

Phase 1 Recommendations
for
Greenhouse Gas Reduction Measures

from

Kansas City, Missouri
Climate Protection Plan
Work Groups

Implementation Status
November, 2007



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PHASE 1 GREENHOUSE GAS REDUCTIONS

WORK GROUP	ACTION ITEMS	IMPACT	
		MUNICIPAL	(Metric Tons) COMMUNITY
ENERGY			
Recommendation #3	Reduce municipal energy use by 10%	26,900	26,900
Recommendation #6	Expand the City's Home Weatherization Program		2,900
Recommendation #7	Purchase 5% of total electricity demand to operate municipal buildings and facilities from renewable power sources	13,450	13,450
Recommendation #11	Continue the Million Lights Campaign and expand to include upgrade of business lighting		40,400
Recommendation #13	Collaborate with utilities and others on a variety of issues and energy conservation programs		46,200
	TOTAL	40,350	129,850
CARBON OFFSETS & WASTE MANAGEMENT			
Recommendation #2 (WM)	Increase residential recycling (curbside, multifamily and commercial buildings)		66,000
Recommendation #3 (WM)	Internal Recycling	4,500	4,500
Recommendation #4 (WM)	Construction waste recycling		41,725
	Sub-Total	4,500	112,225
Recommendation #1 (CO)	Planting 120,000 trees	33,800	33,800
Recommendation #2 (CO)	300 acres/year of Native Landscaping for 3 years	700	700
Recommendation #3 (CO)	3 Green roofs	1,600	1,600
	Sub-Total	36,100	36,100
	TOTAL	40,600	148,325
TRANSPORTATION			
Recommendation #1	Reduce City employee commutes by 10%	1,785	1,785
Recommendation #1	Reduce commute by business employees by 10 Million miles		5,290
Recommendation #3	Traffic synchronization		84,250
Recommendation #4	Increase biodiesel use, per Blue Skyways, by 10 Million gallons of B20		7,600
Recommendation #4	Convert City trash trucks to CNG	500	500
Recommendation #5	Bike/Ped access on Heart of America Bridge		1,477
	TOTAL	2,285	100,902
	GRAND TOTAL	83,235	379,077

Note: Municipal GHG reductions are included in Community totals

ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 1 – Undertake a feasibility study for opportunities for onsite generation of renewable energy for municipal buildings and facilities

<p>Summary of specific issues – Onsite generation of renewable energy, but for the initial cost of the feasibility study, engineering and installation, requires relatively little operations and maintenance expense on the part of the City. It is expected that the annual cost savings realized would, in a few years, pay for the initial costs and, subsequently, result in net savings for the City. Reductions in GHG are totally dependent on the scope of the installations undertaken following the study. The study would address feasibility of on-site renewable energy facilities as well as off-grid retrofits including, but not limited to, solar lighting, space heating and hot water heating.</p> <p>Strategy/action plan – To make dramatic reductions in power use and associated climate impacts, it is necessary to completely reinvent our power acquisition approach. By studying the feasibility of renewable energy resources, and developing the infrastructure needed to maximize the value of those resources, it is expected that reliance on conventional power sources and the resultant GHG can be reduced significantly.</p> <p>Estimated greenhouse gas reduction to be achieved – 0 metric tons KCMO currently acquires 100% of its power from conventional sources. Purchasing 5% of the currently used electricity (see Recommendation #3) and reducing municipal energy use by 10% (see Recommendation #7) would reduce CO2 emissions by 40,325 metric tons/yr.</p> <p>Implementation responsibilities/assignments – City of Kansas City, Missouri Office of Environmental Quality in conjunction with Facility Management and Capital Improvements Management Office</p> <p>Cost to implement/net savings from implementation – The cost projected to complete a technical feasibility study involving all municipal buildings and facilities is \$50,000. (Could be funded through FY 07/08 Budget request)</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">○ Energy/Resource conservation○ Minimize energy costs○ Public education regarding viability of alternative energy technology <p>Timeline for implementation Develop RFP for Feasibility Study within 60 days</p> <ul style="list-style-type: none">○ Contract let within 120 days.○ Draft study complete in 6 months○ Implementation of renewable energy projects over 2-5 years, depending on the outcome of the study	<p>Status: 8/07 - Review of various RFPs from around the country has been done; Appears the most appropriate is Portland, OR – 2-step process beginning with an RFI (information) to see what may be available in the market, and then a RFP. Copy of the RFI and RFP provided to Facilities Management.</p> <p>11/07 – Based on discussions with Midwest Research Institute (MRI) and the Associate Director of National Renewable Energy Laboratories (NREL), may be able to secure assistance from NREL in analysis of several facilities re potentials for solar (photovoltaic) applications. Other possible project partners include EPA and KCP&L.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 2 – Adopt GHG goals at least as aggressive as the Mayor’s climate protection protocol based on baseline data from 2000

<p>Summary of specific issues – The Steering Committee will establish a goal for GHG reduction which is based on the successes already achieved, that is beyond what has been contemplated and which now appears achievable.</p> <p>Strategy/action plan –</p> <ul style="list-style-type: none"> ➤ Support and enhance existing successful programs. ➤ Reduce current energy use ➤ Study the feasibility of on-site power generation and implement what is considered feasible ➤ Reduce vehicle miles traveled and synchronize traffic signals ➤ Enhance and expand municipal, commercial and residential recycling ➤ Plant and maintain trees and convert to native landscaping ➤ Collaborate and create partnerships with a range of community representatives including the power companies, the GKC Chamber of Commerce, local non-profits, neighborhood organizations and associations, church groups, foundations, schools and service organizations ➤ Promote conversion to and use of biodiesel fuels in lieu of conventional diesel fuel ➤ Promote use of CNG in lieu of gasoline <p>Estimated greenhouse gas reduction to be achieved by the Community-wide – 20% below 2000 level by 2020 (based upon a backward extrapolation of 1990 level as 16% less than 2005 level per EPA national baseline inventory, a 20% reduction is equivalent to 10.7% reduction below 1990 level)</p> <p>Implementation responsibilities/assignments – City of Kansas City, Missouri and its various partners and collaborators</p> <p>Cost to implement/net savings from implementation – Composite of costs from all recommendations</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none"> • Improved air quality • Enhanced aesthetics of the Kansas City area • Improved quality of housing and neighborhoods • Improved quality of life • Reduced expenditures for energy due to enhanced conservation/efficiency measures • Improved regional transit system • A more bicycle/pedestrian friendly community <p>Timeline for implementation Achieve goal by 2020</p>	<p>Status: 8/07 -</p> <ol style="list-style-type: none"> 1. City government GHG reduction goal of 30% below year 2000 level by 2020 adopted by City Council – 4/12/07. Community-wide GHG reduction goal still to be developed by CPP Steering Committee. 2. Green Solutions Policy to incorporate green solutions & green infrastructure into planning, development & City projects (including Wet Weather Project & and the City Long-term Control Plan for sewer overflows) adopted by City Council – 8/9/07. <p>11/07 – The Climate Protection Steering Committee is expected to establish a community-wide goal for greenhouse gas emissions reductions achievable by 2020. The goal will incorporate the recommendations of the Chamber of Commerce Energy Task Force Climate Protection Sub-group.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 3 – Reduce municipal energy use by 10%

<p>Summary of specific issues – A significant amount of energy is consumed by City Government’s operations, resulting in an annual cost for electric power in excess of \$17 million. Cost for power is a significant element of the annual budget of the City.</p> <p>Strategy/action plan – To make dramatic reductions in power use and to achieve the associated reductions in GHG emissions, it is necessary to reinvent our power acquisition approach, and to create more energy efficient buildings.</p> <p>Estimated greenhouse gas reduction to be achieved – 26,900 metric tons/year</p> <p>Implementation responsibilities/assignments - All City Departments both General Fund and Enterprise operations</p> <p>Cost to implement/net savings from implementation - Composite of costs from all recommendations to reduce municipal energy use</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Energy/Resource Savings• Reduced budget impact• Money available from savings to support other activities <p>Timeline for implementation</p> <ul style="list-style-type: none">• Begin immediately upon approval by City Council – achievement of 10% energy use reduction within 5 years	<p>Status: 8/07 -</p> <ol style="list-style-type: none">1. Internal LEED Standards training in process; developing guidelines for achieving LEED Silver in the most advantageous manner for KC2. Energy Service contracts in place; will be re-bid to extend process and practice into the future. <p>11/07 –</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 4 – Study the feasibility of joining a GHG exchange such as the Chicago Climate Exchange (CCX)

<p>Summary of specific issues - A “buy-out” option (purchase of carbon credits vis-à-vis a “cap and trade” program) should be available for GHG reduction projects that can’t or won’t meet their goal. The Chicago Climate Exchange, as an example, is a greenhouse gas (GHG) emission registry, reduction and trading system for six greenhouse gases (GHGs). CCX is a self-regulatory, rules-based exchange designed and governed by CCX Members. Members make a voluntary, but legally binding, commitment to reduce GHG emissions.</p> <p>Strategy/action plan – Staff will actively seek information and research the feasibility of becoming a member of an exchange such as the CCX.</p> <p>Estimated greenhouse gas reduction to be achieved – No direct GHG reductions</p> <p>Implementation responsibilities/assignments – Mayor, City Manager’s Office - Office of Environmental Quality; Law Department</p> <p>Cost to implement/net savings from implementation – Unknown; Cost for the CCX depends on membership class and baseline emissions. There is a one-time initiation fee and an annual dues structure.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• To facilitate the transaction of GHG emissions allowance trading with price transparency, design excellence and environmental integrity• To build the skills and institutions needed to cost-effectively manage GHG emissions• To facilitate capacity-building in both public and private sector to facilitate GHG mitigation• To help inform the public debate on managing the risk of global climate change <p>Timeline for Implementation – Within 12 months</p>	<p>Status: 8/07 - Discussion begun with CCX; KC data sent to CCX for review</p> <p>11/07 - Action pending – It appears that KC, MO already meets CCX goals and there would be little substantive benefits of membership.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 5 – Explore improvement of energy efficiency ordinances, codes and regulations requiring up to date energy efficiency standards for any development project funded in whole or in part using public funds. If City funding is involved, require targeting the achievement of Energy Star rating for commercial and residential development including materials, equipment and supplies.

Summary of specific issues – Buildings can be designed to require less than half the energy of today’s average U.S. building, with no additional life cycle cost, through proper siting, building form, material selection (including lighting and HVAC systems), waste minimization and other elements. Technology choices such as photovoltaics, solar hot water, wind power, day lighting strategies, natural heating, cooling, and ventilation will also play a role. To achieve such a reduction, government at all levels must pass laws that all major building-renovation and new-building projects be designed to use half the energy now typically consumed by similar buildings. Until such time as these choices are an integral element of the building codes, tax and other incentives should be used to encourage as much voluntary compliance as feasible.

Strategy/action plan – Review currently adopted buildings codes and regulations. Adopt the most environmentally friendly new building codes focused on compliance with the most up to date energy efficiency code standard and incorporating the US Green Building Council LEED standard (see City Ordinance #041222) and targeting the US EPA Energy Star standard.

Estimated greenhouse gas reduction to be achieved – Unknown (Energy Star compliance requires energy use no more than 50% of current GHG emissions for buildings)

Implementation responsibilities/assignments

Review & possible revision of City’s Building Codes will begin in next few months

- City Planning and Development – Staff the code review process
- Office of Environmental Quality – Advise the City Manager and CPD
- Participation by all interested parties

Cost to implement/net savings from implementation – Expect costs analogous to those in the Zoning review process (funding in current year budget & FY 07/08 Budget request)

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Community-wide Energy/Resource Savings
- Reduced budget impact for buildings constructed under the new code
- Movement toward sustainable built environment

Timeline for implementation

- Complete the codes review process resulting in recommendations to City Council within 12 months of start
- 90-120 days for review and approval by City Council

Status:

8/07 -

City will revise its Building and Rehab Codes – review in process; Proposed update to IECC 2006.

11/07 –

Public review period completed; Ordinance introduced to City Council to adopt IECC 2006. Action is expected in December, 2007.

ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 6 – Expand the conventional Home Weatherization Program to allow for a broader client base allowing services to be provided, under certain conditions, to property owners not eligible pursuant to federal program guidelines and providing for financing options including grants and loans.

Summary of specific issues – The City has, for the most part, provided Home Weatherization grants since 1974 to households with qualifying eligibility pursuant to the US Department of Energy income guidelines for very low income households. In the period 1980-1987, a home energy improvement loan program was administered by the City, financed by Missouri Gas Energy, for households whose income exceeded federal program guidelines. In order to make a home energy improvement impact on the community at large it is necessary and appropriate to expand the scope of the City’s Home Weatherization Program to double the level of work done.

Strategy/action plan – Review the City’s Home Weatherization Program for capacity and capability to administer a program of broader scope than currently operated. Enhance program administration/operation capability as appropriate. Revise Home Weatherization Program operations guidelines as needed. Determine appropriate delivery mechanism for loans. Develop RFQ and/or RFP. Contract for services.

Estimated greenhouse gas reduction to be achieved – 2,900 Metric Tons

Implementation responsibilities/assignments

- City Manager’s Office – Enable the program review process
- Neighborhood and Community Services Department – Staff the program review process; Develop program operations manual, guidelines and evaluation process.
- Office of Environmental Quality – Assist the NCSD
- Kansas City Power & Light Co. and Missouri Gas Energy – Assist the City in program development; provide a source of funding

Cost to implement/net savings from implementation – Unknown but minimal; may include new staff

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Energy/Resource Savings for the community at large
- Improve sustainability of the existing built environment
- Establish and/or build program partnerships including, but not limited to, KCPL

Timeline for implementation

- Within 18 months of resolution approval by City Council

Status:

8/07 -

1. Expansion program concept drafted; Seeking funding source(s).
2. Administration of program unknown due to (a) housing program conditions and (b) workload impact on Weatherization Program staff.

11/07 –

Neighborhood and Community Services has been restructured to allow for administration of all housing improvement programs including the Home Weatherization (Wx) Program. Wx Program Manager promoted to administrator of all housing improvement programs. New Wx program manager in place. NOTE: Over 3,400 CFLs have been installed in homes of low income and elderly as part of the Wx Program.

ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 7 – Purchase 5% (five percent) of the total electricity demand of the City to operate municipal buildings and facilities from renewable power sources.

<p>Summary of specific issues – In addition to reducing municipal energy use by 10% (see Recommendation #3) it is appropriate to reduce GHG emissions from the City’s energy use by employing alternate, renewable energy sources as quickly as possible. In that regard, the City could purchase wind power either from KCPL or from other private power suppliers.</p> <p>Strategy/action plan – Negotiate for direct purchase of renewable power;</p> <p>Estimated greenhouse gas reduction to be achieved – 13,450 Metric tons</p> <p>Implementation responsibilities/assignments</p> <ul style="list-style-type: none">• City Manager’s Office – Authorize review of the options• Office of Environmental Quality – Research options and provide recommendations to the City Manager.• Public Works Department and Law Department – Negotiate franchise agreements for provision of electricity to the City <p>Cost to implement/net savings from implementation – Expect a premium on cost per kWh above current cost up to 20% in initial stages of purchase of energy from renewable sources – anticipated incremental cost of \$170,000 to purchase 5% of City’s electricity from renewable power sources. (Could be funded through FY 07/08 Budget request)</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Improved air quality• Reduced emission of various pollutants from power generation <p>Timeline for implementation</p> <ul style="list-style-type: none">• Within 18 months of enabling resolution by City Council	<p>Status: 8/07 - Discussion begun with KCPL to determine if it is feasible to directly purchase wind power from them.</p> <p>11/07 – Currently constrained so that wind power is part of the rate base thereby precluding designated sale of wind power to specific customers. Discussions continuing re potential ways to provide direct purchase of wind power..</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 8 – Undertake an aggressive education & public relations campaign in partnership with GKC Chamber of Commerce, KCPL, MGE, foundations, non-profits, neighborhood organizations, homes associations, Home Builders Assoc, Kansas City Green Builders Council, Kansas City AIA & others supporting & promoting green choices.

Summary of specific issues – Education and public relations campaign to address a range of stakeholders regarding energy efficiency and environmentally sound practices and approaches to the built environment, materials, supplies and equipment, and to the improvement of indoor air quality. The campaign shall be focused on developing both the demand side of the market, by educating consumers, and the supply side of the market by training a range of businesses and interested entities including but not limited to:

- Elected officials
- Downtown Council
- Consumers
- New construction & remodeling industry
- GKC Chamber of Commerce
- Lenders
- Real Estate Brokers/Agents
- Apartment associations
- Schools
- Churches
- Neighborhoods

Strategy/action plan – Build or enhance partnerships with a range of interested parties including: utilities, other local and regional government entities, federal agencies (HUD, DOE, EPA, etc), local non-profits, Home Energy Raters and others to establish and implement an education and training program, on energy and the environment, for residential and commercial consumers. In potential partnership with the Environmental Management Commission and Bridging the Gap, which have established similar recognition programs, the education and public relations campaign will include a recognition program for individuals, businesses and governments achieving certain progress in reducing GHG emissions.

Estimated greenhouse gas reduction to be achieved – Unknown; depends on implementation by those educated; GHG reductions would be 614 metric tons for every 1 million kWh of reduction in electricity used.

Implementation responsibilities/assignments

- Office of Environmental Quality – Manage the process
- Environmental Management Commission
- Kansas City Power and Light
- City Planning & Development and Neighborhood & Community Services
- Neighborhood and business representatives
- GKC Chamber of Commerce

Cost to implement/net savings from implementation – Staff time, supplies and materials.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Improved housing stock and improved neighborhoods
- Improved air quality in residential and commercial buildings
- Energy cost savings for those implementing energy saving measures
- Robust market for energy efficient new and renovated homes, for environmentally sound materials, supplies and equipment

Timeline for implementation

- Building on the foundation of existing programs, implement within 18 months of resolution approval by City Council

Status:

8/07 -

1. Partnership formed through GKC Chamber of Commerce via Climate Protection Sub-group of their Energy Task Force to estimate community-wide greenhouse gas reductions achievable by 2020.

2. RFP being developed for assistance in developing a specific work plan and budget for a broad based education campaign

11/07 –

1. Year-long speaker series – “Conversations on the Environment” (CoE) has begun. Speakers, so far, have included Ray Anderson and Andrew Winston. Ray Anderson spoke both to the public and to the Chamber of Commerce annual luncheon. Andrew Winston, although not invited as part of the CoE, was the keynote speaker at the KC Area Development Council Annual Luncheon. Both speakers were sold out. The third speaker – Majora Carter, Sustainable South Bronx, South Bronx, NY – will speak about green collar jobs on 12/06/07.

2. GKC Chamber of Commerce, with a group of 120 persons representing public and private entities went to Seattle to learn about their activities, etc. Following their return, the C of C formed the new “Climate Protection Partnership” originally comprised of 90+ public/private, business, government, and institutional entities. Each has pledged to assessing and reducing their respective carbon footprints.

ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 9 – Establish an Energy Office and expand the use of performance contracting.

<p>Summary of specific issues – As the City increasingly implements energy efficiency programs and contemplates building new facilities, the General Services Department will rapidly need additional staff to implement and monitor activities and movement toward achievement of established goals and objectives for improving municipal buildings and facilities, to perform independent verification inspections and to provide leadership in the field for the private sector and other government entities. General Services/Facilities Management staff should have specific training and certification in building energy management. The City currently uses performance contracting in auditing buildings for needed energy efficiency improvements and implementing recommendations. With the addition of new staff, the rate at which City buildings can be audited and improved can increase.</p> <p>Strategy/action plan – Develop appropriate job description, roles and responsibilities for staff for an Energy Office; obtain authorization to hire staff</p> <p>Estimated greenhouse gas reduction to be achieved – Unknown; Staff will have a significant role in implementing City ordinances (LEED, Green Roofs, Purchasing, etc) and, as such, will help determine the long range sustainability of the City’s existing and new buildings and facilities and achievement of GHG reductions.</p> <p>Implementation responsibilities/assignments</p> <ul style="list-style-type: none">• General Services/Facilities Management – Manage the process; Establish new relationships based on sustainable building development and operations• Office of Environmental Quality – Assist as appropriate <p>Cost to implement/net savings from implementation – New Energy Manager – Estimated at \$80,000 per year, including salary and benefits. (Could be funded through FY 07/08 Budget request). Projected savings in energy costs would offset staff costs.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Improved building stock• Improved air quality in City buildings• Reduced sick days/improved wellness of staff• Energy and cost savings for each department implementing actions <p>Timeline for implementation - Building on the foundation of existing programs, recruit & hire Energy Manager within 6 months</p>	<p>Status: 8/07 - Working with Facilities Management regarding Energy Manager position. OEQ has provided several sets of job descriptions for review.</p> <p>11/07 - RFP will be issued in the next month for one or more energy service contractor(s) to continue energy efficiency evaluations / projects at City buildings.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 10 – Through partnerships and collaboratives establish mechanisms to assist consumers in reducing loan rates for Energy Star rated homes and businesses.

<p>Summary of specific issues – Achieving an Energy Star rating may increase the cost of new construction, renovation and acquisition of improved property and, as a result, market incentives are necessary to establish new mechanisms to assist consumers.</p> <p>Strategy/action plan – Establish a high level task force with representatives of federal, state and other local governments, for profit and non-profit lenders, neighborhoods and other interested parties, to explore partnerships and collaboratives focused on incentives for achieving Energy Star standards for public and private development which may include but are not limited to, tax incentives, interest write downs. Estimate the relative costs and benefits of various incentives and suggest appropriate implementation strategies.</p> <p>Estimated greenhouse gas reduction to be achieved – Unknown</p> <p>Implementation responsibilities/assignments</p> <ul style="list-style-type: none"> • City Planning & Development – Provide staff for the task force • Office of Environmental Quality, Law Department, and Neighborhood & Community Services Department – Assist City Planning & Development to implement the task force; participate on and provide staff for the task force • Representatives from federal, state and other local governments – Participate • Neighborhood representatives – Participate • Financial institutions <p>Cost to implement/net savings from implementation – \$20,000 for consultants and all ancillary expenses . (Could be funded through FY 07/08 Budget request)</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none"> • Improved energy efficient, environmentally sound building stock • Improved air quality in residential and commercial buildings • Change the market for residential and commercial buildings to “Green is Routine” <p>Timeline for implementation - Building on the foundation of existing programs, assemble the task force within 3 months and complete task force recommendations within the following 6 months</p>	<p>Status: 8/07 -</p> <ol style="list-style-type: none"> 1. Several lenders have announced programs to address the need to finance energy efficiency improvements – CitiBank and Bank of America 2. City studying use of linked deposits as incentive to create such products 3. Possible tie-in with proposed new program called Sustainable Home Improvement Program (SHIP). <p>11/07 -</p> <p>Issue was discussed by the Climate Protection sub-group of the Chamber of Commerce Energy Task Force. Concluded that expansion of the Wx program and of energy efficiency improvements, using private market financing, would have a significant potential for GHG emissions reduction.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 11 – Collaborate with the GKC Chamber of Commerce and KCPL to continue the Million Lights Campaign and to include, in an appropriate fashion, a means for transition to upgraded, energy efficient business lighting.

<p>Summary of specific issues – While many new offices are being built with more energy efficient lighting, many others are not and owners of older buildings may not be aware of the positive cost benefits of upgraded lighting. The City currently is engaged in a campaign – The Million Lights Campaign to convert a million incandescent light bulbs to compact fluorescent lights (CFLs), the program should address the residential and business market as a whole.</p> <p>Strategy/action plan – With the GKC Chamber of Commerce, KCPL and other appropriate partners, develop and implement a market-wide education campaign on the positive cost benefits of making the transition to energy efficient lighting.</p> <p>Estimated greenhouse gas reduction to be achieved – 40,400 tons from 1 million CFLs plus an unknown amount from more efficient lighting in businesses</p> <p>Implementation responsibilities/assignments</p> <ul style="list-style-type: none"> • Office of Environmental Quality – Collaborate with the GKC Chamber of Commerce, KCPL and other partners on development of an education campaign • GKC Chamber of Commerce and KCPL – Collaborate with the City on development of an education campaign • Develop other partners as appropriate • KCPL – Make available KCPL programs already approved by the Public Service Commission <p>Cost to implement/net savings from implementation – No cost to the City above staff time</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none"> • Improved energy efficient, environmentally sound commercial building stock • Change the market for residential and commercial buildings to “Green is Routine” in lighting <p>Timeline for implementation - Building on the foundation of existing programs, begin implementation within 3 months and achieve full participation within 5 years.</p>	<p>Status 8/07 - GKC Chamber of Commerce Energy Task Force has added a Climate Protection Sub-group to address a range of related issues. The sub-group is chaired by a member of the Energy Task Force and is comprised of both Task Force members and members of the Phase 1 work groups. The specific function of the group is to review a range of options in order to make a broad recommendation to the Chamber about potentially achievable GHG emission reduction targets. The Chamber, in turn, will make a recommendation to the CPP Steering Committee to aid in developing the Phase 2 targets.</p> <p>11/07 – The CP Sub-group of the Energy Task Force has developed energy recommendations and has brought them to the Task Force which, subsequently, forwarded them to the Chamber Board of Directors. The Chamber Board adopted the recommendations and has been transmitted them to the Mayor and to the CP Steering Committee for review and consideration.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 12 – Collaborate with the GKC Chamber of Commerce and others to encourage businesses to reduce GHGs, beginning with a simple walk-through to determine the easiest items to implement and, ultimately, to undertake a more extensive energy audit to create their own benchmarks (i.e., baseline inventory) and GHG reduction plan.

<p>Summary of specific issues – Businesses need to have the information necessary to make informed decisions about costs, benefits and priorities in choosing energy efficiency upgrades. Further, many businesses may need assistance or incentives supporting their decisions to implement energy efficiency measures.</p> <p>Strategy/action plan – Collaborate with the GKC Chamber of Commerce and KCPL to create a component of the education and training campaign (see recommendation #8) focused on the benefits to businesses of undertaking an energy efficiency analysis of their operations. Promote KCPL business incentive programs already available.</p> <p>Estimated greenhouse gas reduction to be achieved – 46,200 metric tons annually within 5 years if existing KCPL programs are fully subscribed</p> <p>Implementation responsibilities/assignments</p> <ul style="list-style-type: none">• Office of Environmental Quality – Collaborate with the GKC Chamber of Commerce, KCPL and other partners on development of a business focused component of an education campaign• GKC Chamber of Commerce and KCPL – Collaborate with the City on development of an education campaign and of incentives to businesses• City Planning & Development – Business Assistance Center• Develop other partners as appropriate• KCPL – Make available incentives already approved by the Public Service Commission <p>Cost to implement/net savings from implementation – No cost to the City above staff time</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Improved energy efficient, environmentally sound commercial building stock• Change the market for residential and commercial buildings to “Green is Routine” in lighting <p>Timeline for implementation - Building on the foundation of existing programs, begin implementation within 3 months and achieve full participation within 5 years.</p>	<p>Status:</p> <p>8/07 - GKC Chamber of Commerce Energy Task Force has added a Climate Protection Sub-group to address a range of related issues. The sub-group is chaired by a member of the Energy Task Force and is comprised of both Task Force members and members of the Phase 1 work groups.</p> <p>11/07 – GKC Chamber of Commerce, with a group of 120 persons representing public and private entities, including KC, MO, went to Seattle to learn about their activities, etc. Following their return, the C of C formed the new “Climate Protection Partnership” originally comprised of 90+ public/private, business, government, and institutional entities. Each has pledged to assessing and reducing their respective carbon footprints.</p> <p>KCP&L, working with a broad range of stakeholders, to develop effective strategy for aggressive implementation of energy efficiency measures.</p>
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ENERGY WORK GROUP RECOMMENDATIONS

Recommendation 13 – Join current efforts to establish state policy supportive of GHG emission reduction strategies.

<p>Summary of specific issues – The State of Missouri has an opportunity to build on progress of other states in supporting GHG emission strategies, and such legislation is periodically brought forth. The City should support state legislation addressing GHG emission reduction and alternate power source strategies. Of the many options under consideration by states nationwide, the State of Missouri is currently considering legislative proposals allowing (1) net metering (HB 869 – The Easy Connect Act) for consumers to sell electric power individually generated back to the utilities, and (2) creation of renewable energy targets for electric companies (SB 154).</p> <p>Strategy/action plan – Determine the appropriate approach to take in supporting state legislation being considered which may not be in the current City legislative package.</p> <p>Estimated greenhouse gas reduction to be achieved – Unknown; depends on the number of electricity consumer-generators able to take advantage of the legislation, once it has been passed.</p> <p>Implementation responsibilities/assignments - City Council include as a legislative priority – (1) Include support of net-metering in current legislative package and authorize and direct the City lobbyist to indicate City support for HB 869; (2) Include support for creation of renewable energy targets for electric companies in current legislative package and authorize and direct the City lobbyist to indicate City support for SB 154.</p> <p>Cost to implement/net savings from implementation – No additional cost to the City.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Reduction of standard operating and peak demand for utility-generated electricity• Possible reduction in required electricity generating capacity• Reduction in tons of coal and other non-renewable resources needed to generate electricity• Supports financial viability of on-site renewable generation by consumers <p>Timeline for implementation - Immediate implementation of lobbying effort in support of the legislation following City Council inclusion in legislative package</p>	<p>Status: 8/07 -</p> <ol style="list-style-type: none">1. Net metering, although limited in scope, was approved by State legislature.2. Working to provide input re: City legislative agenda to include appropriate legislation in support of implementation of KCPL/Sierra Club/CCPC agreement (including legislative changes to provide incentives for energy conservation measures by energy providers) <p>11/07 – Recommendation made to City Council in support of appropriate state legislative agenda as noted above.</p>
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Carbon Offsets and Waste Management Work Group

Waste Recommendation 1 - Develop a Comprehensive Solid Waste Management Plan

Summary of specific issues - Waste minimization and recycling programs, which Kansas City is just beginning to tap, have enormous potential to reduce GHGs and save money. It is estimated that as much as 85% of the region's waste stream has beneficial reuses if the right system is in place to capture, sort, and redistribute these materials. The first step toward implementing long term improvements will be developing a vision and a roadmap for how to get there. Topics to be included in the comprehensive plan include:

- developing "one-stop" drop off sites where residents can bring recycling, leaf and brush, compost, trash, bulky items, etc.
- expanding food waste collection and composting
- creating a regional system, to manage residential and commercial wastes from the region, including a sorting facility for separating recyclables from other materials
- placing recycling bins in select on-street locations adjacent to trash receptacles

Strategy/action plan – To make dramatic reductions in waste disposal and associated climate impacts, it is necessary to completely reinvent our solid waste management approach. By viewing all wastes as resources, and developing the infrastructure needed to maximize the value of those resources, disposal in landfills can be reduced significantly.

Estimated greenhouse gas reduction to be achieved – not immediately quantifiable

KCMO currently landfills 119,668 tons of residential trash each year. 84% of this material is recyclable and this provides an opportunity to divert 101,717 tons/year of material from landfill disposal, thereby reducing eCO₂ emissions by up to 335,666 metric tons/year.

Implementation responsibilities/assignments – City of Kansas City, Missouri Public Works Department, Solid Waste Division, with advice/assistance from EMC.

Cost to implement/net savings from implementation - The preparation of a Comprehensive Solid Waste Management Plan is projected to cost \$200,000. Eliminating the land filling of 101,717 tons/year would save \$2.1 million/year in disposal costs. The material would have a value of \$9.4 million/year based on current recycling markets. Additional costs to collect and sort the material are not available. All costs and savings from implementing the plan will be identified as part of plan development.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Energy/Resource conservation
- Maximize landfill life
- Economic Development as businesses are formed to use the raw material streams.

Timeline for implementation

- Contract let within 90 days. Draft plan complete in 6 months
- Public Input/plan completion within 9 months;
- Implementation over 5-10 years

Status:

8/07 -

In process; Contractor selected and work is underway to develop long-term strategic plan

11/07 -

Added training component, under LEED training contract, to include a series on construction and demolition waste management. A panel workshop was offered in November which 85 persons attended. They represented a number of city governments in the region, contractors, architects and others. The series will continue in December with a web seminar and will end with the posting of a DVD on the internet for general access.

Solid Waste Division of Public Works Department anticipates completion of a Comprehensive Solid Waste Management Plan by early 2008.

Carbon Offsets and Waste Management Work Group

Waste Recommendation 2 - Increase and Expand Curbside Recycling Program

Summary of specific issues – The current curbside recycling program collects about 20,000 tons/year. This should be increased to 30,000 tons/year within 2 years and 40,000 tons/year within 4 years.

Strategy/action plan –

- A **marketing campaign** should occur to publicize the importance of waste reduction and recycling.
- **Multi-family Structures** – The current curbside recycling program is available to single family homes and apartments with 5 or less units. Larger structures are not covered. The Solid Waste Division currently plans to introduce recycling on a pilot basis to some of these larger structures. That initiative should be embraced, supported, and expanded.
- **Commercial Structures** – Recycling services are generally not available to commercial structures in Kansas City. The City should launch a pilot project to offer recycling services to select commercial structures. Based on the results of this pilot, the service should be optimized and expanded.
- **Mandatory Recycling** – If the previous measures are not sufficient to reach the target recycling volumes, the City should prohibit disposal of recyclables in residential trash.

Estimated greenhouse gas reduction to be achieved - 66,000 metric tons/year

Increasing recycling to 30,000 tons/year within 2 years and 40,000 tons/year within 4 years would reduce CO2 emissions by 33,000 metric tons/year within 2 years and 66,000 metric tons/year within 4 years.

Implementation responsibilities/assignments – City of Kansas City, Missouri Public Works Department, Solid Waste Division

Cost to implement/net savings from implementation – A marketing campaign and expansion of existing collection programs to increase recycling participation would be revenue neutral, with costs of the campaign offset by reduced landfill tipping fees (\$20/ton) and increased revenue from recyclables (\$4/ton).

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Energy/Resource Savings
- Maximize Landfill Life

Timeline for implementation

- Marketing Campaign launched within 6 months.
- Multi-Family Pilot Program will be initiated within 90 days. Phased expansion to additional residences will begin after 12 months, and be completed in 24 months.
- Commercial Pilot Program will be initiated within 12 months, with expansion to additional structures beginning after 24 months.

If necessary, mandatory recycling could begin within 6 months following adoption of an Ordinance

Status:

8/07 -

Pilot project under development to expand recycling services to multifamily structures

11/07 -

Potentials for expansion of the curbside recycling program are included in the long term Solid Waste Management Plan being developed. (See Waste Recommendation #1 above).

While funding for a marketing campaign was not included in the 2007/2008 budget progress has been made on several fronts.

- Multi-family - Solid Waste Division conducted two recycling pilots for multi-family structures. Due to a high rate of contamination in the recyclables, the pilots were eliminated. Program results are being reviewed for feasibility.
- Commercial - Several local businesses have contacted the Solid Waste Division for recycling services; consequently, a pilot program is scheduled for 2008.
- Mandatory recycling - Reports have indicated that in order to improve recycling participation, KC must make recycling mandatory.

Carbon Offsets and Waste Management Work Group

Waste Recommendation 3 - Expand City Government Recycling and Green Purchasing

Summary of specific issues – Significant volumes of recyclable material are generated by City Government’s operations, but are not currently being captured. Materials and supplies purchased by the City are often selected without considering Climate/Sustainability impacts.

Strategy/action plan –

- Re-energize the City’s Internal Recycling Program
- Establish Recycling at City Operated Public Facilities and selected pedestrian locations
- Establish Recycling at City Sponsored Events (Parades, Festivals, Concerts, and Sports)
- Establish Food Waste Recycling (Composting) at appropriate facilities
- Update Green Purchasing Ordinance and revise purchasing procedures to encourage green purchasing.

Estimated greenhouse gas reduction to be achieved – over 5,000 metric tons/year

The City’s internal recycling program collected 127.5 tons of material in FY05. This is a recycling rate of less than 2%. If the internal recycling rate were increased to 22%, an additional 1,317 tons of material would be diverted, **reducing CO2 emissions by approximately 4,500 metric tons/year**. Green purchasing has an impact on reducing GHG emissions, but we have not yet attempted to quantify the associated emission reduction.

Implementation responsibilities/assignments

- Internal Recycling – City Manager should issue an Administrative Regulation (AR) establishing goals and responsibilities.
- Public Facility Recycling – The Office of Environmental Quality can assist departments in optimizing recycling opportunities in their various operations.
- Public Event Recycling – Solid Waste Division should develop public or private capacity to provide recycling services at major events. Event organizers should be required to arrange for recycling with the city or a private contractor.

Cost to implement/net savings from implementation -

Implementation costs will be minimal – estimated at \$56,000 for new bins and containers. Annual savings obtained from avoided collection and disposal costs for recyclables will help to offset any costs incurred.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Energy/Resource Savings
- Maximize Landfill Life

Timeline for implementation

- Internal Recycling – Administrative Regulation within 60 days.
- Public Facility Recycling – Recycling services should be initiated within 90 days. Program should be optimized with progressively increasing goals over 24 months.
- Public Event Recycling – Initiated within 90 days. Optimized over 24 months.

Green Purchasing – Review of existing ordinance and adoption of any revisions in 6 months. Fully implemented within 24 months

Status:

8/07 -

Additional recycling containers purchased & being distributed to City facilities for recycling of cans/bottles. New recycling containers located in City Hall lobbies for use by the public and employees. Solid Waste Division working on recycling at City events (e.g., Rhythm & Ribs Festival), new recycling containers in public spaces (e.g., Crossroads, City Market, etc) and food waste recycling at City Market.

11/07 –

- Revitalizing the City’s Internal Recycling Program including additional staff education.
- New recycling bins for individual work areas have been distributed to most facilities. A City-wide recycling database is being generated as bins are being distributed.
- Opportunities for the public to recycle in City facilities have increased by placing recycling bins in lobbies and other publicly accessible areas.
- Recycling opportunities continue to be offered for City sponsored events.
- Discussions are in progress with Missouri Organics increased regarding food recycling.
- Discussions are in progress with Purchasing Division about green janitorial supplies and bid documents are being revised.

Carbon Offsets and Waste Management Work Group

Waste Recommendation 4 - Make Construction & Demolition Recycling Mandatory for City Projects

<p>Summary of specific issues - Recycling markets for C&D materials are available, but recycling rates are low, and C&D wastes account for a significant percentage of total landfill volumes. All projects managed, financed, subsidized, or those receiving incentives from the City should require that 75% of C&D wastes from each site be recycled. A “buy-out” option (purchase of carbon credits) should be available for projects that can’t or won’t meet their goal.</p> <p>Strategy/action plan – An ordinance should be passed making it a requirement for all city projects, as defined above, to have a recycling plan in place for the site and to recycle 75% of C&D wastes. This percentage equals the requirement for 2 recycling points in the LEED-NC standard.</p> <p>Estimated greenhouse gas reduction to be achieved - MARC estimates that 285,000 tons of C&D waste from the Missouri side of the metro area is land filled each year. Assuming 10% of C&D waste comes from City assisted projects, and 75% of C&D waste from these projects were diverted, the waste reduction would be 21,375 tons/year, which would reduce GHG emissions by 41,725 metric tons/year.</p> <p>Implementation responsibilities/assignments – Mayor, Environmental Management Commission, Planning Department (Codes Administration), and Capital Improvements Management Office should jointly push for ordinance. Planning Department (Codes Administration) should administer and enforce requirements.</p> <p>Cost to implement/net savings from implementation Savings would include \$427,000/year in avoided landfill costs, and some potential revenue from resale of recyclables. No estimate is available of the labor costs to segregate and process the recyclables. Net costs or benefits are likely to be small.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">○ Save energy/resources○ Maximize landfill life <p>Timeline for implementation</p> <ul style="list-style-type: none">○ Ordinance passage within 6 months - Effective date within 12 months	<p>Status: 8/07 -</p> <ol style="list-style-type: none">1. Have begun planning for C & D Waste Management Training with BNIM; Will have a classroom session, a webcast and an internet posting of curriculum.2. Is included in LEED training sessions as target; Will set goals in City contract language. <p>11/07 – Added training component, under LEED training contract, to include a series on construction and demolition waste management. A panel workshop was offered in November which 85 persons attended. They represented a number of city governments in the region, contractors, architects and others. The series will continue in December with a web seminar and will end with the posting of a DVD on the internet for general access.</p> <p>Currently looking at contract language for City projects to require at least 75% recycling of construction & demolition waste.</p>
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Carbon Offsets and Waste Management Work Group

Carbon Recommendation 1 - Expand Kansas City's existing urban forestry program

<p>Summary of specific issues – Approximately 2,500 street and park trees (in the mowed areas) die each year. No significant replacement program exists, and there are an estimated 120,000 tree planting spots along the city streets and in mowed areas of city parks. The benefits of street trees are abundant:</p> <ul style="list-style-type: none">• they sequester carbon annually;• provide long-term carbon storage;• reduce the energy needed to heat and cool buildings;• tree-lined streets make it much more inviting for pedestrians and bicyclists;• decrease the need for street maintenance, such as re-asphalting, by extending the life of asphalt by as much as thirty percent. <p>The condition of the trees already standing along Kansas City's streets is declining. Visual observation by Forestry staff indicates this is also the case in the parks. This is reducing the carbon sequestration and energy benefits from current levels.</p> <p>Strategy/action plan – Plant 2,500 trees/year to offset the current tree mortality along streets and in parks, in order to maintain current carbon sequestration, energy, and storm water benefit levels. Plant an additional 120,000 trees over the next 10 years to fill the vacant tree spots along streets and in parks. Improve the inspection and maintenance of existing trees to increase their life spans and benefits. Kansas City should also map urban heat island areas to provide information on the best locations to maximize the benefits of the trees planted.</p> <p>Estimated greenhouse gas reduction to be achieved – Carbon sequestered in street trees should increase by 250,270 metric tons by planting the recommended vacant spots. Annual GHG reduction should increase by approximately 33,800 metric tons of eCO₂ avoided and sequestered. We are unable to estimate the benefit of having a more pleasant environment to encourage walking and bicycling.</p> <p>Implementation responsibilities/assignments – City of Kansas City, Missouri Parks & Recreation Department - Forestry Operations</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions):</p> <ul style="list-style-type: none">• storm water reductions• improved air quality• public safety & liability reduced from better tree maintenance• improved aesthetics for the city,• a feeling of community• lower stress levels (and associated crime rates)• reduced noise pollution and glare• healthier children that do better in school <p>Timeline for implementation 2007 - Design program and request funding 2008-2017 - Implement plan to achieve projected GHG emission reductions by 2018</p>	<p>Status: 8/07 - \$500,000 included in current year City budget for tree planting. Parks & Recreation staff working on implementation plan to leverage City resources for additional planting.</p> <p>11/07 – Parks & Recreation Department requesting funding in next year's budget for initial implementation of expanded tree planting on streetscapes and in parks.</p> <p>Discussion has begun with Greater KC Chamber of Commerce re Climate Protection Partnership leveraging additional plantings by business and industry.</p>
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Carbon Offsets and Waste Management Work Group

Carbon Recommendation 2 - Expand Native Landscaping on City Properties

<p>Summary of specific issues – The Kansas City Parks & Recreation Department’s Nature First Program returns native grasses and plants to selected areas in parks which are currently in turf grass. Native landscaping offers climate change benefits over turf grass:</p> <ul style="list-style-type: none">• Direct carbon sequestration• Reduced mowing, watering, and fertilizer requirements save energy, money, and reduce emissions of CO₂ and other pollutants <p>Strategy/action plan – Expand the Nature First Program in the Parks & Recreation Department to add 100 acres/year over the next three years. Providing funding for planting and educational and outreach activities. Expand the program to other city departments that are major landowners, including Aviation and Water Services, and convert 100 acres/year for the next three years in each of those departments as well. Provide funding for planting and educational activities in those departments, too.</p> <p>Total acres for the 3 departments = 300 acres/yr x 3 yrs = 900 acres</p> <p>Estimated greenhouse gas reduction to be achieved - 700 metric tons/year - Estimates are based on 900 acres of converted turf grass after the 3 year establishment period.</p> <p>Carbon Sequestration: 675 metric tons/year Carbon Offsets from Reduced Mowing: 22 metric tons/year</p> <p>Implementation responsibilities/assignments – Parks and Recreation, Aviation, and Water Services Departments, working in conjunction with other community stakeholders, e.g., Missouri Department of Conservation.</p> <p>Cost to implement/net savings from implementation – Costs are based on planting 300 acres/year for three years, plus public education activities. Savings will be achieved after three years as mowing and maintenance requirements decrease.</p> <p>Total Estimated Cost: \$330,000/year for 3 years Estimated Annual Savings: \$228,000/year</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Promotes stormwater infiltration and reduces runoff• Improves air quality• Provides noise abatement• Provides wildlife habitat <p>Timeline for implementation 2007 – Budget for funding this initiative 2008 – 2010 – Implement the landscaping and public education activities</p>	<p>Status: 8/07 – Conversations begun with Water Services Department and Parks & Recreation Department to convert significant acreage to native planting. Aviation will likely not participate due to previous efforts that created problems such as increased deer & birds near the airport, creating hazards for vehicular traffic & aircraft.</p> <p>11/07 –</p> <ol style="list-style-type: none">1. City included rain gardens and native planting (1) in its reconstruction of curbs and sidewalks along 12th St between Grand and Locust, and (2) in its reconstruction of the north side of City Hall.2. Changing from turf to native is a slow process - you kill out turf one summer, sow some wildflower seeds in the winter, then sow native grass seed and more wildflower seeds in March/April, then try to control crabgrass. <p>Over the summer about 5 acres of turf on the Big Blue Battlefield just north of 63rd Street was killed and turf on about 6 acres at Hodge Park was killed. Overseeding has occurred in the native area established last year at Minor Park and at Hidden Valley to fill in the thin areas. Next summer will be a bigger "kill" summer as preparation is made to expand Minor, add areas of Line Creek, add areas in Swope Park, expand Hidden Valley, prepare part of Blue Valley and other parks, and plant native along some streamways and lake edges. The 100 acres will not be met this year, but the plan is to play catch up so the goal of 300 acres can be met by end of the 3rd year.</p> <p>Regarding education - Lakeside Nature Center includes information on the importance of maintaining diverse natural communities. They promote native landscaping. Parks still needs to add information about the NatureFirst program on the website. We will have good info there at least by February.</p> <p>Remnant natural areas, such as the prairie at Jerry Smith Farm Park, the forest at Hidden Valley Park & the Limestone Glade in Swope Park are managed as true remnants of native communities.</p>
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Carbon Offsets and Waste Management Work Group

Carbon Recommendation 3 - Promote Development of a Demonstration Green Roof

Summary of specific issues – Highly urbanized areas have little to no green space available to assist in reducing carbon emissions. Such areas in the Kansas City region often have numerous buildings with flat roofs that could provide needed “green” space, stormwater management, and potentially some passive recreational opportunities, as well as reducing GHG emissions.

Strategy/action plan – The City of Kansas City, Missouri has mandated that all new city facilities be designed and developed to meet LEED (Leadership in Energy and Environmental Design) certification. Certain aspects of LEED relate to the use of green roof systems. The city should design and develop one to three green roofs on city owned or other public facilities within the metropolitan Kansas City area over the next 5 years. Green roofs have already been designed for the Water Services Department and City Hall Buildings.

Estimated greenhouse gas reduction to be achieved – over 1,600 metric tons/year

With potential energy savings of 30%, green roofs on three large government buildings could potentially contribute an annual GHG emission reduction of 1,600 metric tons. Some carbon sequestration would be achieved by a green roof system, but those numbers are not yet quantifiable.

Implementation responsibilities/assignments – The City should develop green roofs for 1-3 buildings; approach EPA and Missouri Department of Natural Resources (MDNR) on potential for grant funding to assist with implementation; provide public access to roofs; and partner with schools and local community organizations to provide educational opportunities.

Cost to implement/net savings from implementation - In general costs for implementing green roofs are: \$22 - \$40/ft². Life-cycle costing should be used to demonstrate actual cost of implementation.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Savings on heating and cooling costs
- Reducing heat island effect
- Improved water and air quality
- Increased stormwater retention and filtration
- Increased life span of roof structure
- Improved aesthetics
- Increased green space
- Improve employee productivity
- Increased wildlife habitat and biodiversity
- Increased economic value
- Potential for food production

Timeline for implementation

2007–2012 - Research funding opportunities to assist with implementation; approve final designs for Water Services and City Hall; identify other opportunities for designing and implementing green roof systems on public facilities; identify potential for opportunities with existing green roof systems

2008 – 2010 - Construct green roofs on Water Services & City Hall

Status:

8/07 -

Have architectural plans for 2 green roofs and are considering funding implications

11/07 –

No action this quarter

Carbon Offsets and Waste Management Work Group

Carbon Recommendation 4 - Promote Residential Neighborhood Food Production

Summary of specific issues - The city has an abundance of vacant land that could be used for food production. Local food production reduces the transportation required in getting food to the consumer. Property used for gardening does not require mowing. Productive land, particularly land where organic and no-till methods are practiced will sequester carbon and retain more storm water.

Strategy/action plan – Convert 1 – 5 vacant lots into demonstration community garden(s) with an education component – ultimately expanding to 200, as a long-term goal. Offer public workshop on no-till organic gardening this summer (2007) for fall gardening season to begin to encourage home gardening. Eventually we hope to increase the number of backyard vegetable gardens to 10,000 and beyond.

Estimated greenhouse gas reduction to be achieved - If produce is transported locally, the greenhouse gas reduction for a small number of gardens is negligible and difficult to quantify. At this point we're estimating that it would take approximately 19 gardens to offset the CO₂ transportation emissions of 1 metric ton. Carbon mitigation of residential gardens may appear low, however 10,000 "Victory Gardens" that each produce more food would have a much more sizeable CO₂ impact.

Implementation responsibilities/assignments – The City should work with Kansas City Community Gardens (KCCG) and Kansas City Center for Urban Agriculture (KCCUA) to: locate demonstration garden sites; assist in site preparation; offer incentives for urban agriculture activities; and provide funding for gardening workshops in 2007-2008 budget. KCCG and KCCUA can conduct soil testing, provide training, and provide plant materials and planting over-sight.

Cost to implement/net savings from implementation

The city should provide funding for soil testing, site preparation, water hookups, mulch, basic tools, hoses, plant materials, training, fencing, and signage.

Estimated cost per site = \$3,000 - \$4,000 for development

Training = \$2,500-\$5,000 (KCCG)

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Social Capital
- Emergency Preparedness
- Nutrition and Health
- Strengthen the local economy

Timeline for implementation

2007 - Planning for 1-5 demonstration gardens. (Identify sites, soil testing, water hookups, and fencing installed.) No-till organic farming workshop for public

2008 - Training for neighborhood residents; site preparation; begin planting.

Status:

8/07 -

Secured funds for KC Community Gardens to provide a "No-till" workshop in Fall, 2007

11/07 -

No-Till Workshop was held on 11/2/07.

Good attendance realized at workshop.

Requested additional funding in next year's budget for additional workshops and outreach for community gardens.

Transportation Work Group

Recommendation 1 - Expand and Further Develop Alternative Transportation Program

Summary of specific issues – Moving people from single occupancy vehicles to other forms of transportation should be a priority for GHG reductions by local government.

Strategy/action plan – The City of Kansas City, Missouri should expand and further develop Alternative Transportation Programs, including various *Transportation Challenges*, developing Transportation Management Associations, and coordinating with *Take-A-Break-From-Exhaust* and other initiatives already underway. Examples of possible programs include:

- **Bicycling and Walking Initiatives**
 - Bicycle Commuter Challenge
 - Facilities to encourage bicycling to work- bike racks, lockers, on-site shower, etc.
 - KCMO should review policies that discourage bike-ped
- **Commuting**
 - Promoting Transit, Car-Van Pooling Challenges, Alternative Transportation Fridays
 - Alternative Commute Initiative for businesses
 - Alternative Commute Initiative for City employees that includes: flexible scheduling to allow transportation alternatives, subsidies for walkers, free bus passes to City workers to stimulate transit usage.
- **Encourage voluntarily support for GHG reduction by large businesses**
- **Develop Transportation Management Associations (TMA).**
A TMA is an organized group applying carefully selected approaches to facilitating the movement of people and goods within an area by reducing traffic congestion, increasing transit, carpooling, bicycling, etc., and managing parking more effectively.
- **Endorse and promote existing initiatives**, including *Take-A-Break-From-Exhaust*

Estimated greenhouse gas reduction to be achieved – Reducing City employees' commuting by 10% results in a GHG reduction of 1,785 metric tons. To illustrate the impact the business community could have, an additional 10,000,000 vehicle miles traveled (VMT) reduction eliminates 5,290 metric tons of GHGs, for an estimated total reduction of **7,075 metric tons**.

Implementation responsibilities/assignments – Various city departments will be involved in developing these programs. A new Bike/Pedestrian Coordinator position is currently being recruited by the City.

Cost to implement/net savings from implementation – Staff time and advertising costs would be required to promote and sustain these programs.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Improved air quality
- Multiple Health benefits from increased walking / bicycling
- Reduce traffic congestion during rush hours

Timeline for implementation - Begin program development within 60 days of resolution adoption by City Council.

Status:

8/07 -

1. Hired Bike/Ped Coordinator in Public Works Department
2. Hired Trails Coordinator in Parks & Recreation Department
3. Revising Development Ordinance
3. City is participating in MARC's regional initiative, "Take-A-Break from the Exhaust"

11/07 -

- The City and its partners were approved for more than \$2.5 million in TE funds for trails and bike/ped projects.
- The City is continuing development of the Citywide Trails Plan which will provide alternative transportation opportunities upon implementation.
- Working on getting the Citywide Trails Plan ready for adoption and implementation. One major thrust is that trails (and comprehensive on-street bike facilities) are as much for alternative transportation uses as they are recreation. Is still a perception among many citizens which does not fully recognize the alternative transportation benefits of trails and an on-street bike system. Many other cities have already recognized the importance of having these alternatives; Kansas City, as in other instances, is a late adopter of this concept. Making progress, but it is a slow go.
- Have been working to get changes made in the City's new development code/zoning ordinance currently under review to incorporate more bike friendly provisions into the code and to broaden the options to implement trails into developments and incorporate trails into greenspace, either existing or that which is being set aside as part of new development.

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Transportation Work Group

Recommendation 2 - Develop a Comprehensive Parking Plan

Summary of specific issues - The objective is of a Comprehensive Parking Plan is to discourage the continual expansion of large surface lots that use up space and restrict connectivity. The new city zoning codes related to parking could establish:

- parking maximums citywide
- reduced parking requirements along transit lines (more than MAX)
- prioritized Bike-Ped and Transit access over auto access in site design, and
- use of *Complete Streets* criteria for roadway designs

Improving land use policy to support transportation alternatives means creating dense, walkable, mixed-use nodes of activity that are much more inviting to and supportive of non-auto modes (e.g. encourage transit, biking and walking).

Strategy/action plan – The City of Kansas City, Missouri should adopt new construction and zoning requirements for parking that promote *SmartGrowth* concepts, leading to fewer vehicles driven and parked. By developing a comprehensive parking plan that supports people instead of vehicles, KCMO can encourage development that helps people live in a local, urban environment without needing as many parking spaces. An employer based parking cash-out program would encourage employees to choose modes of commuting other than a single-occupant vehicles.

Other related parking management and pricing options could include:

- Implementing shared parking policies to prevent garages from sitting empty;
- A moratorium on downtown facilities until light rail is in place
- Limited-use company cars for emergencies, appointments, etc
- Designated parking for car/van pool participants;
- Raising parking prices to discourage the use of vehicles;
- Raising property taxes on surface parking lots;
- Tying parking fees to vehicle emissions, etc.

Estimated greenhouse gas reduction to be achieved – not immediately quantifiable

Implementation responsibilities/assignments – The General Services Department should begin developing recommended parking control options.

Cost to implement/net savings from implementation – not immediately quantifiable

Multiple benefits anticipated (in addition to greenhouse gas reductions) -

- Reduced congestion
- Construction cost savings by reducing parking requirements

Timeline for implementation -

The City's Parking Manager should begin developing recommendations within 60 days of plan approval.

Status:

8/07 -

Same elements included in Development Ordinance being revised, but no comprehensive parking plan yet under development

11/07 –

No action this quarter

Transportation Work Group

Recommendation 3 - Develop a Comprehensive Traffic Signal/Flow Coordination Plan

<p>Summary of specific issues - The City currently owns and operates hundreds of traffic signals on routes ranging from local streets designed to provide access to private property to arterial routes designed to provide mobility between major activity centers. The majority of residents rely on automobiles as their primary mode of transportation and this fleet of private vehicles is likely to remain largely intact for the foreseeable future. The majority of goods produced or consumed by City businesses and residents are transported by truck. Proactive management and operation of the City's traffic signal infrastructure is necessary to minimize wasted fuel and emissions related to unnecessary stop delays, as well as to balance the important transportation needs of residents and visitors who walk, bike and/or use public transportation with people in cars and trucks.</p> <p>Strategy/action plan – City of Kansas City, Missouri should develop an efficient and effective Traffic Signal/Flow Coordination Plan that serves people not in vehicles as well as well as vehicles. The City should continue to participate in Operation Green Light to promote traffic signal coordination on major inter-jurisdictional routes</p> <p>As part of the planning, KCMO should consider better and safer bicycle, pedestrian, and transit movement because getting to a transit stop, or transferring from one route to another, generally requires walking across an intersection--often a busy one. Where there is a conflict between the needs of traffic flow and the needs of people (i.e. pedestrians, bicyclists, transit users), the needs and safety of people on foot should take priority.</p> <p>Estimated greenhouse gas reduction to be achieved – MARC estimates the GHG reductions from coordinating traffic signals on all KCMO arterials to be 84,250 metric tons annually.</p> <p>Implementation responsibilities/assignments – City of Kansas City Public Works Department</p> <p>Cost to implement/net savings from implementation – The City should add additional staff members dedicated to traffic signal timing and operation for City-owned signals.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Reduced travel times• Overall improved air quality <p>Timeline for implementation - City staff should begin developing program for the FY 2008-2009 Budget proposal.</p>	<p>Status: 8/07 -</p> <ol style="list-style-type: none">1. Hired Bike/Ped Coordinator2. Held discussions with City Engineer in Public Works Department, regarding operation Green Light & interest in expanding efforts on internal traffic signal synchronization <p>11/07 – No action this quarter</p>
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Transportation Work Group

Recommendation 4 - Expand the use of alternative fuels

<p>Summary of specific issues - The Blue Skyways Collaborative is a tri-national coalition of industry, federal, state and local governments committed to improving air quality in North America's Heartland. Through individual partner and community-based voluntary efforts, the Collaborative promotes the development of transportation, alternative fuel and energy efficiency projects to accomplish measurable improvements in air quality across a ten state corridor spanning from Canada to Mexico.</p> <p>Strategy/action plan – The City of Kansas City, Missouri should develop a plan for expanding the use of alternative fuels, including outsourcing fuels, idle reduction or other measures that increase fuel efficiency and reduce GHG. The City could, with EPA staff assistance, pursue the following activities:</p> <ul style="list-style-type: none">• Encourage trucking companies headquartered in KC to join the <i>SmartWay Transport Partnership</i> which targets the transportation/goods movement industry and directly impacts diesel emissions/GHG from over the road long haul and delivery vehicles.• Encourage truck stop owners to create no-idle zones and/or support the use of truck stop electrification.• Encourage fueling stations to carry E85 and Biodiesel. <p>Estimated greenhouse gas reduction to be achieved - The amount of GHG reduction will depend on the activities the City chooses to pursue and at what level, but significant reductions could be achieved. Replacing 10,000,000 gallons of diesel with B-20 bio-diesel = 7,600 metric tons GHG reduction City owned trash trucks converted from diesel to CNG = 500 metric tons GHG reduction. Estimated Total = 8,100 metric tons</p> <p>Implementation responsibilities/assignments – The city's fleet administration can take a leadership role and become a model for other large private fleet managers in the city.</p> <p>Cost to implement/net savings from implementation – not immediately quantifiable.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions) Additional benefits include a decrease in particulate matter and ozone. At the same time, KCMO will be partnering with local businesses and encouraging their active participation in GHG reduction.</p> <p>Timeline for implementation City staff should begin expanding program upon resolution approval by the City Council</p>	<p>Status: 8/07 – KC Fleet Management is a national leader in use of alternative fuel vehicles – mostly CNG and Bio-fuels – and is looking at 100%, plug-in electric vehicles and at plug-in hybrids (PHEV). Current fleet at 49.8% alternative fuels.</p> <p>Will use collaborative effort with Chamber of Commerce's Energy Task Force to promote conversion to biodiesel by private fleet operators in the region.</p> <p>11/07 – City has expanded its partnership potential to include KCP&L, a private battery manufacturer, the University of Missouri at Rolla, the Missouri Transportation Initiative, MRI/NREL and potential funding from various sources. The goal of the project is to acquire electric vehicles including state of the art batteries to be recharged using solar panels. The net result will be zero emission vehicles in the City fleet.</p> <p>Exploring opportunities to leverage alternative fuel use by other fleet operators in metro area through the Climate Protection Partnership.</p>
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Transportation Work Group

Recommendation 5 - Commit to following the requirements for Bicycle/Pedestrian Access in new and altered infrastructure.

<p>Summary of specific issues - The members of the <i>Transportation Work Group</i> agreed that all bridges must have “bike-ped” access and expressed concern that KCMO standards reading “shall include” are being ignored when costs must be cut. All KCMO personnel working on related infrastructure should be informed on “bike-ped” standards and requirements by participating in training provided by the American Public Works Association (APWA).</p> <p>Strategy/action plan – The City of Kansas City, Missouri should commit to following the requirements for Bicycle/Pedestrian Access in new and altered infrastructure, including bicycle/pedestrian access for a current project for the Heart of America (HOA) Bridge. To make the project move forward as soon as possible, KCMO must communicate clearly to MODOT that it is a priority requiring a very small portion of the overall funding. Planning for changes in I-29/I-35 should also be given attention before it is too late for consideration.</p> <p>Estimated greenhouse gas reduction to be achieved - It is conservatively estimated, based on other bridges in similar locations, that the bridge will be used 1000-1500 times per day by bicyclists and 1000-1500 times per day by pedestrians, a tenfold increase over the current bike/ped usage on the bridge. Using the average trip lengths from the MARC Household Travel Survey (1.5 miles for walking and 3.6 miles for bicycling), that gives an annual GHG reduction of as much as 1,477 metric tons.</p> <p>Implementation responsibilities/assignments – City staff should work with MODOT to reconfigure the existing shoulder to become a safe Bike-Ped path across HOA Bridge and expedite the project. A new Bicycle/Pedestrian Coordinator is being recruited by the City.</p> <p>Cost to implement/net savings from implementation – Costs for expanded bicycle pedestrian access on bridges is not immediately available.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Reduced congestion in downtown• Overall improved air quality• Multiple health benefits for walkers and bicyclists <p>Timeline for implementation MODOT has already committed to funding and building the HOA project in 2012, the city should make every effort to expedite the project.</p>	<p>Status: 8/07 - Hired Bike/Ped Coordinator – who will work with MODOT on plans for Heart of America Bridge & Paseo Bridge projects.</p> <p>11/07 – A budget request was made to expand the number of bike parking racks around City Hall.</p> <p>The State of Missouri has approved a plan for the replacement of the Paseo Bridge which has the potential for bike/ped capability.</p>
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Transportation Work Group

Recommendation 6 - Develop a plan to implement light rail as part of a healthy overall public transit system

<p>Summary of specific issues – Development of light rail is a major GHG reduction strategy.</p> <p>Strategy/action plan – City of Kansas City, Missouri should develop a plan to implement light rail as part of a healthy overall public transit system that responds to the public mandate and sustains the basic transit services now provided by KCATA.</p> <p>Estimated greenhouse gas reduction to be achieved – not immediately quantifiable</p> <p>Implementation responsibilities/assignments – City Council has identified KCATA as the project lead on light rail.</p> <p>Cost to implement/net savings from implementation - \$200,000 is included in Fiscal Year 2007-2008 Budget request for project planning.</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• Reduced congestion• Overall improved air quality• Multiple health benefits for walkers and bicyclists <p>Timeline for implementation The intent of the Transportation Work Group is to encourage KCMO to <i>aggressively support</i> the formation of a workable light rail system that may be initiated and expanded as quickly as a service to the citizens of KCMO and as attraction that will reduce single-occupant vehicle travel, resulting in significant GHG reductions</p>	<p>Status: 8/07 - Discussions at policy level are underway with Mayor, City Council, and key stakeholders. Analysis of options in progress by KCATA; new Citizens Light Rail Task Force has been created.</p> <p>11/07 – Citizens Light Rail Task Force has made significant progress in development of an alternative light rail plan to be submitted for approval.</p>
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Transportation Work Group

Recommendation 7 - Initiate a well planned public education and marketing program to broadly present the need for Transportation Alternatives

Summary of specific issues – The *Transportation* effort must be part of an overall education and marketing initiative, complementing the other actions and public education programs proposed by all the workgroups. Some suggested programs already imply a public outreach component (commuter challenges, etc.), but a public education/marketing outreach program could enhance these activities and go beyond them. A well developed campaign would raise awareness among the general public of the issue of greenhouse gases caused by their transportation choices and suggest some easy and enjoyable ways to reduce emissions (consolidating trips, planning shorter trips, walking/bicycling for short trips, driving habits that reduce emissions, emissions testing, etc.).

Strategy/action plan – The City of Kansas City, Missouri should initiate and cooperate in a well planned public education and marketing program to broadly present the need for Transportation Alternatives and the ways everyone can help reduce GHG by simple everyday decisions and actions. The City should utilize existing communication strategies (City’s Web Page, MARC web page, City newsletter) to begin public education during the Phase 1 process. A comprehensive plan should be prepared immediately so that support and funding may be secured as soon as possible.

Estimated greenhouse gas reduction to be achieved - GHG savings are hard to estimate, but if a large audience is reached with a powerful message, it could have a significant impact.

Cost to implement/net savings from implementation – not immediately quantifiable.

Implementation responsibilities/assignments – Office of Environmental Quality should use the City Communications Department to immediately begin the process of educating citizens on transportation issues contributing to GHG emissions. A long range education and outreach plan should be developed by the Office of Environmental Quality with input from the Transportation Work Group and Climate Protection Steering Committee.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Increased citizen engagement
- Improved overall air quality

Timeline for implementation

Work within existing budget during FY 2007-2008. Develop communication strategy to be funded in the 2008-2009 Budget

Status:

8/07 -

Developing RFQ/RFP for consultant to help design work plan and a budget for a broad based education and public engagement process that will be comprehensive in addressing climate protection (energy, transportation, waste management, etc).

11/07 –

Although a single comprehensive public education and marketing program has yet to be developed, various elements have been implemented. This includes (1) the “Conversations on the Environment” speaker series, (2) Construction & Demolition Waste Management training, (3) No-Till Workshop.

These have been complemented by:

- The first of a series of 5 quarterly green issue inserts in the Kansas City Business Journal
- Began public distribution of the new Greenability Magazine
- Discussions have begun with a local bank re their interest in electronic newsletter articles

Transportation Work Group

Recommendation 8 - Develop a program to reduce the use of polluting lawnmowers, including municipal, general and commercial use.

Summary of specific issues - Lawnmowers are a big source of pollution in general, because they do not have the emissions control equipment required on motor vehicles. A typical statistic that is cited is mowing your lawn emits about as much pollution as driving your car 100 to 150 miles.

Strategy/action plan – The City of Kansas City, Missouri should develop a program to reduce the use of polluting lawnmowers, including municipal, general and commercial use, with the goal to reduce the use of fossil fuel powered lawn care activities by 5% annually by:

- Public awareness and education of the problem of lawnmower emission
- Encourage trade-in programs to replace lawnmower with less polluting models
- Encourage yards that need less or no mowing (i.e. "rain gardens" and other alternatives)
- Work with commercial lawn mowing companies to improve emissions, etc.
- Work with KCMO mowing operations to improve emissions, etc.

Estimated greenhouse gas reduction to be achieved - The Transportation Work Group estimates that residential lawn mowing in KCMO emits about 9,000 tons of CO₂ annually. A 5% reduction would result in an annual reduction of **450 metric tons** of GHG.

Implementation responsibilities/assignments – Homeowners and businesses should be directly involved in reducing CO₂ at home and at work with this type of an initiative. Moving toward native landscaping (which requires little to no mowing) and reducing mowed lawn size through rain gardens or other water-conservation features on city-owned property could bring additional gains in terms of CO₂ reduction.

Cost to implement/net savings from implementation – not immediately quantifiable.

Multiple benefits anticipated (in addition to greenhouse gas reductions)

- Improved air quality, because 9% of VOCs in the KC metro area come from lawn and garden maintenance activities

Timeline for implementation

Outreach and education should begin immediately as part of the overall communication strategy.

Status:

8/07 -

Parks & Recreation Department mowing schedules altered to reduce ozone potential;

Parks & Recreation looking at alternative fuel mowers.

11/07 –

No action this quarter

Transportation Work Group

Recommendation 9 – Retain and attract businesses that support GHG reduction and best environmental practices

<p>Summary of specific issues – All sectors of the business community have a role to play in achieving the reduction goals set by the Climate Protection Steering Committee. We must think outside the box to reach the reduction goals.</p> <p>Strategy/action plan – The City of Kansas City, Missouri should work with Kansas City Economic Development Corporation to retain and attract businesses that support GHG reduction and best environmental practices. This could include businesses that manufacture and distribute <i>green</i> products, as well as those that commit to <i>environmentally friendly</i> operations. At the same time, by identifying the needs, KCEDC, along with KCADC and others, could attract business that help us solve transportation issues. Following are some examples:</p> <ul style="list-style-type: none">• Bicycle rental services in various cities• Eco Limo Service like the ones in Washington, D.C., Los Angeles, New York City and San Francisco, that use alternative fuel Ford Excursion, Lexus 400h or Mercedes E320 (\$45-\$85/hr)• PlanetTran, hybrid limo airport shuttle service for New England (\$60/hr)• OzoCar, hybrid service for New York City (\$22-\$110/hr)• Greater London Hire and Green Tomato Cars, London-based services (£30/hr)• Bio-Beetle Rental - biodiesels for rent in Hawaii and Los Angeles (\$50/day)• EV Rental, all over California, plus cars in Las Vegas and Phoenix (\$20-\$50/day)• Enterprise Rental, hybrid Saturns at most California locations• Car-Sharing companies (see Chicago <http://www.igocars.org> and San Francisco <http://www.citycarshare.org>). <p>Estimated greenhouse gas reduction to be achieved – not immediately quantifiable</p> <p>Implementation responsibilities/assignments – The Chamber of Commerce, Kansas City Economic Development Corporation, and others can participate with the City in implementation.</p> <p>Cost to implement/net savings from implementation – not immediately quantifiable</p> <p>Multiple benefits anticipated (in addition to greenhouse gas reductions)</p> <ul style="list-style-type: none">• New opportunities for niche small businesses• Transportation alternatives <p>Timeline for implementation – Could begin with Council resolution approval</p>	<p>Status: 8/07 – No specific follow-up on this initiative yet.</p> <p>11/07 – The basis for business more aggressive attraction is being established by recreating KC as a green region. The hard work of developing the needed partnerships, the needed baseline analyses, goals projection by respective political jurisdictions and policy foundations has begun.</p> <p>Looking to integrate:</p> <ul style="list-style-type: none">➤ Solid Waste Management Policy being developed by Solid Waste Management Division of Public Works Department➤ Climate Protection Partnership of the Chamber of Commerce➤ Energy Efficiency Programs offered by KCP&L <p>Although a single comprehensive public education and marketing program has yet to be developed, various elements have been implemented. This includes (1) the “Conversations on the Environment” speaker series, (2) Construction & Demolition Waste Management training, (3) No-Till Workshop.</p> <p>These have been complemented by:</p> <ul style="list-style-type: none">➤ The first of a series of 5 quarterly green issue inserts in the Kansas City Business Journal➤ Began public distribution of the new Greenability Magazine➤ Discussions have begun with a local bank re their interest in electronic newsletter articles
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Policy and Outreach Work Group

Recommendation 1: Develop a comprehensive, multi-faceted communications and public engagement plan to support the broad climate protection effort -- to inform, engage and empower people, targeting business, faith communities, schools and the general public.

<p>Summary of specific issues – A broad and ongoing education process is needed to inform, engage and empower people to take personal ownership of climate protection. The target audience includes businesses, schools, citizens, faith groups, foundations, nonprofit organizations, and governments. Messages will need to be customized to the target markets’ needs and interests in order to get desired responses in long term behavior change. A comprehensive strategy also must capitalize on existing educational initiatives already underway by many organizations.</p> <p>Strategy/Action Plan: Examples of potential elements to be included in the comprehensive marketing and communications plan:</p> <ol style="list-style-type: none"> 1. Design and market “Kansas City Green” coupon card in partnership with local retailers to provide incentives for citizens to change purchasing patterns to environmentally responsible behaviors, bring visibility to vendors of green products and drive up demand for environmentally friendly products in the Kansas City metropolitan area. Use of this discount card would be used for such purchases as: <ol style="list-style-type: none"> a. CFL bulb for the price of an incandescent or one free CFL with purchase b. Rain barrels discount with promise to disconnect down spout & connect to rain barrel c. Furnace filter coupon d. ‘Green’ restaurant coupons for restaurants serving organic and/or locally grown products (e.g., Eden’s Alley, Jason’s Deli, Blue Bird Bistro, Blue Koi, etc.) e. Other green goods (e.g., Elmwood reclaimed timber, straw, bricks, etc.) 2. Sustaining City and Nature (SCAN) cards/tags – similar to Harvesters or Children’s Miracle Network – proceeds would benefit community organizations dedicated to sustainability and the stores involved would tally the transactions. 3. Mount marketing campaign to broaden public involvement in curbside recycling, recycling other products (such as glass, printers, and print cartridges), as well as developing markets for recycled products and promoting business development. An example: an Inkjet cartridge collection and recycling program is already underway in Kansas City and nationwide. Less than 10% of 600 million cartridges sold each year are recycled. InkJetCollect is a Kansas City based company providing, at no charge, all supplies needed to collect ‘dead’ cartridges for recycling. Additionally, they work with corporations and organizations using the recycling programs as fundraisers for organizations, schools, Boy/Girl Scout troops, etc. Immediately scalable as city wide visibility campaign everyone can participate in. 4. School based delivery of environmental education including a climate change expo to educate, inspire and motivate change, as well as provide public presentation of students’ presentations similar to science fairs. Develop curricula for teachers. 5. Engage public media in an ongoing conversation about climate 	<p>Status: 8/07 -</p> <ol style="list-style-type: none"> 1. Developing RFQ/RFP for consultant to help design work plan and a budget for a broad based education and public engagement process that will be comprehensive in addressing climate protection (energy, transportation, waste management, etc). 2. Have begun a series of public presentations, such as: KCPT panel discussion 3. Have developed a webpage dedicated to Climate Protection Plan process and product 4. Have begun discussions with and presentations to various neighborhoods <p>11/07 – Although a single comprehensive public education and marketing program has yet to be developed, various elements have been implemented. This includes (1) the “Conversations on the Environment” speaker series, (2) Construction & Demolition Waste Management training, (3) No-Till Workshop.</p>
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change, including symposia, regular features in print, television and radio interview programming, and social marketing campaigns

6. Maintain a web presence for ongoing climate protection planning process and ways for the public to participate and broaden partnerships through affiliated organizations.
7. Partner with faith communities, concentrating on greenhouse gas emissions, renewable energy, energy conservation and waste management, focused around the unique perspectives of each faith community.
8. Partner with strong neighborhood associations in Kansas City, Missouri to bring message of climate protection to neighborhood meetings.
9. Promote the development of a sustainable community food system by supporting the work of small nonprofits with small grants and marketing support (e.g., KC Food Circle, KC Center for Urban Agriculture, KC Community Gardens, Bridging the Gap, Good Natured Family Farms, KC Organic Farmers Market, etc.).
10. Develop an environmental event or trade show of national caliber in Kansas City, bringing national and local green vendors, speakers, presentations, demonstrations and exhibits. Partner with existing national associations already hosting successful events. Make Kansas City the national center of excellence in environmental education.

Estimated greenhouse gas reductions to be achieved – Cannot now be calculated

Implementation responsibilities/assignment – A broad partnership is needed including government (city government plus some departments at the state and federal levels), educational institutions, businesses, and the non-profit sectors.

Cost to implement/net savings from implementation – Funds will be required, but the scope of work has not yet been fully defined. Resources will need to be provided for the development and implementation of a communications plan including public involvement, marketing, advertising, print, media, collateral materials, etc.

Multiple benefits anticipated (in addition to greenhouse gas reductions) -- Kansas Citians will make more informed decisions about their modes and fuel choices for transportation, building material and energy uses for their homes, and landscaping for their properties. They will purchase more environmentally friendly products, eat local and organically grown foods and participate in all available recycling programs. They will attend public gatherings available to them, engage in civic discourse, participate in decision making, and make informed election choices that affect the future of Kansas City. They will live more connected lives and become models in their own neighborhoods because the ongoing climate protection education effort satiates their appetite for knowledge and links them to best practices around the world.

Timeline for implementation – Implementation of these Phase 1 recommendations can begin in the next 1-2 years.

Policy and Outreach Work Group

Recommendation 2: Maximize greenhouse gas reductions by municipal government through policy changes promoting construction of green buildings, development of green infrastructure, revision of the Development Code and Building Code, establishment of greenhouse gas reduction in the city’s policy-making framework, and regionalization of climate change protection.

<p>Summary of Specific Issues: Policy changes in city government are needed. In addition, cooperation and coordination with other municipalities in the region are needed. It is hoped that a <i>regional</i> climate protection planning effort will emerge from this endeavor, recognizing the regional nature of the issues we face and the metropolitan nature of the persons and organizations already engaged in climate protection activities</p> <p>Strategy / Action Plan:</p> <ol style="list-style-type: none"> Promote construction of green buildings and renovations of buildings to such standards by implementing existing regulations pertaining to LEED and green roofs. Adopt a proposed KCMO Development Code revision including strong measures that will help reduce greenhouse gas emissions. Measures that will help reduce GHG emissions include tree planting, stream setbacks, cluster development to promote green space preservation, infill development, transit-oriented development, bicycling as transportation, and developing pedestrian-friendly environments. Incorporate green infrastructure principles and policies into multiple City initiatives. Among current initiatives, in addition to the Development Code revision and green building policies, are the Water Services Department’s Wet Weather Solutions program (to address storm water, flooding, and sewer overflows), the storm water management standards and best management practices administered by the Public Works and City Planning and Development Departments, and the development of a City-wide trails plan. The City should also implement a robust urban forestry program to plant and care for more trees. Incorporate strong energy conservation elements in the Building Code revision that is expected to begin this year. Create a citizens advisory committee to provide guidance and oversight to the implementation of the climate protection plan, and to advise the City on needed actions. This committee should be appointed when the final Climate Protection Plan is complete, taking over from the Climate Protection Plan Steering Committee. Assign climate protection plan oversight to a City Council committee. Regionalize the climate protection planning process to achieve shared goals with communities throughout the metropolitan area. The next Mayor should initiate consultations with area municipalities to expand the KCMO Climate Protection Planning Process so that it will encompass the entire metropolitan area. <p>Estimated Greenhouse Gas Emission Reduction to be Achieved: Cannot now be calculated.</p> <p>Implementation responsibilities/assignments: City government</p> <p>Cost to implement / net savings from implementation: Unknown.</p>	<p>Status: 8/07 -</p> <ol style="list-style-type: none"> Strong movement on policy level by City Council Proposed Development Code will go to City Council for adoption this year Beginning process to revise Building and Rehab Code to IECC 2006 Incorporating green solutions into approaches to wet weather response City Council has passed a policy that all City department incorporate green solutions Inter-departmental meetings with department directors to develop action plan for Green Solutions Policy LEED Standards guidelines and training program being developed Construction & Demolition Waste Management Training series being developed. <p>11/07 – City has adopted (1) a long range policy to establish KC as a green city, (2) Green Solutions Policy, (3) Green Solutions policy for wet weather/storm water events, (4) an aggressive approach to its green ordinances and resolutions – LEED, environmentally preferable purchasing, green roof demonstration project and has proposed (1) a new development (zoning) code, including stream buffer protection, and (2) upgrade of its building and rehabilitation code to incorporate the IECC 2006 standards.</p> <p>City Manager’s Office established a “Green Team” comprised of department directors to develop an administrative regulation and a framework for implementation of the newly adopted Green Solutions Policy.</p>
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Multiple Benefits Anticipated (in addition to greenhouse gas emission reductions): All Kansas Citians will benefit from these actions, which will result in more comfortable and healthy buildings, energy savings (dollars saved), transportation choices, and a more lively, vibrant, and healthy city. In addition, Kansas City stands to benefit as a national model. For example: KC in 2006 was ranked by sustainlane.com as #3 among the 50 largest U.S. cities in use of alternative fuels in its fleet.

Timeline for implementation: The above are Phase 1 recommendations, with implementation to begin in the next 1-2 years. Many of the recommended actions are underway. The Development Code revision is currently underway and the Work Group wholly endorses its passage with strong measures to reduce greenhouse gas emissions, including a stream setback buffer provision. The Work Group supports the immediate implementation of a process to review the Building Code and adoption of strong energy efficiency standards. The Wet Weather Solutions project has been underway for 2+ years and the inclusion of “green solutions” is under consideration as a recommendation of the citizens’ panel that is advising the Water Services Department on the Wet Weather Project. All of these policies will begin to have an immediate impact on the environment, as well as show visible commitment to climate protection. Coupled with an aggressive and ongoing communications and education process, much can be accomplished within 12-18 months