



New Northside Aztlán Community Center

**City of Fort Collins Action Plan for Sustainability
2007 Report on Municipal Operations –April 2008**

The Path of Sustainability

**It's about the journey.
Start where you are.
Use what you have.
Do what you can.**



Introduction

In September 2004 the City of Fort Collins Executive Lead Team adopted the *Action Plan for Sustainability* that outlines goals and targets for increasing the sustainability of municipal operations, along with the following policy goal:

The City of Fort Collins will serve as a community leader in sustainability by conducting daily operations through balanced stewardship of human, financial, and environmental resources for present and future generations.

An interdepartmental Sustainability Team formed in 2005 and is working to implement many of the targets in the Plan. This report contains highlights of 2007 activities related to the goals in the *Action Plan*. In addition, many City departments are taking the initiative to implement sustainable actions beyond those identified in the *Action Plan for Sustainability*.

2007 Sustainability Team

Name	Department	Role
Ken Mannon	Operations Services	Team Lead
Lucinda Smith	Natural Resources	Coordinator
Jim O'Neill	Purchasing	General Sustainable Purchasing
Opal Dick	Purchasing	General Sustainable Purchasing
Tracy Ochsner	Operations Services	Vehicles & Equipment Sustainable Purchasing
Lynn Sanchez	Human Resources	Employee Health
Lance Murray	Risk Management	Employee Safety
Maureen Scullion	Utilities	Employee Safety
Steve Strickland	Operations Services	Green Buildings
Bill Whirty	Parks	Water Use Management
Steve Lukowski	Parks	Water Use Management
Laurie D'Audney	Utilities	Water Use Management
Brian Woodruff	Natural Resources	Planning & Transportation Issues
Susie Gordon	Natural Resources	Recycling and Waste Reduction
John Armstrong	Natural Resources	Recycling and Waste Reduction
Tom Vosburg	MIS	Sustainability Planning
John Stokes	Natural Resources	Sustainability Planning
Kathy Collier	Natural Resources	Sustainability Planning
Carol Webb	Utilities	Sustainability Planning
Kim Newcomer	CPIO	Employee Outreach
Ginny Sawyer	Neighborhood & Bldg. Svc.	Employee Outreach
Peggy Bowers	Recreation	Employee Outreach
Amanda Sutton	Natural Resources	Employee Outreach

Background

In 2004 an interdepartmental team worked with a local consultant to develop an internal *Action Plan for Sustainability*. Team members first assessed all existing programs that support sustainability and then conducted an analysis to identify and prioritize areas for future action. The *Action Plan for Sustainability* (www.fcgov.com/sustainability/pdf/sustainability-plan.pdf) contains nine program areas identified for priority work within municipal operations. Goals and targets with measurable actions and timeframes are identified for each of the nine areas.



Auto Vehicles & Equipment

Seek to implement the following priorities for City vehicle purchases:

- 1) alternative-fueled vehicles**
- 2) down-size from original request**
- 3) hybrids**



Accomplishments

1. Added Sustainable Vehicles/Equipment – Out of 43 total vehicles delivered, 29 met the purchasing priorities. 10 vehicles were 1 ton or larger and had no greener alternatives.

- Eighteen flexible-fueled Dodge Durangos were delivered for Police Services. These vehicles can run on ethanol fuel (E85) or gasoline.
- Two electric utility vehicles were delivered to Parks and one all-electric vehicle was delivered to Water Treatment.
- Five vehicles were down-sized from the original intent.
- Three hybrid electric vehicles were delivered, two to Utilities and one to Streets, raising the City fleet total to 13.

2. Used Biodiesel Fuel - Throughout 2007 biodiesel (B20) was used to operate all diesel vehicles and equipment in the City fleet with no major problems reported.

3. Increased Alternative Fueling Options – Ethanol (E85) stations were opened at Fossil Creek Park and Spring Canyon Park.

4. Implemented Best Management Practice for Fleet Maintenance - Fleet vehicles are now charged per mile rather than for periodic maintenance such as oil changes. This shifts the price signal to the amount of driving and provides an economic incentive to minimize driving.

Awards

The City was awarded a \$40,000 grant from the Rocky Mountain Clean Diesel Coalition to retrofit four transit buses with crankcase ventilation systems and four City dump trucks with engine block heaters to reduce unnecessary idling.

Challenges

Asking departments to re-evaluate their vehicle purchase requests to evaluate whether a more fuel efficient or alternative fuel vehicle could work, and reaching consensus.

Future Directions

- Receive the long-awaited hydrogen electrolyzer at its planned location at the Transport facility, enabling pilot testing of hydrogen-operated vehicles (hydrogen/CNG fuel blend).
- Add three 35-foot transit buses that will run on compressed natural gas, five hybrids and over 20 E85-capable vehicles to the City fleet.
- The City will provide two plug-in hybrids under the FortZED Jump Start Zone DOE grant as a way to store energy for feeding back into the grid at peak energy use times.



Sustainable Purchasing

Establish a sustainable purchasing guideline.

Accomplishments

1. Sustainable Purchasing Policy Established - In 2004, the City's administrative policies on purchasing were updated, calling for the city to consider the total cost of a product or service throughout the life cycle and the customer's usage requirements.

Purchasing guidelines include:

- Maximize the useful life of products by delaying purchases until necessary.
- Ask about alternative products that do not contain chlorinated solvents.
- Purchase paper with at least 30% recycled content, totally chlorine free and process chlorine free recycled paper, whenever practicable.
- Use vegetable based inks in printing, whenever practicable.

2. Got the Word Out - Hyperlinks for green purchasing were added to the Purchasing webpage to train and assist purchasing customers. See www.fcgov.com/purchasing/environment.php.

3. Practiced What We Preached - Purchasing staff supported purchases involving environmental/sustainable purchases by researching and incorporating appropriate terms & conditions in bids. As an example,

- Purchasing consolidated scrap metal recycling in one vendor offering the highest price. From July through December 2007, the City recycled 265,000 pounds of scrap metal and received over \$88,000.

4. Departments Make Green Purchasing Choices

- Several departments switched from using disposable paper goods to non-disposable dishes and/or cups.
- The City Council now uses china dishes for their meals.
- Utilities and Human Resources employees are using ceramic mugs or travel mugs instead of disposable products.
- The Parks Shop will begin using china dishes and silverware, instead of disposable paper products.

Challenges

- A department's limited resources result in less time to evaluate sustainable products.
- Departments are less likely to purchase sustainable items if the cost is higher.

Future Directions

- HB07-1220 applies to the City of Fort Collins and requires the purchase of environmentally preferred products (EPP). EPP are products that have a reduced adverse effect on human health and the environment when compared with competing products that serve the same purpose
- The new half-time sustainability coordinator for the City approved for 2008 will complete a feasibility study about how to most cost-effectively increase the city's environmentally preferable purchasing practices.





Employee Health

Increase overall mental and physical health of employees.

Accomplishments

1. Established & Funded a Strong Incentive Program to Motivate Employees and Maintain Good Health - Over 587 City employees attended the Wellness Round-Up, up from 2006 attendance levels. The Well Days Incentive Program had 535 employees participated in 2007. Of those,

- 414 earned the 1st Well Day
- 394 earned the 2nd Well Day
- 330 earned the 3rd Well Day

2. Targeted Participation – Nearly met the target that 51% of benefited employees would participate in Wellness Program within one year of established Sustainability Program.

- 45% of our benefit-eligible employees participated in the 2007 Well Days program.
- 49% of City employees attended the health fair.
- 5% participated in health screenings offered to City employees.
- 26% participated in the flu shot program.

3. “Greened” Operation of the Wellness Program

Wellness now uses an online registration process and web-based Health Risk Assessment in an effort to reduce paper use.

Challenges

- Gaining participation in the Wellness Program of City employees less inclined to participate.
- Prevention is often difficult to measure. The Wellness Program will continue to evaluate population data on disease, injury, and health risks, as well as research in the field of health promotion and wellness to help guide our programming efforts.

Future Directions

- In 2008 the Wellness Program is again available to all employees.
- Development of a new workout space for City employees to take Pilates, Yoga, and aerobic classes is in the planning stages.



Employee Safety

Incorporate a Citywide program fostering a culture of safety supported by the administration and practiced throughout the organization.

Accomplishments

- 1. Consistently Delivered “Loss Run” Reports** – During each quarter in 2007, departments received reports describing and summarizing injuries by type, body part, cause, and cost. Updates on employee injuries were provided to the department managers, department heads, and the City Manager.
- 2. Updated the City safety database** - Efforts to update the external data base housing city employee safety data to reflect the City’s new organization structure were completed in 2007 providing more accuracy in statistics delivered to departments.
- 3. Promoted “Safety” as a Core Value** - “Safety” has been identified as one of the core values in the City’s new Performance Management System .

Challenges

The City is slowly beginning to implement a new approach to injury prevention called “behavior-based safety”.

Future Directions

- Educational meetings with departments to present procedures for implementation will take place beginning mid 2007.
- Departments will develop action plans to address areas of high injury (high cost and high occurrence) based on Loss Run reports.
- Continue to build a safety culture by integrating safety practices into every day tasks.



Common safety equipment for City employees.





Green Building

Pursue the LEED-NC Silver requirements and report utility usage for all City buildings to promote resource efficiency.
(Goal updated to LEED Gold in September 2006)

Accomplishments

1. Energy Efficient New Construction

- In November the Northside Aztlan Community Center opened its doors to the public. It is being certified as a LEED "Gold" facility.
- In August the 98,000 square foot, 'state of the art' new Police Services facility opened. It is being certified as a LEED "Silver" structure.
- In August the CSU Transit Center was recognized for its official designation as a LEED "Gold" facility. Construction of the CSU Transit Center was a joint project between CSU and the City of Fort Collins.

2. Energy Efficient Retrofits

- Installed digital controls on HVAC system at Museum.
- Upgraded digital controls on HVAC systems at Mulberry Pool.
- Insulated approximately 500 feet of "store front" metal panels at 215 N. Mason
- Upgraded City building holiday lighting to LED lights.
- Waterless urinals were installed in several facilities.
- In February, Johnson Controls Inc. (JCI) presented the results of an energy assessment of City facilities (General Fund, Utilities, Golf and Library) and their proposal for a performance contract. Several proposed upgrades will be implemented.
- MIS consolidated City computer services to reduce the number of servers and amount of energy used.

Awards

Fort Collins Utilities' Water Treatment Facility received the Environmental Leadership Program Bronze Achiever Award from the Colorado Drinking Water Excellence Program for significant voluntary environmental achievements.

Challenges

- Getting all City facilities utility billing data for into one management program is difficult and time-consuming.
- Defining energy standards for operation of City buildings, such as acceptable standards for heating and cooling thresholds.

Future Directions

- Reduce over 1 million kWh/year of energy use at City buildings through cost-effective lighting upgrades.
- Implement HVAC upgrades and other efficiency projects.
- Hire a contractual half-time Energy Manager to optimize existing building control systems and raise employee awareness.



Healthy Ecosystems – Water Use Management

Improve Water Efficiency at City-Owned Landscapes

Accomplishments

1. How Efficient Were We With Water Use? - Parks collected and analyzed irrigation consumption data throughout the Parks system, including:

- Daily ET (evapotranspiration) readings during the growing season
- Rainfall averages throughout the City
- Water use reading from meters and raw water sites.

This allowed us to measure use against need. In 2007, the Park's irrigated turf needed 21.3 inches of water to sustain a safe, healthy, and available play area. This data provided the following:

- 10 parks had over 100% ET use.
- 34 parks had under 100% ET use.
 - Of these 34 parks, 25 were under 90% ET use.
- Overall average of gallons per acre used for park sites was 455,305 gallons. This is 79% of ET needed per acre (a 6% improvement over 2006).

2. Water Auditing

- In 2007, six employees earned certification as landscape water auditors.
- Several water audits were performed in areas that were >100% ET.
- Reasons for ET rates > 100% included:
 - Acreage incorrectly assigned (changing the percentage),
 - Adjustments to specific equipment needed (heads and controllers)
 - Antiquated irrigation systems
 - Identified need to set a higher focus on routine maintenance.

3. Completed Water Usage Baseline – In 2006, three sites were selected to investigate new irrigation technology. Results were:

- The sub-surface irrigation system at Oak Street Plaza Park showed mixed results suggesting that this type of system would be better used in a low use or low impact area and installed new as opposed to a retrofit.
- The soil moisture sensor at Drake and Canterbury showed very promising performance. As a result, soil sensors are being installed at three additional locations to further evaluate their capabilities.
- The ET controller at South Taft and Hyline showed mixed results; substantial water savings early on followed by water use gains later in the season. Once programming issues are worked out, this system shows good potential.

4. Irrigation with Tap Water - Parks converted two sites, EPIC and Golden meadows to irrigation with raw water, reducing domestic water use by over 30 acre feet.



Wildlife and Irrigation at Warren Park





5. Landscape and Irrigation Standards Task Force Convened – As a continuation of the 2006 interdepartmental committee studying City policies effecting water efficiency, a Landscape and Irrigation Standards Task Force was convened with the addition of landscape and irrigation professionals. This group will update the City's 1994 *Water Conservation Standards for Landscape and Irrigation*. After meeting once in 2007, priorities were identified for continuing the work in 2008.

Challenges

- Most of the water use policies and regulations involve various departments and need City Council approval for making changes.
- Obtaining funding to renovate or replace antiquated City irrigation systems if the water audit revealed the need.
- Median and Streetscapes are challenging to irrigate and control.

Future Directions

- Continue auditing irrigation sites.
- Parks has begun to use historical ET controllers at four locations and will gather more data on their effectiveness next season.
- The Task Force on Water Conservation Standards for Irrigation & Landscaping has identified the following priorities for work in 2008:
 - Irrigation System Standards – HIGH
 - Education – HIGH
 - Licensing for Irrigation Contractors – MEDIUM
 - Turf regulation – LOW
- Make a plan to move forward with City water use policy recommendations.



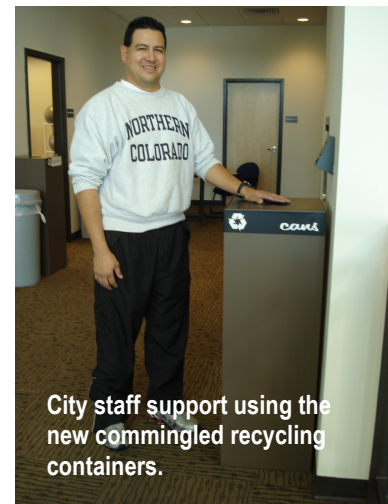
Recycling & Waste Reduction

Institute pollution and waste reduction practices

Accomplishments

1. City Recycling

- City offices and workplaces recycled 144 tons of commingled and paper materials in 2007, a 60% increase over 2000 levels.
- With a new program initiated by Regulatory Affairs (Utilities) recycled over 1000 pounds of dry cell batteries and 206 tires.
- Several City departments “greened” their operations by switching to non-disposable cups and/or dishes including City Council, Utilities, Human Resources, Parks, and Natural Resources.
- Waste-Not Recycling provided recycling services at the City employee holiday, resulting in a nearly zero waste event.
- City Manager called for new business plans that will help divert waste from landfill disposal and become a “world class” recycling organization.



City of Fort Collins Internal Recycling Volumes (tons)

Commodity	2006	2007
paper/fiber & bottles/cans	137	144
electronics	undocumented	10
scrap metal	117	141
woody debris	747	824
Total tons	1,001	1,119
crushing plant: asphalt/cement, mulch & fill	125,696	95,903
car bodies		50
Subtotal tons	126,697	97,072

2. Continued Paper Reduction Efforts

- In 2007, multiple “Paper Trail” emails were sent to staff in pilot departments encouraging reduced paper use.
- Staff continued to look into options for rolling out paper reduction program city wide, including feasibility and strategies for rolling out remaining PDF writing software licenses and more widespread use EDMS (Electronic Document Management System) within organization.
- The City began electronic timesheet entry and is making plans for using paperless pay stubs.

3. Installed More Recycling Containers

- 36 designer recycling containers were purchased and installed in City building public spaces, with more installations scheduled throughout 2008.

Challenges

- Limited time and resources available for getting the word out to employees about internal recycling programs.
- Difficulty of breaking old paper-dependency habits.
- Decentralized purchasing system means inconsistency in buying recycle-content paper and applying source reduction measures.
- Developing new processes for departments’ operations so that maximum recycling and waste reduction is implemented; construction and demolition activities; excavation and utilities installation; and, street maintenance, etc.





- Adopting trash budgets for operations that haul material to landfill; ultimately change from free dumping (per 1973 agreement with Larimer County) to paying full cost of disposal.

Future Directions

- Continue to enhance internal recycling, waste reduction efforts, install upgraded, more consistent recycling bins throughout City workplaces, and place more recycling bins at City's recreation centers and other public facilities.
- Hire new staffing (Sustainability Coordinator position) to support activities, provide education, measure progress.
- Provide new "mini trash cans" made of recycled content material for employees.
- Work with cross-departmental team focused on diverting tons from landfill; combine projects with those of Environmental Management Team, Energy Management Team, and Sustainability Action Plan Team.
- Work on meeting goal of reducing the organization's waste stream 80% by 2020 through new business plans for City operations; prepare business plans/proposals for City Manager's review, possibly including:
 - Invest in site for drying wet soil from excavations
 - Invest in large-scale equipment to grind woody debris, such as tub grinder and loader, and extra staffing to implement new waste diversion actions.
 - Expand capacity for composting organic debris; evaluate options to recycle employee food waste.



Sustainability Management Tools

**Make sure the Action Plan does not sit on the shelf.
Institute ongoing maintenance of the Plan.**



Accomplishments

1. Sustainability Scholarship Program

A total of \$10,000 in City-sponsored scholarship funding was awarded to 23 City employees in eight departments, enabling them to attend classes, conferences, and trainings that would advance the sustainability of the organization. There were 29 total applicants for the funding.

2. Held “Green Lunch” to Promote Greening City Events

The Sustainability Outreach Committee’s held an employee “Green Lunch” in May 2007. Over 40 employees learned more about conducting Green Events and shared their ideas, success, challenges, and questions. Feedback from the meeting, tips and vendors are posted at <http://citynet.fcgov.com/greenmeetings/>.

3. Worked to Get the Word Out

- Sustainability information was presented to employees at the April employee “Earth Dazed and Reused Event”.
- “Green Meetings” and the “Eco Footprint” were featured at the Sustainability table at the Fall Wellness Fair.
- 180 new employees received information about the internal sustainability efforts through New Employee Orientation.
- Specific sustainability tips were featured on Citynet for several months during the year.
- A CSU graduate student surveyed City employees on their beliefs about sustainability and motivation to act, and presented the results to the Sustainability Team.

Challenges

The challenge for the Outreach Committee is trying to communicate the complex messages of sustainability (including what does sustainability mean, what is the City doing to address sustainability, and what can employees do to help) in a simple, easy to understand, interesting manner with the ultimate intent to inspire behavior change. Limited resources and staff time contribute to the difficulty of accomplishing our goals.

Future Directions

- Conduct follow-up survey on Sustainability Scholarship.
- Offer Sustainability Scholarship program in 2008.
- Hold “Green Lunch II” for employees to share resources about greening events.
- Promote three employee environmental campaigns through the Climate Wise “Green Works” program. April will feature a “Green Event Challenge” to identify all City events held in April, make them as green as possible, and track results.
- Offer electronics recycling for City employees on Earth Day.





Our Sustainability Goals

General Purchasing

- Establish a sustainable purchasing guideline.

Vehicles and Equipment

- Purchase highest fuel efficient and/or lowest emission vehicles for the requested transportation application.

Employee Health

- Increase overall mental and physical health of employees.

Employee Safety

- Value mental and physical health within the City organization.
- Incorporate a City-wide program fostering a culture of safety that is supported by the administration and practiced throughout the organization.

Green Building

- Pursue the LEED-NC Silver requirements (2004 Goal) (Superseded by LEED Gold goal set in 2006.)
- Report utility usage for all City buildings to promote resource efficiency.

Water Use Management

- Improve water efficiency at City-owned landscapes.

Employee Commuting

(Action Plan for Sustainability goals not finalized in 2007.)

Office Recycling and Waste Reduction

- Institute pollution and waste reduction practices.

Management Tools & Planning

- Make sure the *Action Plan for Sustainability* does not sit on a shelf. Institute the ongoing maintenance of the plan.



fcgov.com/sustainability