



# Seattle Parks & Recreation

healthy people healthy environment strong communities

**To:** Debora Juarez, Seattle City Council Chair, Public Assets and Native Communities

**From:** Jesús Aguirre, Superintendent, Seattle Parks and Recreation

**Date:** September 29, 2020

**Subject:** Green Seattle Partnership SLI Response

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**Background and Options:** The attached memo provides a response to the 2020 Statement of Legislative Intent (SLI) requesting an evaluation of the Green Seattle Partnership (GSP) program. The general language from the SLI is provided below, and the more detailed questions included in the SLI response are cross walked in Appendix E8 of the attached report.

*“The Council requests Seattle Parks & Recreation (SPR) to provide a report on the status of the Green Seattle Partnership Program. This program is a collaborative effort between the City of Seattle and Forterra to restore 2500 acres of forested park lands in Seattle by 2025.”*

**Current State Summary:** A key driver for the SLI was a funding change in the 2019 budget that, at the time, was thought to be a budget efficiency that would be neutral on program goals. This SLI provided an opportunity to undertake a thorough evaluation of the GSP program. The GSP started as an innovative vision and has grown into a successful program of partners working together to create a sustainable network of healthy forested parkland throughout Seattle, supported by an engaged public. The program increases access to nature and human health, strengthens neighborhood cohesion, increases climate resiliency, and improves the health and wildlife habitat of Puget Sound.

The SLI led to a level-setting of the remaining ecological restoration work needed to continue making progress toward maintaining the health and function of our urban canopy for the benefit of the Seattle community, the environment, and wildlife. While much progress has been made to date, the GSP has seen significant changes over the last 15 years that have impacted the program, resulting in a longer timeframe required to restore remaining acres and to bring those acres into full stewardship and maintenance. GSP staff have realized that the planned goal to put 2,500 acres of forested land into restoration by 2025 is not achievable based on a variety of environmental, financial, and social conditions. While the 2019 funding change has impacts on the restoration timeline change, staff believe it is not the driving factor.

The SLI response includes the detailed and individual conditions that have impacted the restoration timelines including changes in restoration best management practices, inflation, climate change, new regulatory requirements, vertical slopes included in total acres not suitable for traditional restoration work, COVID-19 impacts, and more. Using 2020 baseline funding, staff updated the restoration timeline to enroll and restore the original acres is adjusted based on these known challenges. The team also recognized that the assumptions are somewhat a moving target that could be further impacted by increasing climate change impacts, continued social issues, etc.

Baseline funding for the program in 2020 is about \$4.5M (\$3.2M Capital, \$1.3M O&M). At this level, GSP staff now estimate SPR will enroll all new acres (Phase 1) by 2042 and will transition all acres out of active restoration to long-term stewardship and maintenance (Phase 4) by 2048.

**Proposed 2021 Funding Changes:** The City is in the worst financial crisis it has ever faced which has required deep reductions in 2021. Specially, SPR’s 2021 Proposed Budget includes reductions to nearly all of SPR’s capital projects, including the GSP; these reductions are due to significant reductions across the majority of SPR’s funding sources, including REET. While the Park District offers a tremendously flexible funding source, the department is proposing to use these funds to maintain operations and therefore had to take significant reductions across nearly all capital programs in 2021.

While the SLI was developed based on 2020 baseline funding, the proposed 2021 reductions further impact the timelines outlined above. The Proposed 2021 Budget includes a reduction of \$500,000 to the GSP’s capital program. This represents a 15% reduction in base capital funding. The reduction is planned to continue at least through 2023 pending future discussions on REET levels and priorities and/or the start of the next 6-year cycle of the Park District.

The Proposed Budget also assumes holding two GSP-related positions vacant through 2021 based on the extended impacts of COVID-19 next year. The savings of \$170,000 represents about 13% of the GSP’s O&M budget. The positions are part of the SPR’s overall efficiency plan for 2021 and are not being abrogated to minimize long term impacts on the program. Note that the positions are part of the Natural Areas Crew who indirectly support the GSP (i.e. 2-for-1 summer watering, supporting volunteers and project partners on the deliveries of tools and materials, etc.). Therefore, unlike the capital change, this one time 2021 reduction in O&M is not anticipated to have long term impacts on the GSP’s restoration goals.

As described above, staff have determined that the original and bold restoration goal established over 15 years ago already needs to be pushed out by nearly two decades (“Shown as “Baseline” below). The proposed budget changes will extend the restoration goal even further. The program will continue to make progress toward climate resiliency goals with ~85% of its base financial investment (Shown as “REET Reduction” below). And future reinvestments after the City emerges from the current financial crisis could improve the long term timeline for ecological restoration work. The following table represents the estimated changes.

Scenario	All Enrolled Year	All Restored Year	# Years +/- Original Goal
Baseline (assumes no reductions to funding)	2042	2048	17
REET Reduction (15% of capital funding)	2052	2057	27

**RSJI Considerations:** SPR will prioritize scarce remaining capital resources against code requirements, life safety, equity, facility integrity, and environmental efficiencies. These priorities are especially critical in light of the RSJI impacts COVID-19 is having on communities of color. The focus of remaining capital resources on facilities and infrastructure in these communities.

**Appendix 1: Green Seattle Partnership Draft SLI Response**



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**Date:** September 29, 2020  
**To:** Debora Juarez, Seattle City Council Chair, Public Assets and Native Communities  
**From:** Jesús Aguirre, Director, Seattle Parks and Recreation  
Michele Finnegan, SPR Policy Director  
**Subject:** Statement of Legislative Intent: [SPR-6-A-2](#): GSP PROGRAM EVALUATION

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## SLI OVERVIEW

This briefing memo provides a response to the 2020 Statement of Legislative Intent (SLI) requesting an evaluation of the Green Seattle Partnership (GSP) program. The general language from the SLI is provided below, and the more detailed questions included in the SLI are cross walked to this report in Appendix E8.

*“The Council requests Seattle Parks & Recreation (SPR) to provide a report on the status of the Green Seattle Partnership Program. This program is a collaborative effort between the City of Seattle and Forterra to restore 2500 acres of forested park lands in Seattle by 2025.”*

## PROGRAM BACKGROUND

The Green Seattle Partnership (GSP) was initiated in 2005 to kick start forest restoration and management across the Seattle Parks and Recreation (SPR) system, addressing declining forest health while building community commitment and access to natural areas in the city<sup>1</sup>. The twenty year program was a bold timeline. At year 15, GSP is nearing the end of the originally conceptualized 20-Year Plan<sup>2</sup>. This benchmark offers an opportunity to reflect on program resources, community priorities and ecological timescales. ***This 2020 SLI***

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<sup>1</sup> Green Seattle Partnership 2017 Strategic Plan Update - <https://www.greenseattle.org/wp-content/uploads/2018/01/GSP-Strategic-Plan-Update-01.19.18-reduced-file-size.pdf>

<sup>2</sup> Green Seattle Partnership 20-Year Plan - [https://www.greenseattle.org/wp-content/uploads/2019/02/GSP\\_20YrPlan5.1.06\\_optimized\\_reduced.pdf](https://www.greenseattle.org/wp-content/uploads/2019/02/GSP_20YrPlan5.1.06_optimized_reduced.pdf)

**response offers a similar opportunity to address the challenges now facing the program as described in this memo and to perform analyses necessary to understand the substantial body of work that remains to enroll all acres, move them through active restoration and continue natural area management in perpetuity.**

GSP has become a model program that has moved forward innovative restoration on over 1,788 acres of parklands and has engaged volunteers to provide over one million hours of service. The program is more than acres of invasive weeds removed, trees planted and volunteer hours, however. Situated uniquely in SPR, GSP programming contributes directly to SPR's strategic pillars: Healthy People, Healthy Environment and Strong Communities<sup>3</sup>. The program has proven to be adaptable, responsive and durable.

Invasive species cover has decreased rapidly, responding to our restoration interventions and offering a clear signal of success. Sites enrolled early in the program now have maturing conifer trees that optimistically have a lifespan of several hundred years. But even these sites are in the infancy of their renewal. Developing an expanded stewardship horizon and implementing an action plan with that timeline in mind is essential to guide Seattle's forests through the massive environmental and human change expected in this century.



## CITY AND PARTNERSHIP INVESTMENTS

### **City Investments**

Seattle Parks and Recreation, as the lead agency implementing the Green Seattle Partnership, has provided significant investments since the program's inception in 2005. Funding supports a staff team that coordinates technical ecological restoration with professional crews, community engagement with partner organizations and individual forest stewards, as well as ecological assessment and forest management planning efforts. Since 2005, SPR has committed roughly \$31M to building Seattle's future healthy forests. SPR's investment in this work includes both operating and capital funding from a variety of sources, including the City's General Fund, Seattle Park District, and Real Estate Excise Tax. The current level of SPR investment is outlined in Table 1.

Other city departments also contribute to the partnership, bringing funding, expertise and coordination. Seattle Public Utilities has annually invested \$100,000 to support GSP efforts in line with their stormwater management and creek habitat enhancement goals. Department of Neighborhoods continues to support partner organizations and community members through grantmaking. The Office of Sustainability and the Environment, as the lead for citywide urban forestry coordination, provides staff expertise to support GSP management.

<sup>3</sup> Seattle Parks and Recreation Strategic Plan 2020 – 2032 - [https://www.seattle.gov/Documents/Departments/ParksAndRecreation/PoliciesPlanning/SPR\\_Strategic\\_Plan.03.27.2020.pdf](https://www.seattle.gov/Documents/Departments/ParksAndRecreation/PoliciesPlanning/SPR_Strategic_Plan.03.27.2020.pdf)

**Table 1: 2019 and 2020 Program Funding Breakdown**

Funding Source	2019		2020	
	Capital	Operating	Capital	Operating
REET	1,700,000	-	1,700,000	-
Parks District*	969,000	941,460	1,032,000	1,042,644
General Fund	-	251,037	-	251,037
Other Sources**	366,785	-	511,921	-
<b>Total</b>	<b>3,035,785</b>	<b>1,192,497</b>	<b>3,243,921</b>	<b>1,293,681</b>

\*The source of Park District funding is the Saving our Forests initiative which funds NAC and Tree Crews as well as the capital GSP work. The operating amounts included in the table reflect the portion of the operating initiative supporting GSP.

\*\*Other Sources indicates Seattle Public Utilities, mitigation, private donation and grant funding directly managed by SPR

**Partner Investments**

GSP is a unique partnership model that includes internal City partners, non-profit organizations and community members that bring resources and skills to help meet GSP’s goals. Partners and stakeholders play a critical role in building technical proficiency, leveraging funding, and sparking community support through their unique missions.

While some organizations provide in-kind services to GSP, over time SPR has grown the contract pool to nine organizations from the local green industry to lead community engagement efforts, including volunteer events, youth leadership programming, green job training, educational workshops, and online engagement efforts. In 2020, organizations with consultant contracts include Delridge Neighborhood Development Association’s Nature Consortium, EarthCorps, Mountains to Sound Greenway Trust, Seward Park Audubon Center, Tilth Alliance, DirtCorps, Cascadia Consulting Group, Student Conservation Association, and Forterra.

Regional non-profit organization Forterra was a founding partner, providing the first \$3M investment to initiate GSP in 2005. They have since created the Green Cities Network, adapting the GSP model for 14 other jurisdictions with similar 20-year plans. The Green City Partnerships have received national recognition<sup>4</sup>, elevating GSP efforts and extending the coalition of practitioners and researchers committed to improving forested parklands.

It is worth noting that GSP partners are more wide-ranging than the organizations contracted to lead community engagement. Schools, youth groups, veterans’ groups, churches, tribes, as well as regional, state, and national agencies contribute to GSP efforts. Examples include:

- Northwest Natural Resource Group<sup>5</sup> provides valuable forest management and climate change planning support, including overseeing GSP’s Forest Stewardship Council Certification<sup>6</sup>, an international program for sustainable forest management.
- King Conservation District (KCD)<sup>7</sup> provides grant funding for community-driven projects. For example, in 2017, KCD supported residential property restoration adjacent to active GSP work at Lakeridge Park and Cheasty Greenspace in southeast Seattle, pilot project work that intended to protect GSP investments on parkland from the impacts of invasive species on private property.
- United Indians of All Tribes<sup>8</sup> and Na’ah Illahee Fund<sup>9</sup> provide direction and support for ecological restoration efforts at Daybreak Star in Discovery Park.
- The United States Forest Service Urban and Community Forestry Program<sup>10</sup> has invested in GSP, providing funding to support the development of curriculum, reporting systems, the ecological monitoring program and more.

This web of engagement and participation is critical to building long-lasting investment in and commitment to Seattle’s forested parklands.

<sup>4</sup> Natural Areas Conservancy’s Forest in Cities Coalition - <https://naturalareasnyc.org/national>

<sup>5</sup> Northwest Natural Resource Group - <https://www.nnrg.org/>

<sup>6</sup> Forest Stewardship Council - <https://fsc.org/en>

<sup>7</sup> King Conservation District’s Urban Forest Health Program - <https://kingcd.org/programs/better-forests/urban-forests/>

<sup>8</sup> United Indians of All Tribes - <https://www.unitedindians.org/>

<sup>9</sup> Na’ah Illahee Fund - <https://www.naahillahee.org/>

<sup>10</sup> US Forest Service Urban and Community Forestry Program - <https://www.fs.usda.gov/managing-land/urban-forests/ucf>

## **Volunteer Investments**

Community members are able to participate with the program every day of the year through events led by SPR staff, partner organizations, and GSP Forest Stewards. Since the beginning of the program, we have recorded more than 1.1 million volunteer hours (equating to an investment of more than \$28M).

Although we often think of the volunteer investment from individual hours, Park-specific groups, or “Friends Of” groups have long played a role with GSP, leveraging SPR efforts. Many GSP Forest Stewards are also active in Friends groups that support broader park stewardship efforts, such as trail development or other amenities.

## **LESSONS LEARNED SINCE PROGRAM INCEPTION**

### ***What has Changed?***

While much progress has been made to date, ***the GSP program has seen significant changes over the last 15 years that have impacted the program, resulting in a longer timeframe required to restore remaining acres and to bring those acres into full stewardship and maintenance.*** These challenges inform the next sections on updated restoration timelines.

- **Total Acres:** The GSP 2005 20-Year Strategic Plan called for restoration of 2,500 acres. Today, GSP mapping efforts have identified 2,754 acres. Current GSP restoration sites are identified on the GSP Reference Map<sup>11</sup>. The increase in acres comes from annual SPR acquisitions as well as the addition of right of ways where the Department assumes management responsibility. Total acres will likely continue to change as the GSP team incorporates new natural area acquisitions and removes areas where restoration is not appropriate, such as steep slope areas where restoration is determined to be unachievable and tiny strips/pockets of sites not connected to any other natural areas or other forest habitat.
- **Climate Change:** One significant shift in the last 15 years is the science related to and observation of climate change impacts on Seattle’s urban forest. Climate change is evident across the landscape with declines and dieback of dominant native species like western redcedar, bigleaf maple, and sword fern. The recent GSP Forest Stewardship Report explores climate change vulnerabilities in the forested natural areas and provides additional direction on management strategies. As an example, GSP has extended the establishment period from 3 years to at least 5 years, increasing watering activities by adding watering truck capacity as well as cisterns and accessing park irrigation systems where feasible. Climate change, especially in fragmented urban forests, will require ongoing adaption, creativity, and community engagement.
- **Increasing Costs:** In addition to the unexpected costs outlined in other categories (such as the extended establishment period due to climate change), costs for materials and labor continue to increase annually which affects the volume of work accomplished. REET, which has been a significant portion of GSP funding, does not adjust for standard inflation. Accordingly, GSP dollars are not going as far today as they have in previous years. Importantly, GSP contracted crews are subject to prevailing wage increases, which doubled in 2018 (coming back down recently).
- **Homelessness Crisis:** Many forested natural areas have been particularly hard hit by camping activities. GSP funding has supported restoration following certain encampment response activities, with natural area vegetation management and stewardship activation. Examples of GSP involvement in encampment site restoration efforts include the East Duwamish (EDGE) project in 2017 as well as the Myers Way Greenbelt work initiated in 2018. Camping continues to limit work access to many GSP sites and leaves impacts such as vegetation removal and soil degradation. Previous restoration investments may be abandoned if camping limits access, causing sites to revert back to phase 0 condition. One example of this is a zone in the Southwest Queen Anne Greenbelt, where camping activities forced a retreat of the site to Phase 0. Over several years, the program invested over 1,000 hours of professional crew work to initiate restoration and install 2,000 native plants. The site then began to experience heavy camping activity, resulting in removal and destruction of the installed native plants and reestablishment of invasive species.
- **Growing Population:** Significant increases in park use across the city can disturb restoration sites in early years of establishment. Both crews and Forest Stewards spend more time than ever addressing social trail development and vegetation removal and destruction along with off-leash dog impacts.

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<sup>11</sup> GSP Reference Map: <http://arcq.is/1jGfCj>

- **Restoration Best Management Practices:** Restoration is a relatively new discipline and draws on information from new science, local knowledge and traditional wisdom. Practices and standards have been tested and have evolved over a relatively short time frame. GSP has built a novel urban program, implemented, measured success and then improved urban forest restoration strategies on repeat over the course of the last 15 years. Adaptive Management, learning and improving by doing, is a core component of restoration efforts.
- **Regulatory Obligations:** GSP provides significant noxious weed management support on department land as required by the Washington State noxious weed law (Chapter 17.10 RCW). King County Noxious Weed (KCNW) Control Board adopts a weed list each year that takes into account how dangerous plants are to humans, animals, native habitats, and the economy. Managing new introductions of species like garlic mustard and shiny geranium on parklands has diverted GSP resources and affected restoration success. In 2019, KCNW reclassified poison hemlock, a widespread weed that can be fatal to humans if ingested, requiring extensive control efforts across active/inactive restoration sites. Meeting these regulatory obligations is an important part of the program's success and requires resources not initially considered in the 20-Year Plan.
- **Vertical Slopes:** Of the remaining acres to enroll in restoration (Phase 1), 49% are on steep slopes (>40% slope) and 13% are nearly vertical (>66% slope) with 204 known land slide points (82% of the total slide points in GSP zones). Although these areas were included in the original 20-Year Plan, there was little consideration for how they would be enrolled using standard restoration techniques. Given slope stability and landslide concerns, it is not feasible to move forward with comprehensive invasive removal and replanting on vertical slopes. They will likely require a different set of strategies and management goals.
- **Transitioning Zones to Phase 4:** The original 20-Year Plan did not detail the process for transitioning zones from active restoration (Phase 1 – 3) to long-term stewardship and maintenance (Phase 4). It was not until 2015 that the program devised a Phase 4 Verification methodology<sup>12</sup>. As with other aspects of this program, there will most likely be learning and modification of this methodology as it is implemented.
- **COVID-19 Pandemic:** In 2020, it goes without saying that the pandemic has had an impact on GSP, altering the annual work plan and effecting long-term stewardship efforts across the city. Volunteer events have been cancelled since March, limiting public participation and reducing overall volunteer hours (currently down 30K compared to the year-to-date hours in August 2019). In addition, the Natural Area Crew (NAC) has been diverted to support the department's Mission Essential Functions such as garbage removal, comfort station cleaning and repairing dangerous trail conditions. The NAC is also carrying three vacancies as part of the citywide hiring freeze, further impacting the work (note the 2021 Proposed Budget assumes holding two vacant through 2021). The partnership has been nimble, however, getting early approval to continue restoration work as essential green infrastructure management, adapting volunteer consultants' contracts to allow staff to do site care, carrying forward paid job-training opportunities for youth, and growing social media/online participation.

### **2017 GSP Strategic Plan Update**

GSP's original 20-Year Strategic Plan was a bold plan to jumpstart restoration on 2,500 acres of forested parkland by 2025. In 2017, GSP released a Strategic Plan Update to capture program success and chart a course for future years. ***This 2020 SLI response offers a similar opportunity to address the challenges now facing the program as described above and to perform analyses necessary to understand the substantial body of work that remains to enroll all acres, move them through active restoration and continue natural area management in perpetuity.***

### **Status of Acres**

GSP organizes restoration efforts using a four-phase approach described in the table below. Investments vary by phase and also depend on current park conditions, with more degraded sites requiring more intensive restoration activities. All phases have a component of community engagement where park conditions allow. As a simplified explanation, Phases 1 – 3 could be lumped together as "active restoration", while Phase 4 areas graduate to "stewardship and maintenance", requiring ongoing management but on a less intensive cycle.

<sup>12</sup> GSP Phase 4 Verification - <https://www.greenseattle.org/phase-4-results/>

**Table 2: Restoration Phase Definitions**

Phase	Phase Definition
<b>1 – Enrollment</b>	Initial invasive weed removal, erosion control, soil improvements Acres “enrolled” in GSP program and active restoration initiated
<b>2 – Planting</b>	Installation of native trees, shrubs and groundcover usually over the course of 2 years anticipating and accounting for mortality
<b>3 – Establishment</b>	Ongoing weeding and watering for three to five years (or longer if site is highly degraded or impacted by other park use)
<b>4 – Long-term Stewardship and Maintenance</b>	Site meets restoration success criteria, so it graduates into ongoing forest management; maintenance will take place on a 5-year cycle to protect restoration investments, address forest management issues that arise, and continue to enhance ecological values

GSP organizes work in management units called zones, which are smaller subsets of a park’s natural areas. There are currently 1,525 zones across 238 sites, representing 2,754 acres. Zones are added to incorporate property acquisitions and removed when restoration is not appropriate, such as steep slope areas where restoration is determined to be unachievable and tiny strips/pockets of sites not connected to any other natural areas or other forest habitat.

Of the 2,754 acres currently zoned for restoration by GSP, there are 966 acres that have not seen work yet. Of these remaining acres, 8% are wetlands and 49% include steep slopes (defined as greater than 40% slope). Acres recorded in phases 1, 2 and 3 below are still seeing active restoration, including planting, watering and weeding. Successful restoration is complete on over 423 acres of forest.

Work areas transition from active restoration to stewardship when forest structure metrics (used as a proxy for ecological function) have been met. These Phase 4 thresholds were developed using reference ecosystems from the Puget Trough. Generally, zones must have tree regeneration (small trees = future forest), low invasive weed presence, high plant diversity (critical for resilience to future climate conditions), and native canopy cover with maturing evergreen species. Through data collection activities, GSP staff determine when restoration interventions are complete and long-term maintenance begins. The following tables visually represent this data.



**Table 3: Acres by Phase**

Phase	Total Acres per Phase	Wetland %	Steep Slope (> 40%) %	Steep Slope (> 66%) %
<b>0</b>	966	8%	49%	13%
<b>1</b>	264	9%	44%	10%
<b>2</b>	231	7%	37%	7%
<b>3</b>	870	7%	25%	5%
<b>4</b>	423	8%	26%	5%
<b>Total</b>	2754	8%	36%	9%

## NEW PRIORITIES/LONG TERM PLANNING

### *Updated Restoration Timelines and Financial Impacts*

***Given the remaining work needed, current funding levels, programming hurdles, and an international pandemic, it is impractical to anticipate that GSP will meet restoration enrollment goals by 2025.*** As such, this report includes an updated baseline funding scenario that demonstrates how a continued level of investment influences year-on-year work accomplishments (defined by acres of work).

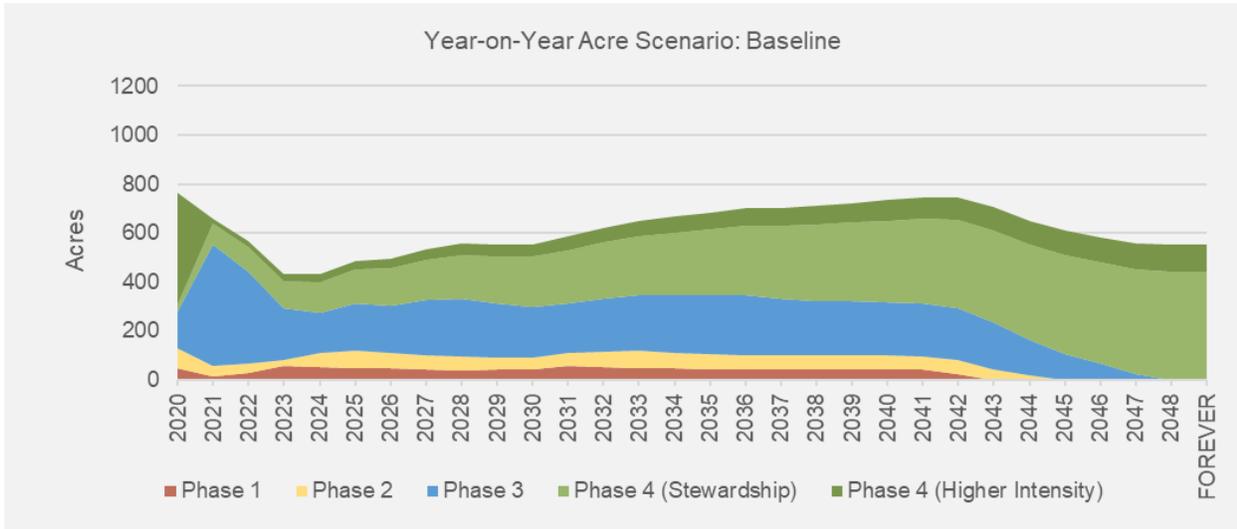
The baseline scenario is based on a cost per acre for professional crews to carry out phased restoration activities, with additional cost increments for community engagement, ecological monitoring, supporting materials and SPR staffing. To account for heterogenous conditions across acres and parks, cost per acre estimates are derived from varied projects undertaken to date, each with different site conditions and needs. A 10% contingency factor is also included in the cost per acre and does not account for inflation. The financial model used to develop the scenario uses the current phase status of GSP acres and assumes new-acre invasive removal (Phase 1) in the first year of work on a site, followed by planting (Phase 2) over two years and establishment (Phase 3) over five years. Long-term stewardship and maintenance (Phase 4) assumes a site is visited once every five years. To account for expected disturbances and forest changes, one-fifth of the Phase 4 acre work each year is calculated at a higher cost for higher intensity activities. Funding reductions would further extend the restoration goal.

<b>Scenario</b>	<b>All Enrolled Year (Phase 1)</b>	<b>All Restored Year (Phase 4)</b>	<b>Number of Years +/- Original Goal</b>
<b>Baseline Funding</b>	2042	2048	17

### ***Baseline Funding and Updated Restoration Goal***

The baseline funding scenario assumes sustained Park District (MPD) and Real Estate Excise Tax (REET) funding at 2019 levels with no additional funding reductions or additions. Under this scenario, GSP will enroll all new acres (Phase 1) by 2042 and will transition all acres out of active restoration to long-term stewardship and maintenance (Phase 4) by 2048. Baseline funding is \$1.7M in REET and \$1M in PD funds.

Recognizing the lessons learned and challenges experienced to date, this scenario supports the need for sustained funding to meet the end goal of the Green Seattle Partnership. Due to the longer timeframe projected, we anticipate that this will not be well received by GSP stakeholders. In addition, drawing out active restoration through 2042 has the potential to limit restoration success, since this produces a delay in site establishment potentially to a degree that could negate initial investments. Restoration carried out on a slower timeframe opens sites up to or increases the degree to which they are impacted by pressures from factors, like invasive weed pressure from adjacent properties and off-trail use by humans and dogs, that can mean a longer period where restoration activities are needed.



**SUMMARY**

The GSP started as an innovative vision and has grown into a successful program of partners working together to create a sustainable network of healthy forested parkland throughout Seattle, supported by an engaged public. The program increases access to nature and human health, strengthens neighborhood cohesion, increases climate resiliency, and improves the health and wildlife habitat of Puget Sound. These benefits will continue regardless of a longer term enrollment timeline changed by influencing environmental and social factors that far exceed the financial investments in the program over the years. This SLI provided an opportunity to undertake a thorough evaluation of the program, leading to a level-setting of the remaining ecological restoration work needed to continue making progress toward returning the ecosystem health and function of our urban canopy for the benefit of Seattle residents, the environment and wildlife.

## APPENDICES: COMMUNITY BENEFITS

Green Seattle Partnership has succeeded in its original intent to spur community involvement, marking a million volunteer hours invested in the program by 2018. Engagement has expanded to include restoration-related activities for people ranging in age from toddlers to elders. Our leadership and job training opportunities, corporate events, school programming and a robust Forest Steward program are actively building community cohesion. Our challenge moving forward is to address racial representation in the volunteer base. Changing our timescale and perspective before and beyond 20 years may help us reconcile the historic and institutional racism that is reflected in Seattle's greenspace care, use and distribution of benefits.

### 1. Equity Prioritization

GSP originally prioritized work in ecologically rich forests, areas adjacent to fish-bearing streams, and sites that had existing volunteer support. Fifteen years into the program, site prioritization has evolved to include a focus on work in less advantaged focus neighborhoods and associated social engagement considerations (i.e. access, visibility and proximity to schools) to better serve communities of color.

GSP currently uses the Racial and Social Equity Composite Index<sup>13</sup> produced by the Seattle Office of Planning & Community Development. The index provides geospatial representation of three basic demographic indicators--race/ethnicity, socioeconomics, and health--categorizing census tracts into five levels, from the most disadvantaged to the least disadvantaged. GSP uses the Highest and Second-Highest Disadvantage categories to identify priority communities. The 2017 GSP Strategic Plan Update Executive Summary specifically names the strategy: *Further Seattle's Race and Social Justice Initiative by ensuring 75% of parks where work is completed each year are in priority communities, until all acres in priority communities are enrolled.*<sup>14</sup>

Application of this Index has limitations, however. The census data is out of date and the census tract breakdown can provide an inconsistent categorization (e.g. Lake Washington Boulevard). Parks like Discovery, Magnuson, Seward and Lincoln include significant GSP acreage, offer volunteer-appropriate work, provide regional recreation and other benefits, but fall outside of the prioritized categories. Similarly, sites like Daybreak Star in largely affluent Magnolia fall outside of the prioritized categories yet provide important services to the urban indigenous community. GSP will continue to reference mapping efforts like Washington State Environmental Health Disparities Map<sup>15</sup> and initiatives like Outside Citywide<sup>16</sup> as part of more detailed work planning and prioritization efforts.

### 2. Youth Engagement

Annually, youth hours make up roughly a quarter of GSP volunteer hours, with records showing 28% youth participation since the program started in 2005. In 2019, 18,784 volunteer hours were provided by youth--26% percent of the year's total

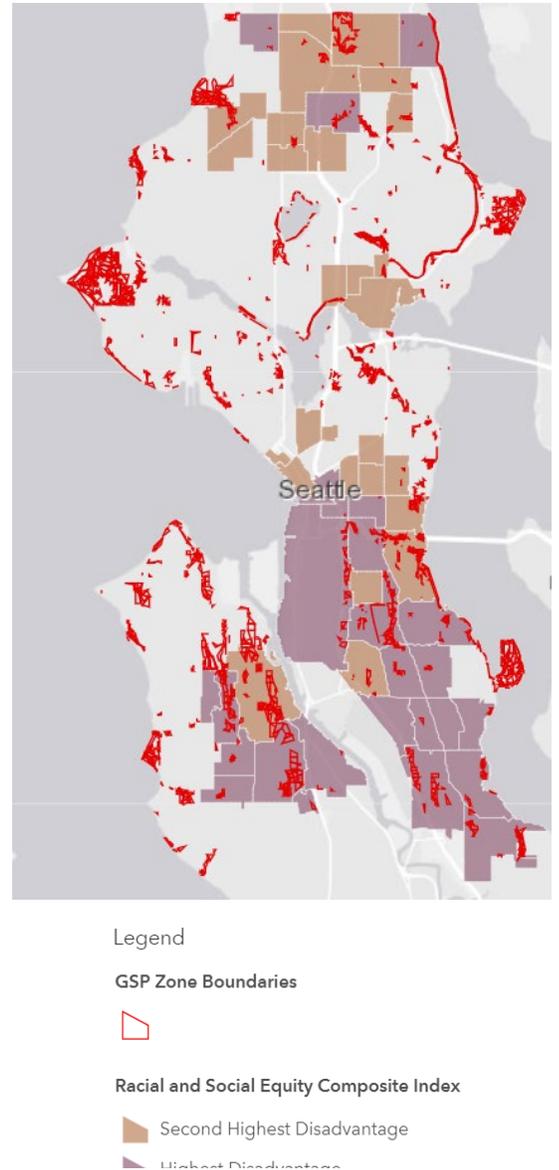


Figure 1: Racial and Social Equity Composite Index and GSP Zones

<sup>13</sup> Racial and Social Equity Composite Index - <https://seattlecitygis.maps.arcgis.com/apps/Minimalist/index.html?appid=764b5d8988574644b61e644e9f9e30d1>

<sup>14</sup> 2017 GSP Strategic Plan Update Executive Summary - [https://www.greenseattle.org/wp-content/uploads/2019/02/GSP\\_Exec\\_Final\\_01.23.18-Digital\\_optimized.pdf](https://www.greenseattle.org/wp-content/uploads/2019/02/GSP_Exec_Final_01.23.18-Digital_optimized.pdf)

<sup>15</sup> Washington State Health Disparities Map - <https://fortress.wa.gov/doh/wtn/WTNIBL/>

<sup>16</sup> Outside Citywide Story Map - <http://arcg.is/08brb>

hours. Engagement ranges from individual participation to K-12 class stewardship events and youth-specific programming carried out by GSP partners.

**Table 4: Youth Engagement Metrics**

43	Number of schools engaged [January 2019 – July 2020]
28%	% of total volunteer hours that are youth
33	Number of youth leadership opportunities/programs involved [January 2019 – July 2020]

School events are a significant component of GSP youth engagement focused on recruitment of Seattle Public Schools. There is not a complete record of the number of schools that have participated with GSP each year since 2005, but recent records indicate that there were 43 unique schools that participated in 96 events from January 2019 – July 2020. In addition, 33 youth programs, some associated with schools, participated in 53 events during the same time period.

School engagement includes environmental education components. Partner organizations like Delridge Neighborhood Development Association’s Nature Consortium Program and EarthCorps have been contracted in the past to include classroom activities to accompany restoration events. In 2010, with funding from the U.S. Forest Service, GSP developed a K-12 curriculum that was implemented extensively before new school district standards made it obsolete.

Youth leadership opportunities are a priority for Green Seattle Partnership. While there is not a complete record since GSP inception, current programming highlights include Green Seattle Partnership Youth Ambassadors<sup>17</sup>, Seward Park Audubon Center’s Tenacious Roots Program<sup>18</sup>, Student Conservation Association’s Seattle Conservation Leadership Corps<sup>19</sup>, YMCA Earth Service Corps<sup>20</sup>, and Tilth Alliance’s Rainier Beach Youth Stewards<sup>21</sup>.



### 3. Green Job Training

In addition to youth programming, Green Seattle Partnership provides job-training opportunities that focus on young people age 18 to 24. Washington Conservation Corps<sup>22</sup>, EarthCorps<sup>23</sup>, Youth Green Corps<sup>24</sup>, Dirt Corps LLC<sup>25</sup>, Seattle Conservation Corps, and Partner in Employment<sup>26</sup> provide green job training opportunities through GSP restoration efforts. They also provide an important link for GSP youth from volunteer and internship programs to employment opportunities in the ecological restoration field or more broadly with environmental justice, land management and sustainability fields.

<sup>17</sup> GSP Youth Ambassadors - [https://www.greenseattle.org/wp-content/uploads/2019/03/GSP-Youth-Ambassador-Description\\_Final.pdf](https://www.greenseattle.org/wp-content/uploads/2019/03/GSP-Youth-Ambassador-Description_Final.pdf)  
<sup>18</sup> Seward Audubon’s Tenacious Roots Program – <https://sewardpark.audubon.org/programs/teen-program>  
<sup>19</sup> Student Conservation Association’s Seattle Conservation Leadership Corps - <https://www.thesca.org/nw>  
<sup>20</sup> YMCA Earth Service Corps – <https://www.seattleyymca.org/programs/youthprograms/earthservicecorps>  
<sup>21</sup> Tilth Alliance’s Rainier Beach Youth Stewards - <http://www.tilthalliance.org/about/rainier-beach-youth-stewards>  
<sup>22</sup> Washington Conservation Corps - <https://ecology.wa.gov/About-us/Our-role-in-the-community/Washington-Conservation-Corps>  
<sup>23</sup> EarthCorps - <https://www.earthcorps.org/>  
<sup>24</sup> Youth Green Corps - <https://www.seattle.gov/parks/volunteer/youth-green-corps>  
<sup>25</sup> Dirt Corps LLC - <https://www.thedirtcorps.com/>  
<sup>26</sup> Partner in Employment - <https://partnerinemployment.org/>

#### 4. Forest Steward Program

Forest Stewards are lead volunteers trained in GSP restoration activities and community engagement. They serve as key contacts for GSP in the community, coordinating with SPR staff to develop site restoration plans, report progress and lead volunteer events. SPR staff coordinate with partner organizations to provide regular online or in-person continuing education opportunities for Forest Stewards<sup>27</sup>. The Forest Steward position description<sup>28</sup> details requirements for participation.

Since the inception of GSP in 2005, 398 people have participated in the Forest Steward program, with 166 currently active, 105 inactive (not active in a park but potential to return to the program) and 126 retired (will not return to the program). Thirty-nine Forest Stewards have provided ten or more years of service.

**Table 5: Forest Steward Metrics**

Forest Steward Status	Count
Active	166
Inactive	105
Retired	126
Total	398

In 2020, GSP will be exploring opportunities for improving the Forest Steward program. Although demographic data is incomplete, it is widely recognized that the Forest Steward program engages older, white participants for longer durations. Participants may benefit from access to SPR staff and resources, health and well-being improvements from outdoor physical activity<sup>29</sup>, a sense of purpose and respect in their community, job skills development, and more. We will be looking more closely at demographics as well as participation locations, barriers to involvement and opportunities for shifting resources to support leadership roles for people of color.

#### 5. Contracting

With a significant portion of GSP financial resources committed to contracting for professional services, it is important that we take action to increase purchasing from Women and Minority Businesses (WMBE). In 2021, the blanket vendor agreement for professional crew services expires, offering an opportunity to engage additional businesses. In the first quarter 2021, SPR staff will work with City Purchasing to address structural barriers in the contracting process and to identify outreach strategies that will enable the program to increase diversity in our professional contracting, particularly with black, indigenous, people of color (BIPOC) entities.

For volunteer coordination contracts, GSP staff are also exploring mechanisms to more directly fund BIPOC-led organizations in 2021. Community engagement contracts for 2020 include indirect mechanisms to fund involvement from communities of color such as sub-contracts or partnerships with BIPOC organizations (e.g. ECOSS) or honorariums and stipends to fund participation (e.g. Tilth Alliance, EarthCorps). We will also implement a Request



<sup>27</sup> Forest Steward Training Opportunities - <https://www.greenseattle.org/information-for/forest-steward-resources/forest-steward-trainings/>

<sup>28</sup> Forest Steward Position Description - <https://www.greenseattle.org/get-involved/become-a-forest-steward/>

<sup>29</sup> Environmental volunteering and health outcomes over a 20-year period - <https://pubmed.ncbi.nlm.nih.gov/20172902/>

for Proposal (RFP) process in first quarter of 2021 for these services and work with SPR's Race and Social Justice Initiative (RSJI) Change Team and RSJI Strategic Advisor, as well as City purchasing and contracting staff, to develop an Inclusive Outreach Plan to advertise to underrepresented contractors/consultants with the goal of increasing opportunities for BIPOC-led entities to engage with the program.

## 6. Climate Change Resiliency

GSP is well positioned to help SPR move forward a variety of climate change resistance and resilience actions. Climate change impacts are inequitable, impacting people of color and low-income communities more than white communities. Prioritizing meaningful engagement with partners and stakeholders early and often to build reciprocity and capacity for climate change adaptation is foundational to GSP. Public education and outreach efforts have been regularly documented via the GSP Blog<sup>30</sup>. The 2018 GSP Forest Stewardship Report<sup>31</sup> includes a climate vulnerability analysis that considers risk factors across GSP zones to help anticipate impacts and strategize adaption work. Invasive species management efforts will continue to help build forest structural diversity, as will more recent efforts to use ecological thinning to accelerate restoration of long-lived conifer species. GSP is also moving forward with expanding plant material sourcing to southern seed provenances (within the current west coast range of the species).

## 7. Extended Benefits

GSP programming offers co-benefits that go beyond the goals outlined in the original 20-Year Plan and that further elevate the value of community-based restoration in Seattle. The following is a partial list:

**Access to Nature:** The 2020 COVID crisis has elevated the importance of city open spaces, as these areas offer opportunities for individuals and families to safely get outdoors. With engagement opportunities limited by COVID, GSP utilized our online platforms<sup>32</sup> to continue to link people to their neighborhood greenspaces. GSP supports access to Seattle's forested parklands through daily volunteer, job training and/or educational events that welcome people to SPR natural areas, building a familiarity and commitment to these spaces. Through close coordination with the SPR Trails Program, GSP works citywide on trail corridor vegetation management, often addressing unsanctioned trail development through restoration practices. GSP teaches and recognizes that well-built trails direct use and protect natural resources. Increasing passive recreation and maintaining ecological integrity in SPR natural areas will require thoughtful design and management choices.

**Neighborhood Wellness:** Evidence of the benefits of nearby nature has grown substantially since 2005<sup>33</sup>, extending our understanding of GSP's purpose and value. Increased exposure to green spaces leads to physical and mental health improvements. GSP programming offers communities opportunities for social cohesion, as neighbors work together to unlock and activate under-utilized park spaces. In addition, rebuilding ecosystem form impacts parks' ability to provide the environmental benefits of cleaner air and water, reduced pollutants, trapped carbon and reduced stormwater runoff.

**Scientific Research:** GSP's partnership model extends to include educational and research institutions, advancing urban forestry, ecological restoration, and social dimensions research. Research efforts help inform our daily work and can offer an important point of engagement in Seattle parklands for students and the broader scientific community. Recent research efforts have focused on sword fern decline at Seward Park, climate change vulnerability in Seattle's forests, seedling survival rates, heavy metals in mosses, and wildlife responses to restoration.

**Green Cities Network:** Since 2005, the GSP model has been adopted by twelve other municipalities with planning underway in two additional cities and one county, accounting for over thirteen thousand acres of urban natural areas in jurisdictions that are home to 1.5 million people -- that's half of the urban population of the Puget Sound region. Forterra coordinates the regional effort as the Green Cities Network. The group meets at least quarterly and shares resources, expertise, and innovation that advances Seattle's restoration efforts.

**Sustainability Programming:** As one of its three pillars, SPR has a strong commitment to ensuring a healthy environment for Seattle. As such, the department maintains a Healthy Environment Action Team that develops

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<sup>30</sup> GSP climate change blog posts - <https://www.greenseattle.org/?s=climate>

<sup>31</sup> GSP Forest Stewardship Report - [https://www.greenseattle.org/wp-content/uploads/2020/06/ForestStewardshipReport\\_2018v2-compressed.pdf](https://www.greenseattle.org/wp-content/uploads/2020/06/ForestStewardshipReport_2018v2-compressed.pdf)

<sup>32</sup> GSP Blog "Finding a Park Near You": <https://www.greenseattle.org/a-park-near-you/>

<sup>33</sup> Green Cities: Good Health - [http://depts.washington.edu/hhwb/Top\\_Introduction.html](http://depts.washington.edu/hhwb/Top_Introduction.html)

implementation plans to ensure the department meets that commitment. GSP is a central piece of this team’s plans, given the environmental benefits produced, as well as the program’s climate adaptation work.

**Leveraged Funding:** SPR’s strong financial commitment has been augmented by partner organizations, volunteers, corporations, private donors, and grant-making agencies. From homemade cookies at volunteer events and donated plants to corporate match programming and federal grants, GSP’s public-private partnership model is positioned to leverage funding opportunities effectively. Our records indicate \$4.5M dollars in leveraged funding since the program started in 2005. This is in addition to the \$28M dollars’ worth of volunteer hours that have been contributed. Although significant, leveraged funding has not been consistently recorded and so is likely under-reported.

**National Leadership:** GSP is recognized nationally for its innovative planning and programming. The industry-leading organization American Forests rated Seattle among the top 10 urban forests in 2013 due in part to the GSP effort<sup>34</sup>. In October 2019, SPR staff participated in a four-day convening in New York City of urban forestry leaders from 12 cities, producing published case studies to support national collaboration on urban natural area restoration<sup>35,36</sup>.

## 8. SLI CROSSWALK

- 1) Forest Restoration Progress:** What is the status of the acres involved in the program?
- a) total # of acres enrolled
  - b) # of acres in establishment Phases 2-3
  - c) # of acres that have reached the final Phase 4
  - d) # of acres remaining to be enrolled
  - e) # of additional acres beyond the original goal of 2,500

Status of Acres		Page 6
1,788	total # of acres enrolled	
1101	# of acres in establishment Phases 2-3	
423	# of acres that have reached the final Phase 4	
966	# of acres remaining to be enrolled	
254	# of additional acres beyond the original goal of 2,500	

- 2) Volunteers:** How many volunteer hours have been leveraged to make this program successful?

Volunteer Hours		Page 4
1,126,930	# of volunteer hours to date [through June 2020]	

- 3) Community Leadership:** How many forest stewards are trained as volunteer and forest restoration experts?

Forest Steward Status and Count		Page 11
166	Active	
105	Inactive	
126	Retired	
398	Total	

- 4) Youth:** What kind of youth engagement has the program accomplished? a) number of schools/students engaged b) % of the total volunteer hours that are youth c) number of youth leadership opportunities/programs involved

Youth Engagement		Page 9
43	Number of schools engaged [January 2019 – July 2020]	
28%	% of total volunteer hours that are youth	
33	Number of youth leadership opportunities/programs involved [January 2019 – July 2020]	

- 5) Challenges:** What are the challenges and barriers to completing the remaining work of restoring more than 2500 acres of park land?

Challenges and Barriers		Page 4
<ul style="list-style-type: none"> <li>• Increasing acres</li> <li>• Climate change</li> <li>• Increasing costs</li> <li>• Homelessness crisis</li> <li>• Growing population</li> <li>• Regulatory obligations</li> <li>• Vertical slopes</li> <li>• Transitioning zones to Phase 4</li> <li>• COVID-19 Pandemic</li> </ul>		

<sup>34</sup> American Forests - <https://parkways.seattle.gov/2013/02/07/american-forests-includes-seattle-among-the-10-best-us-cities-fo-urban-forests/>

<sup>35</sup> GSP blog on Forest in Cities Workshop - <https://www.greenseattle.org/seattle-joins-eleven-american-cities-to-convene-on-the-care-of-urban-forested-natural-areas/>

**6) Investments:** What are the estimated resources that have been invested to date by implementation partners, volunteer hours, and City funding)?

Investments		Page 3
31M	City funding	
4.6M	Implementation partners [limited records]	
28M	Volunteer time	

**7) Funding:** What funding and resources (please list/describe separate for FTE for field, program and volunteer management; materials; contractors; etc.) are needed to:

- Enroll the remaining acres into Phase 1 restoration
- Move remaining acres into Phase 4
- Maintain acres in Phase 4 between 2020 and 2025
- Maintain all Phase 4 long-term annually beyond 2025

**Note: Funding not adjusted for inflation.**

Funding		N/A
\$11,393,800	Needed to enroll remaining acres in Phase 1 restoration	
\$14,204,815	Needed to move remaining acres into Phase 4	
\$9,252,276 / \$550,892	Needed to maintain acres in Phase 4 between 2020 and 2025 (edit: through enrollment in 2042) / Annually after all acres are enrolled)	
\$550,892	Needed to maintain all Phase 4 long-term annually beyond 2025	
\$2,291,184	(edit: annual cost of supporting materials, ecological monitoring, community engagement, staffing)	

**8) Extended Impacts:** What are the unintended benefits that have resulted, and resources leveraged (e.g., research, additional funding, etc.) from the partnership?

Extended Impacts		Page 12
•	Scientific Research	
•	Green Cities Network	
•	Sustainability Programming	
•	Leveraged Funding	
•	National Leadership	

**9) Neighborhood Benefits:** Are there opportunities for these projects to better serve the needs of our neighborhoods and provide a greater degree of environmental services even more than it does currently?

Neighborhood Benefits		Page 12
•	Physical and mental wellbeing	
•	Nearby nature	
•	Social cohesion	
•	Activated greenspaces	
•	Ecosystem services	

**10) Access to Nature:** How can we enhance the passive recreation offered by these properties as we also ensure they maintain a high degree of ecological integrity

Access to Nature		Page 12
•	GSP teaches and recognizes that well-built trails direct use and protect natural resources. Increasing passive recreation and maintaining ecological integrity in SPR natural areas will require thoughtful design and management choices.	