

CITY OF EL SEGUNDO ENVIRONMENTAL WORK PLAN

ENVIRONMENTAL WORK PLAN

The Environmental Subcommittee has been established to review current city environmental practices, identify new environmental goals and objectives, and develop a framework for protecting the city's quality of life while moderating the growth demands upon our natural resources and the impacts their use/consumption has upon our environment.

To help address these goals and objectives, an environmental work plan can be developed that will guide the City towards sustainability and which will accelerate the City's environmental commitment.

The framework is structured around the following thematic guidelines which have become a generally accepted standard:

- I. Energy Conservation
- II. Solid Waste Reduction
- III. Community Design Standards
- IV. Community Environment
- V. Transportation
- VI. Environmental Health
- VII. Water Conservation

Identified under each category are steps and means to conserve energy and water, reduce waste, address global warming, tailor urban design, improve transportation options and reduce risks to human health.

A number of current practices are already having a positive impact upon these areas. However, much remains to be done. The city is uniquely positioned to make a positive contribution particularly in light of the commitment of residents and businesses alike to improving conservation and environmental quality outcomes.

The successful implementation of this environmental action plan will ensure the city remains competitively poised for future growth while preserving the health of its environment for generations to come.

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I. ENERGY CONSERVATION

Action Item # 1 – Continue and expand the use of energy efficient programs and systems to maintain a 20% or greater energy savings.

In 1998, the City and Siemens entered into an innovative energy services performance contract to retrofit city facilities with energy efficient fixtures and systems. Over the first eight year's term of the agreement, the City reduced its energy consumption by over 20%; amounting to a savings of \$2 million, energy savings of 10,558,433 kWh.

Energy Conservation	Indicators	Targets
	<ul style="list-style-type: none">• Total energy use reduction	<ul style="list-style-type: none">• 20 % reduction by 2010

Recommended Action: The Public Works Department will undertake an energy efficiency study by the end of 2008, incorporating experience from the Siemens contract, to design and implement future cost-effective energy efficiency programs including:

1. Continue installing devices on municipal buildings that reduce the power required to operate equipment and shift equipment use to off-peak; install occupancy sensors in balance of city facilities; and implement a lighting retrofit on existing ballasts to accommodate T-5 fluorescents fixtures.
2. Replace incandescent traffic signal lights with Lighting Emitting Diodes (LED's) scheduled for contracting in early 2008.
3. Replacing athletic field lighting with state-of-the-art high efficiency lighting systems (latest generation T8, replacing incandescent; halogen).
4. Enter into a contract with Utility Cost Management to conduct a utility bill analysis for electricity and gas to uncover billing/rate errors. If billing errors are found, the utility companies will correct the errors going forward and the City will receive a refund for past overcharges.
5. Enroll in Southern California Edison's Bill Manager program to track monthly consumption and expense on City facilities.

Action Item # 2 – Develop the use of renewable energy to meet 1% of the city's electric load.

Without the benefit of its own utility, the city is largely dependent upon SCE to do its part to reduce greenhouse gas emissions by providing its customers with energy from renewable resources. Currently, nearly 17 percent of SCE's energy mix comes from wind, solar, biomass, small hydropower and geothermal

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sources. SCE’s goal is to have at least 20 percent of its energy delivered from renewable sources by 2010.

The Public Works Department will study the feasibility of phasing in renewable energy systems at City facilities, such as: City Hall, the Public Works Yard, and Recreation & Park facilities. In order to reach this goal, an analysis of the costs of providing renewable energy systems at these facilities against the environmental benefits will be performed.

Renewable Energy	Indicators	Targets
	<ul style="list-style-type: none"> Total renewable energy use 	<ul style="list-style-type: none"> 1% reduction by 2015

Recommended Action: The City will investigate the feasibility of generating renewable energy by installing solar power equipment on city-owned facilities such as water reservoirs and municipal buildings.

Action Item # 3 - Reduce greenhouse gas emissions (carbon footprint) attributed to City’s operations by 10% by the year 2015.

Staff completed a 2006-2007 green house gas emissions inventory for the City’s municipal operations. This inventory is the first step toward reducing the City’s contribution to greenhouse emissions.

2006-2007 Emissions Data	CO2 Emissions (in tons)
Vehicle Fleet Fuel Usage	239
Electricity	2,330
Natural Gas	475

Greenhouse Gas Emissions	Indicators	Targets
	<ul style="list-style-type: none"> Reduce greenhouse gas emissions 	<ul style="list-style-type: none"> 10 % reduction by 2015

Recommended Action: The Public Works Department will complete a study calculating the amount of greenhouse gas emitted from city facilities and city operations for use as a gauge to plan future reductions that meet or exceed the action goal.

II. SOLID WASTE REDUCTION

Action Item # 4 – Maintain at least 81% waste diversion rate from landfills.

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The California Integrated Solid Waste Management Act of 1989 fundamentally restructured the state’s approach to solid waste management. The Act established an integrated waste management hierarchy that included: source reduction, recycling, composting, and land disposal of solid waste. The legislation mandated each city meet solid waste diversion goals of 25% in 1995 and 50% by 2000.

By 1995, the City of El Segundo achieved a 59% solid waste diversion rate. In 2005, El Segundo pushed its diversion rate to a statewide high of 81%. The City will attempt to maintain this ambitious diversion rate by exploring additional diversion programs and evaluating advancements in technologies.

Solid Waste Reduction	Indicators	Targets
	<ul style="list-style-type: none"> • Reduce landfill tonnage 	<ul style="list-style-type: none"> • >81 % maintain or improve by 2010

Recommended Action: Programs for further review and consideration include:

1. Require new construction projects to divert 50% of their waste away from landfills.
2. Implement additional best practices to maintain or improve a goal of an 81% diversion rate for the collection of solid waste.
3. Study feasibility of locating onsite recycling areas for new developments.
4. Implement Construction and Demolition program anticipate implementation within the next 24 months.

Action Item # 5 –Reduce the use of disposable, toxic, or nonrenewable products used in the course of city operations by at least 15% in ten years and initiate an enviro-centric procurement policy.

Support statewide legislation and local initiatives requiring manufacturers to take responsibility for collecting and recycling their products at the end of their useful life.

The growing consensus that we are placing excessive demands on available resources through unsustainable but well-established consumption patterns justifies consideration of a more environment-centric procurement policy. Examples of enviro-centric procurement range from the purchase of energy-saving light bulbs, use of materials with significant post consumer material content, to the commissioning of print services from renewably-sourced timber stock under the Forest Stewardship Council’s Chain-of-Custody certification program.

Enviro-centric Procurement	Indicators	Targets

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	<ul style="list-style-type: none"> • Reduce use of disposable, toxic and non-renewable products 	<ul style="list-style-type: none"> • 15 % reduction by 2015
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Recommended Action: The City will adopt an environmentally responsible procurement policy that takes into account making procurement decisions which minimize negative environmental and social impacts.

Action Item # 6 – Increase residential recycling by creating new programs including a “multi-family recycling” program by 2011.

In 2005, 81% of City’s waste was diverted from landfills through reduction, recycling and reuse. This accomplishment is largely a result of business community’s multifaceted recycling and reuse programs. While it is assumed these programs will continue to ensure the action goal is met, additional residential diversion programs will be studied including automated curbside recycling, multi-housing unit recycling, e-waste and green waste diversion options.

Reuse & Recycle Programs	Indicators	Targets
	<ul style="list-style-type: none"> • Reduce, reuse, recycle 	<ul style="list-style-type: none"> • Implement Multifamily recycling program by 2011

Recommended Action: Programs for review and consideration include:

1. Developing in collaboration with licensed commercial haulers a multi-family unit residential recycling program; and
2. Establishing a recycling program at Golf Course and Recreation Park; and
3. Establishing a permanent electronic waste collection center in the city where residents can bring their electronic and universal waste to be recycled or disposed; and
4. Collaborating with local grocers and merchants to set a reduction target for disposable shopping bags.

III. COMMUNITY DESIGN STANDARDS

Action Item # 7 – Develop a green building rating system standard that applies to all municipal buildings, both new and retrofitted.

The Planning and Building Safety and Public Works departments will evaluate the feasibility of adopting a Green Building Practices standard to promote the

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construction and operation of environmentally sound municipal buildings and facilities.

An important component of green building is the need to maintain healthy indoor air quality after the building has been constructed. The Public Works Department will develop practices for cleaning, maintenance, and operations of municipal facilities to further advance sustainability and eliminate the use of toxins. Maintenance staff will be trained, and purchasing staff will be required to purchase environmentally preferable cleaning products. Further, green specifications will be incorporated into city remodeling projects where feasible, including requirement of low-emission and environmentally-friendly carpet, sealants, adhesives, paint, flooring, and office furnishings. Office equipment purchase and replacement standards will specify Energy Star-compliant equipment where feasible; including computers, servers, monitors, copiers, fax machines and other devices.

Green Buildings	Indicators	Targets
	<ul style="list-style-type: none"> • New LEED city certified buildings -Fire Station 2 	<ul style="list-style-type: none"> • Fire Station 2 by 2010
	<ul style="list-style-type: none"> • Number of green retrofits 	<ul style="list-style-type: none"> • 1 % of buildings by 2015
	<ul style="list-style-type: none"> • Energy Star Compliant Office Equipment 	<ul style="list-style-type: none"> • 50 % of Energy Star compliant equipment by 2015

Recommended Action: Programs for review and consideration include:

1. Planning and Building Safety and Public Works departments will evaluate the feasibility of adopting a Green Building Practices standard to promote the construction and operation of environmentally sound municipal buildings and facilities; and
2. Public Works Department will develop practices for cleaning, maintenance, and operations of municipal facilities to further advance sustainability and eliminate the use of toxins; and
3. Maintenance staff will be trained, and purchasing staff will be required to purchase environmentally preferable cleaning products; and
4. Green specifications will be considered and incorporated into city remodeling projects where feasible, including requirement of low-emission and environmentally-friendly carpet, sealants, adhesives, paint, flooring, and office furnishings; and
5. Office equipment purchase and replacement standards will specify Energy Star-compliant equipment where feasible; including computers, servers, monitors, copiers, fax machines and other devices.

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Action Item # 8 - Develop a workable green building construction standard in concert with the local development community that applies to commercial construction.

The Planning and Building Safety Department will evaluate the feasibility and impacts of is adopting a Green Building Practices Ordinance to implement a comprehensive program promoting the construction and operation of environmentally sound buildings in the city.

To further advance this initiative, the city will evaluate the feasibility of creating green standards for residential projects.

Green Building Codes	Indicators	Targets
	<ul style="list-style-type: none"> Adopt new enviro-friendly codes 	<ul style="list-style-type: none"> Adopted Oct. 2007
	<ul style="list-style-type: none"> Local ordinance & incentive package 	<ul style="list-style-type: none"> Indicators & target developed in 2008
	<ul style="list-style-type: none"> Number of LEED certified buildings 	<ul style="list-style-type: none"> 1% reduction by 2015

Recommended Action: Begin working with development community in reaching standards that will allow the City to meet mutual goals.

IV. COMMUNITY ENVIRONMENT

Action Item # 9 - Conduct an inventory of existing canopy coverage in the city; and, then establish a goal to plant and maintain canopy coverage in not less than 50% of all available sidewalk planting sites.

The city will conduct a tree canopy coverage survey which will provide information on the benefits provided by City trees and be used as a baseline to monitor the tree canopy coverage. The City will maintain the 4000 public trees that grace the landscape and will replace any tree removed (increase canopy), protect private trees or replace 2 for 1.

Tree Canopy	Indicators	Targets
	<ul style="list-style-type: none"> Percent of tree canopy coverage by neighborhood 	<ul style="list-style-type: none"> 5% of coverage by 2015
	<ul style="list-style-type: none"> Percent of newly planted toward target number of trees 	<ul style="list-style-type: none"> Target to be developed 2008

Recommended Action: Staff to conduct a tree canopy coverage survey in the City by June 2008.

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V. TRANSPORTATION

Action Item # 10 – Continue to explore viable public transportation coverage to all city residents, businesses and employees.

The city is committed to improving transit service in order to stem increasing reliance on the automobile. The city has focused on this goal for the past decade with considerable success.

Currently, the city is served by six transit routes with stops within the City. The Metro Green Line light-rail train has 3 major transit stations in the city, linking El Segundo to the regional transit network. With these systems in place, 100% of city residents live within 0.5 mile of either a train or bus stop. The city is continuing to expand the local transit shuttle service and participates in Beach City Transit's South Bay coast route.

El Segundo employment centers are served by the South Bay Area Municipal Area Express (MAX); an upscale commuter bus catering to the large number of South Bay residents who work in El Segundo. MAX operates during morning and afternoon peak hours and offers three routes through the South Bay. MAX is a cooperative cost-sharing transit system among the county and the cities of El Segundo, Lawndale, Lomita, Los Angeles, Rancho Palos Verdes, and Torrance (the lead agency for the program).

Additionally, the City operates a Lunch-time Shuttle using propane fueled vans. Employees on the east side of the community can enjoy lunch or shop in El Segundo's downtown area without getting into their cars. The City of El Segundo Lunchtime Shuttle runs every nine minutes weekdays between 11:30 a.m. and 2:15 p.m., with stops at strategic spots in both downtown and busy commercial sectors. Shuttle routes have recently been adjusted to better accommodate employees at the large Raytheon, Los Angeles Air Force Base and Aerospace Corporation campuses.

The city will continue to explore other transportation options and incentives to promote expanded use of public transit, carpooling and bicycles.

Public Transportation	Indicators	Targets
	<ul style="list-style-type: none">• Percent of employees, residents using transit, carpooling, bicycling	<ul style="list-style-type: none">• Target to be developed 2008
	<ul style="list-style-type: none">• Percent of alternate fuel vehicles in city fleet	<ul style="list-style-type: none">• Target to be developed 2008

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Recommended Action: Continue to explore viable alternatives

Action Item # 11 – Reduce reliance on vehicles that use traditional fuel sources.

The State of California regulates diesel and gasoline fuel and has some of the most stringent requirements in the nation. Recent regulations set forth by the California Air Resources Board, Title 13 CCR Section 2022 & 2022.1, requires that the City modify its diesel fleet (>14,000 lbs, 50hp) to meet 2007 emission standards beginning in 2007 with full compliance required by 2011. The Recreation and Parks and Public Works departments operate 6 vehicles and 6 stationary generators that will require modification under the new regulations.

The Public Works Department manages the City’s vehicle fleet and is actively committed to the use of cleaner burning fuels and technologies in place of conventional diesel fuel. Bio-diesel fuel which is a blend of regular diesel and organically derived vegetable oils has recently been introduced for use by the city fleet. The city will seek every opportunity to purchase additional alternate fuel cars and light-duty trucks, in particular hybrid powered vehicles and is in the process of creating standards for ensuring alternative fuel vehicles are purchased.

The city’s street sweeping contractor uses compressed natural gas (CNG) powered vehicles. Emissions generated by the City’s waste hauler will be reduced as a result of the new CARB requirements mentioned above.

Clean & Fuel Efficient Vehicles	Indicators	Targets
	<ul style="list-style-type: none"> • Percent of city’s heavy fleet vehicles retrofitted, replaced with clean, fuel efficient vehicles 	<ul style="list-style-type: none"> • Implementation underway, on schedule
	<ul style="list-style-type: none"> • Percent of alternate fuel vehicles in city fleet 	<ul style="list-style-type: none"> • Target to be developed 2008
	<ul style="list-style-type: none"> • Increased fuel efficiency in city fleet 	<ul style="list-style-type: none"> • Target to be developed 2008
	<ul style="list-style-type: none"> • Percent of contractor fleets utilizing alternate fuels 	<ul style="list-style-type: none"> • Target to be developed 2008

Recommended Action: The City will undertake the following actions to reduce greenhouse and particulate emissions:

1. Adhere to a policy of replacing vehicles with alternative fuel vehicles and/or low emission vehicles when feasible; and

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2. Retire police units in lieu of reuse as general pool vehicles; and
3. Consider modifying contract with the waste hauler to require the use of alternative fuels in their fleet.

Action Item # 12 - *Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by a target 10% in ten years.*

The residents, commuters, and visitors in the city have diverse mobility needs. In addressing these needs, the city has developed proactive policy goals and innovative programs to encourage the most efficient use of the city’s existing transportation infrastructure through a balanced multi-modal approach.

The city has a comprehensive transportation management plan which contains traffic reduction strategies that consider economic development, accommodate future commercial and employment growth, and address overall mobility and access.

Congestion Reduction	Indicators	Targets
	<ul style="list-style-type: none"> • Percent of employees, residents using transit, carpooling, bicycling 	<ul style="list-style-type: none"> • Target to be developed 2008
	<ul style="list-style-type: none"> • Percent of congestion management plan projects implemented 	<ul style="list-style-type: none"> • Targets being achieved
	<ul style="list-style-type: none"> • Facilities with bicycle racks and showers 	<ul style="list-style-type: none"> • Upward Trend

Recommended Action: Programs for review and consideration include:

1. City will actively work with new developments to install safe and convenient bicycle parking, encouraging all non-residential developments 25,000 square feet or larger to install showers in buildings to facilitate bicycling; and
2. Public Works Department will investigate the feasibility installing bike racks city sites to increase the opportunities and convenience for employee bike riders.

Vi. ENVIRONMENTAL HEALTH

Action Item # 13 - *Every year, identify one product, chemical or compound that is used within the scope of municipal operations that represents the greatest risk to human health and reduce or eliminate its use by the municipal government.*

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In response to dangers poised by chemical use, the city will evaluate the use in city facilities 1) aerosols, 2) floor polish, 3) standard volatile organic compound (VOC) emitting paint 4) chemical paint strippers, 5) VOC emitting graffiti removers, 6) toxic chemical disinfectants, and 7) toxic pesticides.

With the city’s parks and open landscaped public areas, pest control is a necessity. However, pesticides can be harmful to those who administer them, as well as the environment.

Toxic Substance Reduction	Indicators	Targets
	<ul style="list-style-type: none"> • Volume and toxicity of hazardous materials purchased 	<ul style="list-style-type: none"> • Target to be developed 2008

Recommended Action: It is recommended that:

1. The Public Works Department in cooperation with the Purchasing Division study and make recommendations on green procurement practices to ensure that city workers are not exposed to hazardous chemicals or materials, and that environmentally preferable products are favored in purchasing; and
2. The City create an integrated pest control management (IPM) plan for all City facilities and parks which will rely on commonsense practices and natural compounds to combat the negative effects of pests.

VII. WATER CONSERVATION

Action Item # 14 –Continue and expand water conservation programs to increase reliability of access to safe drinking water and to control and reduce consumption.

Since 1994, the City’s annual water consumption has dropped from 18,241 acre-feet to 17,000 acre-feet in 2007. In that same timeframe, the use of recycled water increased from zero in 1994 to 8,300 acre-feet or roughly half of all water consumed in the City. The increased use of recycled water has reduced our dependence on imported water to half of 1994 levels.

It is expected that with additional development in the City, demand for potable and recycled water will increase. With the current drought conditions and possible reductions in California Delta water imports, the City will need to implement more aggressive measures to reduce potable water consumption.

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Water Conservation	Indicators	Targets
	<ul style="list-style-type: none"> • Percent of city water from imported sources 	<ul style="list-style-type: none"> • 50% reduction in imported water achieved
	<ul style="list-style-type: none"> • Green Building water projects 	<ul style="list-style-type: none"> • Target 20% reduction per building
	<ul style="list-style-type: none"> • Water Conservation Task Force 	<ul style="list-style-type: none"> • Target completion early 2008

Recommended Action: Programs for review and implementation include:

1. Adopting “Its Time To Get Serious” Conservation and Water Use Initiative through West Basin Municipal Water District by January 29, 2008; and
2. Convening Water Conservation Task Force for developing additional voluntary water conservation programs.

Action Item # 15 - *Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharges by 5% in ten years through the expanded use of recycled water and the implementation of a sustainable urban watershed planning process.*

The city considers recycled water as a viable water supply source and effective way to reduce the future need for imported water, and actively participates with West Basin Municipal Water District to increase the usage of recycled water.

Waste Water Reduction	Indicators	Targets
	<ul style="list-style-type: none"> • Amount of city wastewater 	<ul style="list-style-type: none"> • Reduction in volume of wastewater

Recommended Action: The city will take steps to decrease the volume of wastewater for treatment by encouraging water conservation and offering rebates for waterless urinals, low flow toilets, and other water conserving fixtures.

Action Item #16- *Adopt Sewer System Management Plan (SSMP).*

The city will develop a plan to provide a consistent, statewide regulatory approach to address sanitary sewer overflows; the State Water Resources Control Board adopted Statewide General Waste Discharge Requirements (WDRs) for sanitary sewer systems.

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Wastewater Management	Indicators	Targets
	<ul style="list-style-type: none">• Adopt wastewater guidelines	<ul style="list-style-type: none">• Target developed October 2007
	<ul style="list-style-type: none">• Adopt sewer system management plan	<ul style="list-style-type: none">• Target to be developed by 2009

Recommended Action: Programs for consideration and adoption include:

1. Sewer Overflow Emergency Response Plan by January 29, 2008; and
2. Sewer System Management Plan by August 2009.

CONCLUSION

This Environmental Action Plan outlines first steps towards achieving a more “green” and sustainable community. To reinforce the city’s commitment to environmental stewardship, the Environmental Subcommittee recommends the implementation of this plan and for staff to monitor its progress.