

**GRAND JUNCTION CITY COUNCIL
WORKSHOP AGENDA**

**MONDAY, DECEMBER 4, 2006, 7:00 PM
CITY HALL AUDITORIUM, 250 N. 5TH STREET**

MAYOR'S INTRODUCTION AND WELCOME

7:00 COUNCILMEMBER REPORTS

7:15 CITY MANAGER'S REPORT

7:20 REVIEW OF FUTURE WORKSHOP AGENDAS [*Attach W-1*](#)

7:25 REVIEW WEDNESDAY COUNCIL AGENDA

7:30 GRAND JUNCTION'S 125TH ANNIVERSARY: Communications and Community Relations Coordinator Sam Rainguet will update the City Council on this project and request funding assistance from the City.

[*Attach W-2*](#)

7:45 AIR QUALITY CONTROL REGARDING OIL AND GAS

DEVELOPMENT: Matt Sura, Western Colorado Congress will present a request to the City Council regarding the Colorado Air Quality Control Commission's proposed rule change.

[*Attach W-3*](#)

8:10 ENERGY CONSERVATION EFFORTS: An update on Grand Junction's energy conservation efforts and what other communities are doing in this area.

[*Attach W-4*](#)

ADJOURN

FUTURE CITY COUNCIL WORKSHOP AGENDAS

(29 November 2006)

DECEMBER 2006

↪ DECEMBER 18, MONDAY 11:30 AM-TWO RIVERS CONVENTION CENTER

11:30 ANNUAL MEETING WITH DOWNTOWN DEVELOPMENT BOARD
OF DIRECTORS

↪ DECEMBER 18, MONDAY 7:00 PM in the City Hall Auditorium

7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE
WORKSHOP AGENDAS
7:25 CITY MANAGER'S REPORT
7:30 PROPOSED CHARTER AMENDMENTS
8:05 RIVERSIDE PARKWAY PROPERTY REMNANTS: Update & Review
8:35 BOTANICAL GARDENS: Discuss options for City assistance

JANUARY 2007

↪ ~~JANUARY 1, MONDAY 11:30 AM~~ Holiday-Meeting Canceled

↪ ~~JANUARY 1, MONDAY 7:00 PM~~ Holiday-Meeting Canceled

↪ JANUARY 15, MONDAY 11:30 AM 515 28 ¼ ROAD

11:30 COLORADO WEST MENTAL HEALTH: Facility Tour and Programs Update

↪ JANUARY 15, MONDAY 7:00 PM in the City Hall Auditorium

7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE
WORKSHOP AGENDAS
7:25 CITY MANAGER'S REPORT
7:30 APPOINTMENTS TO BOARDS & COMMISSIONS
7:35 GRAND VALLEY REGIONAL TRANSIT: Discuss funding options for the bus
system.

FEBRUARY 2007

↪ FEBRUARY 5, MONDAY 11:30 AM at Two Rivers Convention Center

11:30 ANNUAL MEETING WITH THE PARKS & RECREATION ADVISORY BOARD

↪ FEBRUARY 5, MONDAY 7:00PM in the City Hall Auditorium

7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE
WORKSHOP AGENDAS
7:25 CITY MANAGER'S REPORT
7:30 APPOINTMENTS TO BOARDS & COMMISSIONS
7:35 DEPARTMENT PRESENTATION: The *Geographic Information System*

Administrative Services Department will present and discuss the City's Geographical Information System (GIS).

↳ **FEBRUARY 19, MONDAY 11:30 AM** in the Administration Conference Room
11:30 OPEN

↳ **FEBRUARY 19, MONDAY 7:00 PM** in the City Hall Auditorium
7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
7:25 CITY MANAGER'S REPORT
7:30 OPEN

MARCH 2007

↳ **MARCH 5, MONDAY 11:30 AM**
11:30 ANNUAL MEETING WITH THE PARKS & RECREATION ADVISORY BOARD

↳ **MARCH 5, MONDAY 7:00PM** in the City Hall Auditorium
7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
7:25 CITY MANAGER'S REPORT
7:30 APPOINTMENTS TO BOARDS & COMMISSIONS
7:35 DEPARTMENT PRESENTATION: The

↗ **BIN LIST** ↖

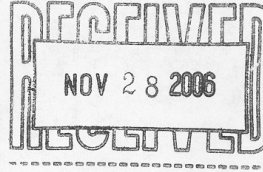
1. ??HOSPICE ASSISTANCE REQUEST: Request from Hospice & Palliative Care of Western Colorado for City assistance with the under grounding of Drain D.
2. DEPARTMENT OF HUMAN SERVICES AT THE REGIONAL CENTER: Update on their activities. (Contact is Director Christian Mueller, 255-5711).
3. ►MOAB PROJECT SUPPLIER ALLIANCE (MPSA): Promotes businesses in Western Colorado and Eastern Utah that desire to support the DOE's Moab Reclamation Project.

HOSPICE &
PALLIATIVE CARE
OF WESTERN COLORADO

Courage · Caring · Hope · Healing



cc: Dave Varley
sent 11/29/06



November 28, 2006

Mayor Jim Doody
City of Grand Junction
250 North 5th Street
Grand Junction, CO 81506

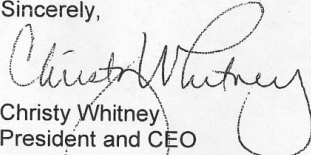
Dear Jim,

Thank you for meeting with Bob Blanchard and me regarding the capital campaign for the new facilities being planned for Hospice and Palliative Care of Western Colorado. This is truly an exciting time as we proceed toward ground breaking in March and the anticipation of providing ever expanding services to the residents of Grand Junction and all of Western Colorado during the end of life. The willingness of the City to consider participating in our project with in-kind services specific to the undergrounding of Ditch D on the southern boundary of our property and the adjoining walkway is very much appreciated. We are in the process of meeting individually with each Council member as well as staff that might be involved in the project. To date, in addition to our meeting, we have also met with Councilmembers Gregg Palmer, Interim City Manager Dave Varley, and Mark Relph, Director of Public Works and Utilities.

As we discussed, this letter is to ask that our request for in-kind services be placed on your December 18, 2006 workshop. I, along with representatives from Hospice as well as our capital campaign, will be in attendance to provide a brief presentation and answer any questions the Council may have. I have attached the briefing paper that we are presenting to all Council members so it could be included in the larger workshop agenda packet distribution.

Thank you in advance for any time you may afford us.

Sincerely,


Christy Whitney
President and CEO

cc: Dave Varley, Interim City Manager

www.hospicewco.com

ADMINISTRATIVE OFFICES/GRAND VALLEY • P.O. Box 60307, Grand Junction, CO 81506 • 970-241-2212
DELTA COUNTY • P.O. Box 24, Delta, CO 81416 • 970-874-6823
MONTROSE/OURAY COUNTIES • P.O. Box 1804, Montrose, CO 81402 • 970-240-7734
PLATEAU VALLEY/DEBEQUE • P.O. Box 294, Collbran, CO 81624 • 970-487-3844

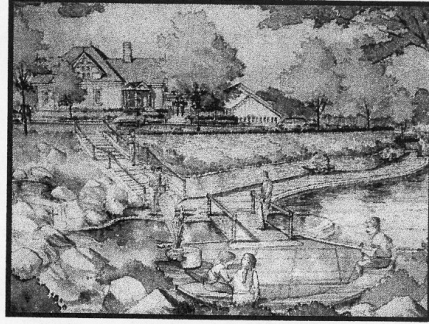
CC OKAY

Hospice & Palliative Care of Western Colorado Proposal to The City of Grand Junction

Project Overview

Hospice and Palliative Care of Western Colorado is part of a planned development of the Fairmount Health Park on 12th street.

The scope of our project includes the construction of a 25,000 square foot inpatient hospice and administration building, the renovation of the historic Miller Homestead into a counseling/meeting center and the construction of an entry park that is slated to include a water feature, pathways, benches and other amenities to be enjoyed by the community. Future plans include expansion of the existing Art on the Corner project to the Health Park.



A capital campaign has been underway to raise the dollars now estimated to be close to \$11 million to complete these projects. Many citizens have generously contributed to the campaign and we are close to \$8 million in fundraised dollars and in kind support.

As part of the development of the health park, Hospice agreed to establish a path from 12th Street to the Commons project and we agreed to cover irrigation Ditch "D". When we began the project, Grand Valley Water Users owned the irrigation ditch. Last summer, the City of Grand Junction acquired ownership of the ditch. The park and pathway are anticipated to be wonderful assets to our community to enjoy over the years.

The total estimated cost for the Entry Park and Pathway is \$1.5 million.

Request

We are requesting financial and in-kind labor support from the City of Grand Junction to assist with the costs & labor involved of covering the irrigation ditch, constructing the path and associated landscaping.

Budget

	Total Cost	Pledged	Donor	Value of City Request
Drain D labor & Equipment	\$68,606			\$68,606
Irrigation	\$11,786			\$11,786
Landscaping/Plantings	\$46,395			\$46,395
Seeding	\$1895	\$1895	Deep Creek Landcaping	0
Paving of Path	\$25,265			\$25,265
Ditch D Coverage materials and pipe	\$30,004	\$30,004	Grand Junction Pipe	0
TOTALS	\$183,951.00	\$30,004.00		\$152,052.00

Attach W-2

125th Anniversary Committee Request

CITY OF GRAND JUNCTION

CITY COUNCIL AGENDA					
Subject	Grand Junction 125 th Anniversary Committee Request				
Meeting Date	December 4, 2006				
Date Prepared	November 29, 2006			File #	
Author	Sam Rainguet		Communications & Community Relations Coordinator		
Presenter Name	Sam Rainguet		Communications & Community Relations Coordinator		
Report results back to Council	<input type="checkbox"/>	No	<input type="checkbox"/>	Yes	When
Citizen Presentation	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	Name
<input checked="" type="checkbox"/>	Workshop	<input type="checkbox"/>	Formal Agenda	<input type="checkbox"/>	Consent
					Individual Consideration

Summary: The celebration of the 125th Anniversary of the City of Grand Junction will be held June 29 through July 4, 2007. Many events are planned to celebrate this important milestone, but seed money is needed at this time.

Budget: Request City of Grand Junction contribution of \$25,000 in seed money plus sponsorship of the event. The entire celebration budget is anticipated to be around \$200,000.

Action Requested/Recommendation: City Council to approve request for seed money and sponsorship.

Attachments: None

Background Information: Presentation to follow

Attach W-3
Air Quality Control

November 27, 2006

Grand Junction City Council
Grand Junction City Hall
250 North 5th Street,
Grand Junction, CO 81501

Dear Grand Junction City Council,

I am writing on behalf of Western Colorado Congress to request 10 to 15 minutes on a workshop or City Council agenda. The purpose of this agenda item is to brief our City Council on a proposed Colorado rule that will reduce air pollution from oil and gas development, and to seek a resolution supporting a strong statewide rule that protects our clean air and healthy communities.

On December 17, the Colorado Air Quality Control Commission (AQCC) is considering a proposed rule that would reduce the emissions of smog-forming compounds – such as volatile organic compounds (VOCs), nitrogen oxides, and carbon monoxide – from oil and gas development in our state. Currently, no such rule exists in Colorado outside of the Front Range/Denver metro area. Local government support will be vital to ensure that the AQCC passes a strong rule that protects air quality for all Coloradans in the midst of the current oil and gas development boom, and into the future.

Alternatively, if you, the GJ City Council, feel that the information we have already provided allows you to sign Western Colorado Congress's resolution, or endorse our position through a resolution or letter of your own, we can forego any scheduled presentation time.

Western Colorado Congress, a non-profit organization, is an alliance for community action that empowers people to protect and enhance their quality of life in western Colorado. With 3,000 members across western Colorado, WCC promotes a healthy environment and sustainable economies through local and regional campaigns.

Sincerely,

Matt Sura
Organizer
Western Colorado Congress
Ph: 970-270-5647

Air Pollution Control Division Regulation Proposals: Oil and Gas Emissions

Smog and Oil and Gas Development

Smog is fast becoming a serious problem in the Rocky Mountains, especially in western Colorado. Formed when air pollutants like nitrogen oxides, carbon monoxide, and volatile organic compounds, such as formaldehyde, react with sunlight to form its primary constituent - ozone - smog is the most widespread health threat to communities in the Rockies.

According to the EPA, smog can irritate respiratory systems and reduce lung function, aggravate asthma and lung disease, and damage lung cells

In Colorado, oil and gas development is one of the biggest producers of smog forming compounds.

To illustrate, data from Colorado Department of Public Health and Environment (CDPHE) show oil and gas operations are responsible for 77% of Garfield County's smog compounds. There are over 3,500 active gas wells in Garfield County with over 1,600 new drilling permits expected to be issued by the end of the year. In Mesa County, the oil and gas industry is estimated to be responsible for 8% of the volatile organic compounds (VOCs) in our air but with the recent leasing of large parts of Mesa County for gas development that is likely to increase. Mesa County has 533 active wells and an estimated 275 drilling permits will be issued for Mesa County this year.

With ever increasing drilling, we in western Colorado will see further degradation of our renowned clean air, blue skies, and public health.

Recognizing this, the Air Quality Control Commission (AQCC) directed the Colorado Air Pollution Control Division (APCD) to develop a proposal that would help reduce emissions of smog forming compounds from oil and gas development. The Division responded, proposing safeguards that would significantly reduce smog forming compounds from three main sources: condensate tanks, glycol dehydrators, and reciprocating internal combustion engines.

Background on Equipment

Condensate tanks fill with hydrocarbons that are a by-product of oil and gas production. This condensate is extremely volatile and evaporates into the air if the tanks are vented without emission controls. The APCD estimates that there are 152 large condensate tanks in Colorado outside of the Denver metro area that annually release 11,868,000 pounds of volatile organic compounds.

Glycol dehydrators separate gas from water for processing and transmission. The APCD estimates that there are 38 glycol dehydrators outside of the Denver metro area that annually release 2,318,600 pounds of volatile organic compounds.

Engines, which are used to compress natural gas, are also significant sources of pollution. According to information supplied by the State Health Department, just one 1200 horsepower engine can release enough nitrogen oxides to equal the amount released by nearly 8,000 cars each driven 12,500 miles a year.

APCD's Proposed Regulations

Under the AQCC's directive, the APCD proposed two distinct rules packages that will cut smog forming emissions from oil and gas operations. One rule package is for the Denver metro area, while the other will be applied statewide.

Both rules packages will reduce smog forming emissions from glycol dehydrators and large engines. Specifically, the rules provide for the following:

- By May 1, 2008 Glycol dehydrators that emit 15 tons of smog forming compounds per year must show a 90% reduction;
- By January 1, 2008 all new and relocated compressor engines over 100 hp must have pollution control technology to meet state limits.

Where the rules packages differ is emissions reductions from condensate tanks:

Denver metro rule:

- condensate tanks emitting more than 11 tons per year of Volatile Organic Compounds would have to control 95% of those emissions beginning May 1, 2007; beginning May 1, 2012 the threshold would fall to 6 tons per year.

Statewide rule:

- condensate tanks emitting more than 20 tons per year of Volatile Organic Compounds would have to control 95% of those emissions beginning May 1, 2008; the regulation does not provide for lowering this threshold later.

WCC's Resolution

WCC supports the APCD's rules with certain exceptions.

We on the Western Slope deserve the same steps to protect our air quality as those being taken in the Denver metro area.

Therefore, we are seeking statewide application of the Denver metro area rule for condensate tanks.

We also are counter proposing that new and relocated compressor engines be regulated by May 1, 2007, and that all *existing* engines greater than 500 hp meet the proposed regulations for new engines by July 1, 2008. Existing compressor engines over 500 hp on the Front Range were required to be retrofitted in 2003.

FOR MORE INFORMATION ABOUT THIS ISSUE PLEASE CONTACT

Patrick Barker – 970-379-3232

Matt Sura – 970-256-7650

Western Colorado Congress, a non-profit organization, is an alliance for community action that empowers people to protect and enhance their quality of life in western Colorado. With 3,000 members across western Colorado, WCC promotes a healthy environment and sustainable economies through local and regional campaigns.

Comparison of VOC Limits for Condensate Storage Tanks

Control Measure	CDPHE Proposal	WCC Proposal	Current Requirements
Reduce condensate storage tank emissions	Front Range Tanks > 11 tpy, 95% reduction by May 1, 2007	Front Range Tanks > 11 tpy, 95% reduction by May 1, 2007	Front Range Overall average reduction of 47.5%
	Front Range Tanks > 6 tpy, 95% reduction by May 1, 2012	Front Range Tanks > 6 tpy, 95% reduction by May 1, 2009	
	Statewide Tanks > 20 tpy, 95% reduction by May 1, 2008	Statewide Tanks > 11 tpy, 95% reduction by May 1, 2008	No statewide requirements
		Statewide Tanks > 6 tpy May 1, 2012	

Comparison of Requirements for Glycol Dehydrators and Stationary Engines

Control Measure	CDPHE Proposal	WCC Proposal	Current Requirements
Reduce glycol dehydrator emissions (statewide)	Units > 15 tpy, 90% reductions by May 1, 2008	Units > 12 tpy, 98% reductions by May 1, 2008	Federal MACT* requirements for toxic emissions
Limit NO _x , CO, NMHC emissions from new engines or engines relocated to Colorado (statewide)	Phase 1 standards take effect January 1, 2008	Phase 1 standards take effect May 1, 2007, also apply standards to <i>existing</i> engines over 500 hp	Proposed Phase 1 federal standards for new engines to take effect January 1, 2008

MACT = maximum available control technology; existing requirements for “major”

Resolution to Protect Colorado's Air From Oil and Gas Production Emissions

WHEREAS, energy development is occurring at an unprecedented pace in Colorado and the Rocky Mountain West; and

WHEREAS, the energy industry predicts as many as 400,000 new oil and gas wells will be drilled in the United States over the next 15 years, many of which are expected to be located in this state; and

WHEREAS, oil and gas exploration and production releases air pollution, including volatile organic compounds (VOCs), nitrogen oxides, and carbon monoxide; and

WHEREAS, air pollution from oil and gas exploration and production is only marginally controlled, if at all; and

WHEREAS, this air pollution contributes to the formation of smog, also known as ozone pollution, poses health threats to our communities, contributes to the loss of scenic vistas in Colorado's pristine areas, and poses threats to economic well-being; and

WHEREAS, air quality in Colorado will decline from increased air pollution from oil and gas developments; and

WHEREAS, air pollution problems may lead to economic sanctions, loss of business, and burdensome federal regulations; and

WHEREAS, Colorado counties and municipalities where residents have been impacted by the rapid increase in oil and gas development are unable to independently act under the current regulatory framework to reduce air pollution from this development; and

WHEREAS, other industries and private citizens in Colorado are doing their part to reduce air pollution; and

WHEREAS, the Colorado Air Quality Control Commission is considering a proposal by the Colorado Department of Public Health and Environment's Air Pollution Control Division that would require further reductions in emissions of smog-forming compounds from condensate tanks, glycol dehydrators, and reciprocating internal combustion engines statewide; and

WHEREAS, the Colorado Air Quality Control Commission has the authority to act on air pollution problems, to be proactive, rather than reactive, in reducing air pollution from oil and gas exploration and production activities, and to adopt the Division's proposed rules.

NOW, THEREFORE, BE IT RESOLVED, that the _____ supports the smog reduction rules proposed by the Colorado Department of Public Health and Environment, Air Pollution Control Division; and

BE IT FURTHER RESOLVED, that the _____ supports strengthening the Air Pollution Control Division's proposed rule for communities on the Western Slope by adopting the Denver metro area rule for condensate tanks statewide, and new and relocated compressor engines be regulated by May 1, 2007, and that all *existing* engines greater than 500 hp meet the proposed regulations for new engines by July 1, 2008.

BE IT FURTHER RESOLVED, that the _____ supports the Colorado Air Quality Control Commission's efforts to proactively address air pollution problems throughout the state of Colorado.

Signature

Date

Attach W-4

Energy Conservation Efforts

CITY OF GRAND JUNCTION

CITY COUNCIL AGENDA							
Subject		Resource and Energy Conservation					
Meeting Date		December 4, 2006					
Date Prepared		November 19, 2006			File #		
Author		Angela Harness David Varley		Management Intern Interim City Manager			
Presenter Name		David Varley		Interim City Manager			
Report results back to Council		X	No		Yes	When	
Citizen Presentation			Yes	X	No	Name	
X	Workshop		Formal Agenda			Consent	Individual Consideration

Summary: This report summarizes and reviews what the City of Grand Junction is currently doing to conserve energy and resources and assesses what other cities on the Western Slope and the Front Range are doing to save energy and resources as well.

Budget:

None

Action Requested/Recommendation:

None

Attachments:

See Report

Background Information:

Currently, the City of Grand Junction is using several methods to save energy and resources and has proposed several conservation plans to consider for the future.



Energy and Resource Conservation Update City of Grand Junction

Presenter: David Varley, Interim City Manager

City Council Workshop: 04 December 2006



Background

In 2004 staff to began work on a City-wide energy conservation plan. This plan was intended to be a document that would grow as current energy conservation initiatives are completed and as new ones are added. Several changes came out of this plan such as an anti-idling policy, an office energy use policy and a commitment to review all vehicle purchases to include vehicle size, fuel consumption and the possibility of purchasing hybrid vehicles.

The City of Grand Junction, particularly in the Public Works and Utilities Department and the Parks and Recreation Department, has put forth a significant effort toward conserving energy and continues to explore new approaches.

Currently, many divisions in the Public Works and Utilities Department are striving towards energy conservation efforts and have proposed several conservation plans to consider for the future. Below is an update on current and future resource and conservation efforts. Also included in this report are conservation efforts that are underway in other communities which could be helpful to our own conservation efforts.

An Update on Current and Future Energy and Resource Conservation Efforts:

1) Fleet:

- **Flexible Fuel Vehicles-** We fleet continue to purchase vehicles (currently 27) capable of running on gasoline as well as E-85 (ethanol).
- **E-85 Fuel-** The City has been working with Mesa County's Fleet Manager and the town of Mountain Village to purchase and install a fuel tank that would be used for E-85 fuel. This would be the first one in western Colorado. A number of factors are affecting this project such as the possibility of using some fuel tanks we acquired as part of the Riverside Parkway project, possibly using a grant that Mountain Village has secured and the State has just recently asked to be involved.
- **Biodiesel Fuel-** Biodiesel is the name of a clean burning, renewable diesel fuel replacement made from vegetable oils or animal fats. We have examined using this fuel but there are still some problems that other cities have had with biodiesel. The energy conservation committee will continue to review this as an option for our fleet.
- **Emphasis on Fuel Economy in Fleet Replacement-** As part of the fleet replacement review, continued emphasis has been placed on fuel economy and size requirements of replacement units. Hybrid vehicles are continually evaluated for cost effectiveness.
- **Vehicle Anti-Idling Policy-** Implemented in 2004. "Drivers of City vehicles will shut off the ignition immediately upon arriving at their destination. Drivers should not idle City vehicles at any time, but particularly after exiting the vehicle with the exception of certain public safety functions."

2) Water Treatment Facility:

- **Custom Energy Management Proposal-** The Water Treatment Facility will submit proposals to Xcel Energy’s Custom Efficiency program, which offers rebates or incentives to install new, and more efficient equipment. The City has already received a \$10,000 rebate for the geo-thermal heating and air conditioning unit and plans on submitting a proposal to receive a \$6,000 rebate for the installation of variable frequency drive (VFD) units.

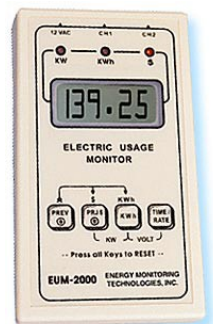
- **Variable frequency drive units-** In 2006, variable frequency drive units on backwash pumps at the water treatment facility were installed. Kilowatt demand was reduced from an average above 124 kW to less than 95 kW per month. This is resulting in an annual savings of at least \$4,500. Staff is now proposing to install two additional units.

Total estimated Project Costs	\$18,000
Average Monthly Kilowatt Hours Saved	3930 Kwh
Total Monthly Savings	\$917.17
Total Yearly Savings	\$11,006.04

- **Additional Energy Conservation Efforts:**

- In 2004, a **small hydro-electric plant** was installed at the Kannah Creek Water Treatment Facility. This hydro plant eliminated 99% of electrical consumption at this water treatment facility. With additional heat added to the building, it is estimated to have an \$8,000+ savings per year.

- In 2006, a **geo-thermal heating and air conditioning system** was installed at the water treatment facility. This geo-thermal unit will heat and cool the entire water treatment facility and the savings are a minimum of \$4,000 per year in natural gas use.



- **Water Conservation Efforts**

- About 700 acre feet of water is currently being saved each year due to the fact that water, which was previously flowing into irrigation ditches for livestock purposes, is now running into the City’s Kannah Creek flowline. Open ditch stock water deliveries have therefore been eliminated.

- Treated water for all the irrigation needs at the City cemeteries has been eliminated. We now use recycled backwash from the treatment plant, which saves 1,000,000 gallons per day.

- Treated water for irrigation was also eliminated at the Lincoln Park Golf Course. Water to the Golf Course now comes from the City's GVIC shares. 1,400,000 MGD of treated water was eliminated and replaced with 0.7 MGD of irrigation water.

- The Parks and Recreation Department strives to follow the “Colorado Green Industry Best Management Practices (BMPs) for the Conservation and Protection of Water Resources in Colorado”. For several years the Parks and Recreation Department has taken several measures to conserve water. One of the first steps has been to meter all

treated water used in the pools, buildings, parks, and landscaped streetscapes. With the meters in place, monthly water usage is able to be tracked and enables us to identify high use areas and make reduction adjustments.

-Watering at Tiara Rado Golf Course, Lincoln Park Golf Course, and Canyon View Park has been controlled through site-based central control computer systems for several years. **As of today, over seventy-five park irrigation systems are capable of being controlled by a central computer, which is known as the central control irrigation system.** This computerized system is able to control the amount of water we use on a day-to-day basis, and has the capability of controlling the amount of water in every “zone” throughout the city based on weather, wind, and other environmental conditions. The City has been consistently saving tremendous amounts of water since this system was put into place (2003).

• ***Water conservation education (DRIP):***

-A drought response plan was developed with Ute Water Conservancy District, Clifton Water District, the Town of Palisade, and the City of Grand Junction to act jointly in declaring water restrictions, producing public information about water conservation, and implementing conservation water rates. DRIP was formed as a result of the Drought Response Plan discussion. DRIP is a collaborative effort between the valley’s domestic water providers, CSU Cooperative Extension and anyone in the community who is interested in helping develop a public information program to educate the public concerning the Drought Response Plan, the importance of water conservation, and how to reduce water use. The DRIP Mission is:

Water for our future means conserving now. We live in a semi arid climate where low precipitation and droughts will always be a part of our environment. Use water wisely.

• ***Winter water trades in Whitewater Creek area to preserve water in storage***

-An agreement was completed with ranchers Don Lumbardy and Oscar Massey which will allow for an additional 400 acre feet of water to remain in storage in Juniata Reservoir. Because of this agreement the City will be allowed to divert the entire Whitewater Creek water for use as a municipal water source.

3) Persigo Wastewater Treatment Plant:

• ***Biosolids Composting Pilot Project***

-The Persigo Wastewater Treatment Facility conducted a pilot test of static composting in the summer of 2004. The pilot test allowed us to explore opportunities related to biosolids composting, gain a general familiarity of the composting process, and collect data. The testing also provided an understanding of City generated materials available for composting and investigated uses for the compost product. Mesa County is proposing a biosolids disposal fee increase at the landfill. Therefore, we are examining the possibility of the City beginning a composting operation. This would limit the City’s

costs related to biosolids disposal and could potentially turn these already collected items into marketable products.

• **Energy Management at Persigo**

-During 2006, the City's Wastewater Division contracted with Rothberg, Tamburini & Winsor Engineering to identify opportunities for the beneficial use of methane gas being produced in the anaerobic digestion process at the Persigo Wastewater Treatment Plant. Currently, the process produces approximately 100,000 cubic feet of gas per day of which only about 20% is being used to heat the digester and operations building. The remaining 80% is piped to a waste gas burner where it is flared off. The study identified three possible uses for the gas: 1) Compress the gas for use in City vehicles; 2) Use the gas to power electricity producing micro turbines; 3) Use the gas to operate a fuel cell to also produce electricity. Staff is currently conducting additional studies to determine which of the opportunities would be the most beneficial.



-During 1990, the Persigo facility consumed over \$385,000 worth of electricity while treating a flow of 6 million gallons per day. As a result of staff recommended changes, the 2005 electrical bill (seventeen years later) amounted to \$364,000 while treating 8.1 million gallons per day.

4) Recycling Program:

-The City of Grand Junction offers Curbside Recycling Services to residential trash customers through a contract with GJ CRI, a family owned and operated business. Our recycling program has a goal of 20 new customers per month with a renewal factor of 80 percent of the customers. At the end of 2005 we are maintaining a customer base of about 2,327 customers, and recycled over 3 million pounds with an avoided cost of \$106,188. In addition to curbside collection we have a drop-off center at the City shops (2549 River Rd.). For the convenience of our customers, we will be enhancing this drop off center in 2007 and working towards a buy back facility in 2008.

5) LED Traffic Signals:

-The traffic department will be investing \$140,000 next year (2007) to exchange the current incandescent bulbs to LEDs (light emitting diode) on all traffic signals. LED traffic signals are much more energy efficient than the incandescent lights found in most City intersections. LEDs utilize 1/10th of the energy required to run incandescent lights, thereby saving a little over \$55,000 per year with a payback of 2.7 years.

6) Clean Cities Coalition:

-The City has been an active participant in the Western Colorado Clean Cities Coalition's efforts to attain designation by the U.S. Department of Energy as a Clean Cities Coalition. The application was submitted during the summer of 2006 and designation is currently pending. One of the proposed goals of the Clean Cities

Coalition will be to provide alternative fuel options and to work with fuel suppliers to bring alternative fuel to Western Colorado.

7) Energy Conservation Team:

-A City Energy Conservation Team has just been formed. The team will assess and monitor the progress of proposed initiatives and current conservation practices, work to introduce new practices, and explore new conservation opportunities from other communities and outside entities. The team will also focus on implementing practices suggested in the energy audit conducted in April, 2005 by the Governor’s Office of Energy Management and Conservation (OEMC). *Rebuild Colorado*, a program of OEMC conducted this engineering study of City departmental buildings. The report identifies over \$1 million in energy and capital improvements that could be paid for with resulting energy cost savings in just over 7 years. Many of these energy conservation initiatives for City buildings have been implemented over the last three years. Some of the additional projects identified in this report are listed below.

Facilities Energy Management 2007 Budget

Projects with a 5 year or less payback

Building	Project	2007 Estimated Cost
Service Center	Upgrade Lighting	\$10,500.00
VCB	Upgrade Lighting	\$2,468.00
City Hall	Repair/Re-commission Air Handling Equip.	\$2,000.00
	Zone Averaging of building areas	\$9,000.00
Fire #1	Insulate window Panels (upstairs)	\$2,000.00
Fire #3	Upgrade Lighting	\$6,500.00
Fire #4	Upgrade Lighting	\$6,000.00
		\$38,468.00

Conservation Efforts in Other Communities:

Municipalities such as Steamboat Springs, Aspen, and a host of communities along the Front Range have taken various steps to make their operations more “green.” These efforts have taken on many forms, including the purchase of wind power, the use of alternative fuels, and the increase use of recycled products.

Steamboat Springs

The green team hired The Brendle Group, Inc. from Fort Collins to evaluate the organization and create a Sustainability Management Plan (SMP). This process reviewed utility bills, fuel and water consumption, waste and recycling generation, and documented existing practices to raise awareness and provide a baseline for improvements. This document established recommendations and developed goals and suggested resources to help with new initiatives.

- As of January 1st, the City of Steamboat Springs operated Howelsen Hill Ski Area will be 100% wind powered. The City is purchasing enough wind generated Renewable Energy Certificates (RECs) to offset 100% of the electricity needs for ski operations.
- Steamboat Springs is currently looking into the possibility of adding solar panels to existing facilities to reduce energy consumption.
- The City is in the process of revising its public benefit policies for Planned Unit Big-Box developments. Any future developments that fall under these guidelines will be required to achieve Leadership in Energy and Environmental Design (LEED) certification.

(The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings. The LEED Rating System was created to transform the built environment to sustainability by providing the building industry with consistent, credible standards for what constitutes a green building.)

Boulder

Environmental Affairs is a department in the City of Boulder that provides leadership to achieve Boulder’s goals of sustainability and environmental quality. Their mission is to prevent pollution, reduce resource consumption and promote environmentally sustainable practices. They develop city policy, offer educational programs and partner with citizens, businesses, and other organizations to protect Boulder's environment.

Boulder is currently one of the nation's leading supporters of wind power, with more than 5,000 households and 300 businesses purchasing wind power. Renewable energy, including the city's hydroelectric generation, represents almost 7% of the total electricity used in the city.

The city of Boulder has several programs that help to reduce the rate of increase in greenhouse gas emissions. Program areas include energy conservation and efficiency, renewable energy, solid waste reduction, transportation, open space acquisition and urban forestry. Additionally, the city helped dozens of local businesses receive utility rebates for lighting retrofit projects.

Currently, Boulder is completing a pilot program to collect organic waste, (food and yard waste) curbside from families living in five neighborhoods in Boulder. The program will test whether it is practical to collect yard and food waste from the curbside or alley on a regular basis. The food and yard waste collected during the pilot will be diverted from the landfill and recycled into valuable compost. The city of Boulder has a goal to divert 50% of the waste stream from the landfill.

Aspen

The Canary initiative

In March of 2005, the City of Aspen adopted a plan to aggressively begin reducing greenhouse gas emissions. This initiative calls for identifying steps to reduce global warming pollution; inform the public about impacts from, and solutions for global warming; and to advocate for action on a regional, state, and national level. In 2005, The City of Aspen made a commitment to reduce its greenhouse gas emissions (*government only*) by 1% per year.

The City of Aspen's Environmental Health Department coordinates the Aspen area efforts to reduce greenhouse gas emissions and will assume a leadership role in doing so. The City has laid out the canary initiative as a list of goals and objectives that can be met through several action plans to reduce emissions in their community.

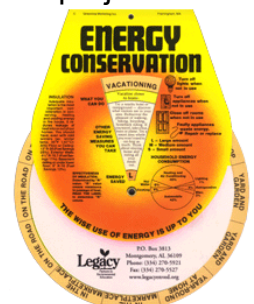
Several initiatives that Aspen is currently doing

- The City has purchased hybrid electric vehicles for driving to out of town meetings.
- City employees use a fleet of bicycles, electric bikes, electric cars, electric maintenance vehicles, or take the bus or walk to errands and meetings.
- The City Parks Department is starting a pilot program using cleaner bio-diesel fuel.
- The City uses 100% post-consumer recycled paper in copiers, employees print draft documents on paper that has already been printed on the back, and new printers print on front and back of paper.
- The City has solar trail lights and parking meters.
- The City provides raw water for irrigation.

Green Parks

The Aspen Parks Department composts or chips all branches, grass clippings and leaves, to be used for mulch or compost. A new larger compost demonstration project has just started at the golf course.

Parks uses only organically derived tree and shrub fertilizer, instead of chemical fertilizers.



Fort Collins (Climate Wise)

Climate Wise is a voluntary program that is dedicated to helping local businesses and the environment. Through technical assistance and creative solutions, the City of Fort Collins helps businesses tackle challenges that impact bottom lines and the quality of life in Fort Collins.

The goal of the Climate Wise program is to reduce greenhouse gas emissions by

- promoting waste reduction;
- energy savings;
- alternative transportation;
- water conservation; and
- practicing pollution prevention.

Climate Wise [partners](#) are provided with free [technical assistance](#) by the Climate Wise team, [public recognition](#) and, publicity of their participation. The Climate Wise program is helping the City of Fort Collins meet some of its greenhouse reduction goals highlighted in the [Local Action Plan to Reduce Greenhouse Gas Emissions](#) adopted by the Fort Collins City Council. So far, participating businesses are reducing over 95,452 tons/year of CO₂.

Eagle County (EcoBuild Program)

The intent of the EcoBuild program is to encourage cost-effective sustainable building methods to create durable, energy efficient structures that conserve natural resources, promote the efficient use of building materials, and improve indoor air quality. [ECOBuild regulations](#) were adopted into the building code to promote energy and material efficient building design and construction practices. ECObuild applies to all new residential (single family, duplex, townhouse) construction per the currently adopted building code, as well as additions/reconstruction over 50% of the existing floor area, and exterior energy uses such as snowmelt, spas, and pools. A completed [ECOBuild checklist](#) must be submitted to receive a building permit application.

St. George

The Clean Green Power Program is a program designed to provide renewable energy to customers. Renewable energy projects can be more expensive than traditional sources of energy, but this program alleviates environmental concerns due to depletion of fossil fuels and green house gas emissions. The sources of renewable energy for the City of St. George are both wind and low impact hydro and revenues received through this program support not only this program, but provide funding for research and development of new projects (*Note: The City of St. George runs the electric utility*).

Telluride

Acting as a leader in the green building movement, the Town of Telluride recently adopted an ordinance requiring all residential new construction, additions and remodels to comply with green building regulations. The Green Building Code addresses many of the potentially harmful effects associated with building. The code is broken down into four categories: energy efficiency, indoor air quality, materials, and resource conservation. The Code does not apply to commercial construction at this time. The City has used green building techniques for its two affordable housing projects.

Telluride has been implementing ways to cut down on their own energy use and began the "Telluride Unplugged" Initiative in 2006. This was a 6-week campaign focused on educating and engaging the public about what they can do to reduce carbon emissions. As a signer of the U.S. Mayor's Climate Protection Agreement, Telluride's initiative is part of its effort to reduce GHG emissions 7% by 2012. Each week of the event focuses on a different area with themes ranging from energy efficient lighting to food to transportation.

Crested Butte

Performance contracting

Starting in April 2006, the Office for Resource Efficiency (ORE) helped the Town of Crested Butte submit a Request for Proposal to choose an Energy Services Contractor. The RFP included an Energy Audit and an Energy Performance Contract. In June Siemens Building Technologies was chosen to perform the initial Energy Audit. There have been several meetings with Siemens, the Town of Crested Butte, and ORE.

Items for Council Consideration and Discussion

1. The City's Energy Conservation Team will review the energy audit report, review proposed conservation projects, review activities from other cities and make recommendations for additional projects.
2. Should the City purchase hybrid vehicles even if there is a negative cost-benefit ratio? Is there a certain price point at which such vehicles should be purchased? Or, should all appropriate vehicles be replaced with hybrids when that vehicle is due for replacement?
3. Should we continue to work with Mesa County Fleet Services to install a fuel tank that will be used for E-85 fuel? The cost for this has not been budgeted.
4. Are there specific practices from other cities that we should review and consider implementing in Grand Junction?
5. Should the City review its building and development codes and look for ways to encourage energy conservation by others?