



## Flagstaff Sustainability Program 2008 in Review

### What does the Flagstaff Sustainability Program do?

The Flagstaff Sustainability Program promotes sustainable living and provides practical solutions through program and policy development for municipal operations and the Flagstaff community.

Initiated in 2007, the program focuses on developing and implementing community wide sustainability and climate management initiatives that make sense for Flagstaff's economy, community and environment. The program's guiding principles focus on policy and stewardship, community cooperation and awareness, and an appreciation of the interrelationship between the economy, environment and community.

The Flagstaff Sustainability Program works to foster interdepartmental efforts to integrate and promote sustainability in municipal operations. The program works with all city departments to integrate sustainability by initiating internal policy, providing research and best practices as they pertain to specific sectors and initiatives. The program works holistically throughout City operations to identify and provide resources that promote City and City Council goals.

Sustainability requires that our collective decisions as a City allow Flagstaff's economy and community members to continue to thrive without destroying the natural environment upon which we all depend.

### 2008 Flagstaff Sustainability Program accomplishments

#### Sustainability Plan

The Flagstaff Sustainability Plan targets City of Flagstaff municipal operations and the Flagstaff community. The plan addresses four elements:

*Waste Prevention* – Promotes the decrease of waste generation, improves material efficiency, and increases the reuse of products and materials in the waste stream.

*Resource Conservation* – Promotes the wise use of natural resources and decrease consumption rates of the community's limited resources.

*Climate Protection* – Promotes effective and comprehensive solutions for addressing the changing climate.

*Quality of Life* – Promotes community potential that enhances Flagstaff's standard of living.

The municipal plan includes the following approved policies: sustainable purchasing, sustainable fleet and paper use efficiency. Policies are now being developed for energy

efficiency, renewable energy and anti-idling. The Sustainability Commission is drafting preliminary recommendations for the community Plan. The draft is expected to be complete and taken to the community for comment and suggestion by September 2009.

#### *City of Flagstaff Baseline Inventory*

The Flagstaff Sustainability Program completed the City of Flagstaff's baseline sustainability inventory. The baseline inventory highlights existing programs and policies in order to provide a context for the sustainability plan, as well as a baseline to measure and monitor the City's progress toward sustainability. The inventory is available on the program website.

#### ***Greenhouse Gas Reduction***

##### *Greenhouse Gas Inventory*

The Flagstaff greenhouse gas inventory was completed in August of 2008. The inventory took nine months to complete. The inventory analyzes sources of Flagstaff's greenhouse gas emissions and identifies mitigation strategies to reduce them. The inventory provides several recommendations on mitigation strategies which could be utilized by the City of Flagstaff to reduce greenhouse gas emissions and achieve the goal of a 7 percent reduction below 1990 emissions levels by the year 2012; the voluntary goal set forth by Flagstaff City Council in the signing of the US Mayors Climate Protection Agreement.

Inventory results were presented to City Council in October of 2008. Mitigation strategies were taken to the Flagstaff community for public comment. Staff conducted two open houses and received 64 public comments.

##### *Wind Ordinance*

Flagstaff Sustainability Program staff collaborated with Community Development staff to permit a Wind Ordinance that allows alternate wind energy systems under ten kilowatts, to be installed on commercial and industrial zoned properties greater than a half-acre within Flagstaff city limits. This ordinance supports the City of Flagstaff's efforts to reduce greenhouse gas emissions and provide opportunities for business owners to reduce power costs through generating their own energy.

##### *International Energy Conservation Code*

To increase efficiency in the building sector, Flagstaff Sustainability Program staff worked with Development Services staff to make recommendations and bring forward the 2006 International Energy Conservation Code to Flagstaff City Council. The code was adopted in a phase in implementation.

##### *LEED Resolution*

Flagstaff Sustainability Program staff initiated the City of Flagstaff's first effort to commit to significantly improving the efficiency of future municipal buildings. In collaboration with Development Services staff, the Resolution 2008-32 was brought to Flagstaff City Council. The resolution was adopted and establishes the City of Flagstaff's Sustainable Building Policy that all new, occupied (as defined by City building code) City buildings of any size will be designed, contracted and built to achieve certification in Leadership in Energy and Environmental Design (LEED) Program at the Silver certification level with a payback of eight years or less for the additional costs of achieving LEED achievement. The City will strive for the highest level of certification whenever project resources and conditions permit.

### Climate Directors Network

Flagstaff Sustainability Program staff accepted the invitation to participate in the Climate Directors Network. The network develops climate management policy recommendations that are submitted to the Federal government.

### ***Residential Energy Efficiency***

#### CFL Giveaway

To help increase residential energy efficiency, the Flagstaff Sustainability Program distributed 5,000 compact fluorescent light bulbs to the Flagstaff community. Two sectors were targeted: elementary school children and fixed income seniors. An estimated 69 metric tons of carbon dioxide emissions will be saved from being released into the atmosphere. The bulbs will also save residents collectively more than \$48,000 in energy costs over the life of the bulbs. The light bulbs were funded through a grant made possible by APS.

#### LED Holiday Light Swap

To help reduce energy consumption during the holiday season, the Flagstaff Sustainability Program partnered with HomCo ACE to provide energy efficient holiday lights at a discounted price to community members. More than 600 boxes of high efficiency holiday lights were purchased by the Flagstaff community in one week. Over 40,000 traditional incandescent lights were “swapped out” for the more efficient LED holiday lights. The estimated energy savings is more than 2,636 kWh of energy, saving more than 2.1 metric tons of carbon dioxide emissions for each month of use.

#### Energy Efficiency Kits

The Flagstaff Sustainability Program Residential Energy Efficiency Kit Project provided Flagstaff community members tools to reduce their energy consumption and save money. The kits were distributed on a first come first served basis. Recipients participated in a safety and installation presentation that highlighted kit contents. Kit items included: felt and vinyl weather stripping, window shrink film, low flow showerhead, faucet aerator, outlet gaskets, acrylic caulk, caulking gun, carbon monoxide detector rebate, and a renewable energy guide. This project furthered the City of Flagstaff’s mission to reduce greenhouse gas emissions and enhance community sustainability. Staff concludes that that an estimated 37% of residential energy efficiency kits were distributed to residents at or below federal poverty income level. In addition, an estimated 75% of the participants were at or below 80% Area Median Income level.

### ***Municipal Energy Efficiency***

#### ENERGYSTAR Partnership

In 2008, the City of Flagstaff became an ENERGYSTAR Partner. As a partner the City has committed to report energy and water consumption in all municipal facilities to the U.S. Department of Energy. The Flagstaff Sustainability Program is responsible for measuring and tracking the organization’s energy performance. The data tracking will provide the City with its first energy management system. This organizational approach to energy management will enhance the City’s financial health and reduce greenhouse gas emissions.

### ***Community Events, Outreach and Education***

#### One Community Sustainable Living Lecture Series

The One Community Sustainable Living Lecture Series is a partnership of NAU, Coconino County Sustainable Building Program, the Coconino County Sustainable Economic Development Initiative, the City of Flagstaff Sustainability Program, Willow Bend

Environmental Education Center, and Coconino Community College. The Lecture Series is designed to raise awareness of local and global sustainability and to inspire community members to balance the social, economic, and environmental aspects of their lives today and tomorrow. In 2008 the series hosted seven free lectures.

#### *Earth Day 2008*

Flagstaff Sustainability Program staff collaborated with the Sustainability Commission and Earth Day planning committee to organize Earth Day 2008. A wide variety of local organizations, businesses, and vendors were present, featuring sustainable products, and interactive programs. Earth Day 2008 added six volunteer service projects to the day's celebrations; volunteers were able to roll up there sleeves and contribute to trash clean ups, invasive weed removal, garden maintenance project and graffiti removal. The successful event attracted nearly 1,500 community members.

#### *Sustainability Tips*

Weekly sustainability tips are designed to provide community members with practical ideas and alternative solutions that promote more sustainable living. In 2008, sustainability tips were distributed weekly through the City Manager's weekly report, the sustainability list-serve (more than 90 members) and the Arizona Daily Sun.

#### *Local and regional presentations*

The following is a list of presentations made by Sustainability Program staff at local and regional events in 2008.

1. Governor's Rural and Regional Development Conference: Arizona Communities Take Positive Actions to Address Climate Change.
2. Northern Arizona University Environmental Policy Undergraduate course: City's sustainability efforts, the US Mayor's Climate Protection Agreement and the greenhouse gas inventory.
3. Convention and Visitors Bureau Annual Meeting: Sustainable Tourism.
4. Flagstaff Rotary Club: City of Flagstaff's sustainability efforts, accomplishments and tips for everyday sustainability.
5. Flagstaff Soroptimist Chapter: City of Flagstaff's sustainability efforts, accomplishments and tips for everyday sustainability.
6. Flagstaff Leadership Program: City of Flagstaff's Sustainability Program, goals and challenges.
7. Good Morning Williams: Developing a community sustainability program.
8. Festival of Science: Greenhouse Gas Inventory.
9. Coconino Community College Teaching and Learning Conference: Sustainability panel discussion.

#### *Sustainable Tourism Initiative*

In 2008, the Sustainable Tourism Initiative kicked off with the Flagstaff visitors' information piece. The outreach tool encourages Flagstaff visitors to assist the City in protecting our natural resources, conserving energy, and supporting local businesses. Flagstaff Sustainability Program staff will continue to work with local hoteliers to promote the initiative.

#### *Solar and Wind Energy Tour*

The Flagstaff Sustainability Program collaborated with the Coconino County Sustainable Building Program to organize the Solar and Wind Energy Tour, a free educational event. More than 300 community members participated in the self-guided tour. The 2008 tour

showcased 14 residences and businesses and offered the public an interactive opportunity to learn about renewable energy. The tour is a collaborative effort between Coconino County Sustainable Building Program, City of Flagstaff Sustainability Program and Willow Bend Environmental Education Center.

#### Sustainable Home Tour

To help educate the community on sustainable building practices, the Flagstaff Sustainability Program partnered with Coconino County Sustainable Building program and NAU's Geography Program to coordinate the Sustainable Home Tour. The self-guided tour attracted more than 150 members of the Flagstaff community to visit and learn about sustainable design buildings in the region.

#### Green Building Lecture Series

The Green Building Lecture Series collaboration was developed in 2008. The lecture series is presented by the U.S. Green Building Council, Northern AZ Branch in partnership with: Coconino Community College, Northern Arizona University, Coconino County Sustainable Building Program, City of Flagstaff Sustainability Program, Arizona Solar Energy Society and Northern Arizona Building Association. The 2009 series will feature presentations by a variety of experts and professionals in the green building industry.

### **How many people does the Flagstaff Sustainability Program employ?**

The Flagstaff Sustainability Program was initiated in January 2007. It currently employs two full time staff. The Sustainability Manager was hired in January 2007 to develop the program. The Sustainability Specialist was hired in October 2008 and began full time in November 2008. The program partners with local educational institutions and AmeriCorps to provide students with professional development opportunities. Currently three NAU interns are working with the program.

### **How is the Flagstaff Sustainability Program funded?**

The Flagstaff Sustainability Program is one of four programs partially funded through the \$2.00 monthly Environmental Management Fee on City of Flagstaff water bills, with the remaining funding coming from part of the Environmental Services Enterprise Fund (e.g. landfill fees).

### **What is the Flagstaff Sustainability Program presently working on?**

The Flagstaff Sustainability Program is actively identifying opportunities to obtain initiative funding. Currently staff is working on opportunities to secure federal stimulus monies; including weatherization, energy efficiency and workforce stabilization funds for the Flagstaff community as well as identifying renewable energy opportunities and funding for City facilities. In March 2009, the program submitted a grant to the EPA.

In addition to obtaining additional funding sources, the Flagstaff Sustainability Program is currently working on the sustainability plan, climate management plan including legal review and cost benefit analysis, local economic stimulus efforts, building code review and update, ENERGYSTAR City facilities energy management database, Sustainable Business Guide, Land Development Code rewrite, internal fleet manual, processing APS renewable energy

rebates, sustainability policy, high efficiency vehicle tax rebate program, Bike to Work Week, Sustainable Living Fair and Earth Day 2009.

## **What are the Flagstaff Sustainability Program's 2009 goals?**

1. Implement a comprehensive Sustainability Plan that promotes the mission and vision of the Flagstaff Sustainability Program and supports the Flagstaff City Council priorities.
2. Promote the reduction of greenhouse gas emissions in the Flagstaff community as outlined in Resolution 2006-59.
3. Provide resources to the City of Flagstaff and Flagstaff community to integrate sustainability in every day decision making.

## **What are the Flagstaff Sustainability Program's 2009 strategies and actions?**

1. Develop and implement Sustainability Plan that addresses the following elements: waste prevention, resource conservation, climate management and quality of life.
2. Work with Sustainability Commission and Flagstaff community to develop ongoing community sustainability goals.
3. Develop and implement organizational wide sustainability policies and programs that promote sustainability and set an example to the Flagstaff community.
4. Develop overarching Sustainability Policy that allows for annual updates to organizational policies.
5. Develop internal sustainability and climate management education campaigns that support adopted policies and promotes program goals. Campaigns include: sustainable purchasing catalog, sustainable purchasing manual, fleet manual, ride share campaign, energy challenge, new employee orientation and standard operating procedure(staff summaries, building permitting).
6. Develop community wide sustainability and climate management initiatives. Initiatives include: facilitate increased building codes in all sectors, sustainable business campaign, community trip reduction campaign, community ride share campaign, sustainable tourism campaign, sustainable school campaign, sustainability educational corner, high efficiency vehicle sales tax rebate, community sustainability website, community calendar, residential and commercial carbon footprint calculator, Kill-a-watt campaign, ENERGYSTAR residential appliance rebate program, anti-idling education campaign, sustainable design guide, and residential and commercial energy efficiency campaigns.
7. Monitor and report on greenhouse gas emissions annually.
8. Incorporate sustainability and climate management perspectives in long term planning initiatives including the zoning code rewrite, regional plan and building code revisions.
9. Maintain a clear and consistent outreach message to internal and external customers.
10. Monitor state and federal legislation.
11. Identify and secure funding for community initiatives, specifically pursue Energy Efficiency Conservation Block Grant and Environmental Protection Agency funding.
12. Establish ongoing measurement, verification, metrics to track and target initiatives.
13. Create Sustainability Program outreach plan.

## **What is the fiscal year 2010 proposed Flagstaff Sustainability Program budget?**

For fiscal year 2010 the Flagstaff Sustainability Program has requested \$55,721 for contractual and commodities; the majority of which is dedicated to community education and outreach initiatives. Personnel costs for two staff fully burdened are \$128,301.