



CITY OF KIRKLAND
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MEMORANDUM

To: David Ramsay, City Manager

From: Erin J. Leonhart, Public Works Facilities & Administrative Manager
Van Ingram-Lock, Public Works Management Analyst
Daryl Grigsby, Public Works Director

Date: May 8, 2008

Subject: CLIMATE PROTECTION ACTION PLAN – STATUS REPORT

RECOMMENDATION

It is recommended that Council do the following:

- Receive a status report on the Climate Protection Action Plan;
- Ask clarifying questions; and
- Provide comments as appropriate.

BACKGROUND DISCUSSION

By signing the Mayors' Climate Protection Agreement, the City of Kirkland committed to helping reverse global warming by reducing greenhouse gas emissions. To help accomplish that goal Kirkland joined the International Council for Local Environmental Initiatives (ICLEI) and began following the ICLEI milestones:

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

To date, Kirkland conducted greenhouse gas emissions inventories for our municipal government and the community at large and the City Council formally adopted greenhouse gas emissions targets. The next step in this process is development of an action plan.

Emissions Targets and Green Power Purchase

In August 2007, Council adopted the following emissions targets for Kirkland government and community:

- 🌍 Interim: 10% reduction in 2005 emissions by 2012
- 🌍 Primary: 20% reduction in 2005 emissions by 2020
- 🌍 Long-term: 80% reduction in 2007 levels by 2050

Council also supported the staff recommendation to purchase Green Power for City facilities at the rate of 50%, starting in 2008, and record it as a reduction in emissions. This recommendation was funded with

one-time budget funds in 2008. In order to count this purchase as an ongoing reduction in emissions, Public Works will submit a Service Package for ongoing funding during the 2009-2010 Budget process. If ongoing funds are approved, Kirkland will meet the Interim emissions goal for government operations.

CLIMATE PROTECTION ACTION PLAN – POSTPONEMENT TO 2009

When Council adopted the emissions goals, staff planned to return to Council in early 2008 with a draft Climate Protection Action Plan. Staff proposes that the draft action plan be postponed until 2009 for three primary reasons.

First, Governor Gregoire signed House Bill 2815 to be effective June 12, 2008. The Bill requires the Department of Ecology to develop “a design for a regional multisector market-based system to limit and reduce emissions of greenhouse gas...” and to provide a report to the legislature by December 1, 2008 to include rules requiring annual reporting of greenhouse gas emissions. In addition, the Department of Transportation is required to “adopt broad statewide goals to reduce annual per capita vehicle miles traveled by 2050...” Legislative requirements pertaining to emissions reductions and annual reporting, once established and adopted, will be considered in developing our own action plan and this information is currently unknown. Guidance provided by the State will help make jurisdictional comparisons easier, be consistent with statewide efforts and instill increased confidence in those comparisons.

Second, staff would like to involve the public in development of the action plan to raise awareness about the issue of climate change and to develop solutions that will resonate with the community. This can be done through existing outreach efforts and community events.

Finally, ICLEI is testing improved software (due out later this spring) that will assist in the development of our action plan. Staff believes that the improved software will result in a better action plan product especially in the area of determining how much potential reduction the various measures will obtain.

CLIMATE PROTECTION ACTION PLAN – PROGRESS TO DATE

The City’s interdepartmental Green Team has been guiding the effort to identify measures that will help reach the reduction targets for the community as well as government operations. We have expanded staff involvement and created work groups comprised of City experts in the following areas:

- Commuting/transportation
- Energy efficiency
- Fuel efficiency/alternative fuels
- Waste reduction
- Carbon offsets
- Land use
- Outreach
- Policy/legislative

These work groups have developed lists of ideas/measures to reduce emissions. The ideas gathered to date are at the end of this report. More analysis is required to determine the resources required to accomplish each item; whether the measure falls under the interim, primary, or long-term target category; how progress will be determined; and the likely reduction in emissions related to each measure. Staff plans to engage the community to develop additional ideas for both government and the community at

large. The action plan will consolidate this information and will ultimately be used as a reference for future budget processes.

CONCLUSION & NEXT STEPS

The Climate Protection Action Plan is consistent with the City Council's Environmental Stewardship Philosophy, the Natural Resource Management Plan and the U.S. Mayors' Agreement. Ongoing efforts are coordinated through the Green Team, who will continue to be involved in the creation and implementation of the Climate Protection Action Plan. Staff will return to Council at a Study Session this summer with an update on all Green Team activities and in 2009 with the proposed action plan. Please direct any questions to Erin Leonhart.

CLIMATE PROTECTION MEASURES UNDER CONSIDERATION

COMMUTING/TRANSPORTATION		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Programs for business community: <ul style="list-style-type: none"> ○ Commute Trip Reduction (CTR) – make it a requirement for more businesses ○ Require Transportation Management Plan as condition of new project ○ Tie in business license with CTR ○ Limit parking spaces through revised zoning codes ○ Tax incentive for green companies ○ Shared work stations 	COMMUNITY	2020 2012 2012
Programs for citizens: <ul style="list-style-type: none"> ○ Green Bike Project ○ Vehicle registration based on miles ○ Partner with Metro for more transit service (i.e. 15 min. frequency on core routes) ○ Partner with Metro for 15 min. frequency on core routes ○ Flex Car ○ Ridematch ○ Lobby for higher tolls on Highway 520 ○ Buy local (i.e. produce) ○ Direct marketing to neighborhoods (i.e. Metro's In Motion Program) ○ Green vehicles ○ Alternate fuel availability ○ Bicycle rental for a day ○ Affordable housing in Kirkland - land use ○ Create a GTEC in Totem Lake 	COMMUNITY	2012 2012 2020 2012
Flexpass provided to all full-time benefited employees - expand to include other transit agencies	GOVERNMENT	2012
New employees are informed of City's TDM Program	GOVERNMENT	Currently but can we expand?
Participate in Metro Promotions: (currently – 70% drive alone) <ul style="list-style-type: none"> ○ Supercommuter ○ Commuter Challenge ○ Wheel Options ○ Ride Share Online 	GOVERNMENT	By 2012 - 65/35 By 2020 - 55/45
Guaranteed Ride Home Incentive (part of TDM)	GOVERNMENT	

COMMUTING/TRANSPORTATION		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Shared Work Stations	GOVERNMENT	
Participate in Bike to Work Month	GOVERNMENT	
Employees are encouraged to use the bus, carpool, or teleconference to meetings	GOVERNMENT	
Launch an anti-idling message	GOVERNMENT	
Pay to park	GOVERNMENT	
Buy local (i.e. produce) - contracting or purchasing from	GOVERNMENT	
Alternate start times/flex schedules	GOVERNMENT	
Telecommuting	GOVERNMENT	
Flex Car	GOVERNMENT	

ENERGY EFFICIENCY		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Energy efficient behaviors: <ul style="list-style-type: none"> o Turn thermostat to 55 @ night & when away o Turn off and unplug electronic equipment & lights when not in use o Spread the word, tell a friend o Turn your water heater down to 120' 	COMMUNITY	2012
Energy efficient home improvements: <ul style="list-style-type: none"> o Weather-seal your windows, doors, ducts & plumbing o Improve insulation in your attic, crawlspace & walls o Change to compact fluorescent bulbs o Choose water & energy efficient appliances (EnergyStar & WaterSense) 	COMMUNITY	2012
Water/energy efficient home improvements: <ul style="list-style-type: none"> o High efficiency showerheads o Toilet leak detection/repair o Install rain sensor/weather-based irrigation controller o Use a rain barrel for irrigating & watering plants o Plant native and drought-tolerant species 	COMMUNITY	2012
Purchase Green Power	COMMUNITY	2012
Buy locally produced food	COMMUNITY	2020
"Lights Out/Earth Hour" Campaign	COMMUNITY	2012

ENERGY EFFICIENCY		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Building Code Revisions o Increased Energy Efficiency o Increased Water Efficiency	COMMUNITY	2020
Green Building/LEED Codes & Incentives	COMMUNITY	2012
Energy efficient behaviors: o Turn off and unplug electronic equipment o Disallow use of personal appliances (i.e. heaters, refrigerators) o Turn off PCs and lights when leaving a room	GOVERNMENT	2012
Energy efficient field operations: o Retrofit traffic signals & pedestrian indicators with LED o Convert streetlights from incandescent to high pressure sodium o Decrease average daily time streetlights are on for ones on timers o Investigate where solar or other alternate power may be an option (i.e. neighborhood signs) o Improve water pumping energy efficiency	GOVERNMENT	2020
Energy efficient office operations: o Software that will do a safe shut-down after a predetermined period of no use on PCs o Use power-save mode for printers o Alternate power source (i.e. solar or wind) for Uninterrupted Power Source (UPS) charger o Require power and heat standards for new IT equipment purchases	GOVERNMENT	2012/2020
Water/energy efficiency o Leak Adjustment Policy – change to allow only for service line leaks (2008) o Buy only Energystar appliances (2008) o Install Watersense appliances and fixtures o High efficiency showerheads o Cysterns for truck washing, irrigating, toilet flushing o Plant drought-tolerant species only in City ROW o Central irrigation control systems where applicable o Wash City cars at local car washes	GOVERNMENT	2012/2020

WASTE REDUCTION/RECYCLING		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Waste Reduction Opportunities: o Bi-weekly garbage service	GOVERNMENT	2020
Zerowaste City events o Supply durable utensils and plates to replace plastic and paper plates at City events o Educate staff to use washable coffee mugs instead of disposable cups o Establish a "Paper Cup Free Week"	GOVERNMENT	2012
Mandatory Compostable and Recyclable Products at Community and Council Meetings	GOVERNMENT	2012
Open Session 'Recycling Refresher Course' presentations	GOVERNMENT	2012
"Paperless Office" Training	GOVERNMENT	2012
Paper Saving o Scrap Paper Notepads o Eliminate 5.5" x 8.5" Name Notepads o Default Double-sided Copies on All Printers o Option Not to Print Fax Confirmations o Provide printed copies by request only o Use Electronic, Editable .pdfs for Forms o Paper Reduction Competition o Implement a "Do you need to print this?" popup message o Before printing a large number of copies, do a one-page test print o City Council packets electronic only	GOVERNMENT	2012
Phonebook Stewardship/Opt-out	GOVERNMENT	2012
Install hand blowers in bathrooms	GOVERNMENT	
Purchasing o Specify "Recycled Content" in RFQs/RFBs o Local Preference in Purchasing Policy o Provide an Electronic Billing Option o Request/Purchase durable shipping containers (i.e. for PC boxes) o Request Minimal Packaging	GOVERNMENT	2012
Use Refillable Ink Pens	GOVERNMENT	2012
No Color Copies Unless Requested	GOVERNMENT	2012
Spoil Material Reclamation	GOVERNMENT	2020
Universal use of 100% post consumer paper	GOVERNMENT	2020
Participate in a one hour "Lights Out/Earth Hour" Campaign	GOVERNMENT	2012

WASTE REDUCTION/RECYCLING		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Apply & Qualify for the Kirkland Green Business Waste Reduction and Recycling Category	GOVERNMENT	2012
Include Recycling and Waste Reduction Information at New Staff Orientation	GOVERNMENT	2012
Install Reusable Furnace and A/C Filters	GOVERNMENT	2012
Reuse Packaging Materials From Incoming Shipments (i.e. peanuts, boxes, Styrofoam)		2012
Universal Use of Rechargeable Batteries	GOVERNMENT	2012
Provide Durable Cups, Dishes, Silverware in Employee Lunch Rooms	GOVERNMENT	2020
Provide Cloth Towels as an Alternative to Paper Towels	GOVERNMENT	2020
Use mulching mowers	GOVERNMENT	2012
Junk mail list opt-out	GOVERNMENT	2012
Physical manifestations of waste demonstrations at City Hall or other public facilities	GOVERNMENT	2012
Provide labeled recycling containers in public spaces	GOVERNMENT	2012

CARBON OFFSETS		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Private Land Tree Replacements	COMMUNITY	
Shade tree placement	COMMUNITY	
School Walk Zones - increase trees (Science indicates more trees on planting strips increases numbers of walkers)	COMMUNITY	
Parkland Planting Enhancement	GOVERNMENT	
Renewable Energy - Pool water & lift stations	GOVERNMENT	
Light Fixtures in Parks	GOVERNMENT	
Refine Current Tree List for Canopy Enhancement	GOVERNMENT	
Biomass Management	GOVERNMENT	
Shade/Cooling Public Bldg.	GOVERNMENT	
Create a Urban Forest Development Density Credit Program	GOVERNMENT	

LAND USE		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Efficient Use of Land: <ul style="list-style-type: none"> ○ Provide a compact land-use pattern ○ Allow small-scale neighborhood retail and personal services within residential neighborhoods ○ Allow for the maintenance and redevelopment of existing developments that do not conform to current density standards in planned multifamily areas ○ Facilitate infill development to ensure that land is used in the most efficient manner ○ Consider transfer of development rights to concentrate development in urban areas and limit suburban sprawl ○ Encourage infill and redevelopment/intensification of existing commercial areas 	COMMUNITY	
Compact Mixed-Use Centers: <ul style="list-style-type: none"> ○ Provide a land use pattern that promotes mobility and access to goods and services ○ Provide employment opportunities and shops and services within walking or biking distance of home ○ Encourage residential development within commercial areas ○ Locate dense residential development close to shops, services and transportation hubs ○ Facilitate development in the Totem Lake Urban Center to allow development of a significant concentration of employment and housing, with direct service by high-capacity transit and a wide range of land uses, such as retail, recreational, public facilities, parks and open space ○ Facilitate development in the Downtown Activity Area to create a compact area to support a transit center and promote pedestrian activity. Promote a mix of uses, including retail, office and housing ○ Consider housing, offices, shops, and services at or near park & ride lots 	COMMUNITY	

LAND USE		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
<p>Non-motorized Transportation Planning:</p> <ul style="list-style-type: none"> ○ Incorporate features in new development projects which support transit and non-motorized travel (e.g. covered and secure bike racks, storage lockers, showers, guaranteed ride-home programs, commute trip reduction information, etc.) ○ Encourage vehicular and non-motorized connections between adjacent properties ○ Promote an intensity and density of land uses sufficient to support effective transit and pedestrian activity ○ Encourage pedestrian travel to and within the commercial area by providing safe and attractive walkways, close groupings of stores and offices, structured and underground parking and fewer curb cuts to reduce walking distances, and overhead weather protection ○ Offer financial incentives for commute trip reduction (e.g. discount on business tax for businesses that meet aggressive commute trip reduction targets) ○ Discounts on road impact fees for projects which place a mix of uses within walkable distance to one another and with aggressive TDM/CTR programs ○ Pedestrian Master Plan to create a comprehensive network of routes and trails that make walking easy and safe ○ Improve pedestrian crossings at priority locations such as schools, high-density commercial areas and at transit stops ○ Bicycle Master Plan to improve the on-street bicycle network by increasing the number of striped bike lanes and by more clearly marking bike lanes 	<p>COMMUNITY</p>	

LAND USE		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
<p>Sustainable Development Practices</p> <ul style="list-style-type: none"> ○ Explore opportunities to employ the principles of the Living Building Challenge (buildings generate their own energy with renewable resources, use resources efficiently, etc.) ○ Promote zero carbon demonstration project ○ Promote non-single occupant vehicle travel by reducing total parking where transit service is frequent ○ Promote innovative housing techniques, including compact development and cottage housing ○ Encourage sustainable building practices ○ Encourage retention of existing housing stock ○ Develop/implement parking regulations that reduce or eliminate minimum parking requirements for new development and also establish a maximum amount of allowed parking spaces ○ Require new development to account and mitigate for greenhouse gas emissions ○ Promote local food production ○ Review regulations to ensure that zoning control barriers to energy efficiency (e.g. solar panels, micro-wind turbines, etc.) are addressed ○ Promote car-sharing programs in new developments ○ Partner with real estate and lending industries to promote sustainable building practices (e.g. green mortgages, energy performance certificates, etc.) ○ Explore opportunities to encourage reuse and salvage with building demolition ○ Encourage use of design for deconstruction techniques in all new construction ○ Explore 'greening' of urban environment by use of green walls, green roofs, etc. (Seattle's Green Factor landscape standards) ○ Explore code revisions to require energy efficiency improvements to the existing structure when the carbon footprint of a home is increased (e.g. through extension) 	<p>COMMUNITY</p>	

LAND USE		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
<p>Economic Development:</p> <ul style="list-style-type: none"> ○ Support home-based businesses that are compatible w/the neighborhood character ○ Encourage clusters of complementary businesses ○ Strive to maintain a balance between jobs and housing ○ Facilitate development of cooperative office space providing fully supported office space for remote working to enable residents to work closer to home ○ Work to attract potential biodiesel refiners and vendors by helping identify appropriate sites, designating a single point of contact for permit issues, and addressing any fire code issues associated with biodiesel ○ Provide audit service for businesses to improve their sustainability practices ○ Promote green workforce housing ○ Explore potential sites for electrical charging stations to support electric vehicle infrastructure 	<p>COMMUNITY</p>	
<p>Natural Environment:</p> <ul style="list-style-type: none"> ○ Protection of existing landscaping and trees ○ Maintain healthy urban forests ○ Establish an on-going tree planting program ○ Refine open space network maps, identify missing links and develop preservation techniques ○ Shade tree plantings in the right-of-way ○ Enhance the city's tree canopy through the Urban Forestry Program 	<p>COMMUNITY</p>	

LAND USE		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
<p>Legislative/Regional Issues:</p> <ul style="list-style-type: none"> ○ Create long-term roadmap for achieving a one-planet footprint (e.g. incorporate basic principles of "One Planet Living" in ordinances (zero carbon, zero waste, sustainable transport, local and sustainable materials, local and sustainable food, sustainable water, natural habitat/wildlife, equity and fair trade, health and happiness) ○ Puget Sound counties coordinate planning efforts to show that their future planning scenarios will result in a reduction in carbon emissions ○ Work with other local governments and agencies to create a regional partnership to formulate a targeted and comprehensive education and awareness campaign focused on fuel efficiency and less driving. ○ Explore potential for local energy production (e.g. cogeneration plants) ○ Consider regulations to ensure only efficient appliances can be installed ○ Legislate against inefficient appliances that can be left on standby ○ Funding for mass retrofitting of residential properties to include microgeneration (e.g. solar panels and micro-wind turbines) 	<p>COMMUNITY</p>	
<p>Public Outreach:</p> <ul style="list-style-type: none"> ○ Partner with businesses, organizations and individuals to provide local citizens with tools they can use ○ Compare ecological footprints of Kirkland's neighborhoods and create challenge to reduce footprint ○ Offer three or four streets at a time access to energy efficiency technologies. Energy competitions between areas or streets could be set up, with prizes offered to streets with lowest energy use (per occupied household). Bulk retrofitting could also lead to cost savings due to bulk purchasing and workmanship. 	<p>COMMUNITY</p>	

LAND USE		
ACTION	GOVERNMENT/COMMUNITY	TARGET DATE
Allocate a set percentage of the capital improvement budget for major transportation projects to fund bicycle and pedestrian projects	GOVERNMENT	
Adopt a policy ensuring that new and existing facilities will meet green building, LEED (Leadership in Energy and Environmental Design) standards	GOVERNMENT	2012
Continue to support a standing sustainability committee to assist the city in the significant sustainability effort	GOVERNMENT	