

CITY OF KIRKLAND

CLIMATE PROTECTION UPDATE II

**Based upon the U. S. Mayors Climate Protection Agreement endorsed by
the City of Kirkland on May 17, 2005**



April 19, 2007

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INTRODUCTION

Climate disruption is an urgent threat to the environmental and economic health of our communities. With less than 5% of the world's population, the United States produces more than 25% of the global greenhouse gas emissions, and those emissions are continuing to grow. On February 16, 2005 the Kyoto Protocol, the international agreement to address climate disruption, became law for the 169 countries that have ratified it to date and the United States is not among them. For 38 of the countries with the most advanced economies, the Protocol sets binding legal commitments to reduce greenhouse gas emissions on average 5.2 percent below 1990 levels. If the United States had ratified the Kyoto Protocol our nation would be required to reduce greenhouse gas emissions by 7% below 1990 levels by 2012.

Seattle Mayor Greg Nickels, along with a growing number of other U. S. mayors, lead the development of the U. S. Mayors Climate Protection Agreement. On May 17, 2005, Kirkland City Council signed a resolution endorsing the *U. S. Mayors Climate Protection Agreement*. As of March 1, 2007, 413 mayors throughout the United States have signed the Climate Protection Agreement, including those from 21 Washington cities (see Exhibit 1). In signing the resolution, the City of Kirkland pledged to accept the Agreement's three main parts:

- a. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;
- b. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that includes 1) clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and
- c. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution (reduce greenhouse gases to 7% below 1990 levels) by taking actions in our own operations and communities, particularly in the areas described in this report.

Signing the resolution continued a long-standing tradition of environmental stewardship in Kirkland. For over 20 years, the City has implemented various policies, regulations, and programs to protect the natural environment. In 2000, an interdepartmental team was formed to coordinate all of the City's actions for managing Kirkland's natural environment. In 2003, the City Council adopted the *Kirkland Natural Resource Management Plan*, which comprehensively summarizes best management practices and principles, Kirkland's natural resource management objectives, and recommended implementation strategies.

This progress report summarizes the actions Kirkland has taken that pertain to the 12 actions outlined in the *U. S. Mayors Climate Protection Agreement*. Since many of the 12 actions are also addressed in the Natural Resource Management Plan (NRMP), the corresponding NRMP Implementation Strategy (see NRMP, Page 48) and NRMT 2006 Work Program tasks are cited below.

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1. U.S. MAYORS CLIMATE PROTECTION AGREEMENT: ACTION LIST

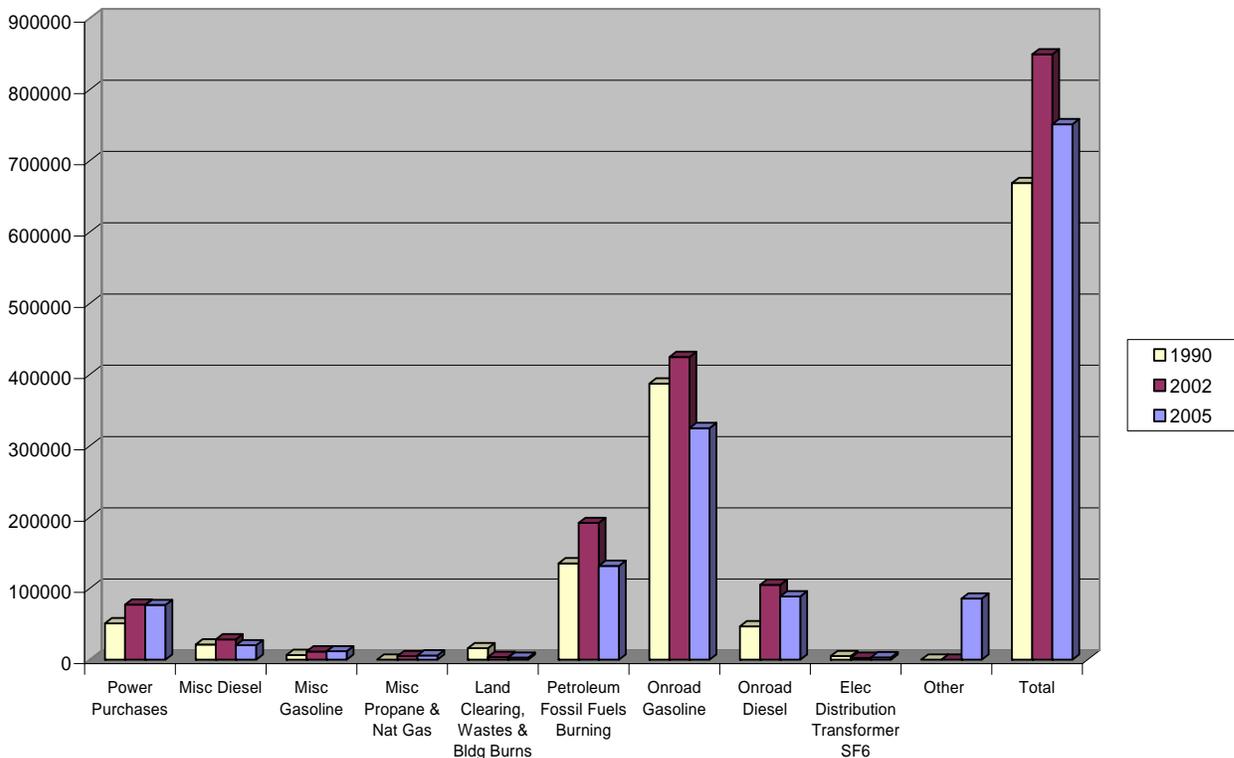
Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.

The Natural Resource Management Plan discusses climate change beginning on Page 43, under the heading of Sustainability and Human Activities: Air Quality, Climate Change, and Energy Use.

COMMUNITY INVENTORY

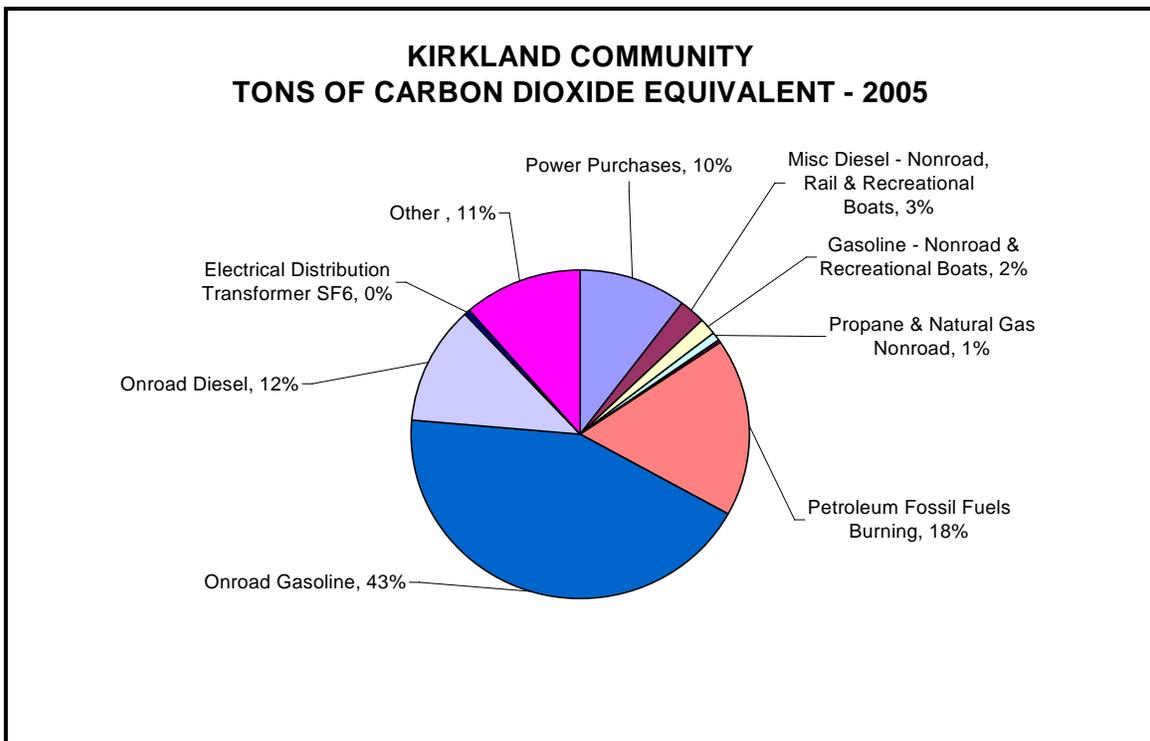
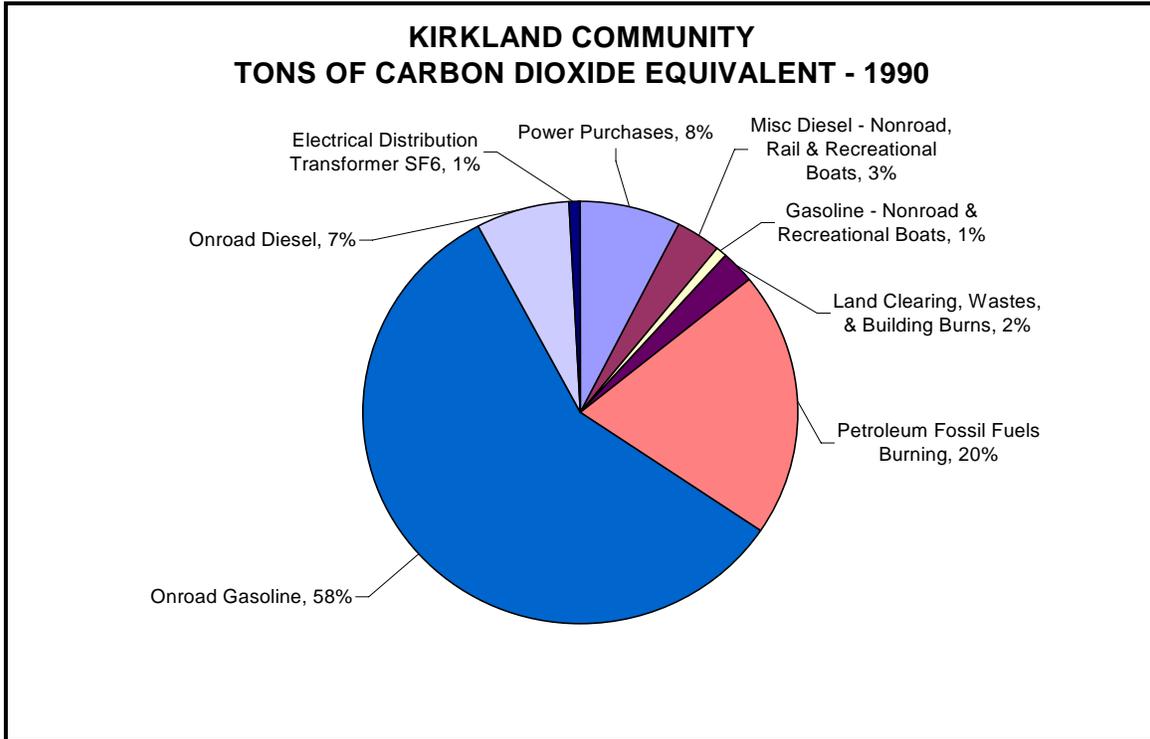
In order to conform to the *U. S. Mayors Climate Protection Agreement ("Mayors' Agreement")*, Public Works staff met with Puget Sound Clean Air Agency staff to determine how to measure Kirkland's greenhouse gas emissions and develop reduction targets. Based on Kirkland's number of households and Vehicle Mile Traveled (VMT) for 1990 and 2002, the Agency assisted in extrapolating Kirkland's emissions inventory as a percentage of King County's. It was later determined that city-specific VMT is difficult to determine and economic activity is a better measure of vehicle emissions within a city. According to the Census Bureau, Kirkland generates 4% of the business income in King County and has about 3% of the households. Using households and economic activity, the figures below describe citywide emissions information for 1990, 2002, and 2005. Using this updated information, Kirkland's Total Carbon Dioxide Equivalent had *increased* 27% from 1990 to 2002 (see Exhibit 2 for the data). The 2005 inventory completed recently shows significant improvement, a 12% decrease from 2002 and a 12% increase from 1990 levels. The goal is to see a reduction of 7% from 1990 levels.

KIRKLAND COMMUNITY - CARBON DIOXIDE EQUIVALENT (TONS)



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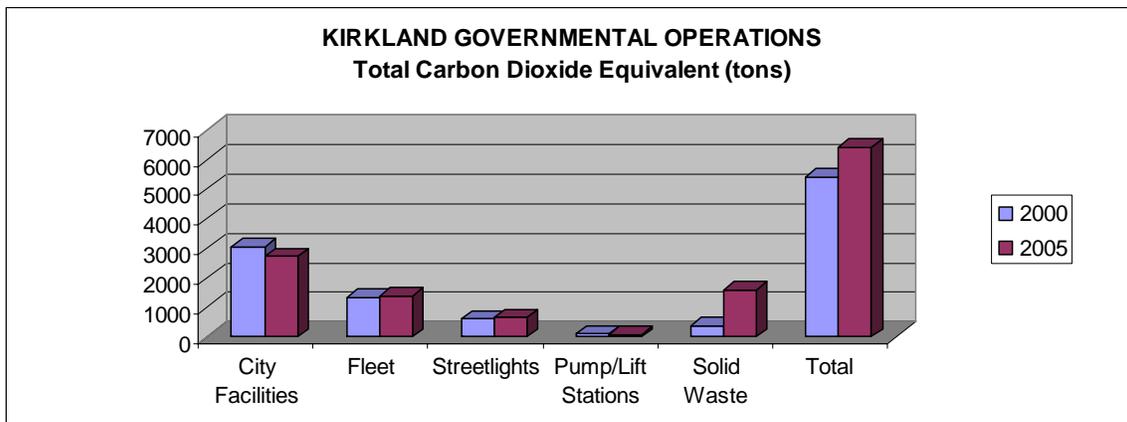
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GOVERNMENT OPERATIONS INVENTORY

By signing the *Mayors' Agreement* we also committed to conducting an inventory of the emissions generated by Kirkland's governmental operations. In 2006, Kirkland joined International Council for Local Environmental Initiatives (ICLEI) to enlist their help in this task. Members of the NRMT/Green Team as well as other staff, Councilmember Hodgson, and former Councilmember Nona Ganz met with a representative from ICLEI in November to gain a better understanding of the organization and how we will work together to accomplish the goals of the *Mayors' Agreement*.

Staff utilized ICLEI software and data collected from utility bills and other sources to collect and analyze GHG data for 2000 and 2005. Although the *Mayors' Agreement* refers to the Kyoto Protocol targets (reductions from 1990 levels), information from 1990 was not readily available. According to ICLEI, other organizations with the same issue are using the year 2000 as a base year. As of 2005, Kirkland's Governmental Operations Emissions had increased almost 19% from 2000. Governmental Operations Emissions are described in the graph below and raw data is available in Exhibit 2.



NEXT STEPS

There are five milestones to reduce greenhouse gas emissions throughout the community:

1. Conduct a greenhouse gas emissions inventory and forecast to determine the source and quantity of greenhouse gas emissions in the City;
2. Establish a greenhouse gas emissions reduction target;
3. Develop an action plan with both existing and future actions which when implemented will meet the local greenhouse gas reduction target;
4. Implement the action plan; and
5. Monitor and report progress.

Kirkland has accomplished the first milestone. Staff will develop recommendations for reduction targets and present an update to Council by August of 2007. An action plan will be developed from the reduction targets set by Council.

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2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities.

NRMT 2006 Work Program – All Tasks Support GMA Goals

The Washington State Growth Management Act (GMA) requires that Kirkland adopt and enforce land use policies and regulations to reduce and prevent sprawl, preserve open space, and create a compact, urban community. In compliance with the GMA, and indeed before the GMA required it, Kirkland implemented policies and regulations to accomplish those objectives. These are contained in the City's GMA Comprehensive Plan and codes. This year Kirkland's non-motorized plan will receive its second full revision since it was first adopted in 1995. The plan is intended to serve as a guide for planning, constructing, operating and maintaining non-motorized facilities.

Contact: Paul Stewart (GMA) and David Godfrey (Non-Motorized Transportation Plan)

3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling, and public transit.

NRMT 2006 Work Program – Task 20: Enhance Transportation Demand Management (TDM) Activities

The City of Kirkland provides all its full-time benefited employees annual bus passes to encourage the use of transit. All new employees are informed of the City's TDM program. In 2006, the City participated in several METRO transportation promotions such as Ride Share Online, Wheel Options and Commuter Challenge Program; and in conjunction with those promotions, the City offered several financial incentive programs to get more employees to use alternative commutes such as carpool, bus, vanpool, bicycling and telecommuting. The City also participated and supported the national Bike to Work Month event and had a record number of City employees participating in biking to work. The City also has a guarantee ride home incentive in its TDM program. The City is continuing to work in partnership with METRO to maintain and enhance the City's TDM activities, including complying with the State's Commute Trip Reduction law.

The City also participates in programs that reach out to the community. The City contracts with METRO to manage the programs at employer sites that are affected by Commute Trip Reduction (CTR) requirements. Also, all office buildings with 50,000 square feet are required to have a Transportation Management Plan which the City helps employers establish. In addition to participating in Bike to Work Month as individual employees, the City helps promote the statewide event encouraging (through prizes) citizens throughout the state to try riding their bikes to work during May. In the event, the City staffs one of the bike stations during the official "Bike to Work Day." The purpose of the station is to provide support for those that bike to work, to provide information on biking and safety, and to promote alternative transportation. This year, the City will be working to comply with Washington's new CTR law. This will require a complete re-examination of our existing plan. We are also planning to create a Growth and Transportation Efficiency Center (GTEC) in the Totem Lake neighborhood. The standards for performance in the GTEC area will be higher than in the rest of the City.

Contact: David Godfrey

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NRMT 2006 Work Program – Task 21: Encourage City Employees to Use Alternative Transportation during Workday

Employees are encouraged to use the bus, carpool, or teleconference instead of driving to business meetings during the workday.

Contact: David Godfrey

4. Increase the use of clean, alternative energy by, for example, investing in “green tags”, advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology.

The specific examples described in Action 4 are more typically handled on a bigger scale, i.e. by King County. See Actions 5 and 6 (below) for actions Kirkland has taken which generally fall under the broader umbrella of Action 4.

5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money.

NATURAL RESOURCE MANAGEMENT PLAN–Sustainability and Human Activities, beginning on Page 43

As part of Kirkland’s review of building permits, staff checks for compliance with the 2003 Washington State Energy Code as mandated by the state. This is one of the strictest energy codes in the country with respect to building envelope requirements (insulation R-values, window and door U-factors), mechanical equipment efficiency requirements and allowed power consumption for lighting in non-residential buildings.

Contact: Tom Jensen

The City has been gradually replacing older light fixtures with energy efficient fixtures and lamps in partnership with Puget Sound Energy who has a rebate program for this work. So far, light fixtures at three fire stations and the Maintenance Center have been replaced. Exit signs have also been replaced with energy efficient LED versions at City Hall and the Maintenance Center. The replacement of light fixtures at the North Kirkland Community Center is scheduled to occur in 2007.

Along these same lines, the City’s signal shop is replacing incandescent street lamps with more energy efficient LEDs. The signal shop is also introducing inductive lighting technologies to some of the street light applications. This should result in great longevity for the street lights and reduced power consumption.

When the City sought a new vending machine service in 2005, energy efficient machines were a requirement of the Request for Proposals. Once the vending machines were in place, staff had Puget Sound Energy install VendingMiser devices on the machines. The VendingMiser devices power-down the

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machines when no one is in the room. (These devices were provided to the City by Puget Sound Energy at no charge.)

Energy efficiency and “right-sizing” are criteria taken into consideration when Public Works purchases equipment such as pumps, generators, etc. and Public Works is purchasing low-smoke oil to be used in power tools that require mixed gas.

The City has also evaluated opportunities for water conservation. The Public Grounds division, which is responsible for landscape maintenance at City facilities, medians, various sites in the Central Business District, paths and trails and ROW trees, purchased 7 Weathermatic Smartline irrigation control clocks and weather stations. Smartline calculates evapotranspiration in real time based on actual weather readings monitored 24 hours a day. In addition, it takes into consideration the types of sprinklers, plants and soils to calculate run times. Our plan is to identify feasible sites each year and utilize a portion of available budget to purchase and install these new controller systems. To date, four are fully installed at City Hall, Maintenance Center, Fire Station 26 and the Carillon Point triangle. Additionally, clocks have been installed at 108th and 85th Gateways and “the Bunnies” with plans to complete the installation with the remaining weather stations this year. Staff is also incorporating these efforts into specifications for developers contracting with the City for City-maintained sites.

Contact: Erin Leonhart and Wendy Kremer

6. Purchase only Energy Star equipment and appliances for City use.

NRMT 2006 Work Program – Task 22: Green Purchasing Practices

The City has been replacing its old copiers with Energy Star compliant Canon multifunctional devices.

The flat screen monitors that are being purchased with our computers are more energy efficient than the conventional monitors we’ve purchased in the past. While the desktop computers we’ve been purchasing all have a sleep mode, they do not appear to be Energy Star compliant. We have become aware of an option to order Energy Star compliant Dell computers and we will take a closer look at that option when we place our next order for computers. (We need to determine the impacts to cost and delivery time.)

Contact: Shelli Craig

The City is continuing its on-going efforts to purchase energy efficient and renewable technology products and services as a part of its regular purchasing activities. In 2005, Fleet launched a program and since has completed refurbishing the beds of three major equipment trailers. Instead of normal lumber, Fleet utilized “rumber” decking material which is made from 100% recycled automobile tires.

Contact: Tim Llewellyn

7. Practice and promote sustainable building practices using the U. S. Green Building Council’s LEED program or a similar system.

NATURAL RESOURCE MANAGEMENT PLAN – Sustainability...Additional Response Actions, Page 45
NRMT 2006 Work Program – Task 2: Public Involvement and Education

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NRMT 2006 Work Program – Task 22: Green Purchasing Practices

Practicing Sustainable Building Practices:

The City of Kirkland's Facilities were all built before the LEED program was established. In future construction or major renovation projects, sustainable building practices will be included, per Council direction.

Promoting Sustainable Building Practices:

In December of 2004 Kirkland held a community lecture event to explore the application of low impact development (LID) techniques and practices. A panel of expert speakers provided some ideas and examples of what LID is and how it works. The City participated in a grant from the Puget Sound Action Team along with several other cities to analyze potential changes to codes and standards to promote LID techniques.

Contact: Paul Stewart or Jenny Gaus

Public Works oversees public education and involvement efforts on an on-going basis, including production and distribution of a storm water newsletter, a storm drain stenciling program ("Dump no waste, drains to stream"), the salmon watcher program, and informal education of residents and business owners when storm water infractions occur.

Contact: Jenny Gaus

The Building Department promotes sustainable building practices by posting notices about up-coming "green" events at the front counter. The Planning and the Building Departments are working together to develop programs to support and promote sustainable "green" building practices. Staff is researching incentive programs and obstacles that exist in State or local codes. Public Works will obtain Green Home Remodeling Guides from King County for homeowners. The Guides show specific issues and strategies involved in environmentally-friendly home remodeling projects.

Contact: Tom Jensen and David Barnes

8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel.

NRMT 2006 Work Program – Task 23: Alternative Fuel for Fleet

The City is continuing its on-going efforts to increase the average fuel economy of the fleet, including continuing to transition to "alternative fuel" vehicles (e.g. electric, hybrid, biodiesel, etc.) whenever feasible. After obtaining eight bi-fuel (CNG/unleaded gasoline) vehicles, the City purchased its first Toyota Prius hybrid car in 2003 for use by the Public Works Department. Since then, two additional Prius sedans have been added for use by Fire Prevention (2004) and the Planning Department (2006). The Building Department has also purchased three Ford Escape Hybrids for use by inspectors (2006). The Public Works Department has begun using an all electric truck Neighborhood Electric Vehicle (NEV) for the water

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meter reader (2007). For 2007, a hybrid Ford Escape has been ordered for use as the Fire Chief's emergency vehicle response vehicle as well as a hybrid Ford Escape and a Toyota Camry for use by the Police Investigations Division. It is likely that the City's first biodiesel (B99) vehicle will be purchased in March, 2007. It is a converted 2005 Volkswagen Passat Wagon to be used by the Planning and Community Development, particularly the Code Enforcement Officers.

Diesel retrofit programs have been investigated by the Fleet Supervisor and involve oxidation catalysts and particulate filters. Oxidation catalysts require high engine temperatures which are not reached by City vehicles due to the limited usage.

Contact: Tim Llewellyn

NRMP 2006 Work Program – Task 24: Use Better Diesel in Fleet

The EPA has required all oil companies to produce ultra low sulfur diesel (ULSD) in 2006 which contains 15 parts per million, a dramatic reduction over low sulfur diesel (LSD) with 500 parts per million. ULSD is being required for all diesel engines beginning with 2007 models. In October, 2006, the City began using ULSD to run all our pre-2007 diesel engines, in addition to the required post-2007 model diesel engines.

Kirkland is a charter member of the Puget Sound Clean Cities Coalition, which works to develop alternative fuel sources in the Puget Sound Region. On the Coalition's work plan for 2004 is market development for biodiesel fuel by opening an in-state facility and by obtaining assistance in implementation of biodiesel through research and technical assistance. The Coalition's Strategic Plan for 2004 – 2008 features continued efforts to promote biodiesel availability. The goal is to develop the market so that ultra-low sulfur and biodiesel fuels will become available and affordable, since their use would cut toxic emissions from diesel vehicles. In accordance with federal mandates, City generators switched to exclusive use of ULSD in October 2006.

Contact: Tim Llewellyn

Other Vehicle Emission Reduction Efforts

Waste Management, the City's hauler, uses ultra low sulfur diesel in all of its operations within the City or other low-emissions fuels as approved by City staff. The fleet of collection vehicles was retrofitted with particulate traps thereby further reducing emissions up to 90% from previous levels.

Contact: Erin Leonhart

9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.

NATURAL RESOURCE MANAGEMENT PLAN – Water is discussed on Pages 33 – 40

Through scheduled upgrades of the water and wastewater infrastructure, the City replaces older, fixed-speed pumps with energy-efficient pumping mechanisms equipped with sophisticated drive and control

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systems (Lakeshore Plaza Sewer Pumps (2005/2007), 650 Zone Water Pump Station (2004) and the Waverly Beach Sewer Lift Station (2006/2007)). In the past, the City has also successfully eliminated wastewater lift stations (10th Ave S (1995), Lake Ave W (2001), 90th St/Costco (2003), Juanita (2003/4)) and is currently in the planning stage for the removal of another (Trend) through the construction of gravity sewers. The elimination of these sewer lift stations results in a significant lowering of the City's overall energy needs.

Recovery of methane for energy production is done at a different level, i.e. by King County.

Contact: Dave Snider

10. Increase recycling rates in City operations and in the community.

NATURAL RESOURCE MANAGEMENT PLAN – Reduce Solid Waste through City Programs and Services, Page 43

The City has had a long standing practice of ordering recycled copy paper and janitorial paper products. Recycled paper is also typically specified when ordering printed letterhead, envelopes, forms and other printed materials. Many of the office supply items (folders, envelopes, notepads, etc.) that are ordered have at least some recycled content. Remanufactured toner cartridges are ordered for City printers when they are available. Olympic Office Supply collects our empty toner cartridges and returns them to the toner remanufacturer.

City staff will continue to work with Olympic Office Supply and other suppliers to seek opportunities to purchase recycled and recyclable products.

Contact: Barry Scott

A Battery Recycling Program was approved in the 2007-2008 budget process. This program is currently under development and will be extended to the community in 2007.

Contact: Erin Leonhart

NRMT 2006 Work Program – Task 16: New Recycling Approach

The City Council established performance measures for the Solid Waste Utility in 2002 that set the residential recycling diversion rate at 52% and average pounds of garbage per household/week at 33 pounds. In the second half of 2003, a new solid waste contract expanded curbside collection services to include 100% commingled recycling (paper, plastic, glass, metal all in the same container) as well as the collection of electronic waste and reusable textiles at the curb. Food waste recycling was also added to the yard waste cart for the first time. Kirkland single-family residents have surpassed both of the objectives set by Council for the third year in a row, likely as a result of rate incentives and the major innovative changes to the solid waste contract. Single-family residents diverted an average of 62% of their total solid waste stream each week and disposed of an average of 26 pounds of garbage per household/week during 2006 (these figures do not include the 1½ tons of electronics collected in the average month; electronics are collected separately from commingled recycling).

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In 2006-2007, grant funds from the King County Solid Waste Division and the Washington State Department of Ecology will be targeted at multifamily (currently 17%) and business (currently 12%) outreach to help achieve higher recycling diversion rates in these sectors where participation rates are high, but diversion remains a challenge.

The multifamily recycling diversion rate for 2006 is 17% (up from 14% in 2003), and the diversion rate for businesses is 11% (up from 8% in 2003). Actual business rates are presumably higher because only Waste Management is required to report tonnage to the City, and businesses may recycle with any hauler they choose. Outreach to promote recycling in 2007 will include free assistance and presentations from the City for program development, newsletters, brochures, displays at public forums and collection of difficult to recycle items at one-day recycling events. The City will promote the message of easier, commingled recycling as well as unlimited recycling for multifamily residents and free recycling of up to 150% of garbage container size for businesses (with the City's contracted hauler, Waste Management). Paper is one of the largest remaining segments of untargeted recyclable material, second only to organics, in the commercial waste stream.

Contact: Erin Leonhart

NRMT 2006 Work Program – Task 17: Collect Food Waste/Organics

The new solid waste contract developed in the second half of 2003 included a provision for residential curbside food waste collection. Residents may now recycle food waste with yard waste in the City-provided carts with rodent-detering lids. This has the potential to divert a significant portion (26%) of the waste stream from the landfill. A 2005 survey of 400 Kirkland residents indicates approximately 25% of single-family households are participating in food waste recycling. Continuing educational efforts in 2007 will target increasing food waste recycling with the associated benefit of turning this commodity into compost as opposed to the cost of burying it at the landfill or treating it in the sewer system.

In December, 2004, the City Council approved budgeting \$20,000 from the solid waste utility for a yearlong pilot commercial organics (food waste) recycling program. Twenty-eight businesses in the Totem Lake area participated in the program and they diverted 98 tons of organic materials. Beginning in 2007, Council approved a solid waste rate increase for a citywide Commercial Organics Recycling Program wherein organics producing businesses may divert their food waste from the landfill. The City will provide onsite technical assistance and up to two 64 gallon carts emptied twice each week for no additional cost beyond the current rate. The program is expected to divert 465 tons of organic materials from the landfill in its first two years. Juanita Elementary School began foodwaste recycling on February 12, 2007, and their Resource Conservation Manager predicts the school will save 25% on their garbage bills each month as a result of this program.

Contact: Erin Leonhart

NRMT Work Program – Task 18: Special Collection Events

The two annual (spring and fall) residential recycling collection events and one annual business recycling collection event provide an opportunity to drop off items that can be recycled but are not collected as part of the weekly curbside collection (e.g. tires, appliances, vehicle batteries, toilets, sinks, etc.). These events are dependent upon grant funding from King County and Washington State. In 2006, 1,254

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residents and 166 businesses diverted nearly 113 tons of recyclable materials from the landfill in 3 daylong events.

Contact: Erin Leonhart

NRMT 2006 Work Program – Task 19: Sell Compost Bins and/or Rain Barrels

In the past, the City sold compost bins and rain barrels to encourage resource conservation. These items were purchased with grant funds from the King County Solid Waste Division and the Washington State Department of Ecology. Currently the City participates in Northwest Natural Yard Days (NNYD) in April/May and September. NNYD is a regional partnership with retailers and other jurisdictions offering discounts on products such as mulching mowers, compost bins, and soaker hoses. Compost bins are sold online at a reduced cost. NNYD also promotes education in planting correctly for the area and reducing pesticide use.

Kirkland will again be sponsoring the Natural Yard Care Neighbors program in 2007. This year's program will target the South Rose Hill and Bridle Trails neighborhoods but is open to all Kirkland citizens. The program comprises of a series of 3 evening seminars focusing on how to maintain and improve your yard using methods that manage pests without harmful chemical pesticides, reduce water usage, and build healthy soil.

Contact: Jenny Gaus

11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb carbon dioxide.

NRMT 2006 Work Program – Task 2: Public Involvement and Education

The Green Kirkland Initiative was introduced in 2005 and will be continuing in 2007. The program includes gauging the extent of Kirkland's tree canopy and removing harmful invasive plants in City parks. To begin, the focus is on Carillon Woods. In addition to direct benefits to the urban forest, the public is engaged in and informed through these efforts. The City has worked in partnership with the Cascade Land Conservancy on this initiative. It is part of a larger effort to assess the City's forested parklands to determine the extent of restoration needed within the City and to assist in developing a strategy to increase the City's tree canopy.

Contact: Jennifer Schroder

South Rose Hill Neighborhood was awarded a Neighborhood Connections grant to plant at least 50 trees in the rights-of-way in 2006. The City's public tree inventory will help to identify empty spaces in which to place the trees. Additional funds have been set aside to have another city-wide tree planting program to plant at least 100 large-sized trees in public areas (similar to the Centennial Tree Program of 2005).

In 2006, 1,281 trees of all varieties (Dogwood, Ash, Willow, Fir, Pine, Spruce, etc.) were planted in Forbes Lake Park with the DOT wetland mitigation project on 124th.

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Through the Centennial Tree Program of 2005, the Parks Department purchased and or moved over 300 trees and also bought supplies to increase the survival of the plantings. Improvements were made throughout the City's Park system, from waterfront and community parks to wetlands and sensitive areas such as Juanita Bay, Woodlands, and Carillon Woods. Parks made a conscientious effort to enhance the different areas with good mixtures of natives and specimens known to do well in the Northwest. With the substantial number of trees lost in the parks as a result of storms in the latter part of 2006, this was a timely effort.

Contact: Jason Filan and Wendy Kremer

Kirkland's 2006 Arbor Day occurred in October with the dedication of a tree in Heritage Park to the founder of the Campfire Girls (now known as Campfire USA). Annual Arbor Day celebrations promote the City's achievement of being a Tree City USA and are a requirement for retaining Tree City USA status.

In February, Kirkland was notified as having been named a Tree City USA for the 5th year. This year's Arbor Day event will occur in October, and is designed to celebrate and promote the city's Tree City USA achievement and dedication to managing and enhancing the urban forest. Holding an Arbor Day event is also one aspect of ensuring Kirkland will again be named a Tree City USA for 2007.

Contact: Stacey Ray

Future goals of the NRMT are to add a Natural Resource Management page to the City's website and to continue to contribute educational articles to the Kirkland Courier. Other ideas include adding tree removal permit forms, tree flyers, and surface water brochures to the Building Department's permit tree on City Hall's "Main Street" and also taking part in a kiosk and/or computer station on "Main Street" to offer tips about tree care and other natural resource management topics.

Contact: Paul Stewart

NRMT 2006 Work Program – Task 5: Upgrade City Practices

The Natural Resource Management Plan (NRMP) advises that City practices and programs be updated as appropriate to reflect current knowledge and technology. The City has updated its pest management practices.

There is a tremendous amount of work that needs to be done to accomplish both departmental and NRMT goals for ROW tree issues and the addition of the field arborist position has helped considerably in managing ROW trees. However, the demand on the arborist's time for these activities has left little time for maintaining the tree inventory and other activities.

Contact: Wendy Kremer and Jason Filan

An additional action that would involve upgrading City practices (Task 5) and updating policies and regulations (Task 6) is the incorporation of low impact development techniques. The team plans to conduct a feasibility study to explore the potential to apply these techniques in Kirkland. Funding for the LID feasibility study was granted in the City's 2005-2006 budget.

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Contact: Jenny Gaus

NRMT 2006 Work Program – Task 6: Update Policies and Regulations

2006 marked the first full year of the newly implemented urban forest policies, including updates to Kirkland's Comprehensive Plan and new regulations for street trees, which were adopted in late 2005.

Throughout the year, Kirkland's urban forester worked closely with a variety of community members to ensure all interest groups were provided with the education and tools to understand and comply with the new regulations.

As with any newly implemented regulations, homeowners, tree care professionals, city staff and members of the development community have all contributed to identifying aspects of the code that will be revisited in a comprehensive amendment process to begin in late 2007.

Contact: Stacey Ray

NRMT 2006 Work Program – Task 12: Public Tree Management Programs

ROW Vegetation Maintenance Pilot Program

With the arrival of a part-time arborist in the latter half of 2005, the Public Grounds Supervisor began a street tree maintenance pilot program in a designated corridor in 2006. The pilot program is intended to establish the costs of the City assuming maintenance responsibilities for public trees. Due to the arborist's limited time and the lack of available experienced help to assist, staff had to prioritize for safety/hazards and customer response activities over proactive work in 2006. The pilot program will be revisited in 2007.

Contact: Wendy Kremer

See also discussion of the Green Kirkland Initiative under Task 2: Public Education and Involvement

NRMT 2006 Work Program – Task 13: Street Tree Standards

The Urban Forester produced an updated official guide to selecting, planting and maintaining Kirkland street trees in late 2005, which is still being utilized by city staff, developers, and community members. This list will also likely be revisited when the tree regulations are scheduled to begin an amendment process towards the end of 2007.

There has been a renewed effort for coordination between Planning and Public Works for identification and preservation of right-of-way trees during development and enforcement of instances where right-of-way trees are removed or destructively pruned. The part-time arborist is involved in outreach and education, both in-house and with homeowners who apply for a pruning permit, to ensure right-of-way trees are pruned according to the most current professional standards.

Contact: Stacey Ray

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NRMT 2006 Work Program – Task 14: Retain Tree City USA Status

In February, Kirkland was named a Tree City USA for the 5th year. The 2006 requirement for an Arbor Day proclamation and event was fulfilled with a celebration held October 24 at Heritage Park in honor of Ms. Amelia Newberry, founder of the Campfire Girls in Kirkland. Although Arbor Day is typically recognized nationally in April, Kirkland celebrates each year in the fall because newly planted trees benefit most from all the subsequent rainfall.

Although no Growth Award was received for 2006, the Centennial Tree program did contribute greatly to Kirkland having allocated more than enough of the required \$2 per capita to meet the financial criteria. The third and fourth criteria were met with the ordinance remaining unchanged and in effect, and the NRMT acting once again in the capacity of urban forestry board.

Contact: Stacey Ray

NRMT 2006 Work Program – Task 15: Preserve Notable Trees

Identification, maintenance, and continued preservation of notable trees would require additional specific funding. The team anticipates requesting on-going funding for the development of a Notable Tree Program at a future date. It will be important for the City to not assume the responsibility for maintaining notable trees on private property.

Contact: Stacey Ray

12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

NRMT 2006 Work Program – Task 2: Public Involvement and Education

Future goals of the NRMT are to add stewardship information to the Natural Resource Management page of the City's website and to continue to contribute educational articles to the Kirkland Courier. Other ideas include adding tree removal permit forms, tree flyers, and surface water brochures to the Building Department's permit tree on City Hall's "Main Street" and also taking part in a kiosk and/or computer station on "Main Street" to offer tips about tree care and other natural resource management topics.

Contact: Paul Stewart

Parks Maintenance staff routinely accommodates requests from volunteer groups (schools, youth groups, churches, etc.) by leading them in environmental restoration projects. Environmental education is combined with action to help with Kirkland's Green Initiative.

Contact: Jason Filan

The Public Works Department takes advantage of many outreach opportunities.

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The Public Works Surface Water Division oversees public education and involvement efforts on an on-going basis, including production and distribution of a storm water newsletter, a storm drain stenciling program (“Dump no waste, drains to stream”), the salmon watcher program, and informal education of residents and business owners when storm water infractions occur. The update of the Surface Water Master Plan was completed in November 2005, and included opportunities for public participation.

A full-time education/outreach position was created in 2007 and will be filled in the near future. The person in this position will research, develop, implement and coordinate programs to promote sound environmental stewardship by citizens and businesses regarding natural resources including surface water and solid waste/recycling. Additional work may include collaboration with others implementing a variety of environmental programs including management of forests and other natural resources on public lands, sustainable building, alternative transportation, and sustainable development.

In addition, the Public Works Department has increased focus on outreach in the areas of water, surface water, and solid waste/recycling. This has been accomplished in the form of a newsletter (*Reuse/Recycle/Conserve*) and a booth at the Kirkland Wednesday Market (which will alternate focus monthly on recycling and solid waste reduction, water conservation, and surface water stewardship).

Contact: Jenny Gaus and Van Ingram-Lock

Over the past several years, Kirkland has held a series of lectures by experts to educate the public officials, staff, professionals, and the general public of Kirkland and neighboring communities about global warming, environmentally critical areas, preventing sprawl/creating compact urban development, and low impact development techniques and green building practices.

Contact: Paul Stewart

Additional examples of informational events for professionals include the Urban Forester’s recent workshop on the new tree regulations for professional arborists and Public Work’s upcoming American Public Works Association “click, listen, and learn” seminar entitled “Changing Course: Streambed Restoration/Stabilization” in January of 2006.

Contact: Jenny Gaus

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EXHIBIT 1

U.S. Mayors Climate Protection Agreement - Participating Cities

As of February 22, 2007

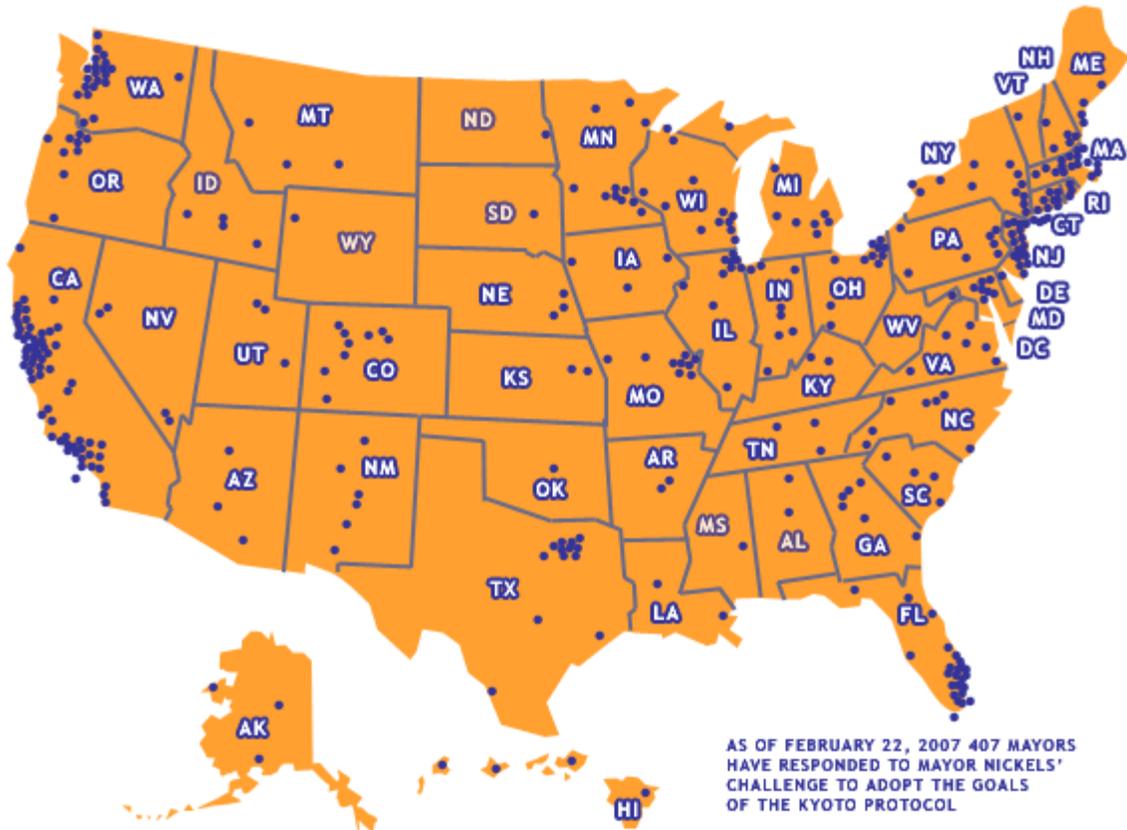


EXHIBIT 2

KIRKLAND COMMUNITY – TONS CARBON DIOXIDE EQUIVALENT 1990, 2002 & 2005

	King County	Kirkland
Tons CO2 Equivalent / 1990		
Power Purchases	1,824,794	50,919
Misc Diesel Nonroad and Rail	842,233	21,382
Gasoline Nonroad & Rec Boats	232,791	6,474
Ld Clearing, Wastes, and Building Burns	718,607	15,910
Petroleum Fossil Fuels Burning	4,820,967	134,987
Onroad Gasoline	9,681,028	387,241
Onroad Diesel	1,171,772	46,871
Electrical Distribution Transformer SF6	190,076	5,051
Total	19,482,269	668,835
Tons CO2 Equivalent / 2002	King County	Kirkland
Power Purchases	2,644,634	77,151
Misc Diesel Nonroad	946,569	26,827
Rail	69,601	1,480
Gasoline Recreational Boats	72,239	2,107
Gasoline Nonroad	318,218	9,226
Propane & Natural Gas Nonroad	169,101	4,938
Ld Clearing, Wastes, and Building Burns	123,246	3,595
Petroleum Fossil Fuels Burning	6,575,900	191,835
Onroad Gasoline	10,616,813	424,673
Onroad Diesel	2,625,423	105,017
Electrical Distribution Transformer SF6	97,790	2,524
Total	24,259,534	849,372
Tons CO2 Equivalent / 2005	King County	Kirkland
Power Purchases	2,644,634	76,701
Fuel Burned in Large Industries	720,677	N/A
Misc Diesel Nonroad	621,544	18,026
Rail	94,860	2,018
Gasoline Recreational Boats	82,993	2,407
Diesel Recreational Boats	2,524	73
Gasoline Nonroad	317,460	9,207
Propane & Natural Gas Nonroad	199,026	5,772
Ld Clearing, Wastes, and Building Burns	95,929	2,782
Petroleum Fossil Fuels Burning	4,538,607	131,630
Onroad Gasoline	8,119,107	324,764
Onroad Diesel	2,217,017	88,681
Electrical Distribution Transformer SF6	114,881	3,332
OTHER (new in 2005):		
Onroad Propane Vehicles	7,763	311
Onroad Natural Gas Vehicles	120,992	4,840
Wood Fireplaces	20,458	593
Stoves & Inserts	20,867	605
Firelogs & Pellets	7,952	231
Nitrous Oxide Emitted from Soils	65,831	341
Methane from Natural Gas Distribution	259,795	7,535
Fuel Used But Not Burned	1,696,496	49,202
Other Industrial Processes	429,465	12,456
Beverages Manufacturing	17,266	501
Nitrous Oxide Emitted from Hospitals	28,697	832
Methane	287,346	8,334
TOTAL TONS	22,732,187	751,173

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KIRKLAND GOVERNMENT OPERATIONS
CARBON DIOXIDE EQUIVALENT YEARS 2000 & 2005

Total Carbon Dioxide Equivalent Emitted (tons)	2000	2005
City Facilities - PSE (electricity & gas) bills for parks & buildings	3033	2721
Fleet - Fuel efficiency for City vehicles and equipment	1314	1395
Streetlights - Electricity	601	651
Water/Sewage Lift Stations - Electricity	91	79
Solid Waste Sent to Landfill	383	1586
TOTAL	5422	6432
Total Carbon Dioxide Equivalent Emitted (%)	2000	2005
City Facilities - PSE (electricity & gas) bills for parks & buildings	55.9	42.3
Fleet - Fuel efficiency for City vehicles and equipment	24.2	21.7
Streetlights - Electricity	11.1	10.1
Water/Sewage Lift Stations - Electricity	1.7	1.2
Solid Waste Sent to Landfill	7.1	24.7
TOTAL	100.0	100.0