

City of **Littleton**



Environmental Action Plan April 2009

City of Littleton Environmental Action Plan

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Executive Summary

'Sustainability,' -- meeting the needs of the present generation so it doesn't compromise the quality of life for future generations – is far from simply being the “right thing to do.” A growing number of cities are undertaking sustainability planning and programs, and in doing so are helping boost or maintain their regional economic competitiveness, improving quality of life for their citizens, attracting tourists and convention dollars, becoming a magnet for green businesses and jobs, and enjoying substantive cost savings through resource conservation.

From its history of building preservation to its current day Environmental Leadership award, the City of Littleton has maintained a focus on environmental health, community vitality, and economic development. This document, then, is a vehicle for the city to plan, prioritize, and communicate sustainability goals with and between city departments, city council and the community; and track progress toward those goals. It also serves as a basis from which to present capital expenditure proposals to city council and make progress reports to the council. Lastly, as Littleton moves toward a greater awareness of and implementation of sustainable operations, the *Environmental Action Plan* will be updated to reflect progress toward stated goals, and posted online so that the city can maintain a high level of communication about these important issues with its citizens.

“A carbon-constrained world is upon us. Our level of consumption and its attendant wastefulness has set an unfortunate example the world strives to emulate. Now we must set a different example because how people live in India and China will have a direct effect upon our children’s futures and vice versa. By creating cities that address the future bravely, brilliantly, and humanely, we create examples and possibility for all cities everywhere.”

Paul Hawken, author of “The Ecology of Commerce” and “Natural Capitalism”

The plan contains an introductory discussion of sustainability and the city’s key sustainability targets, as well as a number of goals related to energy conservation, waste reduction, water conservation, air quality improvement, and community leadership. The goals are as follows:

1. Reduce city vehicle fuel consumption by 10 percent by 2010 using 2008 as a baseline
2. Reduce building energy use by 10 percent by 2010, using 2008 as a baseline
3. Expand and enhance existing recycling program throughout city buildings
4. Expand and enhance existing recycling programs for citizens
5. Explore the availability of grants, partnerships and other funding opportunities for city programs and projects
6. Communicate with citizens and businesses and encourage sustainability in the community

The plan also contains a list of past successes and current activities related to energy, water, waste, air quality, and leadership, many of which have been recognized by external parties as evidence of Littleton’s focus on sustainability. Lastly, the plan reviews a number of recommendations the city may wish to consider to enhance its success in moving toward a more sustainable Littleton.

A Look Into Our Future

Dear Citizens,

Environmental and sustainability issues are common in the mainstream press; you hear about this concept everywhere. But what does it really mean – how can a city become more sustainable?

The City of Littleton and you have a long history of preservation, conservation and waste reduction. Some of the programs that we offer wouldn't be possible without your participation: The Summer Cleanup Program, Household Haz Mat Roundup, Christmas Tree Recycling, Electronics Recycling Day, Tire and Leaf Recycling, and Holiday RecycOil are some, and a few have been in operation for more than two decades!



While these key elements of sustainability are very successful, we recognize the need to expand our vision and focus it into five major areas: energy, waste, water, air quality and community leadership and education. We have set goals for ourselves in all five of these areas with a long-term focus on making Littleton a better place to live for current and future residents.

We are very proud of our recognition for Environmental Leadership from the Colorado Department of Public Health and Environment but plan to do more. With this, our first *Environmental Action Plan*, we hope to raise awareness of our current actions, set and attain goals, and encourage citizens to bring forth suggestions to make Littleton an even more sustainable community.

I welcome your feedback about these important issues and encourage you to contact me as we implement, expand and update this plan.

Sincerely,

A handwritten signature in black ink that reads "Doug Clark". The signature is written in a cursive, flowing style.

Doug Clark
Mayor of Littleton

A History of Preservation

Littleton began as a farm community in the 1860s, focused on growing food for the rush of miners headed for the gold fields. The community incorporated in 1890, and by the turn of the century was well-established with many homes, stores and churches. In 1904, Littleton was named the county seat and the townspeople built the magnificent Arapahoe County Courthouse on the east end of Main Street. In 1917, a new Carnegie Library was erected on the west end, and the stunning Town Hall was built in 1920 in the center of town.

After World War II, the post-war housing and freeway construction boom caused some of the city’s old structures to be abandoned. The city, bolstered by concerned community volunteers, saw value in the old buildings, rescued some of them, notably the wooden-frame Santa Fe Railroad Depot, which became an art center for the Littleton Fine Arts Guild. The stone Denver & Rio Grande Depot was renovated and now serves as the crown jewel station of RTD’s Southwest Light Rail line. In 1998, an extensive restoration project began on the abandoned former county courthouse, and in May 2000, the city rededicated it as the new Littleton Municipal Courthouse. Other restoration projects in Littleton include the old Town Hall, which was restored and converted to a performing arts center and gallery. Reuse of historically significant buildings by saving them from demolition has long been part of Littleton’s history.



The restored Littleton Municipal Courthouse was rededicated in 2000

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The Sustainability Vision

In 2008, the city decided to crystallize its commitment toward sustainability, and Littleton’s first Sustainability Committee was formed. The committee crafted a mission statement, incorporating its vision of leadership in the new energy economy:

**City of Littleton
Sustainability Mission Statement**

The daily activities of city government have a significant impact on the quality of Colorado’s public health, environment, and natural resources.

The City of Littleton takes a position of leadership in the new energy economy. The city will reduce energy consumption, increase the use of renewable energy sources, increase energy efficiency, decrease the environmental impact of the city vehicle fleet, and reduce waste.

The committee is comprised of volunteers from every department, representing the diversity of services offered by the city. In mid-2008 the committee gathered together

their successes and aspirations and pursued an Environmental Leadership Award from the Colorado Department of Public Health and Environment for its efforts to-date. They won the Bronze Award, and in so doing, fashioned a solid base from which to build further success. This sustainability plan is the result of many hours of work from committee members (see Table 1) in implementing and documenting programs and, more importantly, formulating key goals to move toward a more sustainable Littleton.

Name	Department
Alan Brown	Fleet
Marlene Brown	City Manager
Dan Burnham	Littleton Housing Authority
Jeff Christ	Fire
Chandra De Simone	Finance
Diane Delgesso	Building Maintenance
Chuck Dodson	Littleton Housing Authority
Denise Duralia	Library
Eric Ervin	Business/Industry Affairs
David Flaig	Public Services
Meredith Gipson	Library
Jo Hamit	Littleton Housing Authority
Bill Hastings	Museum
Margy Lentsch-Richter	Courts
Bryann Lynch	Police
Kelli Narde	City Manager
Becky Phye	City Attorney
Ken Price	Information Services
Dave Stacey	Building Maintenance
Rebecca Thompson	Community Development

Table 1 City of Littleton Sustainability Committee Members, February 2009

Successes in Other Cities

Sustainability is defined as “meeting the needs of the present generation so it doesn't compromise the quality of life for future generations.” Proper implementation of a sustainability program entails striking a balance between environmental, social, and economic issues. This concept is sometimes referred to as the “Three E's” of Environment, Equity, and Economy (see Figure 1). The interdependence between the three factors is sometimes described as a three-legged stool: affecting one naturally affects the other two, and all three must be strong for the entire structure to be stable.

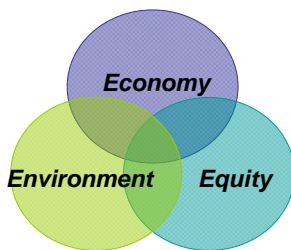


Figure 1: The Three E's

A few examples of successes from other cities are as follows:

Green Builder Program: The Austin Green Builder Program in Texas provides training in energy-efficient and environmentally-responsible construction techniques. Participants receive guidebooks, product and service source books,

and attend workshops and training seminars. Builders and developers can apply for the Austin Green Builder rating system, awarding one to four stars to their homes. The program is so popular; it has generated greater participation among builders, architects, engineers, and building-product suppliers.¹

Alternative Fuels: In March 2007, SustainLane, a group that compiles information on sustainability, ranked Phoenix seventh in its listing of the top 10 large U.S. cities that are running the highest percentage of their municipal vehicle fleet on alternative fuels. The report found that Phoenix runs 28 percent of its fleet with compressed or liquid natural gas or biodiesel.²

Green Buildings: In 2004, Minneapolis completed construction on an Animal Care and Control building that houses lost/stray pets and houses pets given up for adoption. A strategic space planning design reduced initial square footage of the building by 16 percent; the overall design exceeded Energy Code by more than 30 percent. The building uses energy efficient lighting; low flow washroom fixtures that reduce water consumption; and pervious paving and other measures to reduce overall water runoff by 78 percent on site (keeping pollutants and excess water from reaching rivers and lakes). The smaller design saved \$630,000 in construction costs, reduced material use design saved \$140,000 in surfacing materials, and construction wastes were separated and recycled. The building uses low or no VOC paints, and a desiccant humidification system that reduces the cooling load by 73 tons results in improved health and safety of animals and staff.³

The Greening of Chicago: Since 1989, Chicago has implemented a variety of sustainability measures, including planting about a half-million trees, removing traffic lanes in favor of green medians and bulldozing a downtown airport, putting in its place a 100-acre park. Chicago has become known as the "Green Roofs City," with carbon-sequestering vegetation covering more than 4.5 million square feet of rooftop. In September of 2008, Mayor Daley took his commitment to combating global warming a step further: he released an aggressive carbon emissions-cutting plan that includes changing city building codes, installing huge solar panels on municipal properties, and retrofitting low-cost housing complexes to reduce water and energy use.⁴

The above examples represent the results of well-planned sustainability initiatives implemented over a period of time. With the formation of the Sustainability Committee and award from the Colorado Department of Public Health and Environment's "Environmental Leadership Program," the City of Littleton is well-poised for successes such as these.

Plan Development and Purpose

The City of Littleton *Environmental Action Plan* prioritizes and formalizes sustainability goals for various city departments and can be used for discussions with city council and a basis from which to make capital expenditure proposals to city council. From time to time, the committee may revisit the proposed goals in light of availability of resources, new market developments, community needs, and citizen requests. The plan will be available on the City of Littleton website in order to share the committee's goals and progress with citizens.

Key Sustainability Targets

The City of Littleton has identified five key target areas on which to focus its efforts regarding sustainability:

1. Energy Conservation: The city wishes to conserve energy, obtain a portion of electricity from a renewable source, and use energy efficiently in lighting, heating, cooling, weatherization, travel, technology, and equipment use.
2. Waste Reduction: The city looks for opportunities to reduce waste, recycle, decrease the volume of material going to landfills, and purchase recyclable supplies and materials when possible.
3. Water Conservation: The city looks for ways to avoid wasting water by using it efficiently and for ways to preserve water quality by reducing discharges to water sources.
4. Air Quality Improvement: The city looks for opportunities to improve air quality in its fleet and in public works snow removal operations.
5. Leadership, Education, Communication and Citizen Programs: The city complies with and strives to exceed compliance with all applicable regulations; share its practices with others; and support citizens, vendors, and customers who are committed to sustainability. Further, the city wishes to educate its citizens and employees about the city's sustainability practices and involve them in saving energy and reducing waste.



Sustainability Goals

This section of the *Environmental Action Plan* contains the goals designed to focus the city's efforts on attaining its key sustainability targets. In addition to each goal, specific objectives and related actions to achieve the goal are included, as are measures of success.

Energy

In the United States, buildings account for 72 percent of electricity consumption and 39 percent of energy use⁵. Beyond the obvious environmental benefits of reduced use of natural resources and improved air quality, the economic benefits of operating buildings in a manner focused on energy efficiency, conservation, and implementation of renewable forms of energy can include long-term reduced operating costs and enhanced

asset value. Due to the number of buildings operated by the city, efficient use of energy in buildings poses one of the greatest opportunities for cost savings associated with implementing sustainability initiatives.

GOAL 1

Reduce building energy use by 10 percent by 2010, using 2008 as a baseline.

Objectives:

- Conserve energy used in lighting, heating, and cooling throughout city buildings through a variety of changes to system components and operation.
- Encourage building occupant knowledge of and compliance with efficient operation of HVAC and lighting systems and equipment.
- Reduce costs associated with building energy consumption.
- Reduce emissions of greenhouse gases associated with the consumption of traditional forms of energy.

Actions:

- Pursue grants to pay the cost of performing energy audits in all city owned buildings.
- Pursue grants to implement energy saving measures.
- Continue installation of motion-sensing and dimmable light switches in new construction and replace switches in existing buildings to allow for automatic shutoff where practical.
- Continue the retrofit of existing light fixtures to reduce wattage requirements in new and existing buildings.
- Continue replacement of light bulbs and lamps with those that use less energy (e.g. CFLs and LEDs).
- Continue design and implementation of nighttime and seasonal setbacks for heating and cooling equipment and lighting systems; monitor equipment to ensure it is functioning correctly.
- Continue progress toward in-house re-commissioning of HVAC equipment.
- Use highest SEER rating available when replacing units or parts.



Measures of Success:

- All city buildings use motion-sensing and dimmable light switches and low-energy use bulbs/lamps where practical.
- Nighttime and seasonal setbacks are in place: HVAC and lighting system equipment are monitored to ensure proper functioning.
- Energy consumption is reduced in city buildings by 10 percent by 2010 as compared to 2008.

Waste

In 2007, Americans generated about 254 million tons of trash and recycled and composted 85 million tons of this material, equivalent to a 33.4 percent recycling rate. On average, we recycled and composted 1.5 pounds of our individual waste generation of 4.6 pounds per person per day. Of the waste materials generated, approximately one-third of it was paper and paperboard. Although recycling programs have been in place

FACT:
Every ton of mixed paper recycled can save the energy equivalent of 185 gallons of gasoline.⁶

for a number of years for common materials such as paper, cans, glass, and plastic, only about 28 percent of glass containers were recycled, 37 percent of plastic soft drink and water bottles, and 40 percent of unwanted mail.⁷

Reducing waste through increased efficiencies, reuse and recycling can result in reduced costs for new materials, a reduction in landfill space needed as well as the greenhouse gases associated with their decay, and reduced pressure on natural resources.

The City of Littleton has recently expanded its desk side recycling program, and made it single-stream. Through this program, employees have reversed the percentage of trash (30 percent) and recyclables (70 percent) prior to the program.

GOAL 2

Enhance the existing recycling program throughout city buildings.

Objectives:

- Minimize space taken up in landfills, the use of virgin resources, and greenhouse gases generated by landfilled trash by ensuring that all personnel and visitors in city buildings have convenient access to conveniently located, properly labeled recycling containers for the following items as appropriate to building operations:
 - Paper
 - Metal cans
 - Glass and plastic bottles
 - Batteries
 - Scrap metal
 - Construction/demo debris
 - Fluorescent lamps
 - Used electronics
- Raise employee, visitor, and citizen awareness about the ease and benefits of recycling by setting an example of a strong recycling program in city buildings (also contributes to the key sustainability target of Leadership, Education, Communication, & Citizen Programs).

Actions:



- Ensure appropriate recycling contracts are in place.
- Set up properly labeled recycling containers as appropriate.
- Perform initial and ongoing education of building occupants and cleaning crews regarding program guidelines.
- Install signage as necessary to clearly inform visitors regarding recycling program guidelines.
- Perform annual waste audit to ensure compliance with recycling guidelines.
- Purchase recyclable supplies and materials where possible.

Measures of Success:

- Annual waste audit reveals > 80 percent compliance with recycling guidelines.

Water

The South Platte River meanders through Littleton from Chatfield Reservoir. A source of beauty, recreation, and a home to aquatic life, the Platte and other surface and ground waters of the city are a valuable and irreplaceable resource. Water conservation is an important tool in meeting long-term water supply needs while maintaining quality of life standards. Using water in the most efficient manner can help avoid or reduce the need to develop new water supplies, reduce operating costs, mitigate potential impacts of future droughts, and improve public credibility by demonstrating stewardship of natural resources, which also contributes to the city's Key Sustainability Target of Leadership, Education, Communication & Citizen Programs.

Goal 3

Reduce water consumption

Objectives:

- Investigate additional ways for the city to conserve water through the use of green roofs on new and/or existing city buildings as well as rain gardens in various locations throughout city grounds.
- Through Denver Water, conduct audit to reduce water consumption inside city buildings and in irrigation systems on city owned land.



Actions:

- Research and determine opportunities to install green roofs on new and/or existing city buildings. Gather data related to installation, cost, water savings, and feasibility in the Rocky Mountain area climate.
- Present results in a report to the Sustainability Committee by the end of 2009.
- Take advantage of funding available from Denver Water to implement water saving measures.

Measures of Success:

- Report is presented to the Sustainability Committee by the end of 2009, and contains enough data to help the Sustainability Committee make an informed decision about whether to recommend to city council the viability of green roofs and/or rain gardens.
- Obtain data from Denver Water on water saved.

Air Quality

It is estimated that vehicle emissions account for 30 percent of Denver's greenhouse gases.⁸ Burning fossil fuels in vehicles releases greenhouse gases into the atmosphere, where they contribute to climate change. Reducing vehicle fuel consumption not only results in reduced emissions, but in bottom-line savings in fuel costs and maintenance. Reducing overall Vehicle Miles Traveled (VMT) by pooling with others, using mass transit, or combining trips is one way to reduce emissions and costs; other ways include purchasing more fuel-efficient vehicles, keeping vehicles properly tuned, and modifying driving behavior.

Goal 4:

Improve air quality by reducing city vehicle fuel consumption by 10 percent by 2010, using 2008 as a baseline.

Objectives:

- Conserve fuel and improve air quality by encouraging alternative processes associated with vehicle fuel use in city vehicles across all departments.
- Encourage driver awareness by providing reduction guidelines and feedback regarding consumption.
- Reduce costs associated with consumption and vehicle maintenance.
- Measure baseline and reduced emissions for inclusion in future goals.

Actions:

- Provide departments with monthly fuel usage data to allow them to track their progress toward the overall 10 percent reduction goal. Present total vehicle fuel usage report to the Sustainability Committee.
- Develop and communicate recommendations to reduce consumption (e.g., idling policy, aggressive acceleration, right turns, etc.) to all departments.
- Restrict the purchase and use of four-wheel drive vehicles where feasible.
- Look for opportunities to add additional alternative fuel vehicles to the fleet where practical.
- Track cost savings associated with reduced consumption and vehicle use.
- Track emission savings.
- Implement fleet idling policy.



Measures of Success:

- Recommendations to reduce consumption have been communicated to all departments.
- Quarterly reports show the city is on track to reduce fuel usage by 10 percent by the end of 2010 from 2008.
- Fuel costs are reduced annually.
- Emissions are reduced from 2008 levels, and measures are in place to track future emissions reductions.

Leadership, Education, Communication and Citizen Programs

The social aspect of sustainability often starts with a demonstration of leadership by the city, and extends to providing citizens with accurate and practical information about how they can live in a more sustainable manner. Effective communication and education programs are key to making the most of the city's efforts toward sustainability; they are the portal by which citizens and visitors learn about the city's successes and are oftentimes the spark that ignites further discussion and participation. Citizens can become stronger stewards of and for a sustainable city, and ultimately help the city achieve its sustainability goals through making informed choices.

Goal 5**Demonstrate the city's leadership in sustainability and communicate successes and opportunities to the community.**

Objectives:

- Investigate, discuss, and plan methods to educate and communicate with citizens regarding sustainability concepts and city initiatives.

Actions:

- Continue city sponsored recycling events for the community
- Research additional library programming and collection materials.
- Keep updated information on website.
- Look for opportunities to bring in experts to provide seminars for citizens.
- Promote city sponsored community opportunities for sustainability and actions the city has undertaken or is undertaking.
- Continue to apply for awards and recognition for the city's efforts.
- Have information booths at city sponsored events.
- Have recycling containers at city sponsored events.



Measures of Success:

- Collect data on city sponsored events to document participation
- Report on increased collection materials
- Apply for awards and recognition
- Continue Earth Day event for employees

Past Successes and Current Practices

This *Environmental Action Plan* contains a number of goals for the city to pursue related to energy, water, waste, air quality, and leadership. While these goals are important to help move toward a more sustainable Littleton, the city has had a number of initiatives in place for some time, and continues to demonstrate its focus on sustainability with the following practices.

The City of Littleton...


- √ partners in an annual "Household Hazardous Waste Roundup" to provide an outlet for unwanted materials that could pose a threat to air, water, or land if improperly disposed
- √ sponsors a free Electronics Recycling Day each year for citizens to recycle unwanted electronic equipment such as computers, televisions, radios and monitors



- √ sponsors a Christmas Tree Recycling Program whereby trees are ground into mulch which is then made available free to the public
- √ annually removes unwanted items from citizen's homes such as old appliances, construction materials, etc. that municipal trash haulers do not accept through the Keep Littleton Beautiful Summer Clean Up Program
- √ offers a free leaf recycling program and low-cost tire recycling
- √ significantly reduced irrigation water used on city properties
- √ recycles ink cartridges, cell phones and batteries through a company that donates one dollar per item to Littleton Public Schools
- √ publishes the city employee newsletter, "Team Talk," electronically
- √ switched all traffic lights to LEDs that use about one-tenth the electricity of traditional bulbs and last up to seven years
- √ installed a fuel dispensing site for E85 for the city's 30 flex fuel vehicles, and is working with other local public agencies to make the fuel available to those who wish to purchase it



- √ downsized many vehicles and placed hybrid electric vehicles in the field
- √ participated in a grant that funded emissions reducing devices installed on about 20 older diesel engines
- √ launched "It's A Green Thing," an aggressive desk side, single-stream recycling program for employees
- √ provided recycled water bottles to employees to discourage the use of disposable cups
- √ installed motion sensitive paper towel dispensers in the bathrooms of city buildings
- √ developed an Adult Summer Reading Program with the theme "Read and Renew the Earth," and provided a series of programs throughout the summer to celebrate the earth and gave attendees tips on how to protect it
- √ uses biodegradable bags instead of plastic bags to give to library patrons to carry their checked out items
- √ waived all building permit fees, plan review fees and city sales tax for the installation of residential solar and photovoltaic systems
- √ recycles all used fluorescent bulbs from city buildings
- √ purchases 1.3 million kilowatt-hours of clean, renewable wind energy per year
- √ continues to upgrade lighting in city buildings to include timer controls, motion sensors, and daylight harvesting controls to save energy
- √ uses paper in its print shop that contains a high percentage of recycled and responsibly harvested fibers
- √ prints the *Littleton Report* on recycled paper with vegetable-based inks
- √ offered a program for recycling used cooking oil from residents for use as a bio fuel
- √ prints double-sided documents where practical
- √ purchases recycled and recyclable office products
- √ encourages employees to contract with caterers who use plates, cups and utensils made from recyclable materials
- √ discontinued purchasing bottled water for city council meetings, and installed a water dispenser in the community room with recycled and recyclable cups for meetings
- √ places recycling containers at all venues at which it is a sponsor
- √ published a booklet that provides information to citizens regarding private sector recycling programs, recycling year round, and locations to recycle less common items such as fluorescent bulbs

- √ orders energy efficient blade servers when new servers are purchased or current stand-alone servers are replaced
- √ provides shade trees at reduced rates for citizens to plant on any property within the city limits
- 
 - √ recycles fired cartridge cases (made of brass) from the police department, and spends the proceeds on range supplies
 - √ retains a lead mitigation company to remove all of the fired bullets out of the practice range dirt, melt it to separate the lead from the copper, and recycle the two metals
 - √ offers on line employee training saving fuel, time traveling, and mileage reimbursement
- √ some vendors given remote access to work on city projects reducing fuel consumption
- √ defaults common forms on network to two-sided
- √ files court documents electronically reducing paper
- √ combines more Omnibus and Shopping Cart passenger trips and turns off engine when loading/unloading passengers
- √ allows parking citations to be paid by mail or electronically, most traffic citations paid by mail
- √ installed water miser faucets and shower heads and low flow automated flush toilets in all facilities
- √ implemented an idling policy for fleet vehicles
- √ copiers, monitors and printers programmed to power down when not in use
- √ changed majority of library roof section to white, sunlight reflecting membrane
- √ recycles 100 percent of discarded library books
- √ provides public drop off site at library for used eyeglasses and clothing donated to charities, and batteries for recycling
- √ allows materials to be returned to the closest library, courier system returns materials to the owning library
- √ replaced part of library lawn with drought tolerant plants
- √ green computing initiatives, i.e. blade server technology, virtualization
- √ information services staff implemented 4/10 work week, reducing personal fuel consumption
- √ fleet recycles used oil, air filters, batteries, anti freeze and scrap metal
- √ storm sewer inlet stenciling and education about illegal dumping
- √ recycles all asphalt removed or rototilled
- √ no longer uses sand for ice control
- √ recycles all concrete removed
- √ mowers mulch all grass clippings onto lawns
- √ plants trees along streets and on public lands, plants xeric trees, shrubs, flowers
- √ uses solar powered irrigation controllers
- √ purchases reduced emission gas powered tools
- √ audits and upgrades irrigation systems
- √ detectives coordinate trips to district attorney's office, police officers coordinate prisoner transports to jail
- √ recycles appliances removed from public housing, purchases new appliances that are energy efficient
- √ installs programmable thermostats in public housing
- √ installs energy efficient windows in public housing
- √ places timers on exterior light in public housing
- √ invites the community to a document shredding event

- √ provides environmentally friendly shopping bags to employees and sells them to the public at the city's cost

Other Ideas From Employees

- √ consider shifting one floating holiday to Christmas Eve or the day after Thanksgiving
- √ saving energy by closing buildings an additional day each year and fuel from employees not driving to work
- √ provide incentives to employees who use alternative modes of transportation
- √ make council packets electronic
- √ make employee time sheets electronic
- √ turn off computer monitors when not in use
- √ reduce the number of printers in the organization
- √ eliminate fax machines
- √ support employee telecommuting
- √ recycle alkaline batteries
- √ limit car washes of fleet vehicles
- √ educate community about xeriscaping
- √ explore lights off policy at fire stations when crew is out of quarters
- √ explore fixed thermostat settings in fire stations
- √ explore satellite training stations for LFR to reduce mileage
- √ encourage green roofs and rain gardens
- √ compost organic waste stream
- √ take leaves swept from streets to vacant land and till into soil
- √ implement in-car report writing to minimize trips to police headquarters
- √ encourage police officers to use satellite offices for report writing
- √ encourage officers to stay in their patrol district to minimize miles driven
- √ encourage officers to unplug flashlight and phone chargers when not in use
- √ coordinate equipment and supply orders to minimize shipments
- √ use digital cameras with rechargeable batteries
- √ donate used police gear to departments that need it
- √ lower hot water heater setting in public housing units
- √ decrease thermostats by four degrees in public housing units
- √ install energy efficient lighting in public housing units
- √ conduct energy audit on all public housing units
- √ form resident committee to enhance energy conservation in public housing
- √ install water saving toilets, aerators and shower heads in public housing
- √ write a "green" purchasing policy

Additional Recommendations

The City of Littleton is to be commended for its efforts in moving toward a more sustainable community. While the goals outlined above are designed to help formalize this move, there are additional efforts the city may wish to consider:

Recommendation 1: Involve the citizens of Littleton more actively.

Establishing forums to more actively involve the citizens of Littleton helps educate residents and aids the city in focusing on what the citizenry perceive as the most pressing environmental issues. In addition to the efforts outlined in Goal 5, the Sustainability Committee could directly survey residents or solicit their participation in

key meetings, host a sustainability fair, or staff a “green booth” at local events, for example. Active collaboration with citizens and local business owners) can increase citizen satisfaction with the local community, help focus or spark volunteerism, and can pave the way for sustainability-minded publicly funded initiatives and/or local ordinances in the future.

Recommendation 2: Challenge local businesses to meet new sustainable standards in waste and energy management.

Many businesses are already experiencing successes of their own on multiple sustainability fronts; some need additional education and assistance to move in that direction. A challenge from the city, accompanied by a recognition program and/or sustainability campaigns aimed at local businesses may be just the boost that some local businesses need. Capturing these success stories and sharing them beyond the city’s borders can also help attract businesses who seek to locate in sustainable communities, bringing additional jobs into the Littleton community.

Recommendation 3: Set a standard for green buildings.

Through a combination of leadership by example (e.g., building LEED certified city buildings and communicating the monetary savings these buildings realize), recommendations and education (helping local builders and residents learn how to build or remodel greener and recommending that they do), incentives for building green (through recognition, lower fees, reduced material costs, etc.), and local requirements for going green, the city is poised to save energy, reduce waste, improve air quality, and reduce water use with its own buildings as well as those constructed or renovated by residents or commercial builders. The new standard for buildings in the city should be coordinated with all interested parties to ensure a variety of factors are considered in designing a practical and sustainable solution.

Recommendation 4: Hire a Sustainability Coordinator.

Many cities are realizing the enormity of the task of coordinating the sustainability efforts of city agencies and departments, maximizing associated cost savings, developing a comprehensive plan for auditing and reducing energy use in city owned buildings, applying for and managing energy efficiency grants, and expanding green building initiatives while boosting communications about the program both internally and externally. Adding a Sustainability Coordinator to the city’s staff would allow for in-depth management of these tasks as they become more complex, as well as tracking cost savings, environmental success, and social benefits associated with them. Additionally, a coordinator would work with the Sustainability Committee to ensure that initiatives are implemented in a cross-functional fashion, maintain subject matter expertise on trends in sustainability, act as a portal for citizen input, be responsible for strategic planning and citywide integration of sustainability efforts, and provide training to internal and external parties.

Recommendation 5: Keep the momentum: set aggressive, measurable goals.

This sustainability plan captures a number of key initiatives designed to propel the city forward to the next level. The best intentions of the plan are met when, after attaining a goal, a new one is set in its place. New goals can be geared toward additional savings on existing initiatives (e.g., “reduce energy use by two percent in 2011, using 2008 as a baseline”), new initiatives altogether (e.g., “community document shredding day, green purchasing policy), and/or multi-year (e.g., “reduce vehicle emissions from city fleet by 17 percent by 2011, and 25 percent in 2013, using 2009 as a baseline”). As the

program matures, goals may target issues beyond immediate cost savings, such as risk minimization, social inequality, and longer-range plans to design systems to avoid substantial resource costs in the future.

Recommendation 6: Promote a sustainable business model throughout city operations.

The standard business case drives many organizations to be sustainable as long as it is profitable. The leadership business case for sustainable development aims for implementing sustainable initiatives to realize more profits in the future. This type of fundamental shift in valuing sustainability for its highest purpose is one that occurs with time in organizations that continue to push for it. It moves sustainability from a reactive response to critical issues, managed outside of core business activities (and so missing strategic opportunities for value creation) to a genuine commitment to sustainability, visible at the highest level of the organization, with a strong focus on the new opportunities inherent in facing these challenges. Organizations who follow this path fully integrate key sustainability indicators into their governance system; they encourage staff to deliver on sustainability goals through performance management, incentives and provision of appropriate tools and resources; and they form close partnerships with suppliers that improve standards and stimulate innovation. The City of Littleton has the opportunity to build upon its existing foundation of sustainability to make it even stronger through measures such as these.

Sources

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