

November 2009 Progress Report on Sustainability in Peoria Study Session Presentation to the City Council

Sustainability Defined

Sustainability is meeting the needs of the present without compromising the ability of future generations to meet their own needs.

City Council Policy Goals Addressed through the Sustainability Action Plan:

- Community Building
- Total Planning
- Enhancing Current Services
- Preserve the Natural Environment
- Economic Development
- Leadership

Priorities established in the Sustainability Study Session Update in May of 2009 that were addressed in the November 2009 Sustainability Update included: Green Purchasing, Water and Energy Conservation, and the Preservation of Our Natural Environment. The main goal for the next 6 months in the area of sustainability will be to generate financial savings through cost effective practices.

Sustainability Action Plan Categories Include:

- Energy Management
- Partnerships with other organizations
- Open Space and Natural Habitat Preservation
- Transportation
- Sustainable Development
- Reduce, Reuse and Recycle
- Awareness and Communication
- Water Conservation

Green Business Practices

- 70% of office products are now “green” and/or recycled.
- Office supply expenditures were reduced by 33% in 2009.

E-billing for Utility Customers

- E-billing allows customers to make transactions online as opposed to submitting paper bills.
- 1,900 customers have signed up
- E-billing eliminates monthly paper bills.
- E-billing produces a savings of \$6.50 per year, per customer

Paperless Employee Payments

- 83% of employees are paid through a direct deposit to their banking accounts.
- The City has stopped printing direct deposit advices.
- Paperless direct deposits will produce an annual savings of \$16,000
- Employees can now view their compensation history back to the year 2000.

Facility Plumbing Upgrades

- Conventional fixtures are being replaced with low-water-use fixtures, which reduces water demand in city buildings.
- New fixtures use 30% less water.
- The City continues to promote principles of water conservation. In our existing buildings, we are testing various low flow plumbing fixtures. This includes dual flush toilets and waterless urinals. In the Development and Community Services Building, we have installed hands-free faucets and self-flushing toilets. These save water and are more hygienic. The new court building will use “ultra-low” water use fixtures, including the “pint” flush urinal, 1.28 gallon water closets, and water-saver, no-touch metered faucets.

New Water Conservation Rebates

- The City is now offering a rebate for High Efficiency Toilets. There have been 178 applications since July 2009.
- 51 households have been approved to date.
- High Efficiency Toilets save 50 gallons per toilet per day.
- The water conservation program provides a \$75 rebate to homeowners for the installation of these fixtures: Xeriscape installations, Irrigation Controller/Timers, Hot Water Recirculators, and High Efficiency Toilets.

Facility Energy Savings

- Original Facility Energy Savings Goal: 10% Energy reduction by January 2010.
- The City will seek to shift demands to off-peak rates, reduce lighting levels, and closely monitor building temperatures.
- In January of this year, we set a goal of reducing our energy consumption by 10%. In the first 9 months of the year we have achieved that goal.

- So far, the City has seen a savings of \$94,000 in electrical costs. We have done this by reducing our peak energy demand periods, reducing lighting levels, and by monitoring our building temperature settings.

Facility Energy Savings

- Our Facilities Division staff has worked closely with the Theater Works staff to identify energy saving practices in the Theater Works facility, which has seen a 40% demand reduction in energy use in 2009.
- We are planning to use stimulus funding to install Light Emitting Diode fixtures on the City Hall campus and in our parks. LED fixtures use 60% less electricity than conventional lighting.
- The City will construct the Municipal Court building and the Community Center to meet Leadership in Energy and Environmental Design standards, which will result in more energy efficient buildings.

Water and Wastewater Operations

The Water and Wastewater Division have taken on actions to reduce energy use in municipal water operations. These include:

- Rate plan evaluations and adjustments
- Power reduction and prioritization
- Enhanced power monitoring
- Reducing power demand by maximizing and prioritizing the use of the most efficient water supply through enhanced technology.

Beardsley Solar Power Pilot Project

- The Solar Voltaic Pilot project is under construction at the Beardsley Water Reclamation Facility. It will be a 50kW (kilowatt) Photovoltaic System. Solar technology will be installed on the administration building roof.
- This will produce a 20% - 30% reduction in the administration building's power bill.
- This system is expected to provide up to 30% of the power required for running the Beardsley Operations Building.
- The facility is financed through the Water Infrastructure Finance Authority (WIFA) using American Recovery and Reinvestment Act funds.
- It will be a \$510,000, 20- year, 2% interest loan.

Sustainable Power

- The City of Peoria has taken delivery of its new mobile emergency generator. The generator will be staged at the Municipal Operations Center and can be deployed

in time of outage. The electrical service at the Rio Vista Recreation Center is currently being outfitted with "quick connect" means to allow the entire facility to run as a cooling center on emergency power. This generator will also serve as a backup to the fixed emergency generators at the MOC, Public Safety Administration Building, Development and Community Services Building, Tech Center, and various Utilities operations sites.

Open Space and Native Habitat Preservation

- One of Peoria's achievements over the last year is achieving a new designation as a Tree City USA. This is a designation that is given by the National Arbor Day Foundation.
- We are one of 18 cities in Arizona with this designation. Essentially, it is recognition of our commitment to increasing the 'tree canopy' in the City.
- The City's Desert Lands Conservation Ordinance requires native plant salvage north of Pinnacle Peak Road
- To date, APS has donated plants & cacti for: Peoria's Happy Valley Road Improvements, the Peoria Sports Complex, ADOT's Loop 303 Project, and Peoria's Native Plant Nursery

APS Plant Donations

- Nine Large Multi-Arm Saguaro were donated for the Sports Complex.
- On Happy Valley Road, 90 Cacti (Saguaro, Ocotillo and Barrel) and over 200 Native Trees were donated.
- 150 cacti and trees were donated to the Native Plant Nursery.
- APS paid for the boxing of all trees.
- The value of donated material is approximated at over \$150,000.

Tree Nursery Project

- The goal of the Tree Nursery project was to secure a place to store salvaged native trees and cacti, to be placed in future city projects.
- The Pinnacle Peak Public Safety Facility was identified as the best probable location for a holding yard (at least for the next 2-3 years).
- Up to 150 trees/cacti may be placed at Pinnacle Peak site.

Moving Forward- Programs to be developed and implemented in future efforts as part of the City's Sustainability program will include:

- **Multi-Modal Transportation Plan**
- **Implementation of the Energy Efficiency Conservation Block Grant projects**
- **Greenhouse Gas Emissions Audit**
- **Commercial Recycling Program**
- **Enhancement of Water Conservation Ordinances**

