Portland Parks & Recreation *and* Bureau of Environmental Services

PROCESS IMPROVEMENT PROJECT

Phase One Assessment Report

ENVIRONMENTAL SERVICES
CITY OF PORTLAND

PORTLAND PARKS & RECREATION℠
Healthy Parks, Healthy Portland

FEBRUARY 2020

Introduction

WHY WE ARE DOING THIS WORK?

Portland Parks & Recreation (PP&R) and the Bureau of Environmental Services (BES) share a range of responsibilities related to the acquisition, protection, enhancement, restoration, and management of natural areas and the urban forest in the City of Portland. These natural resources are critical to providing numerous ecosystem and public services including protecting water quality, managing stormwater, mitigating urban heat islands and impacts from climate change, enhancing urban livability, providing access to nature, supporting fish and wildlife habitat, and improving air quality.

PP&R is responsible for establishing, safeguarding, restoring, and enhancing parks, natural areas, public spaces and the urban forest of the City, ensuring ecological health, and providing sustainable access, stewardship, and education to the community. BES is responsible for the health of Portland's watersheds by managing wastewater, stormwater, and surface water, which includes acquiring, enhancing, restoring, and maintaining natural assets to protect public health and the environment.

While each Bureau has its own charter and distinct public service obligations, there are areas of shared interest and overlapping responsibilities. With both PP&R and BES under the leadership of the same Commissioner, the bureaus have the opportunity to better approach natural resource service delivery in an efficient, coordinated and visionary manner.

Project Charter Mission Statement

PP&R and BES will cooperatively develop recommendations to improve natural resource service delivery and clarify roles and responsibilities for relevant program management.

Methodology

WHAT WAS THE APPROACH TO THIS WORK?

Charter

In July of 2019, leadership from both Bureaus drafted a charter to define the project scope, objectives, and stakeholders; provide a preliminary delineation of roles and responsibilities; and forecast a timeline with milestones (Appendix A). Recognizing the multitude of ways the Bureaus intersect around natural resources, the Directors selected three priority focus areas for Phase One of the project: natural area management, invasive species management, and forestry. The Directors executed the charter in September of 2019.

PROJECT MANAGEMENT TEAM

A Project Management Team (PMT) representing both Bureaus was assembled in July of 2019, and tasked with developing the project timeline and structure; managing consultant contracts and terms and assigning and reviewing consultant deliverables; serving as liaisons to PP&R and BES employees regarding project progress; coordinating and supporting interbureau working groups; and bringing forward key discussion items to the Steering Committee and Directors. The PMT members are:

Shannah Anderson *BES Environmental Specialist*

Maija Delgoda *BES Change Implementation Plan Manager (through November 2019)*

Adrienne DeDona *Senior Program Manager, JLA Public Involvement*

Rachel Felice *PP&R City Nature Manager*

Brian Landoe *PP&R Urban Forestry Analyst*

Emily Roth *PP&R Senior Planner*

STEERING COMMITTEE

AA Steering Committee was formed in July of 2019 to provide support, guidance, oversight and monitoring of project progress; vet and evaluate process mapping recommendations; and present recommendations to leadership. The Steering Committee members are:

Jane Bacchieri *BES Watershed Services Group Manager*

Tonya Booker *PP&R Land Stewardship Division Manager*

Jenn Cairo *PP&R City Forester and Urban Forestry Manager*

Rachel Felice *PP&R City Nature Manager*

Kaitlin Lovell *BES Science Integration Division Manager*

Todd Lofgren *PP&R Deputy Director*

Dawn Uchiyama *BES Deputy Director*

The Steering Committee met three times between September 3 and November 6, 2019. They reviewed and endorsed the project charter, refined the project's guiding principles, selected participants for Focus Area Teams, provided input toward a communication plan, received training on process mapping and change management, and provided feedback on the results of interbureau workshops and potential ways for moving the project forward.

PROJECT GUIDING PRINCIPLES

Best serving the environment and people of Portland.

- Deliver efficient and sustainable services
- Derive ideas from a collective perspective
- Driven by staff
- Focus on collaborative processes
- Leverage past efforts
- Use interbureau decision-making
- Identify synergies
- Model good governance

KICK-OFF MEETINGS

The project launched through two interbureau kick-off meetings to provide employees with a broad overview of project goals, desired outcomes, process, and timeline—one for managers and supervisors (August 14, 2019) and a second for staff (August 28, 2019). Both meetings included the solicitation of input on the following themes:

- Concerns and Beliefs—what concerns do you have about the project that could inform how the project is scoped?
- Goals and expectation—what do you hope can be accomplished as a result of this effort?

A summary of feedback from the kick-off meeting exercises is included in Appendix B.

KICK-OFF MEETING THEMES

Natural Area Management

- Shared goals and strong desire to work better together
- Leverage existing strengths of each Bureau—funding, expertise, experience, human resources, tools, and strategies

Invasive Species

- Need for shared data resources
- Strong concern for program funding cuts

Trees

- Desire to expand the forest, services, infrastructure, and community relationships
- Need to document and quantify success and benefits

INTERVIEWS WITH MANAGEMENT

A consultant team met with leadership from each Bureau to gather foundational information and inform the organization of a Steering Committee and interbureau working groups. The consultants framed input into categories: cultural/interpersonal relationship issues and structural, technical, or role/responsibility issues.

The consultants gleaned the following themes through the interviews:

- Cultural and interpersonal challenges are significant and are affecting performance, outcomes and efficiency.
- There is not currently an effective process to resolve differences between Subject Matter Expert (SME) opinions and perspectives.
- Set and agreed upon plans, templates or standards have not been sufficient to resolve issues.
- There are differing perspectives regarding providing or not providing public access in natural areas.
- Conflict occurs when the Bureaus are serving in regulator-regulated roles.
- There is a need to clearly define roles and responsibilities for managing natural resources to increase efficiency and reduce confusion and conflict.

BUREAU WORK GROUP SESSIONS

Prior to convening interbureau teams, a consultant team met with staff work groups on a bureau-specific basis to gather input on how the bureau staff interface on the ground, where there are conflicts, and areas where stronger collaboration is needed. The consultant team was only able to meet with PP&R and BES staff who are charged with natural area and/or invasives species management, not staff who are charged with the oversight or implementation of street tree planting programs.

Feedback included:

Ways to Enhance Collaboration

- Need to cultivate a shared perspective that staff work for the City rather than one Bureau or the other, and that the natural resources are City assets.
- Need to develop Best Management Practices (BMPs) for natural resource management (e.g. vegetation treatments).
- Need to identify a pool of resources that is available to manage green assets.
- Need to develop a better system for sharing knowledge, expertise and data.
- Need to understand the constraints of General Fund versus ratepayer dollars for natural resource management purposes, and secure adequate Operations and Maintenance (O&M) funding.
- Need to clearly define roles and responsibilities for managing natural resources to increase efficiency and reduce confusion and conflict.
- Need to develop a decision-making framework for when there is conflict around natural resource management.

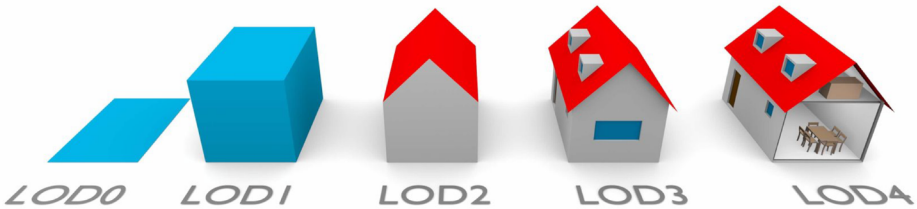
FOCUS AREA TEAMS

In addition to the PMT and Steering Committee, two Focus Area Teams were formed, comprised of SMEs from both PP&R and BES, to map current business processes and identify problem statements around natural area management, invasive species management, and street trees. One Focus Area Team concentrated on street trees and the second concentrated on the interconnected topics of natural area and invasive species management.

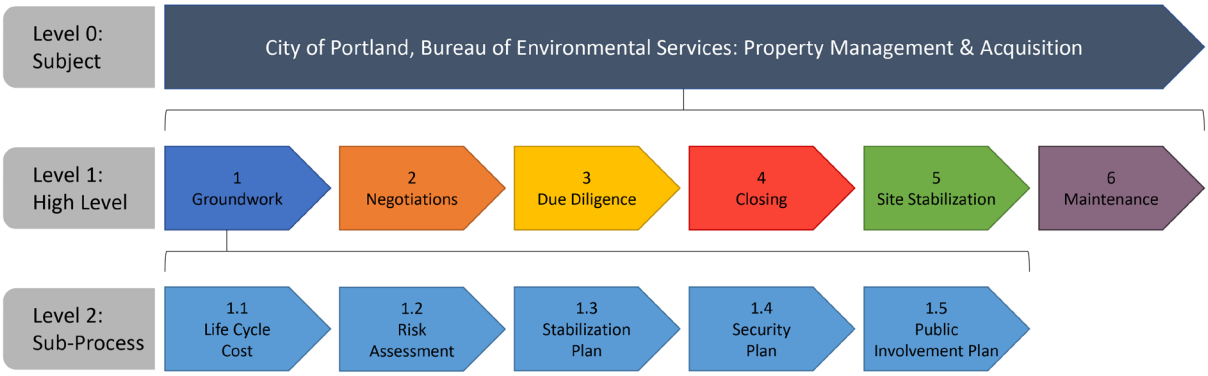
Both Focus Area Teams received a two-hour training based on the PDX Process Improvement and Change Management Framework, which includes formulating a problem statement, Levels of Detail in business process mapping, defining roles and responsibilities, change management, and continuous improvement (Appendix C).

Following the training, both Focus Area Teams met in a series of three, two-hour workshops to write a common result statement, define a Level of Detail Zero statement to scope the work, and develop a Level of Detail One process map. The teams also identified working definitions, priority areas to develop problem statements, and performed root cause analyses. During these work sessions, the PMT collected feedback on each work session to improve the proceeding sessions.

Levels of Detail (LOD)



Example Process Map Levels of Detail



Process Steps for Focus Area Teams

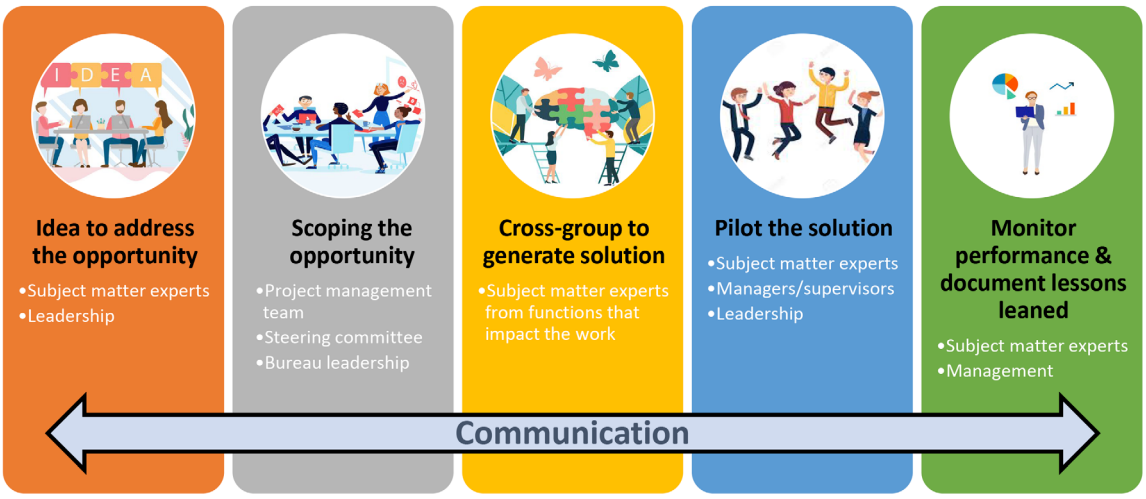
Both Focus Area Teams used the following steps to develop problem statements and root cause analysis:

- **Step 1:** The PMT drafted a result statement that they refined with each Focus Area Team for consensus-based agreement on a vision for Portland in which everyone could see their work.

> ***Result Statement***
>
> Portland's urban forest, natural areas, and watersheds provide benefits that support the biotic community and serve all Portlanders equitably.

- **Step 2:** The teams developed a Level of Detail Zero statement to set their respective scopes of work.
- **Step 3:** The teams generated Level of Detail One process maps in a silent brainstorming activity, then collaborated to cluster the activities into groups. They titled each activity cluster and developed technical definitions.
- **Step 4:** The Focus Area Teams prioritized their top three key activity clusters. Using the Problem Statement Development Tool (Appendix D), teams applied the "Five Whys", a technique used for process improvement to land on a root-cause analysis.

Problem Statement: Roles, responsibilities and decision-making processes are unclear resulting in efficiency and frustration among staff.		
	1st why?	Why are the roles, responsibilities and decision making processes not clear?
		Competing but similar objectives
	2nd Why?	Why do we have competing, similar objectives?
		We haven't been given very clear lanes on where we are operating.
	3rd Why?	Why haven't been given clear lanes on how to operate?
		Bureau have different missions and different ways to get there
	4th Why?	Why do we have different ways to get to the missions?
		Because we have different planning efforts
	5th why?	Why do we have different planning efforts?
		Because we don't coordinate in planning
	Root Cause	A lack in coordination in planning caused unclear roles, responsibilities and decision making processes.



Project Outcomes and Progress

- Development of a result statement that encompasses the work of all Focus Area Team members' work and their long-term vision for Portland's urban forest, natural areas, and residents' access to nature
- Level of Detail Zero and One process maps for street tree planting and management activities on City natural areas
- Consensus-based technical definitions for street tree planting, invasive species management, and natural area management including condition assessment, monitoring, and O&M
- Identification of root causes impeding the efficiency and efficacy of natural area management

NATURAL AREAS & INVASIVE SPECIES MANAGEMENT FOCUS AREA TEAM

Background

There are approximately 8,000 acres of City of Portland natural area, ranging in size from 0.67 acres at Cottonwood Bay Park to over 5,000 acres comprising Forest Park. As the Portland metropolitan area becomes increasingly dense and populated, natural areas provide a range of significant ecosystem services.

Healthy natural areas promote watershed functions like groundwater recharge, nutrient cycling, sediment delivery, and stormwater filtration. Natural areas can mitigate for flooding by storing water in floodplains and reducing the amount of water entering streams during rain events. Vegetation in sloped natural areas prevents land slumping and slides that can impact both public and private property. Trees in forested natural areas reduce greenhouse gasses through carbon sequestration, provision of canopy cover, and trapping water. These environmental services can mitigate for future climate changes expected in Portland, such as rising temperatures and more intense rain events.

Access to Portland's natural areas provide residents with a sense of place and offer opportunities for exercise, connection to nature, wildlife viewing, environmental education, stewardship, and neighborhood involvement. Just over half of the natural areas managed by PP&R are open for sustainable public access. The geographical distribution and diverse scale of natural areas offers access to nature across the City, with associated physical and mental health benefits.

Natural areas provide resources for wildlife (including those under the Endangered Species Act), such as overwintering grounds, stopping areas for migratory species, and refugia and spawning areas for salmon; protect flora important for pollinators and the reproduction of plant populations; and support biological diversity in the Portland metropolitan region by providing important movement corridors that connect the City to the coast range and the Cascades.

PP&R's Natural Areas Restoration Plan (October 2010, Update March 2015) evaluated the ecological health and natural resource function of the natural areas in PP&R's management portfolio. Natural area ecological health is rated poor, fair or healthy and natural resource function rated low, medium or high. The plan also sets priorities for management:

1. Highest Priority—protect the best natural areas from degrading.
2. Second Priority—increase the ecological health of properties in fair condition and high function.
3. Third Priority—increase the ecological health and function of properties in fair condition and medium function.

One serious challenge with the management of natural areas is the treatment of invasive species, which are the most serious threat to biodiversity after conversion of land. Invasive species can alter landscapes and fundamental ecosystem processes, decrease biodiversity, and damage infrastructure.

The City of Portland has taken significant steps to limit the negative effects of invasive species. In November 2005, the Portland City Council adopted Order 36360 which required the city to develop a three-year work plan and ten-year goals to integrate invasive plant management into existing city programs and reduce invasive plant coverage in Portland. The City's response was the Invasive Plant Strategy, developed in October 2008 with the goal of removing invasive plants from 4,000 acres, or 40% of City-owned land by 2025. A decade later, the City is auditing its 2008 Invasive Plants Strategy and embarking on a new all-tax strategy to address identified gaps, lessons learned, and new management principles (Invasive Species 2.0). With a boost of acquisition funding from BES' Grey to Green and Metro's Natural Area Bond Measure programs, BES and PP&R co-acquired

40 properties totaling more than 400 acres in the seven-year period from 2008 to 2015. The Bureaus had also co-acquired or co-inherited properties with BES Capital Improvement Program (CIP), PP&R' System Development Charges (SDC), Metro, Federal Emergency Management Agency (FEMA), and United States Housing and Urban Development (HUD) funds over the previous 20 years. As a result, there are natural area properties throughout the City with a patchwork of ownership interests and management responsibilities.

In November 2015, both bureaus entered into an Interagency Agreement (IAA) for Natural Areas O&M, where there are BES investments either in the form of acquisition funds, stabilization funds, restoration, or other CIP project. The IAA listed common goals for the management of natural areas and detailed the process for ongoing operation and maintenance for natural area properties in which the capital assets are owned in part or wholly by BES and will be managed by PP&R. Due to staff changes and capacity and limited guidance on how to implement the IAA on a site by site basis, the IAA has had limited utility. This has led to confusion over long-term management objectives and a shared understanding about whether adequate O&M has been secured.

In 2018, representatives from PP&R and BES convened to develop a Natural Area Management and Maintenance Framework, which included the following products (Appendix E):

- Inventory of natural areas where both Bureaus have made investments.
- List of resources each Bureau can provide towards natural area management.
- Criteria for when a management agreement is needed for an existing or future acquired natural area.
- Management agreement template that documents property-specific maintenance objectives, roles and responsibilities, financial commitments, work plan(s), and Levels of Service (LOS) and/or Standards of Care.

The Bureaus have entered into a Memorandum of Understanding (MOA) for Natural Area Management using the above framework to pilot co-management of nine sites in FY 2019-2020.

Several technical interbureau work groups are convening to examine natural resource assessment, data management, and Integrated Pest Management. The Process Improvement Project will help inform the objectives and outcomes of these technical working groups.

The Natural Area and Invasive Species Management Focus Area Team was comprised of the following 12 team members:

PP&R

- **Kendra Petersen-Morgan** *City Nature West Supervisor*
- **Michael Oliver** *City Nature East Supervisor*
- **Laura Guderyahn** *Ecologist for the Willamette River and Columbia Slough*
- **Christian Haaning** *Ecologist for Johnson Creek*
- **Nichole Linehan** *Integrated Pest Management Specialist*
- **Jill Van Winkle** *City Nature Trails Coordinator*

BES

- **Nancy Hendrickson** *Watershed Programs Division Manager*
- **Ryan Durocher** *Interim Watershed Revegetation Program Manager*
- **Darian Santner** *Watershed Revegetation Program Ecologist*
- **Julia Bond** *Environmental Specialist, Monitoring*
- **Dominic Maze** *Environmental Specialist, Invasive Species*
- **Damion Coe** *Watershed Revegetation Program Ecologist*

During the first working session, an intentional discussion took place regarding whether to conduct the analysis in one or two groups to address the differences between invasive species management and natural area management. The group decided to work together to address both areas simultaneously. To accommodate this, the Level Zero process was identified as "City-managed natural areas" only.

For the first two working sessions, the group refined the result statement, developed a Level Zero and One process map, developed definitions for the Level One key activity areas, and prioritized the top three key activity areas (Appendix F). For the third work session, the group self-selected into three priority sub-groups—Planning, Implementation, and O&M—to work on problem statements and root cause analyses.

LEVEL ZERO & ONE DETAIL

Level Zero statement: *Natural area and invasive species management on city-managed natural areas.*

Level of Detail One

1. Condition Assessment

2. Planning*

3. Design

4. Implementation*

5. Monitoring

The group identified the following as on-going activities in the Level Zero process map:

1. Administrative Services

2. Stakeholder Engagement/Outreach to Diverse Groups

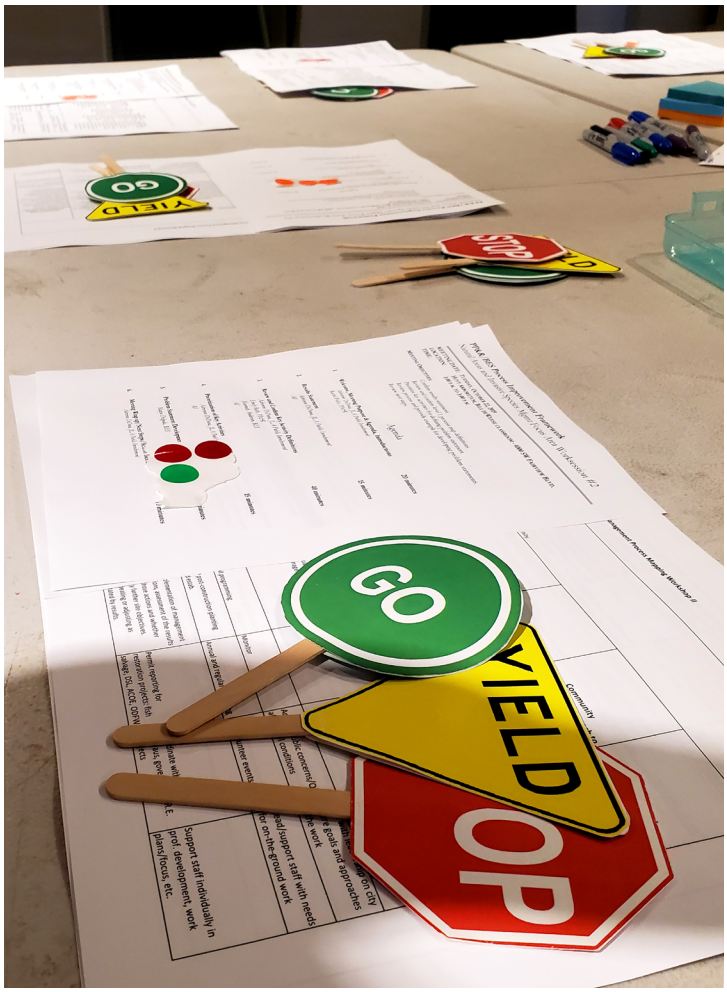
3. Operations and Maintenance*

An asterisk (*) denotes activities of highest priority as ranked by the Focus Area Team members.

PROBLEM STATEMENTS & ROOT CAUSE ANALYSIS

Each of the three subgroups developed numerous problems statements and then picked one or two to work towards a root cause.

The following are the problem statements and root causes for five of these problem statements. Due to time constraints, root cause analyses were not developed for all problem statements.



Planning

1. **Problem Statement:** The Bureaus do not have a written management charter/direction for properties purchased by BES, BES and PP&R together, and or by other entities for the City.

   Root Cause: Development of a site charter/direction is not part of a staff's workplan or responsibility.

2. **Problem Statement:** There are parallel planning processes for each bureau and the overlapping areas are not integrated.

   Root Cause: We don't have agreement on the intersection/ overlapping areas. What is included in our shared work?

3. **Problem Statement:** Desired Future Condition (DFC) for a site can take years to develop because competing interests are not resolved.

   Root Cause: *Did not complete for this problem statement.*

Implementation

1. **Problem Statement:** There is a lack of clarity on decision-making processes when staff have different approaches/recommendations.

   Root Cause: Stakeholders have not been fully engaged in conversation and documentation of standards as part of a clear, written agreement.

2. **Problem Statement:** There is a lack of clear/specific written agreements to guide collaborative acquisition process.

   Root Cause: *Did not complete for this problem statement.*

3. **Problem Statement:** There is not a good process to move from acquisition to restoration to operations and maintenance phases.

   Root Cause: *Did not complete for this problem statement.*

4. **Problem Statement:** The Bureaus are not making the most effective or efficient use of available resources.

   Root Cause: *Did not complete for this problem statement.*

5. **Problem Statement:** There is a lack of consensus and clear direction on weed policy, target priorities, control methods, etc. regarding invasive species management.

   Root Cause: *Did not complete for this problem statement.*

Operations and Maintenance

1. **Problem Statement:** There is a disconnect between community expectations and LOS around natural area and invasive species management.

   Root Cause: There is no designated inter-bureau process for public engagement around natural areas or invasive species management.

2. **Problem Statement:** We are asking too much of our natural areas.

   Root Cause: Natural area management is a relatively new field when you look at the core missions of the two bureaus and there are differing philosophies on management techniques.

It is important to recognize that for many Focus Area Team members, this was the first time they practiced process improvement techniques to map processes, identify problems, and work towards root cause analysis. The following feedback was received:

1. The process gave staff the opportunity to talk to each other and begin identifying problems.

2. Some expressed uncertainty on how this process will lead to solutions and change.

Commonalities Between the Problem Statements for Three Priority Areas

There were several commonalities identified by the PMT between the problem statements developed by the Natural Areas and Invasive Species Management Focus Area Team, including:

1. No agreed upon process to document site acquisition and management goals, objectives, roles and responsibilities. Not clear who is responsible for creating written documents and who is responsible for implementation.
2. No agreement on the intersection of shared work.
3. Lack of clear direction and documentation for site management treatments/level of service.
4. Stakeholders not fully engaged in conversations and documentation of standards.

STREET TREE PLANTING FOCUS AREA TEAM

Background

UF's and BES' Tree Program have shared interest in the expansion and health of Portland's urban canopy.

Portland Parks & Recreation Urban Forestry's mission is to manage and ensure Portland's urban forest infrastructure for current and future generations. Portland's urban forest consists of 218,000 street trees, 1.2 million park trees, and innumerable private property trees.

UF is involved in managing or regulating all of these trees to differing degrees—creating and implementing the city's Urban Forest Management Plan, fostering community tree awareness and stewardship, developing tree policies and programs, monitoring and assessing the urban forest, issuing permits for planting, pruning, and removal of public and some private trees, and responding to tree emergencies.

BES considers trees a green infrastructure asset, and the Environmental Services Tree Program (ESTP) plants street and yard trees to sustainably manage stormwater and protect human health by improving watershed health and the environment. In addition to planting trees, the ESTP works closely with community partners to locate available planting spaces, secure willing planting partners, plant and establish street and yard trees, and teach customers how to maintain trees properly.

One of the bureau's goals is to maximize tree survival, health, and longevity for most effective stormwater management and other ecosystem and human health services. Additionally, ESTP prioritizes equity by planting trees in neighborhoods that are low-income, low-canopy, and/or where communities of color reside.

The 2015 Climate Action Plan sets the Citywide canopy goal at 33%. As of 2015, coverage stood at 31%. However, looking at this metric alone obscures the reality for most residents. While those on the west side of the Willamette enjoy canopy coverage of over 50%, east side residents largely live in low-canopy neighborhoods. East side canopy is just 21%, which is more equivalent to Los Angeles at 25%.

This vastly uneven distribution means that the services and benefits of the urban forest are not accessible to many of Portland's residents. East Portland's low-canopy neighborhoods also represent the City of Portland's highest percentage of communities of color, immigrant, and refugee communities.

Trees intercept precipitation and provide several stormwater management benefits: they hold water on their leaves, branches, and trunks and allow it to evaporate, retaining flow and dissipating the energy of runoff. Trees also remove water from the combined and

separate sewer system by infiltrating transpiring, and storing water in their tissues. The average Portland street tree reduces stormwater runoff by intercepting 570 gallons of rain each year at maturity.

Any discussion of the care, management, and expansion of the City's street trees must include the issue of climate change. Trees pull carbon dioxide from the atmosphere through photosynthesis and store carbon as biomass. Urban trees also impact local air temperature and energy building use, thus reducing source emissions. In short, urban trees are essential tools in meeting Portland's emissions reduction and sequestration goals and improving resilience for frontline communities already experiencing the impacts our warming climate.

Title 11 assigns regulatory authority over street tree planting to the City Forester. As such, ESTP plants street trees under a programmatic permit from UF. The ESTP also plants trees on private property, but this activity is not included in the permit as it is not regulated by Title 11. UF issued programmatic permits to the ESTP in 2015, 2017, and 2018. The current permit expires May 30, 2020 (Appendix G). The permit establishes goals, describes the scope of work, sets technical standards, and details reporting standards and requirements for the ESTP.

The programmatic permit states that street tree planting shall support the 2004 Urban Forest Management Plan and the 2005 Portland Watershed Management Plan among other citywide planning documents. The permit further states that pursuing the goals listed in these documents shall be achieved by planting "diverse planting palette of large-stature, native, and evergreen trees in low-income, low-canopy, racially diverse neighborhoods."

Portland currently has approximately 220,000 street trees with available right-of-way space for an additional 88,000. There is significant unrealized potential to increase the City's canopy through street tree planting.

Although there are several intersections between BES and UF around the topic of forestry, the group was asked to focus on planting and management of trees in the public right-of-way for this phase.

The Street Trees Planting Focus Area Team is composed of the following four staff members:

PP&R

- **Angie DiSalvo** *Manager*
- **Jeff Ramsey** *Botanic Specialist II*

BES

- **Amy Chomowicz**
  Environmental Supervisor
- **Matt Kreuger**
  Environmental Specialist

For the first two working sessions, the group worked together to refine the result statement, develop the Level Zero and Level One process map and definitions for the Level One key activity areas, and prioritize the top three key activity areas to develop problem statements (Appendix H).

Level One Detail

The Focus Area Team worked collaboratively to develop the following Level One process map of key activity areas for the Level Zero statement: *Citywide street tree planting program*.

1. **Establish Goals & Performance Measures:** Establish the desired goals and outcomes for street tree planting activities.
2. **Allocate Resources:** Direct funding and staff resources to optimize tree planting outcomes.
3. **Permit Street Tree Planting:** Develop and issue programmatic permit to ensure planting program complies with technical standards and supports citywide goals.
4. **Tree Planting & Establishment:** Manage procurement and operations of planting and establishment.
5. **Assess Outcomes:** Evaluate tree planting outcomes and incorporate ongoing improvement and adaptive management.

The group also identified ongoing activities spanning the process:

- **Maintain Trees Post-Establishment:** Provide ongoing care and maintenance of trees throughout their lifecycle.
- **Provide Customer Service:** Support community tree planting participants, property owners, and residents.
- **Community Engagement, Outreach, and Education:** Provide information and engagement opportunities for Portland residents, with an emphasis on diverse communities.
- **Data Management:** Collecting, maintaining, and analyzing street tree planting data.

The third session of the Street Trees Planting Focus Area Team was intended to develop shared problem statements and conduct root cause analysis, but the group diverged on approaches to both.

Areas of Shared Agreement

There is notable agreement amongst BES and PP&R staff on the goals of street tree planting and the challenges to achieving those goals.

- Success planting large form trees with an emphasis on natives and evergreens, predominantly in low-income neighborhoods would improve equitable access to nature, manage stormwater sustainably, improve air quality, decrease urban heat islands, and meet the goals of the Urban Forest Management Plan and the Climate Action Plan.
- Infrastructure conflicts in the right-of-way decrease the number of available planting spaces. Underground utilities, utility vaults, light poles, driveways, power poles, and other amenities all compete with trees for space in Portland's rights-of-way. This is particularly true in commercial and industrial zones.
- City policy assigning responsibility for care and maintenance of street trees to the adjacent property owner is a barrier to street tree planting. Consequently, BES must secure the property owner's permission to plant a street tree in front of their property, and the property owner must be willing to assume any future financial costs associated with the tree.
- The programmatic permit has been used as a vehicle to attempt to mediate multiple issues, which has resulted in a prolonged permitting process every two years and has not produced satisfactory outcomes for either bureau.

AREAS OF DISAGREEMENT

The Focus Area Team's discussions revealed and confirmed issues where BES and PP&R diverge. While there was not sufficient time to address each individually, the list of disagreements includes elements of technical planting standards, performance targets in the programmatic permit, appropriate program structure, return on street tree planting investments, and frequency of data reporting, among others.

Street Tree Planting Outcomes

UF staff expressed dissatisfaction with the outcomes of the ESTP and pointed specifically to the program largely not meeting the performance measures included in the programmatic permit. ESTP planting has generally met the performance measures for planting in low-income and low-canopy neighborhoods. The program has been less successful meeting goals for large-form, native, and evergreen trees.

BES staff held that while the performance measures are noble aspirations and consistent with the stated goals of the ESTP, they do not reflect the numerous challenges to planting street trees in Portland mentioned previously. The targets are, in effect, unrealistic and unachievable. They pointed specifically to the outreach BES and its planting partners conduct as a demonstration of how costly and labor intensive it is to secure the property owner's permission to plant street trees. BES also noted that while the programmatic permit requires 40% of trees to be large-form, the large planting strips necessary to plant trees of that size do not represent 40% of potential planting opportunities.

Additionally, while BES agrees with the species diversity targets included in the permit, the availability of nursery stock makes meeting the targets challenging.

BES staff also emphasized that while a large percentage of the trees planted are small form, those trees are appropriate for the size of the available planting strip and planting small trees does not preclude the planting of larger trees as well. Finally, BES pointed to the roughly 11,000 street trees planted over the last five years.

Interbureau Partnership

BES expressed a willingness and preference to work more closely with UF to address street tree planting implementation and improve program outcomes. ESTP staff pointed to their relationship with DEQ as an example of a how a regulator and regulatee can partner towards shared goals.

UF pointed to a lack of staff resources necessary to partner in this way and expressed skepticism that it would lead to improved planting outcomes.

Tree Planting Structure, Roles, and Responsibilities

UF staff contend there is an inherent challenge with the current structure where regulatory and urban forest management responsibility is placed with the City Forester in PP&R, while the City's largest tree planting program is under BES. UF staff described the structure as "set up to fail" with numerous inefficiencies, which lead to poor planting outcomes.

PP&R staff note that guiding and determining the expansion of street tree infrastructure in the City is a responsibility granted to the City Forester under City Code. Consequently, in UF's staff opinion, the City's tree planting program should be under UF given the division's regulatory and urban forest management responsibility. Implicit in this discussion was the belief that the planting program would produce improved outcomes if it were incorporated into UF's current programs and operations.

Finally, UF staff believe there is a dissonance between UF's role in managing the street tree population and street tree planting, a primary tool in this effort, being housed in another bureau. There were also concerns that with UF's own growing/planting programs, there will be increased duplication of city services and subsequent confusion for community members.

ESTP staff emphasized that street trees are an important component of the bureau's stormwater management infrastructure. BES plants trees in service of these strategic priorities which may not be adequately served if the management and direction of its planting investments were moved to UF.

MOVING FORWARD

Suggestions from Project Management Team, Focus Area Teams, and/or Steering Committee

In November and December, the Assessment Report draft was distributed to the Focus Area Teams and Steering Committee for review, with an updated draft due to Bureau Directors in late December.

Focus Area Team members, the PMT, and the Steering Committee suggested a suite of opportunities for producing further project outcomes. The following is a summary of suggested opportunities:

Natural Area and Invasive Species Management Focus Area Team

1. Continue PDX Process Improvement and Change Management Framework using all or a combination of the following tools:
   - Continue defining problem statements and root cause analyses for Level of Detail One process map, including verifying the root causes identified thus far are truly the baseline.
   - Recommend solutions to the problem statements and root causes that may be adjusted after re-evaluation.
   - Explore root causes for the other problem statements that were not yet completed.
   - Develop problem statements for other Level of Detail One process maps.
2. Implement early action solutions to address problem statements and root causes such as the development of a site management charter.
3. Focus teamwork on current natural area parcels with joint Bureau interests. Develop Desired Future Conditions (DFC) or standards of care, identify conflicts, and elevate unresolved issues for resolution by management.
4. Convene a Committee comprised of both Steering Committee and Focus Area Team members, which includes managers capable of making programmatic decisions as well as directing staff and other key staff with integral policy and/or planning roles. Potential membership could include:
   - PP&R's Land Stewardship Division Manager.
   - BES' Watershed Services Group Manager.
   - PP&R's City Nature Manager.
   - BES' Watershed Revegetation Program Manager.
   - Natural Resource Planner and/or Environmental Specialist representing each Bureau.

With solid direction from leadership regarding scope and check-ins with Deputy Directors, priority assignments could include:

- Developing a process for establishing natural area site goals/objectives and assigning roles with an accompanying site management template.
- Leading implementation of an asset management framework for natural areas within both Bureaus.
- Reviewing and reconciling all existing interbureau agreements regarding natural areas (e.g. planning, acquisition and O&M, cooperative management), identify gaps, and consider development of a master or umbrella agreement.
- Assigning O&M responsibility for City-owned natural area sites including a sustainable funding mechanism.

5. Convene multiple on-going, interbureau technical working groups to promote collaboration, information-sharing, and alignment of activities. Potential subjects could include Data Management, Integrated Pest Management, and Ecosystem Management.
6. Staff an interbureau liaison using the existing joint BES-PBOT liaison model.
7. Identify/create a Natural Resource Planner position at BES to coordinate planning/policy with PP&R's Natural Area Planner.

Street Tree Focus Area Team

Preliminary ideas generated for moving forward included elevating discussions regarding the location and/or consolidation of tree-planting programs to leadership and assembling the existing Focus Area Team members with more clear direction from management on objectives and outcomes for work sessions.

Implementation of any of the above options is pending approval of the Steering Committee, Directors and Commissioner; staff investment and capacity; and the availability of technical resources

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LESSONS LEARNED

The following is a summary of key lessons learned from this process for consideration moving forward:

1. Building trust and healthy working relationships between bureau staff takes time, effort and facilitation. Though interbureau staff have previously worked together on specific items such as permits, site management and planning efforts, they have not had time or resources to identify larger underlying issues.

2. Natural resource management in the City is complex and resolving issues requires time and a comprehensive approach.

3. Shared values exist between both bureaus around the protection and enhancement of the City's natural resources, however, criteria needs to be developed and agreed upon by both bureaus for determining outcomes related to shared activities. For example, there is no agreement between bureaus on public use and access to natural areas, nor any criteria for determining use.

4. This process identified the need to have more specific and focused direction from leadership on natural resource management.

Project Timeline

QUESTIONS, CONCERNS OR FEEDBACK?

Contact the Project Management Team—they're here for you.