

# Sustainability Action Plan

2012



A comprehensive strategy to improve the quality of life in neighborhoods, enhance the environment through responsible stewardship, and promote awareness and participation throughout the community.

[peoriaaz.gov/sustainability](http://peoriaaz.gov/sustainability)





*The City of Peoria will be the leader in developing, promoting and improving the quality of life in our community by balancing today's use of natural resources with the needs of tomorrow through environmental stewardship and sustainable practices.*

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**Peoria's Sustainability Mission Statement**

# Foreword

Becoming a sustainable city is more than creating a plan of action. For optimal success, it involves inclusive stakeholder engagement at various levels of government and community representation. Peoria has a history of enjoying and conserving our state's natural resources, and we realize that the health of our local economy and our residents are intricately bound to the health of our environment.

Although we are proud to say that we have been good stewards of the environment, we remain committed to furthering our practices within our operations throughout the community. Being able to manage the complex relationships that impact our daily lives is critical to understanding what the end goal is for all of us.

Sustainable organizations attempt to operate within an environmental, social and economic context. Peoria is no different. Although fiscal savings play a big role in what we do, we are also mindful of the environment and the potential effects of our actions. Peoria's first Sustainability Action Plan was created in 2009 to outline how we could promote and achieve sustainability in our operations and business practices as well as in future development. In this new document, you will see how the City of Peoria has turned ideas into actions and our enhanced vision for the future. This revised Sustainability Action Plan is organized around the following guiding principles:

- Improving the Quality of Life in Neighborhoods
- Enhancing our Environment through a Commitment to Responsible Stewardship
- Leadership by Example
- Awareness and Participation throughout the Community
- Environmental Quality and Economic Health are Interdependent
- Local Actions have Regional and National Implications

Through seeking balance, among all aspects of sustainability, Peoria will become a steward of natural and economic resources while taking into account the needs of future generations. This publication serves as a guidebook and an educational tool as we continually assess alternatives that address relevant community goals. Thank you for your interest in Peoria's quest for a brighter and more sustainable tomorrow.



*The city of Peoria strives to be a leader in sustainability by continuously working to develop projects that have a positive lasting effect on our environment.*

# Acknowledgements

## Mayor and Council



**Bob Barrett**  
Mayor



**Ron Aames**  
Vice Mayor



**Cathy Carlat**  
Councilmember



**Joan Evans**  
Councilmember



**Carlo Leone**  
Councilmember



**Dave Pearson**  
Councilmember



**Tony Rivero**  
Councilmember



**Sustain&Gain**  
City of Peoria  
Arizona

*Peoria's Sustain & Gain logo was launched in 2009 to remind us all of our ability to gain a better quality of life through living green while saving money at the same time.*

## City Management

**Carl Swenson**  
City Manager

**Susan J. Daluddung**  
Deputy City Manager  
Development and Community Services

**Susan Thorpe**  
Deputy City Manager  
Operation and Administrative Services

## City Leadership

**Andy Granger**  
Engineering Director

**Chris Jacques**  
Planning and Community Development Director

**Bill Mattingly**  
Public Works - Utilities Director

**Bo Larsen**  
Public Information Manager

## Overview

The City of Peoria demonstrated its commitment to promoting a more sustainable future when we completed our first Sustainability Action Plan in 2009. Much of our current success can be attributed to the steadfast focus on the specific initiatives outlined in that plan.

Staff has continually monitored the goals in this original action plan to ensure that we are able to deliver on our commitment. Peoria's progressive approach to sustainability focuses on not only what is good for our environment, but also on fiscal responsibility.

As its program continues to mature, Peoria is seeking to update its Sustainability Action Plan to create a forward-looking visioning document. This revised plan is organized around the following Guiding Principles:



*The City of Peoria gets it! It is clear that our actions OR inactions will impact future generations, which is why we have vowed to do everything possible to get it right the first time.*

### Improving the Quality of Life in Neighborhoods

The city recognizes that sustainability initiatives must aim at creating and enhancing a thriving, safe and secure community for all citizens and across all generations.

### Enhancing our Environment through a Commitment to Responsible Stewardship

The city is committed to implementing policies and programs that protect the quality of our air, water and natural open spaces. The city is also committed to promoting the use of renewable energy while reducing our overall consumption of resources through encouraging recycling and water conservation.

### Leadership by Example

The city is dedicated to implementing sustainable policies and practices in municipal operations without compromising the high levels of services that our citizens expect.

### Awareness and Participation throughout the Community

The city will foster an ethic of conservation and stewardship in the community by working in partnership with individual citizens, schools, businesses, and community-based groups to create, sponsor and promote sustainable awareness.

### Environmental Quality and Economic Health are Interdependent

The city is committed to expanding and diversifying our economy, while promoting the use of sustainable products and practices by existing businesses and residents, as well as in municipal operations.

### Local Actions have Regional and National Implications

The city realizes that its actions are part of a larger community interest. Accordingly, our sustainable initiatives will make a significant contribution and seek to support regional and national sustainability efforts.

# Accomplishments

## Major Accomplishments Since 2009

- Between 2009 and 2011, the city's total annual electrical usage has been reduced 7.7%, saving almost 5.4 Million kilowatt hours (kWh) per year.
- Since February 2008, we reduced the annual electrical consumption at the City Hall Complex by 22%, which has saved an average of \$72,000 per year.
- In January 2010, we installed a solar photovoltaic (PV) system at the Beardsley Water Reclamation Facility Operations building. The system has offset 30% of the building's annual electrical needs, saving over 320,000 kWh per year.
- In May 2010, we installed wind turbines at a fire station located near Lake Pleasant. The system has offset 24% of the annual electrical needs for the building.
- Between 2010 and 2012, the city added 24.5 miles of new bike lanes to our streets.
- Since 2010, we have converted over 2,200 lights at 16 sites to newer Light Emitting Diode (LED) units, which is estimated to have saved the city over 1 Million kWh per year.
- Since 2009, we have eliminated 79 vehicles from the city's fleet by removing underutilized vehicles, extending vehicle lives and revising vehicle purchase standards. These and other changes have saved over \$1 million annually in operating costs.
- In April 2010, Peoria became the first city in Arizona to use a hybrid solid waste/recycling truck, which uses an average of 20% less fuel than a standard truck.
- In 2010, the city adopted the Peoria Sports Complex Urban Design and Old Town Revitalization Plans, which established goals to create vibrant, pedestrian-friendly, mixed-use areas.

## Awards and Certifications Received Since 2009

- Peoria has shown its commitment to sustainable design principles by funding eleven staff members to become accredited in the Leadership in Energy and Environment Design (LEED) Program.
- 2009 American Public Works Association (APWA) Large Environmental Project of the Year Award for the Butler Drive Water Reclamation Facility.
- 2010 U.S. Green Building Council's Arizona Chapter Big Green Award for Corporate Green Programs & Practices for our citywide green programs and practices.
- Bill Mattingly, Peoria's Public Works Utilities Director, received the 2010 APWA Charles Walter Nichols Award for Environmental Excellence.
- 2010 Globe Award for Environmental Excellence from the Transportation Development Foundation for Happy Valley Road between 67th Avenue and Lake Pleasant Parkway.
- In 2011, the city obtained LEED Gold certification for the Municipal Court Building expansion project.
- In 2012, the city obtained the EPA's ENERGY STAR certification for the Development and Community Services Building.



### 2010 Big Green Award

*The award recognized Peoria's commitment to implementing sustainability principles throughout the organization. Photo shows Susan Daludding and Dan Zenko.*



### ENERGY STAR Plaque

*The ENERGY STAR certification of our Development and Community Services Building indicates that it uses 35% less energy and generates 35% fewer greenhouse gas emissions than similar buildings nationwide.*

# Contents

**Following the city's six Guiding Principles, a cross-department team identified broad focus areas, along with specific goals and objectives for each, to help direct future sustainability efforts. Each member of Peoria's staff has a role in advancing these sustainability goals through their actions. The successful implementation of the identified goals and objectives will ensure Peoria is competitively positioned for future success while preserving the quality of life for future generations.**

## Management Practices

Ensure that the city's guiding sustainability principles are included in decision-making processes and operational procedures.

## Education and Outreach

Education and communication are powerful tools for fostering sustainable innovation and change. A progressive education and outreach program will help employees and residents understand their role in sustainability along with providing positive encouragement for their efforts.

## Municipal Facilities

Public buildings and facilities need to incorporate sustainable features to optimize their usefulness and public benefit. Peoria is committed to developing standards and practices to make city buildings more efficient.

## Community Building

Through design standards, Peoria can create areas that work together as a cohesive community. The city is committed to promoting the development of environmentally responsible buildings and creating vibrant, pedestrian-friendly, mixed-use neighborhoods.

## Transportation

Trips by Peoria residents, visitors and daily business travelers have an effect on the overall quality of life and the environment. Choosing alternative modes of transportation, along with clean technology vehicles, can help reduce congestion and lessen our environmental impact. Peoria is also committed to developing efficient and environmentally responsible transportation networks.

## Recycling and Waste Reduction

Purchasing items with recycled content and selecting products that last longer are common ways to reduce waste. Peoria is committed to reducing the use of disposable products/systems and expanding our city-wide recycling program.

## Water Resources

In the arid southwest, water is one of the most precious resources. Managing water supplies and usage will help ensure long-term water resources for Peoria's current and future residents.



*Peoria is committed to providing an environment in which our natural resources, our people and our economy are balanced. We will not compromise the future by focusing solely on the needs of today.*



*Peoria's elected officials have continued to show their commitment to sustainability. In 2010, Peoria's sustainability goals and objectives were first incorporated into the city's General Plan.*

## Management Practices

**Ensure that the city's guiding sustainability principles are included in existing decision-making processes and operational procedures.**

**Incorporate Sustainability into the city's decision-making process.**

- Develop a Sustainability Scorecard to monitor the city's progress toward improving sustainable performance.
- Explore ways to encourage public input and participation in setting direction for sustainable initiatives.

**Provide resources for the implementation of sustainability programs.**

- Identify ongoing funding for staff, projects and programs related to sustainability.



### **2011 Sustainable Cities Network Annual Conference**

*Peoria is an active member in the Sustainable Cities Network through ASU's Global Institute of Sustainability. The goal of the organization is to bridge the gap between university research and real world challenges faced by cities. The network received the ASU 2012 President's Award for its commitment to addressing local and regional environmental challenges.*



## Education and Outreach

**Education and communication are powerful tools for fostering sustainable innovation and change. A progressive education and outreach program will help employees and residents understand their role in sustainability along with providing positive encouragement for their efforts.**

**Incorporate sustainability into the city's communication and outreach efforts.**

- Increase the awareness of energy efficiency and renewable energy opportunities in homes and other buildings through education and incentive programs.
- Provide education to developers and residents on the importance of proper landscape design, materials and maintenance.
- Form community partnerships to drive change and encourage cooperation in sustainable practices.
- Provide awards and recognition to individuals and organizations that further Peoria's sustainability efforts.

**Expand access to informational resources on sustainability.**

- Develop a "Sustain and Gain" University. Integrate curriculum with the existing Peoria Leadership Institute.
- Make Peoria home to a signature sustainability event such as an International Film Festival for environmental documentaries.
- Provide information related to community gardens.



### **Peoria's Energy Super Heroes**

*The City of Peoria worked with a local theater troupe to create a puppet show as a tool to educate our future leaders about sustainability.*



### Municipal Court Expansion

Peoria obtained a LEED Gold Certification in 2011 for the renovation of the city's Municipal Court Building. This certification highlighted Peoria's commitment to enhancing the environment and human health through improved building construction.

## Municipal Facilities

**Public buildings and facilities need to incorporate sustainable features to optimize their usefulness and public benefit. Peoria is committed to developing standards and practices to make city buildings more efficient.**

### Increase energy efficiency in new and existing city facilities.

- Continually evaluate and improve the energy performance of city buildings.
- Design and construct new municipal facilities to allow them to be adapted to the changing needs of the community and government services.

### Increase the use of renewable energy in city operations.

- Develop a public/private partnership to provide renewable energy resources.
- Utilize renewable energy technologies in city facilities to offset energy consumption.

### Require LEED silver certification or higher of new and remodeled city building construction.

- Adopt a Resolution requiring all new and major renovation building projects to obtain LEED Silver certification or higher.



### Pilot Wind Turbine Project

Peoria supplemented the energy usage of a fire station located at Lake Pleasant by installing two wind turbines.

### Sports Complex Urban Design Plan

A rendering of Peoria's goal to recreate the area near the existing Sports Complex into a vibrant, pedestrian-friendly mixed-used community.



## Community Building

**Through design standards, Peoria can create areas that work together as a cohesive community. The city is committed to promoting the development of environmentally responsible buildings and creating vibrant, pedestrian-friendly, mixed-use neighborhoods.**

**Continue to implement the principles and policies of balanced land uses and connected places to create vibrant, pedestrian-friendly areas and neighborhoods.**

- Promote interesting and diverse mixed-use areas that are destination-oriented and pedestrian-focused.
- Promote and/or incentivize sustainable development that advances traditional neighborhood design principles.

**Create opportunities for residents to work and live in Peoria to reduce the environmental impact caused by commuting.**

- Incubate, attract and retain businesses and industries to expand and diversify Peoria's economy.



### Peoria's Mountain Trails

The trail system provides a way for residents to enjoy our abundant natural resources.



### Integration of Development and Natural Environments

*Peoria is committed to ensuring that development preserves the natural open spaces that make our city unique.*

### Create a sustainable community through infrastructure and architectural designs.

- Design and construct city buildings and facilities to demonstrate excellence in sustainable design.
- Develop strategies that reduce the heat island effect, including landscaping, cool roofs, shade, paving materials, reduction of pavement and other best practices.

### Increase the amount of sustainable building occurring in the city.

- Develop programs that provide education and incentivize the use of sustainable building practices and technologies.

### Protect and preserve the city's natural and historic resources for future generations.

- Develop strategies and programs to protect environmentally-sensitive areas, lands with high scenic value and historic/cultural resources.



### Mixed-Use Trail System

*Peoria's network of trails provides a safe system that promotes pedestrian and bicycle uses for both recreation and transportation needs.*

### 84th Avenue Streetscape

*This project improved the walkability and bikeability of Peoria's Old Town by widening sidewalks, adding landscaping and installing traffic calming measures. The shade trellises use solar-powered lights to offset electrical energy use.*



## Transportation

**Trips by Peoria residents, visitors and daily business travelers have an effect on the overall quality of life and the environment. Choosing alternative modes of transportation, along with clean technology vehicles, can help reduce congestion and lessen our environmental impact. Peoria is also committed to developing efficient and environmentally responsible transportation networks.**

**Promote alternative forms of transportation by providing improved infrastructure for pedestrian, bicycling and transit travel options.**

- Ensure that pedestrian, bicycling and transit travel options are provided in new and existing streets.
- Ensure that there are transportation choices for people of all ages and abilities.
- Expand the existing multimodal trail system to connect major commercial/residential centers throughout Peoria.

**Increase the efficiency of existing and planned roadways and transportation infrastructure.**

- Expand the existing bicycle lane network and ensure that it is fully connected into the regional bicycle system.
- Utilize techniques to optimize traffic flow while minimizing congestion and automobile-generated air pollution.
- Utilize techniques to shift peak traffic flows in order to reduce congestion.



### Electric Vehicle Charging Stations

*Peoria has partnered with ECOtality to have electric vehicle charging stations installed at three city facilities. These charging stations will help create the infrastructure to support this new vehicle technology.*



### **Traffic Management Center**

*Peoria's Traffic Management Center allows staff to monitor and improve the operation of the city's roadway system in real time.*

## **Improve the fuel efficiency of city vehicles through the use of alternative fuels or fuel-efficient technologies.**

- Continue to evaluate the city fleet's fuel standards and fleet procurement practices.

## **Provide incentives for the use of low-emission, high-efficiency, alternative fuel or electric vehicles.**

- Provide designated parking spaces for low-emission, high-efficiency, alternative fuel or electric vehicles.
- Promote the installation of alternative fueling stations throughout the community.

## **Require the construction of efficient and environmentally responsible infrastructure.**

- Utilize industry-recognized Best Practices in the design and construction of transportation networks.



### **Beardsley Connector Roundabout**

*Peoria has started to install roundabouts at several intersections to assist traffic flow, to eliminate the energy used by traffic signals and enhance the walkability of the intersections.*

### Hybrid Solid Waste/ Recycling Vehicles

Peoria was the first city in Arizona to use hybrid solid waste/recycling trucks, which are 20% more fuel efficient than a standard truck.



## Recycling and Waste Reduction

**Purchasing items with recycled content and selecting products that last longer are common ways to reduce waste. Peoria is committed to reducing the use of disposable products/systems and expanding our city-wide recycling program.**

### Increase recycling throughout the community.

- Increase opportunities for residential, commercial, multi-family and municipal recycling in the community.
- Provide recycling opportunities for visitors to city buildings and parks.

### Decrease the overall amount of waste to be disposed of in landfills and promote responsible consumption.

- Decrease the use of disposable and non-renewable products in city operations and community-wide.
- Increase the awareness of responsible consumption to promote community-wide reductions of disposable and non-renewable products.
- Create a composting program to divert waste and generate a long-term sustainable product.

### Develop procurement guidelines for sustainable purchasing practices.

- Increase the city's use of environmentally-preferable products and services where feasible. Evaluate alternatives for environmentally-friendly products and supplies.



### Peoria's Curbside Recycling Program

The program diverted 15,900 tons of recyclable materials from landfills between July 2010 and June 2011, which is 25% of our total solid waste stream.



### Butler Drive Water Reclamation Facility

*In 2008, Peoria completed the construction of the Butler WRF which provides the city with a long-term renewable water supply.*

## Water Resources

**In the arid southwest, water is one of the most precious resources. Managing water supplies and usage will help ensure long-term water resources for Peoria's current and future residents.**

**Conserve water supplies through proactive measures to increase water conservation and lower water consumption.**

- Promote individual water conservation through the use of low-flow plumbing fixtures and Xeriscape landscape principles.
- Continually evaluate and improve the water consumption of city facilities and infrastructure.

**Expand the reclaimed and non-potable water systems to ensure the city is "using the right water for the right use."**

- Treat water for only its intended purpose (potable, irrigation, etc.).
- Expand the reclaimed water and the non-potable water systems.

**Increase energy efficiency in new and existing water, wastewater and reclaimed water systems.**

- Continuously evaluate and improve the operational performance of the city's water systems to reduce energy demands.



### Reclaimed Water Sign

*Peoria has been constructing a reclaimed water system in the southern area of the city to convert existing landscaped areas to this renewable water supply.*

# Sustainability Champions

*Special thanks to the following individuals for their commitment towards making sustainability part of our daily lives and for assisting in updating Peoria's Sustainability Action Plan. Their willingness to participate, engage and move the City of Peoria forward makes our community stronger, healthier and of course – more sustainable. Congratulations!*

## Workgroup Members

Robin Bain, *Water Resources and Environmental Manager*

Walt Begley, *Facilities Manager*

Brian Biesemeyer, *Deputy Public Works-Utilities Director*

Seth Blumen, *Energy Efficiency Analyst*

Beckie Borquez, *Environmental Coordinator*

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Alan Dulaney, *Water Resources Supervisor*

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Dina Green, *Economic Development Coordinator*

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Maher Hazine, *Deputy Public Works-Utilities Director*

Chris Kmetty, *Senior Civil Engineer*

Shawn Kreuzwiesner, *Engineering Planning Manager*

Maria Laughner, *Business and Real Estate Development Manager*

Dan Lorti, *IT Operations Manager*

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Debbie Pearson, *Business Development Specialist*

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Jamal Rahimi, *City Traffic Engineer*

Brenda Rehnke, *Recreation Manager*

Mindy Russell, *Management Assistant*

Jeff Sargent, *Senior Planner*

Kathy Sponsel, *Construction Projects Coordinator*

Jackie Stanley, *Rio Vista Manager*

Ed Striffler, *Design and Construction Manager*

Erik Wilson, *Right of Way Contract Supervisor*

Sherine Zaya, *Public Information Officer*

Dan Zenko, *Materials Management Supervisor*



### Peoria's LEED Green Associate Staff

*Peoria has shown its commitment to sustainable design and operations by funding staff to become accredited in the USGBC Leadership in Energy and Environmental Design (LEED) program.*





# City of Peoria

## SUSTAINABILITY

9875 North 85th Avenue Peoria, Arizona 85345

[peoriaaz.gov/sustainability](http://peoriaaz.gov/sustainability)