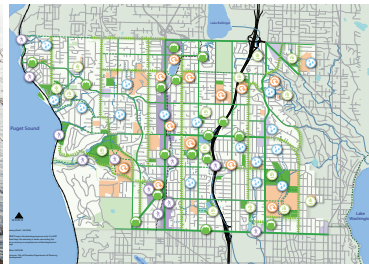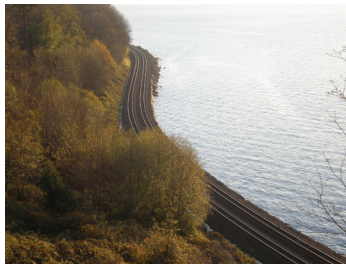# SHORELINE
ENVIRONMENTAL SUSTAINABILITY STRATEGY

PROPOSED

City of Shoreline
REVISED June 4, 2008

acknowledgments

The Shoreline Environmental Sustainability Strategy was developed through the collaborative efforts of community members, public officials, City of Shoreline staff, and the consulting firms – AHBL, Inc. and O'Brien and Company. The following City of Shoreline staff members and elected officials were contributors to the Strategy's creation:

Term ended prior to City Council adoption of this Strategy.

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acronyms

You may come across these acronyms while reading the Shoreline Environmental Sustainability Strategy. Here is an explanation of the acronyms for your convenience.

ASHRAE – American Society of Heating, Refrigerating and Air-conditioning Engineers
BMP – Best Management Practice
CFL – Compact Fluorescent Lamp
CIP – Capital Improvement Program
CLC – Cascade Land Conservancy
CSBA – Certified Sustainable Building Advisor
CTR – Commute Trip Reduction
DOE – Department of Ecology
EDG – Engineering Development Guide
EPA – Environmental Protection Agency
EPP – Environmental Procurement Policy
FTE – Full Time Equivalent
GHG – Greenhouse Gas(es)
GIS – Geographic Information System
ICLEI – International Council for Local Environmental Initiatives
IBID – Index of Benthic Invertebrate Diversity
Ivy OUT – Ivy Off Urban Trees
KCSWDM – King County Surface Water Design Manual
LEED – Leadership in Energy and Environmental Design
LEED AP - Leadership in Energy and Environmental Design Accredited Professional
LID – Low Impact Development
LOS – Level of Service
MPG – Miles Per Gallon
NEST – Neighborhood Environmental Stewardship Team
PLACE3S – Planning for Community Energy, Economic and Environmental Sustainability
PSE – Puget Sound Energy
ROW – Right-of-Way
RSW – Residential Solid Waste
SEPA – State Environmental Policy Act
SCL – Seattle City Light
SMC – Shoreline Municipal Code or Seattle Municipal Code
TBD – To Be Determined
USGBC – United States Green Building Council
WQI – Water Quality Index
WRIA – Water Resource Inventory Area

DEPARTMENT ACRONYMS:
C - Clerks
CMO – City Manager's Office
CS – Community Services
ED – Economic Development
F – Finance
IT – Information Technology
HR – Human Resources
PDS – Planning and Development Services
PRCS – Parks, Recreation and Cultural Services
PW – Public Works
PW-E – Public Works-Engineering
PW-ES – Public Works-Environmental Services
PW-F/O – Public Works-Facilities/Operations
PW-S/A – Public Works-Streets/Aurora
PW-SW – Public Works-Surface Water

PURPOSE

The City of Shoreline has taken a bold step towards creating a better future for its citizens by developing a clear, cohesive and measurable approach to sustainability.

For several years, the City has made gains in the realm of environmental protection and stewardship. By creating an Environmental Sustainability Strategy, Shoreline intends to build on existing efforts, expand into new areas it deems critical to a viable community future and provide leadership in the region.

Sustainability is necessarily a community effort. This plan recognizes and relies on the continuing good work of Shoreline's community - individuals, businesses, non-profits, utilities and City staff and decision-makers.

In addition to supporting this goal, the Strategy guides the design of programs and policies in support of other Council Resolutions, including the:

- US Conference of Mayors Climate Protection Agreement (Resolution No. 242);
- Cascade Agenda (Resolution No. 260); and
- Green City Partnership Program (Resolution 260).

In addition, the Strategy supports and implements numerous aspects of existing policies contained in the City of Shoreline Comprehensive Plan.

A bicyclist approaching the Interurban Trail.

City Council 2007-2008 Work Plan, Goal #6: Create an Environmentally Sustainable Community

Provide management and stewardship of natural resources and environmental assets such that their value is preserved, restored and enhanced for future generations, and such actions complement community efforts to foster economic and social health. Components include:

- *Implementing "Green" practices at all City-owned or operated facilities;*
- *Requiring new development or redevelopment to achieve high standards for stormwater management and energy efficiency; and*
- *Reduction of solid waste and maximizing recycling and reuse of resources.*

What is Sustainability?

Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their needs. The hope is that future generations will live at least as well as, and preferably better than, people today. True environmental sustainability requires regeneration and restoration of the environment where it has been damaged by past practices.

WHY A STRATEGY?

Sustainability is a complex issue that addresses the full range of local government activities, from operations and public programs to capital projects and development regulation. Many of the individual aspects of sustainability are or ~~will~~ can be ~~addressed in~~ incorporated during the next regular updates of adopted plans (e.g. Comprehensive Plan), but no one plan can adequately address sustainability because it impacts the entire range of City functions.

Instead the City has crafted this Strategy to identify a broader, more inclusive set of principles and priorities set forth as policy to be adopted by the City Council. It takes stock of existing environmental initiatives as well as strengths, weaknesses, threats and opportunities. It identifies objectives, measurable performance targets, indicators to track progress, and decision-making tools. From this analysis, gaps in the existing program mix have been identified and recommendations crafted. The Sustainability Strategy, in conjunction with other guidance documents, will advise and inform updates to plans, programs, projects, codes and budgets that will be further refined by City staff, stakeholders and the City Council. The City will use the Guiding Principles, priorities, tools and resources described herein to implement policies and processes which will increase the community's environmental sustainability.

A community garden at High Point in West Seattle.

View out to Puget Sound from Shoreline.

What gets measured gets done.

MISSION STATEMENT

The following Mission Statement creates a framework that aligns the City's various plans, policies, operations and actions.

The City of Shoreline will exemplify and encourage sustainable practices in our operations and in our community by:

- *Being stewards of our community's natural resources and environmental assets;*
- *Promoting development of a green infrastructure for the Shoreline community;*
- *Measurably reducing waste, energy and resource consumption, carbon emissions, and the use of toxics in City operations; and*
- *Providing tools and leadership to empower our community to work towards sustainable goals in their businesses and households.*

INTRODUCTION & POLICY FRAMEWORK

Ten Guiding Principles

As a first step in this process, ten Guiding Principles were developed and organized into two areas of emphasis. Strategic Guidance principles address overall effort and process, and Action Area principles address key substantive aspects of initiatives.

STRATEGIC GUIDANCE

1 **Sustainability will be a Key Factor in Policy Development**
The City will establish policy decisions and priorities considering their long-term impacts on the natural and human environment.

2 **Lead by Example and Learn from Others**
The City will lead by example and encourage other community stakeholders to commit to sustainability. We will learn from others' success and design our programs, policies, facilities and practices as models to be emulated by other organizations and individuals.

City of Shoreline staff tour the Kruckeberg Gardens.

3 **Environmental Quality, Economic Vitality, Human Health and Social Benefit are Interrelated Systems**
The City recognizes that a sustainable community requires and supports economic development, human health and social benefit. Human health depends on the environmental, economic and social health of our communities.

4 **Community Education, Participation and Responsibility are Key Elements**
The City will promote community awareness, responsibility and participation in sustainability efforts through public outreach programs and other opportunities for change. The City will serve as catalyst and facilitator for partnerships to leverage change in the broader community.

Natural landscaping and drainage edge along SEA-Street in Seattle.

5 **Commitment to Continuous Improvement**
The City will regularly evaluate apply adaptive management to its efforts and clearly communicate findings to the Shoreline community - individuals, businesses, non- profits, utilities, and City decision makers and stakeholders. Analytical and monitoring tools and performance targets will be used to ensure the best possible investments in the future are made.

ACTION AREAS

6

Manage Expected Growth in a Sustainable Way
The regional benefits of growth management must not come at the expense of livability. Growth and density will be focused in environmentally suitable areas and serviced by improved infrastructure, including non-motorized facilities, transit and enhanced access to parks and natural features.

7

Address Impacts of Past Practices
We must address the impacts of past actions as we plan for the future. The City will identify and address environmental degradation resulting from urban development. Impacts caused by outdated infrastructure will be a priority. Stormwater ~~improvements~~ solutions, including urban forest health and low impact development standards, and the lack of pedestrian walkways ~~sidewalks~~ will be emphasized.

A "Built Green" home in Shoreline.

8

Proactively Manage and Protect Ecosystems
Good stewardship demands that we protect and actively manage our dynamic local environment. The City will establish clear priorities and targets for natural area enhancement such as salmon habitat and wetlands restoration. We will manage public lands for multiple benefits and empower stakeholders to improve residential, institutional and commercial properties.

9

Improve and Expand Waste Reduction and Resource Conservation Programs
The City will evaluate and implement strategies to reduce solid waste. The City will partner with utilities to reduce water consumption, promote conservation, and investigate new technologies. The City will implement the "Cradle to Cradle" concept- reducing environmental impacts from initial sourcing through the end of product life.

The Interurban Trail crossing Aurora Avenue.

10

Energy Solutions are Key to Reducing Our Carbon Footprint
The City will reduce the amount of energy used in vehicles and facilities and promote sustainable sources. The City will evaluate energy use and carbon emissions and develop conservation targets. The City recognizes the relationship between energy and sustainable development principles. Transportation solutions and efficient buildings are key priorities for both.

INTRODUCTION & POLICY FRAMEWORK

FOCUS AREAS

As this Strategy was developed, five Focus Areas emerged from the Guiding Principles. Focus Areas frame, analyze and organize key components of the Strategy. The Focus Areas are:

1. City Operations, Practices and Outreach
2. Energy Conservation and Carbon Reduction
3. Sustainable Development and Green Infrastructure
4. Waste Reduction and Resource Conservation
5. Ecosystem Management and Stewardship

STRATEGY ORGANIZATION

The Strategy is organized into the following sections:

Chapter 1: Introduction
The Introduction identifies the City Council direction for the Strategy, the basic policy framework for this effort and its content.

Chapter 2: Methodology
This chapter outlines the methods used to develop the Strategy. It touches on techniques employed, including a review of existing municipal sustainability programs, interviews with City staff, public involvement and analysis of existing program strengths, weaknesses and opportunities. It also briefly describes the development of a sustainable decision-making tool and an assessment of the City's capacity to implement the Strategy.

Chapter 3: Strategic Directions
This is the core of the Environmental Sustainability Strategy. It is organized into sections aligned with the five Focus Areas. Each section summarizes why the Focus Area is important and offers specific objectives. The summary describes existing City efforts related to that Focus Area, characterizes the recommendations and highlights a key issue or potential action in greater detail. Diagrams in each section relate objectives, targets, indicators and recommendations for each of the five Focus

Areas. In addition, a map and discussion of Green Infrastructure System Opportunities is included in the Sustainable Development and Green Infrastructure section.

Chapter 4: Implementation
This chapter addresses key issues related to implementation of the Strategy. It assesses the capacity needed to act on the recommendations, with additional detail provided on all high priority recommendations. Factors such as costs (e.g. first, lifecycle, capital and operations costs), benefits, staffing requirements and internal and external responsibility are identified to a conceptual level of detail. Key resources vital for the next phases of implementation (e.g. approval of plans, codes, programs, projects and budgets) are identified.

Appendices A through F
Appendices provide additional details on recommendations, existing program assessment, revisions to City development codes and the sustainable decision-making tool.

Signage and new multifamily housing along the Interurban Trail.

2 methodology

METHODS FOR DEVELOPING THIS STRATEGY

The Shoreline Environmental Sustainability Strategy was developed using several approaches, including:

1. Assessment of what other innovative local governments are doing to promote sustainability;
2. Interviews with key staff to assess what is working and identify opportunities;
3. Development of a policy framework, strategic objectives and initial targets;
4. Inventory and assessment of current City plans, programs, and policies;
5. Public involvement and input using various interactive techniques; and
6. Development of decision tools, analysis of key gaps and potential recommendations.

The first step in developing the Strategy was to identify lessons learned from other communities around the region that have successfully implemented sustainability programs.

Based on these lessons learned and interviews with key staff, a set of draft Guiding Principles and Key Objectives were developed. These serve as a two-tiered framework for the Strategy and provided a foundation for an assessment of current City plans, programs, and policies to evaluate what is already occurring, and to identify existing gaps.

COMMUNITY CONVERSATIONS

A series of two community conversations provided stakeholders the opportunity to identify potential actions aligned with the Guiding Principles and to help prioritize the recommendations that emerged from this process. Prioritization of these recommendations was based on many factors that impact ease of implementation, as well as the environmental and community benefit. In addition, a decision tool was created for City staff to develop potential actions as the Strategy evolves.

OBJECTIVES
Identify specific goals

RECOMMENDATIONS
Changes needed to help reach goals

TARGETS
Refine goals to allow objective measurment

INDICATORS
Assess protress and direct improvement
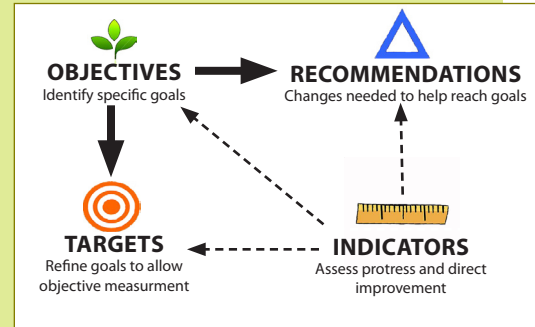
A diagram of the relationship of key components of the Strategy.

Key Terms and Relationships:

Guiding Principles establish the overarching direction and focus of the strategy.

Key Objectives identify clear goals for our strategic efforts.

Targets refine goals into measurable statements reflecting budget and other considerations.

Indicators measure progress toward our goals and let us know if the Strategy needs adjustment.

Recommendations include specific actions and new ideas to help us reach our goals.

CASE STUDY LESSONS

In developing the Shoreline Environmental Sustainability Strategy the City had the benefit of building on the collective experience of other cities. Lessons learned from review of such programs include:

- Create or use a framework that provides structure for the program;
- Engage the community and build capacity for citizen involvement;
- Make the program autonomous within the City governance structure;
- Identify a champion to be a steward and public face of the program;
- Give the plan statutory authority;
- Make sustainability the overarching policy framework;
- Start with a measurable rallying point;
- Create a baseline;
- Keep indicators static – adjust targets;
- Base decisions in science;
- Focus on "executable tasks;"
- Find a perpetual funding source; and
- Start small and scale up.

WHAT IS GREEN BUILDING?
Green buildings are designed and built to be healthier for their occupants, conserve water and energy, and reduce impacts on the environment. Green buildings do more than reduce negative environmental impacts – they often provide long-term benefits to owners, such as reduced operations and maintenance expense over the service life of the building.

WHAT IS LOW IMPACT DEVELOPMENT?
Low Impact Development (LID) is an environmentally sensitive approach to ~~land development~~ **stormwater management with the goal of mimicking a site's predevelopment hydrology and generating no measurable impacts to aquatic environments influenced by the development.**

STAFF INTERVIEWS

Meetings and interviews were conducted with key City staff to develop overarching policies for the program, get feedback on current programs and potential assessment criteria, develop a set of preferred programmatic characteristics and elements, and get input on public outreach.

COMPREHENSIVE PLAN GAPS

A review of the City's Comprehensive Plan revealed that it provides general guidance for many components of sustainability, however it was evident that there are important aspects that are not currently addressed. It was recommended to City staff that following adoption of the Sustainability Strategy, the policy framework of the Comprehensive Plan be augmented to address key gaps, including:

- Identifying and leveraging partners in achieving sustainability
  - o Utilities and other local governments
  - o Businesses and institutions
  - o Citizen involvement
- Actions that improve public health
  - o Encouraging active lifestyles
  - o Eliminating use of toxic substances
  - o Promoting use of non-hazardous materials
- Local and/or regional food production, sales and consumption
  - o Farmer's markets
  - o Community garden programs
  - o Public awareness campaigns
  - o Farm to school programs
- Water conservation
- Fleet vehicle and other key operations policies
- Air quality
- Green Building and Low Impact Development
  - o Incentives and codes
  - o Assistance and training
  - o Capital Improvement Plan and policies

METHODOLOGY

INVOLVING THE PUBLIC

"Community Conversations" (public workshops), were conducted as part of the development of the Strategy. The overall intent of the workshops was to hear what was important to stakeholders and their ideas on what the City can do and what individuals can do to further sustainability.

COMMUNITY CONVERSATION #1

The first Community Conversation featured a "conversation café" – a rotating series of short, focused and facilitated discussions. This discussion was focused on receiving specific public input on key sustainability issue areas identified by the City and Consultant Team.

- Green Infrastructure
- Carbon and Energy
- Low-Impact Development (LID) and Green Building
- Waste Reduction and Resource Conservation

The issue areas were subsequently modified to create the Focus Areas that provide a framework for analysis and organization of the Strategy. Comments received at this workshop were helpful in solidifying the Guiding Principles that provide the policy framework for this effort. Participants at the workshop also provided input on desired initiatives and changes related to both the City's internal operations and the larger Shoreline community. These ideas were incorporated into Key Objectives upon which the recommendations, targets and indicators of the Strategy are based.

COMMUNITY CONVERSATION #2

The second workshop was focused on establishing priorities for implementation. Attendees were given a limited budget of "green bucks" they could allocate to potential actions, and thus help establish priorities for actions. Attendees were also asked to comment on the proposed indicators, and offer their ideas on how the indicators could be refined.

COMMUNITY CONVERSATIONS:
Engaging the Public

Key issues identified included:

High participant interest in the development of a Green Infrastructure System: creek enhancement and daylighting, improved street landscaping, an integrated ~~sidewalk~~ pedestrian walkway and trail network, and improving east-west bike and transit connections.

Energy and Carbon comments included: create real alternatives to the single occupant vehicle through City investment, leadership and regulation; support individual actions in the home and the Comprehensive Plan, codes and tax incentives.

Community input on Waste Reduction and Resource Conservation included: recommendations on initiatives related to food and yard waste composting, construction waste recycling, water conservation tools such as rain barrels and reuse and community outreach messaging.

Green Building and LID feedback included: revise existing codes, provide technical assistance, provide incentives and reduce impervious surfaces through pervious pavements and other technologies.

Community Conversation #2 participants expressed the highest support for the following recommendations: revise code standards to guide and promote green building and LID, provide expanded "how to be sustainable" information, implement waste reduction incentives, and modify the stormwater utility fee to LID.

Key input on indicators included: research other cities, partner with schools and non-profits on data collection, engage the Chamber of Commerce and measure actual consumption and usage instead of proxies such as cost and facility size.

Community Conversation #1

SUSTAINABLE DECISION-MAKING

Upon establishing the possibilities for what the City could do with its Sustainability Strategy – from governance models to specific program components, the next step was to identify decision-making criteria for assessing what the City should do. Assessment criteria are useful in studying possible actions and policy directions for the City. They will help provide a better sense of the value of existing programs, as well as identify where new actions are needed. Assessment criteria can identify actions or policies that on their face may seem to fit the overall sustainability strategy, but when evaluated more closely seem a poor use of City's finite resources. The intent is to find actions and policies that leverage resources and provide significant benefit either by creating major improvements in a particular focus area, or better yet, addressing multiple high level goals.

Initial efforts in the Sustainability Strategy should be focused strategically on areas of greatest impact and "low-hanging fruit" – opportunities that will build on existing programs and lead to early successes.

City of Shoreline booth on Bike to Work Day.

Three general areas of consideration include:

Impact
Where does the City have the greatest opportunity to benefit the economy, the environment and the community?

Influence
The greatest opportunity to make a difference may be in those areas where the City can influence or support others in the community.

Investment
The sustainability program should, above all, be sustainable – projects should be selected that contribute to the City financially, optimize existing resources and programs, build on previous work, improve worker morale and safety, or enhance customer relations.

The recommended decision-making approach considers *impact, influence and investment* through a four-step process:

> **Step 1:** Identify and Distill Potential Actions or Decisions
> **Step 2:** Initial Qualitative Evaluation and Comparison
> **Step 3:** Modified Strength, Weakness, Opportunity and Threat (SWOT)
> **Step 4:** Preliminary Cost and Resource Evaluation

See Appendix C for more details on the decision-making tool that was developed for the Strategy. This tool can be used to identify and evaluate potential actions and recommendations.

ESTABLISHING KEY OBJECTIVES

An important aspect of developing the Strategy was to inventory and analyze existing policy direction and current programs and compare them with potential objectives that are built on the Guiding Principles.

METHODOLOGY

The City's environmental sustainability objectives were drawn from four sources:

- On-going activities promoting some act of environmental stewardship provide insights as to what the City cares about;
- Major regional and national initiatives the City has recently adopted include specific objectives;
- The City's Comprehensive Plan includes language promoting aspects of sustainability; and
- As part of this project, through the Community Conversations and City Team meetings, additional specific objectives were identified based on the Guiding Principles.

Using this process, potential objectives for the Environmental Sustainability Strategy were identified in five Focus Areas:

- City Operations, Practices and Outreach,
- Energy Conservation and Carbon Reduction,
- Sustainable Development and Green Infrastructure,
- Resource Conservation and Waste Reduction, and
- Ecosystem Management and Stewardship.

Some of these potential objectives focus on internal action within the City organization,

> *"Emphasize affordability and sustainability."*
>
> Comment from Community Conversation #2 Participant

some on external actions between the City and stakeholders, and some on both internal and external actions.

RECOMMENDED CITY ACTIONS

The discussion in Chapter 3 forms the heart of the Environmental Sustainability Strategy. It includes a summary of each Focus Area: what the City is currently doing, what changes are recommended and a visual map of the relationship between objectives, recommendations, targets and the indicators that provide feedback for continuous improvement.

IMPLEMENTATION & CAPACITY ASSESSMENT

Implementation of the Environmental Sustainability Strategy will entail both City and citizen action. Assessing available financial and human resources both internal and external to the City is an important step towards developing a realistic implementation approach. A capacity assessment methodology was established to assist the City in determining the cost and benefits of potential actions. This methodology specifically looks at:

- Initial cost premium
- Lifecycle cost savings
- Benefits
- Required staffing
- Operating budget impacts
- Capital budget impacts
- Internal responsibility
- External responsibility
- Available external resources
- Whether action is required to meet an existing agreement

See Chapter 4 for more details on capacity assessment, including a summary of findings, additional details on short-term recommendations and additional resources available for further assessment.

STRATEGIC DIRECTIONS OVERVIEW

The following sections define the five key Focus Areas of the Shoreline Environmental Sustainability Strategy: City Operations and Outreach, Energy and Carbon, Sustainable Development, Resource Conservation and Waste Reduction and Ecosystem Stewardship.

Each Focus Area section includes:
- A description of key issues and what the City is doing currently to address them;
- A brief description of recommendations, including what existing programs should be continued, expanded or modified; and
- Summary diagrams that show key objectives, recommendations, targets and indicators and how they relate to each other.

The City is taking significant steps in its operations, projects, programs and practices to address sustainability. The framework provided by a set of Guiding Principles and Key Objectives organized by Focus Area will give the program more structure.

RECOMMENDED ACTIONS

Sustainability is a complex issue and cuts a broad swath across many topics. Even with a significant attempt at distillation, 50 recommendations emerged as a result of this effort. Key recommendations are summarized within each Focus Area and a complete and detailed list is provided in Appendix A for ease of implementation.

TOP TEN PROGRAM STRATEGIES

Several of the recommendations from the list of 50 are interrelated and represent high priorities, especially when combined. To represent these high-priority and integrated action steps, a list of "top 10" program strategies was developed. These are summarized on pages 18 and 19.

A 5-Star "Built Green" residence in Shoreline.

Sustainability Strategy Focus Areas
Focus Areas were developed based on the policy guidance of the Guiding Principles and input during Community Conversation #1. The Focus Areas capture the essence of the five major program areas in the Strategy and provide a concise analytical and organizational framework.

- *City Operations and Outreach*
- *Energy and Carbon*
- *Waste Reduction and Resource Conservation*
- *Sustainable Development and Green Infrastructure, and*
- *Ecosystem Conservation and Management*

Performance Measurement
Performance measurement, through a system of targets and indicators, will help ensure efficacy and accountability. Preliminary performance targets have been identified. The City will need to do additional staffing and budget analysis to finalize targets.

Top 10 List of Key Program Strategies

1

Develop and integrate the sustainability program into all City functions
Establish and reinforce sustainability as a consistent and unifying factor in policy development and program analysis across all departments. Evaluate the impact of potential decisions and actions on sustainability in a structured and transparent manner (e.g. Sustainable Decision Making Tool). Establish baselines and performance targets for all focus areas. Implement an indicator tracking system to measure progress over time, communicate progress and engage business community and residents in the overall effort.

2

Develop a residential green building program
Model sustainability by prioritizing and promoting Green Building and Low Impact Development (LID) proficiencies in select City staff and providing information on related building practices, resources and opportunities. Revise zoning and engineering standards to provide clear guidance and incentives for LID and Green Building.

People are an essential part of a sustainable community.

3

Build and support a sustainability leadership structure
Create a permanent Green Team – a sustainability leadership structure with management and technical components. A temporary sustainability project team with management and technical committees was set up to develop the Strategy. Implementation of the Sustainability Strategy will require significant City staff resources. Current fiscal projections indicate that additional City staff positions will likely not be available for sustainability in the budget for the next few years. Establishment of a permanent leadership structure to guide implementation will require the adjustment of staff resources, responsibilities and priorities to act on recommendations contained in the Strategy, while meeting existing City responsibilities.

4

Measure emissions in permitting and planning and take steps to mitigate
Evaluate energy consumption and greenhouse gas emissions in both long range planning and development review decisions using quantitative tools. This includes implementation of this recommendation in State Environmental Policy Act (SEPA) review and the use of quantitative tools during the next major Comprehensive Plan update.

Pedestrian and bus transportation in Shoreline.

5

Prioritize non-motorized transportation investment and planning
Devote more planning and capital resources to developing a pedestrian and bike system as an attractive alternative to single occupant vehicles. Prioritize non-motorized transportation planning and improvements with a focus on linking destinations, including an emphasis on the development of the Green Streets program. Non-motorized transportation investment is a key item in the U.S. Mayor's Climate Protection Agreement.

STRATEGIC DIRECTIONS

Adopt a more aggressive green fleet policy
Require alternative fuel vehicles, 45 mpg or higher for fossil fuel vehicles and most efficient cost effective option available for exempt vehicle types. The current policy of replacing 2% of the vehicles annually with alternative fuel vehicles will not achieve the commitments made in the U.S. Mayor's Climate Protection Agreement.

6

Adopt a clear and aggressive green building policy
Lead by example. For all new City construction, require at a minimum the US Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standard and the American Society of Heating, Refrigeration and Air Condition Engineers (ASHRAE) Commissioning standard. For existing City buildings, require upgrade of building systems and fixtures to meet Energy Star, using most efficient options. This is required to effectively meet the Mayor's Climate Agreement.

7

Forested slopes merge into shoreline and railroad tracks.

Adopt a comprehensive environmental purchasing policy
Develop and adopt clear guidelines, preferences and requirements for preferred environmental attributes such as durability, waste reduction and environmental safety. This is a relatively "quick-win" that will enhance sustainability efforts across departments.

8

Strengthen internal recycling efforts and community outreach
Expand existing efforts to reduce, reuse and recycle in City offices, parks and other facilities with dedicated containers, more opportunities and more training. Additional "quick-wins" are available in City facilities and operations. With the CleanScapes transition occurring, the time is right to expand messaging and outreach on this issue in City facilities as well as out in the community.

9

A vegetated swale at High Point in West Seattle.

Structure and prioritize natural resources enhancement
A focused effort is needed to establish City priorities, targets, partners and funding mechanisms. A specific plan to identify and prioritize enhancement of our natural resources ~~Natural Resources Action Plan~~ would improve the City's ability to obtain grant funding and synthesize existing watershed and functional plans. Two local examples of focusing and leveraging resources are Lake Forest Park and Kirkland. In the medium-term, the restructuring of surface water management utility fees and an enterprise fund should be considered for increasing stream, wetland and forest canopy enhancement efforts.

10

The following sections of the Strategic Directions chapter contain more detailed discussion of each of the five Focus Areas that are general priority areas and provide the organizational framework for this strategic plan.

FOCUS AREA 1: CITY OPERATIONS, PRACTICES & OUTREACH

INTRODUCTION

Sustainability is a community effort – and the City is best placed to lead, educate, and build capacity in the community. General strategies for City operations, practices, and outreach include engaging the community, ensuring accountability, and starting with measurable citizen rallying points. By focusing on tasks that individuals or groups can perform, City resources can leverage greater investment.

WHY IS IT IMPORTANT?

By building sustainability into internal operations, the City can lead by example – creating benchmarks and finding efficiencies that will inform efforts by businesses and individuals. Outreach is equally important in that it builds capacity and can have an exponential impact on sustainability efforts. Creating opportunities for businesses and individuals to contribute to sustainability, and training people to implement strategies are essential.

WHAT IS SHORELINE ALREADY DOING?

Shoreline has an active, engaged community that is already willing to devote time and resources to sustainability programs. Examples include habitat restoration projects in both the Thornton Creek and Boeing Creek watersheds. Information and outreach on efficient resource use are available for businesses through a City partnership with the Environmental Coalition of South Seattle (ECOSS).

The City's Environmental Mini-Grant program helps manage and steward natural resources and environmental assets for preservation, restoration, and enhancement. Grants up to $5,000 per application are awarded to individuals, community groups, and business owners on a first-come, first-served basis for projects on private or public property that provide a public benefit to the community.

Green Business Program

The movement to green Shoreline businesses is being helped by the Shoreline Chamber of Commerce. With a grant from King County, the Chamber is developing a Sustainable Business Certification program, much like the City of Kirkland's. The focus will be on educating businesses and then helping with marketing – recognizing these businesses for sustainability efforts. The Chamber is working in collaboration with the City's Economic Development Program to develop a model that can be easily adopted.

Natural Lawn Care booth at an Earth Day Fair in Shoreline.

FOCUS AREA 1: CITY OPERATIONS, PRACTICES & OUTREACH

As part of its Water Quality and Environmental Stewardship program, the City's Surface Water and Environmental Services (SWES) division manages an environmental education outreach program to involve the public in protection of aquatic ecosystems.

The City uses brochures and its web page to provide information on existing programs and education.

OBJECTIVES

Many objectives in this section overlap with other sections, and reinforce the integrated nature of the Sustainability Strategy. Objectives include increasing capacity and technical expertise, and leveraging and directing the resources of the larger Shoreline community in support of key sustainability objectives.

RECOMMENDATIONS

- **Start from a baseline for all Focus Areas and track progress over time.**
- **Create standard departmental procedures and expectations that support sustainability goals; then train staff, measure, reward and promote individual and departmental achievement of these goals.**
- **Establish a permanent green team or interdepartmental committee to focus on sustainability program management and techniques.**
- **Pursue funding to establish a key City staff position or contracted consultant related to sustainability.**
- **Develop a City-wide Environmental Purchasing Policy that governs internal purchasing decisions.**

Existing Program Evaluation: City Operations, Practices & Outreach
Analysis included evaluation of existing programs related to this Focus Area. Please see Appendix B for full details on program evaluation.

Existing programs to ***Ensure Continuation***

- *Adopt-a-Road and Adopt-a-Trail Programs*
- *Stormwater Standards and Program Update*
- *Regional Roads Maintenance Forum*

Existing program areas where the City should ***Expand Current Efforts***

- *Earth Day Celebration*
- *Neighborhood Environmental Stewardship Team*
- *Environmental Mini Grant Program*
- *Ivy Out Volunteer Program*
- *Habitat Restoration Projects*

Existing program areas where the City should ***Modify Overall Approach***

- *Green Building Program Implementation*
- *Sustainable Business Extension Service*
- *City Buildings, Operations, Practices and Policies*

Categories:
Ensure Continuation (As-Is): Program is valuable; no immediate need for significant changes to resources or approach.

Expand Current Efforts: Program is an excellent start; additional resources to expand program area will maximize benefits.

Modify Overall Approach: Existing efforts do not adequately address Sustainability Strategy objectives; planning and resources are required to restructure and then expand.

FOCUS AREA 1: CITY OPERATIONS, PRACTICES & OUTREACH

(Recommendations continued)

- **Work with Shoreline Chamber of Commerce to create a green business program.**
- **Provide "how to" info to the community through mailers, events, the website and brochures.**
- **Practice and promote green building and LID proficiencies in City planning and building.**
- **Provide incentives to the private sector to build to LEED, Built Green, or other sustainable building standards.**
- **Provide worksheets on specific innovations for permitting clients (e.g. greywater systems that meet code).**

City of Shoreline staff on a forest management tour on Vashon Island.

A key element is to provide leadership and continuity during Strategy development, implementation, and expansion. A Green Team or permanent committee dedicated to sustainability would provide a leadership structure for the Strategy and serve as a resource for other City staff. Most successful programs also have a key position dedicated to sustainability – a champion who directs startup and manages daily operations. Most fully developed programs operate with only one or two additional full-time positions devoted to sustainability. Establishing a new full time sustainability position at the City of Shoreline may not be possible at this point due to budget constraints, but there are grant funds available that could help fund near-term contract work. In particular, the City should consider establishing a volunteer coordinator position to organize and leverage community resources.

City of Shoreline staff at the Transfer Station grand opening.

Please see Appendix A for a complete list of recommendations, Appendix B for the full evaluation of existing programs and Chapter IV for implementation capacity and resources.

FOCUS AREA 1: CITY OPERATIONS, PRACTICES & OUTREACH

OBJECTIVE 1
Model Sustainability in City Operations

TARGET

Implement recommendations in four key areas: measurement, policy, leadership and training.

INDICATOR

1. TBD, City must determine benchmarks in all four areas. For example number of staff hours devoted to sustainability training per year per FTE[1] (as compared to previous four years). Sustainability credentials earned (LEED-AP [2], CSBA[3], others).

Recommendations

1. Integrate sustainability into City and Departmental missions, functions and decision making at all levels using clear and transparent tools.
2. Create baselines of existing conditions for all five Focus Areas. Track and report City's progress to community.
3. Create standard office procedures, training and expectations that support sustainability goals. Then measure, reward and promote individual and departmental achievement of those goals.
4. Develop a comprehensive environmental purchasing policy for all City purchasing decisions.
5. Establish a green team with two interdepartmental committees to focus on (internal) sustainability program management and sustainability techniques.
6. Prioritize and promote Green Building and LID[4] proficiencies in City building and planning staff including credentials such as LEED-AP, CSBA or equivalent.

1 Full-time Equivalent
2 Leadership in Energy and Environmental Design Accredited Professional
3 Certified Sustainable Building Advisor
4 Low Impact Development

FOCUS AREA 1: CITY OPERATIONS, PRACTICES & OUTREACH

OBJECTIVE 2
Engage Community in Sustainability Strategy Implementation

TARGET

Targets to be identified based on City budgets.

INDICATOR

1. Number of volunteer hours and distinct individuals devoted to sustainability projects per year (as compared to previous 4 years).
2. Number of businesses participating in green business certification program.
3. Number of LEED[6] certified and three star or above BuiltGreen projects within City limits (non-city owned).

Recommendations

1. Design public outreach campaign to expand community participation; provide practical "how to" information on sustainable living through a multi-faceted approach.
   - Celebrate Shoreline – sustainability booth and theme.
   - Sustainability Spotlight in Shoreline Currents newsletter.
   - Sustainable Shoreline Hero column in Shoreline Enterprise.
   - City "Green" web page and brochure describing and promoting the Strategy.
   - Student/volunteer carbon footprinting project.
1. Pursue grants to establish a key City staff position related to sustainability, such as a Volunteer Coordinator.
2. Provide incentives to the private sector to build to LEED, BuiltGreen or other sustainable standard.
3. Provide worksheets on specific innovations for permitting clients (e.g. greywater systems that meet code).

6 Leadership in Energy and Environmental Design

WHY IS IT IMPORTANT?

Volatile energy pricing, reduced access to fossil fuels, and climate change have led the City to make energy conservation and reducing its carbon footprint significant priorities.

- Conservation will help reduce operating costs. Financial projections predict a budget gap starting in 2010.

- As energy prices become more volatile, economists predict future access to economical and domestic sources of fossil fuel will be uncertain. Conservation becomes an important "future-proofing" measure.

- Energy conservation is critical to successfully reducing the City's carbon footprint. Carbon dioxide is a greenhouse gas (GHG) – produced by burning of fossil fuels – that degrades the ozone layer and contributes to adverse climate change.

A privately-owned Smart Car in Shoreline.

Washington GHG Emissions Shares

Other* 12%
Electricity 17%
Industrial 21%
Transport 50%

King County GHG Emissions Shares

Electricity 10%
Other* 20%
Industrial 10%
Transport 60%
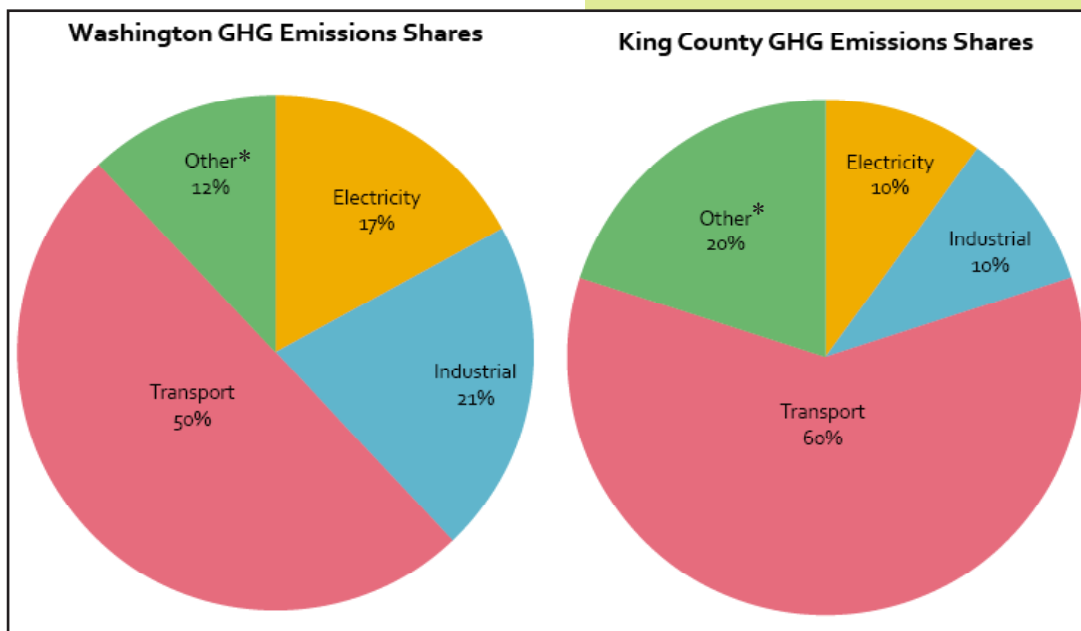
*Other includes non-energy agricultural and industrial emissions.

Figure 3.1
Puget Sound Energy Sources (2006)
State of Washington, CTED: Fuel Mix Disclosure

FOCUS AREA 2: ENERGY CONSERVATION & CARBON REDUCTION

SNAPSHOT OF CURRENT CONDITIONS

Most City vehicles run on fossil fuel – about 24,000 gallons of gasoline in 2007 alone (for a total cost of more than $60,000). In Washington State, 50% of greenhouse gas emissions come from transportation – the proportion rises to 60% in King County (see figure 3.1). Natural gas or oil is used to heat some City facilities – gas bills totaled $125,000 for Parks, Police, and Public Works facilities in 2007 – and many businesses and homes. The City uses more than 14,000 kWh of electricity annually for lighting, operating office equipment, and other plug loads.
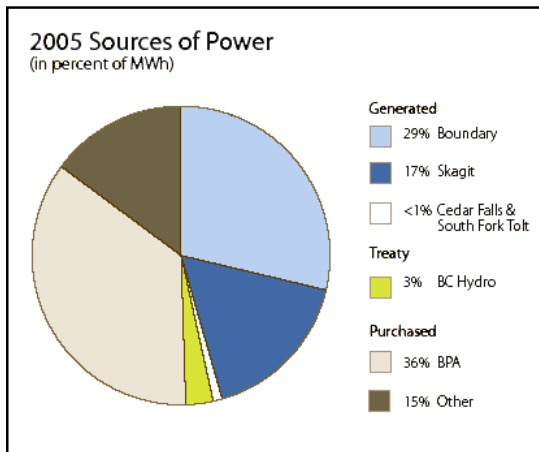
Shoreline's electric utility, Seattle City Light, derives the majority of its power from hydroelectric sources (see Figure 3.2). Yet as energy demands increase, cheap hydroelectric power will be in increasingly limited supply.

2005 Sources of Power
(in percent of MWh)

Generated
29% Boundary
17% Skagit
<1% Cedar Falls & South Fork Tolt
Treaty
3% BC Hydro
Purchased
36% BPA
15% Other

Generation Type	Percentage
Hydro	86.45
Natural Gas	5.28
Nuclear	4.23
Wind	3.06
Coal	0.89
Other	0.09
TOTAL	**100.00**

Figure 3.2
Seattle City Light Sources (2005)
http://www.seattle.gov/light/aboutus/customerguide/

WHAT IS SHORELINE ALREADY DOING?

- The City is committed to purchase, and require contractors to operate, alternative fuel vehicles. For example, the municipal waste management contract requires CleanScapes to use 20% biodiesel fuel in its vehicles in the performance of its contract.
- The City is improving business access and transit lanes along Aurora Avenue.
- The City promotes alternatives to driving through transit improvements, enhanced bicycle access, and a Commute Trip Reduction (CTR) Program for City employees and other large employers.
- The City is also a member of the International Council for Local Environmental Initiatives (ICLEI), a global network of municipal governments committed to local environmental solutions. ICLEI provides information and training, organizes conferences, facilitates networking and city-to-city exchanges, carries out research and pilot projects, and offers technical services and consultancy. ICLEI's development model incorporates a five-milestone structure that participating local governments work through: (1) establish a baseline; (2) set a target; (3) develop a local action plan; (4) implement the local action plan; and (5) measure results. Shoreline may use ICLEI's proprietary software to model policy alternatives.
- In 2006, Shoreline formally joined the US Conference of Mayors Climate Protection Agreement, a commitment to align US cities with the Kyoto Protocol and reduce greenhouse gas emissions.

FOCUS AREA 2: ENERGY CONSERVATION & CARBON REDUCTION

OBJECTIVES

Objectives in this focus area aim to promote the use of clean energy and reduce energy consumption in City buildings and fleet and in day-to-day operations. Recommendations include new strategies, as well as modifications, expansion, or continuation of existing programs. Note that there are recommendations in other focus areas that can result in reducing energy uses in the community – for example incorporating energy planning into land use planning.

RECOMMENDATIONS

- **Employ PLACE³S software or similar for future land use planning efforts (e.g. the next major Comprehensive Plan update).**

- **Develop a baseline for energy consumption and carbon data using ICLEI "5 Milestones Toolkit" or similar.**

- **For new construction of major City facilities (including the City Hall), meet requirements specified in LEED Core Performance Guide, referenced in the prescriptive path for LEED Energy and Atmosphere Credit 1.**

- **For new construction of major City facilities (including the City Hall), require the use of Commissioning as outlined by the ASHRAE Commissioning Process Guideline 0-2005.**

- **Upgrade existing City facilities to meet the Energy Star building performance standard for similar building types.**

- **In purchasing guidelines, require building equipment and appliances to be Energy Star rated.**

Civic Center/City Hall

*The new Civic Center City Hall is expected to beat the energy code by at least **14%** resulting in savings over a conventionally designed building. Construction is expected to begin in May and last 18 months, with completion in late summer of 2009. Below are examples of the resource saving strategies incorporated in the City Hall's green design.*

- *Solar and alternative energy source power solutions*
- *Energy efficient lighting*
- *Climate control tools*
- *Onsite rainwater reclamation*
- *Connectivity to mass transit along 175th Street and Aurora Avenue*

Reduced energy consumption and carbon footprint are only two of multiple environmental goals for the building, as it aims to meet the US Green Building Council's LEED Silver Standard for new construction.
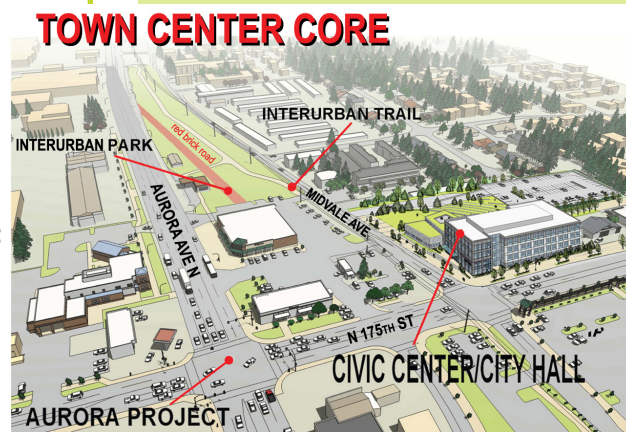
A rendering of Town Center and the proposed Civic Center/City Hall.

FOCUS AREA 2: ENERGY CONSERVATION & CARBON REDUCTION

(Recommendations continued)

- **Engage in Seattle City Light's (SCL) green power program (Green Up).**

- **As part of annual budget planning, increase proportion of green power purchase to 100%.**

- **Require all new fleet vehicles be alternatively fueled, or rated by EPA for 45 mpg or higher for fossil fuel vehicles (except exempt types).**

- **Conduct a campaign to reward City staff for "smart" trip planning to reduce unnecessary trips/miles traveled for City business.**

- **Promote use of Seattle City Light (SCL) and Puget Sound Energy (PSE) incentives or other incentives for conservation and alternative energy as part of an outreach campaign.**

- **Work with SCL & PSE to prepare a report showing Shoreline Community's overall energy use as of baseline year; update figures provided by SCL/PSE.**

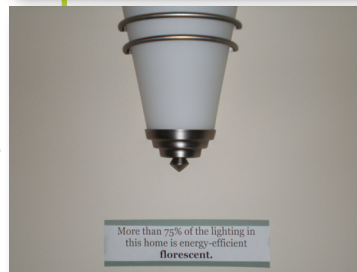- **Collect information about greenhouse gas emissions and energy use through the State Environmental Policy Act (SEPA) review process.**

Examples of residential applications of energy efficient mechanisms and appliances, including the solar hot water collector on Shoreline Community College's Zero Energy House.

A focus on green buildings is recommended for several reasons. As one of the most visible aspects of sustainability, green building standards can serve as a gateway to the Sustainability Strategy, through which the community might access less tangible aspects. Green building as a practice is also one of the most effective ways to achieve measurable results quickly and thus generate momentum and provide feedback to stakeholders.

Please see Appendix A for a complete list of recommendations, Appendix B for the full evaluation of existing programs and Chapter IV for implementation capacity and resources.

Existing Program Evaluation: Energy and Carbon

*Existing programs to **Ensure Continuation***
- *Civic Center/City Hall – targeting LEED Silver*

*Existing program where the City should **Expand Current Efforts***
- *Earth Day Celebration – including energy outreach*
- *Promoting Alternatives to Driving*
- *Business Access/Transit Lanes*

*Existing program areas where the City should **Modify Overall Approach***
- *Climate Protection Campaign*
- *Fleet Vehicles*
- *Green Building Implementation*

Please see the Existing Program Evaluation description on page 21 for category definitions. See Appendix B for full details on program evaluation.

OBJECTIVE 3
Reduce Energy Consumption in City Facilities

TARGET

Reduce energy consumption in City facilities by 5% per year and 20% by 2012.

INDICATOR

Percentage decrease in City electric and gas bills (measured in $/sf) – obtainable from Seattle City Light (SCL) and Puget Sound Energy (PSE).

Recommendations

1. For all major new City facilities (including the City Hall), require the use of Commissioning as outlined by the ASHRAE[6] Commissioning Process Guideline 0-2005
2. Upgrade existing facilities to meet Energy Star standard for similar building types.
3. Include requirements to meet Energy Star for building equipment and appliances in purchasing guidelines.
4. Develop a baseline for energy consumption and carbon data using ICLEI[7] "5 Milestones Toolkit" or similar.
5. For all major new facilities (including the City Hall), meet requirements specified in LEED[8] Core Performance Guide, references in the prescriptive path for LEED Energy and Atmosphere Credit 1.

OBJECTIVE 4
Increase Reliance on Green Power in City Facilities

TARGET

Increase Green Power use as a proportion of total electricity consumption in City facilities by 25% per year, to 100% by 2012.

INDICATOR

Proportion of City consumption supplied by alternative energy sources through Seattle City Light "Green Up" Program.

Recommendations

1. Engage in the green power program with Seattle City Light. As part of annual budget planning, increase proportion of green power purchase to 100%.

6 American Society of Heating Refrigerating and Air-Conditioning Engineers

7 International Council for Local Environmental Initiatives
8 Leadership in Energy and Environmental Design

OBJECTIVE 5
Reduce Fossil Fuel Consumption by City Vehicles

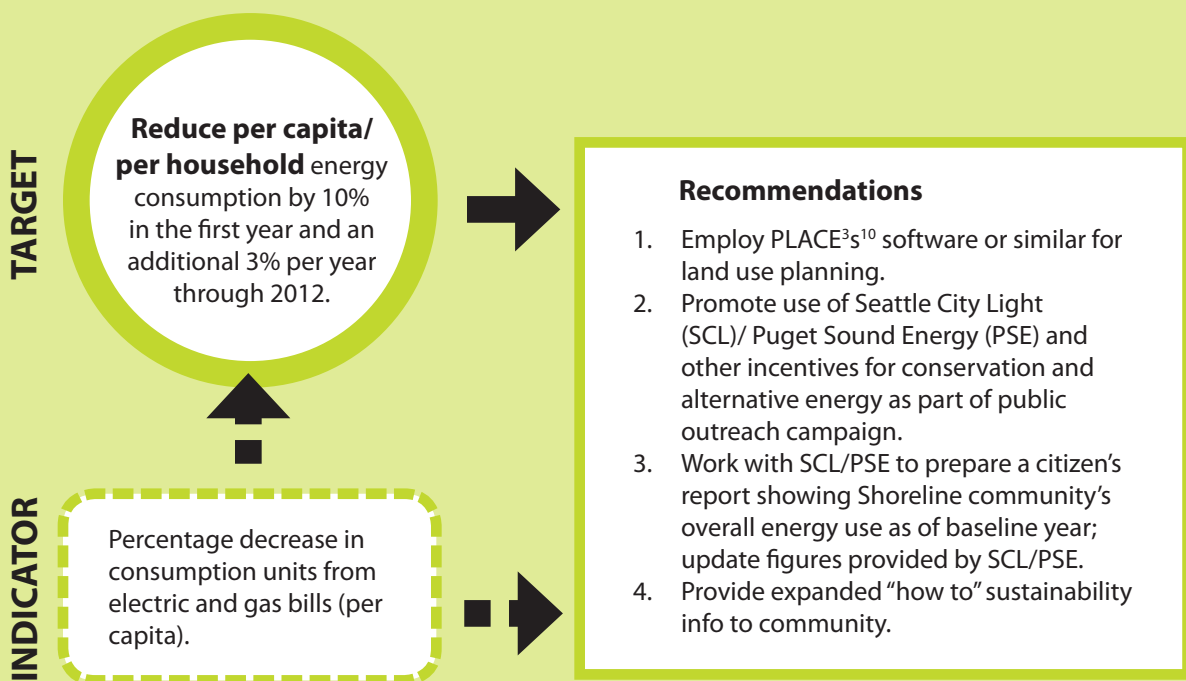**TARGET**

Downward trend of annual consumption of fossil fuel used to operate City fleet.

INDICATOR

Amount of fossil fuel (in gallons) purchased annually for City fleet.

Recommendations

1. Require all new fleet vehicles be alternatively fueled, or rated EPA[9] for 45 mpg or higher for fossil fuel vehicles. (Only applies to vehicle types where these options exist.) For exempt vehicles, require the most efficient options available as vehicles are replaced.
2. Launch campaign for City staff – reward "smart" trip planning to reduce miles traveled.

OBJECTIVE 6
Reduce Energy Consumption in Community Households

TARGET

Reduce per capita/ per household energy consumption by 10% in the first year and an additional 3% per year through 2012.

INDICATOR

Percentage decrease in consumption units from electric and gas bills (per capita).

Recommendations

1. Employ PLACE[3]s[10] software or similar for land use planning.
2. Promote use of Seattle City Light (SCL)/ Puget Sound Energy (PSE) and other incentives for conservation and alternative energy as part of public outreach campaign.
3. Work with SCL/PSE to prepare a citizen's report showing Shoreline community's overall energy use as of baseline year; update figures provided by SCL/PSE.
4. Provide expanded "how to" sustainability info to community.

9 Environmental Protection Agency
10 Planning for Community Energy, Economic and Environmental Sustainability

WHY IS THIS IMPORTANT?

Sustainable development and *green infrastructure* are complex terms frequently used to mean different things. This discussion deals primarily with the physical and environmental aspects of sustainable development, particularly transportation, land use, and building construction. Green infrastructure is a relatively new term and refers to the integration of functioning ecosystems with the built environment to improve both ecological and human conditions.

Perhaps more than any of the Strategy's Focus Areas, Sustainable Development and Green Infrastructure has the potential to provide benefits across all five Focus areas. For example, several of the recommendations to improve transportation, land use, and building construction will have the impact of reducing greenhouse gas emissions, thus reducing the carbon footprint of the community. Recommendations in this Focus area are intended to create a built environment that addresses the impacts of past practices, conserves energy and resources, and supports a livable community and healthy ecosystem.

Creating real alternatives to single occupant vehicles that use less energy and generate less pollution is a priority of this Focus Area because transportation is currently responsible for more than 50% of the greenhouse gas emissions in King County. In particular, promoting non-motorized transportation, compact growth and strengthening the links between transportation and land use planning are vital needs.

What are Green Streets?

Green streets combine non-motorized improvements, natural drainage, landscaping and other improvements in innovative ways to connect parks, ecosystems and neighborhoods. In more ~~urban~~ commercial and mixed-use areas, green streets may include standard sidewalks with street trees ~~and traditional storm drainage, but a~~ in conjunction wiht innovative natural drainage design, such as the recent improvements on Aurora Ave N. As you move away from the arterials, green streets can include a closer connection with natural processes, with native landscaping, off -street trails, low-impact drainage connections or features, and habitat enhancements. The Green Streets program will be addressed in the demonstration project currently being developed and the next update of the Transportation Master Plan ~~Update~~. The scoping process for the update is scheduled to begin in 2008.

A vegetated swale a along street in Seattle is an example of Green Infrastructure.

The City recently installed Business Access and Transit (BAT) Lanes as part of the Aurora Corridor Phase I project. The extension of the transit improvements to 205th Street is planned.

FOCUS AREA 3: SUSTAINABLE DEVELOPMENT & GREEN INFRASTRUCTURE

This strategy also aims to promote efficient and environmentally sensitive building and land use practices on both private and public land. Improved management of stormwater, using techniques that mimic and enhance natural systems, is an important objective of Low Impact Development (LID). Green building is the practice of increasing the efficiency with which buildings use resources — energy, water and materials — while reducing building impacts on human health and the environment. Better siting, design, construction, operation, maintenance, and removal over the life cycle of a building are the keys to green building.

WHAT IS GREEN INFRASTRUCTURE?

In the City of Shoreline, green infrastructure can be thought of as a network of parks, vistas, shorelines, creeks, urban forests, civic spaces, ~~sidewalks~~ pedestrian walkways and trails that connect neighborhoods, landscapes, plants and animals to one another. Green infrastructure can also include elements such as native landscaping, constructed natural drainage systems and restored wetlands, and other attempts to enhance and mimic nature for the benefit of both humans and the larger ecology. Green infrastructure, including the use of natural drainage techniques and native landscaping, will contribute to reduced stream erosion from stormwater, improved water quality and habitat. It can also help link and leverage parks, connect neighborhoods for non-motorized users and contribute to community appearance and pride.

Green building is strongly linked to green infrastructure. It doesn't make sense to construct a building that wastes resources – energy, water, and materials – within an infrastructure that is intended to be sustainable.

SNAPSHOT OF CURRENT CONDITIONS

Much of the City's built environment, including buildings and infrastructure, was created before there was an awareness of green building and sustainable development practices. Many areas of the City were developed without sidewalks or adequate stormwater facilities. Development along Aurora Avenue North and in other commercial areas of the City is auto-oriented and does not make efficient use of land, with low building to lot area ratios and large areas of surface parking adjacent to public rights-of-way. Shoreline is primarily residential in character and over 50% of the households are single-family homes according to the Comprehensive Plan. Commercial development stretches along Aurora Avenue with other neighborhood centers located at intersections of primary arterials. Existing sidewalk and bicycle facilities are largely discontinuous, making non-motorized modes of transportation less attractive and more hazardous for trips between neighborhoods, schools, commercial areas and civic institutions. Transit service, although improving slowly, is limited in many areas – east-west travel in the City is particularly difficult.

Sustainable Development in the context of this strategy means the fulfillment of human needs through the use and development of the physical environment while maintaining or improving the quality of our natural environment.

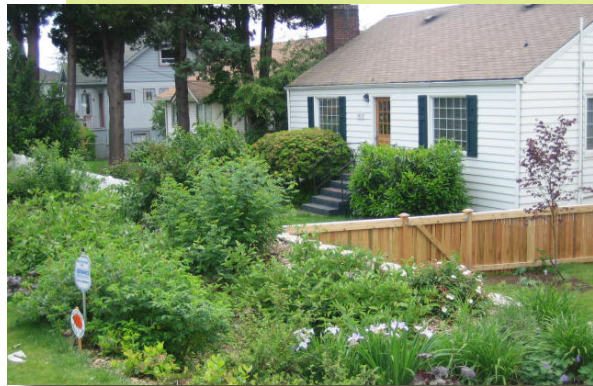## *FOCUS AREA 3: SUSTAINABLE DEVELOPMENT & GREEN INFRASTRUCTURE*

WHAT IS SHORELINE DOING ALREADY?

The City has made major improvements recently, particularly in the area of transportation. Specific existing sustainable development and green infrastructure initiatives by the City include:

- Completion of the Interurban trail and pedestrian bridges, providing a key non-motorized route through the heart of the City;
- Completion of Phase I of the Aurora Corridor Improvement Project and planning for Phase II, which represents a major improvement for pedestrian and transit mobility, natural drainage, landscaping and beautification;
- A land use plan that seeks to accommodate new growth primarily in existing developed centers and near transportation corridors;
- Capital improvements and zoning changes in the North City Subarea to support redevelopment into a mixed-use, pedestrian friendly center;
- Commute trip reduction program for large employers in the City;
- Initial work on Green Streets design standards and plans for a Demonstration Project;
- The new Civic Center/City Hall, targeting the LEED Silver Standard, which will serve as a model for sustainability practices and green building;
- The existing sidewalk improvement program has added significant sections of new or improved ~~sidewalks~~pedestrian wallkways, particularly near schools and major arterials; and
- A recognized "can do" attitude by City staff towards accommodating green building within the limits of existing codes and staff proficiencies.

"Greener Infrastructure"

There are many ways to make our current infrastructure more sustainable. For example, rights-of-way can be used for stormwater quality and quantity treatment, using surface swales and attractive native vegetation, and non-motorized improvements that encourage exercise and promote human health.

Right-of-way landscaping merges with private landscaping in Seattle.

"Increase code and permitting flexibility."

Comment from Community Conversation #2 Participant

FOCUS AREA 3: SUSTAINABLE DEVELOPMENT & GREEN INFRASTRUCTURE

OBJECTIVES

Objectives in this focus area aim to encourage non-motorized travel, concentrate new growth in proximity to services and transit, reduce the environmental impacts associated with buildings and reduce the impact of stormwater on the natural environment. Many of the objectives and related recommendations in this Focus Area need to be considered for incorporation in the next update of the Transportation, Parks and Surface Water Master Plans.

RECOMMENDATIONS

- **Develop plans for a coordinated bicycle and pedestrian system which provides connections to major destinations and offers an attractive alternative to other modes;**
- **Establish clear transit priorities, strengthen the land use and transportation link in adopted plans, and lobby for improvements that benefit Shoreline residents;**
- **Promote a transit-supportive land use pattern that focuses new development nodes near existing and proposed transit corridors and improvements, especially along the I-5 corridor;**
- **Promote green building and LID by training select staff, providing outreach information and revising building and development codes;**
- **Adopt a City green building policy for capital projects and maintenance upgrades;**
- **Prioritize green streets planning, design and implementation; and**
- **Promote natural solutions to stormwater management in private and public development with both incentives and requirements by revising engineering and development code standards, implementing CIP projects, and through public outreach ~~to the development community~~.**

Please see Appendix A for a complete list of recommendations, and Chapter IV for Implementation Capacity and Resources.

GREEN INFRASTRUCTURE SYSTEM OPPORTUNITIES

As part of the Sustainability Strategy, the project team and community participants interactively created a "map" of green infrastructure types and opportunities. This included both existing elements in Shoreline, as well as potential improvements for future consideration. Green infrastructure can serve as a conceptual tool for considering the physical and spatial elements of sustainability planning, as well as the relationships between elements.

Figure 3.3 describes potential types of green infrastructure opportunities.

Figure 3.4 describes potential sites (locations) of green infrastructure opportunities.

Figure 3.5 is a map showing how and where a green infrastructure system could be physically integrated into the Shoreline community.

> *Existing Program Evaluation: Sustainable Development*
> *Existing programs to **Ensure Continuation***
>
> - *Civic Center/City Hall – targeting LEED Silver*
> - *Stormwater Standards and Program Update*
> - *Regional Roads Maintenance Forum*
>
> *Existing programs where the City should **Expand Current Efforts***
> - *Promoting Alternatives to Driving*
> - *Business Access/Transit Lanes on Aurora*
> - *Aurora Corridor Stormwater Solutions*
>
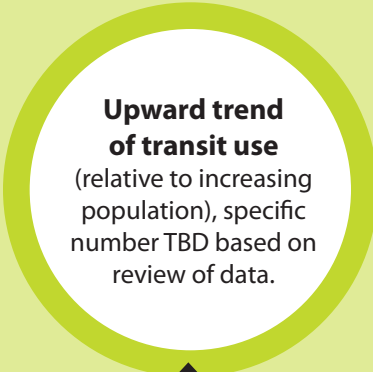> *Existing program areas where the City should **Modify Overall Approach***
> - *Green Building Program Implementation*
> - *Green Street Demonstration*
> - *City Buildings Operations, Practices and Policies*
>
> *Please see the Existing Program Evaluation description on page 21 for category definitions. See Appendix B for full details on program evaluation.*
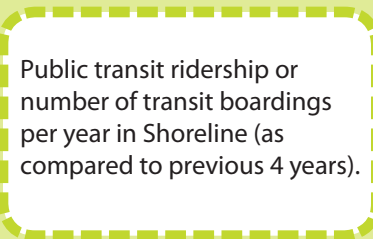
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OBJECTIVE 7
Reduce Use of Single Occupant Vehicles

TARGET

**Upward trend
of transit use**
(relative to increasing
population), specific
number TBD based on
review of data.

INDICATOR

Public transit ridership or
number of transit boardings
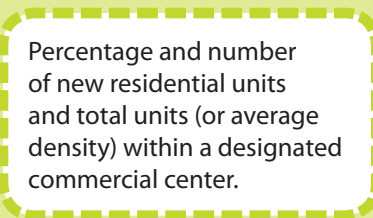per year in Shoreline (as
compared to previous 4 years).

Recommendations

1. Include a plan for transit system
   improvement priorities in the
   Transportation Master Plan Update.
2. Advocate for continuous bus rapid transit
   system along Aurora Ave.
3. Advocate for a revised Sound Transit
   Phase II Plan that serves Shoreline.
4. Expand commute trip reduction program
   to include medium size employers.
5. Advocate for a Metro "feeder" route to
   improve east-west transit.
6. Pedestrian and bicycle improvements
   also support this objective.

OBJECTIVE 8
Concentrate New Growth in Proximity of Services and Transit

TARGET

**Upward trending
percentage**, specific
number could be
established in a
future update of the
Housing Strategy or
Comprehensive Plan.

INDICATOR

Percentage and number
of new residential units
and total units (or average
density) within a designated
commercial center.

Recommendations

1. Future update of Housing Strategy or
   Comprehensive Plan should include a
   focus on Transit Oriented Development
   (TOD) and transit supportive
   neighborhoods near existing centers
   to create transit nodes. Focus new
   development near existing and proposed
   transit corridors and improvements.
2. Update Transportation Master Plan (TMP)
   and provide a stronger link to the Land
   Use Element in the Comprehensive Plan.

OBJECTIVE 9
Improve Pedestrian Facility Network to Connect Destinations & Improve Safety

TARGET

Upward trend, based on City plans and budget.

INDICATOR

Percentage of identified core pedestrian network that has horizontal or vertical separation of pedestrian facilities from vehicular traffic on at least one side of the street.

Recommendations

1. Expand and reorient the existing sidewalk program focus on linking destinations and connectivity and identify a core network for planning purposes.
2. Prioritize and structure the development of the Green Streets program, e.g. develop siting criteria and plan in addition to pilot project.
3. Improve identification, mapping, designation, surfacing and signage of existing trails. Plan future trail expansion with a focus not only on recreation, but also on utilitarian walking.

OBJECTIVE 10
Create a Cohesive Bicycle Network for Both Transportation and Recreation

TARGET

Upward trend, specific target TBD.

INDICATOR

Percentage of identified core bicycle network that meets minimum standards.

Recommendation

1. Create and adopt a bicycle and pedestrian facility plan (or subsection of Transportation Master Plan) that identifies a core system of facilities and focuses on a strategy that connects major destinations. Priority improvements include interurban "feeders." complete gaps on 155th and 185th, and connections in the Fircrest, North City and Richmond Beach areas.

OBJECTIVE 11
Decrease Stormwater Impacts Through Use of Natural Drainage Techniques

TARGET

Upward trending number, specific target could be established.

INDICATOR

Area (square feet) of new natural drainage constructed (by both private applicants and through public CIP projects) and total system area meeting defined minimum standard.

Recommendations

1. Prioritize and structure the development of the Green Streets program, e.g. develop siting criteria and plan in addition to pilot project
2. Prioritize and promote LID proficiencies in City staff.
3. Revised City Development Codes and Engineering Standards to provide LID incentives and requirements.
4. Adopt a Green Building Policy and specify a commitment to LID in capital projects.

OBJECTIVE 12
Reduce Impervious Surfaces Citywide & in New Development

TARGET

Downward trend or at a minimum no net increase from baseline to reflect increasing population and density. A more specific goal should be established.

INDICATOR

1. Percentage of impervious surface citywide, and
2. Median percentage of impervious surface in new projects, compared to previous four years. Note due to the expense of collecting this info in GIS[13], a five-year reporting cycle may be appropriate.

Recommendations

1. Prioritize and structure Green Street Program.
2. Revise zoning and engineering standards to promote LID[14].
3. Modify stormwater utility fee.
4. Promote Green and LID training for staff.
5. Provide expanded outreach information, including "how to" and standard engineering details.
6. Identify underutilized park lands and use for water treatment and other purposes.
7. Specify a commitment to LID principles as outlined in Low Impact Development: Technical Guidance Manual for Puget Sound.
8. Adopt new stormwater manual (existing program).

13 Geographic Information System
14 Low Impact Development

WHY IS IT IMPORTANT?

The simplest and most cost-effective way to conserve resources – both water and material resources – is to simply not use them. However, in the real world, resources must be consumed, and inevitably, waste is generated in every process from the simple act of eating a meal to building a home.

The Sustainability Strategy focuses on efficient resource use and appropriate means of dealing with waste. The result will put less of a burden on the municipal infrastructure, as well as provide opportunities for businesses and residents to reduce costs due to waste disposal.

Economic efficiencies and environmental benefits can be realized through improved purchasing policies and operations practices. In short, the less you use, the more you save.

In addition, this focus area provides City staff and the community with a very tangible way to become participants in the greater Sustainability Strategy. The public's ready awareness of the three "R" principles, reduce, reuse and recycle, gives this focus area a "jump start" - thereby providing leverage for the more complex areas of sustainability addressed in the strategy.

CleanScapes

CleanScapes, based in Seattle, Washington, provides sustainable solid waste and recycling collection and comprehensive StreetScape management services to municipalities, commercial properties, business improvement districts, and stadiums in Washington, Oregon, and California.

Beginning March 1, 2008, CleanScapes is the new garbage and recycling company for the City of Shoreline. CleanScapes was selected by the City of Shoreline through a competitive process at the end of 2007. New services include:

- *Recycling for businesses and residents;*
- *Weekly garbage collection;*
- *Every-other-week recycling;*
- *Fluorescent tube and bulb collection (residences only);*
- *Year round, every-other-week food scrap and yard debris collection;*
- *Bulky waste (appliances, furniture) collection; and*
- *Outreach and education for businesses.*

City of Shoreline garbage and recycling receptacles are made of 40% post-consumer recycled plastic .

FOCUS AREA 4: RESOURCE CONSERVATION & WASTE REDUCTION

SNAPSHOT OF CURRENT CONDITIONS

The City's municipal waste contract with CleanScapes, Inc., is effective from 2008 through 2015. The contract reflects Shoreline's increasing awareness of and commitment to efficient resource use and waste management. The new contract offers new and expanded services in these areas:

- Universal garbage carts will save money and reduce back injuries as well as time spent in collection and noise in neighborhoods.

- Organic material, such as vegetative food and compostable paper (e.g. pizza boxes), will be added to yard debris to minimize solid waste rates.

- Expanded recycling will include plastics #3-7, motor oil, scrap metal and fluorescent light bulbs.

- Multi-family recycling service is provided to all multi-family garbage customers at no additional cost, just as it is for single-family residential service.

- Commercial recycling service is provided as part of basic garbage service for businesses.

> *"Most [schools] only recycle paper. What about all the cans, water bottles, even food?"*
>
> Comment from Community Conversation #2 Participant

Shoreline does not have a dedicated Construction Waste Recycling program. Construction and demolition activities generate enormous quantities of solid waste. Commercial construction generates between 2 and 2.5 pounds of solid waste per square foot, and the majority of this waste can potentially be recycled.

City of Shoreline garbage instructions.

With the salmon species being listed as an endangered species several years ago, the issue of water quality became a serious environmental and political concern in the Puget Sound region. Water consumption has been less prominent in the public's awareness. With summer droughts, however, and a better understanding of how water quality and quantity are interrelated, this is changing. Many local utilities offer rebates and incentives to replace existing fixtures and appliances with high-efficiency models. For instance, Shoreline Water District customers who purchase a qualified washing machine are eligible for WashWise Rebates that range from $25 to $100.

FOCUS AREA 4: RESOURCE CONSERVATION & WASTE REDUCTION

WHAT IS SHORELINE ALREADY DOING?

The City has made significant, incremental steps toward efficient resource use and waste management. Programs include:

- The City's Sustainable Business Extension Service (SBES) is a partnership with the Environmental Coalition of South Seattle (ECOSS) to provide fixtures and education to businesses that want to reduce water and energy consumption.

- Curbside Garbage Collection & Recycling: CleanScapes provides curbside collection of solid waste and recycling for Shoreline residents and businesses. Residents can also dispose of florescent tubes and bulbs via curbside services. Yard waste and food scrap collection, as well as bulky waste collection, is also available from CleanScapes for a fee.

- Household Battery Recycling: Batteries that are accepted include alkaline, lithium, nickel-cadmium and nickel metal hydride.

- Clean Sweep Recycling Events: The City of Shoreline offers semi-annual recycling events for residents to dispose of various materials, such as bulky yard waste, scrap metal, electronics, used motor oil, etc.

- Residential Hazardous Waste Recycling: Throughout the year, household hazardous waste, such as pesticides, oil-based paint, toxic cleaning products, fluorescent light bulbs, antifreeze, hobby chemicals, thinners and solvents, automotive products, aerosols, glues, and adhesives, can be taken to the Aurora Household Hazardous Waste Collection Site in North Seattle.

- TechnoTrash Recycling: CDs, DVDs, videotapes, cell phones and similar devices can be taken to Shoreline City Hall and City Hall Annex for proper disposal.

- Recycling Tips: A complete list of resources is available via the City's Guide to Recycling and "Where To Take It" flyer.

- Business Hazardous Waste Recycling and Disposal Hotline - (206)296-3976.

OBJECTIVES

Objectives in this Focus Area include reducing material consumption and material use in City buildings and other day-to-day operations, and simultaneously reducing overall quantities of waste directed to landfills and increasing recycling efforts.

RECOMMENDATIONS

- **Expand existing efforts to reduce, reuse, and recycle in City offices, parks, and other facilities.**

- **Include in purchase guidelines preference/requirement for products that promote reduction and reuse (e.g. duplex copiers, durable goods); reduce consumption of raw materials (e.g. recycled content and recyclable materials) and present reduced risk to human and ecological health (non-toxic materials).**

- **Provide convenient opportunities (prominent and labeled bins) for sorting, collecting, and composting solid waste streams in the community.**

- **Implement construction and business waste reduction outreach and incentives through the permitting process and municipal waste contract.**

FOCUS AREA 4: RESOURCE CONSERVATION & WASTE REDUCTION

(Recommendations continued)

- **For high use operations including irrigation and park restrooms replace fixtures and equipment with the highest efficiency, cost-effective water conservation options available.**

- **For retrofits and new construction of City indoor facilities, specify/replace fixtures with high efficiency, low flow alternatives.**

- **Investigate the use of non-potable sources or non-potable uses, such as grey water reuse and rainwater catchment for toilet flushing.**

- **Work with utilities to expand existing incentives and develop new incentives to reduce potable and irrigation water consumption.**

- **Implement residential waste incentives and requirements through the municipal waste contract and permit process. Expand community outreach and information efforts to reduce waste and recycle.**

Please see Appendix A for a complete list of recommendations, Appendix B for the full evaluation of existing programs and Chapter IV for implementation capacity and resources.

Existing Program Evaluation: Resource Conservation & Waste Reduction

Existing program to **Ensure Continuation**
- *Pesticide-Free Parks*
- *Free Wood Chips at Hamlin Park*
- *Battery and Techno Waste Recycling*
- *City of Shoreline Stormwater Program and Standards Update*

Existing program areas where the City should **Expand Current Efforts**
- *No Spray Zones in Richmond Beach*
- *Municipal Compost Facility*
- *Business Solid Waste Reduction, Recycling and Resource Conservation Program*
- *Clean and Green Car Wash Kits*

Existing program area where the City should **Modify Overall Approach**
- *Solid and Hazardous Waste Management Program*

Please see the Existing Program Evaluation description on page 21 for category definitions. See Appendix B for full details on program evaluation.

City of Shoreline recycling instructions.

OBJECTIVE 13
Reduce Solid Waste Land-filled & Increase Recycling in City Operations

TARGET

Downward trend of solid waste and **upward trend** of recycling. Specific targets TBD (e.g. reduce by 10% per year solid waste from City operations).

INDICATOR

1. Volume of total waste generated (as compared to previous four years).
2. Percentage of total waste recycled (as compared to previous four years).

Recommendations

1. Expand existing efforts to reduce, reuse and recycle in City facilities.
2. Include preferences in purchasing guidelines for products that
   a. Promote reduction and reuse (e.g. durable goods);
   b. Reduce consumption of raw materials (e.g. recycled content and recyclable materials); and
   c. Present less risk to human and ecological health (non-toxic materials).
3. Create standard office procedures, training and expectations. Measure, reward & promote individual and department achievements

OBJECTIVE 14
Increase the Use of Healthy & Resource-Efficient Supplies in City Operations

TARGET

Specific target to be addressed when baseline developed.

INDICATOR

Percentage of purchases that meet requirements in the targeted areas.

Recommendations

1. Expand existing efforts to reduce, reuse, and recycle in City offices, parks, and other facilities.
2. Include preferences in purchasing guidelines for products that:
   a. Promote reduction and reuse (e.g. durable goods)
   b. Reduce consumption of raw materials (e.g. recycled content and recyclable materials); and
   c. Present less risk to human and ecological health (non-toxic materials).

OBJECTIVE 15
Increase Recycling Percentage & Reduce Solid Waste in the Community

TARGET

Upward trend.
Specific target TBD (e.g. Divert an additional 10% per year of total volume from landfills).

INDICATOR

Percentage of total solid waste recycled by the Community (via CleanScapes).

Recommendations

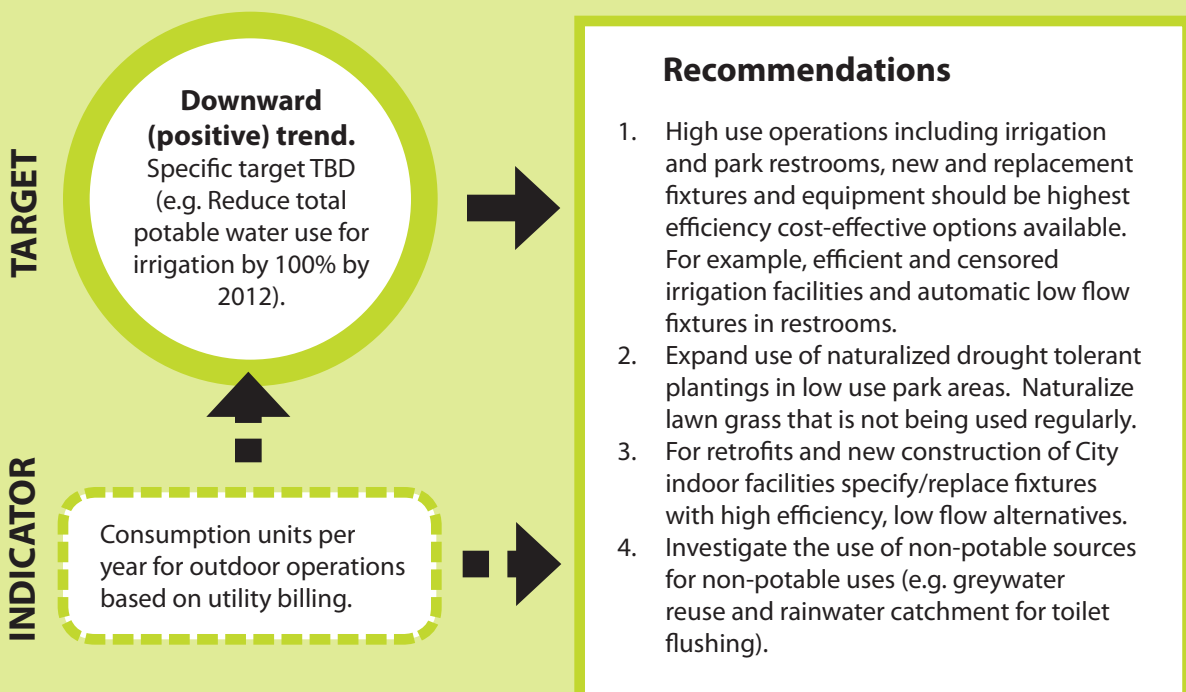1. Provide convenient opportunities (prominent and labeled bins) for sorting, collecting, and composting solid waste streams outside the home.
2. Expand existing community outreach efforts to reduce waste and recycle.
3. Implement construction and business waste reduction outreach and incentives through the permitting process and municipal waste contract.

OBJECTIVE 16
Reduce Potable Water Use in City Park and Outdoor Operations

TARGET

Downward (positive) trend.
Specific target TBD (e.g. Reduce total potable water use for irrigation by 100% by 2012).

INDICATOR

Consumption units per year for outdoor operations based on utility billing.

Recommendations

1. High use operations including irrigation and park restrooms, new and replacement fixtures and equipment should be highest efficiency cost-effective options available. For example, efficient and censored irrigation facilities and automatic low flow fixtures in restrooms.
2. Expand use of naturalized drought tolerant plantings in low use park areas. Naturalize lawn grass that is not being used regularly.
3. For retrofits and new construction of City indoor facilities specify/replace fixtures with high efficiency, low flow alternatives.
4. Investigate the use of non-potable sources for non-potable uses (e.g. greywater reuse and rainwater catchment for toilet flushing).

OBJECTIVE 17
Reduce Residential Potable Water Consumption

TARGET

Downward (positive) trend. Specific target TBD (e.g. Reduce water use in Shoreline households by 50% by 2012).

INDICATOR

Consumption units per year per residential customer.

Recommendations

1. Work with water and wastewater utilities to expand existing and develop new incentives to reduce potable and irrigation water consumption.
2. Expand community education and outreach activities about water use and technologies available.
3. Identify and address barriers to water saving technologies in existing plumbing, building and other codes.

WHY IS IT IMPORTANT?

Current trends place the health and future of our remaining natural areas and systems at risk: reduction in tree canopy, degradation of surface water quality, declining forest health, fragmentation of upland habitat and degradation of stream and wetland habitats. Although the scope of these problems – and the range of solutions needed to address them – transcend the purpose and limits of this strategy, new and existing regional, landscape-scale planning across jurisdictional boundaries will be supported with these Focus Area recommendations. However, as part of the strategy development process, the project team has identified key strengths, weaknesses, threats and opportunities in this Focus Area.

Ecosystem management and stewardship preserve and enhance valuable resources and build on existing initiatives. They also complement efforts in the other Focus Areas, for example, effective stewardship of our tree canopy can help reduce our carbon footprint. These strategies will help address the impacts of past practices and ensure that future generations can enjoy the City's natural resources. Stewardship efforts must engage the community - building human capital to support a sustainable future.

Good stewardship demands that we both protect and actively manage our dynamic local environment. In addition to providing habitat for plants and animals, we rely on ecosystem functions to meet a variety of human needs, including flood control, temperature moderation, clean water, carbon sequestration and oxygen production. Our natural areas are community treasures – they are highly valued recreation and aesthetic resources and they remind us of our link to the natural world.

Natural Areas in Shoreline

The City includes the Puget Sound shoreline and several lakes and ponds, such as Echo Lake, Hidden Lake, Ronald Bog and Twin Ponds. Streams in Shoreline include Boeing Creek, McAleer Creek, Storm Creek, Thornton Creek and various smaller streams and tributaries. The City of Shoreline manages approximately 345 acres of parks, open spaces and trails, of which approximately 100 acres are natural areas. In addition, large natural areas are located on Shoreline Community College, Shoreline School District, City of Seattle and private property (e.g. The Highlands, Innis Arden and other locations).

Boeing Creek in Shoreline.

FOCUS AREA 5: ECOSYSTEM MANAGEMENT & STEWARDSHIP

The scope of the problems facing our natural areas requires that the City leverage the help of non-profit organizations, schools, research institutions, businesses and other governments. Collective stewardship of these resources and community partnerships are the backbone for effective management. However, clear leadership, priorities, funding and accountability are also needed to get the job done.

SNAPSHOT OF CURRENT CONDITIONS

Urban forest assessment is occurring in Hamlin, Shoreview, Boeing Creek and South Woods parks. These assessments will help the City determine the health of major forested park sites in Shoreline and prioritize areas that need the most attention from Park maintenance staff and Ivy Off Urban Trees (Ivy O.U.T.) volunteers. Additionally, the City has partnered with the community to improve streams and habitat in the Thornton Creek, Boeing Creek and Ballinger Creek watersheds.

Despite existing efforts, the continued increase in invasive species of vegetation (e.g. ivy and Himalayan blackberry) is a growing issue. It will continue to kill mature trees and reduce the habitat available for native species unless additional progress is made, particularly on private lands. The City recently revised its Tree Ordinance, but anecdotal evidence suggests that increased development continues to reduce habitat and canopy coverage on private property. A detailed City-wide canopy assessment has not occurred, so it is not possible to document canopy loss with precision.

Numerous large and small stormwater improvement projects have been completed by the City – eliminating most existing flooding problems. However, stormwater continues to erode and degrade natural water bodies.

The City is developing a new Stormwater Program to meet federal and state mandates, including more aggressive development controls. However, most of the City was developed under old standards - retrofits and new regional facilities will be needed to improve basin hydrology.

Volunteers remove invasive English ivy from the trunk of a large tree in South Woods.

> *"Create more safe and legal access points to the beach."*
>
> Comment from Community Conversation #2 Participant

FOCUS AREA 5: ECOSYSTEM MANAGEMENT & STEWARDSHIP

WHAT IS SHORELINE DOING ALREADY?

Key existing ecosystem management and stewardship efforts by the City include:

- Forest health assessment in several parks;
- 2006 Park Bond funding for acquisition of 25 acres of open space;
- Update of the Critical Areas Ordinance (2006);
- Continued participation in Water Resource Inventory Area (WRIA) 8 Chinook Salmon Regional Recovery Plan and implementation;
- Ivy O.U.T. (Off Urban Trees) program;
- Various habitat restoration projects in partnership with the community; and
- The Neighborhood Environmental Stewardship Team (NEST) program.

OBJECTIVES

The objectives for this Focus Area work to enhance and restore forest and watershed systems, and provide a means of encouraging, sustaining and measuring long-term progress. Specifics include systematically improving the hydrological and habitat conditions of the City's watersheds over time, measuring and conserving tree canopy and forest health citywide and establishing effective programs for ongoing stewardship. Measurable performance targets should be established and backed up with sufficient investment and monitoring to ensure results.

Key Recommendation: Natural Resources Action Plan:

The key recommendation in this Focus Area is to consider the creation of an appropriate framework, such as a Natural Resources Action Plan. Such a plan would synthesize and prioritize the various improvements identified in current planning documents prepared by various agencies and City departments and identify key gaps. Examples of documents to be synthesized include The Thornton Creek Watershed Plan, Surface Water Master Plan, Parks and Open Space Plan, forest assessments, Critical Areas Inventory and Shoreline Master Program Inventory and Characterization Reports. The City of Kirkland is a good model for this approach. In conjunction with this effort, the City should establish specific targets and funding levels for natural area restoration so priorities can be established, performance monitored and the overall objectives achieved.

Please see Appendix A and Chapter IV for implementation capacity and resources.

A view of the Puget Sound from Shoreline.

FOCUS AREA 5: ECOSYSTEM MANAGEMENT & STEWARDSHIP

RECOMMENDATIONS

The strategy seeks to employ creative approaches and utilize increased participation by volunteers to accomplish these objectives where feasible. Recommended ways to accomplish the objectives include:

- **Synthesize existing recommendations and set priorities and targets in a Natural Resources Action Plan;**
- **Prioritize forest health data collection and improvement projects;**
- **Enhanced public outreach and education information and programming for private property owners;**
- **Creating a sustainability position at the City (e.g. volunteer coordinator) to coordinate activities and leverage greater community support;**
- **Green Infrastructure initiatives such as the Green Streets program, which can help address stormwater from existing development;**
- **Revised City standards that promote Low Impact Development (LID)/Green Building;**
- **Stewardship partnerships with the Cascade Land Conservancy's Green Cities Initiative, private landowners and institutions such as the Shoreline School District (e.g. senior year volunteer requirements) and Shoreline Community College; and**
- **Identification of underutilized City Park lands for ecological improvements.**

Existing Program Evaluation: Ecosystem Stewardship

*Existing programs to **Ensure Continuation***
- *Regional Roads Maintenance Forum*
- *Adopt-a-Road and Adopt-a-Trail Programs*
- *Critical Areas Ordinance*
- *WRIA 8 Participation*
- *Pesticide-Free Parks*
- *City of Shoreline Stormwater Program and Standards Update*
- *Storm Drain Medallions & Stenciling*

*Existing program areas where the City should **Expand Current Efforts***
- *Earth Day Celebration*
- *Neighborhood Environmental Stewardship Team*
- *Environmental Mini Grant Program*
- *Urban Forest Assessment Planning*
- *Clean & Green Car Wash Kits*
- *Ivy OUT Volunteer Program*
- *No Spray Zones in Richmond Beach*

*Existing program areas where the City should **Modify Overall Approach***
- *Habitat Restoration Projects*
- *Open Space Acquisition*
- *Green Street Demonstration*

Please see the Existing Program Evaluation description on page 21 for category definitions. See Appendix B for full details on program evaluation.

A seal pup on the beach at Point Wells.

OBJECTIVE 18
Improve/Restore Critical Areas and Habitat

TARGET

Upward trending number of **acreage enhanced**, specific goal TBD based on City input.

INDICATOR

Acres of stream, wetland and related buffers that are enhanced and/or restored (as compared to previous four years).

Recommendations

1. Synthesize existing recommendations and set priorities and targets in a Natural Resources Action Plan.
2. Pursue funding for Volunteer Coordinator.
3. Implement the Cascade Land Conservancy's Green Cities Program by prioritizing data collection improvement projects and increasing use of volunteers for improvement projects.

OBJECTIVE 19
Improve Health of Public Forests

TARGET

Upward trending number of **acreage treated**, specific acreage goal TBD based on City input.

INDICATOR

Acres (and percentage) of public forests enhanced that year (as compared to previous four years).

Recommendations

1. Identify underutilized park lands for habitat improvements, infiltration, water treatment and other compatible purposes.
2. Prioritize forest health data collection and improvement projects – emphasize partnerships and increasing the acreage analyzed and enhanced.
3. Pursue funds or adjust responsibility and priorities to create space in the budget for a sustainability position.
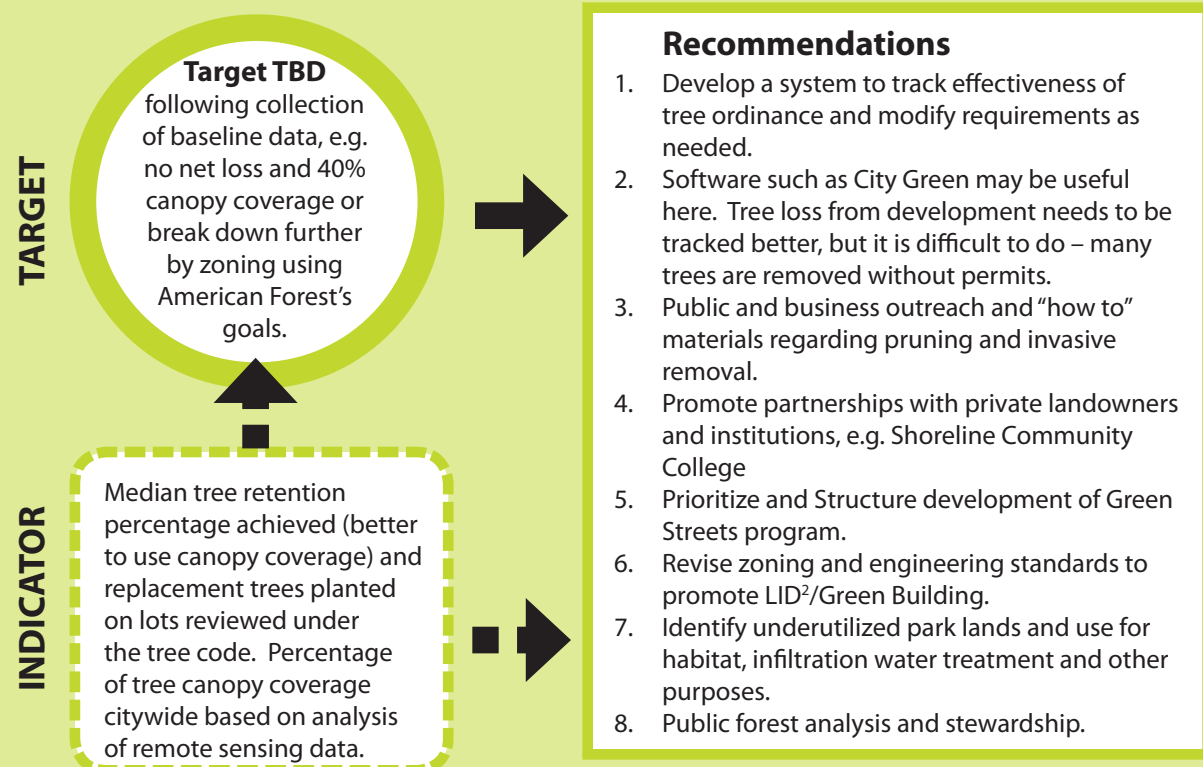4. Public outreach for private property owners.

OBJECTIVE 20
Strategic Use of the ROW for Green Infrastructure

TARGET

Upward trending number, specific target TBD following collection of baseline data and City review of existing, planned and possible CIP[1] efforts.

INDICATOR

Number of street trees and square feet of landscaping planted in the right-of-way (ROW) per year by City and private development as compared to previous four years.

Recommendation
1. Prioritize and structure the development of the Green Streets program, e.g. develop siting criteria and plan in addition to pilot project.

OBJECTIVE 21
Prevent Tree Canopy Loss & Increase Forest Health City-wide

TARGET

Target TBD following collection of baseline data, e.g. no net loss and 40% canopy coverage or break down further by zoning using American Forest's goals.

INDICATOR

Median tree retention percentage achieved (better to use canopy coverage) and replacement trees planted on lots reviewed under the tree code. Percentage of tree canopy coverage citywide based on analysis of remote sensing data.

Recommendations
1. Develop a system to track effectiveness of tree ordinance and modify requirements as needed.
2. Software such as City Green may be useful here. Tree loss from development needs to be tracked better, but it is difficult to do – many trees are removed without permits.
3. Public and business outreach and "how to" materials regarding pruning and invasive removal.
4. Promote partnerships with private landowners and institutions, e.g. Shoreline Community College
5. Prioritize and Structure development of Green Streets program.
6. Revise zoning and engineering standards to promote LID[2]/Green Building.
7. Identify underutilized park lands and use for habitat, infiltration water treatment and other purposes.
8. Public forest analysis and stewardship.

1 Capital Improvement Program
2 Low Impact Development

OBJECTIVE 22
Improve Surface Water Quality

TARGET

Upward trending number for each stream section and other surface water body as compared to previous four years or other study period, specifics TBD.

INDICATOR

1. Washington Department of Ecology (DOE) Water Quality Index (WQI).
2. Future: Index of Benthic Invertebrate Diversity (IBID).

Recommendations

1. Prioritize and structure the development of the Green Streets program, e.g. develop siting criteria and plan in addition to pilot project.
2. Revise Development Codes and Engineering Standards to provide LID incentives and requirements.
3. Update stormwater manual (existing program).

4 implementation

INTRODUCTION

The Shoreline Sustainability Strategy provides direction on priorities and next steps for the City. However, action plans will need to be developed to move the Strategy into reality. That will require further effort on the part of the City, including more detailed budget analysis, creation of work plans, plan amendments and code changes.

This chapter provides guidance for implementation. It includes a discussion of the process for assessing the City's capacity to act on the many recommendations that have emerged through Strategy development and a detailed discussion of those recommendations that have been identified as "short-term" priorities for implementation. A Capacity Assessment Matrix that summarizes implementation factors for all fifty recommendations is included in Appendix C.

Implementation will not be without its challenges. The good news is that there are a number of resources that can assist Shoreline in achieving its goals. Resources in the area of funding, regulations and planning policy, and business partnerships have been researched for this Strategy, and are summarized in this Chapter. Appendix G provides more details about this research.

The Ballard Library in Seattle is a LEED certified building.

The City of Seattle reports that since requiring all City-funded buildings to achieve at least LEED Silver certification, first cost premiums have decreased from up to 4% to none, and sometimes the City of Seattle is enjoying reductions in first costs.
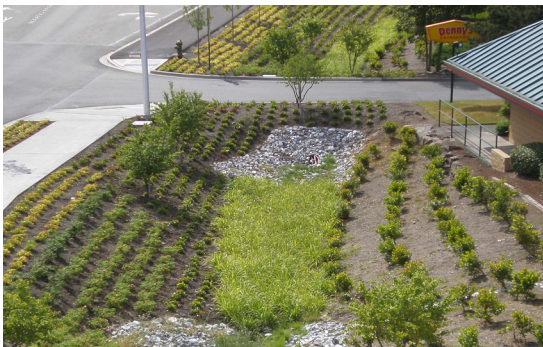
A vegetated swale at 155th and Aurora.

CAPACITY ASSESSMENT

The assessment of the City's capacity to implement the recommendations contained in this Strategy is not intended to be definitive but rather help guide a "vetting" process of potential actions. It includes evaluation criteria such as first cost premiums, life cycle cost savings, operations and capital costs, internal and external influences, resources and priorities. It was used to create a preliminary implementation analysis of the recommendations for this Strategy.

Figure 4.1 (spanning pages 60-61) shows an example of how the Capacity Assessment matrix can be used to consider implementation needs. In this case, the action being evaluated is development of an Environmental Procurement Policy (EPP). Figure 4.2 describes the criteria analyzed in the Capacity Assessment Matrix. A Capacity Assessment of all 50 recommendations has been performed and is presented in Appendix C. Where potential cost savings have been identified, these items are italicized in the Capacity Assessment Matrix.

Very few of the recommendations contained in this Strategy are expected to result in high costs. Expansion of the sidewalk and trail programs may require additional capital costs that fall within the 30% or greater range, i.e. HIGH. Forest and critical area enhancement may also necessitate high capital costs to make progress in these areas. The majority of the recommendations are expected to have low or negligible first cost premiums and many of the recommendations identified in the Strategy are expected to have lifecycle cost savings. Energy, waste and water recommendations generally result in lifecycle cost savings because they reduce consumption. Ecosystem management and sustainable development recommendations tend to have higher costs and many of the benefits associated with these recommendations, such as improved water quality and reduced carbon emissions, do not easily translate into monetary savings that can be quantified. Many of the City operations and outreach recommendations will also have indirect benefits to the City or larger community that are difficult to quantify.

COST CATEGORIES

Costs categories identified in this chapter and in the Capacity Assessment Matrix in Appendix C refer to the percentage above the current or conventional cost or in addition to what is currently budgeted annually for that item, project or program. These include first, lifecyle, operations and capital costs. When (and only when) a recommendation refers to a new item, project or program, and no comparison of current or conventional costs is possible, cost categories were determined based on the dollar cost maximums listed below.

NEGLIGIBLE	up to 2% over existing practices or under $5,000 if new
LOW	up to 10% or under $20,000
MEDIUM	up to 30% or under $75,000
HIGH	over 30% or over $75,000

Figure 4.1: Environmental Procurement Policy Example

#	POTENTIAL ACTION	FIRST COST PREMIUM	LIFECYCLE COST SAVINGS	BENEFITS	ADDITIONAL STAFF/ CONSULTANT REQUIRED	OPERATING BUDGET COSTS
6	Develop an environmental purchasing policy for all City purchasing decisions.	Initial development should require only LOW to MEDIUM additional staff investment	*Yes. LOW energy & resource efficiency reduces operations costs; durable products reduce maintenance costs & replacement schedules*	Promotes sustainable, non-toxic and efficient products and businesses	No. City should be able to accomplish with existing staff and resources in this Strategy.	NEGLIGIBLE

CAPACITY ASSESSMENT MATRIX

Figure 4.2: Capacity Assessment Criteria Description	
Criterion	**Description**
First Cost Premium	The additional acquisition or start-up cost differential above the conventional or current cost for that item or program. See also description of Cost Categories.
Lifecycle Cost Savings	The net savings that can be realized over the entire lifecycle of the proposed item or program, after considering acquisition, operations, maintenance and disposal costs. See also description of Cost Categories.
Benefits	A description of the potential benefits, particularly non-monetary benefits, that are expected to result from implementation of the recommendation.
Additional Staffing or Consultant Required	Are additional City staff or consultants required to implement this recommendation?
City Operating Budget Costs	The expected cost impact of this recommendation on the City's operating budget, e.g. staff salaries, utilities, maintenance, etc. See also description of Cost Categories.
City Capital Budget Costs	The expected cost impacts of this recommendation on the City's capital budget, e.g. physical improvements, vehicles, buildings, facilities, etc. See also description of Cost Categories.
Internal Responsibility	What City Department(s) have responsibility for implementation of this recommendation?
External Responsibility	Are there parties outside the City that will share responsibility for implementation?
Implementation Resources	What outside resources are available to aid implementation?
Required to Meet Existing Agreement	Is the recommendation required to meet the Mayor's Climate Agreement or other specific City Council commitment?
Priority	High (1), Medium (2), or Low (3) relative priority for implementation when compared to other recommendations in the Strategy.
Timeframe	Expected timeframe for implementation: Short (1-3 years, e.g. budget cycle), Medium (3-6 years, e.g. CIP cycle) and Long (7-10 years, Comp Plan Update cycle).

CAPITAL BUDGET COSTS	INTERNAL RSPNSBLTY	EXTERNAL RSPNSBLTY	IMPLMNTN RESOURCES	REQUIRED TO MEET EXISTING AGREEMENT	PRIORITY	TIMEFRAME
No. However, actual items often have LOW increased initial costs.	Finance and support from all departments.	No	King County and City of Seattle EPP are excellent models	No	1	S

PRIORITY RECOMMENDATIONS

SHORT-TERM PRIORITIES

The Capacity Assessment Matrix was used to determine if a recommendation was short-term, mid-range, or long-term based on timing, feasibility, and importance. This section of the Sustainability Strategy focuses on short-term recommendations, and provides the rationale for its identification for near-term implementation. They generally represent "easy wins" - ways to leverage current City efforts or achieve results using existing resources in new ways. Recommendations in this section are listed according to the order in which they are listed in Appendix A: Complete Sustainability Recommendations List with Notes. Numbers in parentheses correspond to the numbering system in that document and in Appendix C – Capacity Assessment Matrix for easy reference.

Porous concrete trail at Fremont Place in Shoreline.

A Four-Star "Built Green" development in Shoreline.

The following list is a compilation of all the short-term priorities discussed in this section.

- *Integrate sustainability into City and departmental missions, functions and decision making at all levels using clear and transparent tools (#1).*
- *Create baselines for all Sustainability Strategy focus areas and implement system to track progress over time (#2).*
- *Establish a permanent Green Team – a sustainability leadership structure with management and technical components (#4).*
- *Pursue funding to establish a key City staff position or contracted consultant related to sustainability (#5).*
- *Develop a comprehensive environmental purchasing policy for all City purchasing decisions (#6).*
- *Develop a baseline for energy consumption and carbon data using ICLEI "5 Milestones Toolkit" (#9).*
- *Include requirements to meet Energy Star for building equipment and appliances in purchasing guidelines (#13).*
- *Collect information about greenhouse gas emissions and energy use through the State Environmental Policy Act (SEPA) review process (#19).*
- *Prioritize and promote Green Building and Low Impact Development (LID) training for select staff (#21).*
- *Establish a Residential Green Building Program (#22).*
- *Revise zoning and engineering standards to provide guidance and incentives for LID and Green Building (#23).*
- *Expand existing efforts to reduce, reuse, and recycle in City offices, parks, and other facilities (#37).*
- *Include in purchase guidelines preference/ requirement for products that promote*

PRIORITY RECOMMENDATIONS

(Priorities continued)

reduction and reuse; reduce consumption of raw materials and present reduced risk to human and ecological health (#38).

- *Provide convenient opportunities for sorting, collecting, and composting solid waste streams in the community (#39).*
- *Implement construction and business waste reduction outreach and incentives through the permitting process and municipal waste contract (#40).*
- *Implement residential waste incentives and requirements through the municipal waste contract and permit process. Expand community outreach and information efforts to reduce waste and recycle (#45).*

Integrate sustainability into City and departmental missions, functions and decision making at all levels using clear and transparent tools (#1).

WHY A PRIORITY?

Sustainability is not just another program, it must be central to the mission of the City and all departments. In order to integrate the Guiding Principles and Key Objectives of this Strategy into everyday operations staff training, standard procedures and departmental expectations will need to reflect sustainability (discussed in Recommendation #3 in Appendix A). In addition, the City Leadership Team and the Green Team must establish and reinforce sustainability as a consistent and unifying factor in policy development and program analysis across all departments. The impact of potential decisions and actions on sustainability must be evaluated in a structured and transparent manner. The Sustainable Decision Making Tool presented in Appendix E is provided as a means to implement this recommendation.

IMPLEMENTATION CONSIDERATIONS

Implementation of this recommendation should be done in concert with the establishment of the permanent Green Team (Recommendation #4). The City has identified related office procedures, training and department expectations that support sustainability goals (Recommendation #3) as an item for short- to medium-term implementation because it will require incremental efforts over more than one budget cycle. In addition, the planned move to the new City Hall in 2011 is seen as a key milestone and catalyst for this change. However, many aspects of this recommendation can and should be implemented in the short-term in order to weave sustainability concepts into the overall work program.

Infusing sustainability into the overall fabric of the City will require a culture shift, and it is not possible to fully estimate the amount of time or effort it will take each individual in the organization to adjust to the change. However, the use of the Sustainable Decision-Making Tool presented in Appendix E is not expected to require a substantial amount of additional effort on the part of City staff. Key decisions are already analyzed using more formal processes and sustainability can be integrated into them. The use of this tool for sustainability evaluation is expected to only result in a Negligible to Low (less than 10% increase) in the overall time spent on this critical task. An individual decision can be evaluated using the Sustainable Decision Tool in a group setting in less than one hour.

Much of the work related to this recommendation and the related Recommendation #3 is expected to be done by the Green Team as discussed in Recommendation #4. The total time commitment of approximately 1 FTE identified below in Recommendation #4 is inclusive of this recommendation and Recommendation #3 (i.e. office procedures, training and department expectations that support sustainability goals).

Create baselines for all Sustainability Strategy focus areas and implement a system to track progress over time (#2).

WHY A PRIORITY?

Guiding principle 5 of this Strategy articulates a "Commitment to Continuous Improvement." Selecting indicators that measure what we want to change and establishing baseline data is an essential starting point for this commitment. It will enable the City to see its progress, reevaluate its priorities, programs and policies on a defined, regular basis to ensure that the best possible investments in the future are being made. A community must know where it is today in order to determine how navigate into the future it envisions.

IMPLEMENTATION CONSIDERATIONS

Adaptive management is only possible with active performance monitoring via a system of indicators and performance targets (e.g. a carbon scorecard). Indicators are defined as standards of measurement (of performance) that give evidence of a condition or direction of environmental change. Performance targets are goals established to measure progress of desired change for each indicator.

Analytical and monitoring tools should emphasize simplicity to ensure long-term utility for the City in terms of application and communication of the results for the explicit purpose of becoming more sustainable. Many cities are developing or using advanced performance monitoring systems that include specific objectives with representative indicators (metrics) and performance targets and may provide models for Shoreline to build on. Another available resource for developing baselines and a tracking system is University of Washington environmental science students, who have contacted the City regarding internship opportunities.

Gathering data from utilities and other agencies and creating spreadsheets full of such information will be time consuming, but the importance of the task for future benchmarking can not be overstated. It is the logical place to begin so we may know if we are affecting the change we seek.

Establish a permanent Green Team – a sustainability leadership structure with management and technical components (#4).

WHY A PRIORITY?

A Green Team, comprised of two interdepartmental committees, focused on sustainability program management and sustainability techniques will provide internal guidance and technical support for community sustainability efforts. Successful programs in other cities have used sustainability as a lens through which all city policies, practices, and programs are analyzed. Green teams serve as hubs or focal points for these comprehensive efforts.

IMPLEMENTATION CONSIDERATIONS

A temporary sustainability project team with management and technical committees was set up to develop the Strategy. A permanent Green Team will require a closer examination of the make-up and work-load of the team and its members to ensure the long-term viability of a sustainability leadership structure. Current budget projections indicate that additional FTEs likely will not be available in the budget in the near-term. Adjustment of resources, responsibilities and priorities will be needed to accommodate this ongoing work. Establishing a salaried "Sustainability Coordinator" is not recommended at this time due to budget constraints.

PRIORITY RECOMMENDATIONS

However, it is very important to have clear leadership and emphasis at the highest levels of the City. According to City staff, the temporary sustainability team responsibilities amount to an average of one hour per week for four individuals on the management committee and two hours for up to eight individuals in any given week on the technical committee. Several team members, spent considerably more time per week during the Strategy development.

With implementation of the Sustainability Strategy, staff commitment on a permanent Green Team is expected to be approximately two hours per week for each of the recommended six individuals on the management committee and four hours per week for the recommended six to eight individuals on the technical committee, for a total of approximately 40 hours per week.

Decorative grate connected to a vegetated swale.

Drainage swale in Portland, OR.

This represents approximately one Full Time Equivalent (FTE) worth of effort and includes time spent implementing and sustaining the overall sustainability program, including the Green Team, and integrating sustainability into office procedures, departmental missions and decision-making. Current identified resources likely will not accommodate more than 20 hours per week. Specific initiatives will require additional effort beyond these amounts for select individuals as described in Appendix C. In addition to an examination of overall staff allocation, a volunteer position or grant-funded position may be necessary to provide resources for implementation and bridge the gap to a more sustainable funding and staffing model.

Pursue funding to establish a key City staff position or contracted consultant related to sustainability (#5).

WHY A PRIORITY?

Successful programs analyzed by the consultant team had leaders or champions who provided leadership and continuity during development, implementation and expansion. In interviews with City staff the one potential new staff position mentioned more than any other was a dedicated Volunteer Coordinator.

The City of Shoreline is lucky to have a high level of volunteerism. However, volunteers take time to manage. Staff members that currently organize, contact and lead volunteers have other responsibilities that generally have priority over these efforts. In order to effectively harness volunteer resources, the City needs to have more capacity for managing volunteers.

IMPLEMENTATION CONSIDERATIONS

The current and projected City budget does not appear to have resources available for a new FTE related to sustainability. Grant resources should be investigated to fill this need. The King County's Grants and Awards and Washington State's grant programs are excellent resources.[1]

Develop a comprehensive environmental purchasing policy for all City purchasing decisions (#6).

WHY A PRIORITY?

An environmental purchasing policy is a way to bring together policies, communication tools, process improvements, standards, and reporting mechanisms to help City staff become familiar with the Sustainability Strategy in a tangible way, through the products they use regularly. This is an "easy win" given limited resources that must be invested to achieve tangible results.

IMPLEMENTATION CONSIDERATIONS

External resources are abundant. An organization of governments exists called the Responsible Purchasing Network (RPN.org). It has many resources, including sample specifications, ongoing education webinars, and background research.

The City should consider membership in the Sustainable Products Purchasers Coalition[2], a consortium of businesses, government agencies and non-profit organization, whose members include King County and the City of Seattle. These organizations provide access to life cycle data and promote the aggregate purchasing power of members as a way to illustrate to the marketplace the value of providing verifiable environmental product data.

The City may also pursue cooperative purchasing – using other cities' contracts, and buying in collaboration. There are regional and national purchasing collaborations, such as Western States Contracting Alliance.

To guide development of preferences the City may rely on a growing number of independent third-party certification programs: Green Seal, EcoLogo (Canada), Forest Stewardship Council (wood products), and the Electronic Product Environmental Assessment Tool.

The cost of developing a policy is primarily measured in staff time. City staff time needed to get this project up and running is estimated at approximately 1 FTE for one year, spread across the entire City. Approximately .25 of FTE will be needed in the Finance Department, .25 in Parks, .25 in Public Works (primarily Fleets and Facilities) and the remaining .25 spread across other departments. However, no additional FTEs will be hired. Start-up and maintenance of the program will be rolled into the existing staff duties. This means that other responsibilities will need to be adjusted within the City and departmental work plans to accommodate this program.

The policy will have cost implications in terms of actual purchases. Although it is difficult to generalize because the range of City purchases is so broad, the estimate for a typical office item, first cost premiums will generally be in the Negligible to Low range (less than 10% over conventional items). For some items, such as vehicles, costs may be in the Low to Medium range (less than 30% above conventional). For instance, a commitment to buying alternative-fuel vehicles will result in a minimum $3,000 to $4,000 cost premium per vehicle, which will affect budgets and/or replacement schedules. The costs and benefits of purchasing decisions will be evaluated for each item with the criteria and context of the purchasing program.

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1 King County Grants and Awards website: http://dnr. metrokc.gov/grants; Washington State grants website: http://www.ecy.wa.gov/services/ee/grants/html
2 http://www.sppcoalition.org

PRIORITY RECOMMENDATIONS

Develop a baseline for energy consumption and carbon data using ICLEI "5 Milestones Toolkit (#9).

WHY A PRIORITY?

The City Council signed onto the U.S. Mayor's Climate Protection Agreement in April 2006[3]. As part of this agreement the City must strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities. The first step to reducing emissions is identifying the levelsfrom which we must decrease.

IMPLEMENTATION CONSIDERATIONS

The City joined the International Council for Local Environmental Initiatives (ICLEI)[4], the international leader for municipal implementation of climate protection, to obtain climate protection inventory software and training. ICLEI has developed software that the City will use to inventory green house gas emissions, analyze potential improvements and monitor progress towards specific emission reduction targets. City staff has received an initial orientation to the software and expect to receive additional training in 2008 to define the inventory data for collection.

The first step is to inventory the City's global warming emissions for 1990 and 2007, consistent with the timeframes in the recently adopted Mayor's Climate Protection Agreement. To further this effort, City staff is researching how to accurately measure emission levels. City staff recently met with the City of Seattle to learn about and assess their method of completing a climate protection inventory.

3 City of Shoreline authorized support of the US Conference of Mayors Climate Protection Agreement by adoption of Resolution 242 on April 24, 2006.
4 http://www.iclei.org/

Labeling for recycled products.

Include requirements to meet Energy Star for building equipment and appliances in purchasing guidelines (#13).

WHY A PRIORITY?

The Energy Star logo is one of the most recognized branding images in the United States. Energy Star lamps, fixtures, and appliances are industry standards for energy efficiency, and many green-building programs simply reference Energy Star requirements. Many rebates are available for Energy Star products, which can result in little or no added cost for even significant upgrades of equipment. Additionally, using this respected standard builds on existing research and negates the need for the City to set its own standards in this regard. Most consumers recognize the Energy Star seal and can therefore identify with the City's commitment to energy efficiency through purchasing decisions. This recommendation is a high priority for short-term implementation because it is "low hanging fruit" and can be acted on immediately.

IMPLEMENTATION CONSIDERATIONS

Energy Star labeled products are readily available and often do not have cost premiums over conventional alternatives. Rebates through local utilities are available – PSE offers rebates on lamps, fixtures, and appliances, for instance.

Energy Star products often have measurable paybacks that make them economically more attractive than conventional alternatives. For example, the estimated payback of a compact fluorescent bulb versus an incandescent bulb is $25 – the CFL lasts longer and uses less energy. Implementation of this item will require minimal administrative oversight, primarily relating to rebate applications. This recommendation will not require any real additional time commitment on the part of staff to implement.

Collect information about greenhouse gas emissions and energy use through the State Environmental Policy Act (SEPA) review process (#19).

WHY A PRIORITY?

This is currently required under state law. The SEPA checklist already requires a project proponent to estimate the air emissions that will result from the project. The Washington Department of Ecology is expected to issue specific direction and guidance on this issue in the near future. King County asks project proponents to include greenhouse gas emissions in that estimate. An effort to collect this information should be rolled out first. This will set the stage for eventual regulation and mitigation requirements through the SEPA process. Particular attention needs to be paid to how threshold levels would be set and structured.

IMPLEMENTATION CONSIDERATIONS

Please see the King County SEPA worksheet.[5] Training sessions in Western Washington have already occurred and will be available in the future. The Department of Ecology is expected to provide more detailed guidance soon. The City should use the King County worksheet and monitor DOE guidance on mitigation.

5 http://www.metrokc.gov/ddes/forms/SEPA-GHG-EmissionsWorksheet-Bulletin26.pdf

The City should encourage applicants to detail aspects of their projects that mitigate GHG emissions in the material production, building construction and building operation phases of the project.

This recommendation can be implemented at negligible cost. The immediate benefits include SEPA decisions that are more likely to be affirmed on administrative and judicial appeal. Long-term benefits will likely accrue from more energy efficient construction that produces fewer emissions.

Moving freight by rail is three times more fuel efficient than by trucks. Trains can move a ton of freight 423 miles on a single gallon of fuel. [http://www.csx.com/?fuseaction=general.csxo_env_fue].

Additional work will be needed to determine appropriate mitigation thresholds and requirements. Costs associated with developing or adopting a mitigation system could range from Negligible to Low. Existing staff can be trained to address both the review of the worksheet and likely the development of a mitigation system. Consultant assistance to develop a mitigation system is estimated to cost approximately $20,000.

The City should monitor regional movement on this issue. The City could decide that projects above a certain impact should institute specific mitigation measures in building design and construction.

PRIORITY RECOMMENDATIONS

Mitigation requirements should be integrated or at least considered in the context of the recommendation that calls for revised codes intended to promote sustainability through Low-Impact Development and Green Building (Recommendation #22). The mitigation piece of this recommendation is subject to change if the regional carbon cap and trade program currently being considered at the State level is instituted and covers land development and building construction. Regardless of the outcome of mitigation discussions at the State level, City codes that promote and/or require aspects of Green Building will help mitigate project impacts and support this recommendation.

Prioritize and promote Green Building and Low Impact Development (LID) training for select staff (e.g. PDS, PRSC, PW, F/IT and PRSC) (#21).

WHY A PRIORITY?

This item ranked as a high priority in the Consultant recommendations and as a recommended item for short-term implementation by City staff. Green building is increasing in popularity and additional City staff training is needed to encourage and serve local implementation. Green buildings represent an increasing segment of both residential and commercial markets. Two-thirds of U.S. homebuilders were constructing green homes (at least 15% of their projects) by the end of 2007. The residential green building market is forecast to grow from $7.4 billion today to more than $40 billion by 2010.

Benefits to the City include reduced burdens on infrastructure – green buildings reduce energy use, water consumption and waste. Green building is perhaps the most publicly visible aspect of sustainability – Energy Star, LEED, and Built Green are widely recognized. Low Impact Development (LID), a site approach to sustainable design that emphasizes the reduction of stormwater run-off, is also becoming more widespread and effective.

Although many of the benefits are known and demand is increasing, builders and homeowners are often frustrated with planning and permitting departments that are unfamiliar with green building strategies. Likewise, inadequate design, construction, testing and maintenance by development teams can leave questions about site specific efficacy and durability. Technical proficiency within the City can enable and encourage best practices and effective outcomes. In Shoreline, anecdotal evidence (e.g. conversations with one local green developer) suggests that City staff have exhibited a "can do" attitude and flexibility within existing codes and knowledge. However, a trained staff will not only benefit developers who are currently pursuing this market niche, it can encourage others to do so as well.

IMPLEMENTATION CONSIDERATIONS

For building and planning staff, additional training (in-house or external) should focus on green building standards, such as LEED, BuiltGreen and Energy Star. To support these efforts and reduce staff certification fees, the City should join the Cascadia Region Green Building Council, a chapter of the Canada and U.S. Green Building Councils (USGBC).

Training resources are readily available from the National Sustainable Building Advisor Program[6] and from the Cascadia Region Green Building Council[7]. Approximately 40 hours of study would probably be needed to prepare for the LEED Accredited Professional Exam (which costs $350 for non USGBC members and $250 for members).

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6 www.nasbap.org
7 www.cascadiagbc.org

Establish a Residential Green Building Program (#22).

WHY A PRIORITY?

The establishment of a green building program at the City will promote the adoption of these concepts in the private sector through public outreach, informed service and assistance at the permit counter, and improved permit processing. This priority goes hand in hand with two other recommendations discussed in this Chapter, including prioritizing training of City staff in the concepts of green building and LID (Recommendation #21), as well as revising zoning and engineering standards to be more consistent with the City's green building and LID goals (Recommendation #23). Customer assistance materials, including standard details, code compliance worksheets, LEED and Built Green checklists and other information are needed as part of this program. Providing information to homeowners and builders on green building practices, resources and opportunities will help increase awareness and adoption of green building concepts. At the same time, establishing expertise and a formal process or pathway for green building and LID projects at the City will improve the speed and reduce the overall effort of processing these permits.

IMPLEMENTATION CONSIDERATIONS

According to City staff, a $20,000 grant has been awarded to the City to support outreach by PDS and Public Works – Environmental Services staff in 2008. Based on discussions with the City, staff time needed to get this project up and running will be approximately .5 of an FTE, spread across the Planning and Development Services Department and Environmental Services. This does not include the time necessary to implement Recommendation #21 and #23 in Appendix A. However, no additional FTEs need to be hired.

Start-up and maintenance of the program can be rolled into the existing staff duties. This means, however, that other responsibilities will need to be adjusted within the Planning and Development Services work plan and some other code review may be streamlined to accommodate this program.

Planning offices wanting to encourage private green development generally provide incentives or educational tools to facilitate this. One example includes the City of Seattle's practice of producing client informational worksheets on innovative concepts to support projects that want to employ such systems. These worksheets provide an easy pathway for permitting approval by setting forth what is acceptable.[8]

6 http://web1.seattle.gov/DPD/CAMs/CamLIst.aspx
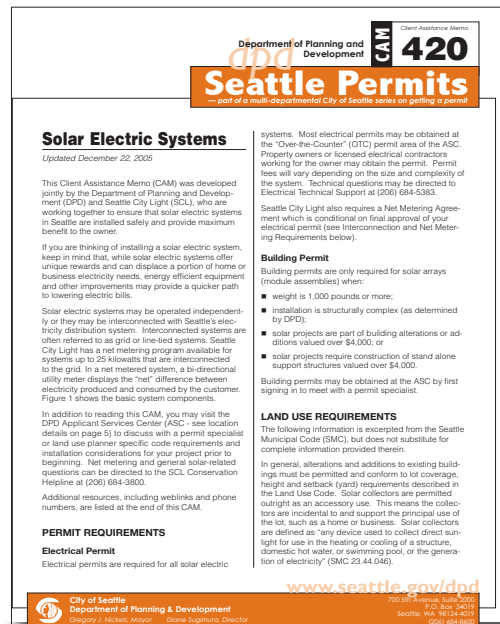
The City of Seattle's Client Assistance Memo.

PRIORITY RECOMMENDATIONS

Another example includes a sustainable building and infrastructure policy passed by the City of Issaquah in December 2004. Resolution #2004-11 provides free professional consultation to developers intending to use LEED. Also, such projects are bumped to the front of the building permitting queue.

Revise zoning and engineering standards to provide guidance and incentives for Low Impact Development and Green Building (#23).

WHY A PRIORITY?

This recommendation also relates strongly to #21 and #23 described above. Revised code standards are needed in conjunction with staff training, community assistance and outreach to effectively implement LID and Green Building. These three recommendations (staff training, community information and outreach, regulatory changes and incentives) can be seen as three different aspects of one unified concept – a Residential Green Building Program. This program will help kick-start the use of sustainable development principles at the building and site level. The Residential Green Building Program has been identified as #2 in the Top Ten List of Key Program Strategies in Chapter 3 – Strategic Directions.

IMPLEMENTATION CONSIDERATIONS

A detailed set of recommended revisions to the Shoreline Development Code and Engineering Standards and Guidelines is included in Appendix D. Revised development regulations and engineering standards are needed to more efficiently and effectively implement LID and Green Building. Modifications to building code interpretations and local amendments may also be needed to provide additional flexibility. This recommendation will require approximately .5 of an FTE for one year to accomplish.

Recycled Marmoleum flooring in a Four-Star Built Green house.

However, no increase in Planning and Development Services staffing levels is proposed. Start-up and maintenance of the program will be rolled into the existing staff duties. This means that other responsibilities will need to be adjusted within the Planning and Development Services work plan and other codes streamlined to achieve greater efficiencies to accommodate this program.

Alternatively, the City may choose to obtain consultant assistance for this effort. Estimated costs of revising UDC and engineering codes consistent with this recommendation are approximately $50,000. Additional review of potential local building code interpretations and amendments could also be done by a consultant. The entire package, including some assistance with standard details that support LID and Green Building, could be accomplished for approximately $75,000.

Expand existing efforts to reduce, reuse and recycle and conserve water in City offices, parks and other facilities (#37).

WHY A PRIORITY?

Conservation of resources – materials and water – is more than an environmental consideration. Reducing consumption is fiscally responsible – reducing both purchased quantities and volumes of waste directed to municipal facilities saves operations costs. A comprehensive recycling program in City buildings gives employees and visitors "ownership" of the Sustainability Strategy, and recycling bins in parks and public venues make the City's efforts visible. Plus, the City has received numerous requests to increase recycling capacity at recreation facilities.

Water use is another opportunity to reduce operations costs for the City and reduce the burden on the Shoreline Water District. Water-efficient fixtures, in both new and existing facilities, will impose a first cost premium with a payback based on reduced operations costs. This recommendation is a high priority for short-term implementation because it is "low hanging fruit" and can be acted on immediately.

IMPLEMENTATION CONSIDERATIONS

Basic recycling efforts and facilities at City offices and parks can be improved. The City can investigate current efforts by its neighbor Lake Forest Park and build on the existing plan to implement plastic bottle recycling in Twin Ponds Park. Shoreline can extend the program to additional parks and City facilities and the recycling of additional materials as feasibility issues are resolved and funding is available. Explore partnerships with other municipalities and borrow from existing programs.

New, low-flow water fixtures as mandated by EPA do not have a cost premium, while those that conserve even more water may still be slightly more expensive due to their novelty. However, with greater demand, these costs are coming down, while the long-term benefits and reduced amounts of water needed increasingly off-set any initial up-charge.

The City should take incremental steps towards reducing waste and increasing recycling at City facilities. Costs for this effort should not exceed the Low level (less than 10% above current program costs). Ongoing costs associated with servicing the recycling receptacles will be Negligible to Low. Implementation of this recommendation will require approximately another .5 FTE in total effort the first year to set up and perhaps .25 of an FTE in ongoing effort. However, existing Environmental Services Staff appear to have a vast array of responsibilities and should not solely shoulder the burden for this initiative – it should be shared throughout City departments. Volunteers and interns can also be considered for ongoing program implementation. By spreading the responsibility for this ongoing effort throughout the City and managing it via the Green Team, these costs can be absorbed.

Include in purchase guidelines preference/ requirement for products that promote reduction and reuse (e.g. duplex copiers, durable goods); reduce consumption of raw materials (e.g. recycled content and recyclable materials) and present reduced risk to human and ecological health (non-toxic materials) (#38).

WHY A PRIORITY?

Sustainable purchasing is a way to demonstrate the City's commitment to buying goods, materials, services, and capital improvements in a manner that reflects core values of fiscal responsibility, social equity, community and environmental stewardship.

PRIORITY RECOMMENDATIONS

IMPLEMENTATION CONSIDERATIONS

Creation of environmental purchasing guidelines can be based on successful local models, especially the City of Seattle and King County programs. Other resources include EPA Comprehensive Procurement Guidelines and Green Seal's Choose Green Reports. Final determination of guidelines will be a collaborative effort that involves Fleets and Facilities, Purchasing, and local utilities, at minimum. Purchasing guidelines can be effectively and clearly conveyed to City staff via technical tip sheets and online resources – the City of Seattle has been effective in this regard.

Environmental purchasing guidelines may be initially presented as preferences, but should in time be given a mechanism for enforcement. For instance, the City of Seattle Environmental Purchasing program is based on Washington State laws and regulations specific to procurement, with an additional seven Seattle Municipal Code items and four resolutions that address reuse and recycling, and energy and water consumption associated with purchasing. The City of Shoreline should adopt resolutions, at minimum, that support environmental purchasing. The City should develop specific purchasing criteria based on existing models and investigate participation in purchasing partnerships and the creation of preferred product procurement lists.

Provide convenient opportunities (prominent and labeled bins) for sorting, collecting, and composting solid waste streams in the community (#39).

WHY A PRIORITY?

Twenty years ago, only one curbside recycling program existed in the United States, which collected several materials at the curb. By 2006, about 8,660 curbside programs had sprouted up across the nation.

Communities are often drivers of recycling efforts because they are simple ways of leveraging existing resources – residents and business owners – to achieve substantial environmental and economic benefits. Shoreline residents have expressed this as a priority for the community. The City currently hosts semi-annual Clean Sweep events that target community waste. However, the City cannot do it all – it needs the assistance of local businesses, schools and volunteers in this effort. Programs should target areas such as beverage containers, electronic waste, low level hazardous waste, yard waste and other waste that is difficult to dispose of or that is generated outside the home.

Native residential landscaping in an urban right-of-way.

City of Shoreline staff attend a forest management tour in Vashon Island.

IMPLEMENTATION CONSIDERATIONS

Dozens of local governments have demonstrated that residential solid waste (RSW) sorting and composting strategies work. Some of these strategies require a major paradigm shift – new equipment, new approaches to staffing, new set-out behaviors from residents. Other strategies are based on using existing resources more imaginatively. This recommendation has strong potential for engagement of volunteers, including businesses and school groups. Direct City investment in this effort should be limited to the Low-cost range – less than $20,000 – and that money should be targeted for obtaining and supporting partnerships.

Implement construction and business waste reduction outreach and incentives through the permitting process and municipal waste contract (#40).

WHY A PRIORITY?

The EPA estimates that up to 40 percent of U.S. solid waste is construction and demolition debris. Deconstruction – taking homes and commercial buildings apart, rather than landfilling the waste – involves more labor than conventional demolition, but it also avoids costly disposal fees. What could be a total loss – through demolition and landfilling – turns into a revenue-generating opportunity to resell materials.

IMPLEMENTATION CONSIDERATIONS

Both King County and City of Seattle have

Earth Day Festival natural lawn care booth at Central Market in Shoreline.

had tremendous success using education and technical assistance to help reduce construction and business waste. Expedited permitting is a popular incentive with builders. For example, some municipalities use free and early demolition permit issuance for projects that recycle construction waste, as well as outreach materials to promote building deconstruction and related recycling and reuse of materials. Rate structure could encourage construction waste recycling. The City of Chicago requires construction above certain thresholds to recycle up to 50% of the associated demolition waste. [9]

Currently there is no drop-off for commercial hazardous waste near Shoreline. At a minimum, information and outreach materials are needed on this issue. Start-up costs associated with this effort are expected to be Low because existing models and programs can be replicated.[10]

Implement residential waste incentives and requirements through the municipal waste contract and permit process. Expand community outreach and information efforts to reduce waste and recycle (#45).

WHY A PRIORITY?

As with multiple other high-priority recommendations, timing and feasibility combine to make this an "easy win" that will build momentum for the Sustainability Strategy. The new CleanScapes contract presents opportunities to introduce new incentives and requirements to reduce waste and improve recycling efforts. With a new service provider, residential customers are more amenable to programmatic changes.

7 http://egov.cityofchicago.org/city/webportal/portalContentItemAction.do?contentOID=536932617&contenTypeName=COC_EDITORIAL&topChannelName=HomePage
8 http://www.metrokc.gov/dnrp/swd/facilities/cdl-stations.asp

IMPLEMENTATION RESOURCES

IMPLEMENTATION CONSIDERATIONS

By linking the familiar three R's – reduce, reuse, recycle – with the Sustainability Strategy in community outreach efforts, the City and CleanScapes can revitalize interest in the three R's and bridge to other less familiar concepts, or provide a "gateway" for the community. Specific requirements should be established for waste and recycling facilities in new residential construction. The City of Seattle has developed a worksheet for project designers.[11]

OVERVIEW

In performing the capacity assessment, it was important to identify resources that may assist the City directly or indirectly in achieving specific recommendations. Innovative and more conventional methods can be combined to facilitate implementation. Resources can come in the form of funding and/or in-kind support. Additionally, the work other area municipalities have done can be shared or at least act as a model for Shoreline's implementation process.

FUNDING

Funding aspects of implementation include: dollars for new or expanded efforts, financial incentives to encourage the private sector to participate in the sustainability initiative, and leveraging incentives from other agencies and/or organizations to incentivize greening private sector activity.

Sustainable Enterprise Funds can help municipalities invest in projects that require additional incentive to overcome technical or

9 http://www.seattle.gov/util/stellent/groups/public/@spu/@csb/documents/webcontent/cos_004542.pdf

financial risks. The City of Shoreline should explore partnerships with other municipalities to maximize available resources. The Greater Vancouver Regional District (GVRD) is an example of a community that has used this technique. In a partnership with five other communities, Vancouver is combining budget dollars to get maximum environmental benefit out of its limited budget.

Sustainability Grants are available that may help implement specific recommendations, for example to fund a volunteer coordinator position. Such a position can help leverage staff efforts by seeking out community groups willing to dedicate labor and resources to sustainability efforts. Often, seed money in the form of a grant is used for first-year costs (e.g. salary, administrative costs). The proven benefit can then be used to justify permanent budget allocations for a volunteer coordinator position.

Constructing a porous concrete trail along Fremont Place.

Creative Tax Programs can also be used to encourage or fund sustainability initiatives. To reduce their carbon footprint, states (Washington included) have provided tax credits for installation of renewable energy systems Municipalities (such as San Francisco and Berkeley) have provided loans for installation of such systems that are paid back through property taxes payments. The total tax to the system owner is the same or less than what property owners would save on electric bills so it is a win-win. Shoreline residents may in fact approve higher property tax rates for improved waste management programs, green building assistance, or alternative energy strategies, if they are convinced of the long-term financial benefits. Because repayment is tied to property taxes, the City can project annual budgets with little additional risk. Tax penalties are less popular, but Portland city officials have proposed a "carbon tax" on new homes and commercial buildings. For such a tax to be successful, strong partnerships with the construction industry and real estate organizations would be necessary (and are frankly, highly unlikely).

Permit Fees are another possibility, and likely to be more acceptable than tax penalties. The City of Portland imposes a fee on every building permit to fund green building mini-grants, education, and outreach, and staff training. The key is volume – demand within the Urban Growth Area will remain high, and the small fee is acceptable to most developers. Since Shoreline receives substantially fewer permits than Portland, the City might choose to dedicate fees to a limited set of initiatives. Shoreline may also create a "green district" (Kirkland is experimenting with this) and impose fees based on levels-of-service directed to green improvements to infrastructure.

Utility Rebate Programs can be used by the City in its own projects, as well as to encourage greening private sector development activity. Both Seattle City Light and Puget Sound Energy (for gas customers) provide utility grants and rebates for a variety of energy improvements in the commercial, industrial, public, and residential realm.

Municipal Grants for Green Building provide another form of financial incentive. Several municipal models for such grants including King County's Department of Natural Resources and Parks awards to private sector developers achieving LEED or Built Green (Technical assistance is also provided with the grant). Outside the region, Santa Monica provides a good model for such efforts. The City can use its website and planning processes to inform citizens (including prospective developers) about these and utility programs that provide financial incentives.

REGULATIONS & PLANNING POLICY

The regulatory environment and planning policy can sometimes hamper the very actions warranted by the City's new Sustainability Strategy. The goal is to remove those barriers (due to conflicts or redundancy requirements, for example, where an innovative technology is permitted but a conventional system is required as backup) and to use regulations and policy to encourage actions in keeping with the Strategy.

Comprehensive Plans can be modified to incorporate sustainability, through integration with existing elements, or creation of sustainability elements. For example, the City of Lynnwood is in the process of developing an Energy Element to its Comprehensive Plan. It is important, however, to ensure that sustainability is not an "add-on" to the overall plan. Suggestions for improvements to the Comprehensive Plan can be drawn from a recent APA workshop - "Incorporating Sustainability into the Comprehensive Plan."[12]

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12 http://www.washington-apa.org/2007conf/program.
   html

IMPLEMENTATION RESOURCES

Codes and Ordinances can be used to require or encourage sustainable actions within the City and by its citizens. The project team conducted an assessment of the City's LID and Green Building codes for this project. The results are included in Appendix C. Many jurisdictions require public projects to be LEED certified (Seattle enacted such a policy in 2000). Seattle, and other cities, such as Arlington, Virginia, also offer incentives to private sector developers, such as floor area ratio or density bonuses or, as with the Austin, Texas', Green Building Program, technical assistance. Some municipalities, such as Ft. Collins, Boston, and Washington, DC, have even experimented with green requirements for private buildings. Requirements for private developers are fairly controversial and are not recommended in the Shoreline Environmental Sustainability Strategy.

Green Permitting Processes reward projects that are green, and can encourage conventional projects to go green. As pointed out earlier in this chapter, the City of Issaquah passed a resolution in December 2004 that provides technical assistance and expedited permitting. Earlier this year, Kirkland enacted a similar policy. Other innovative examples include Chicago and Santa Monica. Chicago combines reduced planning fees in combination with expedited permitting.

For green permitting to work effectively, Shoreline Planning and Building Department staff must be proficient in green building. A natural complement to reviewing plans will be providing information/education to development clients on approved green technologies. The City of Austin provides a full kit of resources to developers and builders that includes design assistance and workshops. The City of Santa Barbara's building department is developing an educational kiosk that provides builders information on the local Built Green program and its relationship with city processes.

Also as mentioned earlier in this chapter, the City of Seattle provides Client Assistance Memos for a variety of development strategies. An example – Green Parking Lots – is included as Appendix F. Made available both electronically and at permit counters, these technical resources can help promote green building without placing undue additional burden on staff.

Green Building Code(s). Sustainable design strategies are considered by Shoreline's permitting department on a case-by-case basis – no different than a conventional building permit. New, unfamiliar strategies and technologies must be researched and vetted, which often delays processing. Additionally, Shoreline does not emphasize green building beyond IBC and State requirements such as the Washington State Energy Code (which is more stringent than IECC), citing a lack of resources dedicated to code revisions and enforcement. [13]

13 The International Code Council (ICC), a membership association dedicated to building safety and fire prevention, develops the codes used to construct residential and commercial buildings. Most U.S. cities, counties and states that adopt codes choose the International Codes developed by the ICC, specifically the International Building Code (IBC). Additionally, the U.S. Department of Energy continues to reference the International Energy Conservation Code (IECC) as the benchmark for conserving resources used in construction and daily living.

City of Shoreline staff tour the Kruckeberg Gardens.

However, resource-constrained departments such as Shoreline's can implement performance standards that do not require significant code changes and that are compatible with IBC standards. The key to encouraging green building from the permitting side, according to the International Code Council, is increasing proficiency among permitting and review staff so that new green building strategies can be quickly reviewed and accepted or denied, thereby placing no undue additional burden on developers.

Ongoing development of the IECC, the National Green Building Standard (for residential construction), and ASHRAE/IESNA/USGBC 189 *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings*, are making it increasingly possible for the full range of concerns associated with sustainable and environmentally responsible building to be properly addressed. With regard to the IECC, more performance-based methods will be incorporated. The result will be a range of thresholds, up to and including the goal envisioned by the Architecture 2030 Challenge (which aims to reduce carbon dioxide emission due to combustion of fossil fuels in buildings to net zero by the year 2030)[14] that will allow individual jurisdictions to designate achievable levels of energy conservation with few, if any, code amendments. This will, in turn, eliminate redundant or even contradictory regulations and levels of enforcement.

BUSINESS PARTNERSHIPS

Green Business Certification may be one of the best ways to engage Shoreline's business community in the Sustainability Strategy. The City of Shoreline already partners with the Environmental Coalition of South Seattle (ECOSS) to help educate Shoreline businesses regarding sustainable business practices.

14 http://www.architecture2030.org/

IMPLEMENTATION RESOURCES

ECOSS provides information and education on industrial innovations that will lead to energy and water conservation and pollution prevention in small- to medium-size businesses. According to the Shoreline Economic Development Program, businesses have been slow to take advantage of ECOSS' services.

In late 2007, King County awarded a grant to the Shoreline Chamber of Commerce for development of a sustainable business program. The Chamber is seeking to use the grant to create a "one-stop shop" to educate businesses to be more efficient – to use less, waste less, and save money – and to be recognized for sustainability efforts.

Shoreline can also use existing resources to promote sustainable business practices. Puget Sound Energy and Seattle City Light can provide data that can be used to create an overall "business footprint" for Shoreline businesses. This may be used to encourage businesses to pursue sustainable business strategies and take advantage of resources in order to promote their business and save money through operations and maintenance efficiencies.

The Cities of Kirkland, Santa Monica, and the Bay Area are good examples of municipalities that have developed green business certification programs in partnership with the business community.

View from Shoreline of Puget Sound and Olympic Peninsula.

FINAL THOUGHTS

Insert text of conclusion here.

Junco enjoying the day in Shoreline's urban forests.