



City of Mercer Island Open Space Conservancy Trust 2020 Annual Report to City Council

INTRODUCTION

In 2020, the Open Space Conservancy Trust held meetings in January, October, and November. To minimize the risk of COVID-19 exposure, the October and November meetings were conducted remotely via the Zoom video-conferencing platform. Governor Inslee's Proclamation No. 20-28 regarding the Open Public Meetings Act put in place statutory waivers and suspensions regarding in-person meetings.

TRUSTEE APPOINTMENTS AND ELECTIONS

Councilmember Lisa Anderl was appointed as the Council Liaison on February 2, 2020 to serve a two-year term. Hillary Ethe was appointed by City Council as a Trustee to serve a four-year term from June 2020 through May 2024. The annual election of officers took place at the October meeting. Trustee Marie Bender was elected Chair, Trustee Thomas Hildebrandt was elected Vice Chair, and Trustee Craig Olson was elected Secretary.

CITY OF MERCER ISLAND, NATURAL RESOURCES PROGRAM

The Natural Resources program is tasked with managing forest restoration, tree risk mitigation, and trail construction and maintenance on Trust properties – Pioneer Park and Engstrom Open Space. The program is staffed by two three-quarter time employees, who are supervised by the Parks Operations Manager.

Due to COVID-19 related budget cuts, the Parks Operations Manager and Natural Resources Specialist positions were temporarily eliminated between April and mid-June. All casual labor positions were also eliminated for the year, including positions on the seasonal Restoration and Trails Crew, which typically consists of two to three crewmembers. During this time, the Trails and Urban Forestry Specialist continued to work under the supervision of the Public Works Department. The Parks Operations Manager and Natural Resources Specialist were reinstated in June and transitioned from the Parks and Recreation Department to the Public Works Department. In 2020, the Natural Resources Program staff included:

Alaine Sommargren, Parks Operations Manager
Kim Frappier, Natural Resources Specialist
Andrew Prince, Trails and Urban Forestry Specialist

FOREST HEALTH AND MANAGEMENT

Background

Forest management of Trust properties is informed by three management plans.

- The [Pioneer Park Forest Management Plan](#) (PPMP), originally adopted in 2003, was developed to improve and expand forest management goals and objectives first established by the Trust in 1994.
- In 2009, the PPMP was amended by the Trust to incorporate recommendations from the [2008 Pioneer Park Forest Health Survey](#). The Trust commissioned this survey to quantify habitat conditions and forest health threats within Pioneer Park. The Forest Health Survey includes a Forest Health Plan (FHP) with updated management recommendations based on existing conditions as well as specific annual benchmarks based on different budget scenarios. This quantitative survey established permanent study plots that will allow for comparison with previous conditions and provide a baseline for future analysis.
- As a City open space, management of Pioneer Park is also guided by the [Open Space Vegetation Plan 10-year Evaluation and Update \(OSVP\)](#), adopted by City Council in 2015. The 2015 OSVP serves as a

comprehensive status report on the condition of vegetation on all city open spaces. It revisits the original goals of the 2004 Open Space Vegetation Plan and recommends modifications and improvements to city-wide restoration practices and levels of service.

Restoration activities outlined in these plans aim to ensure a sustainable and resilient forest landscape. Activities include invasive plant removal, ongoing maintenance, ivy ring creation, invasive tree treatment, native tree and shrub installation, and planting maintenance (For more information, see Appendix A). Annual planning and project management is conducted by the Natural Resources Specialist, while on-the-ground work is accomplished by contracted professional restoration crews, the City's in-house seasonal crew, and volunteers.

2020 Accomplishments

Approximately 82 acres of Trust properties received restoration work in 2020. In response to site conditions and to meet benchmarks outlined in the 2008 Forest Health Plan, restoration work largely focused on invasive tree treatment and ivy ring creation. Due to the COVID-19 response, staff reductions, and the subsequent delay to the contracting process, a smaller number of maintenance projects were scheduled on comprehensive restoration sites. The success of restoration tasks in these areas is dependent on removing invasive herbaceous plants while they are actively growing and before they have set seed, usually in the late spring. Having missed that season, restoration efforts were reallocated within the park to tasks that would be more effective in late summer and fall. Most of the work was accomplished by professional contractors. The following is a summary of 2020 accomplishments:

Professional contractors

Restoration Task*	Pioneer Park	Engstrom Open Space
Invasive removal maintenance	3.3 ac	
Ivy rings	34.0 ac	
Planting maintenance	8.3 ac	
Invasive Tree Treatments	59.0 ac	5.7 ac
Tree and shrub installation	0.5 ac	

**See Appendix A*

Volunteers

The City of Mercer Island's Natural Resources program contracts EarthCorps to lead volunteer stewardship events at Pioneer Park as well as conduct outreach in the community to engage and educate Mercer Island residents about forest restoration. In keeping with Washington State Department of Health COVID-19 safety guidance, all regularly scheduled large-scale volunteer events were cancelled from March-July and November-December. EarthCorps held one regularly scheduled event in February before cancelling events through most of the summer. In response to state mandated social distancing protocols, EarthCorps developed a revised protocol to host small events of up to five volunteers and hosted three modified events at Pioneer Park in August, September, and October. Volunteer restoration primarily consisted of invasive removal maintenance on the west perimeter of the park, along 84th Avenue SE. In addition, City staff and EarthCorps led a successful planting in the NW quadrant of Pioneer Park to celebrate the City's 3rd Annual Arbor Day on October 19th.

Forest Health Plan Progress

The Natural Resources program implements the management recommendations and benchmarks outlined in the FHP. The benchmarks serve as a guide to managing forest health on Trust Properties. Between 2009 and 2014, the Natural Resources program was able to get ahead of schedule due to a favorable bidding climate and lower contracting costs. Beginning in 2015, the regional demand for qualified restoration contractors increased and costs increased significantly. Implementation of tree planting and associated maintenance slowed during the last

two biennia so the program could focus on additional maintenance needed on existing projects. However, Natural Resources staff continued to advance restoration priorities while addressing challenges and making effective use of available resources. Twelve years into the FHP, restoration efforts are overall on track, particularly regarding invasive tree treatments, ivy ring creation, and tree planting.

In 2020, restoration work focused on maintenance of existing projects, so there were no large-scale plantings by professional contractors nor any new comprehensive invasive removal projects. During the last several years, tree planting efforts were impacted by summer drought conditions which contributed to high plant mortality. This required replanting in previously planted areas and supplemental watering. Although the FHP calls for one year of maintenance post-plant installation, some areas required supplemental plant maintenance largely due to robust regrowth of Himalayan blackberry. As outlined in the FHP benchmarks and in response to vigorous ivy regrowth during the last 10 years, staff also prioritized ivy ring maintenance on sites that had been originally completed in 2010. Staff also prioritized a second round of invasive tree treatment for English holly, cherry laurel, and other invasive tree species. Table 1 outlines actual progress made to date versus proposed benchmarks outlined in the 2008 FHP:

Table 1. Forest Health Plan Cumulative Progress in Pioneer Park, 2009-2020

Restoration Task	Proposed (acres)	Actual (acres)
Invasive tree treatment	93	105
Invasive tree treatment maintenance	93	93
Ivy ring creation	77	75
Ivy ring maintenance	93	34
Tree planting	89	71
<i>Replanting due to high mortality</i>	<i>n/a</i>	14
Plant maintenance (1-year post-planting)	84	68
<i>Supplemental plant maintenance due to site conditions</i>	<i>n/a</i>	84

Forest Health Survey 10-year data collection

The Pioneer Park Forest Health Survey specified that data be re-collected every ten years, to track changes in ecological health. In summer 2018, the City hired two field technicians to collect vegetation data in the survey's study plots. Due to staffing changes and constraints in 2019, staff were unable to complete analysis and provide a report to the Trust. In 2020, the Natural Resources program hired EarthCorps, whose staff ecologist analyzed the data and prepared a preliminary report to City staff in December 2020. Natural Resources staff will present findings to the OSCT in early 2021.

LETTERBOXING PROGRAM

The Letterboxing Program is a collaborative effort between Parks and Recreation staff, OSCT Board Members, and community volunteers. Due to COVID-19 related staff reductions to the Parks and Recreation Department, and adherence to state and county public health guidelines, the Letterboxing Program was cancelled in 2020.

LEASH POLICY EDUCATION EFFORTS

In 2020, leash policy education was accomplished through the distribution of the "Dog Owner's Guide to Mercer Island Parks" brochure, which provides park users with information about voice/signal control and the location of off-leash versus on-leash parks. Due to staffing shortages, the brochure was distributed to the Pioneer Park kiosk by Parks Maintenance team members during park checks. There were no off-leash dog workshops offered in 2020.

TRAILS

The Natural Resources team continued to manage trails for safety and access in 2020. Due to the elimination of casual labor in 2020, seasonal crew members that would typically handle trail brushing and repairs were not hired. The Trails Specialist and Parks Maintenance staff did their best to keep up with brushing and leaf blowing but levels of service were not as high as they usually are. As a result, the 2021 trails work plan calls for additional maintenance and repair work on Trust property trails.

URBAN FORESTRY

Tree risk mitigation continues to be a primary focus of urban forestry efforts in Pioneer Park. Certified staff arborists make decisions each year to remove dead, dying, or structurally defective trees to reduce the risk of trees failing and causing injury, property damage, or interference with utility lines or roadways. Trees are retained through corrective pruning or as wildlife snags when possible, but tree removals are occasionally necessary. In the case of whole tree removals, the wood from the tree is left to decompose on site as habitat and to improve soil conditions. Dead and dying trees continue to make up the majority of tree removal work. In 2020, the City contracted the removal of four trees for risk mitigation. Staff continued to monitor park boundaries regularly for tree risk.

Appendix A. Definitions

Comprehensive restoration

The process of assisting the ecological recovery of an ecosystem that has been degraded or damaged by removing invasive plant species, replanting native trees and shrubs, and addressing soil health issues. Comprehensive restoration within the Mercer Island Natural Resources program refers to the practice of controlling all invasive plant species within a site versus practices that address only one species or issue such as ivy rings or invasive tree treatment.

Invasive plant

Introduced nonnative plant species with traits that allow them to thrive outside their natural range and outcompete native species. Invasive plants are typically adaptable and aggressive, suppress natural forest regeneration, decrease biodiversity, and threaten the long-term resilience and sustainability of native habitats. Invasive plants are known to have environmental, economic, and health impacts.

Invasive removal

The eradication of invasive shrubs and herbs primarily accomplished through the manual removal of root systems and above ground vegetation. In limited circumstances, herbicides may be used if manual removal would lead to further spread of the invasive species or cause significant soil disturbance in critical areas. **Invasive removal maintenance** refers to the practice of ongoing invasive removal in areas where comprehensive invasive removal has already occurred.

Invasive tree treatment

Invasive trees include species such as English holly, cherry laurel, bird cherry, and European hawthorn. Invasive trees are eradicated using a combination of herbicide treatments and manual removal. For all invasive trees greater than 1 inch diameter, the stems are injected using an EZ-Ject lance. For trees less than 1 inch diameter, herbicide is painted on to the freshly cut stem. Small saplings may be manually removed. Invasive tree treatment “maintenance” refers to those areas where subsequent invasive tree treatment is needed due to regrowth.

Ivy ring creation

The removal of English ivy from all trees, snags, stumps, and structures at chest height and removal of all vines and leaves from that point downward. Surface ivy roots are grubbed out within a 3-foot radius from the base of the tree or structure in all directions, taking care not to damage tree roots. Ivy ring “maintenance” refers to those areas where subsequent ivy ring creation is needed due to regrowth.

Native tree and shrub installation

Native trees and shrubs are those species that have evolved in and occur naturally within the Pacific Northwest ecoregion. Due to the region’s mild winter climate, plant installation occurs between October and January to allow roots to get established before the dry summer season. Plants are selected according to their light, water, and soil moisture requirements. In areas with significant invasive cover, 4-foot diameter weed-free “planting circles” are established around each native plant. Each plant is mulched using on-site leaf litter or arborist chips and watered if the site is accessible.

Planting maintenance

Planting maintenance refers to the practice of creating 4-foot diameter weed free circles around each tree or shrub in a planting area. All non-native plants are removed from the circle and fresh mulch is placed within the circle. Each planting will receive at least one year of planting maintenance post installation depending on site conditions.