City	Customers	kWh	kWh/Customer
Avondale	169	1,425,617	8,436
Blende	200	1,646,935	8,235
Boone	187	1,330,283	7,114
N. Avondale	15	121,294	8,086
Pueblo	45,319	317,292,302	7,001
Rural Pueblo	5,878	55,445,029	9,432
Pueblo Fringe	623	4,727,949	7,595
P. Mem Airport	1	670	670
Pueblo West	4,729	49,465,737	10,459
Vineland	64	564,465	8,820
San Isabel			
City	Customers	kWh	kWh/Customer
Beulah	223	1,502,452	6,737
Colorado City	740	6,093,075	8,234
Pueblo West	6,551	61,576,007	9,399
Rye	129	906,447	7,027
No Town	2,713	23,160,709	8,537
Seasonal	272	596,259	2,192
Agriculture	7	19,074	2,725
Total	Residential Only	525,855,230	
	With Agriculture	525,874,304	

Table 4: Residential Electricity Use by Community

Seasonal and agricultural users have been added into this section as information sources varied in their classification of users. Therefore, it is possible that seasonal and agricultural users may have been grouped in with residential users for some locations, as many farms are co-located with residences. The geographic distribution of residential electric use is mapped in Figure 4.



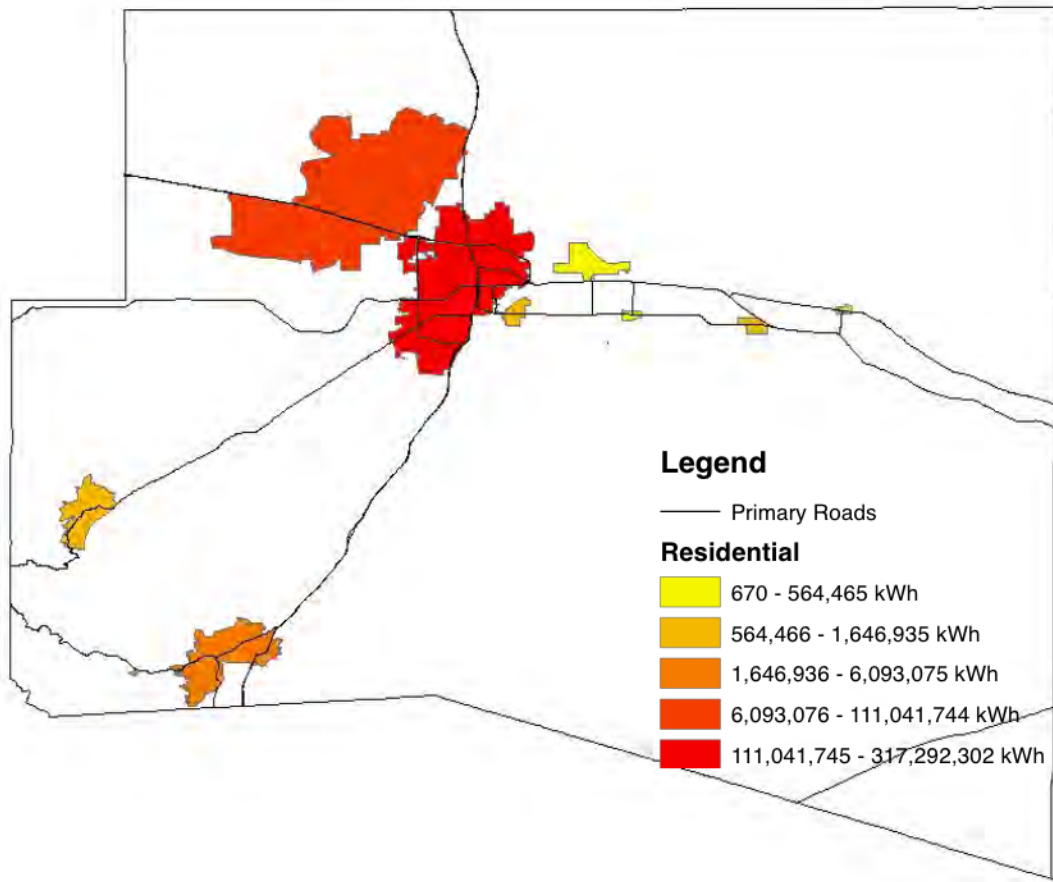


Figure 4: Distribution of Residential Electricity Use of Electricity

Commercial Electricity Use

Commercial users are centered around the City of Pueblo. The largest number of commercial customers (5,099) are located within the City of Pueblo itself and used 423,777,062 kWh in 2010 (more than any other location). Pueblo West is the second highest number of commercial customers with 819 total customers.

Commercial customers use more kWh per customer than residential users. Pueblo Memorial Airport, Vineland, and “No town” have the highest kWh per customer. This may suggest that some industrial users located within the Pueblo Memorial Airport have been classified as commercial users. In Vineland and “No Town,” it is possible that large agricultural operations are being classified as commercial users and consuming large quantities of energy.



Black Hills			
	Customers	kWh	kWh/Customer
Avondale	35	1,013,361	28,953
Blende	180	6,954,922	38,638
Boone	24	327,561	13,648
N. Avondale	8	196,457	24,557
Pueblo	5,099	423,777,062	83,117
Rural Pueblo Co	823	23,180,517	28,177
Pueblo Fringe	118	2,240,001	18,996
Pueblo Mem Airport	63	30,704,597	489,967
Pueblo West	597	34,975,084	58,609
Vineland	23	3,729,641	162,158
Total Black Hills	6,969	527,099,203	94,682
San Isabel			
	Customers	kWh	kWh/Customer
Beulah	28	599,532	21,412
Colorado City	84	3,587,043	42,703
Pueblo West	222	13,656,568	61,516
Rye	24	318,641	13,277
No Town	250	65,708,794	262,835
Total San Isabel	608	83,870,578	80,349
Total	7,577	610,969,781	80,635

Table 5: Commercial Use by Municipality

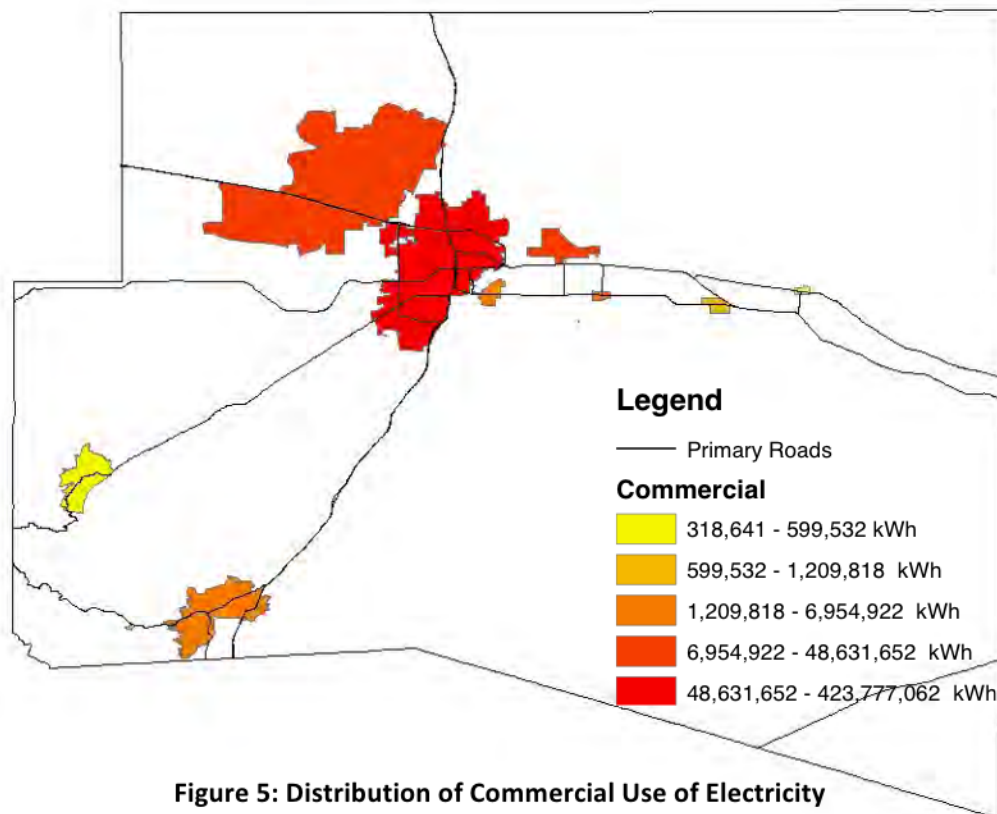


Figure 5: Distribution of Commercial Use of Electricity



Industrial Electricity Use:

The largest industrial user in Pueblo County, Evraz Steel Mill, uses more electricity than any of the other user categories. Industrial users consume significantly more kWh per customer than any other user categories and are the most electricity intensive activities within the county. Users are located in two central areas, Pueblo and Pueblo Memorial Airport. The largest industrial user, Evraz is located southeast of the City of Pueblo, creating a core area of industrial users.

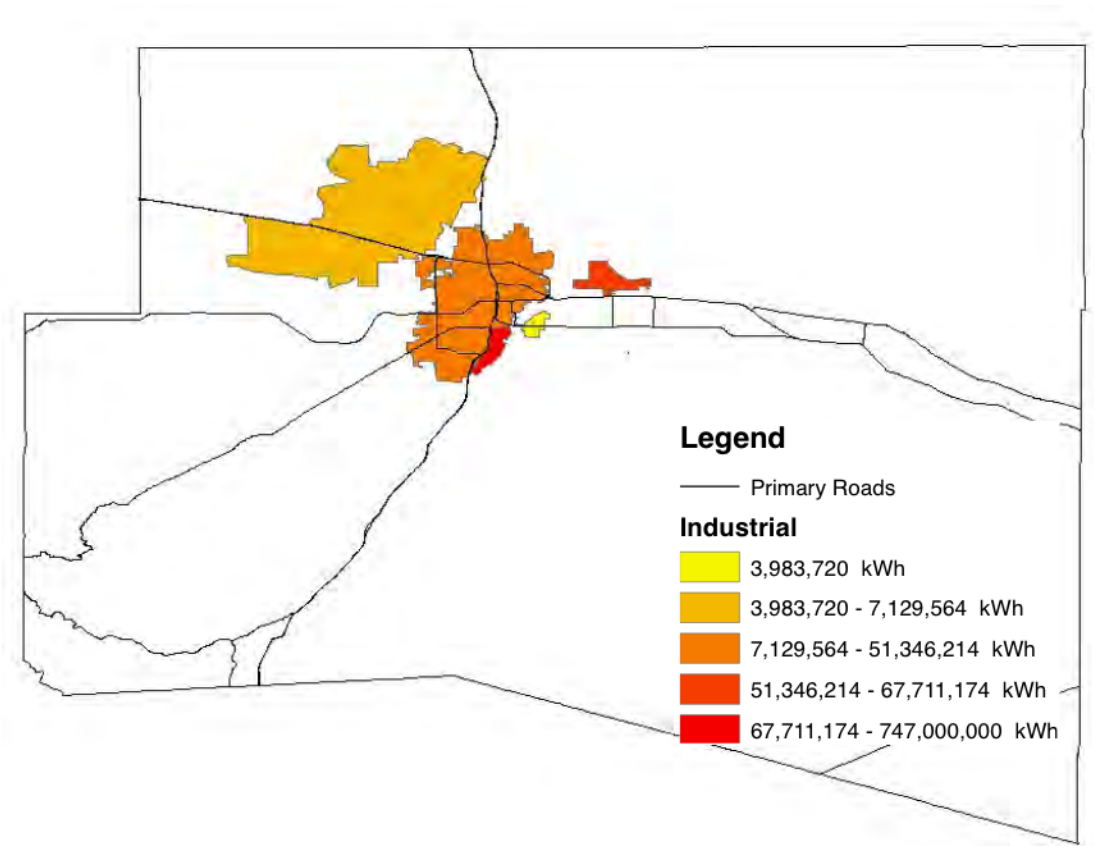


Figure 6: Distribution of Industrial Use of Electricity



	Number of Customers	kWh	kWh/Customer
Blende	2	3,983,720	1,991,860
Pueblo	12	48,020,714	4,001,726
Pueblo Interruptible*	1	3,325,500	
Rural Pueblo	3	5,653,720	1,739,606
Pueblo Fringe	2	2,957,200	1,478,600
Pueblo Mem Airport	13	66,605,674	5,190,053
Mem Airport Interruptible*	1	1,105,500	
Pueblo West	2	7,129,564	3,422,191
Total Industrial	36	138,781,592	2,970,673

Table 6: Industrial Use by Municipality

Specific Industrial Users	kWh 2010
Evaraz Steel Mill	747,000,000
Vestas	24,885,600
GCC Cement Plant	61,887,000

Table 7: Largest Industrial Users

Government Electricity Use:

In general, government entities and commercial users consume comparable amounts of electricity. The exception to this is within the cities of Pueblo and Pueblo West. In these locations, the government users consume about as many kWh per customer as an industrial user. This may be due to the types of activities taking place in Pueblo and Pueblo West. Another explanation for the higher kWh per customer could be caused by the consolidation of multiple government facilities into one billing, resulting in a single customer profile for several buildings.

City	Number of Customers	kWh	kWh/Customer
Avondale	3	175,017	58,339
Blende	3	116,289	38,763
Boone	1	6,617	6,617
Pueblo	19	28,027,583	1,449,703
Rural Pueblo	7	2,335,276	333,611
Pueblo Fringe	1	22,801	22,801
P. Mem Airport	1	302	302
Pueblo West	8	7,825,771	1,020,753
Total	43	38,509,656	366,361

Table 8: Government Use by Municipality



Lighting:

The public sector is responsible for the majority of the County’s lighting. After government, commercial users are the next biggest electricity users. According to personnel at Black Hills Energy, lighting represents a significant expense for the County, and therefore may be an area where changes would be recommended. Energy consumption for lighting is highest within the City of Pueblo, representing 92 percent of the overall electricity used for lighting.

Avondale	Commercial	7,729
	Government	22,010
	Industrial	1,848
	Residential	2,160
Blende	Commercial	46,713
	Government	20,329
	Industrial	5,208
	Residential	5,475
Boone	Commercial	840
	Government	33,564
	Residential	2,160
Pueblo	Commercial	2,804,243
	Government	7,245,852
	Industrial	64,689
	Residential	425,509
Rural Pueblo	Commercial	64,495
	Government	269,453
	Residential	61,080
Pueblo Fringe	Commercial	29,232
	Government	57,840
	Industrial	10,080
	Residential	23,068
P. Mem Airport	Commercial	15,360
Pueblo West	Commercial	42,960
	Government	110,930
	Residential	9,556
Vineland	Commercial	9,576
	Government	57,468
	Residential	2,160
Total Lighting		11,451,587
	Commercial	3,021,148
	Government	7,817,446
	Industrial	81,825
	Residential	531,168

Table 9: Electricity Used For Lighting (By Community and Sector)



Water:

The Pueblo Board of Water Works (BOWW) is the largest provider of drinking water in the County. The BOWW spent \$2,507,741 in 2011 for electricity to power the BOWW treating and pumping operations. The BOWW has worked in conjunction with its energy providers to maximize efficiencies of energy use, since energy is the overwhelming majority of non-personnel operating costs. The BOWW has achieved significant savings through these efforts.

3.3 NATURAL GAS ANALYSIS

Information from the U.S. Census Bureau indicates that “utility gas” or natural gas is the leading source of household heating fuel within Pueblo County. Heating is the primary use of natural gas within Pueblo County, though some industrial customers may have additional uses for natural gas. Because heating is the primary use of natural gas within the county, the consumption of natural gas will vary depending upon the winter weather, analyses provided in this report are based on data obtained for the calendar year 2010.

3.3.1 NATURAL GAS SOURCES

Natural gas is extracted from natural gas basins outside of Pueblo County and travels through pipelines to customers. The closest basin to Pueblo County is the Denver Julesburg Basin, which, according to maps extends into the very northeast corner of Pueblo. Though a small portion of the basin lies within Pueblo County, oil and gas production information obtained from the Colorado Department of Natural Resources, indicates that there are no gas facilities within Pueblo County

3.3.2 NATURAL GAS DISTRIBUTION

Natural Gas is distributed through underground pipelines. The gas is extracted at a well site and enters directly into a collection pipeline which brings the gas to a natural gas processing unit or compressor station and from there the gas enters distribution pipelines which bring natural gas straight to the consumer. The main natural gas pipeline that runs through Pueblo County and the City of Pueblo is owned by Colorado Interstate Gas. Colorado Interstate Gas sells some natural gas directly to consumers and some natural gas is sold to local distribution companies, such as Xcel and Seminole. Access to natural gas as a heating fuel is limited to areas where distribution pipelines are present.

3.3.3 NATURAL GAS USE ANALYSIS

Natural gas is used for fuel in natural gas fired power generation stations, and directly as a heating fuel for homes and other buildings and for commercial and industrial operations. Information on Natural Gas use within Pueblo County was provided for this report by Xcel Energy and El Paso (Colorado Interstate Gas).



Table 10: Xcel Energy Natural Gas 2010 Data			
Customer Class	Number of Customers	Gas Consumed in Decatherms	Average per Customer in Decatherms
Residential	51,577	3,598,997	70
Commercial	4,378	5,214,922	1,191

Table 11: CIG Natural Gas Data					
Year	End User	Local Distribution Company	Direct Connect Power Plant	Total	Unit of Measure
2009	4,745,000	7,665,000	3,650,000	16,060,000	DTh/year
2010	4,745,000	8,030,000	5,475,000	18,615,000	DTh/year

Table 12: Notable Natural Gas Consumers	
Specific Industrial User	Natural Gas 2010 (DTh)
Evraz	3,600,000
Vestas	63,237

3.4 PROPANE ANALYSIS

3.4.1 PROPANE SOURCES

Propane is a by-product of natural gas processing and petroleum refining. Propane is collected at natural gas processing plants and refineries and either stored on site or routed into a liquefied propane pipeline. No natural gas processing plants or refineries are located in Pueblo County, so there are no local sources of propane. Propane used within Pueblo must be transported into the county, which adds to the environmental impact of this energy source.

3.4.2 PROPANE DISTRIBUTION

Since Pueblo County does not have any sources of propane located within the county, propane must be transported into the county. Propane is typically distributed by trucks carrying the propane from the source to the point of retail. Occasionally liquefied propane is transported in pipelines.



3.4.3 PROPANE USE ANALYSIS

The following information was provided by the Colorado Propane Gas Association:

Year	
2009	169,074,000
2008	194,657,000
2007	194,779,000
2006	166,503,000
2005	212,159,000

SECTOR	GALLONS	% OF MARKET
Residential	123,381,000	72.97
Commercial	18,671,000	11.04
Retailers (BBQ tanks)	9,157,000	5.42
Total Combustion Vehicles	4,374,000	2.59
Industrial	9,081,000	5.37
Agriculture	2,936,000	1.74

The largest consumer of propane in Pueblo County is the GCC Cement Plant. Plant officials reported that 101,253 gallons of propane were burned at the plant in 2010.

Precise propane consumption data was not available for Pueblo County. Residential use was estimated by researching U.S. Census Bureau and Colorado Propane Gas Association information. This data indicates that between 5.5 and 10 percent of households in Pueblo County use bottled, tank, or LP gas for heating. By applying the 5.5 to 10 percent rate of propane use to the approximately 59,807 households in Pueblo County, it appears that between 3,295 and 5,953 households use propane. The midpoint of this estimate is 4,624.

The statewide residential use was 123,381,000 gallons in 2009. According to the Colorado Propane Gas Association, 103,000 households use propane. This equates to approximately 1,200 gallons per household. Residential propane consumption in Pueblo County is therefore estimated to potentially be approximately 5,548,800 gallons of propane.

In conclusion, the two main users of propane in Pueblo County appear to be industrial at 101,253 gallons annually (the GCC Cement Plant) and potential residential use at 5,548,800 gallons annually. These numbers are a rough estimate, as little quantitative information was obtained from propane retailers.

3.5 COAL

Though a complete analysis of coal use within Pueblo County was not feasible, it is pertinent to mention the use of coal since it is the primary fuel source for the Comanche Power plant. Coal is also used at the GCC Cement Plant. 67,171 short tons of coal was used at the GCC plant in 2010.



3.6 RENEWABLE ENERGY ANALYSIS

Renewable energy reduces dependence on fossil fuels. The Governor’s Energy Office (GEO) provides support and funding to Colorado communities interested in the environmental and economic benefits of renewable energy. According to the GEO’s Renewable Energy Development Infrastructure (REDI) report, Colorado has 10 generation development areas capable of more than 96,000 MW of wind generation and 26,000 MW of solar generation. The potential of this capacity compares to the current installed capacity of 13,964 MW available in Colorado in 2008. The following figure from the REDI report illustrates the statewide generation development areas (GDA) for wind and solar, as well as transmission line locations. The South and Southeast of Pueblo GDA is shown in greater detail in section 3.6.2.1.

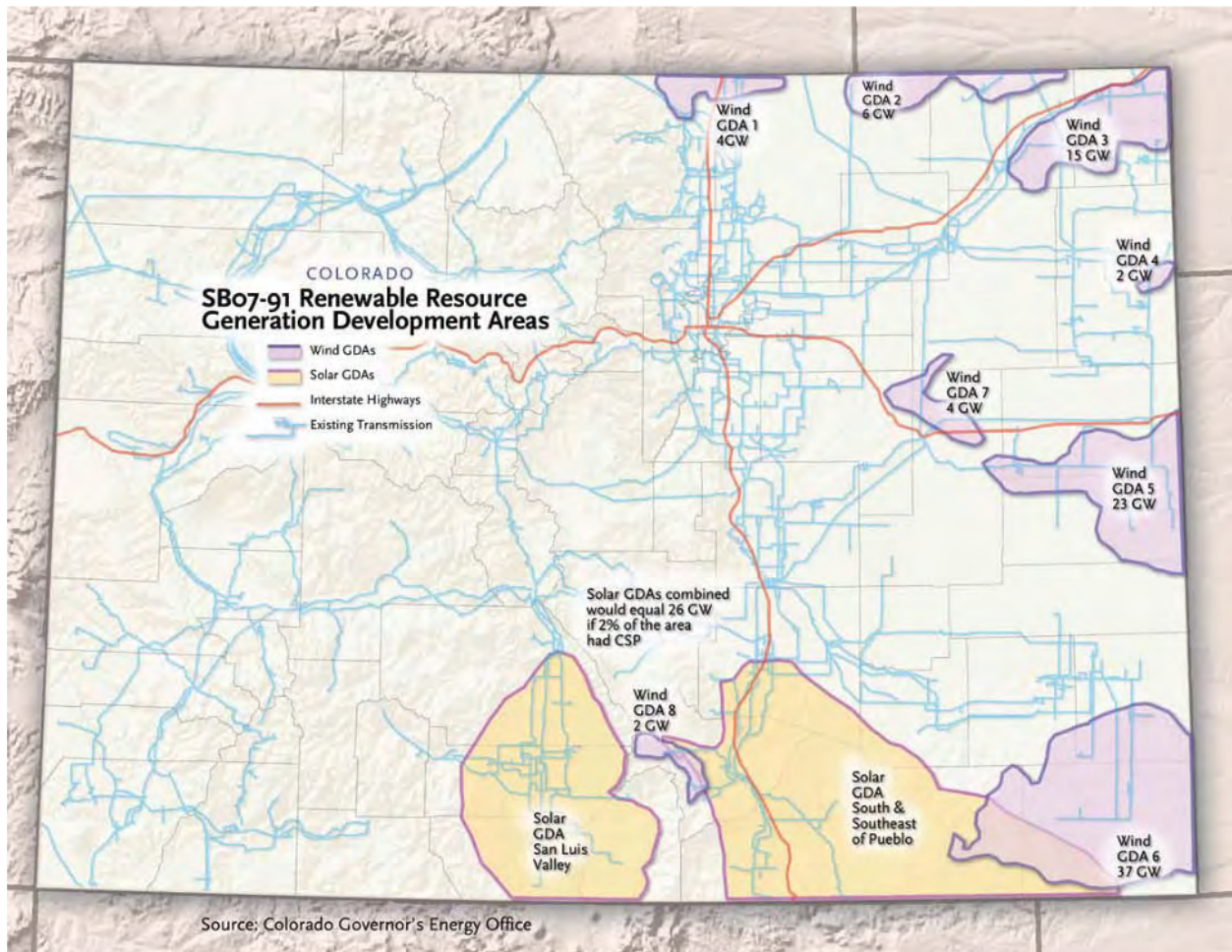


Figure 7: Renewable Resource Generation Development Areas Identified by the GEO



The Public Service Company of Colorado reports that 56% of customer demand was met by wind generation on October 11, 2011 at 4 AM. On October 8, 2011, 38% of customer demand was met by wind generation for an entire day.

The U.S. Energy Information Administration recently reported that U.S. energy production from renewable sources rose to 10.92% in 2010. Renewable energy sources include biomass/biofuels, hydro, geothermal, solar, water, and wind energy. Solar is the focus of most renewable energy installations in Pueblo County. Wind and geothermal will be discussed in addition to solar.

3.6.1 RENEWABLE ENERGY SOURCES

Pueblo County leadership and citizens have supported renewable energy in the past. Support has included organizations such as Southeast Colorado Renewable Energy Society (SECRES) and Sustainable Pueblo, utility providers including Xcel Energy and Black Hills Energy, and companies such as Vestas and KOAA News.

CSU-Pueblo hosts monthly meetings of SECRES, a chapter of the statewide Colorado Renewable Energy Society. SECRES was founded in 2003 and includes members from Pueblo, the Pikes Peak region, Colorado Springs, and Southeast Colorado. The group advocates for renewable energy and provides education and events. SECRES has helped raise awareness of renewable energy opportunities in Pueblo County.

Table 14: Renewable Energy Generation in Pueblo County	
Wind:	
Vestas facility	3,187,600 kWh
Solar:	
BP Panels for CSU Pueblo	1,856,427 kWh
Smaller panels for CSU Pueblo	8,873 kWh
County Buildings Solar Installations	952,710 kWh
City of Pueblo Waste Water Treatment	
Total Generation:	6,005,610 kWh

3.6.1.1 SOLAR

Multiple solar panel arrays are currently in operation in Pueblo County. CSU-Pueblo has a 1.2 MW installation through a partnership with BP Solar and Black Hills Energy. The system is estimated to provide more than 10 percent of CSU-Pueblo’s power needs. The County has installations at nine locations totaling 675 kW. Private residences and businesses in the county also have solar installations, including a 50kW installation at the Pueblo Community Health Center.

A 2011 report from the U.S. EPA indicates that a Clean Water State Revolving Fund award in the amount of \$1.5 million was made to the City of Pueblo. The grant was funded through the American Recovery and Reinvestment Act for installation of a solar photovoltaic power system at the James R. Dilorio Water Reclamation Facility. A 200 kW array will provide power to the wastewater treatment system.



The potential for additional installations is great, as is the potential for utility-scale development. Portions of Pueblo County are rated as highly rated productive potential solar energy sites. In combination with existing transmission lines, this offers tremendous potential for renewable energy development. The following figure is a more detailed version of Figure 7.

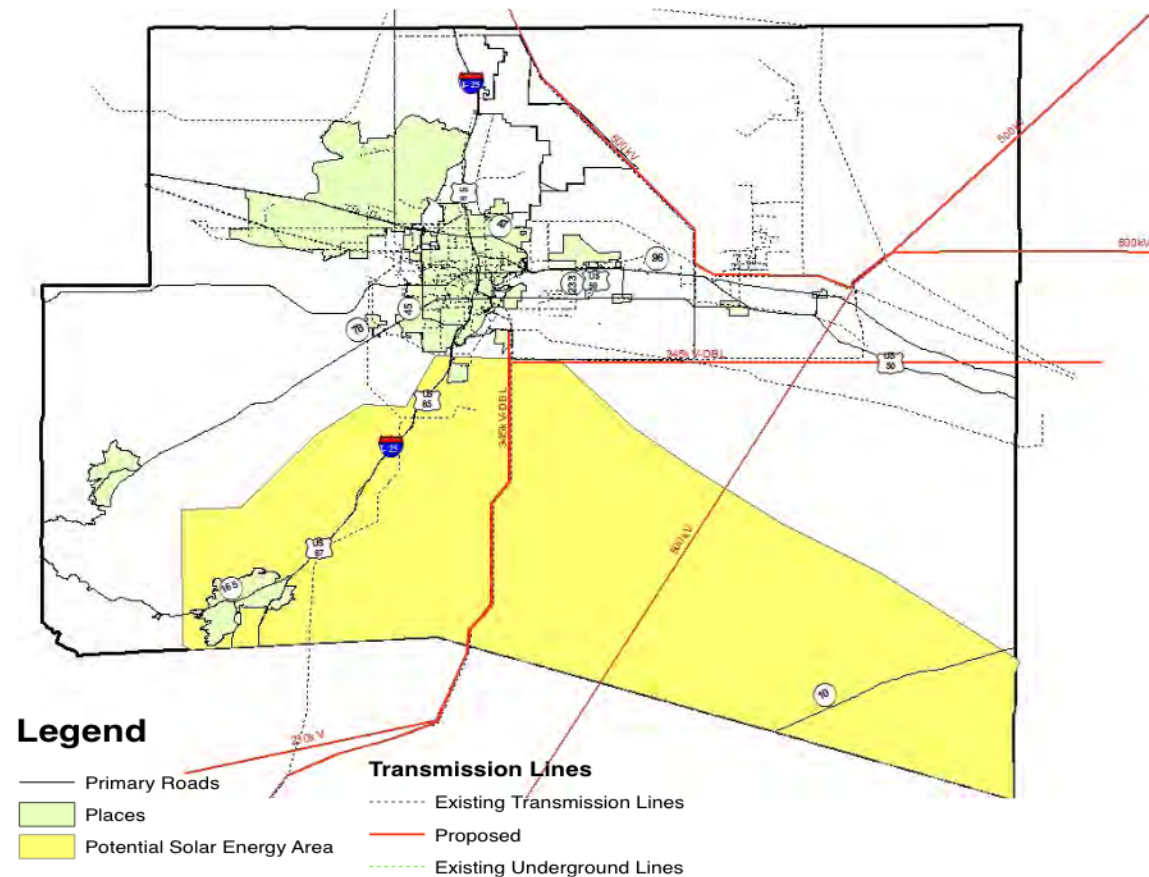


Figure 8: Solar Generation Development Area – Pueblo County Detail

The County is working with the Southwest Solar Transformation Initiative (SSTI) and other partners to facilitate smaller scale solar. The project is called the Rooftop Solar Challenge. Goals of the initiative include improving the permitting process, facilitating interconnection and net metering, and Educating the public about the best practices for solar, and streamlining the permitting and financing process for individuals interested in solar.

3.6.1.2 WIND

The Vestas Company is located south of Pueblo and manufactures towers for wind turbines. The facility is the world’s largest tower factory and employs 350 to 500 county residents, depending on production levels. Vestas’ presence indicates the predicted growth of the wind generation.

Vestas has one turbine in operation at their manufacturing complex. Power generated by the turbine is sent to the grid via a net-metering arrangement. Plans for installation of a second turbine have been



considered, but are currently on hold. If installed, power from the new turbine would be routed to the manufacturing facility, with any excess power sent to the grid.

Wind generation in Colorado has successfully provided sufficient power for the Public Service Company of Colorado (PSCo) to turn off several coal-fired plants for a long weekend.

The ability to forecast wind energy generation is the result of a partnership between Xcel Energy and the National Center for Atmospheric Research (NCAR). This partnership is considered to be the most advanced of its kind. The highly accurate forecasts enable Xcel to anticipate when wind energy will meet customer needs, enabling Xcel to power down traditional coal- and gas-fired plants. The system saved Xcel’s ratepayers over \$6 million in 2010. The reliability of this system may promote development of additional wind generation and reduce the use of fossil fuels.

“This project demonstrates that improved forecasting of wind energy is feasible. It improves system reliability, and it makes wind energy more economically competitive with traditional energy sources.”

- Melinda Marquis, NOAA Earth Systems Research Laboratory

Pueblo County presents the potential for wind energy development. The most highly rated areas are in the far southwest quadrant of the county. These areas are within the San Isabel National Forest. Pueblo County provides viable sites for wind power, however utility-scale installations are not likely.

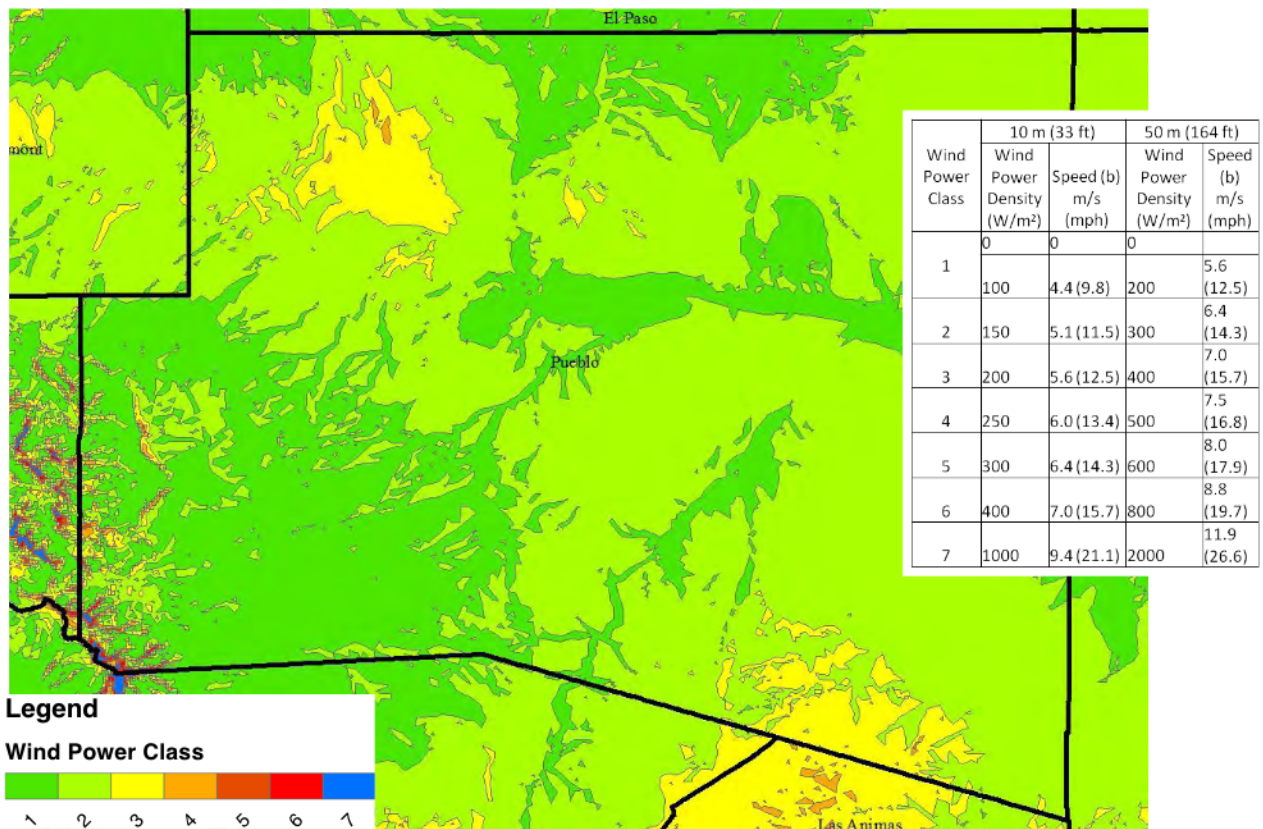
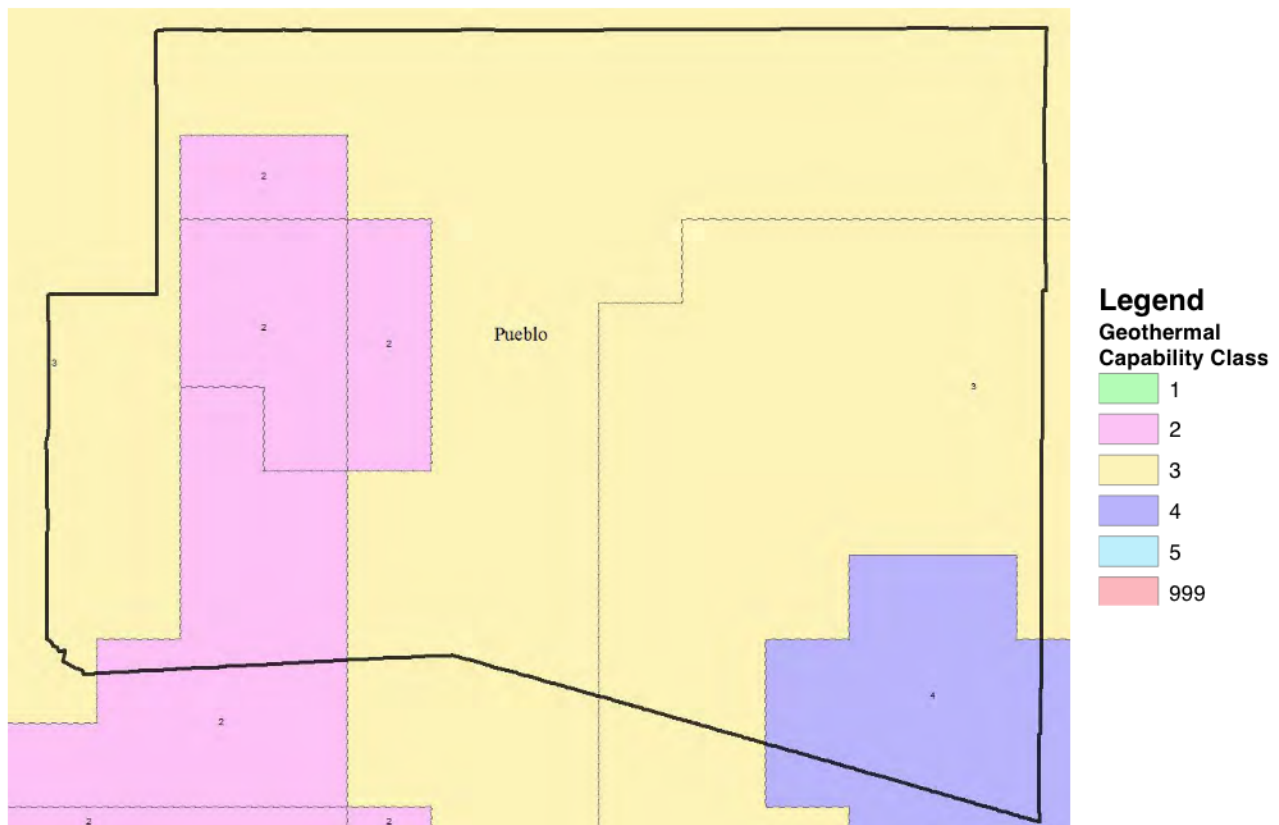


Figure 9: Wind Generation Development Area – Pueblo County Detail

3.6.1.3 GEOTHERMAL

Geothermal

Geothermal technology holds potential for portions of west central Pueblo County. The following map indicates compatibility. Class 1 is the most favorable ranking; west central Pueblo County is ranked a Class 2. The most recent evaluation of geothermal applications was conducted by Johnson Controls in 2010 as part of the Energy Performance Contracting study. The study concluded that geothermal technologies did not provide a competitive cost / benefit ratio.



3.7 CONCLUSIONS

Pueblo County is already a major exporter of energy, specifically electricity produced by the Comanche Power Plant. Of the plant’s maximum capacity of 1,400 MW, Evaraz uses approximately 90 MW, therefore, at peak generation Comanche (Xcel) exports approximately 1,310 MW of electricity.

The opportunity to build on this legacy of large scale energy production lies primarily within development of the county’s wind and solar resources. Projects could be located at the existing industrial sites to provide power directly to the user and channel excess production to the grid via the



existing transmission network. Other installations could be located in more remote locations of the county served by the transmission lines.

The GEO's REDI report recommends several actions to address the gap between emissions and existing goals. Actions include:

- ∞ Invest in demand-side management, demand response, and conservation
- ∞ Increase investment in renewable energy development, particularly utility-scale wind and solar
- ∞ Accelerate high-voltage transmission lines to deliver renewable energy from renewable resource generation development areas to major markets
- ∞ Strategically use natural gas-fired generation to provide new power and integrate naturally variable renewable resources
- ∞ Consider early retirement or decreased utilization of the oldest and least efficient coal-fired plants

The community is currently in the midst of a transition on the generation side of the electricity supply chain. Recent changes to generation and distribution have led to rate increases for some Pueblo County consumers. The changes have included:

- ∞ Xcel stopped selling power to Black Hills from the Comanche Power Plant
- ∞ Black Hills retired the Canon City plant
- ∞ Black Hills retired the downtown Pueblo plant
- ∞ Black Hills developed the Pueblo Airport Power Plant
- ∞ Black Hills requested a 19% rate hike from the PUC
- ∞ Xcel requested a rate hike due to the loss of business from Black Hills (denied)
- ∞ Black Hills requested authority to add an additional cell at the Pueblo Airport (denied)
- ∞ Construction of new transmission lines could also impact Pueblo County residents.

Note that a rate increase has not been requested by San Isabel Electric at this time.

Pueblo County's proactive action can help prevent additional utility rate hikes. Implementation of energy efficiency projects are a key first step. Technologies such as demand side management and net metering will help distribute power as efficiently as possible. Lastly, mindful development of renewables, both utility-scale and residential scale, have an important role to play in Pueblo County.



4.0 COUNTY FACILITIES ASSESSMENT

4.1 INTRODUCTION

Operations, maintenance, and utility costs at Pueblo County facilities are a significant component of the annual budget. The County's focus on improved efficiency and renewables will lower energy costs and provide greater flexibility. This assessment takes an inventory of existing facilities, current power usage, and identifies opportunities for efficiency measures and renewable energy.

4.2 FACILITY INVENTORY

Pueblo County's inventory of buildings and properties reflects the complexity of multiple departments. The overall energy consumption for Pueblo County facilities has been assembled and is attached as Appendix A. No centralized system of record keeping exists at the County, so data collection was very challenging. Information was collected from specific departments and gas and electric providers.

4.3 ENERGY CONSUMPTION

According to the data provided by Black Hills and San Isabel, the total number of kilowatt-hours used by the county in 2010 was 12,256,490 kWh. This is approximately 32 percent of the total government energy use for the county. Rhonda Latka of Black Hills reported that the county energy demand as of 2010 was 33,988 kW.

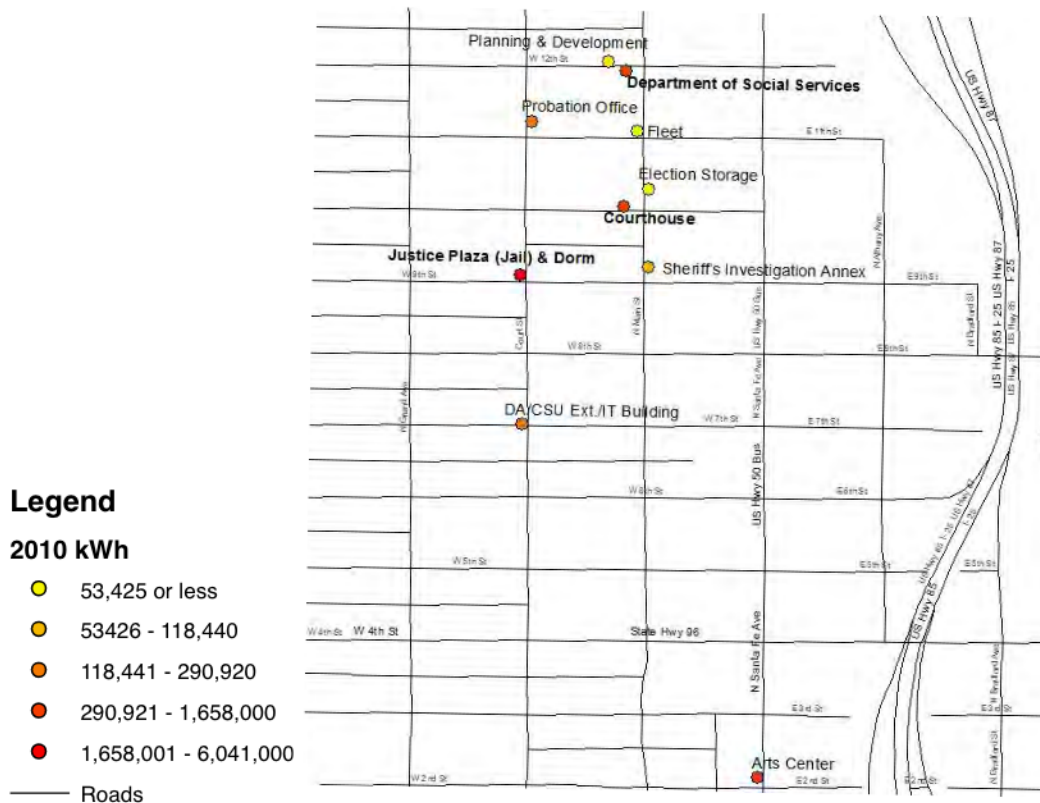
One of the main electricity cost to the County is associated with street lights and traffic lights. The County's facilities with the highest electric use in 2010 are:

- ∞ Justice Plaza (Jail and Dorm) - 6,041,000 kWh
- ∞ Courthouse (1,658,000 kWh)
- ∞ Department of Social Services (1,030,200 kWh)

The Arts Center would also be a top consumer if all the buildings were added together (1,170,390 kWh). These facilities are located in close proximity to one another in Downtown Pueblo. This zone is the area of most concentrated electrical use for county facilities. These centrally located buildings could provide an opportunity for a new localized renewable energy source to reduce the environmental impact of the buildings electrical use.

Figure 16: County Facilities Located in Downtown Pueblo





Legend

2010 kWh

- 53,425 or less
 - 53,426 - 118,440
 - 118,441 - 290,920
 - 290,921 - 1,658,000
 - 1,658,001 - 6,041,000
- Roads

4.4 ENERGY EFFICIENCY AND RENEWABLE ENERGY EFFORTS

Pueblo County has installed solar panels on two of the most electrically demanding buildings, as well as several other buildings. The solar panels provide nearly 10 percent of the electricity consumed by these facilities.

Buildings with Solar Panels (all panels installed in 2011)

Account	Building	Address	Solar Array System Size	Installation Date	Solar Panel Actual Production 2011 (kWh)
0859-7939-84	Sheriff's Investigation Annex	920 N. Main Street	44.9 kW	3/7/2011	59,075
2924-4610-73	Arts Center	210 N. Santa Fe	77.7 kW	1/19/2011	116,597
5978-9271-08	Department of Social Services	212 W. 12th Street	77.7 kW	1/13/2011	124,538
0607-9717-87	Probation Office	1120 Court Street	77.7 kW	1/13/2011	108,813



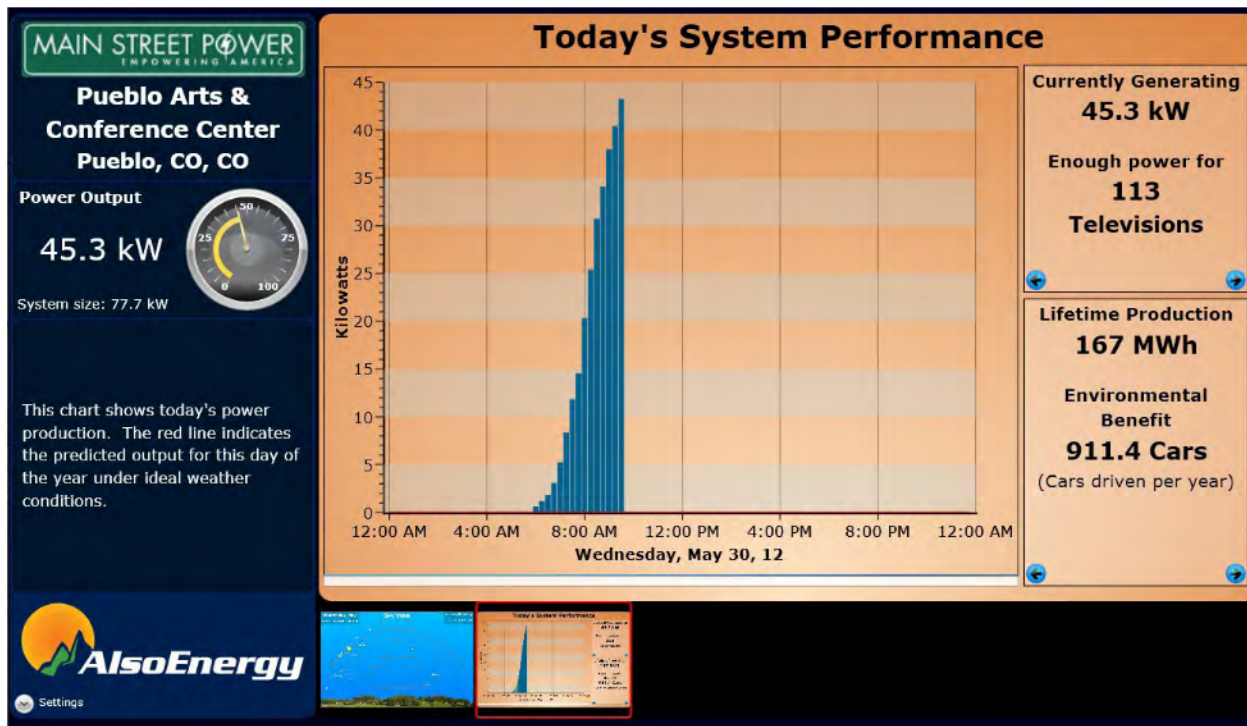
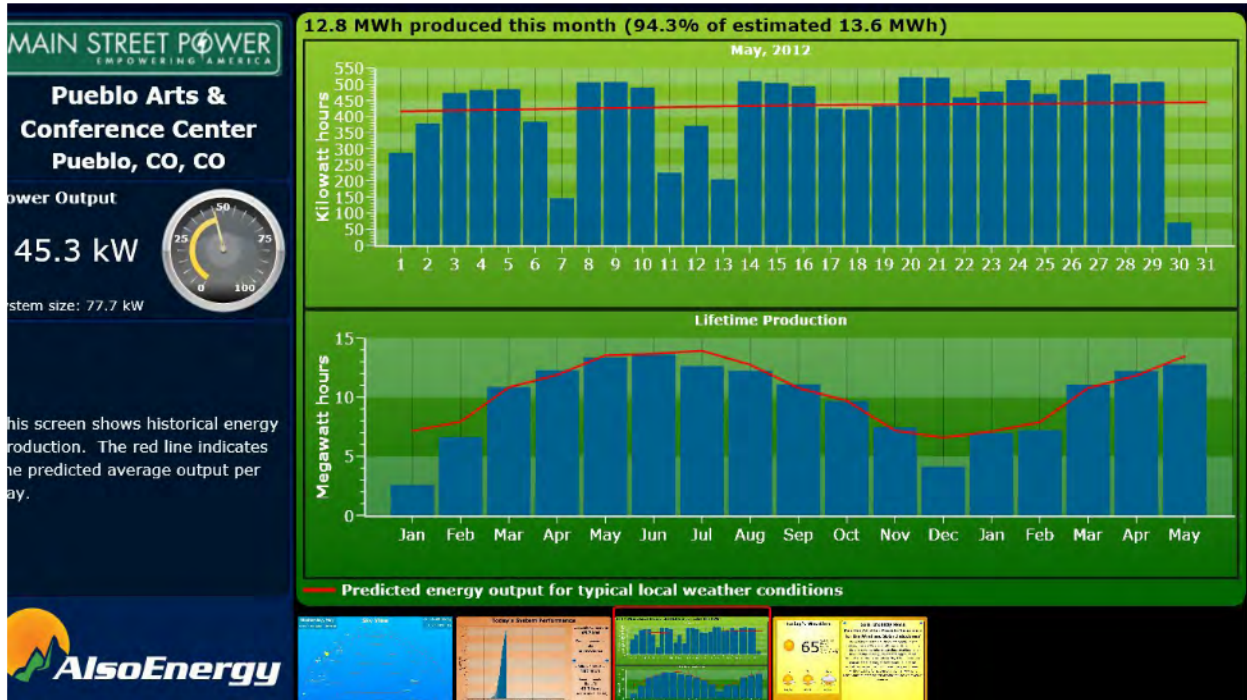
1471-7538-82	Housing & Human Services	2631 E. 4th Street	98.7 kW	2/23/2011	143,015
9534-3539-96	Runyon Sports Complex	400 Stanton Avenue	98.7 kW	1/13/2011	136,032
5092-7078-40	Justice Plaza (Jail) & Dorm	909 Court Street	98.7 kW	1/19/2011	151,406
	Animal Shelter	4600 Eagleridge Place	68.8 kW	5/20/2011	73,134
	Pueblo City County Health Department	101 W 9 th Street	32.9 kW	1/13/2011	44,758
TOTAL PRODUCTION			675.8 kW		956,368 kWh

The solar panels inventoried above were installed through an agreement with Main Street Power, Inc. Main Street Power is a solar project developer based in Boulder, Colorado, which forms local partnerships and financing solutions. Pueblo County's system utilizes a Power Purchase Agreement (PPA).

According to a 2010 article in the *Pueblo Chieftain*¹, the 20-year agreement locks in the charge per kilowatt hour to the county with a maximum cost of 2.8 cents at the end of 20 years. The \$5 million dollar installation was completed at no cost to the county, and is estimated to save the County \$35,000 per year in energy costs. As part of the agreement with Pueblo County, Main Street Power provides live performance monitoring of the installation. Monitoring is operated using Silverlight software and is available at www.mainstreetpower.com/client-portfolio. Two examples of available data displays follow:

¹'County Seals Solar Power Deal', The Pueblo Chieftain, www.chieftain.com/news/local/article_6adef6888-961f-a60d-001cc4c002e0.html accessed May 30, 2012





In addition to renewable energy improvements, energy efficiency upgrades are also a priority for Pueblo County. 28 of the County's buildings recently received energy efficiency retrofits through an Energy Performance Contract (EPC) with Johnson Controls. Johnson Controls implemented \$4,102,172 in Facility Improvement Measures (FIMs). The upgrades are mainly lighting, heating and cooling, and water conservation measures. Johnson Controls estimates that the improvements will save the county



2,643,197 kWh per year, for a total savings of \$5,600,446 over the fifteen year period of the project. The project savings pay for the cost of the audit and the improvements with no cash payment to the EPC.

4.5 THE WATER-ENERGY NEXUS

The Water-Energy Nexus is a term summarizing the relationship between water and the production of various forms energy. It also encompasses the relationship between energy and the production of clean drinking water and the treatment of wastewater. *The Water-Energy Nexus: Adding Water to the Energy Agenda*² developed by the World Policy Institute and EBG Capital outlines the major concepts of these relationships.

Developing policies that encourage sustainable energy production is an important part of Pueblo County's strategy for the future. The following information from the above referenced World Policy Institute paper can help inform future decisions.

Traditional and Renewable Energy and Water

- ∞ Petroleum extracted from Canadian oil sands can consume 20 times more water than conventional drilling
- ∞ First generation biofuels (soy or corn based) can consume thousands of times more water than conventional oil drilling
- ∞ Gas-fired electric generation use the least amount of water per unit of energy produced among conventional power plants. Coal and oil-fired plants consume twice as much; nuclear consumes three times as much
- ∞ Clean coal technology (integrated gasification) reduces water consumption by half and reduces emissions, however certain carbon capture technologies could increase a coal plant's water consumption by 30%-100%
- ∞ Wind and solar photovoltaic electricity consume minimal water and are the most water-efficient forms of traditional and renewable electricity production
- ∞ The solar thermal form of electricity generation consumes twice as much water as coal and five times as much as gas-fired power plants
- ∞ Natural gas produced through hydraulic fracturing uses seven times as much water as conventional gas extraction and approximately the same amount of water as conventional oil drilling. Ground water pollution is currently an issue of concern and requires further research.

Water Supply, Distribution, and Wastewater Treatment and Energy

- ∞ Electricity is typically 75% of municipal processing and distribution cost
- ∞ 4% of US power is used for water supply and treatment
- ∞ Costs include supply, treatment, conveyance, distribution, and wastewater treatment and discharge

Energy production impacts to local water consumption and the impact of energy costs for processing and distributing water need to be considered as Pueblo County develops the goals. Improving energy efficiency and increasing the use of renewable energy have direct relationships to the availability and cost of water and energy.

² *The Water-Energy Nexus: Adding Water to the Energy Agenda* Diane Glassman, Michele Wucker, Tanushree Isaacman, and Corinne Champilou. New York: World Policy Institute and EBG Capital, March 2011



4.6 CONCLUSION

A master database of facilities and associated buildings should be compiled from the above list. Centralizing utility billing and tracking for all county facilities, including production from on-site renewable energy installations, would help the County monitor use and identify issues. A system such as ENERGY STAR's free Portfolio Manager tool, www.energystar.gov/istar/pmpam would provide this capability. Utilize paperless billing to reduce waste. Generate reports and monitor use on an ongoing basis in order. Continually updating and comparing consumption on a year-by-year basis is key to understanding and changing the energy use of the county-owned facilities.

The County should aim to standardize their practices with regards to the lighting accounts. The County could use one account number for the building and one account number for lighting.

Tracking and verification of the value of the EPC can help justify self-funding additional efficiency measures and retrofits.



GOALS, OBJECTIVES, AND ACTIONS

I. GOAL: Establish a County-wide Comprehensive Energy Efficiency Program

A. Objective: Improve the energy efficiency of Pueblo County Government Operations

1. Establish a central point of coordination for County-wide comprehensive energy efficiency and renewable energy projects and programs and to liaison with local utility providers
 - **Action:** The current Sustainability Committee will become a permanent body. The group will be led by a partnership of Pueblo County and the City of Pueblo, with co-chairs elected by the members. Leadership duties may eventually be assigned to a staff member.
 - Responsible Party(ies): Pueblo County and City of Pueblo
 - **Action:** Consider designating a Community Energy Coordinator either as an internal position or as ongoing consultant services.
 - Responsible Party(ies): Pueblo County; possibly partner with City of Pueblo
2. Achieve a 5% reduction in energy consumption for County owned and operated buildings by 2015 through energy efficiency improvements, thus increasing air quality and reducing GHG emissions. Track and monitor energy use and costs.
 - **Action:** Establish an energy efficiency improvements tracking program by utilizing Energy Star portfolio or another similar management program to input monthly energy consumption data for tracking
 - Responsible Party(ies): County Purchasing Office, County Facilities Department, County Engineering and Public Works, County Budget Office. Administrative staff will provide data entry.
 - **Action:** Plan for additional Energy Performance Contracting (EPC) to implement additional energy efficient improvements, also known as Facility Improvement Measures (FIMs) to County-owned facilities by 2015.
 - Responsible Party(ies): County Purchasing Office, County Facilities Department, County Engineering and Public Works
 - **Action:** In addition to EPC projects, identify FIMs that the County will implement on an ongoing basis. Include details for specific improvements and commit to funding in annual budget.



- Responsible Party(ies): County Purchasing Office, County Facilities Department, County Engineering and Public Works
 - **Action:** Implementation of IECC 2009 or greater for Regional building code to support energy efficiency
 - Responsible Party(ies): Regional Building Department, County Facilities Department
 - **Action:** Centralize utility billing and tracking for all county facilities, including production from on-site renewable energy installations. Consider ENERGY STAR's free Portfolio Manager tool, www.energystar.gov/istar/pmpam or a similar system. Utilize paperless billing to reduce waste. Generate reports and monitor use on an ongoing basis.
 - Responsible Party(ies): County Accounts Payable, County Facilities Department
- 3. New construction of County-owned facilities should be built to meet or exceed LEED standards and must be designed to current Energy Star standards
 - **Action:** All new construction projects shall include a procurement or contract requirement for consultants to design and build a facility that meets or exceed LEED certification and current Energy Star standards
 - **Action:** Consider retrofitting existing buildings to meet or exceed LEED standards
 - Responsible Party(ies): County Purchasing Office, County Facilities Department, County Engineering and Public Works, Regional Building Department

B. Objective: Improve overall energy efficiency within Pueblo County, including residential use, commercial use, and industrial use

1. Develop an outreach and education plan to inform and educate the public and provide a call to action for energy efficiency and renewable energy initiatives. Provide energy efficiency education and information to the community by working in partnership with the local utility providers
2. Develop mechanism to promote residential and commercial building energy audits and retrofits
3. - Plan to attract new energy efficiency businesses to the community
4. Promote 5% energy efficiency in community for residential and commercial properties by 2020 to ensure energy reliability and maintain or decrease costs to ratepayers (see Land Use and Built Environment section for building standards).



- *Note: this objective supports the PUC requirement that Black Hills Energy has to meet 5% energy efficiency by 2020*
 - **Action:** Implement
 - Responsible party: County Planning and Community Development and Regional Building Department in partnership with San Isabel Electric Cooperative, Xcel / Black Hills Energy
 - **Action:** Participate in all new development of transmission capacity and advocate for Pueblo County consumers when capacity is not designed to serve County residents
 - Responsible Party(ies): County Planning and Community Development; County Engineering and Public Works
5. Encourage consumer conservation of energy consumption
- **Action:** Form a County and local utility partnership program to provide information and education to the community regarding demand-side management programs
 - Responsible Party(ies): County Engineering and Public Works, Local Energy Providers
 - **Action:** Work with local utility providers to provide net metering to both residential and commercial consumers
 - Responsible Party(ies): County Engineering and Public Works -Community Energy Coordinator, City of Pueblo, Pueblo West, Colorado City, and other interested communities
6. Encourage installation of innovative efficiency measures
- **Action:** Work with local industry to permit heat capture/recycling from industrial processes
 - Responsible Party(ies): County Engineering and Public Works -Community Energy Coordinator, County Community Development and Planning, private industry partners

II. GOAL: Advance Pueblo County as a Statewide Leader in Renewable Energy Generation

A. Objective: Increase implementation of renewable energy in County-owned facilities



- **Action:** Identify County-owned facilities that would be recipients of renewable energy applications every year (minimum two facilities per year)
 - Responsible Part(ies): County Facilities, County Engineering and Public Works, Regional Building, County Community Development and Planning

B. Objective: Strengthen economic development and create jobs through energy efficiency and renewable energy development in conjunction with Southwest Solar Transformation Initiative (SSTI) , Governor’s Energy Office (GEO), and Department of Energy (DOE) efforts

- **Action:** Optimize development opportunities for renewable energy by the following:
 - Large scale to take advantage of existing transmission lines
 - District or industrial-scale installations to offset major users
 - ∞ Pueblo County Airport Industrial Park demonstration project for an energy district renewable energy development
 - Site-specific renewable energy applications
 - ∞ Colorado State Fairgrounds or other public facilities
 - ∞ Evraz Steel Mill
 - ∞ Vestas
 - ∞ Pueblo County reservoir
 - Responsible Party(ies): County Engineering and Public Works - Community Energy Coordinator, County Community Development and Planning, City of Pueblo, Pueblo West, Colorado City
- **Action:** Track individual solar installations within the County using an existing database tool such as
 - Responsible Party(ies): County Facilities Department, others
- **Action:** Develop ongoing partnerships for community outreach, workforce development, and new business development centered on energy efficiency and renewable energy
 - Responsible Party(ies): County Engineering and Public Works, CSU Pueblo, Pueblo Community College, and Pueblo Workforce Center, SECRES/CRES, Pueblo Economic Development Corporation, and others
- **Action:** Continue ongoing education efforts focused on efficiency and renewables similar to storm water education. Serve as a resource for smaller communities.
 - Responsible Party(ies): County Engineering and Public Works, Community Energy Coordinator



APPENDIX A

PUEBLO COUNTY FACILITIES – SUMMARY OF ELECTRIC AND GAS CONSUMPTION

Building	Address	Account	Electric Use 2010 kWh	Xcel Gas 5/11-4/12 (Therms)	Xcel Gas 2011 (Therms)	Xcel Gas 2010 (Therms)
Courthouse	215 West 10th Street	9216-7270-08	1,658,000			
Fleet	1107 N. Main Street	7383-9028-24	42,772	2,907	4,790	4,184
County Conference Room	1001 N. Santa Fe.	6563-4888-15	32,721	2,604		
DA/CSU Ext./IT Building	701 Court Street	7787-0263-82	260,480	7,007	8,181	6,180
Election Storage	1028 N. Main Street	4709-2879-88	24,907	1,388		
Animal Shelter	4600 Eagleridge Place					
Desert Hawk Golf Course	251 S. McCulloch	106502	99,680	2,311		
Desert Hawk Golf Course	357 Mangrum Drive	2304600	537	401 W Hahn's Peak Ave 4,697	4,904	3,403
Desert Hawk Golf Course	420 W Mangrum Drive	2300700	425			
Desert Hawk Golf Course	465 W Palmer Lake Drive	2300600	512			
Desert Hawk Golf Course	Hole #7 Sprinkler	2304500	421			
Desert Hawk Golf Course	Pump House	2303800	173,856			
Desert Hawk Golf Course	Golf Maintenance House	110602	34,293			
Desert Hawk Golf Course	Hanhs Peak Pump	105801	0			
Desert Hawk Golf Course	480 S Hahns Peak Ave	79601	6,704			
Desert Hawk Golf Course	384 S Archer Drive	57502	8,200			
Arts Center	210 N. Santa Fe	2924-4610-73	894,240			
Buell	210 N. Santa Fe	1769-3091-55	270,400	5,646	5,218	5,311
Arts Center	127 N. Santa Fe Ave	0104-5945-19	0			
Arts Center	110 N. Santa Fe Ave	0551-2652-35	5,750	22,817		
Arts Center	110 W 2nd Street	8789-4024-37	0			
Health Department	101 West 9th Street	**2011 info from Rhonda/BHE	**671,997	20,846		
Runyon Sports Complex	400 Stanton Avenue	9534-3539-96	228,257	4,150	4,516	6,470
Runyon Sports Complex (Gallaraga Field)	E Hwy 96 & 28th Lane	0194-0347-17	1,705	1,536	1,850	1,985
Fulton Heights	1331 Santa Rosa	3712-0879-58	73,448	2,777	3,556	5,027
Justice Plaza (Jail) & Dorm	909 Court Street	5092-7078-40	6,041,000			
Sheriff's Investigation Annex	920 N. Main Street	0859-7939-84	118,440	6,279		
Pueblo West Substation	320 E. Joe Martinez Blvd. (50 E. Civic Center Plaza)	122300	70,902	1,444	2,080	1,335
Department of Social Services	212 W. 12th Street	5978-9271-08	1,030,200	34,195	30,002	23,015
DSS North (Family Service Center)	805 Desert Flower Blvd.	4163-2683-38 # 5	0			
	807 Desert Flower Blvd	4163-2683-38 # 1	29,115			
	823 Desert Flower Blvd	4163-2683-38 # 2	0			



	801 Desert Flower Blvd	4163-2683-38 # 3	43,166			
	819 Desert Flower Blvd	4163-2683-38 # 4	26,389			
	821 Desert Flower Blvd	4163-2683-38 # 6	26,539			
	809 Desert Flower Blvd	4168-8318-49	19,235			
DSS Visitation Center	1426 Grand	7891-9174-53	24,490	3,383	4,207	3,270
Planning & Development	229 W. 12th Street	0084-0222-35	53,425	3,406	5,274	5,203
McHarg Park	409 2nd Street	7687-6912-37	10,979			
McHarg Community Center	450 Avondale St	0719-3533-70	61,037	3,944	5,033	4,779
Public Works	33601 United Avenue	3708-8973-01	272,672			
Public Works	33601 United Avenue	6665-9771-29	10,227			
R&B Shop	3416 Riddell Place	678500	10,880			
R&B Shop	Road and Bridge	756700	22,467			
Housing & Human Services	2631 E. 4th Street	1471-7538-82	290,920	9,844	13,777	16,173
Probation Office	1120 Court Street	0607-9717-87	194,640	2,114	2,772	1,996
DEM Warehouses	411 Bell	4146-2436-46	5,838	10,029	12,167	11,191
ELECTRIC PS&O WAREHOUSE	Bell Ave Mem Bel -	4589-5835-65	15,412			
Department of Emergency Management	9529 Hwy 78 West	3560700	18,777			

PUEBLO COUNTY – MISCELLANEOUS ELECTRIC ACCOUNTS

Lighting

Account #	Address	GL Acct Number	GL Description	kWh 2010	Rate Group	2010 Cost	Type
0794-0684-39	2200 N Freeway Bldg C	101-419424-4341.32	ELECTRIC 2200 N. FREEWAY	15,538	CO710		L
1005-8952-62	1010 N Main St Lighting	419424-4341.35	ELECTRIC GENERAL SERVICE SSI	6,192	CO711		L
3394-4563-43	30th Ln & South Rd	431000-4348.00	Street Lights	0	COPE2	\$113.55	L
3411-8499-90	Pueblo ST Lights	431000-4348.00	Street Lights	0	COM28	\$23,336.24	L
3989-9284-88	Baxter & Everett	431000-4348.00	Street Lights	0	COPE2	\$113.59	L
4010-3462-55	25th & Iris Rd	431000-4341.09	Electric R&B	362	CO710		L
4309-2146-38	Pleasantvw Tenni	419424-4341.20	ELECTRIC PLEASANT VIEW TENN	155	CO710		L
5591-8165-71	By CRT HSE 11th	419424-4341.01	ELECTRIC COURTHOUSE	0	COM28	\$501.51	L
6139-7994-48	4th and Santa Fe PK LT	419424-4341.37	ELECTRIC 4TH & SANTA FE, PK	0	COPE2	\$473.28	L
6173-6323-43	53329 Hwy 50 E #P6	Sherriff	#N/A	114	CO710		L
7620-7339-65	1399 Aspen Rd	Traffic Signals	#N/A	5,578	CO782		L



7642-2380-60	25th & Parkview	431000-4341.09	Electric R&B	1,261	CO710		L
8358-0850-12	25th Ln & South Rd	431000-4348.00	Street Lights	0	COPE2	\$113.59	L
9948-2439-20	21st Ln & Everet	431000-4348.00	Street Lights	0	COPE2	\$113.26	L
9954-1210-01	25th & Everett	431000-4348.00	Street Lights	0	COPE2	\$113.63	L

Water Pumps

Account #	Address	GL Acct Number	GL Description	kWh 2010	Rate Group	2010 Cost	Type
2621-2578-29	Palo Alto Park	419424-4341.08	ELECTRIC DEWATERING WELLS	59	CO710		P
3319-5344-77	1124 23rd Ln # Pump	#N/A	#N/A	0	CO860	\$197.53	P
7108-8955-94	336 Hwy 50 E A	419424-4341.43	IRRIG CONTROL METER-AVOND	10,106	CO710		P

Sirens

Account #	Address	GL Acct Number	GL Description	kWh 2010	Rate Group	2010 Cost	Type
0533-8262-76	59th & Cherry Rd #P14	Sherriff	#N/A	93	CO710		S
0959-6168-80	28th Ln & South	431000-4348.00	Street Lights	0	COPE2	\$113.34	S
1276-2736-51	48800 E Hwy 96 # P8 Siren	Sherriff	#N/A	394	CO710		S
2432-3520-23	Boone PK #P5	Sherriff	#N/A	203	CO710		S
2434-8044-69	27th Ln & Everett	431000-4348.00	Street Lights	0	COPE2	\$113.71	S
4746-2135-08	213 Hwy 50 #P7	Sherriff	#N/A	181	CO710		S
6319-2686-61	County ST LGTS	431000-4348.00	Street Lights	0	COM28 and COPE2	\$598.96	S
8399-8566-71	Skull & Banner #P9	Sherriff	#N/A	66	CO710		S

Miscellaneous

Account #	Address	GL Acct Number	GL Description	kWh 2010	Rate Group	2010 Cost	Type
0289-8717-88	915 N Santa Fe Ave	419424-4341.35	ELECTRIC GENERAL SERVICESSI	0	COM26	\$362.36	
7349-7443-29	125 W 10th St HSE MTR	419424-4341.35	ELECTRIC GENERAL SERVICESSI	0	COM26	\$362.36	
3194-7330-66	County Shop	429120-4341.75	#N/A	7,708	CO710		



Appendix B

SWOT Analysis Results

**PUEBLO COUNTY, COLORADO
COMMUNITY SWOT ANALYSIS**

TOPIC: SUSTAINABILITY AND WHAT IT MEANS TO THE COMMUNITY

The following are notes transcribed directly from the Community SWOT Analysis conducted on September 13, 2011. Attendees broke out into six groups based on their chosen topic. Each group then presented their discussions and findings at the end of the meeting. Following the group presentations, all attendees voted on their top 5 choices in each topic area. The votes are indicated in red #'s.

RENEWABLE ENERGY & ENERGY EFFICIENCY

Group Meeting Notes
September 13, 2011

Strengths (S) Weaknesses (W)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> - Natural Resource 	<ul style="list-style-type: none"> - Grants (S) - Rebates (S) - GEO (S) - Limited spending (W) - Rebates 	<ul style="list-style-type: none"> - Export energy (S) - Insurance for solar (W) 	<ul style="list-style-type: none"> - College (S) - PCC (S) - School programs (ex: Black Hills) (S) - Education (W) - Building trade 	<ul style="list-style-type: none"> - College (S) - PCC (S) 	<ul style="list-style-type: none"> - Wind/Solar (S) - Transmission infrastructure (S)
Opportunities (O) Threats (T)	Political	Economic	Social	Technological	Other/Resources
	<ul style="list-style-type: none"> - Policies (T) - PUC 	<ul style="list-style-type: none"> - Tiered Rates (O) - Block rates 	<ul style="list-style-type: none"> - Employment (O) 	<ul style="list-style-type: none"> - AMI (O) - Gas turbine for power (O) 	<ul style="list-style-type: none"> - Lack of sustainable plants

RENEWABLE ENERGY & ENERGY EFFICIENCY GROUP PRESENTATION

***Red numbers represent the number of “voting dots” each received; the higher the number, the greater the priority for the group**

STRENGTHS

Renewable energy

- Great wind and solar resources [11]
- Transmission infrastructure is strong, sturdy and already in place
 - o Ability to export locally generated energy
- Local know-how, labor force [3]
- Accessible local electric providers [1]
- Education [8]
 - o PCC
 - o CSUP
 - o Workforce Center
- Government support: local, state and County [1]
 - Vestas [2]
 - o Local success
 - o Training
 - o Local jobs
 - PV DG Success [11]
 - o Top 10 in the Nation per capita
 - Tri State
 - Research- SIEA
- Interconnection ease [1]

Energy Efficiency

- Black Hills Energy (DSM) well funded and goo participation [1]
- Smart meters- AMI [3]
- SIEA: off peak heating
- Xcel: weatherization rebates and design assistance/DSM [3]
- Black Hills Energy performance contracts with school and County [1]
- School education programs [1]
- Solar costs are declining [4]

WEAKNESSES

- Education on building codes/energy efficiency [8]
- Limited capital spent on efficiency design/upgrades
- Renewable rebates are declining and limited [12]
- Not dispatchable
- Limited storage/technology limitations [1]
- High cost of storage
- Rate structures [8]
 - o Demand
 - o Tiers

OPPORTUNITIES

- SIEA is member owned [2]
- Black Hills Energy: local dialogue
- Technology advances [1]
- Tiered rates [10]
- Block rates
- Employment [1]
- Manufacturing [5]
- High rates make efficiency and renewables more attractive [1]
- Black Hills Energy: high renewables to move away from fossil fuels
- Community support [2]
- Be a model community [2]

THREATS

- Administration/politics [9]
 - o Local, state, national
- Sustainable energy plans
 - o Lack of
- Rate increases [7]
- Denial of carbon emissions [2]
- High up front costs [4]
- Lack of understanding energy efficiency [4]
- Centralized generation [1]
- Security

TOP RANKED SWOT FOR RENEWABLE ENERGY & ENERGY EFFICIENCY

STRENGTH	Great wind and solar resources (Renewable Energy)
WEAKNESS	Renewable rebates are declining and limited
OPPORTUNITIES	Tiered rates
THREATS	Administration/politics <ul style="list-style-type: none">o Local, state, national

LAND USE & BUILT ENVIRONMENT
Group Meeting Notes
September 13, 2011

Strengths (S) Weaknesses (W)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> ∞ Diverse built environment (S) 	<ul style="list-style-type: none"> ∞ Age-standard infrastructure (W) ∞ Zoning Use Code (W) 	<ul style="list-style-type: none"> ∞ Multiple main streets (S) ∞ Land availability (\$) (S) ∞ Water (S) ∞ URA (S) ∞ Diverse economic factors (S) 	<ul style="list-style-type: none"> ∞ Workforce (S) (W) ∞ Emphasis on public art (S) 	<ul style="list-style-type: none"> ∞ Weather (S) - sun and wind 	<ul style="list-style-type: none"> ∞ Historic value ∞ Water (S) ∞ Vehicular/pedestrian connectivity (W) (O) ∞ Recreation

Opportunities (O) Threats (T)	Political	Economic	Social	Technological	Other/Resources
		<ul style="list-style-type: none"> - Cost vs. Appraised value - Land availability (T) (O) - URA (T) - Diverse economic factors (O)(T) - surrounding counties and their industries - Ft Carson (O) - Transportation: (O) rail - commuter airport - commercial highway 	<ul style="list-style-type: none"> - Workforce (O) trades - developers - suppliers 	<ul style="list-style-type: none"> - Weather (O) - sun and wind 	<ul style="list-style-type: none"> - Historical value - Connectivity (O) - Water & H2O quality (T)

**LAND USE & BUILT ENVIRONMENT
GROUP PRESENTATION**

***Red numbers represent the number of “voting dots” each received; the higher the number, the greater the priority for the group**

STRENGTHS (INTERNAL)

- Diverse built environment [3]
- Multiple main streets
- Land availability [2]
- Water [1]
- Diverse economy (Diverse industrial/Education/Military) [1]
- Weather (sun/wind) [14]
- Historic value [1]
- Recreation [3]
- Pedestrian/ Vehicular connectivity [2]
- Transportation (trail, airport, roads) [2]

OPPORTUNITIES & THREATS

- Location in SE Colorado (O)
- Land use regulations (O)(T) [10]
- Development costs vs appraised value (T) [5]
- Land availability (T) [1]
- Substandard infrastructure (O) [3]

TOP RANKED SWOT FOR LAND USE & BUILT ENVIRONMENT	
STRENGTH	Weather (sun/wind)
OPPORTUNITIES & THREATS	Land use regulations

TRANSPORTATION
Group Meeting Notes
September 13, 2011

Strengths (S) Weaknesses (W)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> ∞ Roadway network in place long term (S) ∞ Highway system good (S) ∞ Decent airport, bus system- good for population size (S) ∞ Not bad congestion (S) ∞ Not good east-west connection in City and County (W) ∞ Duplication of bus service/maintenance (W) ∞ One system? ∞ Connections hindered by water and railroad crossings (W) ∞ Lack of bike trails (W) 					

Opportunities (O) Threats (T)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> ∞ Possible bus system in County (O) ∞ (City/County/School District) ∞ I-25 improvements (O) ∞ Pueblo West E-W connection through City (O) ∞ Extended Pueblo Blvd. to north (O) ∞ Funding (T) ∞ Political Will (T) ∞ Expanding into new areas before existing infrastructure is in place (T) ∞ Airport loss (T) ∞ Railroad Loss (T) 					

TRANSPORTATION GROUP PRESENTATION

***Red numbers represent the number of “voting dots” each received; the higher the number, the greater the priority for the group**

STRENGTHS

- Good network of streets and highways [3]
- Current transportation fleet (City) [1]
- Minimum congestion [1]
- Airport [2]

WEAKNESSES

- School transportation (City and County) [1]
- Fleet maintenance [1]
- East-West corridors (non contiguous, lack of connectivity) [6]
- Lack of funding: State Highway
- Railroads and rivers: costs, rural, right of ways [1]
- Bike trails [6]

OPPORTUNITIES

- County-wide transportation [1]
- Improvements to I-25 and St Charles Mesa [6]
- East-west corridors [6]
- Pueblo West [2]
- Extend Pueblo Blvd to the north

THREATS

- Funding [8]
- Political will [7]
 - o Infrastructure
 - o Expansion/growth
- Improving established areas [2]
- Railroads
- Airport
- Roads and Right of Way

TOP RANKED SWOT FOR TRANSPORTATION

STRENGTH		Good network of streets and highways
WEAKNESS *In this category, there was a tie		East-West corridors (non contiguous, lack of connectivity) Bike trails
OPPORTUNITIES *In this category, there was a tie		Improvements to I-25 and St Charles Mesa East-west corridors
THREATS		Funding

PUBLIC HEALTH & NATURAL ENVIRONMENT
Group Meeting Notes
September 13, 2011

Strengths (S) Weaknesses (W)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> - Public health department (City/County) (S) - Civic organized groups (S) - Solid waste - Ag community-organic/all natural 	<ul style="list-style-type: none"> - \$ County/city - Leadership - Concerted solution - Water use 	<ul style="list-style-type: none"> - Underfunded grants & growth - Recycling - Composting 	<ul style="list-style-type: none"> - Need more recreation - High asthma rate in county/city - 70% mercury emissions in state in Pueblo County/City - Obesity - Diabetes - Alcohol - Smoking - High teen pregnancy rates - Drugs - Taking on role public participation (s) - Local foods/farmers markets 	<ul style="list-style-type: none"> - S Horton epidemiological data - Efficiency 	<ul style="list-style-type: none"> - C-CAP - Sierra Club - Better Pueblo - Pueblo Cares

Opportunities (O) Threats (T)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> - AIR QUALITY: Mercury Emissions (T) - Radon (T) - WATER QUALITY: Natural Pollution up stream from major community (T) - Selenium runoff is high within City of Pueblo (T) - Chemical weapons plant (T) 	<ul style="list-style-type: none"> - Highly charged community - International, national and local (T) 	<ul style="list-style-type: none"> - Jobs-fight-health/envirom businesses - Economic development ability if don't tackle it - Degrade (??) cost of clean up - Impact costs: jobs, fees (O) and (T) 	<ul style="list-style-type: none"> - 70% of state's emissions for air quality in Pueblo County (T) - Active community (S) - Health - Recreation - Community involved (O) 	<ul style="list-style-type: none"> - Steel Mill/Utility/Auto - Mercury content at (???) = state of art - Moving to other basins - chlorine-> UV - Cutting edge 	<ul style="list-style-type: none"> - Vigilance

PUBLIC HEALTH & NATURAL ENVIRONMENT GROUP PRESENTATION

***Red numbers represent the number of “voting dots” each received; the higher the number, the greater the priority for the group**

STRENGTHS

- Civic Groups **[8]**
 - o Leadership
 - o Underfunded, room for growth
 - o Increasing public participation (i.e. CCAP/Sierra Club/Better Pueblo/Pueblo Cares)
- Ag Community **[3]**
 - o Organic, all natural community
 - o Water transfer to M&I
 - o Local foods/farmers markets
- City-County Health Department **[12]**
- Recreation: trails, rivers, etc

WEAKNESSES

- Waste- need so?? To recycling, improved waste treatment, composting, efficiencies **[5]**
- Funding for City/County Health Department **[5]**

OPPORTUNITIES

Radon

THREATS

Radon

Air quality **[6]**

Water quality **[7]**

- Natural pollution
- Upstream community
- Selenium/arsenic
- Street run off

Chemical Depot (removed threat)

TOP RANKED SWOT FOR PUBLIC HEALTH & NATURAL ENVIRONMENT

STRENGTH	City-County Health Department
WEAKNESS *In this category, there was a tie between 2 top ranked weaknesses	Waste- recycling, improved waste treatment, composting, efficiencies Funding for City/County Health Department
OPPORTUNITIES	NO VOTES
THREATS	Water quality <ul style="list-style-type: none"> - Natural pollution - Upstream community - Selenium/arsenic - Street run off

WATER
Group Meeting Notes
September 13, 2011

Strengths (S) Weaknesses (W)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> - County-wide collaborative planning (S) -> Public awareness (S) - Fountain watershed district (S) - Water rights portfolio (S) - Drought response policy (S) - Land use planning/permitting (W) - Aging w/w infrastructure (W) - Understanding of Colorado water law (W) - Lack ability to plan Countywide (W) -> institutional gaps for planning - Public perception of water use/misuse (efficiency) (W) - Inadequate water quality protections (W) - Groundwater issues (W) 					

Opportunities (O) Threats (T)	Political	Economic	Social	Technological	Other/Resources
<ul style="list-style-type: none"> - Participation in roundtables (O) - Education- water use/efficiency in landscaping (O) - Fountain Watershed District (O) - Drought planning-state policy (O) - Water reuse-education (O) - Land use permitting to ensure quality/quantity (O) - Water grabs from out of basin transfers (T) - Climate change/drought planning – effects agriculture or municipal water (T) - Water laws (T) - Federal regulations inhibiting growth (affordability) (T) - Financing- for projects quantity/quality- water/wastewater projects (T) - Inadequate water quality protections (T) 					

WATER GROUP PRESENTATION

***Red numbers represent the number of “voting dots” each received; the higher the number, the greater the priority for the group**

STRENGTHS

- Collaborative planning [1]
- Public awareness of issues [2]
- Fountain Creek Watershed District [8]
- Drought response policy
- Water rights portfolio [2]

WEAKNESSES

- Institutional gaps (planning) [5]
 - o Water use/ misuse
- Public awareness of efficiency opportunity) [2]
- Understanding of Colorado water law [2]
- Dealing with quality issues [1]
- Aging infrastructure [8]
- Groundwater issues [2]
- Land use planning/ water connection [1]

OPPORTUNITIES

- Participation in IBCC/round table process
- Education/ water use in landscaping [10]
- Education/ efficient use
- Fountain Creek Watershed District
- Drought response planning [1]
- Water re-use [10]
- Review of ordinances re: water impacts

THREATS

- Out of basin transfers [6]
- Climate change [8]
- Drought [1]
- Water law [2]

- Inadequate H2O quality protection (CDPHE) [1]
- Fed/State regulations (affordability) [5]
- Financing water/wastewater projects

TOP RANKED SWOT FOR WATER	
STRENGTH	Fountain Creek Watershed District
WEAKNESS *In this category, there was a tie	Aging infrastructure
OPPORTUNITIES	Education/ water use in landscaping Water re-use
THREATS	Climate change

MATERIALS AND WASTE DIVERSION
Group Meeting Notes
September 13, 2011

Strengths (S) Weaknesses (W)	Political	Economic	Social	Technological	Other/Resources
	<ul style="list-style-type: none"> ∞ No consolidated city-wide recycling program- Pueblo (W) ∞ City and County regulations not written, clear, understandable (W) ∞ State, County, City ordinances are not congruent (W) ∞ Risen awareness in elected officials- they discuss it more now (S) 	<ul style="list-style-type: none"> ∞ Multiple waste haulers; competition (S) ∞ Improved landfill facility- operates aesthetics (S) ∞ Close to interstate and rail lines (S) ∞ PECO has looked at manufacturing (S) 	<ul style="list-style-type: none"> ∞ Changes accepted slowly (W) ∞ Awareness of recycling options risen (hotline/web) (S) ∞ Neighborhoods have an identity ∞ Public/private school system is making recycling a topic (S) ∞ Not an active/strong citizen/nonprofit group that is pushing (W) 	<ul style="list-style-type: none"> ∞ Diversion rate is unknown (W) ∞ No MRF (W) ∞ Less processors (W) ∞ Have some equipment (S) ∞ Hotline and web resources (S) ∞ Vision Aggregate crushes old asphalt pavement for City (W) 	<ul style="list-style-type: none"> ∞ Pueblo has excessive yard waste that is not currently diverted (W) ∞ City of Pueblo built into RFP's recycling on construction projects (S)

Opportunities (O) Threats (T)	Political	Economic	Social	Technological	Other/Resources
	<ul style="list-style-type: none"> ∞ Regulations (T)- Existence and future Adoption of “Green Procurement” for purchasing/products (O) EX: require minimum 80% recycled paper 	<ul style="list-style-type: none"> ∞ Waste Diversion Jobs (O) ∞ Markets for recyclables fluctuate drastically (T) ∞ Fuel Pricing (T) ∞ Economies of recycling / income level (T) ∞ Land fill cost (tipping fees) are low and do not promote recycling (T) 	<ul style="list-style-type: none"> ∞ Aging population resistant to change (T) ∞ Consumer society (T) ∞ Government should provide recycling services for free (T) 	<ul style="list-style-type: none"> ∞ Z-CEMENT plant within 25 miles of TDF (O) ∞ Electronics technology revolution creates abundance of E-Waste (T) 	

MATERIALS & WASTE DIVERSION GROUP PRESENTATION

***Red numbers represent the number of “voting dots” each received; the higher the number, the greater the priority for the group**

STRENGTHS

- PEDCO has looked at manufacturers using reclaimed materials
- Multiple haulers creates competition for customers (W) [8]
- SS landfill recently improved operations, aesthetics
- Elected officials have increased awareness of issues, recycling [1]
- Increased awareness of recycling options (hotline, web pages) [3]
- Aggregate crusher- private business: City of Pueblo projects must use! [1]

WEAKNESSES

- No consolidated County-wide recycling system [15]
- Local regs for facilities not in place, not current and not congruent with State regulations [2]
- Change is not accepted quickly; status quo has strong support [3]
- Diversion rate is unknown, not collected [1]
- No MRF [8]
- No green waste center, system
- Far from markets, processors [6]
- No overriding conscience to conserve resources

OPPORTUNITIES

- Adopt green procurement policies [8]
- Create jobs at all levels [6]
 - o 2 cement plants locally, TDF
- Build Southern Colorado MRF (HUB & SPOKE) [10]
- Revise local regs/ordinances [12]
- Recruit manufacturing [2]

THREATS

- Markets for recycled materials fluctuate [3]
- Fuel cost is only going up [5]
- Low income population is higher than state average [4]
- Consumerism, disposables [3]
- Aging population [4]
- Rising tech and equipment [2]

TOP RANKED SWOT FOR MATERIALS & WASTE DIVERSION	
STRENGTH	Multiple haulers creates competition for customers
WEAKNESS	No consolidated County-wide recycling system
OPPORTUNITIES	Revise local regs/ordinances
THREATS	Fuel cost is only going up

Appendix C

Pueblo Area Recycling Guide Spring 2011



Pueblo Recycling Guide



Your Landfill User Fees At Work

Recycling Events

Call 583-4924 for event details and to volunteer

Nike Reuse-a-Shoe Program

March 1-June 30, 2012

All brands and sizes of athletic and gym shoes are accepted, but no damp, muddy shoes, no metal, cleats or dress shoes, and no sandal or flip-flops. Pueblo collection sites:

- ★ PCCHD, 101 W. 9th Street, Entrance
 - ★ Buell Children's Museum, 2nd & Santa Fe Avenue
 - ★ Colorado State University-Pueblo, Massari Arena
 - ★ Pueblo School for Arts and Sciences, 1745 Acero Avenue
- More about the Nike Program: nikereuseashoe.com

Earth Day Celebration "Party for the Planet"

Saturday, April 21, 2012, 10 a.m. - 3 p.m., Pueblo Zoo

Recycle Poster Contest Award Ceremony, booths, entertainment

Recyclable Waste Collection Day

Saturday, May 12, 2012, 8 a.m.-1 p.m.

Colorado State Fair Grounds, Gate 3 (Mesa Avenue)

Motor oil, oil filters, antifreeze, passenger tires, batteries, electronics, appliances, fluorescent bulbs, athletic shoes.

Spring Clean-Up Day at the Southside Landfill

Saturday, May 19, 2012 8 a.m. - 1 p.m.

Southside Landfill, off Hwy. 78 West (Northern Avenue)

Free to City residents only; trailers are 40% off gate rate.

Sponsored by *City of Pueblo and Waste Connections of Colorado, Inc.*

Numbers to Know

Air Quality	Pueblo City-County Health Dept.	583-4323
Composting Education	CSU Extension-Pueblo Office	583-6566
Eden Transfer Station	C&C Disposal	546-3478
Hazardous Waste Disposal	Pueblo City-County Health Dept.	583-4323
Hazardous Waste Spill	Stay clear of spill; report	911
Illegal Dumping (County)	Pueblo City-County Health Dept.	583-4323
Pet Waste	Pueblo Animal Services	544-3005
Radon Gas	PuebloCARES	252-6258
Recycling Info and Events	Recycle Hotline (Health Dept.)	583-4924
Sewer Drain Problems	City of Pueblo-Wastewater Utility	553-2298
Southside Landfill	Waste Connections of Colorado	948-2900
Storm Drain Problems	City of Pueblo-Stormwater Utility	553-2299
Trash, Weeds, Junk Cars (City)	Police Dept.-Code Enforcement	553-2592



PuebloRecycleHotline



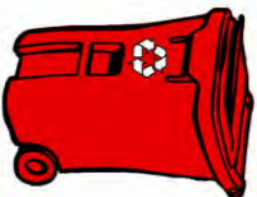
@RecycleHotline

Curbside Recycling Programs

The following private companies offer residential recycling at the curb in Pueblo and Pueblo West. Residents pay a monthly fee to recycle glass, aluminum, tin, plastic (#1-7), cardboard, paperboard (i.e. cereal boxes), paper, newspaper, and phonebooks.

C & C Disposal (no glass)
21 N. Magneto Dr., Pueblo West
647-9100, www.ccdisposalco.com

WeRecycle Co-op
24 N. Research Dr., Pueblo West
542-6327, www.werecyclecoop.com



Paid Drop-off Recycling Sites

Residents can purchase a special bag to drop-off glass, aluminum, tin, plastic (#1-7), cardboard, paperboard (i.e. cereal boxes), paper, newspaper, and phonebooks. Call for prices.

Colorado City Metro District (pay small fee per bag)
Drop-off: Old Community Center,
4705 Santa Fe Dr., Colorado City
Jim Montabalno, 240-3116
1st Saturday of the month, 9:00-11:00 a.m.

Do The Right Thing Recycling (pay small fee per bag)
Stompin' Grounds, 8913 Grand Ave., Beulah
485-0858
1st & 3rd Sundays (3:00-5:00p.m.), Mondays (7:00-9:00a.m.)

Many Ways to Get Recycling Information!



Recycle Hotline 583-4924



www.pueblohealthdept.org



"Pueblo Recycle Hotline"



@RecycleHotline

Habitat for Humanity ReStore (pay small fee per bag)
2313 S. Prairie Ave.
543-0702, www.werecyclecoop.com
Tues. - Fri. 8:30 a.m.-5:00 p.m., Sat. 9:00 a.m.-4:00 p.m.

Solar Roast Coffee (pay small fee per month)
226 N. Main St., downtown Pueblo
544-2008
Mon. - Fri. 6:30a.m.-5:30 p.m.
Sat.- Sun. 7:30a.m.-2:30 p.m.

WeRecycle Co-op (pay small fee per quarter)
24 N. Research Dr., Pueblo West
542-6327, www.werecyclecoop.com
Wed.- Sat. 11:00 a.m.- 6:00 p.m.

Have you thought about recycling this item?

Call recycler for most current information.

Aluminum Cans

Get Paid: See Scrap Metal, Page 5
 See Paid Drop-off Recycling Sites, Page 2
 C&C Disposal, curbside service only (See Page 2)
 King Soopers, 102 W. 29th St., 544-2404
 3050 W. Northern Ave., 564-0590



We Recycle Co-op, curbside and drop-off recycling (See Page 2)

Antifreeze & Coolant

Ark Auto, 12 N. Research, Pueblo West, 547-8100
 Grease Monkey, 421 29th St., 545-3389
 Mueller's Auto, 1509 E 19th St., 543-8833

Appliances

Working: All Thrift Stores, See phone book
 ReStore, 2313 Prairie Ave., 543-0702
 Black Hills Energy, 1-877-643-1956
 Non-working: See Scrap Metal, Page 7
(Freon MUST be removed by licensed business before recycling)
 Chuck Brockman Environmental Cleanup, 214-2565



Batteries, Household

Rechargeable:
 Batteries Plus, 1408 Hwy 50 West, 583-8766
 Best Buy, 5890 N. Elizabeth St., 253-0438
 Habitat for Humanity ReStore, 2313 S. Prairie Ave., 543-0702
 Home Depot, 4450 N. Freeway Rd., 545-5400
 Lowe's, 1225 Hwy 50 West, 543-3339
 2900 W. Pueblo Blvd., 289-9110
 Office Depot, 1805 Pueblo Blvd., 561-4700
 Radio Shack, 3920 Northern Ave., 561-8790
 Pueblo Mall Store, 3429 Dillon Dr., 542-3550
 Staples, 1411 Hwy 50 West, 545-1545

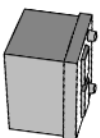


Non-rechargeable (alkaline):

Habitat for Humanity ReStore, 2313 S. Prairie Ave., 543-0702

Batteries, Vehicle

American Battery Corp., 2516 N. Freeway, 546-2281
 Ark Auto, 12 N. Research Dr., Pueblo West, 547-8100
 Batteries Plus, 1408 Hwy 50 West, 583-8766
 Checker Auto Parts, 1005 Hwy 50 West, 545-6470
 Discount Tires & Battery, 501 Santa Fe Ave., 545-8400
 Ken's Auto Service, 202 Cleveland Ave., 542-3623



Bicycles and Parts Call Stores First

Bicycles Sales & Service, 222 S. McCulloch Blvd., 547-0608
 Cycle of Life, 111 E. Abriendo Ave., 404-3315
 Great Divide, 400 N. Santa Fe Ave., 546-2453
 Nick's Bike Shop, 74 McCulloch Blvd., Pueblo West, 647-1150
 Vance's Bicycle World, 2200 S. Prairie Ave., 566-6925



Books Reusable Condition, No Encyclopedias, No Magazines

Books Again, 622 S. Union Ave., 543-4688
 Tumbleweed Books, 687 S. Union Ave., 544-3420
 All Thrift Stores, See "Reuse vs. Recycling", Page 5



Building Materials (reusable)

Habitat ReStore, 2313 S. Prairie Ave., 543-0702

Cardboard and Paperboard

See Paid Drop-off Recycling Sites, Page 2
 C&C Disposal, Curbside Service Only, 647-9100 (See Page 2)
 Southside Landfill, off Hwy 78, 561-0234 Free to households ONLY
 We Recycle Co-op, Curbside and Drop-off Recycling (See Page 2)

Cars, Junk See Scrap Metal, Page 5

Cell Phones

All Cellular Phone Providers, See phone book
 ARC Thrift Store, 1115 S. Prairie Ave., 564-9491
 Office Max, 4250 N. Freeway, 542-0480
 Pueblo Zoo, City Park, 561-1452
 Radio Shack, Pueblo Mall, 542-3550 and
 3920 Northern Ave., 561-8790
 WYCA, 801 N. Santa Fe Ave., 545-8195



Clothing Reusable Condition

All Thrift Stores, see phonebook
 USAgain Drop Boxes, K-Marts, Ruby Tuesdays, Sam's Club



Computers (fees apply)

Best Buy, 5890 N. Elizabeth St., 253-0438
 Pueblo PC & Mac, 444 S. Prairie Ave., 542-6238
 Office Depot, 1805 Pueblo Blvd., 561-4700
 Southern Colorado Services & Recycling, 1731 Erie Ave., 542-6910
 Staples, 1411 Hwy 50 West., 545-1545



Continued on next page

Concrete and Asphalt

Vision Recycled Aggregate & Landscape Material,
195 Vision Lane., 542-2488

Cooking Oil (Fat, grease, vegetable oil)

EcoVillage, 1595 Stockyard Rd., 320-5080 or 543-5238
Eden Transfer Station, 1405 Quartz Rd., 647-9100
Habitat for Humanity ReStore, 2113 Prairie Ave., 543-0702
Southern Colorado Services & Recycling, 1731 Erie Ave., 542-6910

Eyeglasses *Reusable Condition*

Lions Club Service Group Program, 542-7178
The Deil, 612 Main St.
Library Branches: Lamb, Barkman, Rawlings
Pueblo West Metro District Office, 109 E. Industrial Blvd.
Rocky Mountain Cancer Center, 3676 Parker Blvd.
Pueblo Regent Nursing Home, 100 San Carlos Rd.
All Wal-Mart Eye Care Centers
Sam's Club, 412 Eagleridge Blvd.
Southwest Eye Center 620 Fortino Blvd.
Total Longterm Care, 401 W. Northern Ave.
Doctor's Vision Works, 4200 N. Freeway Rd.



Electronics (fees apply)

Also See Computers (Page 3) and Televisions (Page 7)
Best Buy, 5890 N. Elizabeth St., 253-0438
Southern Colorado Services & Recycling, 1731 Erie Ave., 542-6910

Furniture *Resalable condition - no junk*

ARC Thrift Store, 1115 S. Prairie Ave., 564-9491
Habitat for Humanity ReStore, 2113 Prairie Ave., 543-0702
New Horizons Thrift Store, 745 Desert Flower Blvd., 296-9006



Glass Bottles and Jars

See Paid Drop-off Recycling Sites, Page 2
EcoVillage, 1595 Stockyard Rd., 320-5080 or 543-5238

Light Bulbs *Fluorescent Bulbs Only*

Black Hills Energy (Compact Fluorescent Only),
105 S. Victoria Ave., 546-6478
Habitat ReStore (Linear Bulbs Only), 2313 Prairie Ave., 543-0702
Home Depot (Compact Fluorescent Only), 4450 N. Freeway Rd., 554-5400
Lowe's, Compact Fluorescent Only, 1225 Hwy 50 West, 543-3339
2900 W. Pueblo Blvd, 289-9110
Pueblo Lighting, 5176 Ridge Dr., 545-2700
Pueblo Hydroponics & Organics, 113 W. 4th St., 542-6798
Pueblo West Hydroponics & Organics, 609 E. Enterprise, 542-6798



Magazines

See Paid Drop-off Recycling Sites, Page 2
C&C Disposal, Curbside Service Only, 647-9100 (See Page 2)
Mobile Record Shredders, 205 N. Elizabeth, 544-5460
Pueblo Shrine Club Bins, 30 locations available (See Page 6)
We Recycle Co-op, curbside and drop-off recycling (See Page 2)

Metal, scrap See Scrap Metal, Page 5

Motor Oil, Used All Auto Service Stations, See phone book

Limits may apply-call store first

Newspapers

See Paid Drop-off Recycling Sites, Page 2
C&C Disposal, Curbside Service Only, 647-9100 (See Page 2)
Pueblo Shrine Club Bins, 30 locations available (See Page 6)
We Recycle Co-op, curbside and drop-off recycling (See Page 2)



Packing Material (Foam peanuts, bubble wrap-no foam blocks)

Pak Mail, 544-1995
Mail Express, 2648 Santa Fe Dr., 545-7447
Two Men and a Truck, 4029 Club Manor Dr., 543-9000
UPS Store, 140 W. 29th St., 543-5800

Paint, Stains, Spray Paint (fees apply)

Habitat ReStore, 2313 Prairie Ave., 543-0702
Southern Colorado Services & Recycling, 1731 Erie Ave., 542-6910



Paper, Junk Mail and Magazines

See Paid drop-off recycling sites, Page 2
C&C Disposal, Curbside Service Only, 647-9100 (See Page 2)
Mobile Record Shredders, 205 N. Elizabeth, 544-5460
Pueblo Shrine Club Bins, 30 locations available (See Page 6)
We Recycle Co-op, curbside and drop-off recycling (See Page 2)



Paper Shredding and Document Destruction

Express Shredding, 1130 E. Purcell Ln., Pueblo West, 252-3475
Mobile Record Shredders, 205 N. Elizabeth, 844-5460

Phonebooks

Put in any curbside recycling service bin or bag (See Page 2)
Pueblo West Library, 298 S. Joe Martinez Blvd. (Behind building)
Habitat for Humanity ReStore, 2313 Prairie Ave.

Plastic Bags All Grocery Store Chains, both Lowe's locations, and Target,

Drop bins at front entrance

Plastic Bottles

See Paid Drop-off Recycling Sites, Page 2

C&C Disposal, Curbside Service Only (See Page 2)

We Recycle, Curbside and Drop-off Program, 542-6327 (See Page 2)

Porcelain (Bathroom Fixtures: fees apply)

EcoVillage, 1595 Stockyard Rd., 320-5080 or 543-5238

Printer Cartridges

Best Buy, 5890 N Elizabeth St, 253-0438

Office Depot, 1805 Pueblo Blvd., 561-4700

Office Max, 4250 N. Freeway, 542-0480

Pueblo Zoo, City Park, 561-1452

Rapid Refill Ink, 965 Hwy 50 West, Suite 120, 542-1916

PetSmart, 4230 N. Freeway Rd., 595-9000

Staples, 1411 Hwy 50 West, 545-1545

Target, 3300 Dillon Dr., 545-5631



Propane

Blueflame Gas Inc., 423 E. Enterprise Dr., Pueblo West, 543-7736

Mar Gas, 805 E. Enterprise Dr., Pueblo West, 547-4444

Scrap Metal (various metals: call for details)

American Iron & Metal, 1801 S. La Crosse Ave., 542-5865

Bonnie's Car Crushers, 775 Hwy 115, Penrose, 372-6617

Dionisio Metal & Iron, 700 S. Portland Ave., 544-3488

Habitat ReStore, 2313 S. Prairie Ave., 543-0702

Pueblo West Recycling Center, 49 Precision Dr., 647-0211

Spoken Metal, 310 S. Santa Fe Ave., 544-4837

WISE Recycling, 529 N. Greenwood Ave., 544-8430

Televisions (fees apply)

Best Buy, 5890 N Elizabeth St, 253-0438

Southern Colorado Recyclers, 1731 Erie Ave., 542-6910



Thermometers, Mercury

Pueblo City-County Health Department Lab, 101 W. 9th St., 583-4318

Thermostats

Ingles Supply Co., 904 W. 10th St., 543-2612

Tires, Used (fees apply)

Big O Tires, 430 Eagleridge Blvd., 546-9820

Colorado Tire Inc., 306 E. 40th Ln., 542-3270

Southside Tire & Auto, 3031 W. Northern Ave., 561-1392

Larsen's Automotive & Tire, 701 W. 4th St., 543-0218

Mike's Top Spot Tire, 2011 E. 4th St., 544-1501

Re-Tire Inc., 331 N. Grand Ave., 544-8430

Sears Auto Center, 3201 Dillon Dr., 553-1295

Superior Tire, 1315 Berkley Ave., 545-8592

Wal-Mart, Northside and Pueblo West locations



Yard Waste (fees apply)

EcoVillage, 1595 Stockyard Rd., 320-5080 or 543-5238

Eden Transfer Station, 1405 Quartz Rd., 546-3478

(Wood waste only: branches, pallets, raw scrap lumber)

Vision Recycled Aggregate, 195 Vision Ln., 542-2488 (Grass, sod, wood waste)



Trash Hauling Companies

Residents in the City of Pueblo are responsible for collection services and removal of litter, trash, rubbish and debris at least every seven days.

A-Affordable Disposal, 542-8757

Archuleta's Waste Service, 543-9156

C&C Disposal*, 647-9100

Five Star Disposal, 545-7827

Global Disposal, 546-0948

Mountain Disposal (Beulah, Colorado City, Rye), 489-3456

Rael's Trash Service, 947-3515

Waste Connections of Colorado, Inc.*, 948-0047

Waste Management of Pueblo, 545-9232

*Offers curbside recycling services

**Offers drop-off recycling program



Paper Bins by Pueblo Shrine Club "Anything That Tears" - No Phone Books or Cardboard Please

Eastside

- Central Christian Church, 1902 N. Hudson Ave.

Central

- Ascension Episcopal Church, 18th St. & Grand
- First Baptist, 9th St. & Greenwood Ave.
- First United Methodist, 11th St. & Grand Ave.
- Masonic Lodge, 126 Broadway Ave.
- Sacred Heart Cathedral, 101 N. Grand, rear lot
- Troy's Vujcich Automotive, 824 W. 4th St.

Northside

- Ace Cash Advance, Hwy 50 West & Ridge Rd.
- King Scoopers, 102 W. 29th St.
- Park Hill Baptist Church, 4235 Park Hill Place

Westside

- Affordable Disposal, 1370 Halleck Ave.

Southside

- B & F Storage, 813 S. Pueblo Blvd.
- Colorado State Fair Grounds, Beulah Gate
- King of Kings Church, 2561 Vinewood Ln.
- King Scoopers, 3050 W. Northern Ave.
- Milagro Church, 2111 S. Pueblo Blvd.
- Our Lady of the Meadows, 23 Starling Dr.
- Pueblo PC & MAC, Prairie & Thatcher Aves.
- Southside Auto Repair, 3031 W. Northern Ave.

Pueblo West

- Desert Sage Elementary, 935 E. Palomar Dr.
- Ecumenical Church, 434 Conquistador Ave.
- Pueblo West Elementary, 386 E. Hahns Peak
- Pueblo West Shrine Club, 1501 McCulloch Blvd.
- Sierra Vista Elementary, 500 S. Spaulding Dr.
- Skyview Middle School, 1047 S. Camino de Bravo

Mesa/Biende/Vineland

- El Pueblo Adolescent Center, 1591 Taos Rd.
- Grace Community Bible Church, 1405 25th Lane
- North Mesa School, 25th Lane and Gale Rd.
- Pleasant View School, 23600 Everett Rd.
- St. Joseph Church, 11445 Aspen Rd.
- Vineland Elementary School, 35777 Iris Rd.
- Vineland Middle School, 1132 36th Ln.



Look for these teal or white dumpsters

Pueblo West Shrine Club Paper Recycling Program (719) 544-9367

Southern Colorado Recycle Rally

Sunday, June 10, 2012 1:00-5:00 p.m.

Pueblo Convention Center parking lot, near Mechanic Street

FREE Recycling Drop-off Event!

Paper, plastic containers (#1-7), cardboard, aluminum and tin cans.
Separate dumpster for sorted glass bottles.

- ★ Conference Exhibit Hall
- ★ Recycling is Magic show
- ★ 40+ booths
- ★ Recycled Art Market
- ★ Refreshments

