20 year

strategic
PLAN

GREEN SEATTLE
PARTNERSHIP

The Green Seattle Partnership 20-Year Plan was inspired by over 10 years and more than 500,000 hours of citizen volunteerism dedicated to reforestation of Seattle's Parks. The Green Seattle Partnership gratefully acknowledges these contributions, which have paved the way for a refined understanding of our approach to the important task of restoring forested parklands. We also appreciate the time and dedication staff and community leaders, particularly among our Executive Council, have dedicated to creating this plan. A large credit goes to the generous donation of the citywide forest inventory created by the Seattle Urban Nature Project, the foundation for the analysis here.

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The Green Seattle Partnership is a unique public-private venture dedicated to promoting a livable city by re-establishing and maintaining healthy urban forests. Formed in 2004 by a Memorandum of Agreement between the City of Seattle and the Cascade Land Conservancy, the Green Seattle Partnership is a one-time, 20-year investment in the restoration of our forests. This Strategic Plan describes the current problems within Seattle's forested parklands, the Green Seattle Partnership solution, and how we will implement it.

OUR VISION:
A healthy, livable city with a sustainable urban forest

Our vision is a city with diverse, invasive-free, sustainable forested parklands. An aware and engaged community will support Seattle's urban forest. Individuals, neighborhoods, nonprofits, businesses, and City government will work together to protect and maintain this resource.

Like buildings, an urban forest provides an architectural framework for the city. This framework is often called a "green infrastructure." The urban forest continually reminds us that even though we reside in a large city we are inextricably tied to the natural environment.

A sustainable urban forest contains a multi-aged canopy of trees. The forest floor is alive with native species that are habitat to a diversity of native insects and wildlife. If properly cared for, our urban forest is an invaluable asset that will serve the community many ways. Forest growth will itself build new soils, improve air and water quality, retain stormwater, and help mitigate greenhouse gas emissions. Trails through our natural areas will offer some of the cultural and recreational benefits necessary for a livable city.

To maintain our quality of life in Seattle, we need to provide rich greenspaces. Forested relief in our urban environment is essential to maintaining livability while increasing density. When people don't have regular opportunities to enjoy nature, they leave the city, taking up precious undeveloped land and increasing the environmental impacts of sprawl.

Benefits of Healthy Urban Forests

· Reduce stormwater runoff

· Improve water quality

· Reduce erosion

· Increase property values 15%

· Improve air quality

· Make attractive communities

· Reduce global warming

· Provide wildlife habitat

· Buffer noise

Mature trees impove the quality of life in cities.

THE PROBLEM:
Seattle's trees are dying

Seattle's forested parklands—remnants of a once vast forest that covered the entire Puget Sound region—are in serious decline. Forested parklands are defined as parks with 25% or greater tree canopy coverage. After 150 years of logging, view clearing, and passive management, these remnant forests are sick. Seattle's trees are aging and inundated with invasive plants, including English ivy, Himalayan blackberry, Scot's broom and knotweed. Of the 3,700 acres of openspaces managed by Seattle Parks and Recreation, we have identified more than 2,500 acres of forested parklands to be restored through the Green Seattle Partnership.

Most of our trees are nearing the end of their natural lives. At the same time, invasive plants have choked out the seedlings that would replace today's forest. English ivy is a particular threat as it climbs up into the canopy and causes trees to topple in high winds. Within 20 years, 70% of Seattle's forested parklands will be an ecological "dead zone" where invasive plants predominate, where trees are dead or dying, and where native wildlife habitat is gone.

For generations, we saw our natural areas as self-sustaining. By the early 1990s, it became clear that urban ecosystems are subject to human pressures and therefore require human intervention to maintain them. Citizens and City government began to understand that the "natural-areas-take-care-of-themselves" mindset was terribly wrong.

A growing number of Seattle's neighborhoods have joined City government to rally support for our declining forested parklands. In fact, citizens, non-profits, and the City have been working hard over the past 10 years to restore these valuable ecosystems. The backlog of work created by decades of benign neglect means that—while significant—the efforts of individuals, groups, and limited City resources have barely made a dent in a problem of enormous scope.

English ivy is a particular threat to trees as it climbs into the canopy causing trees to weaken and eventually die or fall over.

Citizens and City government began to understand that the "natural-areas-take-care-of-themselves" mindset was terribly wrong.

THE SOLUTION:
The Green Seattle Partnership

A healthy urban forest contains a diverse group of native understory plants and trees

Seattle's forests need our help. In 2004, Mayor Nickels asked the Cascade Land Conservancy to team up with the City to help make the vision of thriving forested parklands a reality. The resulting Green Seattle Partnership is dedicated to promoting a livable city by re-establishing and maintaining healthy forested parklands. The partnership's goal is to improve quality of life in Seattle by restoring and maintaining 2,500 acres of forested parklands by 2025. It is the largest urban forest restoration effort in the nation.

The Green Seattle Partnership is a natural extension of the work of both the City and Cascade Land Conservancy. With its focus on forested parkland, the Green Seattle Partnership is one of several City of Seattle "Green" initiatives to save Seattle's trees. The City is also working on other urban forest plans that deal with street, backyard, playground, and institutionally-owned trees. Today, volunteers contribute about 60,000 hours per year to forest restoration in the Seattle area.

The Cascade Land Conservancy has recently launched the Cascade Agenda, a 100-year vision for conservation and economic growth in the Pacific Northwest. At the heart of the Agenda is building vibrant urban communities.

The City and Cascade Land Conservancy formalized the partnership in 2004 with a memorandum of agreement. Seattle Parks and Recreation, the Seattle Office of Sustainability and Environment, and Seattle Public Utilities are the three key City agencies serving in the Green Seattle Partnership. The partnership is governed by a nine-member Executive Council appointed by the Mayor. The Executive Council includes representatives from the community, Cascade Land Conservancy Board, and directors of the key City departments.

Most importantly, the Green Seattle Partnership includes thousands of community volunteers who—with the support of businesses and nonprofits—will work actively to restore and maintain Seattle's forested parklands.

OUR GOALS

The goal of the Green Seattle Partnership is to promote a livable city by re-establishing and maintaining **healthy forested parklands throughout Seattle**. By 2025, all 2,500 acres within the Green Seattle Partnership program will be healthy and free of invasive plants. To get there, we will need to restore 160 acres a year at the program's peak in 2010. That means removing invasive plants and planting up to 110 native trees per acre. We'll achieve that goal by increasing City resources and increasing other public funding, and support for volunteers with an active community leader, called a "Forest Steward," for each forested area. The following are the three basic outcomes the Green Seattle Partnership calls for:

1. Restore all 2,500 acres of Seattle forested parklands by 2025.

2. Establish financial and volunteer resources to provide long-term maintenance and ensure the sustainability of forested parklands.

3. Galvanize an informed, involved, and active community around forest restoration and stewardship.

To achieve these outcomes, the Green Seattle Partnership is undertaking an ambitious fundraising and volunteer recruitment campaign.

Volunteers and non-profit organizations such as EarthCorps fuel community stewardship and long-term maintenance of Seattle's urban forest

To get there, we will need to be restoring 160 acres a year at the program's peak in 2010.

OUR STRATEGY

This document is the Green Seattle Partnership's 20-year Strategic Plan for making sustainable, healthy forested parklands a reality. To that end, we have used a "Balanced Scorecard" method to develop implementation strategies. A widely used business tool, the scorecard balances objectives and measures across all areas of work necessary to achieve the overall outcome of restoring 2,500 acres by 2025. The scorecard helps organizations tie their objectives to a set of metrics that can be used to measure success. With these metrics, management can track the success of any activity over the 20-year course of the project and adapt the program as needed. More detailed information on the Balanced Scorecard is available in Section 4, Adaptive Management.

Each Green Seattle Partnership objective is designed to reach its desired outcome and is outlined in a Balanced Scorecard Strategy Map. The objectives shown in the strategy map form the backbone of this document and are divided into three categories that are the basic elements of the plan:

1. Field work
2. Resources
3. Community.

The strategy map shows the relationships among these elements (Figure 1). For example, with the strategy map we can see under the Community element of the plan how the action of creating broad community awareness of a problem will inspire volunteerism in the neighborhood, which in time will help remove ivy from a park.

Looking at the complete picture through the strategy map allows us to coordinate efforts across various activities so that they are mutually supportive.

By educating and involving citizens in actively preserving parkland, we increase the likelihood that they will become better stewards of their own private land because few laws protect trees on private property. A more detailed version of the Balanced Scorecard Strategy Map is presented in Section 3, Implementation
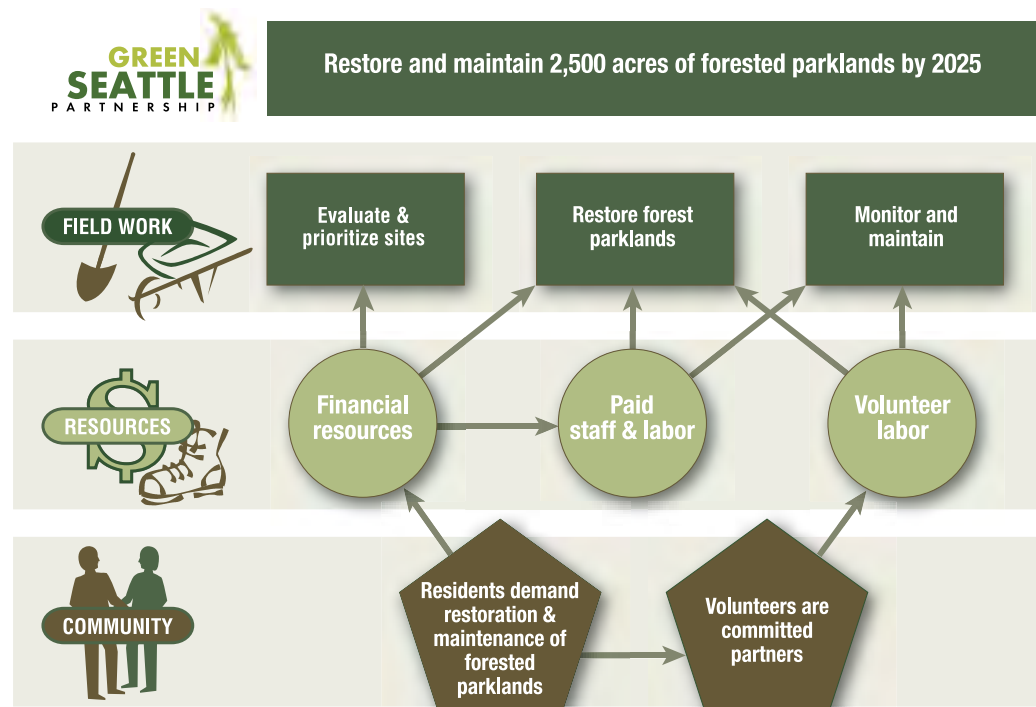

Figure 1. Balanced Scorecard Strategy Map

Field Work

Forest restoration is a multi-year process. It involves removing invasive plants, planting new native trees and understory plants, and establishing and maintaining those plants by continually removing invasive plant species from restoration sites.

While the Green Seattle Partnership plans to restore 2,500 acres by 2025, the historic rate of restoration has been about 9 new acres per year. By 2010, we will ramp up restoration to 160 new acres per year. To do so, we'll need to increase funding to pay workers, increase volunteer hours, and improve the efficiency of volunteer and staff efforts. Implementation of Seattle Parks and Recreation best management practices (BMPs) will improve efficiency. These recently developed BMPs use the best available methods for restoration and volunteer recruitment and support. The following are the key objectives for the field work element of the plan:

- Evaluate citywide forest stand conditions using the Tree-iage model
- Prioritize parks
- Prioritize restoration sites within parks
- Implement restoration using BMPS and a 4-phase approach to control growth of invasive plants and encourage native plants
- Build and maintain trails
- Monitor and maintain sites over the long-term.

Resources

The challenge we face is significant. The need for financial and human resources is considerable. Detailed analysis shows it will cost approximately $52 million to restore and maintain the 2,500 acres of forested parklands over the coming 20 years: an average of about $20,000 per acre plus 100,000 volunteer hours per year over the 20-year period. The Green Seattle Partnership will pursue significant, momentum-generating gifts from private funders through 2009. We will launch a Community Campaign to raise $3M by 2009 to leverage broad community support. Over the next year, Green Seattle Partnership staff will work to develop long-range public funding options. The following are key objectives for the resource development element of the plan:

- Continue Current City funding
- Raise $3 million by 2009
- Develop long-term, stable public funding
- Provide sufficient staff to support field work, volunteer management, and programs
- Support job-training programs and deploy paid crews
- Increase volunteer hours to 100,000 per year by 2009
- Increase productivity by providing support and materials to volunteers.

Community

The most important element for success is a concerned and committed community. Our plan begins with communication to build awareness that our forests are dying, to create a demand for action, and to show residents how they can help. The following are the key objectives of this element of the plan:

- Create broad understanding of the issue and support for the Green Seattle Partnership as the solution
- Demonstrate appreciation for volunteers and seek their input on the program
- Engage community organizations, youth groups, and businesses in restoration and monitoring
- Train Forest Stewards in volunteer management and in BMPs
- Encourage businesses to contribute to program goals.

Looking at the complete picture through the strategy map allows us to coordinate efforts across various activities so that they are mutually supportive.

INTRODUCTION

Seattle's forested parklands are in serious decline. After 150 years of logging, view clearing, and passive management, Seattle's trees are aging and inundated with invasive plants, including English ivy, Himalayan blackberry, Scot's broom and knotweed. Most of our trees are nearing the end of their natural lives. At the same time, invasive plants have choked out the seedlings that would replace today's forest. English ivy poses a particular threat as it climbs up into the canopy and causes trees to topple in high winds. Within 20 years, 70% of all Seattle's forested areas will be an ecological dead zone where invasive plants predominate, where trees are dead or dying, and where native wildlife habitat is gone.

Of the 3,700 acres of openspaces managed by Seattle Parks and Recreation (Parks), we have identified more than 2,500 acres of forested parklands to be restored through the Green Seattle Partnership.

Why We Need a Green Seattle Partnership

Restoring 2,500 acres of Seattle's forested parkland over the next 20 years is a big task. However, the strategies we offer to meet this goal are simple. With the help of Seattle's many volunteers, we will establish the largest urban forest restoration program in the nation. In the process, the Green Seattle Partnership will create a legacy of healthy forested parklands, beautiful neighborhoods, and engaged citizenry.

Seattle is a key financial and business center of the Pacific Northwest. Seattle's spectacular natural setting and high quality of life have always attracted skilled workers to our area. Seattle's economy is undergoing a shift from a manufacturing base to service and knowledge-intensive software, telecommunications, and biotechnology industries. Attracting the creative workforce needed to support these industries, thus ensuring the economic future of the region, increasingly depends on its environmental and cultural strengths.

In addition, 250,000 people and 47,000 new households are expected in Seattle over the next 20 years. One of the great challenges facing our city is how to accommodate this growth while maintaining a strong economy and livable communities. An important element of livable communities is greenspace. The parks, trails, and greenways that give city residents recreation opportunities and a connection to nature help sustain a vigorous urban life. The Cascade Land Conservancy has recently launched the Cascade Agenda, a 100-year vision for conservation and economic growth in the Pacific Northwest. At the heart of the Agenda is building vibrant urban communities. With its focus on forested parkland, the Green Seattle Partnership will play a key role in meeting that goal.

Benefits of a Green Seattle Partnership

The benefits of restoring Seattle's urban forest are as clear as the need to do so. Urban forests give us a higher quality of life through a cleaner environment, reduced stormwater runoff and erosion, and the ability to enjoy nature close at hand (Table 1).

According to 2004 data from Seattle Public Utilities, Seattle's forests provide the equivalent of a $1 million per year benefit in stormwater management. Forested parklands create a sustainable, livable city by providing greenbelts, which increase adjacent residential property values an estimated 15%, benefiting both landowners and the City through increased tax revenue. And as citizens are encouraged to live more densely inside Seattle, amenities such as parks and greenbelts make the city more desirable. For large trees planted along streets, green infrastructure benefits amount to $149 per tree each year (source: Western Washington and Oregon Community Tree Guide, USDA Forestry Service 2002).

In 1999, American Forests, a world leader in the science and practice of urban forestry, analyzed Seattle's urban forest. The group concluded that between 1972 and 1996, Seattle lost 46% of its heavy tree cover and 67% of its medium tree cover. That loss costs Seattle an estimated $1.3 million per year in rainwater storage and management capacity and $226,000 per year in air pollution-related health care costs.

Forested parklands also clean the air. All trees can capture carbon dioxide and help remove soot and other pollutants. For example, the average acre of conifer forest captures 13 tons of carbon dioxide each year. Forests do this by breaking down carbon dioxide, incorporating the carbon into the wood mass of the tree and releasing oxygen into the air (source: Carbon Dioxide Reduction through Urban Forestry: Guidelines for Professional and Volunteer Tree Planters, USDA 1991). At the market rate of $6 per ton, this process, known as "sequestration," provides city residents $195,000 worth of annual air cleaning service. Conifers along roadways also trap soot on their leaves, which results in cleaner air and reduced incidence of asthma.

Table 1: Benefits of Sustainable Urban Forests

Urban Forest Benefits	How the Forest Works for the City
Reduces Stormwater Runoff	Tree canopies reduce the fast rate at which rain falls to the earth. Water enters the ground more slowly under trees and is better absorbed and filtered into groundwater than when it runs off surfaces. Conifers and other evergreen plants and trees grow year-round. This process moves water up from the ground, through plant tissues, and into the atmosphere as water vapor. The amount of water in the top 2 feet of the soil is reduced, leaving more room for additional rain water to flow into the soil.
Improves Water Quality	Tree roots absorb soil water that contains both nutrients and pollutants. Some pollutants are transformed by plants through metabolism, and others are trapped in woody tissues released only when a tree decomposes.
Reduces Erosion	As the canopy of trees slows the speed of rain falling on the earth, that rain water has less energy to displace soil particles. Soils under a canopy and the thick layer of leaf litter are protected from the erosive energy of rain water.
Increases Property Values	Homes that back up to greenbelts may be valued at up to 15% more than comparable homes not near a nearby a park. Forested parklands provide residential properties an adjacent natural area for walking and passive recreation activities such as bird watching.
Improves Air Quality	Tree leaves absorb carbon dioxide and produce oxygen through photosynthesis. The surface of leaves trap airborne dust and soot.
Makes Communities More Attractive	Trees and other plantings provide visual relief from the built environment. Trees and stretches of parkland can soften the angular edges of buildings, while the natural tones of bark and foliage are easy on the eyes.
Reduces Global Warming	Trees absorb "greenhouse gases" like carbon dioxide and store the carbon in woody tissues. Trees also modify "albedo," the reflectivity of sunlight on the earth's surface. The combination of the two effects can make the urban forest a remarkably cool spot in the urban heat island.
Provides Wildlife Habitat	Wild animals have unique requirements for food and shelter. Raccoons and crows adapt well to urban environments. Many native species don't. They require a variety of plants and multiple layers of canopy to forage and nest.
Buffers Noise	Tree canopies dampen sound by intercepting sound waves.

The Green Seattle Partnership is a public-private venture between the City of Seattle and the Cascade Land Conservancy dedicated to promoting a livable city by re-establishing and maintaining healthy urban forests.

1. THE PROBLEM: *City Forests In Peril*

Seattle's forests are in trouble. After decades of invasion by English ivy, Himalayan blackberry, English holly, clematis, and other non-native species, more than half of the city's forested parks have been suffocated. Parts of many Seattle forests are completely overrun by aggressive non-native weeds. In those areas, the only thing left is an unsustainable forest condition that will not allow native trees to grow back on their own. The result is what biologists call an ecological "dead zone" of dead trees covered with ivy. In effect, Seattle's trees are dying in slow motion.

This section describes how Seattle's forested parklands became unsustainable and provides background on where these native forests are located and why they have declined since development substantially accelerated in the late 19th century.

Many of the city's parks and greenbelts are plagued by smothering ivy, Himalayan blackberry, holly, laurel, morning glory and other undesireable plants

Seattle's Urban Forests

Seattle Parks and Recreation (Parks) manages about 3,700 acres of openspaces throughout the city (Figure 2). Within those 3,700 acres, we have identified 2,500 acres as forested parklands to be restored by the Green Seattle Partnership, roughly 5% of Seattle's total land area.

Wooded parks make the City of Seattle the largest single owner of forested property in the city. Parks is responsible for the care of more than 1 million trees in forested areas and 110,000 more in developed park areas such as picnic, playgrounds, and landscaped areas. This land base, while highly fragmented today, is a legacy of the visionary Olmsted plan of 1904, which established destination and neighborhood parks and greenways throughout Seattle. That plan has played out against a backdrop of increased demand for development and inadequate budgets for tree maintenance.

The decline of Seattle's forests began in the 1850s when early European settlers clear cut the city. They viewed the region's natural resources as vast and renewable. But many of these assets, particularly timber, were dramatically depleted within 100 years of the European settlers' arrival in 1851. The removal of the original conifer forest in the late 1800s was followed by natural re-colonization of logged areas with short-lived native deciduous species like big-leaf maple and red alder.

In an undisturbed natural system, the process of forest succession prepares the forest for a second colonization by longer-lived (300 to 800 years) conifers like Douglas fir and Western red cedar. Over time, a typical Pacific Northwest climax forest (Douglas fir, Western red cedar and ultimately grand fir and Western hemlock) re-establishes itself. This process typically takes about 100 to 150 years (Figure 3 on page 14).

FOREST STANDS OCCURRING ON PARKS PROPERTY

Carkeek Park and Llandover Woods

NORTHWEST

NORTHEAST

Magnuson Park

Shilshole Bay

NORTH CENTRAL

Green Lake

Discovery Park

Puget Sound

Salmon Bay

Portage Bay

Union Bay

Kinnear Park

Lake Union

520

CENTRAL WEST

SOUTH LAKE UNION

CENTRAL EAST

CENTRAL DOWNTOWN

Lake Washington

Elliott Bay

Seattle

90

Parks

Forested Areas

Schmitz Park

SOUTHWEST

SOUTHEAST

Andrews Bay

Seward Park

Longfellow Creek

5

Lincoln Park

SOUTH CENTRAL

Miles
0.6   0.3   0   0.6

Feet
2,200   0   2,200

Figure 2. Seattle's Forested Parklands

If forested parklands are Restored

Aggressively removing invasive vegetation and planting native trees and shrubs will return the urban forest to a more sustainable condition. In 100 years, the forest will provide the city valuable services and better resist invasive plant infestations.
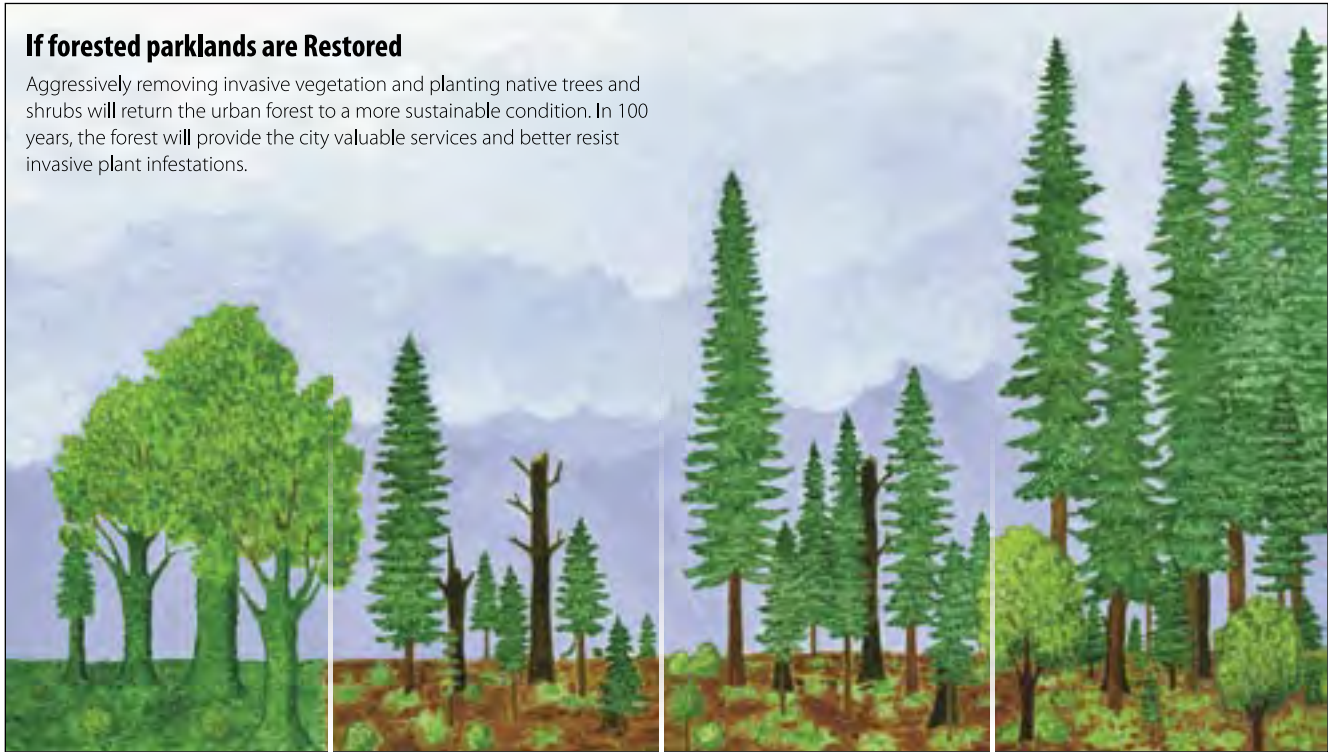
PRESENT
Forested parklands are dominated by deciduous trees, such as big-leaf maples and alders, nearing the end of their life. After decades of neglect, non-native invasive plants such as English ivy are smothering native vegetation and weakening native trees.

IN 20 YEARS
Through restoration efforts and long-term maintenance, the non-native plants are removed. Native groundcovers, shrubs and evergreen trees such as Douglas firs and Western red cedars and hemlocks are planted.

IN 50 YEARS
As the evergreen trees grow, they shade out sun-loving invasive plants such as blackberry. Native understory plants thrive.

IN 100 YEARS
With continued stewardship, the maturing forest requires less care and provides greater benefits to the city.

Figure 3. If Forested Parklands are Restored

Why Seattle's Forests are Disappearing

Four basic problems prevent our forested parklands from sustaining themselves as native forests:

1. Declining canopy
2. Invasive-dominated understory
3. Native trees struggle to regenerate
4. Inadequate funding for forest management.

Declining Canopy

According to the City's senior urban forester, Seattle is in danger of losing 70% of its forest canopy within the next 20 years. Several factors contribute to the loss. Compared with Seattle forests of the early 1800s, today's deciduous trees make up a disproportionate share of the forest. Colonizing alder and big-leaf maples nearing the end of their lifespan are now 70% to 80% of Seattle's forest canopy.

The high proportion of mature deciduous trees in the canopy will continue to decline rapidly. Most over-mature deciduous trees are either dead or dying, allowing sunlight to reach the ground surface. Because most invasive species are more aggressive in full sun, the loss of canopy has allowed invasive plants to become the dominant species in many acres of Seattle's parks.

Invasive-Dominated Understory

In the understory, invasive plants now out-compete native Northwest plants. The Seattle Urban Nature Project (SUNP) 2001 data show that more than 90% of forested areas in Seattle hosts invasive weeds. SUNP is a nonprofit organization founded in 1998 to survey and map vegetation and wildlife in Seattle's public land. SUNP has found that on more than half of Seattle's forested acres, invasive plants account for at least 50% of understory cover.

Invasive species cover the ground and block native trees from sprouting. Especially alarming is English ivy. English ivy, through a combination of root and leaf competition and sheer mass, can kill deciduous trees within 20 years. Ivy, clematis, and morning glory all look green and harmless, but they quickly spread to tree canopies, covering leaves and blocking photosynthesis. Their weight alone is enough, over time, to break branches and stunt growth. Meanwhile, blackberries work at the base of the trees to crowd out ferns and native saplings.

Currently, invasive plant growth outpaces the stewardship available to control it. SUNP research concludes that in Seattle, there's now enough ivy on public land to cover more than 630 football fields. Blackberries could cover 900 fields. Without intervention, the result is a slowly dying urban forest with little or no chance of returning to a native conifer forest (Figure 4 on page 16).

Without intervention, Seattle's urban forest will lose more than 70% of its canopy by 2025.

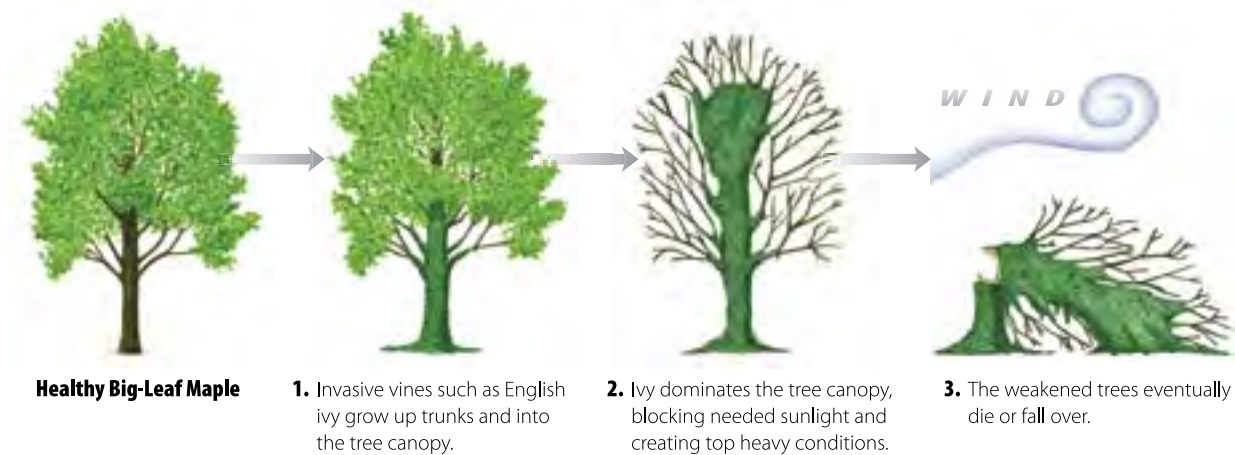*Invasive plants grow year-round, destroying native understory*

Healthy Big-Leaf Maple

1. Invasive vines such as English ivy grow up trunks and into the tree canopy.

2. Ivy dominates the tree canopy, blocking needed sunlight and creating top heavy conditions.

3. The weakened trees eventually die or fall over.

Figure 4.   How Invasive Plants Kill Trees

Native Trees Struggle to Grow Back

Native trees, especially conifers, have little success reproducing in Seattle's parks. Several factors contribute to the problem. The loss of forested areas due to logging and development left a limited seed source for native trees, especially conifers. Invasive plants reduce native tree regeneration by out-competing or smothering seedlings. In addition, urban disturbances such as development, landscaping, and concerns about views, trails, and light have also played a role. Many of our forests are fragmented, with little interior forest. As a result of these changes, urban forests have lost native trees, shrubs, and herbaceous species and no longer have a rich diversity of plants or habitat for urban wildlife (Figure 5).

Inadequate Funding for Forest Management

For over a century, the City provided no funding specifically directed to management of Seattle's forested parklands. Through benign neglect, the forests were left to themselves under the mistaken assumption that they were self-sustaining. That "trees-take-care-of-themselves" philosophy led directly to our current problem (Figure 6).

To reverse this underfunding, we need to invest heavily in the restoration of publicly-owned trees and greenways. Natural succession cannot occur without a conifer seed base and healthy understory. Until 1993, the idea that natural areas take care of themselves meant that no funds were budgeted for planting saplings, removing invasive plants, and restoring natural areas. Before 1993, most restoration work in forested parklands was done cooperatively with volunteer organizations with limited or no City funding.

In the mid-1990s, Parks worked with various organizations to support forest restoration projects. Among them were the Washington Native Plant Society, Treemendous, EarthCorps, Starflower Foundation, community leaders and individual volunteers. The growth and vigilance of volunteer groups has resulted in an annual contribution of 60,000 hours per year to forest restoration projects—a huge success story.

In 1994, City leaders officially recognized trees as "assets" or infrastructure to be maintained with attendant planning and budgeting. Parks established a forest restoration program with limited capital funding. Since the inception of this program, Parks has:

- Developed 68 Vegetation Management Plans (VMPs) to guide park-specific restoration.

- Partnered with interested parties and developed "Friends of" groups in over 100 parks.

- Initiated over 50 restoration pilot projects using the "Friends of" groups to explore the efficacy of restoration techniques.

- Developed best management practices (BMPs) from "lessons learned" in pilot projects and development of the VMPs.

Concurrent with Parks' process, several local nonprofits developed programs to support volunteer and City efforts. In 2001, the nonprofit SUNP increased understanding of the nature and condi-

If forested parklands are Not Restored

Aggressive non-native vegetation will dominate the urban forest unless removed. In 100 years, the trees will be gone. City officials estimate that potentially billions of dollars in services such as stormwater control will be lost.

PRESENT
Forested parklands are dominated by deciduous trees, mainly big-leaf maples and alders, nearing the end of their life. After decades of neglect, non-native invasive plants, such as English ivy and wild clematis, cover the ground and grow up into the tree canopy.

IN 20 YEARS
Invasive plants outcompete and grow over existing native vegetation, blocking the sunlight plants and trees need to thrive. English ivy now dominates the tree canopy, making the trees weak, top heavy and susceptible to windfall. Eventually, trees die or fall over.

IN 50 YEARS
The trees are gone. Only a few native shrubs struggle to survive the stress of competition with invasive plants.

IN 100 YEARS
The forest is destroyed. Native trees can no longer establish on their own. We are left with a dense "ivy desert." Very few plant species can live, and forest biodiversity is gone. Such conditions provide homes for rats and scarce habitat for more desirable urban wildlife.

Figure 5. If Forested Parklands are Not Restored

tion of forested parklands through a detailed inventory and mapping of all 8,000 acres of open areas in Seattle. That information was applied to a Geographic Information System (GIS), allowing data to be analyzed spatially. This ground-breaking work has contributed to the VMPs that foresters use to plan restoration activities. With this more complete picture of urban forest conditions, we better understand the scope of the restoration challenge. As an example, SUNP research shows, invasive weeds have spread to 90% of all forested areas in Seattle.

Today, the City employs 11 full-time staff people dedicated to maintaining trees in developed areas such as City parks and streets. Of those people, two are Seattle Department of Transportation employees who maintain City street trees. For the City's forested parklands, Parks has two urban foresters, and three natural area crew members. Three Parks volunteer coordinators, and one SPU volunteer coordinator devote some time to volunteers working on forest restoration projects. In addition, numerous other Parks' district staff provide limited support to volunteer events.
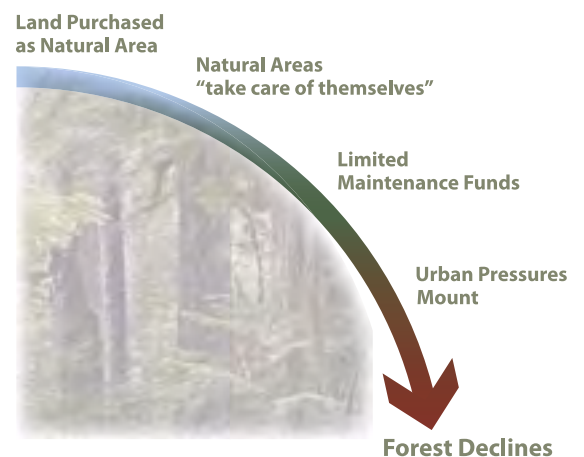
Land Purchased as Natural Area

Natural Areas "take care of themselves"

Limited Maintenance Funds

Urban Pressures Mount

Forest Declines

Figure 6. False (Pre-1993) Paradigm of Forest Parklands as Self-Sustaining

2. THE SOLUTION: *Green Seattle Partnership*

The Green Seattle Partnership is a unique public-private venture dedicated to promoting a livable city by re-establishing and maintaining healthy urban forests. Formed in 2004 by a Memorandum of Agreement between the City of Seattle and the Cascade Land Conservancy (CLC), the Green Seattle Partnership is a one-time, 20-year investment to rebuild our forests.

Our Vision:
A Healthy, Livable City with a Sustainable Urban Forest

Our vision is a city with invasive-free, sustainable forested parklands. Seattle's urban forest will be supported by an aware and engaged community in which individuals, neighborhoods, nonprofits, businesses, and City government work together to protect and maintain this resource. The urban forest is a significant part of Seattle's "green infrastructure." Like buildings, an urban forest provides an architectural framework for the city. This framework is often called a green infrastructure.

A sustainable forest will contain a multi-aged canopy of trees and forest floor alive with native species that are habitat to a diversity of native insects and wildlife. If we take care of it, our urban forest is a valuable asset that can serve the community in many ways. Forest growth will itself build new soils, improve air and water quality, retain stormwater, and help mitigate greenhouse gas emissions. Trails through our natural areas will offer the cultural and recreational benefits necessary for a livable city.

Our Goals

The goal of the Green Seattle Partnership is to promote a livable city by re-establishing and maintaining healthy forested parklands throughout Seattle. By 2025, all 2,500 acres within the Green Seattle Partnership program will be healthy and free of invasive plants. To get there, we will need to restore 160 acres per year at the program's peak in 2010. That means removing invasive plants and planting up to 110 native trees per acre. We'll achieve that goal by increasing City resources and providing better support to volunteers with an active community leader, called a "Forest Steward," for each forested area. The following are the three basic outcomes the Green Seattle Partnership calls for:

- Restore all 2,500 acres of Seattle forested parklands by 2025.
- Establish resources to provide long-term maintenance and ensure sustainability of forested parklands.
- Galvanize an informed, involved, and active community around forest restoration and stewardship.

Management

After years of work on this problem, it became clear to both the City and to citizen volunteers that development of a citywide program would be necessary to restore forested parklands. In 2004, Mayor Nickels asked Cascade Land Conservancy to partner with the City to help make this vision of thriving forested parklands a reality. The public-private Green Seattle Partnership was created in 2004 when the City and the Cascade Land Conservancy signed a memorandum of agreement to restore Seattle's urban forest.

This section describes the structure of this public-private organization. The Green Seattle Partnership is currently organized into an Executive Council, Management Team and committees, and administrative support. This structure supports thousands of community volunteers, City and nonprofit staff, and paid crews who will perform much of the work needed to achieve our goals (Figure 7).

EXECUTIVE COUNCIL

The partnership is governed by an Executive Council of nine members, representing equally volunteer civic leaders, CLC Board members, and City agency directors or their delegates. The Executive Council meets quarterly to oversee the work of the partnership. They will play a lead role in developing a foundation for funding the 20-Year Program.

MANAGEMENT TEAM AND COMMITTEES

The Management Team is comprised of leaders from three City agencies (Seattle Parks and Recreation, Seattle Office of Sustainability and Environment, and Seattle Public Utilities) and CLC. The team meets monthly to ensure implementation and oversee staff. It is supported by three subcommittees (Field Work, Resources, and Community) that meet as needed. The Management Team and committees are the core team members responsible for developing this 20-year plan. They also develop budgets, 5-year strategic plans, annual work plans, and annual revisions of BMPs, and have the primary responsibility for implementation of all Green Seattle Partnership activities.

ADMINISTRATIVE SUPPORT

The CLC will administer the Green Seattle Partnership with support from City agencies to ensure scheduling and recordkeeping of the Executive Council, Management Team, and subcommittee meetings. As partnership administrator, the CLC is also responsible for coordinating implementation of the strategies and outcomes developed by the Management Team.

DECIDE

GSP Executive Council

City   Community   CLC

PLAN

GSP Management Team

Field Work Committee   Resources Committee   Community Committee

SUPPORT

GSP Staff

Seattle Parks and Recreation   Cascade Land Conservancy   Seattle Public Utilities   Seattle Office of Sustainablity

ENABLE

Operating Agreement

City of Seattle   Cascade Land Conservancy

PARTNERS
Seattle Parks & Recreation
Cascade Land Conservancy
Seattle Public Utilities
Seattle Office of Sustainablity & Environment

FUNDERS
Corporate Sponsors
Foundations
Private Donors
City Agencies

FIELD IMPLEMENTATION

Community Volunteers Forest Stewardship Groups   Nonprofit Organizations Commercial Crews

Figure 7. Green Seattle Partnership Organization

Roles and Responsibilities

The following section describes the roles and responsibilities of the parties to the Green Seattle Partnership.

CASCADE LAND CONSERVANCY

The CLC Stewardship Program Director has primary oversight of CLC's role in Green Seattle activities, and is the chair of the Management Team. CLC has one full-time Green Seattle Partnership project manager and several support staff who work on development and communications. CLC has primary responsibility for the administration of the partnership, which includes planning, reporting, facilitating Executive Council and Management Team meetings, and coordinating outreach programs, the Forest Steward Program and the Community Campaign.

CLC also serves as the fiscal agent for all donations to the Green Seattle Partnership program. Expenditures from this account must be approved by the Executive Council. The CLC has created a separately audited account for these donations. CLC will report the status and expenditures of this account as an element of its annual audit.

CITY OF SEATTLE

Staff from several City departments will contribute to the Green Seattle Partnership:

Office of Sustainability and Environment

The Seattle Office of Sustainability and Environment (OSE) provides leadership, tools, information, and ideas to help City agencies, residents, households, and businesses use natural resources efficiently. OSE collaborates with City agencies, business groups, nonprofit organizations, and other partners to protect and enhance Seattle's distinctive environmental quality and livability. They are involved with the Green Seattle Partnership because it will help move Seattle along the path to sustainability by creating great, healthy parks and inviting urban neighborhoods that foster density and that provide ecological services. OSE serves as a liaison with the Mayor and helps guide and plan for partnership outcomes.

Seattle Parks and Recreation

Parks is ultimately responsible for the maintenance and restoration of the City's forested parklands. Parks' urban forestry staff and volunteer coordinators are directly involved in the Green Seattle Partnership. Parks will provide the partnership with technical expertise and a skilled workforce. Parks is responsible for developing guidelines for restoration work, including BMPs, restoration goals, and site prioritization. They will perform restoration and maintenance activities in forested parklands and fund paid crews to supplement this work.

Parks actively supports volunteer restoration efforts by providing materials and equipment. The Green Seattle Partnership will

also coordinate with the Parks Trail Program staff to maintain trail corridors on forested parklands. Parks staff who work on the partnership include two urban foresters, three volunteer coordinators, a trails coordinator, and a three-person natural area crew. These staff people are supported by Parks' grounds maintenance crew chiefs, senior gardeners, and administrative staff.

Seattle Public Utilities

Seattle Public Utilities (SPU) is the water, solid waste, drainage and sewer provider for the City. SPU is responsible for managing stormwater runoff in Seattle. Their interest in the Green Seattle Partnership is largely in maintaining the stormwater management and habitat benefits provided by forested parklands, especially in areas near streams. This goal will be accomplished through the restoration and maintenance activities to be carried out by the partnership. SPU will provide funding for restoration activities near streams. They will provide guidance and support to creekside-forest stewards, known as "Creek Stewards," and neighbors, and will offer expertise in planning. SPU will provide one project manager and volunteer coordinator to support the Green Seattle Partnership.

Volunteers

Forest Steward groups and community volunteers are the core labor force for restoration and maintenance of forested parklands. They bolster community interest and support for local parks and greenways through their advocacy. There are more than 100 recognized forest restoration ('Friends of' or 'Adopt-a-Park') groups within Seattle. The Green Seattle Partnership will work with leaders from each Forest Steward group to provide field leadership training and help Green Seattle Partnership staff do site planning. These leaders are known as "Forest Stewards."

Currently, community volunteers are represented by civic leaders who serve on the Green Seattle Partnership Executive Council. As the program develops, community volunteers may also be represented on Green Seattle Partnership committees.

Nonprofit Organizations

Conservation work crews such as EarthCorps, the Student Conservation Association, and the Seattle Conservation Corps have played a significant role in urban forest restoration in the Seattle area. These organizations provide service-learning and job-training opportunities for program participants. For the Green Seattle Partnership, these groups and other private landscape crews will work on a contract basis in three capacities to:

1. Organize, support or lead community volunteers during volunteer restoration events.
2. Facilitate involvement of other youth, civic, business and community organizations.
3. Perform restoration work in areas that are not or cannot be served by volunteers, or for which the City does not have adequate staff capacity.

Commercial Crews

Private landscape and habitat restoration crews will be hired as budget and needs allow. These crews will focus on difficult sites that require more technical work. Currently, there are a limited number of contractors that provide these services. The partnership is committed to developing a well-trained, effective "green-collar workforce" that will provide living wage employment for restoration practitioners.

Funders

Corporate sponsors, foundations, and private donors will play a critical role in the Green Seattle Partnership. These stakeholders will provide much of the gap funding needed in the early years of the program.

Corporate sponsors will have significant opportunity to support the partnership. Employees of our corporate sponsors may participate in large volunteer restoration events each year, providing a substantial additional labor pool. Sponsors will also be called on to make other contributions as appropriate. For example, they may be asked to donate supplies or services that can be provided through their companies. In return, these corporations will have the opportunity to be stewards of their community. Companies can offer their employees both an outlet for community engagement and the chance to be associated with the largest urban reforestation effort in the nation.

3. IMPLEMENTATION

Here we describe the Green Seattle Partnership strategy for providing the field work, resources, and community support to run the program over its 20-year life.

We have used a **"Balanced Scorecard"** approach to develop this implementation strategy. The Balanced Scorecard is a widely-used business tool that helps both develop a strategy and monitor progress as that strategy is carried out. The scorecard balances profits, customer satisfaction, and employee welfare by listing goals and quantifying measures that indicate if actions meet the goals. The Balanced Scorecard helps define and align the efforts of complex organizations to achieve targeted outcomes. With these metrics, management can track the success of many activities over the 20-year course of the project.

For Green Seattle Partnership purposes, we have modified the traditional layers or "perspectives" of the Balanced Scorecard (which focus on increasing share-holder value) to reflect the ultimate goal of a **healthy, livable city**. We layered the key elements of the 20-year plan: field work, resources, and community.

Photo Courtesy of Mark Chambers

Restoration of Seattle's forested parklands will include planting up to 110 native trees per acre.

Our objectives within each of these layers are outlined in a **Balanced Scorecard Strategy Map** (Figure 8 on page 22). As shown on the figure, activities within the Strategy Map have reciprocal relationships. For example, volunteers are critical to accomplishing field work and demonstrating progress in field work is essential to motivating volunteers. Looking at the complete picture through the strategy map allows us to coordinate efforts across various work areas so that activities are mutually supportive.

The Green Seattle Partnership needs community support to secure the financial and volunteer resources to restore and monitor sites over the long term. By mapping the critical activities in layers that build on each other (field work, resources, community), we can see and do the right thing at each stage of a long process. A Balanced Scorecard is created to track progress toward each of the program outcome categories: field work, resources, community. The Balanced Scorecard for the Green Seattle Partnership is shown in Section 4, Adaptive Management.

Balanced Scorecard Layers

Outcomes	The desired outcomes of the 20-year program: • Restore 2,500 acres of forested parkland by 2025 • Establish resources to provide proper long-term maintenance and ensure sustainability • Foster an informed, involved, and active community
Field Work	How we will carry out an on-the-ground strategy to restore and maintain 2,500 acres of forested parkland
Resources	How we will garner sufficient financial, paid labor, and volunteer resources to implement the strategy
Community	How we will maintain an engaged community and prepared volunteer workforce over the long-term

**Promote a livable city by
re-establishing and maintaining healthy forested
parklands throughout Seattle**

Restore and maintain 2,500 acres of forested parklands by 2025

FIELD WORK

Evaluate conditions and prioritize restoration sites using Tree-iage Model

Implement restoration optimizing ecological function

Use 4-phase approach   Follow BMPs

Monitor and maintain sites over long-term

RESOURCES

Financial Resources

| Continue municipal funding | Raise $3M by 2009 | Develop long-term stable City funding |

Paid Staff & Labor

| Provide sufficient staff to support field work, volunteer mgmt & GSP programs | Deploy paid crews • priority sites lacking sufficient volunteer support • Sites w/ difficult conditions |

Volunteer Labor

| Increase volunteer hours to 100,000/yr by 2010 | Increase productivity by providing support & materials to volunteers |

COMMUNITY

Residents support/demand restoration and maintenance of forest parklands

| Create broad understanding of issue & support for GSP as solution | Encourage business to contribute to program goals |

Volunteers are committed, enthusiastic partners

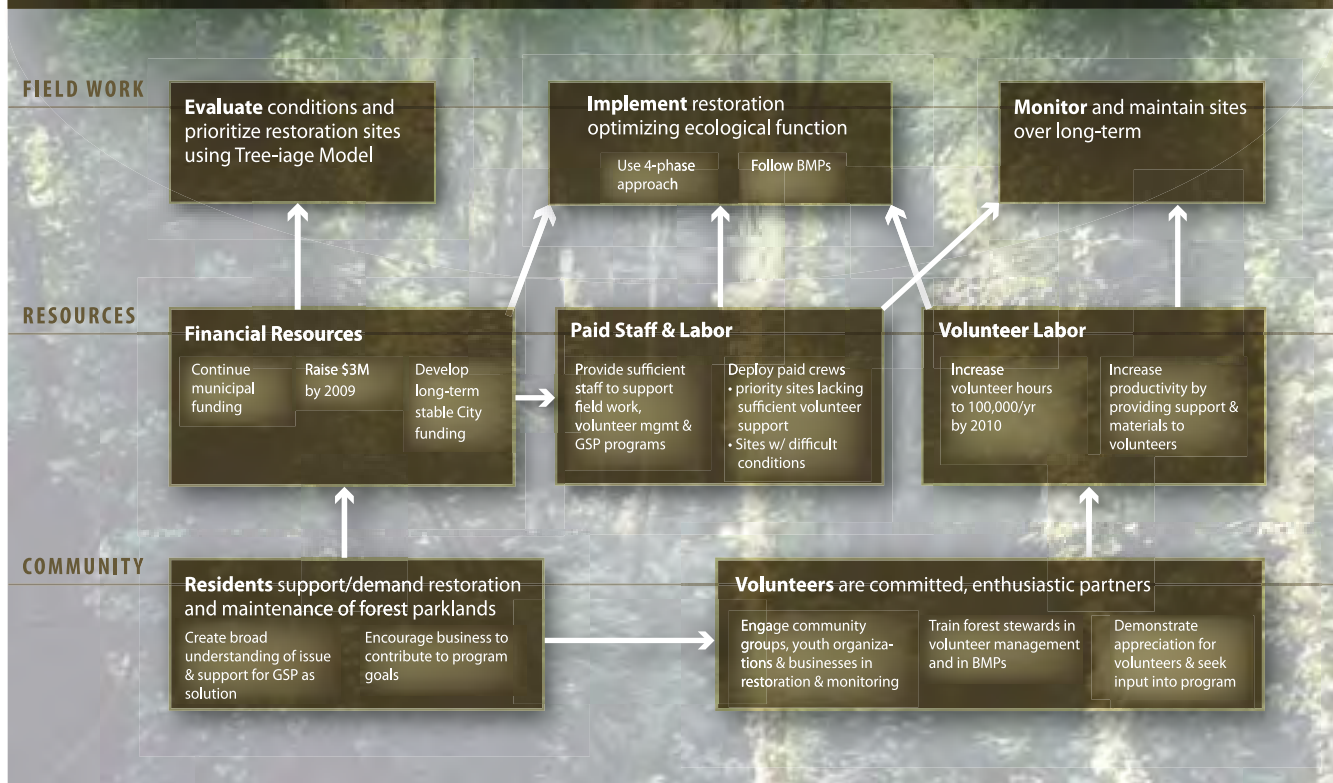| Engage community groups, youth organizations & businesses in restoration & monitoring | Train forest stewards in volunteer management and in BMPs | Demonstrate appreciation for volunteers & seek input into program |

Figure 8.   Balanced Scorecard Strategy Map (Detailed)

3.1 Field Work

Field work for the Green Seattle Partnership will include evaluation and prioritization of forest stands. This chapter describes the restoration strategies to be used to implement forest restoration work.

Objective 1: Evaluate Citywide Forest Stand Conditions

Our urban forests are highly fragmented, highly disturbed, and heavily invaded. Traditional forest analysis methods and management tools do not adequately address the problems of urban forest landscapes. Over the past 10 years, Parks, SPU, and nonprofit partners, including SUNP, have developed new analytical tools for forest restoration in the Seattle area. Green Seattle Partnership members will work to refine these methods and to develop new techniques.

DEFINING THE WORK AREA

The Green Seattle Partnership work area includes the more than 2,500 acres of forested parklands owned by the City (see Figure 2). Forested parklands are defined as parks with 25% or greater tree canopy coverage. While either landscaped parks with a less dense forest or street trees make important contributions to Seattle's urban forest, they have not been included in the Green Seattle Partnership. Areas not included in the partnership program are managed through other City programs administered by Parks, SDOT, DPD, and City Light.

EVALUATING FOREST CONDITIONS

Green Seattle Partnership analysis of existing forest conditions has relied heavily on information obtained from the SUNP. In 1999 and 2000, SUNP studied habitat on public lands in Seattle as part of a long-range strategic planning effort with Parks. Each park was divided into many distinct habitat units. SUNP then inventoried the types and sizes of trees, shrubs, grass, and invasive plant coverage.

SUNP collected data on specific vegetation composition within each habitat unit (Figure 9). Each habitat unit with at least 25% tree canopy is considered "forested." Seattle's 2,500 acres of forested parklands generally fit into five broad forest cover types:

- Conifer forest (>75% conifer trees)
- Madrone forest (>30% Pacific madrone trees)
- Conifer-deciduous mixed forest (at least 30% conifer and 30% deciduous trees)
- Deciduous forest (>70% deciduous trees)
- Riparian forest (forested areas within the zone of influence of streams).

TREE-IAGE MODEL: A New Management Tool for Evaluating Urban Forest Condition

The condition of forest stands in Seattle varies greatly. Some stands may contain mature, 100-year-old conifers with a rich collection of Northwest native understory plants. Other stands contain mature red alder and big-leaf maple with significant non-native blackberry and ivy patches. Given the wide variation, we developed an approach, called the Tree-iage model, to assess conditions. The Tree-age model may be applied broadly to evaluate citywide forest condition or in individual parks to help define park-specific restoration priorities.

The Tree-iage model uses triage strategy to assess forest stand condition, based on tree composition and invasive species cover. In the absence of development, Seattle's forests would have been dominated by conifers. In general, conifer stands are classified as high-value because over time they provide greater benefits than shorter-lived deciduous trees. In some areas, such as steep eroding slopes, the preferable species composition may not be conifers. This, however, is a gross analysis based upon large-scale data. As work progresses, City urban foresters will do site-by-site analysis to assure the most appropriate species composition is chosen for each site.
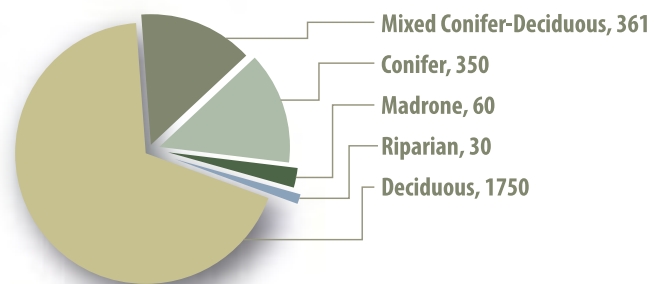

Mixed Conifer-Deciduous, 361
Conifer, 350
Madrone, 60
Riparian, 30
Deciduous, 1750

Figure 9. Forest Types by Acreage

Using SUNP data, our staff assigned each SUNP forest habitat unit to one of the following tree composition categories (Figure 10):

- **High-value:** Seattle's highest-quality forest stands are dominated by mature, native evergreen canopy species with more than 50% native conifers, madrone, or forested wetlands canopy cover.

- **Medium-value:** areas that have more than 25% native tree canopy cover, but less than 50% cover by conifers or other native evergreens.

- **Low-value** areas are forested, but have less than 25% native tree canopy cover.

Tree-iage analysis also identifies invasive species threats to forested parklands. The following are the threat levels from invasive plants in Seattle's urban forests:
- High threat – more than 50% invasive coverage
- Medium threat – 5 to 50% invasive coverage
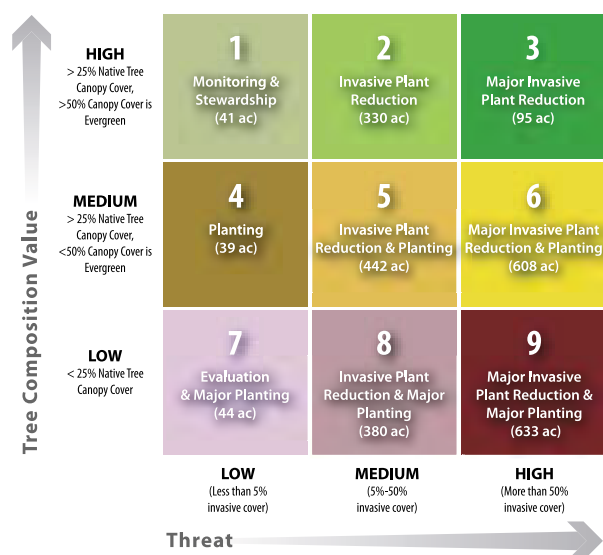- Low threat – less than 5% invasive coverage.

Figure 10. Tree-iage Analysis Categories of Invasive Threat Levels in Seattle Forested Parklands

Each habitat unit has been assigned a tree composition and threat ranking and assigned to one of nine possible Tree-iage categories (see Figure 10). The upper tier of this matrix, categories 1 to 3, represents our highest-quality forest in terms of tree composition. These are stands dominated by mature conifers, madrones, or riparian forests.

The amount of invasive plant presence increases from left to right. The lower right corner of the matrix identifies forest stands in the worst conditions: few to no evergreen trees and an understory dominated by invasive plants. Citywide, more than 50% of the 2,500 acres of Green Seattle Partnership acreage falls under "high invasive threat" (Tree-iage categories 3, 6, or 9). Less than 20% of the partnership acreage is classified as "Conifer" stand, which is the generally desired condition for forested parklands. Figure 11 shows the distribution, location, and extent of each Tree-iage category throughout the city.

Green Seattle Partnership staff will update SUNP data to reflect the progress of the restoration and evaluate changes in acreage among the Tree-iage categories over time. In the future, we plan to improve this assessment method by better valuing unique, sensitive, and rare sites in the Tree-iage analysis. Features we would like to incorporate in the model include slide areas and special management areas such as view corridors. In the future, we will expand threat evaluation to consider the dominance of mature trees and a site's ability to regenerate naturally. See **Appendix A**, Forest Condition and Restoration Strategies, for detailed description of the Tree-iage model.

Objective 2: Prioritize Parks

Tree-iage analysis reveals the dramatic need for forest restoration throughout Seattle. More than 300 park properties lie within Green Seattle Partnership acreage. And more than 100 'Friends of' groups and individuals registered with citywide Adopt-a-Parks programs are eager to restore them. We will need to prioritize efforts to balance high-priority ecological sites and sites with existing volunteer support. We will also seek to evenly distribute restoration efforts to underserved communities.

During the first 5 years of the partnership (2005 to 2009), most of our work will focus on parks with existing community volunteers and well-studied forest stands. Within those parks, we'll concentrate resources on protecting and maintaining high-quality habitat units identified by Tree-iage analysis, especially forests located near fish-bearing streams.

A portion of our work in the first 5 years will focus on underserved communities, where restoration activities have been minimal and volunteerism limited. In these areas, we will rely on paid crews to restore ecologically high-priority sites while we work to build volunteer support.
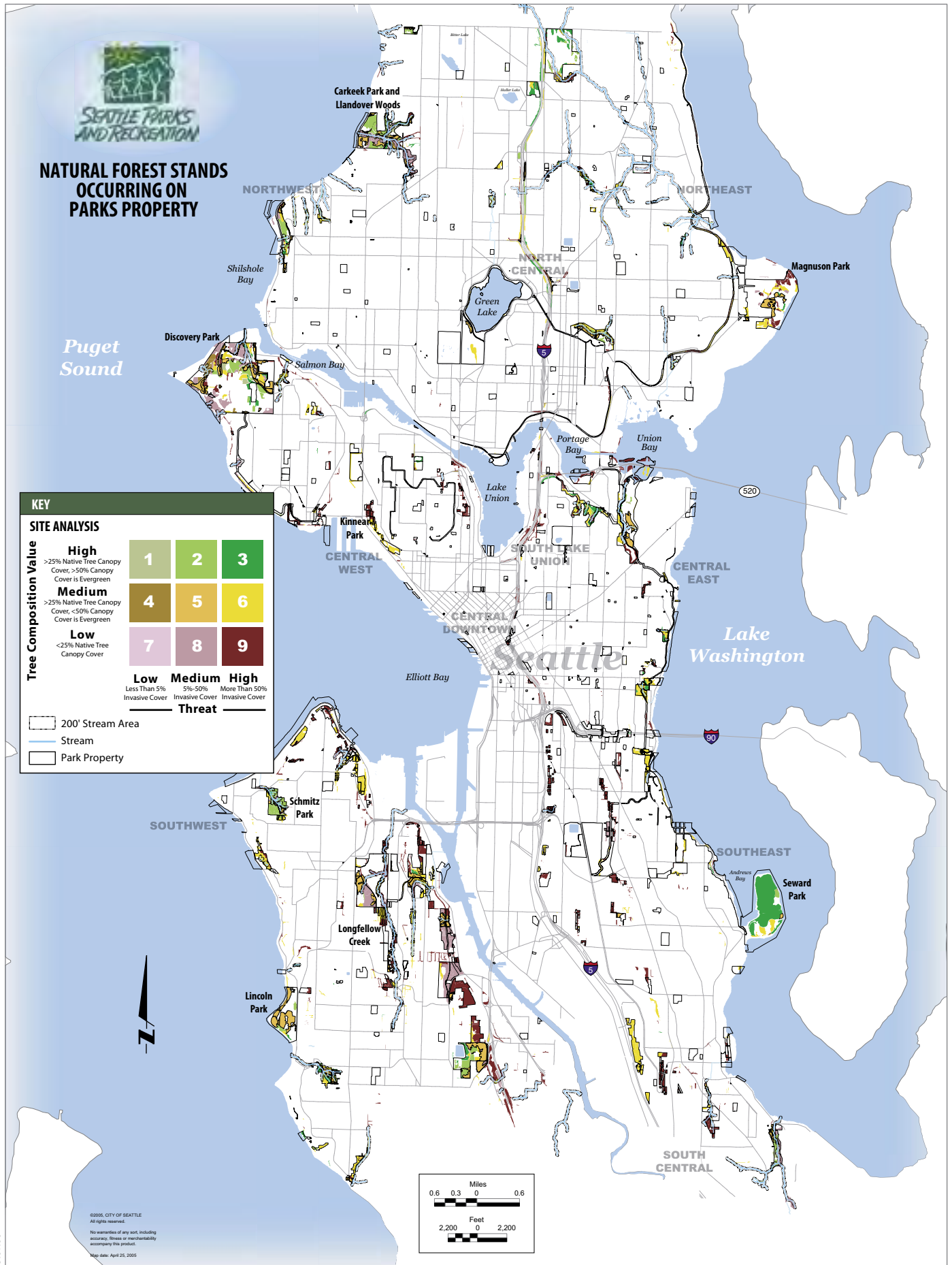
KEY

SITE ANALYSIS

Tree Composition Value

High
>25% Native Tree Canopy
Cover, >50% Canopy
Cover is Evergreen

| 1 | 2 | 3 |

Medium
>25% Native Tree Canopy
Cover, <50% Canopy
Cover is Evergreen

| 4 | 5 | 6 |

Low
<25% Native Tree
Canopy Cover

| 7 | 8 | 9 |

| Low | Medium | High |
| Less Than 5% Invasive Cover | 5%–50% Invasive Cover | More Than 50% Invasive Cover |

Threat

⌐⌐⌐ 200' Stream Area
— Stream
☐ Park Property

NATURAL FOREST STANDS OCCURRING ON PARKS PROPERTY

SEATTLE PARKS AND RECREATION

Carkeek Park and Llandover Woods

NORTHWEST

Shilshole Bay

Discovery Park

Puget Sound

Salmon Bay

Kinnear Park

CENTRAL WEST

NORTH CENTRAL

Green Lake

Portage Bay

Union Bay

Lake Union

SOUTH LAKE UNION

CENTRAL DOWNTOWN

Elliott Bay

NORTHEAST

Magnuson Park

520

CENTRAL EAST

Lake Washington

Seattle

SOUTHWEST

Schmitz Park

Longfellow Creek

Lincoln Park

SOUTHEAST

Andrews Bay

Seward Park

SOUTH CENTRAL

N

| Miles |
| 0.6 0.3 0 0.6 |

| Feet |
| 2,200 0 2,200 |

Figure 11. Tree-iage Categories in Seattle Forested Parklands Map

The decision tree shown on Figure 12 will be used to determine which parks will be prioritized for restoration during the first 5 years of the program (Figure12).

In 2009, we will revisit the park and site selection processes to ensure we are meeting project goals. We will then select parks for the next 5 years (2010 to 2014) of project implementation. See Appendix B, Green Seattle Partnership Five-Year Strategic Plan and Five-Year Benchmarks, for more detail.

Objective 3: Prioritize Restoration Sites within Parks

As individual parks are brought into the Green Seattle Partnership program, forest stands within those parks must be prioritized for annual and 5-year restoration plans. The Tree-iage model can be applied within a park to help prioritize restoration sites. Conifer stands with few to no invasive plants, Tree-iage Category 1, will be immediately given the protection of annual monitoring and maintenance. Other SUNP habitat units with high-value forest stands, including conifer-dominated Tree-iage Categories 2 and 3, will be considered high priorities for protection and restoration. Providing care for recently restored sites is also a priority. As more resources flow into the program, other Tree-iage categories will be worked to establish conifers or other desired canopy types.

Parks with active restoration in progress will be considered current Green Seattle Partnership sites and will be supported and monitored by staff. We will give full credit to our hard-working volunteers for their current activities. By bringing these acreages into Green Seattle Partnership coverage, we offer additional resources such as monitoring programs and paid crew time.
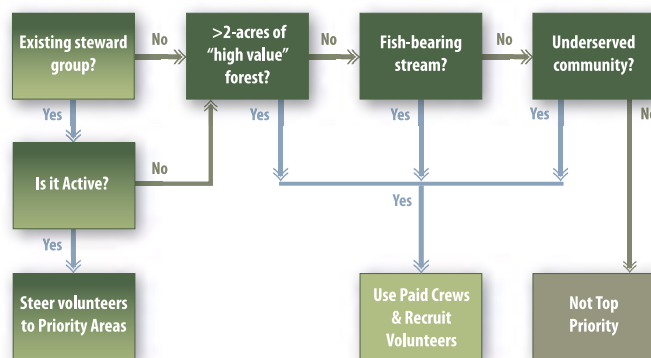

Figure 12. Park Selection Process for First 5 Years of Green Seattle Partnership

Objective 4: Implement Restoration

The use of BMPs—including a 4-phased approach to restoration—is designed to maximize ecological benefits by creating a high-quality, high-functioning forest once restoration is complete.

FOLLOW BEST MANAGEMENT PRACTICES

Parks has developed BMPs to help guide forest restoration field work. These BMPs cover topics including site planning, invasive control methods, planting and plant establishment, and volunteer management. Such techniques evolve, and we will update the BMPs as we learn more. A version of the BMPs suited for volunteer activities, a Forest Steward Field Guide, is available on the Green Seattle Partnership website.

Parks will train City and commercial crews in BMPs. Parks currently offers continuing education courses to Parks staff on citywide BMPs, including integrated pest management and integrated vegetation management. It also periodically offers additional courses covering specific technical methods. These programs will be expanded through the Green Seattle Partnership. A City urban forester will lead BMP training on restoration-specific techniques.

USE 4-PHASE APPROACH TO RESTORATION FIELD WORK

One of the unique BMPs developed by Green Seattle Partnership is the 4-phase approach to restoration field work. This approach, developed in the last decade, represents Parks' most successful overall restoration technique. (Table 2). It recognizes that it takes several years to restore a site, and that restoration activities fall into four major categories:

1. Invasive removal
2. Secondary invasive removal and planting
3. Plant establishment
4. Long-term maintenance.

Because forest health varies from stand to stand and some work is ongoing, not every site will start at Phase 1.

Phase 1. Invasive Plant Removal

Major invasive plant reduction will be required in sites with 50% or greater invasive cover (high threat from invasive species). Specific removal techniques will vary by species. In areas with high levels of invasive plant coverage, it may take more than a year to complete the initial removal. Many of these areas will require paid crews or special equipment. These sites will also require a large investment of both funding and community volunteers to ensure restoration.

Areas with 5% to 50% invasive cover (medium threat from invasive plants) still require invasive removal. Invasive growth in these spots is patchy. Generally, projects in the "invasive plant reduction" categories are appropriate for community volunteers.

Phase 2. Planting and secondary invasive removal

Before planting, a second round of invasive removal is conducted. Areas with more than 25% native tree cover but less than 50% cover by conifers, will generally be in-filled with native conifer species. Areas estimated to have less than 25% native upper-tree canopy cover will require extensive planting with native conifers, trees, and shrubs. Most phase 2 planting projects are appropriate for community volunteers.

Phase 3. Plant establishment

This phase repeats invasive removal and includes plant establishment. As needed, sites are weeded, mulched and watered. Sites may stay in Phase 3 for up to 3 years.

Phase 4. Long-term monitoring and maintenance

The final phase is long-term site stewardship, including monitoring by paid crews and volunteers to provide information for long-term site maintenance. Monitoring may be as simple as neighborhood volunteers patrolling park trails to find invasive plants and hosting small monthly or quarterly work parties. Forest stands that currently have less than 5% invasive cover and more than 50% native forest cover (Tree-iage Category 1) are already in Phase 4.

The 4-phase approach can be applied to the Tree-iage model as shown in Figure 13 (see page 28). Parks' urban forestry staff will evaluate areas of "low value" and "low threat" case by case to determine if it is appropriate to convert the sites to native forest. In areas where site conditions and timing are appropriate, we will do major plantings.

Table 2. The 4-Phased Approach to Restoration Field Work

Phase	Tasks	Range of labor investment (hours/acre)	Average labor investment (hours/acre)
1	Invasive plant removal	50 to 800	400
2	Planting and secondary invasive removal	50 to 200	100
3	Plant establishment	25 to 100/year for up to 3 years	40/year for up to 3 years
4	Long-term monitoring and maintenance	0 to 20 annually	5 annually

Build and Maintain Trails

The Green Seattle Partnership recognizes that to build healthy communities we also need to build and maintain safe and aesthetic trail access on Seattle's Public Forests. The partnership is working in coordination with the existing Parks Trails Program to ensure that trail construction and maintenance is consistent with the Green Seattle Partnership goals and objectives.

ESTIMATED RESTORATION COST

On average, restoration costs range from $2,800 to $28,000 for a single acre, depending on site conditions. The estimated average cost per acre for restoration varies by Tree-iage category (Table 3). Each category has a different restoration strategy and level of effort associated with it. Each site has unique features that define costs. We have estimated restoration costs based on the costs of past projects and the amount of invasive plants to be removed, amount of new planting required, and effort required to establish and maintain new plants. Based on Tree-iage analysis, field work is expected to cost about $52 million.

Table 3. Estimated Costs of Restoration

Tree-iage category	Average restoration cost/acre	Acres	Total Cost/ category
1	$2,800	41	$114,800
2	$9,500	330	$3,135,000
3	$15,400	95	$1,463,000
4	$9,500	39	$370,500
5	$16,100	422	$6,794,200
6	$22,000	608	$13,376,000
7	$15,400	44	$677,600
8	$22,000	380	$8,360,000
9	$27,900	633	$17,660,700
	Total	2,592	$51,951,800

See **Appendix A**, Forest Condition and Restoration Strategies, for detail on the Tree-iage model.
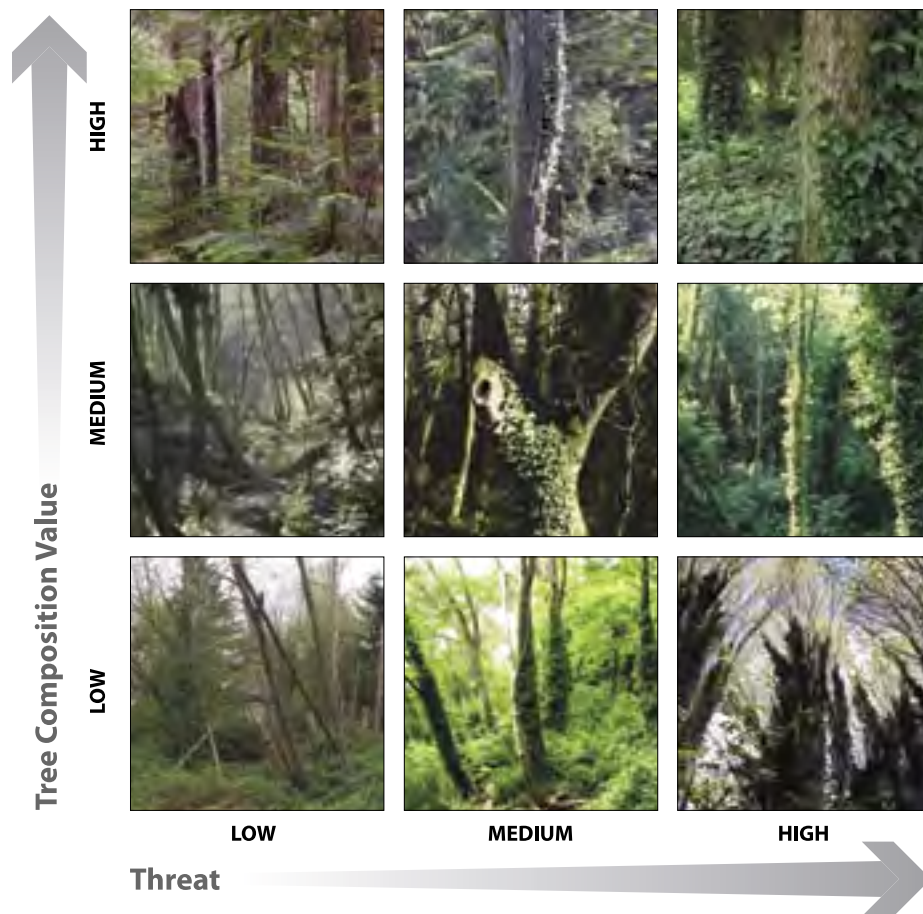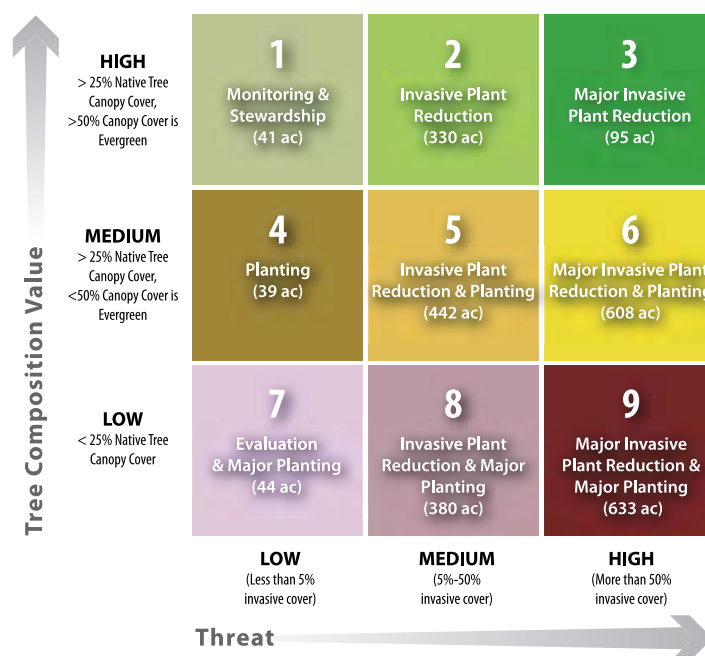
Figure 13. Tree-iage Model Restoration Strategies

Objective 5: Monitor and Maintain Sites over the Long-Term

To be sustainable, Seattle's forested parklands need ongoing maintenance. As each forest stand is restored (Phases 1 to 3), it enters the monitoring and maintenance phase. Every year, the acreage in this phase will grow, until all 2,500 acres are in this phase. The Green Seattle Partnership goal is that at program maturity in 2025, all 2,500 acres will be at maintenance levels only.

But without ongoing, long-term volunteer investment in monitoring and maintenance of restored areas, Seattle's forests will fall back into neglect. For that reason, the volunteer commitment will be paired with City resources. Each acre restored under the partnership will be monitored and maintained until 2024. We'll continually check our work against the best available forest science to define optimal plant stock and sizes, watering regimes, soil preparation, and other forest management techniques.

We will document monitoring and maintenance events to describe locations, workers, and tasks. And we will test and evaluate how effectively various restoration techniques remove invasive plants and promote native plant survival. This information will inform the ongoing monitoring and maintenance conducted by volunteers and the City of Seattle after 2025.

3.2 Resources

The Green Seattle Partnership's overall resource development goal is to inspire community participation and financial support so that sufficient resources are available both to complete restoration work and provide long-term maintenance. To meet our goals, we will need approximately $52 million in addition to volunteer support. Initially, funding from the City will be matched by funding from private donors and in-kind support from volunteers. As the partnership grows, a stable, long-term public funding source will be needed to ensure long-term forest restoration and maintenance. Corporate partners, foundations, and private donors will play an important role in funding. We will investigate the feasibility of innovative market-based funding mechanisms—such as selling credits for carbon offsets or stormwater management—for providing a portion of the long-term funding (Figure 14).

We anticipate that volunteer hours will grow from 60,000 per year in 2005 to 100,000 per year in 2009, valued at an estimated $15 per hour. Volunteer work may range from a single, dedicated individual to a 'Friends of' group to a large community group or a business volunteering for one day. Volunteerism is key to accomplishing the work objectives and building citywide citizen support. By 2025, the growing volunteer contribution of time will be an integral part of the ongoing monitoring and maintenance of all 2,500 acres and will require additional staff support.
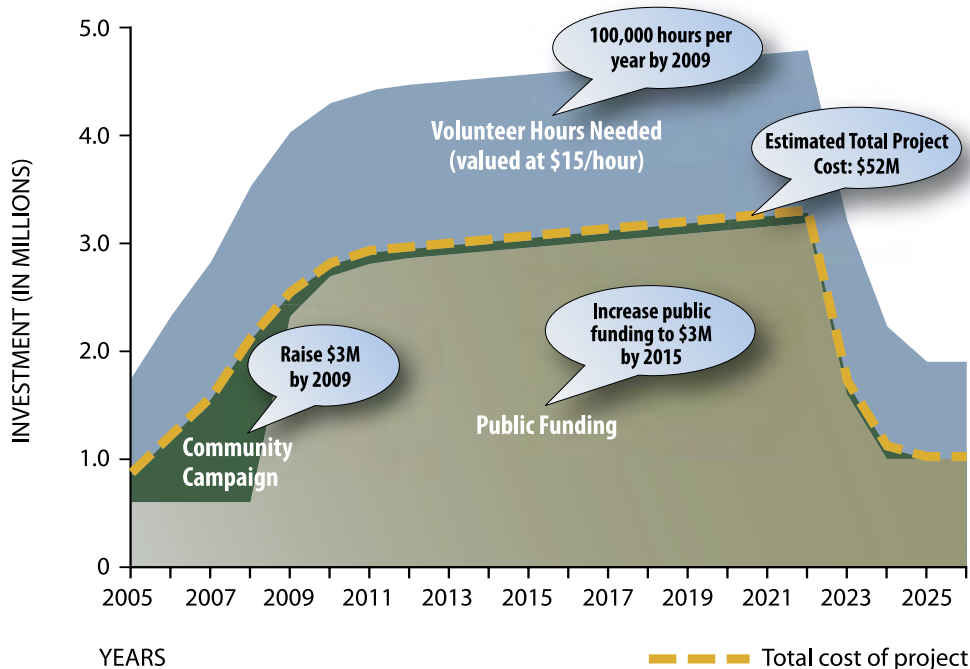

Figure 14. Green Seattle Partnership Funding Sources

FINANCIAL RESOURCES

Objective 1: Continue Current City Funding

During the first 5 years (2005-2009), in addition to staff support, City agencies will continue to direct existing funding streams to the partnership. Near-term City funding will come from the following:

- SPU's stormwater drainage capital improvement program (CIP) funds ($150,000 per year from 2005 through 2010).
- Seattle Parks and Recreation urban forestry CIP funds ($325,000 per year from 2005 through 2007).

Objective 2: Raise $3 Million by 2009

During the first 5 years, Cascade Land Conservancy plans to raise $3 million from philanthropic support and community awareness through a widespread Green Seattle Partnership Community Campaign. That funding will greatly accelerate the amount of invasive removal, tree planting, and monitoring that can be done by 2009 in priority areas.

The Community Campaign is divided into six phases, with funding benchmarks and tasks identified for each year (Table 4). External fund raising counsel will guide campaign efforts and develop a fund raising plan. Complete details will be available in the Fund Development Plan, which is currently in draft form.

Table 4. Community Campaign Actions for the Green Seattle Partnership: 2004 to 2009

Phase/Timing	Action
Phase 1 Preparation 2004	• Develop and clarify the case for support • Secure a challenge grant ($50,000) to launch program • Targeted proposal generation to match the challenge grant • Develop prospect lists
Phase 2 Planning and Early Proposal Generation 2005 – Winter 2006	• Generate proposals and individual "asks" to raise $95,000 in 2005 • Generate proposals and "asks" to raise $600,000 in 2006 • Outline campaign timetable—identify and enlist volunteers to help solicit lead gifts • Establish campaign protocols, policies, and feasibility issues • Recruit community volunteers to serve in leadership roles • Select a fund raising counsel to conduct feasibility study • Hire a campaign manager to implement fundraising and work on daily issues with counsel
Phase 3 Lead Gifts Phase 2006 – 2007	• Following the campaign plan, continue to recruit community volunteers and develop campaign committees and timelines • Create and implement a solicitation strategy to secure leadership gifts. Raise $950,000 in 2007 • Generate individual, corporate, and foundation proposals as part of the lead gifts phase of major gift solicitation
Phase 4 Major Gifts Phase 2007 – 2008	• Create and implement a major gifts strategy and program to secure leadership gifts. Raise $1,200,000 in 2008. • Determine the official "campaign kick-off" once threshold of funding has been secured • Raise at least 50% of the overall goal before the public launch
Phase 5 Community Phase 2007 – 2008	• Major public relations and media kick-off • Direct mail, phone, and event solicitation to raise $300,000 by 2009 • Widespread programs for community engagement
Phase 6 Celebratory Phase 2009	• Finish general solicitations, donor recognition, and volunteer appreciation • Hold a large community celebration event to announce achievement of the goal

Objective 3: Develop Long-term Stable Public Funding

Public funding needs will significantly increase to $2.5 million by 2010 and $3 million by 2015. Over the next several years, we will lay the groundwork for establishing long-term public funding sources to meet that need. That source or sources will provide the funding for implementation of the second phase of the partnership. In 2023, the funding stream needs will significantly decrease as the Green Seattle Partnership enters into the final phase of restoration.

Several possible mechanisms for generating this funding could be tapped either separately or in combination to meet the stable public funding goal:

1. Propose a City levy
2. Increase fees or rates for utility ratepayers for management of forested parklands as stormwater management (and other ecosystem services) infrastructure
3. Allocate a portion of the City's annual Conservation Futures Tax to support for the maintenance of urban forests lands acquired with Cumulative Reserve Fund (CRF) funds
4. Increase the City's contribution of Real Estate Excise Tax (REET) funds to its already funded urban forestry program
5. Include Green Seattle Partnership funding in a countywide levy
6. Seek separate state and federal funding for forest restoration for urban areas, or cities throughout Washington
7. Set up an endowment that would generate enough annual interest to support the partnership

Park's Natural Area Crews work on key reforestation efforts throughout the city.

We will also investigate the feasibility of market-based mechanisms, such as selling carbon credits, for reforestation generated through the partnership. Corporate philanthropy is currently thought to play a minor role in funding the second phase of the partnership. Ongoing corporate and foundation support may continue to play a role as needed throughout the duration of the program to assist with the total project cost.

PAID STAFF AND CREW RESOURCES

Objective 4: Provide Sufficient Staff to Support Field Work, Volunteer Management, and Partnership Programs

The Green Seattle Partnership is a public-private venture between the City of Seattle and the Cascade Land Conservancy and was created solely to restore Seattle's urban forest. Paid staff from the City and CLC will continue to be necessary to carry out the program. As discussed under "Roles and Responsibilities" in Section 2, The Solution, City and CLC staff will conduct the following activities:

- Communications
- Environmental education
- Field restoration
- Forest Steward program management
- Fund development
- Restoration planning and technical support.

A new full-time position, the Green Seattle Partnership project manager working for the CLC, has been created to support all of the above activities and, in particular, to support restoration volunteers. The project manager serves as the direct contact and manager for all Forest Stewards. Having a single contact who coordinates volunteers streamlines planning and will enable volunteers to spend time more efficiently working in the field. Working with a Parks' urban forester, the project manager will help volunteers prioritize restoration work in parks and develop annual work plans.

The project manager reports directly to, and prepares annual work plan reports for, the Executive Council. The project manager, Parks' senior urban forester, an additional urban forester, and SPU managers will coordinate committees in support of field work, resources, and community. The project manager will record minutes at committee meetings and distribute a monthly Green Seattle Partnership Progress Report.

A Parks' urban forester and the project manager will work with Parks' district staff to coordinate distribution of materials and resources for on-the-ground restoration. SPU staff will support both volunteer creek steward and paid crew work in support of riparian habitat that overlaps with partnership work areas.

Objective 5: Support Job-Training Programs and Deploy Paid Crews

Paid crews will be needed for priority sites that lack sufficient volunteer support or sites with difficult conditions. Some sites will be inappropriate for volunteer groups. Extreme invasive plant infestations, steep slopes, riparian areas, and wetlands are better-suited to Parks' natural areas crews or paid contract crews. The partnership will prioritize contracting with organizations that provide training and development of a "Green Collar Workforce" with living wage, stable jobs focused on forest habitat restoration. The following activities will support this objective:

- Parks' natural area crews will continue to work on key reforestation efforts, volunteer support, BMP training, and hazard tree management.
- Nonprofit employment-training crews (currently, Seattle Conservation Corps and EarthCorps) will be hired for work both in volunteer management and at difficult sites. The partnership will prioritize contracting with organizations that provide training

Job training programs such as the Seattle Conservation Corps have played a significant role in urban forest restoration.

- Private landscape and habitat restoration companies (commercial crews) will be hired for highly technical projects as budget and need dictate.

VOLUNTEER RESOURCES

Objective 6: Increase Volunteer Capacity to 100,000 Hours per Year by 2009

We anticipate that annual volunteer time will grow from 60,000 hours in 2005 to 100,000 hours in 2009. To meet the needs of all volunteers, the Green Seattle Partnership will need to provide several ways in which volunteers can participate. We will hold a variety of large volunteer events in conjunction with business and community groups. Through the Forest Steward program, we will coordinate and develop regular work parties in parks that volunteers can attend as often as they like. Restoration activities will range from large invasive removal projects to planting native conifers to monitoring restoration areas.

We will provide opportunities for individuals of varying physical ability and time commitment to get involved. We will try to move volunteers to increasing levels of volunteerism. For example, people who participate in one-day events with a business or community group will be invited to participate in regular work parties. Frequent volunteers may be asked to shoulder more responsibility as Forest Stewards. To do this, we will need to keep existing volunteers motivated by showing them how their efforts—in concert with those of many other volunteers—have a huge positive impact on Seattle's forested parklands.

In addition to encouraging current volunteers, the Green Seattle Partnership will need to recruit new ones. We will do this largely through community outreach, and will emphasize the critical need for forested parklands and the important role volunteers play in restoration. We will also use partnerships with community and business groups and schools to introduce new volunteers to the program.

An important component of outreach efforts will be to communicate with neighborhoods that have not traditionally participated in forest restoration. We will increase outreach to these communities by working with local community groups and youth organizations, schools, and businesses. The Green Seattle Partnership will build stronger ties with the Seattle Public School District and provide opportunities for students who want to complete community service requirements for graduation.

Objective 7: Increase Productivity by Providing Support and Materials to Volunteers

Green Seattle Partnership restoration projects involve groups such as community volunteers, staff from the City and the CLC, and paid crews. We can help volunteer groups with materials purchasing, tools, site plans, large event coordination, and grant applications. We will increase field work efficiency by creating clear lines of communication, coordination, easy access to resources, and support through our project manager.

Volunteers, partnership staff, and paid crews doing restoration work can use the following resources and materials through the partnership:

- Forest Steward training events and the Forest Steward Field Guide
- Project monitoring and documentation to assess and maximize restoration efforts
- Help recruiting volunteers
- Restoration materials such as plants, mulch, and tools
- Volunteer networking between Forest Steward groups through the interactive Green Seattle Partnership website
- Help with watering and maintenance.

3.3 Community

An informed, involved, and active community plays an important role as volunteers, as voters, and as contributors to maintaining Seattle's forests for generations to come. The Green Seattle Partnership will provide the public outreach and education necessary for Seattle residents to make that connection.

Objective 1: Create Broad Understanding and Support for Green Seattle Partnership as the Solution

We will convey information clearly, concisely, and consistently. Our message must inspire community participation. The starting point is to make the public aware that Seattle's trees are slowly dying, and that the solution is forest restoration through the Green Seattle Partnership.

The first step will be to create broad media coverage of the problem and the consequences of inaction. With the initial push from the Seattle Post-Intelligencer feature of November 7, 2005, we will seek major media outlets, community newspapers, and public access television. We will also launch the Green Seattle Partnership website to provide additional information on invasive plants and why not to plant them, restoration techniques, and volunteer events. CLC will work with a public relations firm to develop a Communications Plan for the Green Seattle Partnership that details specific strategies for public education and outreach.

More than 100 groups are registered with Parks as volunteers for outdoor work in some capacity. Many belong to 'Friends of' groups. Other volunteer groups include EarthCorps, Volunteers for Outdoor Washington, and businesses, such as Microsoft and Safeco, that have rallied large groups to work on forested parkland restoration projects.

CLC will collaborate with its local partners to educate and involve their members in the partnership. These local partners include the Seattle Parks Foundation, Friends of Seattle's Olmsted Parks, the Seattle Audubon Society, and the Washington Native Plants Society. For a list of current groups working to save Seattle's forested parklands see Appendix C.

As people learn of the crisis in Seattle's forests, we will also need to be clear in our message that the solution requires a significant investment. Increased public interest in forest restoration will help raise private dollars toward this cause. But that's not enough to sustain forested parklands for the long term. We also need to secure substantial permanent public funding for ongoing restoration and maintenance.

Objective 2: Demonstrate Appreciation for Volunteers and Seek their Input into Program

The Green Seattle Partnership will motivate existing volunteers and recruit new ones through recognizing volunteers' accomplishments and tapping their expertise as we improve the program.

We will celebrate volunteers' achievements and emphasize the crucial role they play in restoring Seattle's forested parklands. Communication activities such as recognition of outstanding efforts and service rewards will be published on the Green Seattle Partnership website and in neighborhood newspapers. Each volunteer will receive a complimentary CLC "Sweat Equity" membership, which entitles them to:

- Subscription to CLC's newsletter, providing information on exciting land conservation and Green Seattle Partnership projects in the Seattle area.
- Invitations to special events, stewardship work parties, member hikes, and tours of conserved lands.

Volunteers are also a valuable source of on-the-ground expertise. Consistent with our adaptive management approach, we will ask volunteers to give their input into our annual work plan. We will track volunteer efforts and results in our Tree-iage system, and we will seek their advice on which BMPs have worked and which may need reassessment.

Objective 3: Engage Community Organizations, Youth Groups and Businesses in Restoration and Monitoring

In addition to the existing 'Friends of' volunteers who regularly work in Seattle's parks, we will also recruit community and youth organizations and businesses to participate directly in restoration activities. Corporate and organization work party events not only get the work done, they create awareness about the problems facing our forests while volunteers gain personal fulfillment as part of a cutting-edge restoration program of national significance.

Volunteer events with community organizations, youth groups, and businesses may be led by a Forest Steward, nonprofit organizations, and Parks or CLC staff. We plan to use these strategies to engage this core set of volunteers:

- Recruit organizations such as youth groups, faith-based groups, clubs, college students' organizations, community centers, businesses and schools. These organizations can dedicate their time to a single specific park or to several parks in their area.
- Host annual work sessions at Green Seattle Partnership parks on the Day of Caring and Earth Day. Encourage large groups of community volunteers and businesses to participate.
- Provide summer job-training programs for youth in underserved communities.

Objective 4: Train Forest Stewards in Volunteer Management and in BMPs

The intent of the Forest Steward program is to build a legacy of restoration, maintenance, and stewardship around forested parklands. In the first 5 years, we expect to train and support 65 volunteer Forest Stewards in BMPs, volunteer management and motivation, and reporting. The stewards will direct volunteer restoration efforts in the field and act as leaders in their communities. Stewards will garner support for their local forests and greenways. We will support them with a full-time Green Seattle Partnership project manager who will provide long-term guidance and technical assistance to the stewards' site planning and restoration work. The project manager will create a framework for evaluation and recognition of Forest Stewards.

As resources allow, we will train new Forest Stewards to do the following:

• Serve as key contact for the Green Seattle Partnership
• Organize and lead volunteer forest restoration events and activities in the steward's park(s)
• Coordinate with our staff to develop site restoration plans
• Complete an annual report on restoration activities
• Attend an annual training event.

Reaching out to our existing volunteer network will be a top priority. Many seasoned veterans of long-term restoration work have as much as 15 years of restoration experience. While not all existing volunteer projects will be on the priority list for the first 5 years of the partnership, we will work to integrate them and our valued partners into the program.

Objective 5: Encourage Businesses to Contribute to Program Goals

Business contributions to the Green Seattle Partnership goals will occur through four basic activities:

• Cash Donations
• In-kind contributions (equipment and materials)
• Employee participation in Green Seattle Partnership events
• Refraining from planting or selling invasive plants.

We will seek business participation, including donations and in-kind contributions. We'll recruit corporate sponsors to hold employee stewardship events at Green Seattle Partnership sites and ask that businesses contribute the supplies and materials necessary for the event.

We will encourage landscape supply businesses to refrain from selling plants that the King County Noxious Weed Control Board lists as "Weeds of Concern." These plants include yellow flag iris and varieties of English ivy. While these plants may be as economically destructive as some Class A noxious weeds, they are not restricted in King County. The Green Seattle Partnership will work with businesses directly, and through the outreach programs of King County and the state universities, to provide education on invasive plants and suitable alternatives for sale. We will also seek opportunities to convey our message on gardening shows on local television channels.

As of March 2006, 40 community representatives from various 'Friends of' and 'Adopt-a-Park' groups have attended the Green Seattle Partnership Forest Steward Training.

4. ADAPTIVE MANAGEMENT

The primary goal of the Green Seattle Partnership is to re-establish and maintain a healthy, sustainable urban forest in perpetuity for the people of Seattle. The partnership is an intensive, one-time intervention to restore the health of Seattle's urban forest. After 20 years, labor and funding needs will be reduced to a maintenance level. We can achieve such healthy stasis only by careful management of resources.

Urban forests are complex ecosystems. The human systems that impact them, and ultimately must care for them, are equally complex. Any strategy to restore and maintain our urban forested parklands must systematically address a web of interconnected issues. We developed an adaptive management model in response to this complexity. (Figure 15).

Adaptive management systematically improves management policies and practices by ensuring that we learn from the outcomes of programs. It is a 5-step, iterative cycle of problem assessment, strategy development, implementation, monitoring, evaluation, and adaptation. Once the evaluation stage is complete, new information is used to re-assess the problem and develop new strategies as needed. Then implementation, monitoring, and evaluation occur and the cycle begins again.

This section describes how we will apply adaptive management to the measures developed with the Balanced Scorecard to track progress and measure success (Table 5, see page 36). The **Balanced Scorecard** approach to strategy development and program monitoring helps ensure that we take and successfully implement the actions across the entire strategy to reach our goal of restoring 2,500 acres by 2025. Simply monitoring field work at the outcome end of our strategy would not allow us to anticipate problems. The Balanced Scorecard allows us to track that we have garnered the resources and community support necessary for accomplishing the field work.

4.1 Monitoring

Two types of information monitoring will help us analyze effectiveness: program and field monitoring. Monitoring allows us to improve design and performance of partnership programs by measuring the effectiveness of strategies and techniques used. We will feed the results of monitoring back into our planning and methodology to increase effectiveness. Monitoring and evaluation will also provide accountability to funders and citizens of Seattle that we are meeting our goals.

Program Monitoring Plan

Monitoring will occur annually. At the close of each year, the Management Team will collect data on the measures in the balanced scorecard, and they will track progress toward the annual work plan goals and 5-year benchmarks. We will develop data management systems to record information pertinent to these measurements throughout the year so that progress can easily be summarized at year's end. For example, data on participants in volunteer restoration events will be entered into a database we will use to track the number of participants at events and how many times per year an individual volunteers.

Table 5 is the **balanced scorecard** for the three key elements of implementing the 20-year plan: field work, resources, and community. By measuring evolution toward each objective, we can assess the effectiveness of the strategies described in our implementation plan described in Section 3, Implementation. For example, we can't wait until a lack of volunteer support points out the need to change community volunteer outreach strategy. We need to track how effective our activities are throughout the life of the plan and, through adaptive management, make adjustments as necessary.
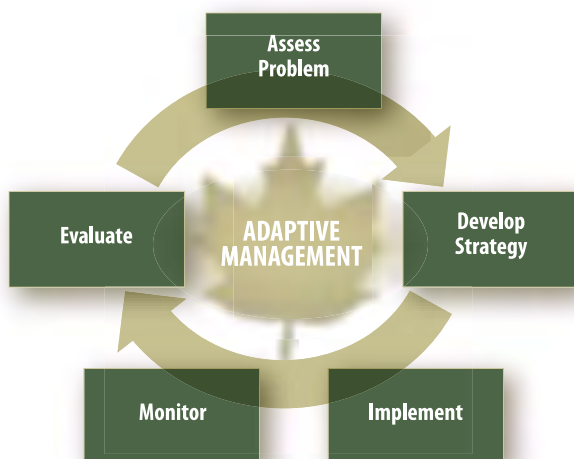

Figure 15. Adaptive Management

Table 5. The Balanced Scorecard

	Objective	Measure
	Restore and Maintain 2,500 acres of Forested Parkland by 2025	# of acres restored to annual goal
Field Work — All 2,500 acres are restored by 2025		
Evaluate	Evaluate conditions and prioritize sites for restoration	Annual work plan identifying restoration sites completed
Implement	Implement restoration projects optimizing ecological function	# of site restoration plans completed # of acres entered into restoration Best practices updated annually
Monitor	Monitor and maintain sites over the long-term	Annual monitoring report Maintenance is performed as indicated
Resources — Sufficient resources are available to complete restoration work and provide long-term maintenance.		
Financial	Monitor and maintain sites over the long-term	Annual monitoring report Maintenance is performed as indicated
	Raise $3 million by 2009	$ to annual goal
	Develop long-term, stable public funding source	Mechanisms in place by 2010 sufficient to meet need
Paid Staff & Labor	Provide sufficient staff to support field work, volunteer management, and partnership programs	# FTEs dedicated
	Deploy paid crews to priority sites lacking volunteer support or sites with difficult conditions	% of priority sites in annual plan not being restored by volunteer efforts entered into restoration % of contract crews trained in BMPs
Volunteer Labor	Increase number of volunteer hours to 100,000 per year by 2010	# of hours to annual goal
	Increase productivity by providing support and materials to volunteers	$ and hours/acre restored Avg # of hrs required to secure funding and approval for restoration projects
Community — An informed, involved and active civic community supports the GSP		
Residents	Residents support and demand restoration and maintenance of forested parklands through widespread understanding of the issue and support of GSP as solution	Survey - % of residents aware of problem and GSP, and who support the ban on sales of English ivy. Survey - % of residents supporting public funding for restoration and maintenance
	Encourage businesses to contribute to program goals	# of businesses supporting program through sponsorship, in-kind contributions, or volunteer events # of businesses that stop selling invasive plants
Volunteers	Engage youth and community organizations and businesses in restoration and monitoring	# of groups participating in events # of hours contributed
	Train Forest Stewards in volunteer management and BMPs	# of Forest Stewards trained and actively holding events
	Demonstrate appreciation for volunteers and seek input into program	# of volunteer suggestions implemented volunteer recognition activities

Field Monitoring Plan

We will develop a field monitoring plan during 2006. The general objective of the field monitoring program is to experiment with various restoration, monitoring, and maintenance techniques to determine which are most cost effective and successful. These experiments will likely be conducted by Green Seattle Partnership and Parks staff and commercial crews through small pilot projects. Before completing the monitoring plan, we will put in place monitoring systems that can track the condition and health of restored forest sites.

Minimal data on past or current restoration efforts exists on the efficacy of field methods. Therefore, our success will rely heavily on developing and refining effective strategies to control invasive plants. A field monitoring plan is in development and includes two levels of monitoring:

1. Basic field work monitoring
2. Scientific analysis of specific field methodologies.

To monitor field work, we will add each of the 2,500 acres to a database as they are brought into restoration. The database was donated to the program by EarthCorps and modified for the Green Seattle Partnership by Parks staff. The database will be used to track information on progress toward restoring all 2,500 Green Seattle Partnership acres. We will track vegetation characteristics and restoration work performed. Parks will use GPS technology to map all acres in the database.

Scientific monitoring will include formal experiments with various restoration techniques to determine which are most cost effective and successful. Current Green Seattle Partnership staff will manage these experiments, and paid crews or consultants will conduct them.

Experiments and field monitoring will help determine the most cost effective and successful forest restoration techniques.

4.2 Resource Distribution

The partnership assumes a significant increase in public funding and donations from outside sources over the next 5 years. The estimated annual budget is expected to increase from $850,000 in 2005 to $2.5 million by 2009, and to peak at $3.3 million by 2022. The partnership will allocate funds to our three key elements—field work, resources and community—to ensure the basic goals of the program are achieved. As we grow from single-park efforts to a citywide program, we will shift use of funds from program development to stronger support of field work. Table 6 shows the forecast of funds distribution based on that assumption.

Table 6. Percent of Total Budget per Program Element

Implementation Element	Percent of Total GSP Budget	
	2006 – 09	2010 – beyond
Field Work	50%	80%
Resources	25%	10%
Community	25%	10%

As funds increase over time, the forest management budget will expand from funding Green Seattle Partnership staff to include additional field work contractors. We will incorporate implementation tools such as BMPs into contracts. Parks is pursuing funding for additional natural area crews. New crews will be added throughout the 20 years of the partnership to plateau in 2025 at a number that supports volunteers in maintaining sustainable forested parklands in perpetuity.

Volunteer coordination will be a principal task the Green Seattle Partnership. Direct volunteer coordination and recruitment will be done by dedicated staff (Green Seattle Partnership project manager and Parks and SPU volunteer coordinators) and through paid crews such as EarthCorps. Direct paid coordination will initially take up to 50% of the total community element budget. We anticipate that as the partnership grows these direct funded positions will level out.

At the front end, we will direct significant resources to communication, mailers, large events, publicity to create public interest in specific events, and to develop recognition for the Green Seattle Partnership. Increases in public and private funding will support increased volunteerism. In 2025, the role of community volunteers is not over. Sustainable forested parklands will continue to need volunteer support for ongoing forest stewardship.

4.3 Reporting and Sharing Knowledge

The Green Seattle Partnership's performance will be reported annually to members, the Executive Council, and the public through annual reports. We will adapt our actions and annual work plan in response to available funding, estimated volunteer support, monitoring results, and emerging knowledge.

Several Green Seattle Partnership members are active in technical exchange with regional restoration groups addressing invasive plants. These groups include the Society for Ecological Restoration, the International Society of Arboriculture, and the Society of Wetland Scientists. Participating in these organizations' conferences allows staff to share information and learn from other agencies.

We will encourage Forest Stewards to attend these events, and will provide incentives. Partnership staff will also be encouraged to engage experts across the region to develop technical methods and outreach strategies. Our written products, including the Forest Stewards Field Guide, will be posted on our website, and we will ask agencies using those resources to give feedback on our methods and materials.

APPENDICES

The following are the appendices for the Green Seattle Partnership 20-year Strategic Plan.

- **Appendix A: Forest Condition and Restoration Strategies**
  This appendix contains information on the forest condition and recommended restoration strategies for each of the 9 Tree-iage categories. It provides an in-depth look at the current state of our forested parklands, and it describes the actions required for restoration.

- **Appendix B: Five-Year Strategic Plan and Five-Year Benchmarks**
  Here we present the 5-Year strategic plan and 5-year benchmarks.

- **Appendix C: List of Volunteer Organizations Working on Forest Steward Projects**
  This is a list of current volunteers for urban forest restoration-related projects in Seattle.

As they are developed, other plans will support this 20-year strategy document:

- **Communications Plan.** This document will identify how the partnership will create broad community engagement and inspire and maintain the commitment of volunteers and contributors over a 20-year lifespan. The Communications Plan will be prepared by a yet-to-be-chosen public relations firm.

- **Fund Development Plan.** This document will outline how we will raise the funding required to make our restoration goals a reality.

- **Urban Forest Management Plan (UFMP).** The UFMP is a roadmap for urban forest preservation, enhancement, and restoration in Seattle. It will include a strategy for how we will achieve these goals. The plan takes into consideration all the trees within Seattle on both public and private property, and provides data on the costs to maintain, plant, and restore our urban forest. The UFMP quantifies the value of the existing and enhanced urban forest as "ecological services" those stands of trees provide (stormwater mitigation, air cleaning, etc.). The UFMP will be implemented over the next 30 years.

Appendix A: Forest Condition and Restoration Strategies: The Tree-iage Model

1	2	3
4	5	6
7	8	9

Category 1: High value, low threat

FOREST CONDITION

This category contains the best forest areas in the park system. Currently 41 acres are in Category 1. Typical stands have more than 50% conifer or evergreen broadleaf canopy. This category includes stands of mature Western red cedar, Douglas fir, madrone, and forested wetlands. These stands are under low threat because the invasive cover is less than 5%.

RESTORATION STRATEGY: Monitor

In these areas, work will focus on protecting their existing high quality and making sure that invasive plants do not threaten these trees. Volunteers will provide most of the labor.

1	2	3
4	5	6
7	8	9

Category 2: High value, medium threat

FOREST CONDITION

Similar to category 1, these forest stands contain more than 50% conifer or evergreen broadleaf canopy. Forests in this category are at risk because the invasive cover is greater than 5%. Invasive growth in these areas is expected to be patchy with diffuse edges. There are about 330 acres in this category.

A forest in otherwise good condition but subject to a number of moderate threats may degrade if left untreated. But that forest would be able to persist provided the threats were mitigated in a timely manner. If unattended, this level of invasive coverage could prevent native seedlings from establishing, and compete with existing trees for water and nutrients.

RESTORATION STRATEGY: Invasive reduction and prompt action

The main activity is removing invasive plants. Typically these sites will also require site preparation (e.g., mulching) and in-fill planting. Projects in these areas are appropriate for community volunteer groups. Removing invasive plants from these areas is a very high priority for the first 5 years.

Category 3: High value, high threat

FOREST CONDITION

Like categories 1 and 2, forest stands in this category have mature conifers, madrones, or wetland forests. Category 3 areas have a high threat because they are estimated to have greater than 50% invasive cover. There are roughly 95 acres in this category.

A forest in this category is in a high-risk situation but still contains many desirable trees or highly valuable habitat or species. If restored, a forest in this category has the potential for long-term persistence or complete recovery.

RESTORATION STRATEGY

Urgent restoration is needed. Major invasive reduction is the strategy here. Without prompt action, high quality forest stands could be lost. Category 3 areas will require aggressive invasive reduction. Soil amendments and re-planting will be needed in most cases. Restoration efforts in this category are a top priority for the first 5 years of the Green Seattle Partnership.

Successful reforestation will require a strong commitment from the local community, including investment of both funding and community energy.

1	2	**3**
4	5	6
7	8	9

Category 4: Medium value, low threat

FOREST CONDITION

Forests assigned a medium value are typically dominated by native deciduous trees. They may have a small percent of native conifers. These areas are estimated to have greater than 25% native upper canopy cover but less than 50% upper canopy coniferous or broadleaf cover. (Or in the case of wetland forests, it is greater than 50% native tree canopy cover). Category 4 forests have low levels of invasive plants. There are about 40 acres of category 4 forest in Seattle.

RESTORATION STRATEGY: Planting and monitoring

We expect planting in these areas to be in-filling with native species. Often these sites will also require invasive removal and site preparation (e.g., amending with woodchip mulch). Many of these sites may be pushed down a successional forest path by the addition of appropriate conifer trees.

Restoring category 4 forests is a high priority during the first 5 years of the Green Seattle Partnership. They offer a high likelihood of success at a minimum investment. These sites are well suited to community-led restoration efforts.

1	2	3
4	5	6
7	8	9

Category 5: Medium value, medium threat

FOREST CONDITION

Areas in this category have greater than 5% but less than 50% invasive cover. Invasive growth in these areas is expected to be patchy with diffuse edges. These areas are estimated to have greater than 25% native upper canopy cover but less than 50% upper canopy coniferous or broadleaf cover. (Or in the case of wetland forests, it is greater than 50% native tree canopy cover).

These forest stands contain many desirable native trees that are under threat from invasive plants. There are 442 acres of forest in this category.

RESTORATION STRATEGY: Invasive reduction and planting

These sites will require invasive removal and infill planting. While some restoration work is planned for this area in the first 5 years, aggressive efforts will be required throughout the life of the partnership. During the first 5 years, projects in this category will be restored with efforts from community partners and partnership program resources.

Category 6: Medium value, high threat

FOREST CONDITION

These areas are estimated to have greater than 50% invasive cover and greater than 25% native upper canopy cover, but less than 50% upper canopy coniferous or broadleaf cover (or in the case of wetland forests, greater than 50% native tree canopy cover).

This category describes 608 acres of Seattle forest. This is the most common forest condition in the city.

A forest that retains important biotic elements but is already partially degraded by a high-level risk factor may potentially recover if prompt remedial measures are taken. While these stands are at greater risk than category 5 forests, they also require greater labor investments.

RESTORATION STRATEGY

Major invasive reduction and planting is the strategy for this category. Extensive invasive removal, site preparation (e.g., amending with woodchip mulch), and re-planting will be required. Initial invasive removal may be performed with the aid of mechanical tools and equipment. Planting in these areas will be in-filling with native species. Work in category 6 forests will probably be led by community groups with support from partnership program resources.

Category **7**: Low value, low threat

1 2 3
4 5 6
7 8 9

FOREST CONDITION

These areas are estimated to have less than 25% native upper canopy cover. Category 7 areas do not fit into Parks' managed landscapes, such as wooded picnic areas.

Levels of invasive plants are low in category 7 forests. Parks in this category may include recent acquisitions, areas with large gaps in canopy (perhaps due to wind throw or die-off of mature deciduous trees), sites of recent landslides, unstable slopes, sites with large amounts of fill, and areas dominated by non-native trees. There are 44 acres that fall in this category.

RESTORATION STRATEGY: *Evaluate and possibly plant*

The reasons underlying the low value can differ greatly, and we will address the stands on a case-by-case basis. Because these sites have low levels of invasive plants, restoration may be quite cost effective in some of the category 7 forests. We will evaluate sites in this category to determine whether site conditions and timing are appropriate to move these wooded areas toward a more native forest. In some cases, it may be desirable to remove non-native trees, especially if they are aggressive.

Areas that are ready for conversion to a native forest would be a high priority during the first 5 years.

Category **8**: Low value, medium threat

1 2 3
4 5 6
7 8 9

FOREST CONDITION

Areas that are estimated to have less than 25% native upper tree canopy cover and greater than 5% but less than 50% invasive cover fall into this category. Invasive growth in these areas is likely to be patchy with diffuse edges.

A forest in this category might be chronically degraded by a variety of threatening processes, and might have lost much of its value in terms of habitat quality or species complement, with little probability of recovery. This category comprises 380 acres.

RESTORATION STRATEGY: *Invasive reduction and major planting*

Restoration efforts in category 8 forests provide little 'bang for the buck.' Although some work will be directed to category 8 forests, this is not a priority category for the first 5 years. The Green Seattle Partnership will likely support efforts that contain the spread of invasive plants, try out new techniques, or help aggressive community-led efforts. These sites will require major invasive removal and site preparation, such as mulching and infill planting. Planting within these areas will be in-filling with native species.

1	2	3
4	5	6
7	8	**9**

Category 9: Low value, high threat

FOREST CONDITION

Areas that are estimated to have less than 25% native upper tree canopy cover and greater than 50% invasive cover fall into this category.

Nearly 25%, or 633 acres, of the Green Seattle Partnership work area falls into this category.

RESTORATION STRATEGY: Major invasive reduction and major planting

Category 9 sites are likely to not get much worse over the next 5 years. These sites will require many years of major invasive removal and site preparation in the form of mulching and infill planting. Although some work will be directed to category 9 forests, this is not a priority category for the first 5 years. The Green Seattle Partnership will likely support efforts that contain the spread of invasive plants, try out new techniques, or bolster aggressive community-led efforts.

Appendix B: Five-year Strategic Plan and Five-Year Benchmarks

The Green Seattle Partnership 5-year Strategic Plan is shown on Table B-1. The Green Seattle Partnership 5-year benchmarks are shown in Table B-2. Setting goals and objectives for the 20-year project on a 5-year basis will allow staff to adaptively manage resources.

20 YEAR STRATEGIC PLAN			
5 Year Action Plan	*5 Year Action Plan*	*5 Year Action Plan*	*5 Year Action Plan*

························· **Annual Work Plans** ·························

Near-Term Strategic Plan

The Green Seattle Partnership includes three work areas: field work, resources, and community. During the early phases of planning for the partnership, those works areas were called administration and governance, forest restoration, volunteer management, communications, and fund development. Activities planned for the first phase of the partnership are shown in Table B-1 (see page 46). We will track progress on activities each year through annual reporting and planning processes as they are applied to the **Balanced Scorecard** and adaptive management.

Long-Term Strategic Plan

It is too early to create detailed activities more than 5 years in advance. This level of planning will need to be carried out every 5 years through 5-year strategic planning processes. The benchmarks shown in Table B-2 (see page 47) should guide this planning and will ensure that the partnership is on-track to reach its goals by 2025.

Table B-1: Green Seattle Partnership Five-Year Strategic Plan: 2005 to 2009

	2005	2006	2007	2008	2009
Field Work	• Initiate restoration on 60 new acres • Develop field monitor ring plan	• Initiate restoration on 94 new acres • Continue restoration of 60 acres • Hire additional paid crews • Integrate monitoring results w/ GIS data layers	• Initiate restoration on 100 acres • Continue restoration on 135 acres • Evaluate and revise Tree-iage methodology	• Initiate restoration on 125 acres • Continue restoration on 260 acres • Assess potential impacts of global climate disruption on GSP goals	• Initiate restoration on 150 new acres, • Continue restoration on 300 acres • Monitoring & maintenance on 60 acres
Community	• Recruit and manage 65,000 volunteer hours • Create Forest Stewards program • Hire project manager	• Recruit and manage 75,000 volunteer hrs • Create summer parks corps (underserved youth jobs program) • 45 active FSGs	• Recruit and manage 85,000 volunteer hours • 60 active FSGs	• Recruit and manage 95,000 volunteer hrs • Ongoing support and training for FSGs	• Recruit and manage 100,000 volunteer hrs • Ongoing support and training for FSGs
Communications	• Media blitz (problem-focused)	• Finalize all materials • Media campaign focused on success stories and branding GSP • Strategic dissemination of PR materials • Hire PR firm • Implement business engagement plan offering marketing & staff team building opportunities	• Focus on success stories involving Forest Stewards, volunteers, and corporate participation • Raise awareness among retail and landscape industries of the problem and how they can help	• Media campaign focused on supporting a levy (or other public funding mechanism)	• Launch political campaign around levy • Communications focused on outcomes from funding
Fund Development	• Foundation proposals • Create campaign plan • Hire ½ time grants manager • Implement small scale site sponsor (Vivace Coffee) • Raise $95K in 04/05 FY	• Foundation proposals • Corporate sponsorship, find large scale sponsor • Raise $405K in 05/06 FY	• Launch grassroots giving campaign (concerts) • Raise $800K in 06/07 FY	• Launch "public" campaign to establish a municipal funding mechanism • Raise $1,200K in 07/08 FY	• Raise $500K in 08/09 FY
Administration	• Establish Executive Council • Develop 20-Yr Plan • Develop 2006 Work Plan	• Write 2005 Annual Report • Publish and distribute 20-Yr Plan • Develop 2007 Work Plan • Research public funding strategies	• Write 2006 Annual Report • Develop 2008 Work Plan • Choose best public funding strategy	• Write 2007 Annual Report • Develop 2009 Work Plan • Implement public funding campaign/program	• Write 2008 Annual Report • Develop 2010 Work Plan • Develop 5-Yr Strategic Plan • Public funding mechanism in place

*FSG = Forest Stewardship Group

Table B-2: Green Seattle Partnership Five-Year Benchmarks: 2010 to 2025

	2010	**2015**	**2020**	**2025**
Field Work	• Restoration will focus on areas w/ existing FSGs • 240 acres fully restored & in maintenance phase • initiating restoration on 160 acres/yr	• 995 acres fully restored & in maintenance phase • initiating restoration on 160 acres/yr	• 1,795 acres fully restored & in maintenance phase • initiating restoration on 160 acres/yr	• Restoration complete • All 2,500 acres of forested parkland being monitored and managed
Community	• An active FSG working in 80% of forested parkland parcels • 100,000 volunteer hr/yr	• An active FSG working in 100% of forested parkland parcels • 100,000 volunteer hr/yr	• FSGs remain engaged • 100,000 volunteer hr/yr	• FSGs continue to participate in monitoring & maintenance • 100,000 volunteer hr/yr
Communications	• Broad public awareness of issue and demand for action	• Continued awareness of program locally • National awareness of GSP	• Continued awareness of program • National awareness of GSP	• Continued awareness of program • National awareness of GSP
Fund Development	• $3 million raised via Community Campaign • Public funding mechanism established	• Public funding mechanism providing at least $2.5M/yr	• Public funding mechanism providing at least $2.5M/yr	• Public funding mechanism providing at least $2.5M/yr
Administration and Governance	• Establish Public Funding base • Create 5-Year Strategic Plan	• Create 5-Year Strategic Plan	• Create 5-Year Strategic Plan	

*FSG = Forest Stewardship Group

**GSP = Green Seattle Partnership

Appendix C: List of Volunteer Organizations Working on Forest Steward Projects

More than 300 park properties lie within Green Seattle Partnership acreage (see Figure 2). We estimate more than 100 active 'Friends of' and 'Adopt-a-park' program groups, advisory councils, and individuals are registered with Parks' citywide volunteer program to work on urban forest restoration. These groups and individuals are currently supporting several restoration efforts throughout Seattle. Several other nonprofits and businesses have significantly contributed time and money to forest restoration in Seattle. Some of these community groups, nonprofits, and businesses are listed below.

We have made every effort to acknowledge all volunteers. If we omitted or listed any name incorrectly, we sincerely apologize. Please contact us at 206-292-5907, ext 117 for any questions or corrections.

Organization	Facility
'Friends of' Group	
Advisory Council - President	Carkeek Park
Arboretum Foundation Unit 86	Washington Park Arboretum
Burke Gilman Trail - Friends of 46th	Burke-Gilman Trail: 94th St
Burke Gilman Trail - Individual Steward	Burke-Gilman Trail
Carkeek Park Stewards Committee	Carkeek Park
Carkeek Watershed Community Action Project (CWCAP)	Carkeek Park
Center for Urban Horticulture	UW Center for Urban Horticulture
Church of Scientology	Kinnear Park
Church of Scientology of Washington State	Thornton Creek - Park #1
College of Forest Resources, Washington Park Arboretum	Washington Park Arboretum
Crown Hill Natural Area	Crown Hill - Natural Area
DON /Pro Parks Grant	6th Avenue Pocket Park
Fauntleroy Watershed Council	Fauntleroy Creek
Freeway Park Neighborhood Association	Freeway Park
Friends of Baker Park	Baker Park
Friends of Bayview/Kinnear Park	Bayview/Kinnear Park
Friends of Bergen Place	Bergen Place Park
Friends of Burke Gilman Burke-GilmanTrail - West	Burke Gilman Trail - West
Friends of Cal Anderson Park	Cal Anderson Park
Friends of Carkeek - Piper's: Piper's Creek	Carkeek Park
Friends of Cascade Park	Cascade Park
Friends of Cedar Park	Cedar Park
Friends of Constellation Park	Constellation Park
Friends of Cormorant Cove	Cormorant Cove
Friends of Cowen Park	Cowen Park
Friends of Crown Hill Natural Area	Crown Hill-Natural Area
Friends of Discovery Park	Discovery Park
Friends of Fairmont Ravine	Fairmont Ravine
Friends of Fairview Olmsted Park	Olmsted Park

Organization	Facility
Friends of Fauntleroy Park	Fauntleroy Park
Friends of Fremont Park	Fremont Peak Park
Friends of Frink Park	Leschi Greenspace Committee
Friends of Greenwood Park	Greenwood Park
Friends of Greg Davis Park	Greg Davis Park
Friends of Homer Harris	Homer Harris Park
Friends of Interlaken Park	Interlaken Park
Friends of Lawton Park	Lawton Park
Friends of Licton Springs	Licton Springs Park
Friends of Lincoln Park Annex	Solstice Park (Formerly Lincoln Annex)
Friends of Lincoln Park North	Lincoln Park North
Friends of Linden Orchard	Linden Orchard Park
Friends of Madrona Woods	Madrona Woods
Friends of Magnolia Parks	Magonlia Manor Park: Ursula Judkins' Viewpoint
Friends of McGilvra Divide	McGilvra Divide
Friends of Mineral Springs - Disc Golf	Mineral Springs Park
Friends of Mineral Springs Park	Mineral Springs Park
Friends of NE Queen Anne Park	NE Queen Anne Greenbelt
Friends of Nora's Woods	Nora's Woods
Friends of Northacres Park	Northacres Park
Friends of Pigeon Point	Pigeon Point Park
Friends of Prentiss Frasier Park	Prentis Frasier Park
Friends of Ravenna Ravine	Ravenna Park
Friends of Ravenna Woods	Ravenna Woods
Friends of Regrade Off Leash Area (OLA)	Regrade Park
Friends of Roxhill Wetlands	Roxhill Park
Friends of Schmitz Preserve Park	Schmitz Preserve Park
Friends of Seacrest Park	Seacrest Park
Friends of Seward Park	Seward Park
Friends of Southwest Queen Anne Greenbelt	Southwest Queen Anne Greenbelt
Friends of Spruce Street	Spruce Street Mini-Park
Friends of St Mark's	St Mark's Greenbelt
Friends of Tashkent Park	Tashkent Park
Friends of the GAR	Grand Army of the Republic Park
Friends of Thyme Patch Park	Thyme Patch Park
Friends of Victor Steinbrueck Park	Victor Steinbrueck Park

Organization	Facility
Friends of Victory Creek Park	Victory Creek Park
Friends of Volunteer Park	Volunteer Park - Federal Ave E
Friends of Waterway 19	Waterway 19
Friends of Weather Watch	Weatherwatch Park
Friends of Whale Tail Park	Whale Tail Park
Groundswell NW	NW Sector
Harvard/Roanoke Beautification Project	Roanoke (Harvard) Park
Heron Habitat Helpers: Discovery Park	Discovery Park: Kiwanis Ravine
Individual "Adopt an Area"	Greenwood Park
Individual Creek Steward	Matthews Beach - Natural Area
J-Connect	Thornton Creek Park #2
King County Noxious Weed Control Board/UW Intern	Golden Gardens - Upper Area
Lakeside School - Upper School	Northacres Park
Longfellow Creek Stewardship Committee	Longfellow Creek
Lovers of Llandover Woods	Llandover Woods Openspace
Magnuson Community G: Native Plant Garden	Magnuson Park
Magnuson Environmental Stewardship Alliance (MESA)	Magnuson Park
MapleLeaf Lutheran Church Steward: Ravenna Park	Meadowbrook Creeklet & Ponds
MESA Docent	Magnuson Park
MESA Native Plant Nursery & Community Garden	Magnuson Park
Northacres OLA Stewards	Northacres Park
Northacres Park - Lakeside Middle School	Northacres Park
OLA Golden Gardens Site Manager	Golden Gardens
OLA Woodland Park	Central Woodland Park
Park School Stewards	TT Minor Playground Park
Park Steward	Louisa Boren Park
Park Steward	Viretta Park
Park Steward	Plum Tree Park
Park Steward	Leschi Natural Area
Pro Parks Grant/DON	6th Avenue Pocket Park
Program & Volunteer Coordinator	Washington Park Arboretum
Roosevelt Square Starbucks	Cowen Park
Salmon Bay School	Golden Gardens Park
Salmon Bay Friends: Quaker Group	Carkeek Park
Save Magnolia Madrones	Magnolia Blvd Park
Seattle First Baptist Church	Homewood Park

Organization	Facility
Seattle Preparatory School	Interlaken Park
Squire Park Neighborhood Council	Squire Park
Steward	McGraw Place/1st Triangle
Steward, Ravenna Park	Ravenna Park
Thornton Creek Alliance	Homewood Park
Thornton Creek Alliance	Kartess Property
Thornton Creek Alliance	Little Brook Park
Thornton Creek Alliance	Matthews Beach - Restoration
Thornton Creek Alliance	Thornton Creek - Park #2 kingfisher
Thornton Creek Alliance: UW Doctoral Steward	Thornton Creek Park #6
UW Doctoral Steward	Golden Gardens
University Prep Academy	Matthews Beach Park
University Prep Academy	Green Lake Park
Uptown Alliance	Kinnear Place Park
Uptown Alliance	New Park QA Uptown Park
Volunteers for Outdoor Washington	Golden Gardens Trails
Western Cascade Fruit Society - Piper Orchard Chapter	Carkeek Park
Whittier Heights Community Council	Baker Park
Woodland Park Zoo	Licton Springs Park
Woodland Soccer Club	Green Lake Park
Yesler Creek Headwater Reforestation	Burke-Gilman Park/Yesler Creek

Other Recent Contributors:

Organization	Facility
Nonprofit:	
City Year	Various parks
EarthCorps	
Earthshare	
Seattle Audubon Society	
Seattle Parks Foundation	
Seattle Works	
Seattle Urban Nature Project	
Starflower Foundation	
Student Conservation Association	
Nature Consortium	
United Way	
University of Washington	
Volunteers for Outdoor Washington	
Washington Conservation Corps	
Washington Native Plant Society	
YMCA Earth Service Corps	
Private Corporations:	
Boeing Company	
Microsoft	
Mithun	
REI	
Safeco	
Starbucks	
Vivace Coffee	
Public Agencies:	
Department of Neighborhoods	
Environmental Protection Agency -5 Star Program	
King Co. Department of Natural Resources and Parks	
King Conservation District	
National Oceanic and Atmospheric Administration Community Restoration Program	
Seattle Conservation Corps	
Seattle Public Schools	

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