

# Resource Conservation Plan

November 3, 2011 City Manager initiated the Environmental Strategic Initiative.

Goals were to:

- Review resource conservation within City facilities
- Reduce City costs and preserve of natural resources
- Need to be leaner and greener in our operations
- Complete an Resource Conservation Plan

## Resource Conservation Team

Co-Chairpersons Tom Gut, Pat Patterson and Kit Ledbetter, with representatives Roger Chouinard, Parks; Trudy Olson, Public Works; Brian Wiwel, Fire; and Bart Perman, Finance Departments.



## Plan Summary

- The City of SeaTac is developing and expanding its municipal energy efficiency and water conservation.
- SeaTac recognizes that City operations consume a significant amount of energy and water each year.
- Savings are expected with the approval for implementation of the Resource Conservation Plan.
- Each department's representative has agreed to assist with resource conservation.
- This plan is a working document that will be revised and updated as needed.



## Plan Goals

### 2012

- Complete and receive City Council approval on a Resource Conservation Plan.
- Expand EnviroStar certification to all City facilities.

### 2013

- Develop an action plan for City buildings to include:
  - Energy Star certification for City Hall
  - Conduct energy audits at all City buildings
- Develop a City Resource Use Policy
- Identify projects for energy conservation to include but not limited to:
  - Replace some City Hall single pane windows with double pane windows
  - New water spray park should recycle water
- Set energy reduction goals for 2013 and beyond



## **Why are we completing a Resource Conservation Plan?**

- The Resource Conservation Plan describes what we are doing to better manage our natural resources and reduce costs.
- This report describes the short and long term resource conservation plans.
- Change staff's thinking to be more conservation orientated and set guidelines for them to follow.
- The plan will be a working document that will be revised as needed.

## **Why does this matter?**

- Save City money in long term
- Reduce resource consumption
- Reduce City operations impact on environment
- Support employee environmental efforts in the work place
- Sets an example for community and businesses



## Resource Use Baseline

The baseline was developed for each City building based on averaging the 2009 and 2010 annual bills.

<u>Building Site</u>	<u>Electricity</u>	<u>Gas</u>	<u>Water</u>	<u>Total</u>
City Hall	\$118,328	\$0	\$9,482	\$127,810
Community Center	\$27,240	\$18,092	\$1,965	\$47,297
Maintenance Facility	\$9,514	\$4,354	\$997	\$14,865
Valley Ridge Center	\$8,333	\$3,260	\$1,061	\$12,654
Fire Station 45	\$22,041	\$14,639	\$1,463	\$38,143
Fire Station 46	\$23,493	\$8,370	\$4,255	\$36,118
Fire Station 47	\$2,663	\$1,274	\$786	\$4,723
Angle Lake Park Restroom	\$768			\$768
	<b>\$212,380</b>	<b>\$49,989</b>	<b>\$20,009</b>	<b>\$282,378</b>

<u>Irrigation Site</u>	<u>Water</u>
Valley Ridge Park	\$17,058
Angle Lake Park	\$7,599
North SeaTac Park	\$15,740
Community Center Park	\$6,199
Maintenance Facility grounds	\$2,708
Sunset Park	\$8,463
Botanical Garden	\$7,218
	<b>\$64,985</b>

**\$347,363**



## Guidelines

The City is striving toward overall resource conservation and an environmentally healthy sustainability strategy requires cross-departmental collaboration.

## Energy Conservation

### Current Practices

#### *City Hall:*

- ✓ Motion sensors, LED and/or increased natural lighting
- ✓ Purchase energy efficient lighting and appliances as needed
- ✓ Non-business hours turn down a/c, lights, heat
- ✓ Exhaust heat recovery heat pump
- ✓ Direct digital controls for HVAC system

#### *Community Center:*

- ✓ Non-business hours turn down a/c, lights, heat
- ✓ Direct digital controls for HVAC system
- ✓ Installed energy efficient lighting in gymnasium and building exterior
- ✓ Replacement of the gym rooftop HVAC units with more efficient units

#### *Fire Stations:*

- ✓ Replacement of Fire Station 46 with updated energy efficient building



## Future Objectives

- Energy Star Certification for City Hall
- Set all office computers and equipment at energy saving settings
- Use Industrial Materials Exchange (IMEX) to manage extra materials and/or purchase inexpensive raw materials
- Replacement of single glazed windows (City Hall - in 2013 CIP)
- Replacement of Fire Stations 45 and 47 with new energy efficient buildings

## Recommended Temperature Settings for City Facilities

Area	Occupied Set Points		Unoccupied Set Points	
	Heating	Cooling	Heating	Cooling
Offices	70	74	60	85
Meeting Rooms & Council Chamber	70	74	60	85
Locker/Fitness Rooms	68	74	60	85
Work & Copy Rooms	70	74	60	85
Computer Labs	70	74	60	85
Maintenance Shops	67	74	60	85
Gyms	67	74	60	85
Kitchens	67	74	60	85
Restrooms	68	74	60	85
Hallways & Common Areas	68	74	60	85
Storage Rooms	65	74	60	85



## Current Practices

- Reuse/Reduce/Recycle
- Program water heating
- Tankless water heater
- Program irrigation
- Integrated Pest Management
- Earned EnviroStars Certification

## Future Objectives

- Expand environmental projects in the community
- Reduce vehicle idling
- Promote EnviroStars achievement
- Materials reuse/exchange station or board
- Water audit for baseline
- Replace fixtures with low flow
- Recirculate water at planned spray park
- On-site chipping
- Maintain highest EnviroStars rating

