

MEMORANDUM

TO: Mayor and City Council

FROM: Steve Rogers, Public Works Director

DATE: September 19, 2005

SUBJECT: Annual Report on Organizational Sustainability Practices

ISSUE

The City Council policy on sustainability requires an annual report be submitted that identifies organizational sustainability efforts and provides a preview of sustainability objectives for the 2005/06 fiscal year.

BACKGROUND

The purpose of the sustainability policy is to ensure City department programs and practices are consistent with City Council's commitment to achieving a more sustainable organization through efforts that promote more efficient and environmentally friendly operations; protect clean air and water; encourage conservation of native vegetation and habitat; reduce energy consumption and the use of natural resources; promote recycling, waste reduction and solid waste management; and reduce the use of toxic materials and persistent biotoxins. The policy also requires an annual report summarizing organizational sustainability efforts during the reporting period and identifying sustainability objectives for the next reporting period.

DISCUSSION

To meet policy reporting requirements each department documents its sustainable activities on a quarterly basis and reports their efforts to the Public Works Department. Sustainable activities are separated into six major categories:

- Sustainable Purchasing (or reuse) Practices
- Land Use Planning
- Green Building Practices
- Green House Gas Emissions
- Solid Waste Management
- Toxics and Persistent Biotoxins

Also listed is a miscellaneous category to group staff efforts that meet sustainability objectives but don't readily fit within the six major categories in the policy. Listed below is a summary of each department's sustainable efforts achieved over the last fiscal year and each department's objectives for the 2004/05 fiscal year. This report does not include sustainable activities and projects previously implemented or completed prior to FY 04/05.

Sustainable Purchasing Practices

Public Works:

- Reused and refurbished 16 bus shelters donated from Lane Transit District, saving over \$5,000 per shelter in addition to the resources that would have gone into manufacturing new shelters.
- Reused rip-rap from the Dunawi Creek Project to define parking and road areas, protect new embankment at Taylor Water Plant and to replace a stone gabion wall on Willamette Path.
- Reused two truck-loads of base-rock from a section of an existing path at the Taylor Water Plant to improve a nearby storage area.
- Reused existing soils at the Taylor Water Plant to facilitate embankment, in-fill and grading on site.
- Used remanufactured tires on rear axles of all service trucks.
- Used the internet to sell used vehicles and old wastewater plant equipment, saving time and staff resources.
- Reused 1,800 tons of asphalt grindings from pavement maintenance projects to resurface County roads.
- Replaced only specific truck parts necessary for asphalt applications and retained the truck cab-chassis to maximize the overall life of the vehicle.
- Purchased used pallet racks for use in materials warehouse saving about 50% of the cost of new shelving.
- Explored use of silt/soil removed from the Rock Creek reservoir project as back-fill for future utility repairs eliminating the need to purchase similar material.
- Reused discarded 5" fire hose for weather stripping on airplane hanger doors at Corvallis Airport.

Objectives FY 05/06

- Purchase 100% recycled content paper.
- Reduce the amount of office products purchased.
- Conduct life-cycle cost analysis to acquire additional alternative fuel vehicles.

Community Development:

- Purchased an Energy Star compliant duplex printer to save paper.
- Reviewed the purchase of ergonomic furniture for department remodel.

Parks and Recreation:

- Developed processes and financial procedures to reuse fallen trees to make benches and used revenue from sold benches to replant trees.
- Overhauled and reconditioned small dump truck verses buying new.

Finance Department:

- Revised purchasing manual with focus on lowest economic cost, taking into account long-term costs associated with replacement/disposal.
- Addressed recycled content issues for organizational purchasing decisions.
- Expanded information in purchasing manual to include disposal of surplus property to address sustainability.
- Published a new procurement manual, which is (1) primarily accessible to users on the City's intranet, reducing the number of paper copies produced, (2) promotes selection of goods based on the lowest life-cycle costs rather than just the lowest acquisition cost, (3) implements on-line routing

- of draft documents, reducing paper use (and time chasing paper documents).
- Modified information in the City's budget document that eliminated printing 110 pages.

Fire Department:

- Recycled ink cartridges and purchased refilled ink cartridges.

Police Department:

- Extended the service life of Police Department vehicles to minimize the purchase of new vehicles.

Objectives FY 05/06

- Determine if low or zero emission vehicles can be used to replace or supplement non-emergency vehicles in the existing fleet.

Library:

- Replaced CRT monitors with LCD flat screen monitors on staff computers due to longer life, fewer emissions, minimal maintenance and increased energy savings.

Objectives FY 05/06

- Eliminate all CRT monitors in all public areas by the end of the year.

City Manager's Office:

- Explored sustainability purchasing with emphasis on packaging.

Objectives FY 05/06

- Encourage and train vendors in sustainability packaging.
- Review equipment replacement guidelines to include sustainability features; i.e., duplexing printers and fax machines.

Land Use Planning

Public Works:

- Integrated stormwater run-off into landscape/parking lot design.
- Completed the multi-modal path along the Willamette River as a commute link from south town.
- Completed bike lane installation on Rivergreen and Goodnight Avenues.

Community Development:

- Completed Land Development Code Phase III Update resulting in a comprehensive program which protects key resources including drainage ways and other naturally functioning systems within the Corvallis Urban Growth Boundary.
- Presented the Erosion and Sedimentation Control Ordinance for Council approval.
- Completed public comment and Council approval of the Natural Features Inventory and related code implementation, inventorying wetlands, tree groves, riparian corridors, floodplains, and hazards such as landslide areas and fault zones within the Urban Growth Boundary.

Objectives FY 05/06

- Implement Natural Features Project.

Green Building Practices

Public Works:

- Examined green building practices in renovation of Madison Avenue Building and the LEED rating system for sustainable operation of existing structures.
- Refurbished bus shelters donated from Lane Transit District, saving over \$5,000 per shelter in addition to the resources that would have gone into manufacturing new shelters.
- Replaced bus shelter benches with material made from recycled plastic.
- Distributed 369 high-efficiency washing machine and toilet retrofit rebates to encourage water conservation.
- Provided 64 residential water audits to ensure the efficient use of water.
- Staffed water conservation and water pollution prevention booth at DaVinci Days and Earth Day celebrations, Hewlett-Packard's Earth Day Fair, Corvallis Environmental Center's Earth Day Fair and Lincoln School Environmental Fair.
- Taught soil and water conservation class at Corvallis Outdoor School.
- Published annual water quality report.
- Developed water conservation window display at the Corvallis Environmental Center.
- Coordinated the use of the Enviroscope (tm) model for use by Franklin School. The model teaches about surface and groundwater pollution and best management practices.
- Submitted a proposal to Oregon Department of Environmental Quality for a demonstration project on graywater reuse for irrigation of non-food residential landscapes.
- Monitor 2.5 miles of Willamette River through Corvallis.

Community Development:

- Initiated the Green Building program, by starting an informational website.
- Began discussions with the Housing Division on broad vision for incorporating sustainability and green-construction practices into the housing program.
- Examined green building practices in renovation of existing structures and the LEED rating system for sustainable operation of existing structures.
- Explored requirement to include sustainability criteria in proposal under review and approval of housing grants or loans.

Parks & Recreation:

- Installed motion activated electricity and water in restrooms in both indoor and outdoor facilities

Library:

- Installed automatic faucets in public restrooms to save water.

Green House Gas Emissions

Public Works:

- Increased transit ridership to an estimated 530,287 rides during FY 04/05, surpassing the old record of 525,021 set back in FY 01-02.
- Purchased two hybrid motor vehicles.
- Completed facility upgrade at disinfection building to reduce natural gas consumption.
- Used waste bio-gas to power a new 65 KW Stirling engine to offset a portion of the waste water plant electrical needs.
- Installed 76 LED green traffic signal lamps and received a \$3,800 Energy Trust incentive payment.

- Used dump trucks more efficiently by back-hauling aggregate material to Public Works reducing the number of trips.
- Reprogrammed the waste water digester methane gas burner pilot flame to substantially reduce natural gas consumption.
- Installed additional photo cells on exterior lights at plants and offsite facilities.
- Installed variable frequency drive and/or premium efficiency motors for all upgrades or replacements.
- Performed an analysis to determine the most efficient use of energy to power pumps at Baldy Reservoir.
- Used laptop computers to monitor Rock Creek Water Treatment Plant operations to eliminate unnecessary vehicle trips.

Objectives FY 05/06

- Examine use of waste hot water from Stirling engine project to heat and cool Public Works administrative and equipment repair facilities to offset natural gas needs.
- Complete lighting upgrade for Public Works administrative and equipment repair facilities.
- Continue conversion of traffic signal fixtures to LED including ODOT signals maintained by the City.
- Perform energy audit of HVAC system at Taylor Water Plant.
- Complete upgrade of high service pumps #5 and #7 with high-efficient electric motors, pumps and VFDs to reduce energy consumption.
- Install an LED streetlight to study effectiveness and energy efficiencies of LED lights.

Community Development:

- Evaluated purchase of two alternative fuel vehicles (gas/electric/biodiesel).
- Made department's teleconferencing capabilities sufficient to conduct meeting involving outside agencies and/or consultants.
- Increased energy efficiency in nearly 50% of Housing rehabilitation projects.

Parks and Recreation:

- Evaluated effectiveness of liquid pool cover system.
- Purchased insulated pool blanket for small indoor pool to further reduce heat loss.

Objectives FY 05/06

- Work with the Public Works Department and the Energy Trust of Oregon to conduct analysis of Osborn Aquatic Center to identify energy conservation opportunities to reduce natural gas and electrical consumption.
- Establish a lights-off policy to turn off lights in all non-essential, unused work areas.
- Apply slightly tinted windows in the office areas to assist in temperature control.
- Evaluate effectiveness of liquid pool cover system, purchase insulated pool cover for large pool if necessary.

Library:

- Used biodiesel fuel in Bookmobile.
- Continued ongoing energy saving program of replacing lighting fixtures & tubes.
- Adjusted heating/cooling to decrease electricity use.
- Replaced courier van—new vehicle gets better mileage and uses biodiesel fuel.

- Placed photocopiers in automatic energy saving mode when not in use.

Objectives FY 05/06

- Look for new ways to save energy through building maintenance and improvements.
- Improve bookmobile schedule stops based on geography to minimize mileage and fuel consumption and increase efficiency.

City Manager's Office:

- Participated in Employee Transportation Committee activities to promote alternative transportation (Emergency Ride Home Program, Try Transit Week).

Solid Waste Management

Public Works:

- Reused waste building materials through used building material store owned and operated by Benton Habitat for Humanity, materials will be sold for reuse with the proceeds used to build housing for low-income families.
- Reused paper (one-sided) for petty cash slips to avoid purchasing paper tablets.
- Donated day-brite exterior lamps, reflectors and fluorescent ballasts to Habitat for Humanity.
- Defaulted department printers to print on both sides to further reduce paper consumption.
- Improved recycling in garage area to increase employee participation.
- Recycled used brass meters, copper, and ductile iron
- Recycled wooden pallets accumulated at Public Works by donating them to the Habitat for Humanity resale site.
- Recycled 200 gallons of used asphalt tac-oil through a recycling contractor.
- Recycled over 120 aluminum signs - contractor removes sign facing and we put back into use.

Objectives FY 05/06

- Research new methods for waste reduction, separation, and reuse.
- Work with Corvallis Disposal to establish a consumer battery recycling location.

Community Development:

- Purchased large format electronic scanner to help store large format documents (plan review sets, plats, etc.) resulting in fewer paper documents.
- Purchased small and large format scanners to move the department towards full customer access to electronic documents.
- Improved on-line access to planning documents and Planning Commission staff reports.
- Purchased hand-held field inspection units to eliminate up to 20,000 paper forms per year.
- Recycled comb bindings from incoming documents and returned to Kinkos for recycling.
- Made Housing Program planning documents available on-line.
- Worked on Permit Tracking System improvements to allow automatic email notification and plan review comments to customers.

Objectives FY 05/06

- Continue working on implementation of E-connect, to allow customers to access on-line application forms for certain types of building permits.

Parks and Recreation:

- Installed additional recycling/composting mega-trash containers in parks.
- Developed procedures that encourage facility renters to recycle.
- Encouraged Majestic Theater, Art Center, and Boys and Girls Club to recycle.

Objectives FY 05/06

- Require renters of park buildings (Senior Center, Tunison Community Center, and Walnut Park facility) to recycle waste.
- Use recycled paper products in park buildings including paper towels and toilet paper.
- E-mail staff regarding dates for Corvallis Disposal household hazardous waste collection events.
- Use recycled materials & supplies in recreation and teach-in programs.

Police Department:

- Placed recycling containers through-out department to encourage recycling.
- Placed collection boxes for batteries to take to approved drop-off site.
- Initiated a paperless Records Management System

Fire Department:

- Reused paper (one-sided) in fax machine.
- Used on-line testing to eliminate need for paper tests.
- Shared on-line survey software with CMO for recent personnel surveys to save paper.

Library:

- Recycled photocopier toner and printer cartridges and purchased refilled cartridges.
- Recycled discarded library books to Friends of the Library for their book sale.
- Recycled discarded library books to OSU paper recycling.
- Installed automatic paper towel dispensers in public restrooms to decrease waste.
- Used recycled materials in crafts programs (egg cartons, TP tubes, etc.).
- Reused donated plastic and paper grocery bags for patrons to carry their items home.
- Donated eight cartons of dot-matrix printer paper to 509J School District for reuse.
- Cleaned and repaired approximately 150-200 CDs and DVDs per month reducing disposal by 50%.
- Used recycled book boxes during for weeding and moving materials to the new Alsea Library.
- Reused children's books removed from the library collection by adding to C.A.R.E. kits.
- Reused discarded parenting and children's magazines at Lincoln Health Center and Community Outreach.
- Created area in the Philomath library for the public to reuse and exchange magazines brought from home.
- Reused and updated existing library cards instead of issuing a new ones.
- Reused small boxes and large envelopes for mailing books for Inter-Library loans.
- Recycled packing peanuts with a local mail store for reuse.
- Implemented a self-service perpetual book sale area using books donated to the Friends of the Library that are not needed or suitable for other book sales.
- Reused poster board for new posters.
- Switched from cardboard boxes to plastic bins to transport books between branches.
- Donated obsolete receipt printer paper rolls to the Multnomah County Public Library.

Objectives FY 05/06

- Work with the Friends of the Library to resell as many discarded books as possible.
- Give discarded materials to a variety of community organizations throughout Benton County, i.e. Monroe Middle School, Jackson Street Youth Center, and Community Outreach.
- Continue to recycle discarded books through OSU or Corvallis Disposal.

City Manager's Office

- Started a "compost" bucket for coffee grounds, tea bags, and other organic materials.
- Studied providing electronic council packets to reduce paper consumption.
- Provided a container for glass and pop can collection.
- Increased the amount of information on City Web site to decrease paper copies.
- Initiated City Archives, a web link for public access to the City's electronic files.

Objectives FY 05/06

- Expand information available on the City's Web site to reduce printing volume.
- Maximize use of email to reduce mailing of hard copy letters and/or materials.
- Implement electronic version of monthly employee newsletter, Read & Recycle, for Intranet and/or email distribution.
- Install computers in employee break rooms so that all employees have electronic access to Intranet information, such as Read & Recycle, wellness programs, etc.
- Implement on-line recruitment and employment application system.
- Explore electronic employee evaluation system.
- Evaluate electronic authorization and approval systems to reduce paper usage, employee time, and fuel consumption.
- Encourage duplex copying of employee evaluations (until electronic version is available) and attachments.
- Encourage and train vendors to reduce paper volume by sending electronic invoices and backup information. (Currently, CMO electronically processes background check invoices, PERS retiree medical premium billings, and all benefit enrollments and changes.)
- Explore electronic system for processing Personnel Action Forms, reducing paper usage, employee time, and fuel consumption.
- Utilize commingled recycling.
- Recycle all glass, tin and plastic containers, as well as newspapers.

Toxics and Persistent Biotoxins

Public Works:

- Conducted water pollution prevention awareness and educational classes in the local area.
- Used Ascorbic Acid (Vitamin C) to dechlorinate water that is flushed from our water system although less expensive but environmentally harmful chemicals are available (e.g. sodium thiosulfate).
- Installed an improved sodium bisulfite analyzer at the Taylor Water Plant to allow much tighter control of the chemical feed which has reduced chemical consumption by 30%.
- Use environmentally "Earth Certified" janitorial supplies in all City facilities.

Objectives FY 05/06

- Examine environmentally friendly chemicals for use in field operations.

Community Development:

- Addressed lead hazard removal in nearly 50% of Housing rehabilitation projects.

Fire Department:

- Purchased cleaning chemicals that are "Sustainable Earth Certified".

City Manager's Office:

- Used biodegradable dish soap in employee kitchen area.

Miscellaneous

Library:

- Co-sponsored two programs with Oregon Natural Step Network, "Lessons in Hope and Sustainability in Curitiba, Brazil" detailing sustainability efforts in transportation, waste management and social programs and "Sustainability By Design, An Architect's Perspective."
- Staffed a booth at Hewlett-Packard's Sustainability Fair to promote Library resources and services related to environmental topics.

Objectives FY 05/06

- Co-sponsor programs on sustainability with local organizations.

City Manager's Office:

- Created large poster "advertising" sustainability efforts at the City to be used at Government Comment Corner and at other meetings throughout the year.
- Published articles in the City newsletter promoting sustainability concepts, such as water quality and conservation, recycling, hazardous waste disposal, natural features project, and transportation alternatives.

CONCLUSION

The information submitted by each department demonstrates staff's commitment to incorporate sustainable practices into ongoing organizational operations. The Public Works Department is also in the process of hiring a consultant to review organizational sustainability practices and to develop recommendations to facilitate sustainable efforts going forward. A thorough analysis should be completed prior to the end of the calendar year.

RECOMMENDATION

This report is for information only, no Council action is necessary.

Review and Concur:

Jon S. Nelson, City Manager