

Final
June 2008

Action Plan for a Sustainable Summit



City of Summit, N.J.
June 2008

Energy in the Built Environment
Green Building Practices
Transportation & Circulation
Water: Usage & Protection
Solid Waste & Recycling
Green Canopy & Open Space
Green Purchasing
Education & Communication
Implementation & Governance



PREPARED BY THE MAYOR'S SUSTAINABLE COMMUNITY TASK FORCE



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Introduction

Summit's Sustainable Action Plan

In response to an increasing concern about how our decisions and actions impact the environment, the City of Summit has joined a growing number of communities in the United States pledging to be more environmentally-sensitive and "sustainable." Sustainability, simply put, is protecting our natural resources while meeting the needs of the present generation without compromising those of future generations. Continuing a tradition of thoughtful stewardship of our community, in January 2007 Mayor Glatt and Common Council joined the more than 850 communities nationwide who have signed the U.S. Mayors Climate Protection Agreement, pledging to do our part by taking specific actions here in Summit. Although we have begun to make positive changes already in Summit, some of our trends are still negative: from 2006-2007, our electricity use increased, and over the past three years, our recycling rates went down instead of up. To meet the challenge of sustainability, the Mayor's Sustainable Community Task Force has created this Action Plan as a guide to the community for existing and planned initiatives.

This Action Plan offers specific steps that Summit officials, schools, businesses, industries and residents can take to become more sustainable. If implemented with commitment and perseverance, this plan will result in a substantial reduction of harmful emissions, such as carbon dioxide and other pollutants; lower, more efficient and cost-effective energy use; cleaner water and better water management; preservation of our beautiful trees and open spaces; a less congested, more walkable and economically vibrant downtown; and healthier residents. In short, together we can and will see a more "Sustainable Summit."

Vision Statement

The City of Summit will continue to invest in preserving and improving its natural resources and community well-being. With the input and active participation of all segments of the community, Summit will undertake a concerted, step-by-step process to reduce our impact on the environment, manage development, and take actions to ensure our quality of life for this generation and those to come. Summit is committed to dedicating resources, adopting policies and practices, and promoting lifelong learning in our homes, workplaces, schools, places of worship and community organizations that will advance and support our ongoing proactive initiative toward becoming a more sustainable community.

Background

This Action Plan was developed by the Task Force in collaboration with the community. Following the presentation of the June 2007 "*Report and Recommendations on Developing a Sustainable Master Plan for Summit*," which examined Summit's impact on the environment and provided a detailed survey of the best sustainability practices from across the country, the Task Force undertook a strong community outreach program, jointly funded by the City of Summit and a grant from the Association for New Jersey Environmental Commissions. A group of 60 Summit leaders served as an Advisory Group and hundreds of residents participated in approximately 25 community meetings organized to discuss how Summit could become more sustainable. These meetings included neighborhood groups, open public forums, PTA meetings, and a meeting of the local business community organized by the Suburban Chambers of Commerce.

More than 500 residents completed surveys online or on paper in which public opinion was measured, ideas were tested and suggestions were solicited. The survey was advertised through posters, newspaper articles, announcements at public meetings, and a public service announcement on Channel 36 produced by Summit High School students. Additionally, Summit's first Greenfest was held on May 10, 2008. Focused on sustainability, this well-attended and informative event was designed to increase public awareness and bring useful information to residents to help them make sustainable choices.

Reading This Report

In all the sections, the action steps are organized by topic area, including energy, building practices, transportation, water, recycling, trees, "green" purchasing, education, and implementation.

- "Priority Action Steps" on pages 3-4 is a quick guide to specific actions that are highly recommended because they can be implemented soon, in a cost-effective way, with high positive environmental impact.
- "Overview of All Action Steps," beginning on page 5, is a list of all action steps, to be implemented now and on a more extended timetable.
- "In Depth: Objectives, Targets and Detailed Action Steps," beginning on page 15, is a comprehensive examination of each of the action steps, including justification as well as how and in what timeframe each should be implemented.
- The Appendices, beginning on page 59, contain information to explain and support aspects of the Action Plan.

How Summit Can "Walk the Sustainability Talk"

The challenge for government, business, and individuals is great--how do we incorporate sustainable practices into ongoing operations and our everyday activities? To focus and support our community's efforts to implement this Action Plan, we recommend that one of the standing committees of the Common Council expand its mission to assume a lead role for sustainability. Additionally, a new Sustainability Advisory Committee will provide valuable assistance to the Mayor, the Common Council and to other Summit-based committees and commissions who have a role in issues that relate to sustainability. The Sustainability Advisory Committee will:

- Coordinate the implementation of the Action Plan
- Develop methods to monitor and evaluate progress on the Action Plan
- Regularly assess the plan's effectiveness and recommend modifications and improvements to respond to local conditions and regulatory changes

The citizens of Summit have always operated with an eye to the future. The challenge now is to address the issues of sustainability while preserving the best aspects of our community. Deciding what to do first can be challenging, yet doing nothing or putting off decisions is not a realistic option, given the need to preserve our natural resources, the overwhelming scientific evidence on climate change, and the economics of energy use. We encourage everyone living and working in Summit to make sustainability a priority.

-- The Mayor's Sustainable Community Task Force

Priority Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organizations	Page
	●	●	●	●	●	
A. Energy in the Built Environment						
A-1 Promote enrollment in NJ CleanPower Choice Program, sponsored by the New Jersey Board of Public Utilities	●	●	●	●	●	15
A-2 Promote residential use of NJ Clean Energy’s Home Performance with ENERGY STAR Measured Audit or use of online assessment tool	●	●				16
A-3 Promote purchase by homeowners, businesses/landlords, and municipality of ENERGY STAR appliances and electrical equipment, if available, when purchasing new items or replacing old ones	●	●	●	●		17
A-4 Use Compact Fluorescent (CFL) bulbs, turn out lights when not in use, and if possible, increase LED (light emitting diode) lighting	●	●	●	●	●	17
A-5 Take steps now to reduce energy consumption--set thermostats 2° lower in winter and 2° higher in summer; repair or replace old windows; and unplug appliances/chargers that draw energy when not in use	●	●	●	●	●	18
B. Green Building Practices						
B-4 Encourage Common Council to adopt a resolution endorsing and promoting sustainable building and development practices in Summit	●	●	●	●	●	23
B-6 In order to obtain a building permit, require completion of a one-page form describing the sustainability of the project, and listing proposed green energy and water conservation measures	●	●	●	●		24
B-8 Lobby state legislators to amend the building code to increase energy efficiency in buildings and add requirements for green issues	●	●			●	25
C. Transportation and Circulation						
C-1 Decrease number of car trips and miles driven by people living and working in Summit; for trips less than a mile, walk or ride a bicycle if feasible	●	●	●	●	●	27
C-2. Continue to develop means to facilitate and encourage walking, bicycling, and carpooling	●	●	●	●	●	27
C-5 Encourage Summit residents and businesses, when buying new or used vehicles, to choose vehicles that average 35 mpg or better	●	●	●			30
C-8 Work with other municipalities to develop statewide disincentives for auto trips and policy to improve and increase public transportation options and efficiency	●				●	31
D. Water: Usage and Protection from Contaminants						
D-1 Decrease water use by homes, businesses, and the municipality	●	●	●	●	●	33
D-4 Set up sample projects to demonstrate on-site management of storm water including a rain garden, rain barrels, and others	●			●	●	35
D-6 Use green landscaping practices, that is, use native species, reduce lawn area, and use practices that require less watering and less pesticide and herbicide use	●	●	●	●	●	35

Priority Action Steps <i>(continued)</i>	Municipality	Residents	Businesses	Schools	Partner/Civic Organizations	Page
	●	●	●	●	●	
E. Solid Waste and Recycling						
E-1 Reduce consumption of non-recyclable, toxic and unnecessary materials by residents, businesses, schools and the City	●	●	●	●	●	39
E-2 Implement system-wide changes in garbage collection and add incentive programs to decrease total solid waste and increase recycling	●	●	●	●		40
E-3 Start Freecycling program via a user-friendly website (linked to the City website) and/or at the Recycling Center/Transfer Station or at another location	●	●			●	41
F. Tree Canopy and Open Space						
F-1 Review and enhance Summit’s Shade Tree Ordinance to consider the preservation of additional trees	●				●	45
F-2 Discourage tree removal by developers, contractors, and homeowners; provide incentives for developers and contractors to design around existing vegetation	●	●	●	●	●	45
G. Green Purchasing						
G-1 Require development by the City and Board of Education of a comprehensive environmentally preferred purchasing (EPP) program	●			●		49
G-3 Encourage development of environmentally preferred purchasing (EPP) programs by businesses and industry			●			50
G-4 Encourage residents to select green products whenever possible.	●	●			●	51
H. Education and Communication						
H-3 Create a comprehensive, ongoing publicity plan to promote sustainability in Summit; launch and maintain a community-wide energy awareness and training campaign to promote energy usage reductions and efficiency	●	●	●	●	●	54
H-4 Promote Summit as a green shopping destination easily reached by public transportation, and develop green branding program for Summit businesses and/or a green directory of businesses	●		●		●	55
I. Implementation and Governance						
I-1 Incorporate sustainability into one of the Common Council Standing Committees	●					57
I-2 Establish a Sustainability Advisory Committee (SAC)	●					57
<i>To see a calculation of the carbon savings that could be obtained from the implementation of the Priority Action Steps, see Appendix B.</i>						

Overview of All Action Steps

A. Energy in the Built Environment

Objectives

Reduce greenhouse gas emissions and energy loss in new and existing buildings and homes

Reduce energy use by increasing energy efficiency and the percentage of energy derived from renewable sources

Targets

Reduce greenhouse gas emissions (GHG) from all Summit buildings by 20% by 2015

Increase percentage of Summit residences enrolled in NJ Clean Power Choice Program to 3% by the end of 2008, with additional yearly increases to be determined on a year-to-year basis

Increase percentage of renewable energy used to 10% of Summit's total energy use by 2015, with additional yearly increases to be determined on a year-to-year basis

Increase to 10% the number of Summit residences taking action based on the results of a Home Performance with ENERGY STAR Assessment (audit) by 2010, with additional increases to be determined on a year-to-year basis

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
A-1 Promote enrollment in NJ CleanPower Choice Program, sponsored by the New Jersey Board of Public Utilities	●	●	●	●	●	15
A-2 Promote residential use of NJ Clean Energy's Home Performance with ENERGY STAR Measured Audit or use of online assessment tool	●	●				16
A-3 Promote purchase by homeowners, businesses/landlords, and municipality of ENERGY STAR appliances and electrical equipment, if available, when purchasing new items or replacing old ones	●	●	●	●		17
A-4 Use Compact Fluorescent (CFL) bulbs, turn out lights when not in use, and if possible, increase LED (light emitting diode) lighting	●	●	●	●	●	17
A-5 Take steps now to reduce energy consumption--set thermostats 2° lower in winter and 2° higher in summer; repair or replace old windows; unplug appliances/chargers that draw energy when not in use	●	●	●	●	●	18
A-6 Lobby energy companies and legislators to expand real-time pricing availability, support requirement of minimum percentages of renewable energy, and to promote investment in renewable energy in NJ	●	●				18
A-7 Promote a line item of non-renewable energy use (gas, electric, and oil) for the last year in all real estate listings of homes in Summit	●	●				19
A-8 Expand efforts to install solar energy units on municipal buildings	●					19
A-9 Encourage and educate commercial and industrial users on the benefits of the New Jersey SmartStart Buildings program, sponsored by the NJ Board of Public Utilities' Clean Energy Program.	●		●		●	19
A-10 Launch and maintain a community-wide energy awareness and training campaign to promote energy usage reductions and efficiency	●	●	●	●	●	20
A-11 Encourage a decrease in the use of leaf blowers, lawn mowers and snow blowers, and an increase in the use of clothes lines	●	●			●	20

Overview of All Action Steps *(continued)*

B. Green Building Practices

Objectives

Encourage and promote green building practices, defined as high performance and energy efficient design and construction methods relating to site conditions, water quality, energy use, material selection and indoor environment, which promote the health and well-being of residents and occupants

Reduce greenhouse gas emissions and energy loss in new homes and other new buildings

Reduce energy use by increasing energy efficiency and conservation; increase the percentage of energy derived from renewable sources

Increase use of recycled and renewable materials in new construction and renovation projects; reduce construction waste

Targets

Reduce greenhouse gas emissions (GHG) in new buildings, including new homes, starting now, so as to have a 30% reduction in carbon footprint by 2012 and a zero carbon footprint in buildings constructed after 2025

Encourage all new construction valued at \$50,000 or more to meet LEED (Leadership in Energy and Environmental Design) or equivalent standards by 2012

Reduce construction waste so that 60% of construction waste is recycled by 2012

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
B-1 Promote construction techniques that earn the ENERGY STAR and WaterSense labels and installation of only ENERGY STAR and WaterSense equipment, if available, in new construction	●	●	●	●	●	21
B-2 Promote use of green and recycled building materials in new construction, renovation, and maintenance by developers, residents, business owners, the City, and public schools	●	●	●	●	●	22
B-3 Develop and promulgate guidelines and incentives for green building through compliance with LEED (Leadership in Energy and Environmental Design) standards for new construction and renovation	●		●			22
B-4 Encourage Common Council to adopt a resolution endorsing and promoting sustainable building and development practices in Summit	●	●	●	●	●	23
B-5 Require waste management plan for recycling and/or reuse of 60 percent of all construction and demolition waste generated in projects larger than \$25,000	●	●	●	●		23
B-6 In order to obtain a building permit, require completion of a one-page form describing the sustainability of the project, and listing proposed green energy and water conservation measures	●	●	●	●		24
B-7 Require use of the ENERGY STAR Buildings Target Finder to establish an energy budget (BTU/square foot/year) for all new building proposed for Summit	●	●	●	●		24
B-8 Lobby state legislators to amend the building code to increase energy efficiency in buildings, add requirements for other green issues	●	●			●	25

Overview of All Action Steps *(continued)*

C. Transportation and Circulation

Objective

Reduce transportation fuel use, through reduced automobile use and increased fuel efficiency

Target

Reduce gasoline consumption by Summit residents, businesses, and the municipality by 20% by 2015

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
C-1 Decrease number of car trips and miles driven by people living and working in Summit; for trips less than a mile, walk or ride a bicycle if feasible	●	●	●	●	●	27
C-2 Continue to develop means to facilitate and encourage walking, bicycling, and carpooling	●	●	●	●	●	27
C-3. Adopt an anti-idling ordinance	●					29
C-4 Determine and pursue best method for public transportation within Summit	●	●	●		●	29
C-5 Encourage Summit residents and businesses, when buying new or used vehicles, to choose vehicles that average 35 miles per gallon or better	●	●	●	●		30
C-6 Decrease gasoline use and pollution by Summit municipal vehicles, through pollution control, consideration of use of bio-diesel fuels, and as the fleet turns over, encourage purchase of vehicles with improved fuel efficiency	●					30
C-7 Increase use of public transportation—trains and buses—to travel to and from Summit	●	●	●		●	31
C-8 Work with other municipalities to develop statewide disincentives for auto trips and policy to improve and increase public transportation options and efficiency	●				●	31

Overview of All Action Steps *(continued)*

D. Water: Usage and Protection from Contaminants

Objective

To conserve water through aquifer recharge and water conservation, and improve water quality through reduction in toxics from rainwater runoff and wastewater

Targets

Decrease the annual rate of municipal, residential, commercial and industrial water use by 20% by 2015, as measured by NJ American Water Company

Improve the quality of water in Summit waterways, as measured by DEP stream monitoring, with a 20% decrease in net toxins downstream by 2015

Increase to 20% the number of Summit homes which are managing storm water on-site by 2015

Promote compliance with WaterSense criteria in all new construction in Summit by 2015

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
D-1 Decrease water use by homes, businesses, and the municipality	●	●	●	●	●	33
D-2 Revise Certificate of Occupancy criteria, where permissible, to include best practices in water usage, including EPA WaterSense criteria such as low-flow showerheads, faucets and toilets	●					34
D-3 Encourage installation of water conservation measures such as greywater processing or rainwater capture cisterns/retention pits and dry wells by waiving City permitting fees	●	●	●	●		34
D-4 Set up sample projects to demonstrate on-site management of storm water including a rain garden, rain barrels, re-direction of downspouts, and porous paving	●			●	●	35
D-5 Revise Certificate of Occupancy criteria, where permissible, to include best practices in storm water management	●	●	●	●		35
D-6 Use green landscaping practices, that, is use native species, reduce lawn area, and use practices that require less watering and less pesticide and herbicide use	●	●	●	●	●	35
D-7 Document methods used and sectors treated with Integrated Pest Management by the City	●			●		36
D-8 Develop criteria for designation of Pesticide-free zone (ladybug sign), and organize placement of the signs	●				●	37
D-9 Conduct an evaluation of the status of the water infrastructure of Summit	●					37

Overview of All Action Steps *(continued)*

E. Solid Waste and Recycling

Objectives

Decrease solid waste and encourage best use of resources through a reduce-reuse-recycle philosophy

Improve data collection of total tonnage of solid waste disposed and recycled by businesses and industry

Targets

Exceed NJDEP guidelines, which state that 50% of Municipal Solid Waste, MSW (Type 10), must be diverted from the waste stream by 2012

Divert 75% of MSW from the waste stream by 2020

Divert 35% of all other types of solid waste—other than MSW (Type 10)—by 2012

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
E-1 Reduce consumption of non-recyclable, toxic and unnecessary materials by residents, businesses, schools and the City	●	●	●	●	●	39
E-2 Implement system-wide changes in garbage collection and add incentive programs to decrease total solid waste and increase recycling	●	●	●	●		40
E-3 Start Freecycling program via a user-friendly website (linked to the city website) and/or at the Recycling Center/Transfer Station or at another location	●	●			●	41
E-4 Continue to implement the Recycling Advisory Committee initiatives to increase/ encourage/ enable recycling and re-use throughout Summit	●	●	●	●		41
E-5 Investigate implementing shared services with the City and businesses to facilitate recycling	●		●			42
E-6 If the above efforts fail to reach the targets above, develop means of enforcing the NJ State recycling law for City businesses	●					42
E-7 Develop a website linked to the City's website and an ongoing publicity campaign to promote and educate about goals to reduce/reuse/recycle	●					43
E-8 Require waste management plan for recycling and/or reuse of sixty percent of all construction and demolition waste generated in projects larger than \$25,000	●	●	●	●		43
E-9 Encourage at-home composting of kitchen and yard waste, and consider development by City of a food composting program for residents and/or businesses (restaurants)	●	●	●		●	43
E-10 Consider a PAYT, Pay As You Throw, Program to dispose of Summit's municipal solid waste (MSW) if above steps fail to reach targets	●	●	●	●	●	43

Overview of All Action Steps *(continued)*

F. Tree Canopy and Open Space

Objectives

Continue to promote the preservation of green space in and around the City of Summit

“Promote a sustainable community forest by encouraging the protection and replacement of trees and become more proactive in the management and care of our trees” *(from Summit’s Community Forestry Management Plan)*

Targets

Maintain current tree canopy and increase if possible

Maintain publicly-owned green space and increase when there is the opportunity to do so

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
F-1 Review and enhance Summit’s Shade Tree Ordinance to consider the preservation of additional trees	●				●	45
F-2 Discourage tree removal by developers, contractors, and homeowners; provide incentives for developers and contractors to design around existing vegetation	●	●	●	●	●	45
F-3 Plant trees where appropriate, and meet or exceed City standards for reducing tree removal by residents, businesses and the City	●	●	●	●	●	46
F-4 Develop neighborhood native-plant gardens on City property (rights of way, medians, other similar public spaces)	●	●	●	●	●	46
F-5 Increase recreation access to the Passaic River and explore the creation of a linear park along the River	●		●			46
F-6 Promote use of native species and the replacement of invasive species with appropriate trees and vegetation	●	●	●	●	●	47

Overview of All Action Steps *(continued)*

G. Green Purchasing

Objectives

Encourage a program for Green Purchasing, or Environmentally Preferred Purchasing (EPP), to be adopted by the City and the Board of Education

Encourage residents, businesses, and industry to make purchases that are increasingly environmentally friendly

Targets

Increase to half all purchases made by the City and BOE meeting EPP guidelines by 2012

Increase to 75% all purchases made by the City and BOE meeting EPP guidelines by 2015

Increase green purchasing choices for Summit shoppers, so that by 2015 these options are the first choice for most shoppers

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
G-1 Require development by the City and Board of Education (BOE) of a comprehensive environmentally preferred purchasing (EPP) program	●			●		49
G-2 Decrease gasoline use and pollution by Summit municipal vehicles, through pollution control, consideration of use of bio-diesel fuels, and as the fleet turns over, encourage purchase of vehicles with improved fuel efficiency	●					50
G-3 Encourage development of environmentally preferred purchasing (EPP) programs by businesses and industry			●			50
G-4 Encourage residents to select green products whenever possible	●	●			●	51

Overview of All Action Steps *(continued)*

H. Education and Communication

Objectives

Develop and disseminate accurate and timely information in an easily accessible format to people in residential, commercial, industrial and municipal sectors to inform them about best practices, and to encourage them to consider environmental sustainability when making municipal, commercial, industrial and residential decisions

Design and execute a broad-based and ongoing plan to engage residents, educators, City officials, businesses and industry in learning and decision making about actions to safeguard and improve the environment and the quality of life in Summit

Target

The involvement and knowledge of Summit will be evidenced by the following indicators:

- Decrease in building-related energy use
- Decrease in automobile miles driven; increase in fuel efficiency of our vehicles
- Decrease in water consumption, wastewater runoff, and increase in environmentally-friendly landscaping methods
- Decrease in non-recycled solid waste
- Increase in purchase of green products

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
H-1 Develop a user-friendly, comprehensive website, linked to the Summit municipal web site, dedicated to sustainability in Summit	●	●	●	●	●	53
H-2 Continue to produce and support the annual Greenfest in downtown Summit	●	●	●	●	●	53
H-3 Create a comprehensive, ongoing publicity plan to promote sustainability in Summit; launch and maintain a community-wide energy awareness and training campaign to promote energy usage reductions and efficiency	●	●	●	●	●	54
H-4 Promote Summit as a green shopping destination easily reached by public transportation, and develop a green branding program for Summit businesses and/or a green directory of businesses	●		●		●	55
H-5 Encourage the Summit Board of Education and private schools and lobby the state to increase sustainability-related curriculum at all levels of education	●			●		55

Overview of All Action Steps *(continued)*

I. Implementation and Governance

Objective

Create a structure that will support community volunteers, existing committees, City staff and elected officials to enable a long term sustainability effort

Action Steps	Municipality	Residents	Businesses	Schools	Partner/Civic Organization	Page
	●	●	●	●	●	
I-1 Incorporate sustainability into one of the Common Council Standing Committees	●					57
I-2 Establish a Sustainability Advisory Committee (SAC)	●					57

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In-Depth

Objectives, Targets and Detailed Action Steps

A. ENERGY IN THE BUILT ENVIRONMENT

Objectives:

- Reduce greenhouse gas emissions and energy loss in new and existing buildings and homes
- Reduce energy use by increasing energy efficiency and the percentage of energy derived from renewable sources

Targets:

- Reduce greenhouse gas emissions (GHG) from all Summit buildings by 20% by 2015
- Increase percentage of Summit residences enrolled in NJ Clean Power Choice Program to 3% by the end of 2008, with additional yearly increases to be determined on a year-to-year basis
- Increase percentage of renewable energy used to 10% of Summit's total energy use by 2015, with additional yearly increases to be determined on a year-to-year basis
- Increase to 10% the number of Summit residences taking action based on the results of a Home Performance with ENERGY STAR Assessment (audit) by 2010, with additional increases to be determined on a year-to-year basis

Action Steps:

A-1. Promote enrollment in NJ CleanPower Choice Program, sponsored by the New Jersey Board of Public Utilities

Justification: The CleanPower Choice Program from the New Jersey Board of Public Utilities' Office of Clean Energy is a statewide program that allows residents to choose clean, renewable sources of energy, supporting the generation of renewable energy sources (solar, wind, hydro, biomass, geothermal) that diversify the energy supply and help create a healthier environment. Each household that participates in the CleanPower Choice Program can reduce CO2 emissions by over 10,000 lbs. per year. The cost is about \$9-10/month for a house using 700 kWh/month.

Method:

- Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings
- In order to increase the diversity of people who are financially able to make this choice, a local carbon offset program could be established. In such a program, people who choose to engage in higher-carbon-emitting activities, like airplane travel, would be able to offset their carbon use by paying preset amounts into a fund. The fund, administered by a Summit-based non-profit group, with a mission of promoting diversity, would then use the funds to help lower-income residents buy into the CleanPower Choice Program.
- Incentives--for example, a Summit Challenge Goal striving for 4% or higher (different from target above) of households by the end of 2010

Measurement: JCP&L breaks out residential electricity use amounts on a yearly basis, and will provide those numbers; PSE & G, which supplies gas to Summit, should have the capability within a few years to break out figures for gas usage

Timeline: Underway

Implementing Responsibility: Sustainability Advisory Committee, Clean Power Team (Sub-committee of Environmental Commission)

Cost: Moderate

Community Enthusiasm: High

Examples and References:

<http://www.njcleanenergy.com/renewable-energy/programs/cleanpower-choice-program/new-jersey-cleanpower-choice-program>

A-2. Promote residential use of NJ Clean Energy's offer of Home Performance with ENERGY STAR Measured Audit or use of online assessment tool

Justification: The average New Jersey home contributes about 12,900 lbs of carbon dioxide each year based on 900 kWh usage per month. The NJ Board of Public Utility (BPU) has a Clean Energy Program which offers a \$250 analysis performed by professionals (with a potential rebate of the \$250 if recommended steps are performed). Homeowners ordering a home energy analysis will be visited by a professional who will do a thorough assessment and give the homeowner a report with recommended measures, costs, payback analysis and a list of certified contractors.

<http://www.njcleanenergy.com/residential/programs/home-performance-energy-star/home-performance-energy-star-r>.

Following through with audit recommendations will generally:

- Reduce energy costs up to 30%
- Help reduce carbon footprint
- Improve environmental health and safety

The free online home energy analysis can also suggest ways to make your home more energy-efficient. <http://www.njcleanenergy.com/residential/tools-and-resources/home-energy-analysis/home-energy-analysis-0>. The program responds to home data entered by the homeowner with immediate feedback.

Method:

- Design and distribute information to explain and promote the programs. An information program with BPU can be established to stress the importance of a Home Analysis and Assessment including what to expect, and how to enter data and interpret the advice.
- In order to increase the diversity of people who are financially able to make this choice, a local carbon offset program could be established. In such a program, people who choose to engage in higher-carbon-emitting activities, like plane flights, would be able to offset their carbon use by paying preset amounts into a fund. The fund, administered by a Summit-based non-profit group, with a mission of promoting diversity, would then use the funds to help lower-income residents pay for an energy audit.
- Organize civic/volunteer groups to train members to perform energy-saving recommendations (e.g., weatherstripping, caulking leaks) to help community members unable to perform or afford to perform recommended actions themselves.

Measurement: Maintain a data base of changes made based on BPU tracking

Implementing Responsibility: Sustainability Advisory Committee, Environmental Commission

Timeline: Begin in 2008; and continue setting goals on a yearly basis

Cost: Initial cost for implementing assessors' suggestions, but rebates available from NJ

Community Enthusiasm: Not available

Examples and References:

- See US EPA ENERGY STAR web site for national Home Energy Assessment program: www.energystar.gov/index.cfm?c=home_improvement.hm_improvement_hpwes
- Energy usage calculators <http://www.energyguide.com/ha/calclaunch.asp?referrerid=120&sid=472>
- Tips <http://www.njcleanenergy.com/residential/tools-and-resources/energy-savings-tips/energy-savings-tips>

A-3. Promote purchase by homeowners, businesses/landlords, and municipality of ENERGY STAR appliances and electrical equipment, if available, when purchasing new items or replacing old ones

Justification: A typical household contributes twice the amount of greenhouse gases to the environment as an average car. ENERGY STAR qualified appliances incorporate advanced technologies that use 10–50% less energy and water than standard models, and can save up to 30% per appliance.

Method:

- Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses, information handed out with permit applications
- Urge City officials to adopt a purchasing policy requiring ENERGY STAR appliances when replacing appliances or purchasing new ones
- Requirements, incentives for homeowners and renovators to use ENERGY STAR items, like streamlined permitting, reduced permit fees, priority review
- In order to increase the diversity of people who are financially able to make this choice, a local carbon offset program could be established. In such a program, people who choose to engage in higher-carbon-emitting activities, like airplane travel, would be able to offset their carbon use by paying preset amounts into a fund. The fund, administered by a Summit-based non-profit group, with a mission of promoting diversity, would then use the funds to help lower-income residents buy ENERGY STAR appliances.
- NJ offers rebates for ENERGY STAR appliance purchases

Measurement: Track annual usage (where possible through permitting process) and municipal purchases

Timeline: Begin producing and distributing information in 2008

Implementing Responsibility: Sustainability Advisory Committee, Environmental Commission

Cost: Moderate

Community Enthusiasm: High

Examples and References:

- http://www.energystar.gov/index.cfm?c=appliances.pr_appliances
- For rebate information: <http://www.njcleanenergy.com/residential/programs/energy-star-product-rebates/rebates-programs/rebates-and-programs>

A-4. Use Compact Fluorescent (CFL) bulbs, turn out lights when not in use, and if possible, increase LED (light emitting diode) lighting

Justification: If every American home replaced just one light bulb with a CFL bulb, enough energy would be saved to light more than 3 million homes for a year, save more than \$600 million in annual energy costs, and prevent greenhouse gases equivalent to the emissions of more than 800,000 cars. ENERGY STAR qualified CFLs and other qualified bulbs

- Use about 75 % less energy than incandescent bulbs and last up to 10 times longer
- Save about \$30 or more in electricity costs over each bulb's lifetime.
- Produce about 75 % less heat, so they're safer to operate and can cut energy costs associated with home cooling
- Are available in different sizes and shapes to fit in almost any fixture, for indoors and outdoors, and in dimmable models

To pick the right bulb for the right spot, go to http://www.energystar.gov/index.cfm?c=cfls.pr_cfls

Method:

- Municipal: Policy directive for purchasing CFLs
- Commercial and residential: Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses, information handed out with permit applications

Measurement: Municipal purchasing records and JCP & L data for municipal, commercial and residential use

Timeline: Begin producing and distributing information in 2008

Implementing Responsibility: Sustainability Advisory Committee, Environmental Commission

Cost: Low

Community Enthusiasm: High

Examples and References: http://www.energystar.gov/index.cfm?c=cfls.pr_cfls

A-5. Take steps now to reduce building related energy consumption--set thermostats 2° lower in winter and 2° higher in summer, with larger modifications at night; repair or replace old windows; and unplug appliances and chargers that draw energy when not in use

Justification: Up to one half of a house's energy expense/emissions is from the heating and cooling systems. Each 2° change saves 1% of energy, for a potential GHG reduction of 1500-2000 lbs/year. Any reduction in household energy use will reduce gas and electric bills and reduce GHG emissions.

Method:

- Municipal: Policy directive for turning down/up thermostats
- Commercial and residential: Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses, information handed out with permit applications

Measurement: Municipal electric and gas bills and JCP & L data for municipal, commercial and residential use

Timeline: Make initial changes within one year; ongoing education

Implementing Responsibility: Sustainability Advisory Committee

Cost: Low (for programmable thermostats), plus cost savings

Community Enthusiasm: High

Examples and References:

http://www.energystar.gov/ia/products/heat_cool/GUIDE_2COLOR.pdf

A-6. Lobby energy companies and legislators to expand real-time pricing availability, to support requirement of minimum percentages of qualified renewable energy, and to promote investment in renewable energy in New Jersey

Justification: Real-time pricing provides customers with price signals to show when using energy is most expensive, allowing customers to target less expensive times to engage in high-use activities. Traditional electrical meters only measure total consumption, providing no information on when the energy was consumed. But the price of electricity varies during the day, depending on demand. Smart meters provide an economical way of measuring this information. This enables electric companies to set pricing that varies by season and time of the day, rewarding customers who shift energy use to off-peak periods. In addition, JCP & L and PSE & G should be encouraged to initiate, continue and add incentives and financing for installation of solar and other alternative energy systems in order to reduce reliance on fossil fuels, and therefore CO₂, and to ultimately reduce fuel costs.

Method: Create legislative/alternative energy committees or subcommittees or designate person or persons to keep track of developments and to apply pressure for change

Measurement: Follow legislative progress and progress made by energy companies

Timeline: Make initial changes to existing committees within one year

Implementing Responsibility: Sustainability Advisory Committee

Cost: Variable

Community Enthusiasm: Not available

A-7. Promote a line item of non-renewable energy use (gas, electric, and oil) for the last year in all real estate listings of homes in Summit

Justification: To meet Summit's carbon footprint goals, energy use in homes must be reduced. Allowing home buyers to compare houses' energy use will provide important data in making a decision about purchase.

Method: Require the home seller to provide the utility bills for the past year or require that the home seller have an energy audit performed. The listing realtor would include the data on the listing and be encouraged to compare energy use for the potential buyer. This may require lobbying regional real estate organizations.

Measurement: An established metric is not available. Utility bills would be easy to obtain but include variables which are dependent on the nature of the occupancy. Energy audits are available.

Timeline: 2008

Implementing Responsibility: Sustainability Advisory Committee

Cost: Low to Moderate

Community Enthusiasm: Not available

A-8. Expand current efforts to install solar energy units on municipal buildings

Justification: Solar energy is a renewable resource that is clean and reliable. Emissions associated with generating electricity from solar technologies are negligible because no fuels are combusted. Photovoltaic systems are typically placed on existing structures and, therefore, are particularly well-suited for use on municipal buildings.

Method:

- Research and educate City officials and the public about solar (photovoltaic) and other feasible renewable energy projects
- Explore the use of Renewable Energy Credits for solar installations through NJ BPU

Measurement: Compare progress on installations from year to year

Timeline: Research underway; more research needed

Implementing Responsibility: Sustainability Advisory Committee

Cost: Moderate to high initially, with long-term cost savings

Community Enthusiasm: High

Examples and References:

- Solar energy: <http://www.epa.gov/solar/>
- Renewable energy credits:
 - <http://www.state.nj.us/bpu/newsroom/news/pdf/20080408.pdf>
 - <http://www.epa.gov/solar/energy-and-you/affect/non-hydro.html>
 - <http://www1.eere.energy.gov/solar/photovoltaics.html>
 - <http://www.renewableenergyworld.com/rea/news/story?id=49955>

A-9. Encourage and educate commercial and industrial users on the benefits of the New Jersey SmartStart Buildings program, sponsored by the NJ Board of Public Utilities' Clean Energy Program.

Justification: New Jersey SmartStart Buildings[®] is a statewide energy efficiency program administered by the New Jersey Board of Public Utilities' Office of Clean Energy and delivered by the

Commercial/Industrial Market Manager, TRC Energy Services. The incentives, technical assistance, and other services are available to qualified commercial, industrial, institutional, government or agricultural customers in the state who are planning to construct, expand, renovate, or remodel a facility, or to replace electric or gas equipment. In addition to design incentives, financial incentives for large and small projects are available to help offset costs.

Method: Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses, information handed out with permit applications. Particular emphasis needs to be on disseminating information to the business community and to builders.

Measurement: Compare numbers of people taking advantage of the program from year to year

Timeline: Begin development and dissemination of materials in 2008

Implementing Responsibility: Sustainability Advisory Committee, Planning Board, Zoning Board

Cost: Low

Community Enthusiasm: Not available

Examples and References:

<http://www.njcleanenergy.com/commercial-industrial/programs/nj-smartstart-buildings/nj-smartstart-buildings>

A-10. Launch and maintain a community-wide energy awareness and training campaign to promote energy usage reductions and efficiency

(See Section H, Communication and Education, Action Step H-3)

A-11. Encourage a decrease in the use of inefficient, CO2-producing and noisy leaf blowers, lawn mowers and snow blowers, and an increase in the use of clothes lines as an alternative to dryers

Justification: Leafblowers emit more than 2.6 million tons of carbon dioxide each year in the U.S. and each year they burn enough fuel to fill 6.4 million oil barrels. (More than 90 percent of the fuel use and emissions are from commercial leaf blowers.) They contribute to noise pollution and noxious odors, and are a health hazard to the user.

A dryer is typically the second-biggest home-based electricity-using appliance after the refrigerator, costing about \$85 to operate annually, and generating about 2,224 pounds of carbon dioxide.

Method:

- Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses and brochures at City Hall
- Hold meetings with landscapers and yard care businesses to promote electric equipment or person-powered practices
- Propose an ordinance to limit or ban gas-powered leaf blowers and mowers (for example, seasonal bans)
- Develop incentive program similar to one in southern California for blowers (units are 40 times quieter and 4x cleaner than typical backpack blower)

Measurement: Annual survey of landscapers

Timeline: Ongoing education beginning in 2008; draft ordinance language by 2009

Implementing Responsibility: Sustainability Advisory Committee, Environmental Commission

Cost: Low to moderate

Community Enthusiasm: Moderate

Examples and References:

- <http://www.thestar.com/article/415836>
- <http://gristmill.grist.org/story/2008/1/25/85126/6669>
- http://www.stihlusa.com/pressoffice/sep07_clearair.html

B. GREEN BUILDING PRACTICES, INCLUDING NEW CONSTRUCTION, ADDITIONS AND RENOVATIONS

Objectives:

- Encourage and promote green building practices, defined as high performance and energy efficient design and construction methods relating to site conditions, water quality, energy use, material selection and indoor environment, which promote the health and well-being of residents and occupants
- Reduce greenhouse gas emissions and energy loss in new homes and other new buildings
- Reduce energy use by increasing energy efficiency and conservation; increase the percentage of energy derived from renewable sources
- Increase use of recycled and renewable materials in new construction and renovation projects; reduce construction waste

Targets:

- Reduce greenhouse gas emissions (GHG) in new buildings, including new homes, starting now, so as to have a 30% reduction in carbon footprint by 2012 and a zero carbon footprint in buildings constructed after 2025
- Encourage all new construction valued at \$50,000 or more to meet LEED (Leadership in Energy and Environmental Design) or equivalent standards by 2012
- Reduce construction waste so that 60% of construction waste is recycled by 2012

Action Steps:

B-1. Promote construction techniques that earn the ENERGY STAR and WaterSense labels and installation of only ENERGY STAR and WaterSense equipment, if available, in new construction

Justification:

Commercial and industrial facilities account for half of all energy consumption in the U.S. and account for nearly half of U.S. greenhouse gas emissions. Commercial buildings that have earned the ENERGY STAR label use on average 35% less energy than typical similar buildings and generate one-third less carbon dioxide. ENERGY STAR label homes are at least 15% more energy efficient and include additional energy-saving features that typically make them 20–30% more efficient than standard homes and substantially reduce harmful emissions.

WaterSense, a partnership program sponsored by the EPA, seeks to protect the future of the nation's water supply by promoting water efficiency and enhancing the market for water-efficient products, programs, and practices. WaterSense helps consumers identify water-efficient products and programs. The WaterSense label will indicate that these products and programs meet water efficiency and performance criteria.

Method:

- Incentives for builders to adopt ENERGY STAR and WaterSense building practices such as priority review, streamlined permitting, reduced permit fees for those who adopt practices and increasing fees for those who do not
- Articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses, information handed out with permit applications
- Encourage review of ReGreen Guidelines, which describe how to “green” home remodeling <http://www.regreenprogram.org/>

Measurement: Keep track of progress through permitting process and compare year to year

Timeline: Begin producing and distributing information in 2008

Implementing Responsibility: Sustainability Advisory Committee, Planning Board

Cost: Medium to high, depending on actions taken

Community Enthusiasm: High

Examples and References:

- http://www.energystar.gov/index.cfm?c=business.bus_bldgs
- http://www.energystar.gov/index.cfm?c=new_homes.hm_index
- <http://www.epa.gov/watersense/basic/index.htm>
- <http://www.regreenprogram.org/>

B-2. Promote use of green and recycled building materials in new construction, renovation, and maintenance by developers, residents, business owners, the City, and public schools

Justification: Using green and recycled materials can be accomplished fairly easily at a relatively low cost. Users will benefit from good publicity, greater durability of materials, and a better indoor environment. It also provides energy savings, health benefits, increase in property value and/or increase in marketability.

Method:

- Develop awareness through informational workshops, websites, news articles, and flyers available at City Hall
- Implement administrative incentives such as streamlining permit or approval process or concessions on variances
- Promotion of local businesses that sell green building materials or provide green services

Measurement: Energy savings will vary depending on extent of use; make notification of use of materials a part of the permitting process in order to track use

Timeline: 2009

Implementing Responsibility: Sustainability Advisory Committee, Planning Board, City Purchasing Department

Cost: Moderate, with long-term savings

Community Enthusiasm: High

Examples and References:

- <http://www.greenbuildingpages.com>
- <http://www.ciwmb.ca.gov/greenbuilding/Materials/>

B-3. Develop and promulgate guidelines and incentives for green building through compliance with LEED (Leadership in Energy and Environmental Design) standards for new construction and renovation

Justification: The LEED Rating System provides standardization and oversight to claims of environmental performance for new construction and renovations. Targeting LEED or equivalent standards sets a positive example to the community, supports the endorsement of the U.S. Mayors Climate Protection Agreement, makes municipal buildings and schools healthier, reduces water consumption, and lowers energy costs.

Method:

- Commitment in principle by Summit Common Council and the Summit Board of Education to green building by meeting LEED or equivalent standards whenever possible in new construction and renovation
- Set up fast-track approval for green structures that meet all other city requirements

- Create informational materials about green building practices for the Planning Board to use when reviewing projects

Measurement: Document all construction and renovation within Summit that meet criteria for USGBC (United States Green Building Council) LEED Guidelines

Timeline: Begin in 2008

Implementing Responsibility: Sustainability Advisory Committee, Planning Board, Board of Ed

Cost: Moderate for builders, cost savings over time for occupant

Community Enthusiasm : High

Examples and References:

- www.smartcommunities.ncat.org/buildings/gbcodtoc.shtml
- Cranford, NJ Chapter 106 (Energy Efficiency) of the Code of the Township of Cranford
- State of California, <http://www.green.cce.gov/GreenBuildings/leed.htm>
- Epping, NH, http://www.cleanair-coolplanet.org/for_communities/green_design_epping.php
- Rutgers, <http://news.rutgers.edu/focus/issue.2007-03-28.0562364514/article.2007-03-28.2038660780>
- <http://www.serconline.org/grBldg/stateactivity.html>
- <http://www.usgrc.org>
- http://www.northjersey.com/business/news/Towns_learn_how_going_green_saves.html

B-4. Encourage Common Council to adopt a resolution endorsing and promoting sustainable building and development practices in Summit

Justification: The Summit 2006 Re-Examination of the Master Plan called for using “green” building principles. Until the Master Plan is amended to adopt those principles, it would be helpful for the Planning Board, developers/builders and homeowners to have a list of green building practices that are encouraged by Summit.

Method: Prepare a statement of green building and design practices that are encouraged by Summit, which will be available in the City offices for builders/developers and homeowners (See a draft statement in Appendix D)

Measurement: Follow compliance through statements listing green practices submitted by builders/developers and homeowners

Timeline: 2008

Implementing Responsibility: Sustainability Advisory Committee, Common Council, Planning Board

Cost: Low

Community Enthusiasm: Not available

Examples and References: See proposed language in Appendix D

B-5. Require waste management plan for recycling and/or reuse of 60 percent of all construction and demolition waste generated in projects larger than \$25,000

Justification: This process will save energy, reduce waste, and reduce the need for landfill space. Developers see the wisdom in recycling and reuse because of limitations being placed on landfill use and cost savings from recycling.

Method: Enact a city ordinance with an implementation plan

Measurement: The plan would specify where the waste is being recycled and how it is being measured. The EPA publishes statistics quantifying the percentage of the waste stream that is generated by construction and demolition waste.

Timeline: 2009

Implementing Responsibility: Sustainability Advisory Committee, Planning Board, RAC

Cost: Low (recycling and reuse of materials costs less than tipping fees), cost savings

Community Enthusiasm: Not available

Examples and References:

- Novartis Pharmaceuticals, Morris County, N. J., Hudson County Improvement Authority, Hudson County, N.J. Ref: The New Jersey Waste Wise Bulletin Newsletter of New Jersey, Autumn 2007;
- Summit Medical Group Construction Site, Summit Avenue, Summit, N.J.
- Woolrich Township, NJ, Chapter 155, Article III, Sections 155-27 to 155-37 of the Township of Woolrich Code

B-6. In order to obtain a building permit, require completion of a one-page form describing the sustainability of the project, and listing proposed green energy and water conservation measures

Justification: This requirement would help reduce building energy loss with resultant cost savings. It would also serve as an educational tool and provide information about green building in Summit.

Method:

- The form could have questions about the consideration of green roofs, solar panels, rain screens, daylighting features, use of local and/or green building materials, such as more energy efficient windows or insulation
- Education through workshops, websites, and publications

Measurement: The reduction in carbon emissions could be quantified by identifying the items with increased energy efficiency (better insulation, more energy-efficient windows, solar panels, daylighting features, rain screens, etc). Compare the results of the form with standard green building measures. Quantify reduction in CO2 emissions as a result of increased energy efficiency (better insulation in walls, more energy efficient windows, etc.)

Timeline: Draft language for permit form in early 2009; implement in 2010

Implementing Responsibility: Sustainability Advisory Committee, Planning Board, Summit Community Services

Cost: Low

Community Enthusiasm: Not available

B-7. Require use of the ENERGY STAR Buildings Target Finder to establish an energy budget (BTU/square foot/year) for all new building proposed for Summit

Justification: EPA's Target Finder tool helps architects and building owners set aggressive, realistic energy targets. This tool helps rate a building design's estimated energy use. The goal is to have a building's drawings and specifications labeled "Designed to Earn the ENERGY STAR."

Method: Town ordinance or City policy with education through workshops, websites, and publications

Measurement: Track how many projects use this tool

Timeline: 2009

Implementing Responsibility: Sustainability Advisory Committee, Planning Board

Cost: Low to moderate

Community Enthusiasm: Not available

Examples and References:

http://www.energystar.gov/index.cfm?c=new_bldg_design.bus_target_finder

B-8. Lobby state legislators to amend the building code to increase energy efficiency in buildings and add requirements for other green issues

Justification: In New Jersey, the Building Code content is the responsibility of the State, not individual municipalities. In order to insure that new construction and renovations are optimally energy efficient and environmentally sustainable, new regulations are needed. At the local level (in Summit and numerous other municipalities around New Jersey), there is strong support for encouraging and providing incentives for green building practices. However, only a change in code can insure that all construction is sustainable.

Method: Continue to partner with statewide municipal, non-profit, and other organizations to work for building code change in New Jersey; create legislative/alternative energy committees or subcommittees or designate person or persons to keep track of developments and to apply pressure for change

Measurement: Follow legislative progress and progress made by energy companies

Timeline: Make initial changes to existing committees within one year

Implementing Responsibility: Sustainability Advisory Committee, working with Summit Mayor and Common Council, the Environmental Commission, SummitGreen, Inc., and others

Timeline: Long term

Cost: Low

Community Enthusiasm: High

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C. TRANSPORTATION AND CIRCULATION

Objective: Reduce transportation fuel use, through reduced automobile use and increased fuel efficiency

Target: Reduce gasoline consumption by Summit residents, businesses, and the municipality by 20% by 2015

[This can occur if two actions happen: fewer miles are traveled and a portion of Summit vehicles are replaced by vehicles with greater fuel efficiency. A 20% reduction will occur if, for example, there is a reduction of 5% in miles traveled, resulting in 5% less gasoline consumed, and 50% of Summit vehicles are replaced by vehicles with at least 30% better mileage (e.g. increasing from 20 MPG on average to 26 MPG on average)]

Action Steps:

C-1. Decrease number of car trips and miles driven by people living and working in Summit; for trips less than a mile, walk or ride a bicycle if feasible

Justification: Personal automobile use constitutes 25% of energy use and greenhouse gas emissions in Summit. Reducing automobile trips results in lower gasoline use and lower carbon emissions, and is one way each individual can reduce his or her own carbon footprint. While trips within Summit comprise only 10% of Summit residents' gasoline use, these are an important contribution to our lifestyle of auto dependence. High congestion contributes to air pollution, and threatens public safety. Increased numbers of pedestrian accidents have been reported in recent years, and increasing numbers of cars at school drop-off and pick-up threaten children's safety. Fewer cars on the road lead to fewer vehicular and pedestrian accidents.

Method: Continue and expand efforts to encourage citywide philosophy and incentives to walk, bike, carpool, and use public transportation. Create peer pressure and incentives for parents and students (e.g., community service points can be given to students who walk to school)

Measurement: Use Road Counter Strips (available from the Summit Police Department) to count numbers of cars on a systematic periodic basis. Select one or two spots near each destination and count vehicles crossing the Counter Strip one week each quarter year. Plot changes over time. Consider a periodic community survey to determine number of miles driven.

Implementing Responsibility: Alternate Modes of Transportation Committee, Board of Education, sports organizations

Timeline: Underway

Cost: None

Community Enthusiasm: High

Examples and References:

Jan Gehl, Lars Gemzøe, Sia Kirknæs, Britt Sternhagen Søndergaard. "New City Life" Danish Architectural Press, 2006

C-2. Continue to develop means to facilitate and encourage walking, bicycling, and carpooling

Justification: While trips within Summit comprise only 10% of Summit residents' gasoline use, these are an important contribution to our lifestyle of auto dependence and a reduction of trips would help improve air quality. Furthermore, walking and bicycling will enhance public health, including reduction in obesity and cardiovascular disease. Having fewer cars on the road reduces air, water, and noise pollution; it also reduces vehicular and pedestrian accidents.

Method: The City and other groups should continue to implement Alternative Modes of Transportation Committee (AMT) recommendations to increase/encourage/enable pedestrian and bicycle transportation within Summit

- AMT will work with Board of Recreation, the Summit Connection and YMCA, and other groups to run promotional campaigns and education programs on the health and experiential benefits of walking and bicycling
- Continue efforts to create sidewalks on streets where no sidewalk currently exists (example: Division Ave.)
- Bring substandard sidewalks up to code requirements to allow safe walking
- Consider ways to have a pedestrian mall downtown, for example, closing selected streets on Saturdays or Sundays
- Implement AMT bicycle routes (already underway, passed by Council April 2008); develop bike paths where feasible
- Install more bike racks downtown (the rack on the north side of the Summit train station is full every day)
- Promote bike riding in Summit with bike clubs or events
- Educate individuals about the advantages of bicycles and bicycle lanes, versus the negative polluting effects of motorized transportation
- Continue to implement traffic calming strategies, such as striping along edges of roads, narrowing the area for driving
- Promote carpooling: for example, consider requiring a car pooling plan for students requesting parking at the high school, and encourage sports teams to set up carpooling to/from games
- Support the Rails to Trails initiative

Measurement: Use Road Counter Strips (available from the Summit Police Department) to count numbers of cars on a systematic periodic basis. Select one or two spots near each destination and count vehicles crossing the Counter Strip one week each quarter year. Plot changes over time. Consider a periodic community survey to determine number of miles driven.

Implementing Responsibility: AMT, the City (through funding for sidewalks, bicycle racks, and other strategies), Board of Education

Timeline: Underway

Cost: Variable

Community Enthusiasm: High

Examples and References:

- Summit Alternate Mode of Transportation Committee, July 11, 2006 Council Resolution
- Coast-to-Coast Bike MS Ride in West Long Branch. NJ
- http://bikenjm.nationalmssociety.org/site/PageServer?pagename=BIKE_NJM_homepastecoast
- The Central Jersey Bicycle Club in Edison, NJ: <http://www.cjbc.org/>
- <http://www.suburbancyclists.org/n-jersey.htm>
- Bicycling: http://query.nytimes.com/mem/archive-free/pdf?_r=1&res=9F03EEDD1E38EE32A25753C3A9679D946896D6CF&oref=slogin
- NJ statewide bicycle / pedestrian master plan: <http://www.bikemap.com/RBA/NJBikePed.pdf>
- Traffic calming methods: <http://trafficlogix.com;>
<http://www.fhwa.dot.gov/environment/tcalm/index-htm>
- Jan Gehl and Lars Gemzøe. "New City Spaces". Copenhagen : Danish Architectural Press, 2000.

C-3. Adopt an anti-idling ordinance

Justification: An average car emits 1 pound of CO₂ for every minute it idles. Reducing idling directly reduces CO₂ and other pollutants.

Method: Voluntary education, and an anti-idling ordinance by 2010

Measurement: Monitor steps in ordinance development: ordinance drafted, reviewed by committee, submitted to Council, discussed at public hearing, brought to a vote

Implementing Responsibility: AMT and the Sustainability Advisory Committee

Timeline:

Voluntary education: Underway.

Develop ordinance by December 2008

Adopt ordinance by September 2009, for implementation in January 2010

Cost: Related to enforcement

Community Enthusiasm: High

Examples and References:

- Idle Free New Jersey Success Stories
 - “Students in Summit High School's Earth Club [who] launched a "no idling" campaign to stop idling on school grounds [in 2007]. The students raised money in order to buy the no idling signs and post them along the school pick up line.
 - <http://www.cleanwateraction.org/njef/campaigns-noidlingsuccess.html>
- Sacramento: <http://www.airquality.org/modelord/MayOrdinancesStaffRpt.pdf>
- American Transportation Research Institute Compendium of Idling Regulations: <http://www.atri-online.org/2005.ATRI.IdlingCompendium.pdf>

C-4. Determine and pursue best method for public transportation within Summit

Justification: For many students, the elderly and commuters, getting downtown, to school, after-school activities or the train station requires one or more round trips per day, 5 days a week. A jitney service, or a coordinated effort between the City and other groups, like Senior Connections, Sage, NJTransit, Schering, for example, could vastly reduce this local traffic.

Method: The City or a partner group should conduct a study to determine likely usage, best routes, and the number of buses and drivers needed to accommodate expected users. A second study should inventory existing services to determine best practices. A non-profit group could design and implement the service.

Measurement: A bus service should have a computer tracking system that tallies the number of people using the bus and distance they traveled. Assume that whenever there is more than one person riding the bus, there is a savings of one auto trip for the distance of that ride. The non-profit group operating a jitney will report use to the City annually (number of passengers, distance of rides, and locations of popular pick-up and drop-off).

Implementing Responsibility: AMT and the Sustainability Advisory Committee

Timeline:

Polling/raising interest and study: 2008-9

Develop a non-profit to operate the service: by 2010

Buses in service: middle of 2011

Cost: High

Community Enthusiasm: Mixed--on a recent community survey, many answered “no” for this, but we do not know reasons for the negative reaction

Examples and References:

- Maplewood
 - <http://www.maplewoodonline.com/jitney.php>
- South Orange Parking Authority Jitney Bus Service (SOJB)

- http://www.apta.com/links/state_local/nj.cfm
- Glen Ridge Borough (GRB)
 - <http://www.glenridgenj.org/jitney.htm>
- Historical system: Early beginnings of Jitney Bus in NYC, 1919
 - http://query.nytimes.com/mem/archive-free/pdf?_r=1&res=9F03EEDD1E38EE32A25753C3A9679D946896D6CF&oref=slogin

C-5. Encourage Summit residents and businesses, when buying new or used vehicles, to choose vehicles that average 35 miles per gallon or better

Justification: While reduction in use of personal vehicles is the ultimate goal, vehicles for personal use will be needed for a long time, and will be demanded by residents. Summit vehicles could, on average, be much more fuel-efficient. Due to new C.A.F.E. standards and popular demand, it is likely that as Summit residents replace older vehicles, newer vehicles will have improved fuel efficiency, and therefore be better choices.

Method:

- Education and encouragement for residents, business owners and city employees regarding advantages to more efficient vehicles
- Incentives such as preferred parking or reduced parking fees should be developed for people who have fuel-efficient vehicles

Measurement: Obtain NJ Motor Vehicle Commission data on make/model/year of all cars registered to Summit addresses. Currently these data are not available, but data do exist in the NJMVC database. With help from EPA we can continue to put pressure on NJMVC to extract municipal or zip code level data.

Implementing Responsibility: Sustainability Advisory Committee, AMT, Environmental Commission

Timeline: 2009

Cost: Cost savings for residents who have vehicles with better gas mileage

Community Enthusiasm: High

Examples and References:

- Priority Parking, Carousel Mall - Syracuse, NY
 - New York Times Article "The Mall That Would Save America" (http://www.nytimes.com/2005/07/03/magazine/03PHENOM.html?_r=1&oref=slogin)
- Pennsylvania, New York, New Jersey Port Authority has reduced EZ pass tolls for Hybrid vehicles, <http://www.panynj.gov/COMMUTINGTRAVEL/bridges/html/tolls.html>

C-6. Decrease gasoline use and pollution by Summit municipal vehicles, through pollution control, consideration of use of bio-diesel fuels, and as the fleet turns over, encourage purchase of vehicles with improved fuel efficiency

Justification: By reducing gasoline use of municipal cars and trucks, the City will save money. Also, by decreasing pollution and increasing fuel efficiency, the City will contribute to the objective to decrease gasoline use within the City of Summit.

Method:

- Policy directive that City vehicle fleet will become more fuel efficient
- Identify City vehicles that could be retrofitted with pollution control technology to reduce air pollutants during operation (Public Works)
- City vehicles should begin to use bio-diesel fuels, if research shows that the energy exchange ratio is favorable

- As City purchases new vehicles, do a full analysis of the lifetime cost of the vehicle including lifetime fuel use, to enable purchase of most fuel-efficient vehicle

Measurement: Annual inventory of City vehicles, done by Public Works, posted online and in Open Line; total annual amount the City spends on gasoline

Implementing Responsibility: Sustainability Advisory Committee, Summit Public Works, Municipal purchasing department

Timeline: Initiate in 2008; completion is a long term goal

Cost: High initially, likely long-term cost savings

Community Enthusiasm: High

Examples and References:

- Montclair, New Jersey; Hamilton Township, New Jersey
 - http://www.amjec.org/html/tools_sustainable_njhappenings.html
 - www.mtcenv.com/pdf/sustain-guide.pdf

C-7. Increase use of public transportation—trains and buses—to travel to and from Summit

Justification: Summit is fortunate to be at the junction of two train routes. Many Summit residents already use the train regularly to commute to work and to entertainment in NYC and Newark. Summit businesses would benefit from more New Jersey residents taking the train to shop here. On weekends and holidays, many Summit residents traveling to NYC use their cars because only local service is offered.

Method: Education, incentives, and concerted citywide “peer pressure.” Promote Summit as a green shopping destination, reachable by public transportation. Work with NJ Transit to consider an express Summit service on weekends (e.g. one inbound and one outbound train each weekend day)

Measurement: New Jersey Transit data on number of tickets purchased to and from Summit, monthly or annually

Implementing Responsibility: AMT, SummitGreen, Inc.

Timeline: 2008

Cost: None

Community Enthusiasm: High

Examples and References: “How Can My Town Become a Green Town?”
<http://njenvironment.org/greentownqualify.htm>

C-8. Work with other municipalities to develop statewide disincentives for auto trips and policy to improve and increase public transportation options and efficiency

Justification: Summit represents only 0.3% of New Jersey’s population, and any reduction in gasoline use by Summit entities will have little effect on overall greenhouse gas emissions and other pollution. However Summit residents have many skills and creative talents and together with like-minded municipalities can change statewide policy.

Method:

- Continue to partner with statewide municipal, non profit, and other organizations to develop ways to reduce gasoline use statewide, through increased and improved public transportation, increased incentives for use of public transportation, increased incentives for carpooling, disincentives to use personal vehicles, and other means
- Work with others to increase availability of transportation entrepreneurs using zip cars, pedi-cabs, etc.

Measurement: Alternative means of transportation inventory annually; look into reduction in auto traffic statewide regularly

Implementing Responsibility: Sustainability Advisory Committee, Summit Mayor and Common Council, the Environmental Commission, SummitGreen, Inc., AMT, and others

Timeline: Long term

Cost: Low

Community Enthusiasm: Moderate

D. WATER: USAGE AND PROTECTION FROM CONTAMINANTS

Objective:

To conserve water through aquifer recharge and water conservation, and improve water quality through reduction in toxics from rainwater runoff and wastewater. [An aquifer is an underground layer of rock or soil that holds the water that we call groundwater. A water table is the top of the aquifer (and its depth changes according to how full the aquifer is). When the water table is above the surface, a lake or a stream forms, supplied by an unconfined aquifer.]

Targets:

- Decrease the annual rate of municipal, residential, commercial and industrial water use by 20% by 2015, as measured by NJ American Water Company
- Improve the quality of water in Summit waterways, as measured by DEP stream monitoring, with a 20% decrease in net toxins downstream by 2015
- Increase to 20% the number of Summit homes which are managing storm water on-site by 2015
- Promote compliance with WaterSense criteria in all new construction in Summit by 2015

Action Steps:

D-1. Decrease water use by homes, businesses, and the municipality

Justification: There is available technology for improved water management. Also, there is already decreased water use possible through a 1995 energy conservation law on low-flow plumbing fixtures, and sustainability of drinking water supply. Installation of greywater processing would provide water for irrigation. The EPA is developing WaterSense certification as best practice for new construction.

Method: The Summit Environmental Commission will encourage and endorse this action step, and make an annual report to the City on progress; the EC will partner with other local entities (SummitGreen, Summit Arboretum, City Schools) to promote water conservation and reuse

- **4 quick fixes everyone can do now:**
 - Fix dripping faucets and running toilets
 - Install a rain barrel for watering lawn and garden
 - Irrigate before 10 am or after 4 pm or install moisture control to sprinkler system
 - Install low-flow showerheads and faucets
 - Use a 3-minute egg timer to keep showers short and save water
- **Longer-term projects:**
 - Install low-flow toilets (1995 law)
 - Plant drought-tolerant plants
 - Process greywater for irrigation

Measurement: Water use statistics from NJ American Water Company

Implementing Responsibility: Environmental Commission

Timeline: Already underway

Cost: Variable

Community Enthusiasm: High

Examples and References:

- <http://www.californiagreensolutions.com/cgi-bin/gt/tpl.h,content=1776>
- <http://www.epa.gov/watersense/basic/index.htm>
- Summit Sustainability Task Force Report, June 2007. Available as pdf on City of Summit website. pp 48-55 and appropriate Appendices.
- *H2Ouse.org*

D-2. Revise Certificate of Occupancy criteria, where permissible, to include best practices in water usage, including WaterSense criteria such as low-flow showerheads, faucets and toilets

Justification: Voluntary methods will work for some activities for some homes and businesses, but legislative requirements allow structural change in practice that is measurable and enforceable. Currently, low-flow fixtures are required for new structures and renovations. Working with the Building Inspector, criteria could be developed to apply to existing structures changing ownership. Such a requirement might be burdensome to current owners and if enacted could be phased in over at least 5 years.

Method: Environmental Commission will investigate model Certificate of Occupancy criteria, and draft a proposal for consideration

Implementing Responsibility: Environmental Commission, Common Council

Timeline: Develop model certificate by 2009; implement beginning in 2011, with a generous time delay to allow owners sufficient time to install the improved devices

Cost: Moderate to high

Community Enthusiasm: Not available

Examples and References:

- Summit Sustainability Task Force Report, June 2007; available as pdf on City of Summit website--pp 48-55 and appropriate Appendices
- Sample ordinances for water conservation:
 - <http://www.epa.gov/watersense/basic/index.htm>
 - http://www.city.davis.ca.us/cdd/pdfs/planning/forms/Water_Conservation_in_New_Construction_Landscaping_Ordinance.pdf
 - http://www.sfgov.org/site/uploadedfiles/dbi/Key_Information/ResidEnergyConsOrd1006.pdf

D-3. Encourage installation of water conservation measures such as greywater processing or rainwater capture cisterns/retention pits and dry wells by waiving City permitting fees

Justification: Greywater processing systems and rainwater capture cisterns are expensive to integrate into existing buildings and into new structures yet they provide valuable community and environmental benefits in allowing reuse of water that would otherwise be wasted. It is practical to provide an incentive for installation of these systems.

Method: Environmental Commission will draft suggested wording for an ordinance to allow the waivers

Implementing Responsibility: Environmental Commission

Timeline: Introduce proposal through Common Council in 2009; passage and implementation by January 2010

Cost: Moderate to high

Community Enthusiasm: Not available

Examples and References:

- Summit Sustainability Task Force Report, June 2007; available as pdf on City of Summit website--pp 48-55 and appropriate Appendices. Also see references above for greywater systems.
- <http://www.greenbuilder.com/sourcebook/Greywater.html>
- [Austin, Tex, http://www.ci.austin.tx.us/wri/treat3.htm](http://www.ci.austin.tx.us/wri/treat3.htm)
- U.S.EPA, "Onsite Wastewater Treatment and Disposal Systems Design Manual" EPA/625/1-80-012, October, 1980

D-4. Set up sample projects to demonstrate on-site management of storm water including a rain garden, rain barrels, re-direction of downspouts, and porous paving

Justification: New storm water regulations encourage management of storm water on the property. Flooding is a major issue in some parts of Summit. Demonstration projects are an effective education method.

Method: Set up sample projects, such as rain gardens, as part of education and demonstration on best practices for on-site rainwater management. The Summit Environmental Commission will partner with interested and knowledgeable residents and volunteer groups to develop sample demonstration projects. Rain barrels will be sold at the Arboretum and local businesses. Develop map of city showing examples of rain barrels, pavers, and other strategies.

Measurement: Number of rain gardens, frequency of flooding

Implementing Responsibility: Environmental Commission, SummitGreen, Inc.

Timeline: Set up a rain garden in summer of 2008; develop the map in 2009

Cost: Variable

Community Enthusiasm: Not available

Examples and References:

- http://counties.cce.cornell.edu/onondaga/002_environment/001_water_quality/000074.php
- <http://www.rfcity.org/Eng/Stormwater/YourProperty/YourProperty.htm>
- http://www.npsnj.org/rain_garden_home.htm
- Summit Sustainability Task Force Report, June 2007; available as pdf on City of Summit website--pp 48-55 and appropriate Appendices
- River Falls, Wis. <http://www.rfcity.org/Eng/Stormwater/YourProperty/YourProperty.htm>
- http://www.npsnj.org/rain_garden_home.htm
- http://www.stormcon.com/sw_0305_porous.html

D-5. Revise Certificate of Occupancy criteria, where permissible, to include best practices in storm water management

Justification: New storm water regulations encourage management of storm water on the property. Flooding is a major issue in some parts of Summit. While voluntary efforts can begin immediately, mandates for storm water management will benefit the city long term.

Method: The Environmental Commission will introduce appropriate language for Common Council to consider for city ordinances

Measurement: Frequency of reported flooding; number of Certificates of Occupancy granted

Timeline: Draft by 2015

Cost: Moderate to high

Community Enthusiasm: Not available

Examples and References:

- Summit Sustainability Task Force Report, June 2007; available as pdf on City of Summit website--pp 48-55 and appropriate Appendices
- <http://stormwaterfinance.urbancenter.iupui.edu/PDFs/LindseyDoll.pdf>
- DEP stormwater site: www.nj.gov/dep/stormwater.org

D-6. Use green landscaping practices, that is, use native species, reduce lawn area, and use practices that require less watering and less pesticide and herbicide use

Justification: Pesticides, herbicides, and fertilizers are a major source of water pollution. Furthermore, lawn and garden watering constitutes a large percentage of Summit's water use annually. Green landscaping practices provide cost savings, water conservation, and reduction of erosion, rainwater runoff, and pollution.

Method:

- Encourage landscaping which emphasizes native plant life and lawns which may be smaller and which require less water, pesticide and herbicide use; also encourage storm water management through landscaping
- Educate through informational workshops at appropriate sites, e.g., the Arboretum, websites, and news articles
- Work with landscape businesses to establish criteria for green lawn care and prepare a list of local landscapers who offer this service

Measurement:

- Landscaping businesses can report on the number of customers requesting green practices
- Hardware stores can report on number of green gardening products sold.
- Consider including questions about lawn and garden care practices in an annual community survey
- The Summit EC will work with DEP to obtain measurements of toxins in Summit tap water, and in streams downstream from Summit. A net increase in specific toxins represents chemicals derived from Summit (and nearby towns--it will not be possible to tease out Summit's specific contribution). A decrease in the net down stream toxins over time will be evidence that Summit's actions are working.
- Summit or private school project: test water in Salt Brook at selected points upstream and downstream. Since Salt Brook originates in Summit, an annual measure of the change in its pollutant load from origin to end at Passaic River will be a useful measure of toxic runoff from Summit lawns and streets.

Timeline: Plan strategy for working with landscapers beginning in January 2009; education for homeowners has already begun

Cost: Moderate

Community Enthusiasm: High

Examples and References:

- Summit Sustainability Task Force Report, June 2007. Available as pdf on City of Summit website. pp 48-55 and appropriate Appendices.
- Clean Water Fund/NJ Environmental fund resources. www.cleanwater.org
- <http://www.montgomery.nj.us/xeriscaping.pdf>

D-7. Document methods used and sectors treated with Integrated Pest Management by the City

Justification: Huge volumes of toxics are poured down drains, and leached from lawn chemicals and city streets. These toxics end up downstream, poisoning water for wildlife and contaminating drinking water. Integrated Pest Management is already required by NJ Schools, and is in use by the City. However, location and specific products used are not currently documented.

Method: Policy directive for Public Works to use IPM and document locations and products used. The report on this documentation should be available on the City website.

Measurement:

- Decrease in chemicals purchased for public services
- Frequency of on-line report documenting pest management practices

Implementing Responsibility: Public Works Department

Timeline: Implement by autumn 2008

Cost: Low

Community Enthusiasm: High

Examples and References:

- Summit Sustainability Task Force Report, June 2007; available as pdf on City of Summit website--pp 48-55 and appropriate Appendices
<http://stormwaterfinance.urbancenter.iupui.edu/PDFs/LindseyDoll.pdf>
- Many municipalities including Princeton Borough, Bernardsville have IPM plans

D-8. Develop criteria for designation of Pesticide-free zone (ladybug sign), and organize placement of the signs

Justification: Many lawns now have little flags warning of pesticide and herbicide applications. A similar "Ladybug" flag can reward homeowners and businesses who choose to avoid use of toxins on lawns.

Method: Develop criteria for homes, businesses and gardeners to use; estimate seasonal demand for 'flags' to purchase; set up a fund to pay for the flags

Measurement: Monitor number of homes and businesses that qualify

Implementing Responsibility: Environmental Commission partnering with SummitGreen

Timeline: Develop criteria in 2008; purchase flags; begin in spring 2009

Cost: Low

Community Enthusiasm: High

Examples and References:

- Fairlawn, NJ, Pesticide Free Zone ordinance July 2007
- Redbank, NJ, Pesticide Free Zone ordinance, October 2007
- New Jersey Environmental Federation, www.cleanwater.org

D-9. Conduct an evaluation of the status of the water infrastructure of Summit

Justification: Leaks and other inefficiencies can cost the City huge amounts of money. For example, in Randolph, NJ, an evaluation was conducted which cost about \$24,000, and it is estimated that, after corrections are made, the City will save \$280,000 in consumption fees.

Method: Research available companies and results in similar towns to accurately determine cost and benefit, then implement if procedure seems to be cost-effective for Summit

Measurement: Water saved on an ongoing basis

Implementing Responsibility: Sustainability Advisory Committee for research; City

Timeline: Research and possible implementation in 2008-9

Cost: High, with long-term savings

Community Enthusiasm: Not available

Examples and References:

- Tools for financing water infrastructure: <http://www.epa.gov/efinpage/waterinfra2007.pdf>
- http://www.randolphnj.org/townhall/sewer_water/

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E. SOLID WASTE AND RECYCLING

Objectives:

- Decrease solid waste and encourage best use of resources through a reduce-reuse-recycle philosophy
- Improve data collection of total tonnage of solid waste disposed and recycled by businesses and industry

Targets:

- Exceed NJDEP guidelines, which state that 50% of municipal solid waste*, MSW (Type 10*), must be diverted from the waste stream by 2012 [Summit's 2006 rate was 33.8%]
- Divert 75% of MSW from the waste stream by 2020
- Divert 35% of all other types* of solid waste—other than MSW (Type 10)—by 2012
*[*NJ Environmental Protection Agency Definitions of Solid Waste (all non-hazardous):
 Type 10 - Municipal Solid Waste, MSW, household, office and institutional waste (including recyclables)
 Type 13 - Bulky waste (Large items of waste material, such as appliances and furniture, discarded automobiles, trucks and trailers, large vehicle parts and tires)
 Type 13 C & D - Bulky construction and demolition waste
 Type 23 - Vegetative waste (yard clippings, wood waste)
 Type 25 - Animal waste (from butchering)
 Type 2 - Industrial, non-hazardous waste]*

Action Steps:

E-1. Reduce consumption of non-recyclable, toxic and unnecessary materials by residents, businesses, schools and the City

Justification: Waste prevention, or "source reduction," means consuming and throwing away less:

- Use only what is needed
- Purchase durable, long-lasting goods
- Seek products and packaging that are as free of toxics as possible
- Use products that require less raw material in production, have a longer life, or can be used again after original use

Reducing acquisition of unnecessary, toxic, and non-recyclable products prevents the generation of waste in the first place, so it is the most preferred method of waste management and goes a long way toward protecting the environment. Since this will decrease our municipal solid waste (MSW), the City will save on our tipping fees at the incinerator, the Union County Resource Recovery Facility (RRF).

Method:

- Education through articles in local papers, school newsletters, Public Service Announcement, inserts in City mailings for residents and businesses and brochures at City Hall, etc.
- Use reusable bags and avoid/discourage the use of plastic bags
 - Encourage local businesses to offer reusable shopping bags or encourage them to give a small discount per bag (5 – 10 cents) to those who bring in their own bags, or charge extra for those who do not
 - Investigate feasibility of ordinance to limit use of plastic bags (San Francisco has a "reduction ordinance")
- Choose to buy items with less packaging or packaging made from recycled materials
- Encourage businesses to find alternatives to Styrofoam for a variety of needs, e.g. take-out and other food containers, packaging and mailing, etc.

Measurement: Consider spot survey of businesses to see how many are using plastic bags, Styrofoam, etc.

Implementing Responsibility: Recycling Advisory Committee (RAC), Sustainability Advisory Committee and SummitGreen, Inc.

Timeline: 2009

Cost: Low

Community Enthusiasm: High

Examples and References:

- The US EPA website on reduce/reuse/recycle: <http://www.epa.gov/garbage/reduce.htm>
- “Plastic” bags that are 100% biodegradable and compostable: <http://www.biobagusa.com/> and <http://dunwoodybooth.com/>
- Sustainable packaging: http://www.ecoendure.com/?gclid=CMnnglrC25ICFQHBsgodqhO8_Q
- San Francisco plastic bag reduction ordinance: http://www.sfenvironment.org/our_programs/interests.html?ssi=7&ti=6&ii=142
- Summit Public School Styrofoam Elimination Project

E-2. Implement system-wide changes in garbage collection and add incentive programs to decrease total solid waste and increase recycling

Justification: Currently, despite a comprehensive City recycling program, Summit’s solid waste tonnage is increasing while the percent recycled is decreasing. A change in the method for trash and recycling pick-up is needed.

Incentive programs have proven to be highly successful in reducing solid waste and encouraging recycling and composting; incentive programs could significantly reduce the City’s municipal solid waste (MSW) tonnage and, therefore, its tipping fees at the Incinerator.

Method:

- Consider front-yard trash pickup, and limit number of containers; front yard pickup (eventually with mechanized garbage can lifts) has the added advantage of reducing occupational injury that occurs in Summit’s sanitation staff
- Summit could continue with its backyard trash pickup; however, residents would be allowed only one trash container (36 gallon) per household per week--if a household needed more, a tag could be obtained for a fee (to be determined)
- Residents and Businesses: Offer recycling pickup from RecycleBank, or a similar type of company / service that rewards recyclers. The more you recycle, the more points you earn to use at hundreds of local and national businesses, such as Starbucks and Whole Foods. The RAC is investigating this at present.
- Develop incentives to recycle in the form of tax relief, providing free or reduced cost recycling containers
- Start a “Recycler of the Month” program for residents and businesses complete with publicity and a financial or other incentive
- Fundraiser idea: Raise money from recyclable items collected, e.g. empty printer cartridges, fax, copier and multi-functional peripheral (all-in-one) cartridges and cell phones <http://www.cccashusa.com/program.html>
- The City could offer a commercial paper-shredding program to businesses and industry

Measurement:

- The number of tags purchased for extra trash containers could be totaled annually
- Tons of MSW and tons recycled tallied quarterly/annually

Implementing Responsibility: RAC and Sustainability Advisory Committee

Timeline: 2009-2011

Cost: Medium

Community Enthusiasm: Not available

Examples and References:

- The RecycleBank: <http://recyclebank.com/>
- Fundraiser idea: <http://www.cccashusa.com/program.html>
- Free paper-shredding program in Cape May, NJ
- New Jersey Paper Shredding Services: 1-866-53-SHRED (74733)
www.safeshreddingllc.com/
- Another paper-shredding service in NJ: www.shredone.com

E-3. Start Freecycling program via a user-friendly website (linked to the city website) and/or at the Recycling Center/Transfer Station or at another location

Justification: Freecycling is a program allowing residents to drop off and pick up used items, such as toys, garden tools, household items, etc., if there is a physical location set up to do so, or it can be done via the internet through postings of available items and agreements made by interested parties to pick-up or drop-off the items. Freecycling keeps usable items out of the waste stream, and thus has the potential of reducing our MSW tipping fees at the Incinerator. Summit already successfully freecycled books. Freecycling at Summit Greenfest, May 2008, was a big success.

Method: Create a user-friendly website to manage the Summit freecycling program and/or build a structure to house the freecycling items. The City or a non-profit organization partnering with the City can obtain grant funding to help implement and maintain the program.

Measurement: Internet hits on the freecycling website; consider question on community survey

Timeline: Draft plan in 2008; implement 2009 - 2010

Implementing Responsibility: RAC, City, SummitGreen, Inc.

Cost: Moderate if via the Internet (but grant could provide as much as \$15,000); High if via a physical location due to cost of building, maintenance oversight, safety/insurance, personnel

Community Enthusiasm: High, based on experience at Greenfest 2008

Examples and References: www.freecycle.org

E-4. Continue to implement the Recycling Advisory Committee initiatives to increase/ encourage/ enable recycling and re-use throughout Summit

Justification: The more tonnage recycled, the lower our MSW and resulting tipping fees at the incinerator (RRF)

Method: The Sustainability Advisory Committee and SummitGreen, Inc should work with the RAC, to implement various initiatives, including:

- Working with Summit businesses—individually and block-by-block—to increase commercial recycling rate
- Continuing to look for ways to add as many items for recycling as the market for recyclables allows
- Organizing an annual citywide Garage Sale, at which residents can sell their used goods (unlike freecycling which involves trading goods for free). The Spring 2007 citywide Garage Sale was a success (and with better publicity, it could be even more successful)
- Updating the annual Recycling Flyer--the flyer should add more information, such as County hazardous waste drop-off days and a section called, "Did You Know?"
- Offering new ways to educate the public:
 - Produce an annual Report Card that would document changes in recycling rates
 - Publicize data on the costs of waste disposal and the benefits of recycling

Measurement: MSW tonnage data including percent recycled, compared year to year

Implementing Responsibility: RAC, with help from Sustainability Advisory Committee and SummitGreen, Inc.

Timeline: Ongoing

Cost: Medium

Community Enthusiasm: High

Examples and References: <http://www.nj.gov/dep/dshw/recycle>

E-5. Investigate implementing shared services with the City and businesses to facilitate recycling

Justification: By working with businesses and sharing services, the City could increase the commercial recycling rate, improve efficiency, reduce costs and make it easier to keep track of total recycling tonnage, thereby increasing Clean Community grant monies. Sharing services with the City, businesses may see a reduced charge for recycling pickup (or the charge may be part of their taxes), and there is a potential for increased grant monies.

Method:

- City could investigate benefits of sharing recycling pickup services with Overlook Hospital; shared services could be of financial benefit to both the City and Overlook
- In addition to the large community recycling bins already in place at the central business district, the City could provide recycling pickup services to businesses (rather than making each business arrange its own); the City or the RAC would need to determine when and where it is feasible for businesses to leave their recycling for pickup
- Investigate methods to increase Clean Community grant funds

Measurement: Tonnage recycled by the commercial sector

Implementing Responsibility: RAC and the City

Timeline: Implement City-arranged/negotiated business recycling by 2010

Cost: Could reduce overall costs

Community Enthusiasm: High

Examples and References:

- CA waste reduction activities for hospitals:
<http://www.ciwmb.ca.gov/bizWaste/FactSheets/Hospital.htm>
- Hospitals for a Healthy Environment:
<http://www.h2e-online.org/teleconferences/ConferenceDetails.cfm?Date=2006-03-10&teleconfid=241>

E-6. If the above efforts fail to reach the targets above, develop means of enforcing the NJ State recycling law for City businesses

Justification: Everyone (businesses as well as residents) is required by law to recycle. Summit needs a backup plan if recycling is not progressing. There are many examples of failure of voluntary systems.

Method: The Recycling Advisory Committee is updating an old ordinance in an effort to address the issue of enforcement

Measurement: Determine yearly trends in the tonnage of materials recycled by businesses

Timeline: Undertake this step in future if voluntary efforts fail, by 2012

Implementing Responsibility: RAC; the City

Cost: High, if enforcement officers need to be deployed

Community Enthusiasm: Not available

Examples and References:

Honolulu conducts annual site inspections of businesses that are required to recycle. If a business is not in compliance with the City's mandatory recycling ordinances, a Recycling

Specialist will work with management to set up a recycling program or improve/correct a failing system. http://www.envhonorolulu.org/solid_waste/archive/Mandatory_Recycling_Laws.html

E-7. Develop a website linked to the City's website and an ongoing publicity campaign to promote and educate about goals to reduce/reuse/recycle

(See Section H, Education and Communication, Action Steps H-1 and H-3)

E-8. Require waste management plan for recycling and/or reuse of sixty percent of all construction and demolition waste generated in projects larger than \$25,000

(See Section B, Green Building Practices, Action Step B-5)

E-9. Encourage at-home composting of kitchen and yard waste, and consider development by City of a food composting program for residents and/or businesses (restaurants)

Justification: Residential composting of kitchen and yard waste is easy, inexpensive and can yield rich compost for gardens. Commercial composting has proven very successful in San Francisco in reducing municipal solid waste. Such a reduction would save tipping fees at the incinerator (RRF).

Method:

- Residential: Continue to educate the public with workshops on how to compost and information on different composting bins
- The City could provide free or at-cost composting bins or encourage local hardware stores to carry them at a discount; RAC is doing this at various community venues (e.g. Greenfest).
- Commercial: The City could expand upon its successful leaf and grass composting; an area could be identified to handle food compost from Summit residents and/or restaurants

Measurement: MSW tonnage

Timeline: At-home composting: underway; City program for residential and commercial: 2012

Implementing Responsibility: RAC and the City (to implement a citywide program)

Cost: Low for at-home; high for citywide program

Community Enthusiasm: Moderate

Examples and References: San Francisco: <http://www.sfrecycling.com/residential/composting.php>

E-10. Consider a PAYT, Pay As You Throw, Program to dispose of Summit's municipal solid waste (MSW) if above steps fail to reach targets

Justification: PAYT programs have proven to be highly successful in reducing solid waste and encouraging recycling and composting. This type of program could significantly reduce the City's MSW tonnage and, therefore, its tipping fees at the incinerator. When people have to pay for each bag of garbage disposed of, there is a strong monetary incentive to reduce waste.

Method: The US EPA provides detailed information on how to set up a program. Residents (and businesses) would have to use specific garbage bags or tags (for the bags) and pay for each. Taxes would be reduced as a direct result to offset trash pickup charge.

Measurement: MSW tonnage

Timeline: 2015--The City should institute PAYT only if we are failing to reach our goal for solid waste reduction and recycling

Implementing Responsibility: RAC, City

Cost: Medium

Community Enthusiasm: Low

Examples and References:

The US EPA website on PAYT: <http://www.epa.gov/payt/>

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F. TREE CANOPY AND OPEN SPACE

Objectives:

- Continue to promote the preservation of green space in and around the City of Summit
- “Promote a sustainable community forest by encouraging the protection and replacement of trees and become more proactive in the management and care of our trees.” (*from Summit’s Community Forestry Management Plan*)

Targets:

- Maintain current tree canopy and increase if possible
- Maintain publicly-owned green space and increase when there is the opportunity to do so

Action Steps:

F-1. Review and enhance Summit’s Shade Tree Ordinance to consider the preservation of additional trees

Justification: Summit’s tree canopy offers significant beneficial effects and value in terms of the City’s carbon footprint, ambient temperature and aesthetic appeal as well as other qualities. Trees are a major factor in terrestrial carbon sequestration. Terrestrial carbon sequestration is the process through which carbon dioxide from the atmosphere is absorbed by trees, plants and crops through photosynthesis, and stored as carbon in biomass (tree trunks, branches, foliage and roots) and soils.

Method: The Shade Tree Advisory Committee is reviewing the ordinance to consider:

- Designating more trees as Landmark Trees
- Decreasing the tree circumference requiring a permit for removal

Measurement: Compare annual tree canopy measurements from aerial photos

Implementing Responsibility: Shade Tree Advisory Committee

Timeline: Revised language to Council by late 2008; public discussion and Council vote in 2009

Cost: None

Community Enthusiasm: High

Examples and References:

- City of Hackensack, NJ, Shade Tree Advisory Committee
www.hackensack.org/content/1569/default.aspx
- Chatham Borough, NJ: tree protection ordinance states that a permit is required to cut down a tree more than 6 inches in diameter http://www.chathamborough.org/shade_tree.php

F-2. Discourage tree removal by developers, contractors, and homeowners; provide incentives for developers and contractors to design around existing vegetation

Justification: Summit’s tree canopy offers significant beneficial effects and value in terms of the City’s carbon footprint, ambient temperature and aesthetic appeal as well as other qualities.

Method:

- For major subdivisions or site plans, require a checklist item showing a conceptual plan of a project designed to maintain, to the extent possible, the existing vegetation
- Provide streamlined permit process if a developer maintains existing trees and vegetation

Measurement: Number of development plans that maintain existing vegetation

Implementing Responsibility: Shade Tree Advisory Committee and Sustainability Advisory Committee

Timeline: Language submitted to Planning Board in 2009; implementation in 2010

Cost: Low

Community Enthusiasm: High

F-3. Plant trees where appropriate, and meet or exceed City standards for reducing tree removal by residents, businesses and the City

Justification: Increasing the number of trees planted, while decreasing the number taken down, increases the tree canopy and hence the amount of carbon sequestered. This is an area where individual home owners and businesses can provide a direct beneficial effect in reducing Summit's carbon footprint by planting new trees.

Method: The Shade Tree Advisory Committee should help maintain a page on the City's sustainability website to disseminate tree-related information, particularly on restrictions regarding tree removal. Improve publicity for the City's offer to plant a free tree along the right-of-way in front yards. Continue and publicize the Commemorative Tree Planting Program. A more active public education program will result in an increased awareness of both the aesthetic and environmental benefits of tree-lined streets.

Measurement: Record the number of trees removed annually

Implementing Responsibility: Shade Tree Advisory Committee

Timeline: Underway

Cost: Low

Community Enthusiasm: High

F-4. Develop neighborhood native-plant gardens on City property (rights of way, medians, other similar public spaces)

Justification: While building community spirit and enhancing the beauty of the City, new vegetation can increase carbon sequestration, and help trap storm water runoff.

Method: The Sustainability Advisory Committee could invite one or more volunteer groups (Scouts, Faith-based organizations, school clubs) to take on this project

Measurement: Increase in number of neighborhood gardens

Implementing Responsibility: Sustainability Advisory Committee

Timeline: 2009

Cost: Low

Community Enthusiasm: High

Examples and References: <http://www.epa.gov/greenacres/awards.html>

F-5. Increase recreation access to the Passaic River and explore the creation of a linear park along the River

Justification: Summit parkland is a valuable resource that enhances quality of life and health. Right now, the Passaic River is a beautiful resource and is difficult to access. The suggestion to create a linear park is part of the Summit Master Plan Re-examination, 2006.

Method: Work with property owners and the City to develop new pathways to the River

Measurement: Number of access points

Implementing Responsibility: Environmental Commission

Timeline: Develop a plan by January 2009

Cost: Low

Community Enthusiasm: High

F-6. Promote use of native species and the replacement of invasive species with appropriate trees and vegetation

Justification: Native species of trees, grasses, and other plants are well adapted to regional climates, and may provide food and shelter for wildlife. Choosing native and drought-tolerant species for landscaping can save water, help reduce water pollution, and attract birds and butterflies. Invasive

species can rapidly colonize open areas, and cause harm to ecosystems by replacing native species, without providing the natural benefits of the native species. Summit has about 30 invasive plant species, which crowd other species, reproduce rapidly and/or spread easily; they are considered “weeds.” Common invasive plants in Summit include the Norway maple, Japanese knotweed, Japanese barberry, and Ailanthus, a fast-growing tree that thrives along the edge of roads, and invades hedges.

Method: Educate homeowners, developers and landscapers. Make a list of native vs. invasive species available to developers, landscapers, and garden centers. Work with the horticulturalist at the Reeves-Reed Arboretum to draft the list specific to Summit and to educate about best practices to systematically eliminate invasive species. Set up a listing of landscapers that make native choices available.

Measurement: Number of landscapers that offer native choices. Consider an ordinance to regulate selection of plantings on new development valued at \$50,000 or greater.

Implementing responsibility: Sustainability Advisory Committee, Environmental Commission, Shade Tree Committee

Timeline: Education, 2008; ordinance, 2012

Community Enthusiasm: Not available

Examples and References:

Native plantings:

- NJ native plant society <http://www.npsnj.org/>
- <http://www.nrdc.org/enterprise/greeningadvisor/wu-planting.asp>
- Plant Conservation Alliance
- <http://www.nps.gov/plants/>

Invasive Species: Background Information

- <http://ei.cornell.edu/ecology/invspec/background.asp>
- US Fish and Wildlife Service
- <http://www.fws.gov/contaminants/Issues/InvasiveSpecies.cfm>
- <http://www.biodiversitypartners.org/invasive/factsheets/NJ.pdf>
- Reeves Reed Arboretum Horticulturalist, 908-273-8787

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G. GREEN PURCHASING

Objectives:

- Encourage a program for Green Purchasing, or Environmentally Preferred Purchasing (EPP), to be adopted by the City and the Board of Education (BOE) [EPP involves the coordinated purchase of products made from recycled content as well as alternative products that save energy or water and are less hazardous to health and the environment]
- Encourage residents, businesses, and industry to make purchases that are increasingly environmentally friendly

Targets:

- Increase to half all purchases made by the City and BOE meeting EPP guidelines by 2012
- Increase to 75% all purchases made by the City and BOE meeting EPP guidelines by 2015
- Increase green purchasing choices for Summit shoppers, so that by 2015 these options are the first choice for most shoppers

Action Steps:

G-1. Require development by the City and Board of Education (BOE) of a comprehensive environmentally preferred purchasing (EPP) program

Justification: Green purchasing:

- Protects the environment—green products eliminate waste, reduce hazardous toxins and use more efficient manufacturing processes
- Saves money—reducing and reusing products means less purchasing
- Protects health—green products reduce or eliminate exposure to corrosive, irritating, toxic-containing materials

Green alternatives exist for almost every product used by a city. EPP programs provide green options for supplies needed for grounds maintenance, cleaning, vehicles, general office supplies, employee kitchens, office and building furnishings, interior decorating products and more.

Method:

- City and the BOE will perform an audit of current purchasing, then develop a comprehensive plan. For guidance, these resources should be used:
 - The NJ DEP guidelines titled “Green Purchasing: A Guide for Local Governments and Communities”
 - The “Tool for developing a Green Purchasing Program,” developed by the NJ Sustainable State Institute and the NJ Municipal Land Use Center at the College of NJ
- One or more city employees should receive green purchasing training
- Summit should consider shared purchasing with other municipalities

Measurement:

- Audit to be completed by June 2009
- Annual review of percent of purchases in each category, meeting green standards, to begin in 2010

Timeline: Begin purchase of products that have no or minimal toxic content and with recycled content that are themselves recyclable immediately; total adoption of guidelines in 3 years

Implementing Responsibility: Municipal Government and Board of Education

Cost: Moderate, as lowest bidder may not offer green products

Community Enthusiasm: High

Examples and References:

- Tool for developing a Green Purchasing Program, developed by the NJ Sustainable State Institute (njssi.org) and the Municipal Land Use Center at the College of NJ (tcnj.edu/-mluc/); the pdf of the "Tool": http://www.njssi.org/uploaded_documents/GreenPurchasing2-28-08.pdf
- Rutgers Green Purchasing system:
<http://purchasing.rutgers.edu/green/rutgers/%20green%20purchasing%20policy.pdf>
- Berea College guide to greening your office:
<http://www.berea.edu/sens/sustainabilityinitiatives/purchasing.asp>
- NJ DEP "Green Purchasing: A Guide for Local Governments and Communities". NJ DEP link: www.nj.gov/dep/opsc/docs/green_purchasing_guide_local_governments.pdf

G-2. Decrease gasoline use and pollution by Summit municipal vehicles, through pollution control, consideration of use of bio-diesel fuels, and as the fleet turns over, encourage purchase of vehicles with improved fuel efficiency*(See Section C, Transportation and Circulation, Action Step C-6)***G-3. Encourage development of environmentally preferred purchasing (EPP) programs by businesses and industry****Justification:** EPP programs protect the environment, save money and protect health.*(See Action Step G-1 for more details)***Method:**

- For guidance, businesses and industry should use these resources:
 - The NJ DEP guidelines titled "Green Purchasing: A Guide for Local Governments and Communities"
 - The "Tool for developing a Green Purchasing Program," developed by the NJ Sustainable State Institute and the NJ Municipal Land Use Center at the College of NJ
- Award a "Summit Green Seal" to businesses that implement EPP programs, offer green products and/or use green practices and products
- Education: Provide current information about green products via:
 - SummitGreen.org
 - The proposed new sustainability website for the City of Summit
 - Articles in the local papers, PSAs on TV 36, etc.
 - Information specifically aimed at the business community

Measurement: Annual survey of local businesses and industry**Timeline:** Underway**Implementing Responsibility:** SummitGreen, Inc., Sustainability Advisory Committee, the Chambers of Commerce and Summit Downtown, Inc (SDI)**Cost:** Low**Community Enthusiasm:** High**Examples and References:**

- SummitGreen.org
- Tool for developing a Green Purchasing Program, developed by the NJ Sustainable State Institute (njssi.org) and the Municipal Land Use Center at the College of NJ (tcnj.edu/-mluc/); the pdf of the "Tool": http://www.njssi.org/uploaded_documents/GreenPurchasing2-28-08.pdf
- Rutgers Green Purchasing system
<http://purchasing.rutgers.edu/green/rutgers/%20green%20purchasing%20policy.pdf>
- Berea College guide to greening your office:
<http://www.berea.edu/sens/sustainabilityinitiatives/purchasing.asp>

- NJ DEP “Green Purchasing: A Guide for Local Governments and Communities”. NJ DEP link: www.nj.gov/dep/opsc/docs/green_purchasing_guide_local_governments.pdf
- <http://www.newdream.org/procure/activities.php>
- http://www.anjec.org/html/sustainability_usefulwebsites.htm

G-4. Encourage residents to select green products whenever possible

Justification: Buying green products protects the environment, saves money and protects health. (See Action Step G-1 for more details)

Method:

- Provide up-to-date information about preferred ‘green’ products via:
 - SummitGreen.org
 - The proposed new sustainability website for the City of Summit
 - Articles in the local papers, PSAs on TV 36, etc.
 - Brochures created by volunteers to hand out at community events
 - Display board at Community Pool, Farmers’ Market, etc.
- Use biodegradable “plastic” bags, which are available for trash, compost, leaf and yard waste, dog waste, cat pan liners, etc.
- Encourage local businesses to seek out and offer green products that are recyclable and/or are made from recycled materials

Measurement: Consider periodic community survey

Timeline: Underway

Implementing Responsibility: SummitGreen, Inc.; Sustainability Advisory Committee

Cost: Low

Community Enthusiasm: High

Examples and References:

- SummitGreen.org
- <http://www.buygreen.com>
- <http://www.coopamerica.org/programs/shopunshop/buyinggreen/whattobuy.cfm>
- Municipalities in NJ with green cleaning policies include: Brick, Colt’s Neck, Irvington, Point Pleasant, Woodbridge
- www.cleanwater.org
- <http://www.cleanwateraction.org/pdf/njefsustainer-fall05.pdf>

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H. EDUCATION AND COMMUNICATION

Objectives:

- Develop and disseminate accurate and timely information in an easily accessible format to people in residential, commercial, industrial and municipal sectors to inform them about best practices, and to encourage them to consider environmental sustainability when making municipal, commercial, industrial and residential decisions
- Design and execute a broad-based and ongoing plan to engage residents, educators, City officials, businesses and industry in learning and decision making about actions to safeguard and improve the environment and the quality of life in Summit

Target: The involvement and knowledge of Summit will be evidenced by the following indicators:

- Decrease in building-related energy use
- Decrease in automobile miles driven; increase in fuel efficiency of our vehicles
- Decrease in water consumption, wastewater runoff, and increase in environmentally-friendly landscaping methods
- Decrease in non-recycled solid waste
- Increase in purchase of green products

Action Steps:

H-1. Develop a user-friendly, comprehensive website, linked to the Summit municipal web site, dedicated to sustainability in Summit

Justification: The city website is already recognized as a source for municipal and reference information for residents. Increasing numbers of people use the web for local information.

Method: A web page will be developed by a consultant funded through a grant. Ongoing maintenance of the web site will be the responsibility of the Sustainability Advisory Committee, with help from the Environmental Commission (EC) in cooperation with SummitGreen, Inc.

Measurement: Number of hits per day (month or year)

Implementing Responsibility: Sustainability Advisory Committee and City staff

Timeline: 2008 – 2009 (*Grant submitted on March 14, 2008*); development by January 2009, testing January-April, 2009; full use by June 2009

Cost: \$15,000 per year, through grants

Community Enthusiasm: Not available

Examples and References:

In-depth, user-friendly city websites for solid waste and recycling:

- Highland Park, NJ: <http://www.leoraw.com/hpenv/>
- NYC : <http://www.nyc.gov/html/oec/html/home/home.shtml> and http://www.nyc.gov/html/nycwasteless/html/recycling/recycling_nyc.shtml
- San Francisco: <http://www.sfreycling.com/>
- Ft. Collins, CO: <http://www.ci.fort-collins.co.us/recycling/>
- Lawrence, KS: <http://www.lawrencerecycles.org/>

H-2. Continue to produce and support the annual Greenfest in downtown Summit

Justification: This festive event—held on the Summit Green—provides an opportunity to increase environmental awareness for all attendees. Displays of sustainable technology, information about City programs, and activities for children make this a valuable educational event.

Method: SummitGreen, Inc will work in cooperation with the City to put on this event annually

Measurement: Number of people who attend/visit booths

Implementing Responsibility: SummitGreen, Inc., a non-profit organization of Summit volunteers

Timeline: Annually in the spring

Cost: \$15,000 per year, through grants, City money and/or donations (through SummitGreen)

Community Enthusiasm: High

Examples and References:

- SummitGreen.org
- PSE&G fair at Liberty State Park

H-3. Create a comprehensive, ongoing publicity plan to promote sustainability in Summit; launch and maintain a community-wide energy awareness and training campaign to promote energy usage reductions and efficiency

Justification: The more knowledgeable Summit residents are about sustainability, the more likely they are to act sustainably. There are many small changes that the municipal government, businesses and residents can make to reduce energy use, increase energy efficiency, and use renewable energy. Some of these are free, and some require an initial cost outlay. Getting the information widely disseminated will allow people to choose what best suits their circumstances. It will also reinforce current “green” behavior, build on it and yield concrete energy-saving rewards.

Types of things to consider:

- ENERGY STAR appliances and electronics
- Use compact fluorescent bulbs (CFLs)
- Use programmable thermostats
- Home energy audits
- Room occupancy sensors (to lower lights, heat/AC when rooms are empty)
- Turn off computers at night or put into “sleep” when not in use)
- Unplug chargers when not in use
- Open windows on nice days
- Repair or replace old windows
- Keep building water heaters at lower settings than those of homes
- Switch from oil to gas when replacing furnaces
- Replace outside lights with self-charging solar lights

Method:

- Use all available media outlets
- Look for grants to help pay for publications/brochures
- Create citywide e-mail
- City staff, officials or volunteers or the heads of each city building could be enlisted to promote a list of green activities within municipal buildings and schools, articles in local papers, school newsletters, Public Service Announcement, inserts in Citywide mailings for residents and businesses, additions to grade-level curriculums in schools
<http://www.epa.gov/epahome/educational.htm>, a citywide “Challenge” to become more energy efficient
- For small businesses: <http://www.epa.gov/solar/energy-and-you/small-business/small-business2.html>

Measurement: Number of items by type of media

Implementing Responsibility: Sustainability Advisory Committee and SummitGreen, Inc

Timeline: Already underway

Cost: Moderate

Community Enthusiasm: High, based on feedback to existing media spots

Examples and References:

- <http://www.njcleanenergy.com/residential/tools-and-resources/energy-savings-tips/energy-savings-tips>
- www.nj.gov/dep/opsc/sustcomm.html
- www.mtcenv.org
- www.twp.maplewood.nj.us/boards-committees/environmental-advisory-committee

H-4. Promote Summit as a green shopping destination easily reached by public transportation, and develop green branding program for Summit businesses and/or a green directory of businesses

Justification: Summit businesses could benefit greatly if the town were to become officially a green shopping destination

Method: Work with downtown merchants to develop the plan

Measurement: One of the local business organizations (e.g., SDI) can survey members annually about success

Implementing Responsibility: Sustainability Advisory Committee, SDI, the Chambers of Commerce, SummitGreen, Inc.

Timeline: Discussions underway

Cost: None to low

Community Enthusiasm: High

Examples and References:

- www.greenbiz.ca.gov/BGStandards.html
- <http://money.cnn.com/2000/03/26/magazines/fsb/green.fsb>

H-5. Encourage the Summit Board of Education and private schools and lobby the state to increase sustainability-related curriculum at all levels of education

Justification: In order for Summit to achieve its vision as a sustainable community, there must be community-based continuing effort to understand best practices, change behavior, measure use of water, electricity, fuel, and waste. Personal and municipal goals will require constant readjustment as technologies and resources shift. Determination and implementation of best practices require skills in many disciplines: engineering, physics, biology, behavioral sciences, land use (historical and current), architecture and construction, etc. In our schools, children should consider the environment and sustainability of our communities in all subjects—how different societies have lasted or disappeared, where energy is derived and how it is most efficiently used, effects of toxins on human health, how to implement behavior change in a community, etc.

Method:

- Review and revise existing curriculum
- Identify sustainability-related curriculum items by grade level and correlate to the New Jersey Core Content Standards for Science

Measurement: Annual focus group with educators

Implementing Responsibility: K-8 and 9-12 education supervisors

Timeline: Begin with curriculum review in 2009

Cost: Moderate to high (writing curriculum)

Community Enthusiasm: Not available

Examples and References:

Standard 5.10 (Environmental Studies) All students will develop an understanding of the environment as a system of interdependent components affected by human activity and natural phenomena

- http://education.state.nj.us/cccs/?_standard_matrix
- <http://ecoliteracy.org/>
- <http://ecoliteracy.org/>
- http://www.kidsforsavingearth.org/index_low.html
- http://www.isaschools.org/index.php?Itemid=62&id=24&option=com_content&task=view

I. IMPLEMENTATION AND GOVERNANCE

Objective:

Create a structure that will support community volunteers, existing committees, City staff and elected officials to enable a long term sustainability effort

Action Steps:

I-1. Incorporate sustainability into one of the Common Council Standing Committees

Justification: By incorporating sustainability into a Common Council standing committee, sustainability will receive the necessary consideration in all aspects of city governance. Such a standing committee will facilitate having sustainability actions approved by Council and having sustainability considered at all stages of governance.

Method: Merge sustainability into the existing Buildings and Grounds Standing Committee and rename it the "Community Development and Sustainability Committee." This standing committee will work closely with the new Sustainability Advisory Committee (see below) to ensure timely implementation of this Action Plan.

Implementing Responsibility: Common Council

Timeline: Summer or Fall 2008

Priority: High (This is a necessary step for implementing and maintaining progress in the objectives of this Action Plan)

I-2. Establish a Sustainability Advisory Committee (SAC)

The SAC will be responsible for coordinating with other appropriate City committees, City staff, elected officials and volunteer organizations to ensure timely implementation of this Action Plan

Justification: The Action Plan is complex and aggressive; it cannot be accomplished without active support from a resident-led committee. Measurement is also key to the successful implementation of this plan and an advisory committee will be in a position to establish processes to measure and report on progress toward agreed upon goals.

Method: Implement structure, composition and charter for a long-term effort to promote and monitor sustainability actions in Summit. The SAC will coordinate all its activities with the Standing Committee.

After one year, the activities of the SAC will be reviewed by the Community Development and Sustainability Standing Committee and the Mayor in consultation with the 6 related advisory groups (RAC, AMT, Shade Tree, EC, Utilities and Planning Board) to determine what is the best long-term committee structure for promoting and implementing the Action Plan in Summit.

Members: The 9 (8) members should include:

- 3 from other committees, that is 1 each from:
 - Recycling Advisory Committee
 - Environmental Commission
 - Alternative Modes of Transportation Advisory Committee
- 1 Council liaison (who could be one of the above members) – ideal if this Council liaison were from the new Community Development and Sustainability Committee
- 1, the Director of the Dept of Community Services or his/her designee (non-voting member)
- 4 City residents to be appointed by the Mayor with consent of Council
- 1 representative from the schools

The initial term will be for one year and thereafter (assuming the committee continues following the review in its present form) and subsequent appointments by the Mayor should be made so that terms of appointees do not end simultaneously. After one year, 4 people (could be same) will be

appointed--2 for one year and 2 for 2 years. Subsequently, each year the Mayor will appoint 2 new people for two-year terms.

Liaisons/adjunct members (non-voting) 1 each from:

Utilities Advisory Committee
Planning Board
Shade Tree Advisory
SummitGreen, Inc.
Business Community

Responsibilities of Sustainability Advisory Committee:

- Develop strategies to implement the Action Plan
- Provide input and recommendations on Council actions. Review Council and committee agendas to see what is related to sustainability and make appropriate recommendations. Officially receive agendas
- Engage all segments of the community--municipal, industrial, commercial and residential--in the planning processes and follow-through of actions to attain sustainability
- Monitor financial needs of implementing Action Steps; seek out appropriate grants and coordinate grant applications
- Periodically benchmark the City against the sustainability initiatives of other communities of our size
- Evaluate and improve the Action Plan:
 - Assess the Action Plan annually to determine areas of success and areas in need of improvement
 - Update the Action Plan as national, state and local laws and regulations change
 - Develop a process to monitor the progress made on the Action Steps detailed in this document and other green policies and practices taking place throughout the city. The information to measure progress will be obtained, for example, through revisions to the Citizen Survey, internal statistics gathered, and analyzed by City staff, and by occasional ad hoc polls and surveys of businesses and residents.
 - Regularly report progress implementing the Action Plan to the Mayor, Common Council, the City Manager and the department directors—once or twice a year
 - Monitor the progress Summit is making relative to the 12 points listed in the U.S. Mayors Climate Protection Agreement
 - Periodically benchmark the City against the sustainability initiatives of other communities of our size
- Assist in the development and approval of the new Master Plan Sustainability Element

Timeline: Members appointed and in place by September 2008

Appendix A

Summit's Past and Current Sustainability Initiatives

Energy in the Built Environment: Energy Use	Responsibility	Date
Clean Power Partnership with BPU (Spring '07)	Environmental Commission	2007
Conducted by Energy Education, Inc., an energy education program is in place, employing a part-time district energy educator/manager who monitors energy usage (staff and mechanical)	BOE	2006
All lighting fixtures in the district were retrofitted with high efficiency fixtures, with an anticipated payback period of 6 years. Energy rebates were received from the State for this project	BOE	2004
District has contracted with Energy for America, Inc. to monitor the mechanical systems of all schools and regulate energy usage in each school	BOE	2006
Energy Survey in schools and conversion to more energy efficient lighting in recent years	BOE	2004
Rutgers University Purchasing Partnership	Finance	2007
Solar panel consideration for municipal buildings	DCS	2008
Traffic signal changes to energy efficient lights	DCS	
Fluorescent bulbs and motion sensors installed in municipal buildings	DCS	

Energy in the Built Environment: Green Building	Responsibility	Date
Reviews of planning board applications include environmental recommendations from engineers, Environmental Commission and the Planner	Environmental Commission, DCS	

Transportation and Circulation	Responsibility	Date
Bike in Summit Week celebrated in May	AMT	2005, 2006
Council resolution adopted calling for infrastructure and informational campaign <ul style="list-style-type: none"> • Route agreed to • Signs agreed to and ordered • Kiosks being determined and ordered 	AMT	2006
Historical walking/biking tour of Summit's recreational route posted on Summit website	AMT	2006
Ideas for reduction in cars at schools presented to Summit Schools	AMT	2005
Provide information at various City events such as July 4th info table, bike rodeo and raffle, Greenfest	AMT	ongoing
Walking Bus elementary school pilot project in	AMT	2004
Alternative Transportation Committee Proposals	AMT	
Increase bike storage options <ul style="list-style-type: none"> • Bike storage at train station and schools • Bike racks provided with City Capital Projects 	DCS/BOE/AMT	
Ensure there are safe walking routes for children to school	DCS/Police	
Mayor's Wellness Campaign – Walking Fridays	Mayor	
Senior Connection bus service (run by City, funded by grants, City funds, fundraising)		
Sidewalks near schools, capital spending for new sidewalks near schools	DCS/Mayor and Council	
Walking guards to provide safe walking paths to schools	Police	

Water: Usage and Protection from Contaminants		
Two school irrigation systems have timers and rain sensors	BOE	2007
Decrease illicit connections to storm sewers through inspections	DCS	ongoing
Ensuring the sewer is maintained properly	DCS	ongoing
Environmental compliance	DCS	
Integrated Pest Management Plan in place throughout the district, the City <ul style="list-style-type: none"> • Minimizing chemicals in lawn care 	BOE/DCS	2007
Lining of sanitary sewer systems	DCS	ongoing
Maintenance of stormwater facilities	DCS	ongoing
Outfall pipe stream scouring remediation	DCS	ongoing
Planner/Engineering reviews plans for environmental impacts	Planner	
Storm drain inlet retrofitting	DCS	ongoing
Stormwater control ordinance	Engineering/Mayor and Council	2005
Stormwater drain labeling program	DCS	2005
Stormwater employee training/Public education	DCS	ongoing
Stormwater management/Upgrading	DCS	ongoing
Stormwater outfall pipe mapping	DCS	2005
Street sweeping/Roadside erosion control	DCS	ongoing
TV inspection and cleaning of sanitary sewer system	DCS	ongoing
Washing cars/Municipal vehicles	DCS	

Solid Waste and Recycling	Responsibility	Date
Citywide curbside recycling	DCS	
Implemented a contest among LCJ Summit Middle School students to develop a City of Summit Recycling logo and slogan. The logo will be used as a branding method and will be placed on all recycling containers, at the Recycling area at the City's Transfer Station, on all municipal recycling vehicles, and eventually, on City Public Works vehicles.	RAC	2007
Advised on and selected a total of 10 recycling containers to be placed in City parks	RAC	2007
Composting information and compost bin sale (at discount via partnership with Union County)	RAC	ongoing
Initiated citywide (Reuse) Yard Sale	RAC	2007
Initiated annual citywide Earth Day cleanup	Environmental Commission	2007
Founding Member in League of Municipalities Mayor's Green Committee		
Partnered with Summit Greenfest (May 10, 2008) organizers to offer residents information	RAC	ongoing
Developed concentrated effort to increase recycling in Summit businesses <ul style="list-style-type: none"> Administered a survey to over 500 local businesses to assess recycling practices • Currently following up with business surveys by organizing block meeting to discuss recycling challenges and strategies • Initiated discussions with New Jersey Transit to implement recycling at Summit train station • Partnering with Summit Downtown Inc. (SDI) to enhance recycling efforts in downtown Summit 	RAC	2007

<p>Initiated additional funding efforts for Recycling</p> <ul style="list-style-type: none"> • Secured a commitment for \$8,000 from Summit Downtown, Inc. to help fund additional recycling bins in the CRBD in 2008 • Applied for a recycling bin grant through SAPF (grant amount unspecified, grant results not yet known) • Developed fundraiser in partnership with SAPF to purchase 20 or more recycling bins to be placed around town • A “recycling bin” (comparable to the Red Cross “thermometer”) will be installed on the Village Green in April/May 2008; this “recycling bin” will fill up as the donations come in • Received approval for an increase of \$4000 line item on the City’s 2008 operating budget for recycling materials 	RAC	ongoing
<p>Established a sub-committee to review the current recycling ordinance and draft prospective changes to meet the mission and goals of City programs</p>	RAC	Ongoing
<p>City-operated Recycling and Compost area</p> <ul style="list-style-type: none"> • Created Freecycling area at transfer station • Fiber materials (all paper) may be co-mingled • Accepts plastics stamped 1-7 and all glass and aluminum co mingled • dispose of and recycle electronic goods • Initiated textile-recycling program at Summit Transfer Station. After a 6-month trail, the program was so successful that a second container was added. Recommendation to Council to request a long-term extension of the program. • Composting of municipal and residential vegetable matter and recycling to residents • Christmas tree chipping program 	RAC/DCS	11/1/2007
<p>Ongoing efforts by City staff to begin using electronic communication in lieu of paper copies</p>	City Staff	2007
<p>Provided information to the public regarding recycling</p> <ul style="list-style-type: none"> • Produced three (3) public service programs on TV36 to educate public on recycling practices: kitchen/yard composting; construction/deconstruction waste and recycling • Revised curbside recycling flyer to make it more user friendly and informative. The flyer is mailed twice yearly to residents. • Styrofoam alternatives / information • Handouts listing resource recovery agents • Placed regular informative articles and commentary in the city’s “Open Line” publication that is mailed to all Summit residents, as well as local newspapers • Plastic recycling display board 	RAC	2007
<p>Recycling at Public Schools</p> <ul style="list-style-type: none"> • Made available larger containers for each school so indoor storage is no longer necessary • Styrofoam banned from school cafeterias • Curbside recycling initiated at most public schools • Worked to get recycling containers in school cafeterias and classrooms • Working to organize the collection of recyclable materials by the City’s collection contractor 	RAC	2007

Green Canopy and Open Space	Responsibility	Date
Annual Arbor Day celebration	Tree Advisory	Ongoing
Conduct an annual hazardous tree survey and perform regular care and maintenance of existing trees	Tree Advisory/DCS	Ongoing
Identified approximately 20 landmark trees and continue to inventory landmark trees	Tree Advisory	Ongoing
Developed and will update Environmental Resource Inventory	Environmental Commission	
Over 175 street trees were planted in Summit's downtown in specially designed tree wells	Summit Downtown, Inc.	2001
Maintain an intensive tree management program including planting over 300 trees annually	DCS	
Program to plant "the right tree in the right place"	Tree Advisory	Ongoing
Tree City USA 13 Years	Tree Advisory	Ongoing
Tree Dedication Program launched. Trees may be purchased in honor or remembrance of a person, group or event and installed on City property.	Tree Advisory	Sept. 2006
Tree Preservation Ordinance passed by Council	Tree Advisory	Sept. 2006

Appendix B

Calculations of Estimated Carbon Savings of Priority Actions

Summit Sustainability Action Plan June 2008			
Estimate of Possible Carbon Savings from Priority Action Steps			
Summit's Current Carbon Footprint: Approximately 354,000 Metric Tons (MT)			
Users:	% Contribution to total:	Metric Tons	
Residential Electricity, Gas, Oil	21%	74,000 MT	
Residents' Transportation	25%	88,600 MT	(excludes train and plane transportation)
Commercial	38%	134,791 MT	
Municipal	4%	13,955 MT	
Other (production and transportation of products used and consumed by people who live in Summit)	12%	42,590 MT	
Total	100%	353,936	
These numbers are derived from New Jersey averages (which are better than national because NJ has a high proportion of nuclear fuel); data on Summit's electricity use; and information from a survey of Summit residents conducted in 2007 (Summit Task Force Report 2007).			
To achieve a 20% reduction by 2020, all sectors in Summit must cut a total of 72,000 MT of CO2 emissions annually.			
For just Summit households to achieve a 20% reduction, they need to cut 33,000 MT of CO2 annually:			
	Priority Action Item	Assumptions	Approximate Metric Tons of Carbon Saved Per Year
A-1	Enrollment in NJ CleanPower Choice Program	<ol style="list-style-type: none"> 8,146 homes in Summit (www.census.gov/american factfinder 2000) 10% of homes sign up (.10 x 8146=814.6) 4.5 MT saved per year per home that signs up (815 x 4.5=3667.5) 	3700
A-2	Residential use of NJ Clean Energy's offer of Home Performance with ENERGY STAR Assessment	<ol style="list-style-type: none"> 34% of home energy use is heating (.34 x 74,000 MT=25,160) 30% reduction in heating fuel use (.30 x 25,160=7548) 10% of homes complete recommended improvements (.10 x 7548=754.8) 	750

Continued from previous page...

	Priority Action Item	Assumptions	Approximate Metric Tons of Carbon Saved Per Year
A-3	Purchase ENERGY STAR appliances and electrical equipment when purchasing new items or replacing old ones.	<ol style="list-style-type: none"> 33% of household energy use is from non-heating appliances (.33 x 74,000=24,420) (www.whatsmycarbonfootprint.com/reduce_home.htm) 30% reduction in electricity use for each appliance (.30 x 24,420=7326) 10% of Summit appliances are replaced over next 3 years (.10 x 7326=732) 	730
A-4	Use Compact Fluorescent (CFL) bulbs	<ol style="list-style-type: none"> 22,450 MT CO2 from Summit residents' electricity use 17% of electricity use is for lighting (.17 x 22,450=3816.50) CFL bulbs use only 25% as much electricity (save 75%--.75 x 3816.50=2862.18) 33% of Summit bulbs are replaced (.33 x 2862.18=945) 	945
A-5	Set thermostats 2° lower in winter and 2° higher in summer	<ol style="list-style-type: none"> 34% of home energy use is for heating /cooling (.34 x 74,000=25,160) 1% per degree reduction in heating /cooling energy use (.02 x 25,160=503.20) 50% of homes do this (.5 x 503.2=251.6)) 	250
C-1 C-7	Decrease automobile trips and increase fuel efficiency	Reduce gas use by 20% (.20 x 88,600=17,720)	17,720
E-2	Implement structural changes in garbage collection and incentive programs to decrease total waste and increase recycled waste.	<ol style="list-style-type: none"> Assume double recycling Savings similar to Maplewood (www.maplewood.com) Summit population is .9 x Maplewood Maplewood expects doubling recycling will save 13,000 MT (.9 x 13,000=11,700) 	11,700
Estimated Possible CO2 reduction by 2012 by residents:			35,795

This approximates the 20% needed for residents. Commercial, municipal and industrial reductions can also occur, to allow Summit to have an overall reduction of 20%.

Summit, NJ, Energy Use: A Model**-- Philip Eisner, 2008*****Present Energy Use: Some Actual Data ('07) + NJ Averages:***

- Home-21% (74,000-m-tons CO2 per yr.)
 - Electricity, natural gas, and fuel oil
- Summit Population Transportation-25% (88,600-m-tons CO2 per yr.)
 - Excludes air travel and commuter trains and buses
- Commercial-38% (134,791-m-tons CO2 per yr.)
 - Electricity, natural gas, fuel oil, and transport fuels
- Municipal-3.9% (13,955-m-tons CO2 per yr.)
 - Electricity, natural gas, fuel oil, and transport fuels
- Other-12% (42,593-m-tons CO2 per yr.)
 - Electricity, natural gas, fuel oil, and transport fuels
- •*Total (353,939-m-tons CO2 emitted per yr.)*
 - 43.4% from electricity and transportation fuels

Energy Trends:

- Good
 - C.A.F.E. standards improving. By 2020 could reduce our gasoline use by 40%, from 10 million gallons to 6 million gallons
[Corporate Average Fuel Economy (CAFE) is the sales weighted average fuel economy, expressed in miles per gallon (mpg), of a manufacturer's fleet of passenger cars or light trucks with a gross vehicle weight rating (GVWR) of 8,500 lbs. or less, manufactured for sale in the United States, for any given model year.]
 - NJ increasing wind and solar generated electricity
- Bad
 - Apartments are being added in Summit; more families
 - Home renovations are increasing size of homes which uses more energy
- Neutral (approx.)
 - Number of appliances per home growing, but appliances are more efficient

Home Energy Use:

- Avg. NJ house generates 11-m-tons CO2/yr
- Avg. NJ apartment generates 5.5-m tons
- Avg. NJ townhouse generates 8.2-m tons
- Using Census figures for Summit, this equates to 74,000-m-tons CO2 in '08 assuming Summit equals NJ average

Electrical Energy Saving (by 2020):

- Switch 50% lighting to fluorescents
- Reduce household appliance use and replace 25% with high-efficiency appliances
- Sign up for Clean Power with JCP&L
- For a 20% electricity reduction, saving is 12,580-m-ton CO2 or 3.6% reduction in Summit's total energy use

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Appendix C

U.S. Mayors Climate Protection Agreement



The U.S. Mayors Climate Protection Agreement

(As endorsed by the 73rd Annual U.S. Conference of Mayors meeting, Chicago, 2005)

- A. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;
- B. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that 1) includes clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and
- C. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:
 1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.
 2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;
 3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;
 4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology;
 5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;
 6. Purchase only Energy Star equipment and appliances for City use;
 7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;
 8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;
 9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;
 10. Increase recycling rates in City operations and in the community;
 11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO₂; and
 12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

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Appendix D

Proposed List of Sustainable Building and Development Practices Encouraged by the City of Summit

1. New construction or renovation of existing structures that meets established green building standards, such as LEED or NAHB.
2. Green building practices, defined as high performance and energy efficient design and construction methods relating to site conditions, water quality and water conservation, energy use, material selection for the indoor environment, which promotes the health and well-being of residents and occupants.
3. Practices which reduce greenhouse gas emissions and waste in new homes and other new buildings and in renovations of existing structures, including design practices which would ensure that energy consumption does not increase as the result of an addition to existing structure.
4. Practices which reduce energy use by increasing energy efficiency and conservation; and increase the percentage of energy derived from renewable sources.
5. Practices which (i) promote the increase use of recycled and renewable materials in new construction and renovation projects; and (ii) reduce construction waste.

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Appendix E

Mayor's Sustainable Community Task Force Actions

Making a commitment to move Summit toward greater sustainability, Mayor Jordan Glatt, with unanimous support from the Common Council, created the Mayor's Sustainable Community Task Force in December 2006. The Task Force embarked on a multi-phase strategy to accomplish the following:

- Conscientiously research the available factual data
- Assess Summit's current impact on the environment
- Determine what was already underway pertinent to sustainability both in Summit and around the country
- Engage community members in a dialog about current conditions and future concerns

Phase 1: Initial Background Research, Baseline Current Practices and Carbon Footprint, January – June 2007

The Task Force assessed Summit's current practices relative to sustainability, researched best practices around the country, determined Summit's carbon footprint, and presented the Report and Recommendations on Developing a Sustainable Master Plan for Summit to Common Council on June 19, 2007. (See Appendix F. page 77)

Phase 2: Community Input--Community Meetings and a Community Survey, September 2007 – April 2008

The Task Force undertook a strong community outreach program, partly funded by a grant from the Association for New Jersey Environmental Commissions. To launch the effort, a meeting of more than 60 community leaders was held in October 2007, out of which was formed an Advisory Group of more than 30 people representing different facets of the community. From that group, a sub-group was trained as facilitators and sent out into the community to engage in conversations with a variety of community groups, and to present a survey to assess what people liked and wanted to maintain in Summit and what people believed could be changed for the better. The facilitators met with more than 25 different groups, including small groups, several open public forums organized by the Task Force, PTA meetings, and a meeting of the local business community focused on sustainability and organized by the Chamber of Commerce.

At the same time, a community-wide sustainability survey was distributed on paper and online through SummitGreen.org. The survey was designed to help the Task Force determine what sustainable actions the community was currently doing and what people would be willing to do. The survey was advertised through posters, newspaper articles, announcements at public meetings, and a public service announcement on Channel 36, produced by Summit High School students. More than 500 people completed the survey. A synopsis of the survey results appears later in this Appendix.

**Phase 3: Writing the Action Plan for a Sustainable Summit,
Feb - May 2008**

Drawing upon information compiled from the community input (through meetings and the survey) and from research, the Task Force developed a vision statement, and drafted goals, objectives and action steps. Further meetings with the community Advisory Group helped to refine those pieces into his document: the Action Plan for a Sustainable Summit. The Action Plan lists the s goals and objectives along with corresponding targets and detailed Action Steps that specify how Summit can achieve these objectives and maintain ongoing sustainability. Some of the action steps require only voluntary participation by residents and businesses (e.g. using CFL bulbs). Others require city ordinance, enforcement, or expenditure of funds (e.g., change in building codes, installation of sidewalks).

Sustainability Element for Summit's Master Plan

In addition to the work the Task Force has done, the City Planner, in conjunction with City staff and others, will be drafting a Sustainability Element for Summit's Master Plan during the next year. This Element will provide a comprehensive rationale for both the land use and planning policies of the City as typically ascribed in a Master Plan. As the City develops its Master Plan, it will seek to imbue the plan with goals, policies and implementation strategies that are a result of the information gathered for the Action Plan. The intent is to prepare an element that will integrate the City's Action Plan and policies toward sustainability into a Master Plan element that will further integrate sustainable practices into the Planning Board's document of planning policies and land use practices. It is recognized that this development of a sustainable element is an aggressive plan, but one that is necessary to reap the environmental, economic and quality of life returns anticipated by the City. The revised Master Plan and Sustainability Element will enhance the City's planning efforts and guide the land use policy toward the development of practices and ordinances that will promote the health, safety and general welfare of the community in a more holistic and comprehensive manner than currently practiced by the City. It is anticipated that the City will aggressively move to implement policies that will define the City as not only a progressive community but leader in promoting sustainable practices throughout the State.

Community surveys and synopsis of surveys appear on following seven pages

“Choices We Can Make” Survey

A proposed vision for a sustainable Summit: **The city of Summit, NJ, will reduce its greenhouse gas (GHG) emissions 20% by 2020 to meet the goals of the New Jersey 2007 Global Warming Response Act while maintaining and enhancing the characteristics of sustainability that our community members will value.**

Thank you for taking the time to complete this short survey. Your responses will be used to inform recommendations for environmental action developed by the Mayor’s Sustainable Community Task Force. If you would like to view the survey results, please list your email address below.

*An average family of 4 in Summit now generates about 66,000 pounds of GHG per year.
The City of Summit generates about 1.5 billion pounds of GHG per year.*

Age _____ Gender _____ Number Living in Household _____
E-mail _____ (optional)

	Action* <i>Approximate Annual Greenhouse Gas (GHG) Reduction Annual Savings/ Expense</i> <i>* Actions are listed in order of environmental benefit, starting with those of greatest impact.</i>	How likely are you to do? Rate 1 to 5, 1 = very likely 5 = not at all likely 0 = already doing NA = not applicable
	ACTIONS IN YOUR HOME	
1	Enroll in NJ Clean Power Program, <i>Could reduce GHG 10,000 lbs/yr/household at an annual expense of \$100 (if you choose the 100% clean power level).</i>	
2	Adopt a vegetarian diet or partial vegetarian diet <i>Could reduce GHG 5,500 lbs/person/yr. (15 lbs for each meat free day per person) at no annual expense</i>	
3	Replace old windows <i>Could reduce GHG 3,320 lbs/yr (if all windows in the average home are replaced) at a potential cost of \$700 per window plus installation</i>	
4	Double your household recycling rate <i>Could reduce GHG 3,300 lbs/yr/average household with no annual expense, possibly increasing revenue for Summit through sale of recyclable materials</i>	
5	Reduce your trash by 1/3 <i>Could reduce GHG 3,000 lbs/yr for the average household, producing 90 gal/wk (2 garbage cans) at no expense, potentially decreasing Summit’s costs for waste disposal</i>	
6	Unplug little used extra refrigerator <i>Could reduce GHG 2,000 lbs/yr with an annual savings of \$200</i>	
7	Install and use programmable thermostat <i>Could reduce GHG 1,500 to 2,000 lbs/yr with an annual savings of \$100</i>	
8	Lower thermostat in winter and raise it when you use air-conditioning (each 2 degree change saves 1% of energy) <i>Could reduce GHG 1,500 to 2,000 lbs/yr with an annual savings of \$100</i>	
9	Upgrade hot water heater to tankless or solar when replaced <i>Could reduce GHG 1,800 lbs/yr with an expense of \$850 for tankless unit plus installation</i>	

	Action <i>Approximate Annual Greenhouse Gas (GHG) Reduction; Annual Savings/ Expense</i>	How likely are you to do? Rate 1 to 5
10	Add 10 energy-efficient compact fluorescent bulbs in your home; each produces 70% less GHG & lasts 8-10 times longer. (Go to www.1000bulbs.com) <i>Could reduce GHG 900 lbs/yr with an annual savings of \$75 - \$100</i>	
11	Reduce junk mail by 1.5 lbs a week [Go to CatalogChoice.org] <i>Could reduce GHG 500 lbs/yr (less paper means fewer trees cut)</i>	
12	Purchase only Energy Star appliances and electrical equipment. (www.energystar.gov) <i>Use 30% less energy and generate 30% less GHG; cost will vary depending on appliance.</i>	
13	Improve home insulation <i>GHG reduction and cost will vary widely</i>	
14	Reduce, eliminate petroleum-based fertilizers /pesticides and other synthetic lawn applications <i>(modest GHG savings; possible health benefits)</i>	
15	Use electric leaf blowers, lawn mowers, snow blowers, etc. <i>Could reduce GHG 140 to 570 lbs/hour with an expense, for example, of about \$40 for an electric leaf blower. (Note: Using a "homeowner" gas-powered leaf blower for 30 minutes produces the CO2 equivalent of driving a newer model car 110 miles at 30 mph; for the less efficient "professional" leaf blower, it is 440 miles.)</i>	
16	Use rakes, push mowers and snow shovels, instead of power tools <i>Zero GHG emissions, plus an hour of raking uses 340 calories and no health club fees</i>	
17	Reduce/eliminate conventional household cleaners using natural alternatives <i>(Available at most grocery stores) Annual expense of about \$50 - \$100.</i>	
18	Reduce lawn & plant watering <i>Will reduce your water bill & GHG needed to produce water</i>	
19	Install a rain barrel to collect rainwater for watering <i>The cost of a rain barrel is over \$100, but this will reduce your water bill.</i>	
20	Install plantings that are drought tolerant. <i>The cost of plantings may be high, but this may reduce your water bill.</i>	
21	Compost food waste in your yard in a composter <i>Could reduce GHG 400 lbs/yr/person with an expense of about \$70 for a composter.</i>	
22	Use cloth or other reusable bags for your groceries and errands.	
23	Unplug chargers (cell phone, iPod, etc.), power strips, appliances when not in use	
24	Accept the city's offer to plant a street tree in front of your property	
25	Donate a tree to a community open space (Go to the city's website, www.ci.summit.nj.us)	
ACTIONS IN YOUR TRANSPORTATION		
26	Buy/lease more energy efficient vehicle when you replace your vehicle (hybrid, clean diesel, flex fuel) <i>Could reduce GHG 2,000 to 10,000 lbs/yr (4,000 lbs/yr/10 mpg increase); cost will vary</i>	
27	Work at home instead of driving to work (if possible) <i>Could reduce GHG 1,200 lbs/wk/30 mile roundtrip. Annual savings will vary.</i>	
28	Walk or bike more often each week, replacing one or more vehicle trips. <i>Could reduce GHG 19.6 lbs/gal of gas</i>	
29	Carpool to school and other activities <i>Could reduce GHG 19.6 lbs/gal of gas</i>	
30	Walk to neighborhood schools instead of driving <i>Could reduce GHG 19.6 lbs/gal of gas</i>	
31	Don't let your vehicle idle for more than 10 seconds <i>Could reduce GHG 1 lb/ minute less idling</i>	

Thank you! We appreciate your opinions. Please list any additional comments below.

“Choices our City and Business Community Could Make” Survey

A proposed vision for a sustainable Summit: **The city of Summit, NJ, will reduce its greenhouse gas (GHG) emissions 20% by 2020 to meet the goals of the New Jersey 2007 Global Warming Response Act while maintaining and enhancing the characteristics of sustainability that our community members will value.**

Thank you for taking the time to complete this short survey. Your responses will be used to inform recommendations for environmental action developed by the Mayor’s Sustainable Community Task Force. If you would like to view the survey results, please list your email address below.

Age _____ Gender _____ Number Living in Household _____
E-mail _____ (optional)

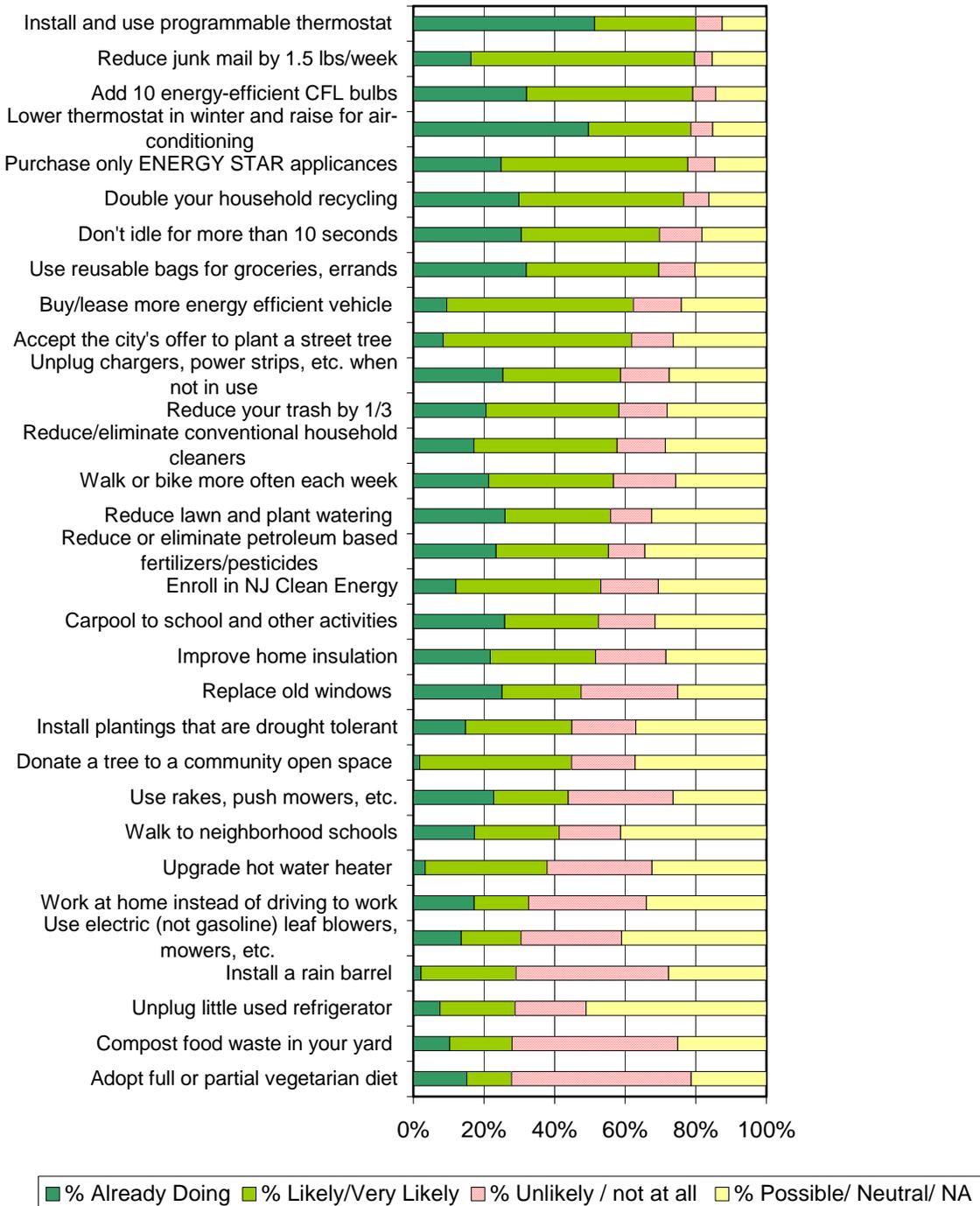
	Action	How desirable is this action? Rate 1 to 5, 1 = very desirable 5 = not at all desirable
	WHAT ACTIONS SHOULD OUR CITY TAKE?	
1	Upgrade to more energy efficient vehicles	
2	Use bio-diesel in city trucks	
3	Install solar on city roofs (purchase or lease)	
4	Purchase electricity from renewable energy sources, eg. NJ Clean Power Choice Program	
5	Adopt policy to purchase more sustainable products for city operations	
6	Maintain/ increase Summit’s tree canopy <i>Could reduce GHG 25 lbs/ tree/week.</i>	
7	Develop community-wide jitney service to reduce individual car usage (trips to train, downtown, grocery store, playing fields)	
8	Use traffic calming strategies to slow down vehicle traffic to speed limits, making roads safer for pedestrians and bicyclists	
9	Adopt anti-idling ordinance <i>Could reduce GHG 1 lb/ minute less idling</i>	
10	Improve building codes to require green construction for new construction.	
11	Improve building codes to require green building practices for renovations and additions.	
12	Adopt policies/ programs/ incentives to promote--but not require--green building practices	
13	Improve building codes so that development is appropriate to neighborhood	

	Action	How desirable is this action? Rate 1 to 5, 1 = very desirable 5 = not at all desirable
14	Requirement that redevelopment maintain or reduce carbon footprint	
15	Regulate landscaping practices (chemicals/blowers, etc.)	
16	<p>Update trash collection program:</p> <p>a. Adopt a Pay As You Throw (PAYT) garbage pickup program <i>PAYT programs treat trash services just like electricity, gas, and other utilities. You pay based on the amount you throw away. This creates a direct economic incentive to reuse and recycle more and to generate less waste.</i></p> <p>b. Weekly recycling pickup</p> <p>c. Curbside, not backyard, pick-up</p> <p>d. Curbside collection of all compostable food waste <i>For their solid waste, San Francisco residents use 3 containers—one for garbage, one for recyclables of all types, and one for compost (using biodegradable plastic bags to avoid the “yuck” factor). This can make a big difference: SF recycles 69% of their trash, while most towns like Summit recycle only 30 – 45%.</i></p>	
17	<p>Schools adopt sustainable lunch policy <i>Healthy food served in non-toxic containers</i></p>	
WHAT ACTIONS SHOULD LOCAL BUSINESS TAKE?		
18	Substantially improve recycling rate	
19	Use recyclable take-out containers	
20	Install recycling containers downtown	
21	Enroll in NJ Clean Power Program	
22	Offer more locally produced and sustainable products	
23	Increase availability of groceries within downtown <i>Will reduce driving</i>	

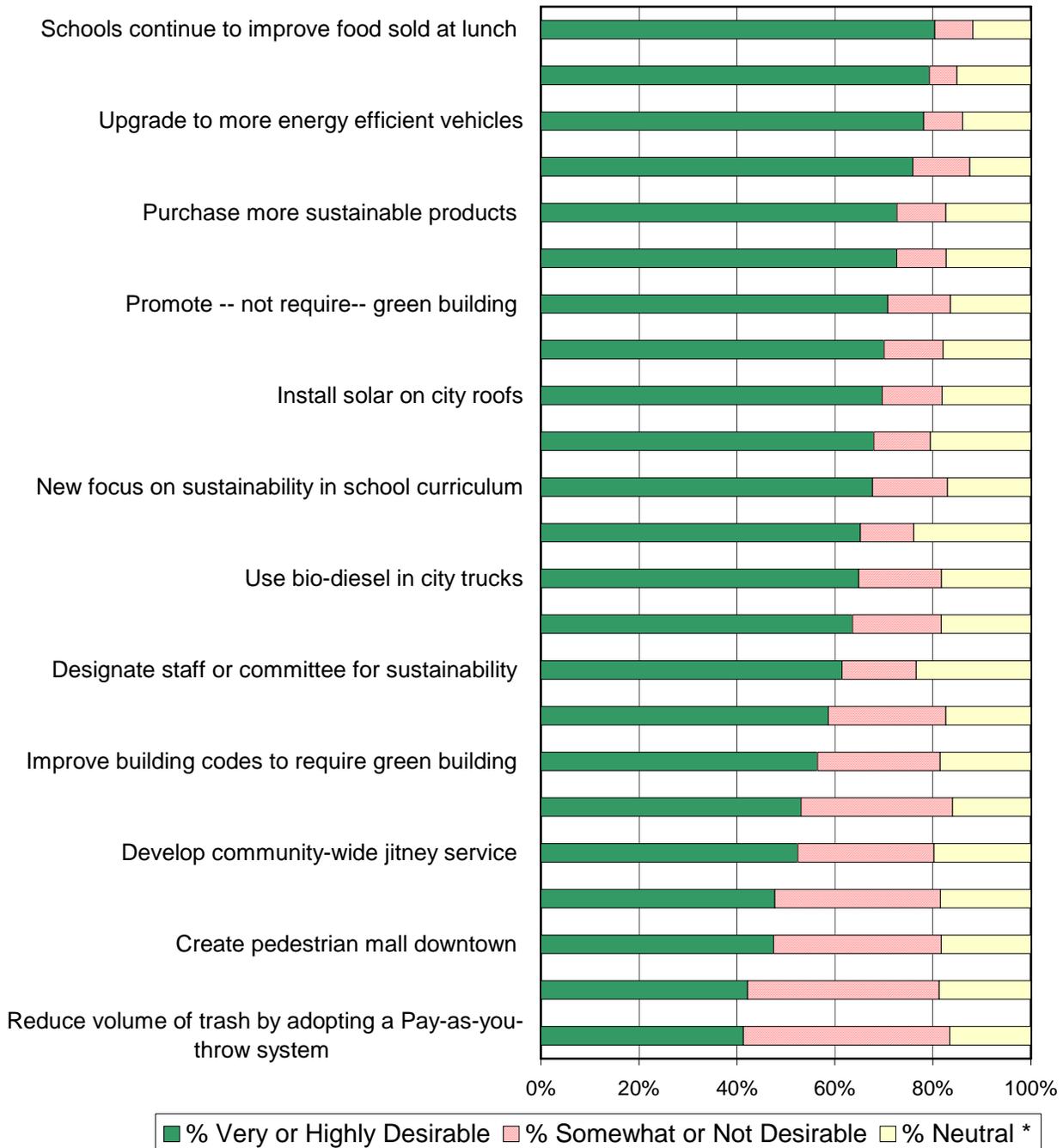
Thank you! We appreciate your opinions.

Please list any additional comments below.

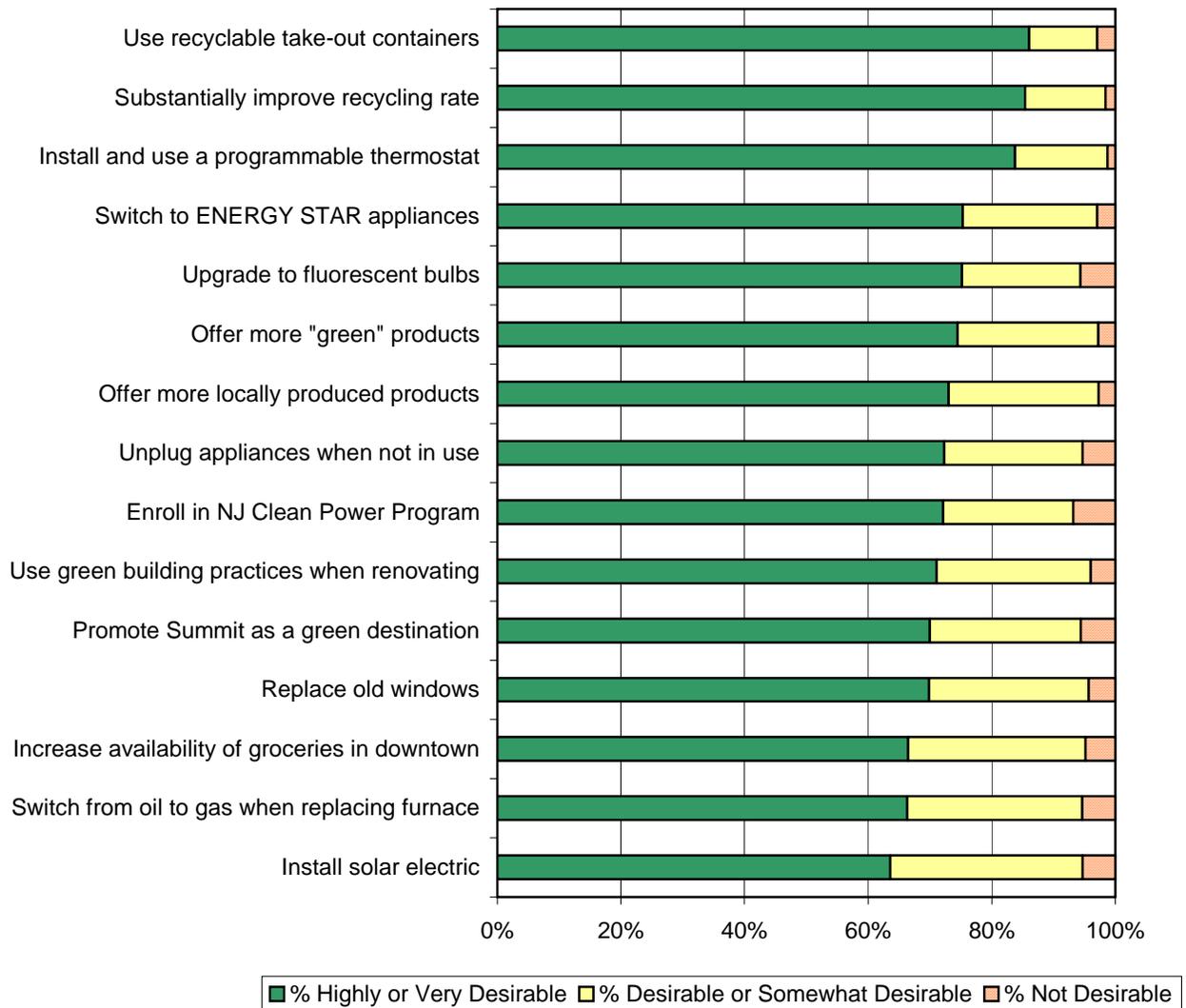
Summit Sustainability Survey, 5/24/08 (n=520): Residents' Actions



Summit Sustainability Survey, 5/24/08 (n=520): Municipal Actions



Summit Sustainability Survey, 5/24/08 (n=520): Business/Commercial Actions



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Appendix F

Information on Report and Recommendations on Developing a Sustainable Master Plan for Summit

The Sustainable Community Task Force presented the Report and Recommendations on Developing a Sustainable Master Plan for Summit to Common Council on June 19, 2007. The document contains the results of months of research which assessed Summit's current practices relative to sustainability, researched best practices around the country, and determined Summit's carbon footprint. Because of the length of the document, it is not included here but can be found online at <http://www.ci.summit.nj.us/> . Scroll down the page until you find SUSTAINABILITY REPORT - JUNE 19, 2007 and click on "Click here for the Sustainability Report." The report has an enormous amount of source material about Summit, climate change, ways to be "greener" and references to other communities who have been focusing on sustainability.

The following sections are included in the report:

INTRODUCTION

SUSTAINABLE SUMMIT: Baseline Assessment

SECTION 1: ENERGY

SECTION 2: BUILT ENVIRONMENT/BUILDING CODES

SECTION 3: TRANSPORTATION

SECTION 4: SOLID WASTE

SECTION 5: WATER USAGE, WATER QUALITY AND CONSERVATION

SECTION 6: ENVIRONMENTALLY PREFERRED PURCHASING

RECOMMENDATIONS

APPENDICES

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Appendix G

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Summit Mayor's Sustainable Community Task Force, 2008

Members of the Mayor's Sustainable Community Task Force, 2008, worked in teams to research and develop the action steps for each category.

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(Environmental Comm. Liaison)
Paul Hogan (Co-chair)

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Summit Public Schools Liaison)*
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Eric Mendelsohn
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Amy Cairns Harrison (Greenfest Liaison)

Planner, City of Summit

Eileen Banyra

Summit Sustainability Advisory Group

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Sylvia Kovacs (Sustainability Consultant)
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Roger Smith (TV 36 Liaison)
Jeff Wagenbach (Planning Board Liaison)

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