Invasive Pest Response - City of Seattle

City of Seattle

Our vision, mission, and core values

Vision: Seattle is a thriving equitable community powered by dependable transportation

Mission: to deliver a transportation system that provides safe and affordable access to places and opportunities

Committed to **6 core values**:
- Equity
- Safety
- Mobility
- Sustainability
- Livability
- Excellence

City of Seattle

We will cover

- Issues of invasive pests
- Past experiences
- Urban Forest Pest Readiness Playbook
- Formation of Seattle Committee for Invasive Pests (SCIP)
- Work to date
- Upcoming projects
- Issues moving forward

City of Seattle

Current Pests & Past Efforts

- Dutch Elm Disease – early 2000's and now
- Bronze birch borer
- Winter moth
- Issues with funding & ownership

City of Seattle

Emerald Ash Borer in Baltimore

- We're a small state – we had to act!
- City-wide ash inventory
- Different criteria: removal vs. treatment
- Community engagement
- Coordination with other city initiatives
- State funding

City of Seattle

Cost estimate of EAB in Seattle

Annual Cost Comparison in Today's Dollars
Over Time With a 3% Discount Rate
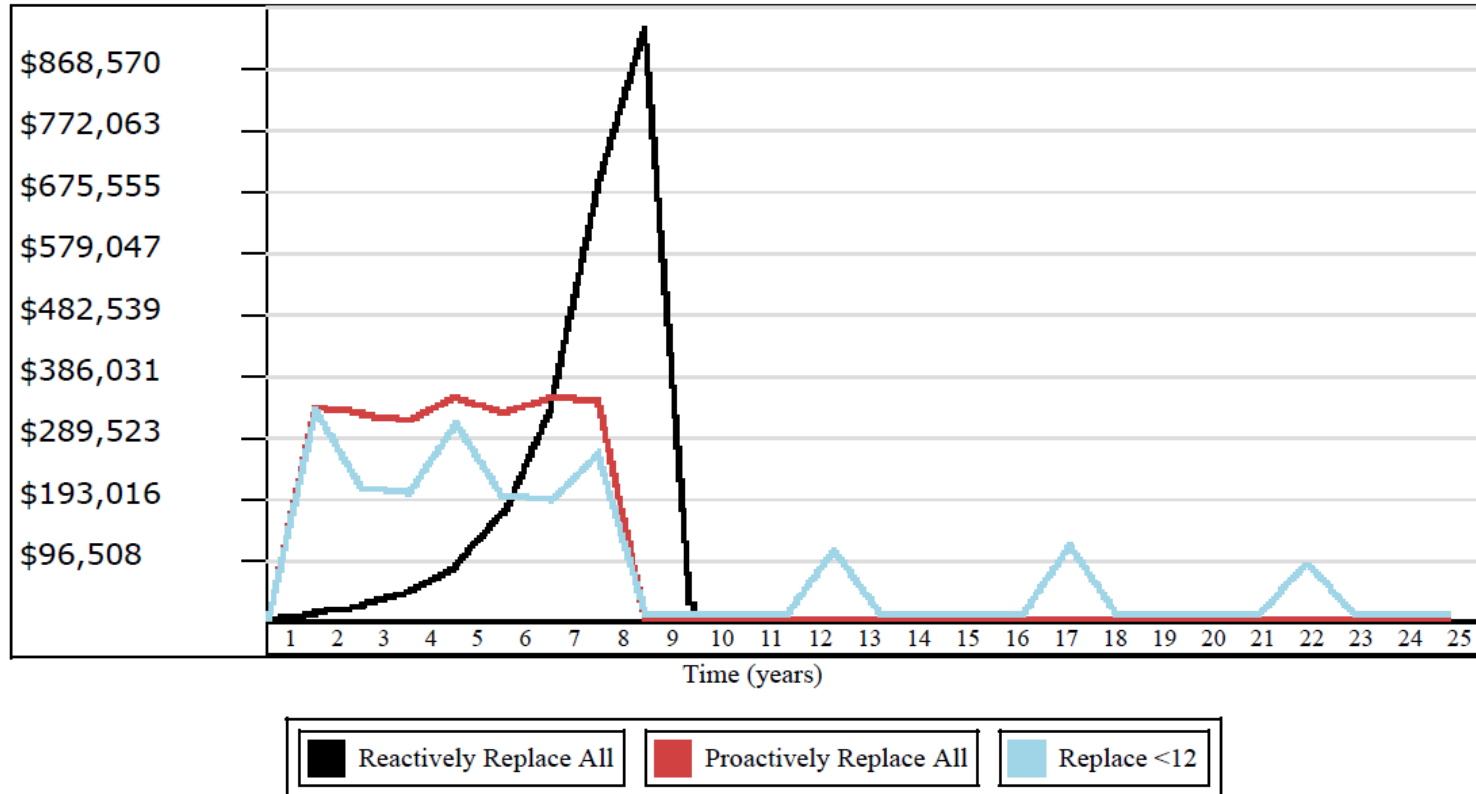
The State of Washington

URBAN FOREST PEST READINESS PLAYBOOK

Urban Forest Pest Readiness Playbook

- Farm Bill funding through US Dept of Agriculture Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine

- Funding provided to Washington Invasive Species Council

- Administratively hosted by Washington State Recreation and Conservation Office

- RCO has interlocal agreement with DNR for their involvement

- Playbook and self assessment for Washington state communities
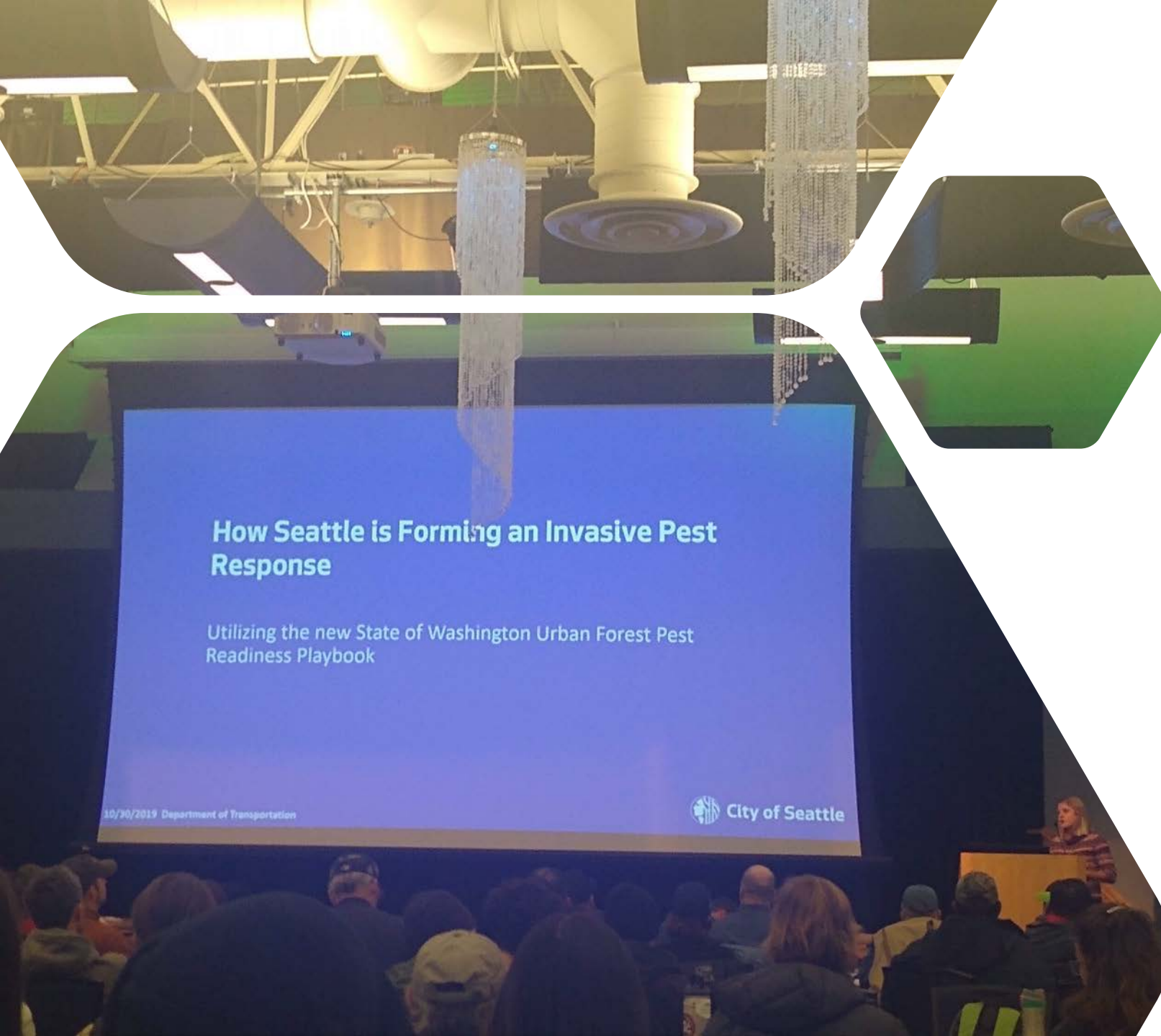
Gaining Support

- Seattle Committee for Invasive Pests – Aug 2019
- Playbook released Oct 2019
- Rollout at Pesticide Recertification Seminar Oct 2019

Where We Are Now
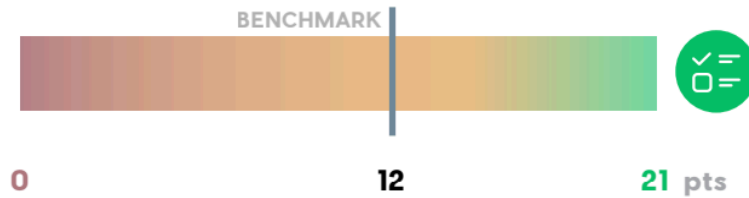
Self Assessment Sample

- Key questions
- Points & Benchmarks
- Accompanying actions

Urban Forest Pest Ready Benchmarks

Understanding Risk

Risk of falling below benchmarks: Not knowing the natural resources you are trying to protect and the risks to those resources increases vulnerability to tree loss and pest introductions.
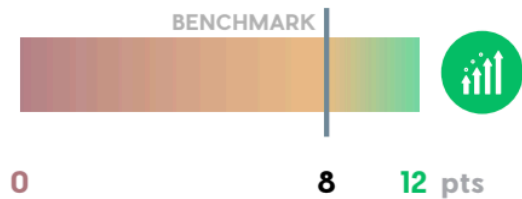
Actions addressed: 3, 4, 6, 7, 13

BENCHMARK

0   12   21 pts

Capacity to Support a Response

Risk of falling below benchmarks: Disorganized planning processes drain local resources and decrease your ability to effectively respond to pests and protect natural resources.
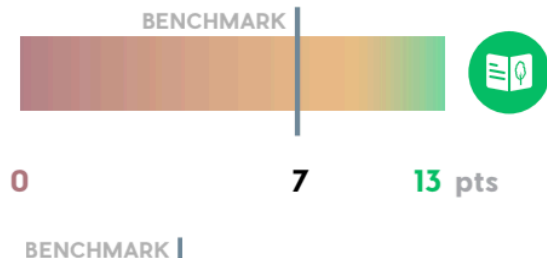
Actions addressed: 5, 9, 16, 17, 18, 19, 20

BENCHMARK

0   8   12 pts

Ability to Expedite Informed Decision-Making

Risk of falling below benchmarks: Misinformed or slow-paced decision-making diminishes your ability to effectively respond to pests and protect natural resources.

Actions addressed: 1, 2, 8, 11, 12, 15

BENCHMARK

0   7   13 pts

BENCHMARK

Urban Forest Pest Ready!

CAPACITY TO SUPPORT A RESPONSE

QUESTION		YES	POINTS	NO/NOT SURE?
Emergency Preparedness				
1.	Do you have one or more staff that have been trained in Incident Command Systems (ICS)?	☐	+1	See Action 18
Response Experience				
2a.	Have you participated in an invasive forest pest response in the last ~20 years?	☐	+1	See Action 17 & 20
2b.	Do you know the basic components of a pest response that a lead action entity would run in the event of a pest confirmation?	☐	+2	
Know Who to call				
3.	Have you integrated the contact information for USDA-APHIS-PPQ, USDA Forest Service, Washington Invasive Species Council, Washington Department of Natural Resources, Washington Department of Agriculture and/or Washington State University into your own systems so that a team member can easily know who to call if a pest is detected in your area?	☐	+2	See Detection & Reporting Section
Supporting Organizations				
4a.	Have you worked with Washington Invasive Species Council, Washington State Department of Agriculture, or Washington State Department of Natural Resources state agency staff in the past to support your program (could include training, consultation, workshops, grants, one-on-one discussions)?	☐	+1	See Playbook overview
4b.	Do you know which partners and stakeholders to engage in order to garner support for a response?	☐	+1	See Action 9
Sufficient Funding				
5.	Do you know what funding options, both internal and external, are available to you to respond to a pest?	☐	+1	See Action 5

1. Emergency Preparedness

ID	Question	Answer	Points	Action If Unsure	SDOT	SPU	Parks - Tree	Parks - GSP	SCL
A	Do you have one or more staff trained in ICS?		1		1	1	1	1	1

2. Response Experience

ID	Question	Answer	Points	Action If Unsure	SDOT	SPU	Parks - Tree	Parks - GSP	SCL
A	Have you participated in an invasive pest response in last 20 yrs?		1		1	0	1	1	0
B	Do you know basic components of pest response?		1		2	0	0	0	0

3. Know who to Call?

ID	Question	Answer	Points	Action If Unsure	SDOT	SPU	Parks -Tree	Parks -GSP	SCL
A	Do you know who to call?		1		2	1	0	0	0

4. Supporting Organizations

ID	Question	Answer	Points	Action If Unsure	SDOT	SPU	Parks - Tree	Parks - GSP	SCL
A	Have you worked with WISC, USFS, DNR, WSDA, and/or WSU?		1		1	1	1	1	1
B	Do you know which partners and stakeholders to engage?		0		0	0	1	1	0

5. Sufficient Funding

ID	Question	Answer	Points	Action If Unsure	SDOT	SPU	Parks - Tree	Parks - GSP	SCL
A	Do you know what internal and external funding options you have?		0		0	0	1	0	0

6. Tree Management

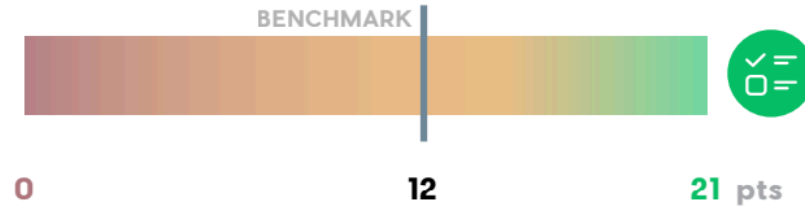| ID	Question	Answer	Points	Action If Unsure	SDOT	SPU	Parks - Tree	Parks - GSP	SCL
A.1	Prevent invasive species establishment?		1		1	1	A.1	1	1
A.2	Diversify tree plantings?		1		1	1	A.1	1	1
A.3	Restore areas after significant removals?		1		1	0	A.1	1	1

Total	BENCHMARK: 8		**8**		**10**	**5**	**8**	**7**	**5**

Our Score

11

8

8

5

Understanding Risk

Risk of falling below benchmarks: Not knowing the natural resources you are trying to protect and the risks to those resources increases vulnerability to tree loss and pest introductions.

Actions addressed: 3, 4, 6, 7, 13

BENCHMARK

0   12   21 pts

Capacity to Support a Response

Risk of falling below benchmarks: Disorganized planning processes drain local resources and decrease your ability to effectively respond to pests and protect natural resources.

Actions addressed: 5, 9, 16, 17, 18, 19, 20

BENCHMARK

0   8   12 pts

Ability to Expedite Informed Decision-Making

Risk of falling below benchmarks: Misinformed or slow-paced decision-making diminishes your ability to effectively respond to pests and protect natural resources.

Actions addressed: 1, 2, 8, 11, 12, 15

BENCHMARK

0   7   13 pts

Community support to Expand your Impact

Risk of falling below benchmarks: Poor communication, adversarial relationships with community members, and/or inexperienced team members makes it increasingly difficult to detect and respond to pest threats.

Actions addressed: 9, 10, 14

BENCHMARK

0   4   8 pts

Urban Forest Pest Ready!

Department of Transportation

City of Seattle
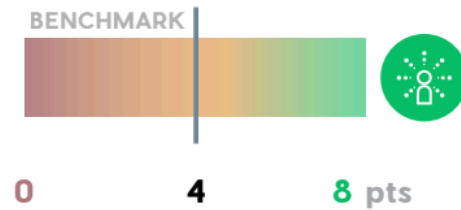
Priority Pests

Not Detected Yet

- Asian Longhorn Beetle
- Emerald Ash Borer
- Sirex woodwasp
- Gypsy Moth

Currently in Seattle

- Dutch Elm Disease
- Bronze Birch Borer
- Winter Moth

City of Seattle
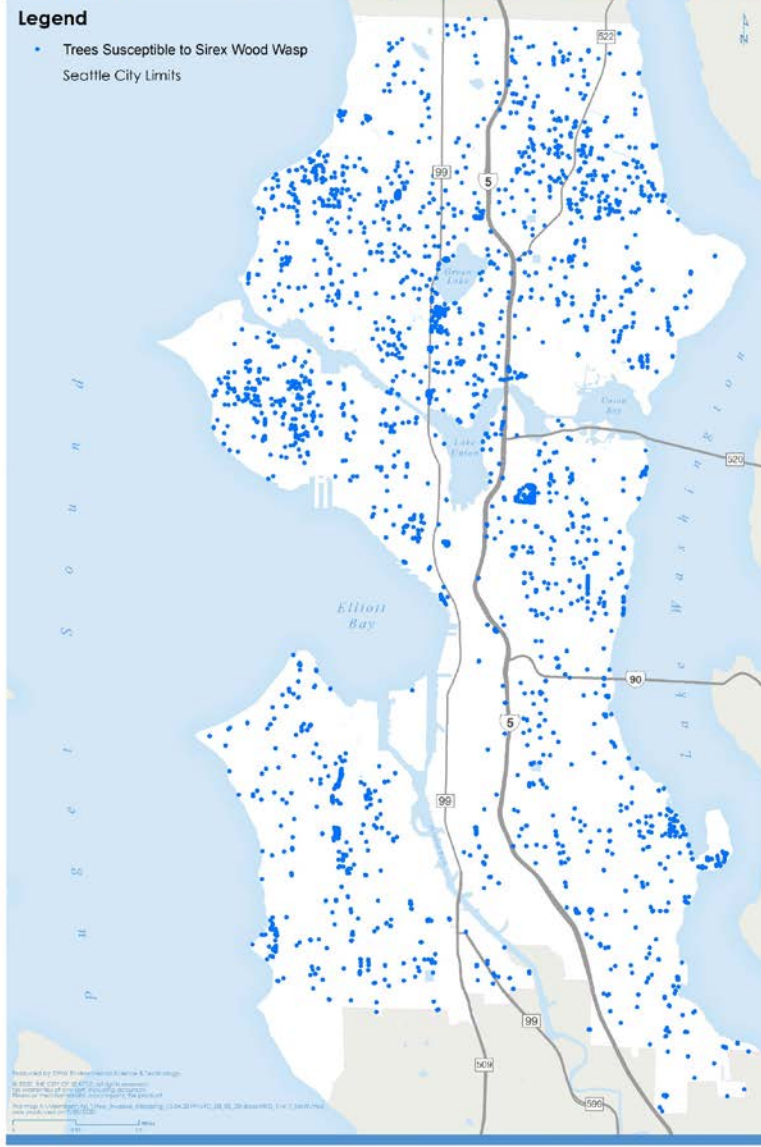
Seattle's Street Tree Inventory
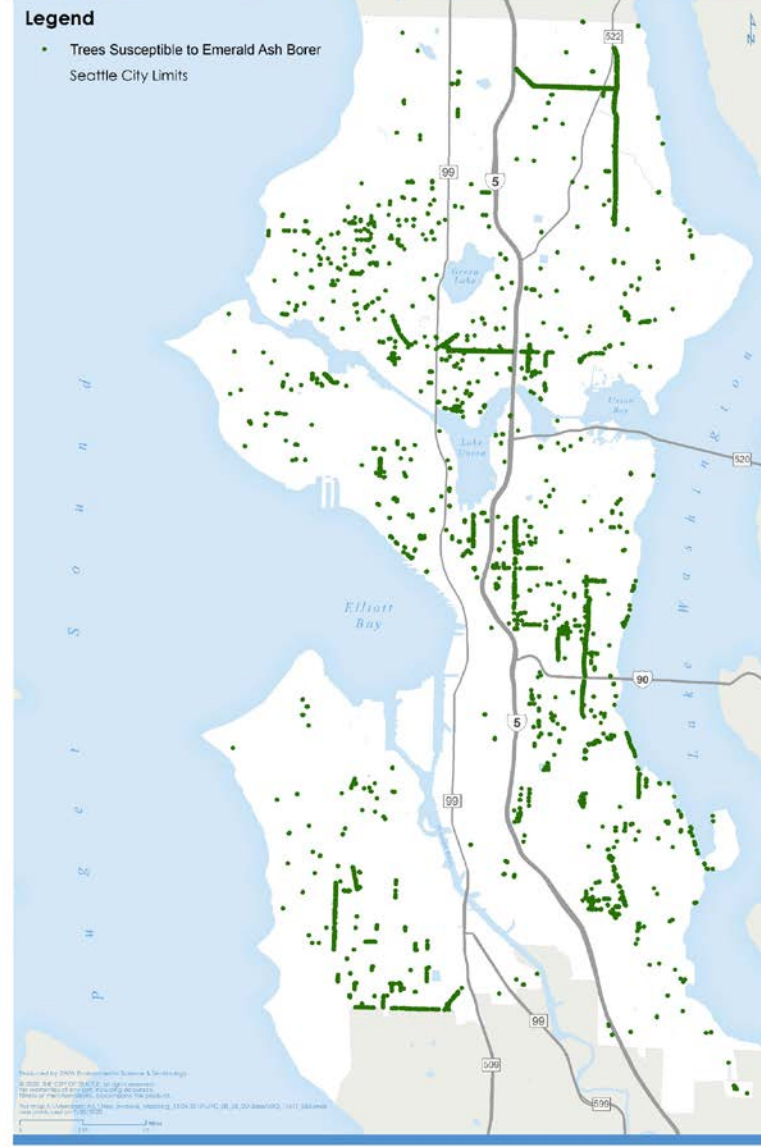
In 2016, SDOT launched our Street Tree Management Plan. This program gives us the opportunity to engage with Seattle's street trees with an innovative approach. To do this, we created 27 management units throughout Seattle and will focus efforts in a minimum of three units per year. We have assessed 21 of 27 management units since 2016.

Data Source ►

Through effective inventorying, maintenance, replacement, and community involvement, we hope to ensure the health, preservation, and expansion of Seattle's urban forest. Trees improve our health and environment and make our neighborhoods friendlier places to live, work, and play.

The City of Seattle's goal, as outlined in the Urban Forest Stewardship Plan, is to increase Seattle's tree canopy cover to 30 percent by 2037. That's why, when SDOT must remove trees, we are committed to replanting 2 trees for every 1 removed. Tree replacement planting is funded by the 9-year Levy to ..
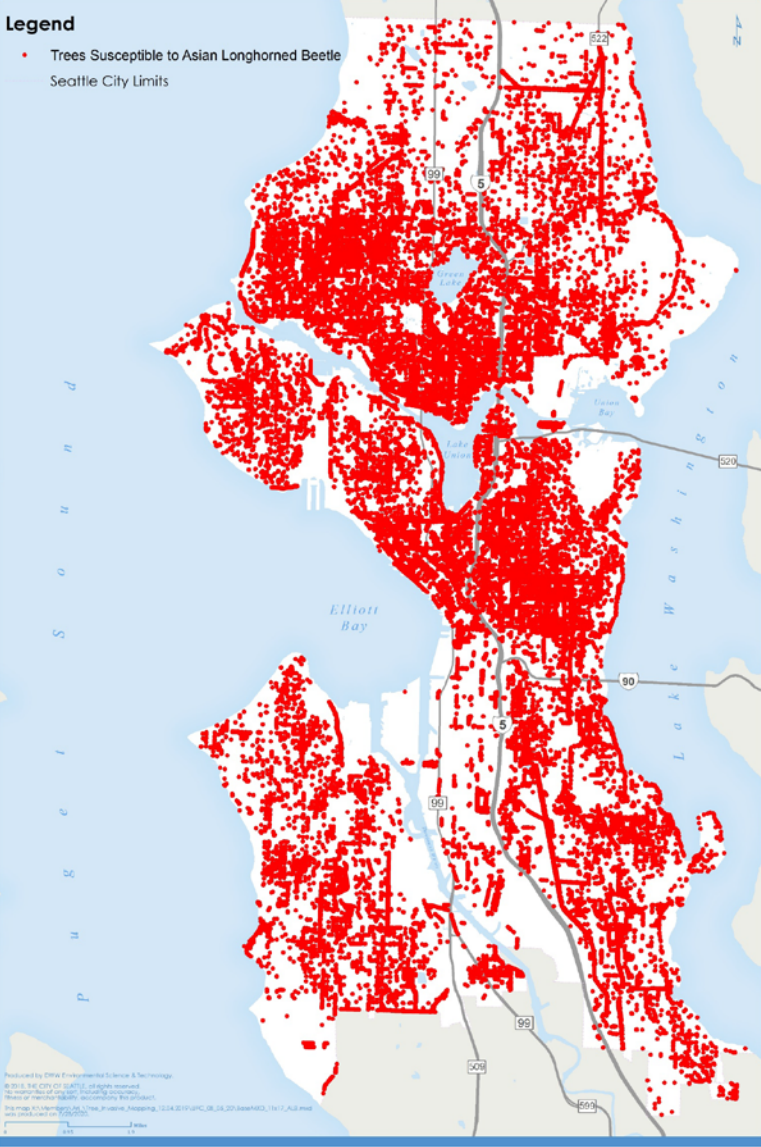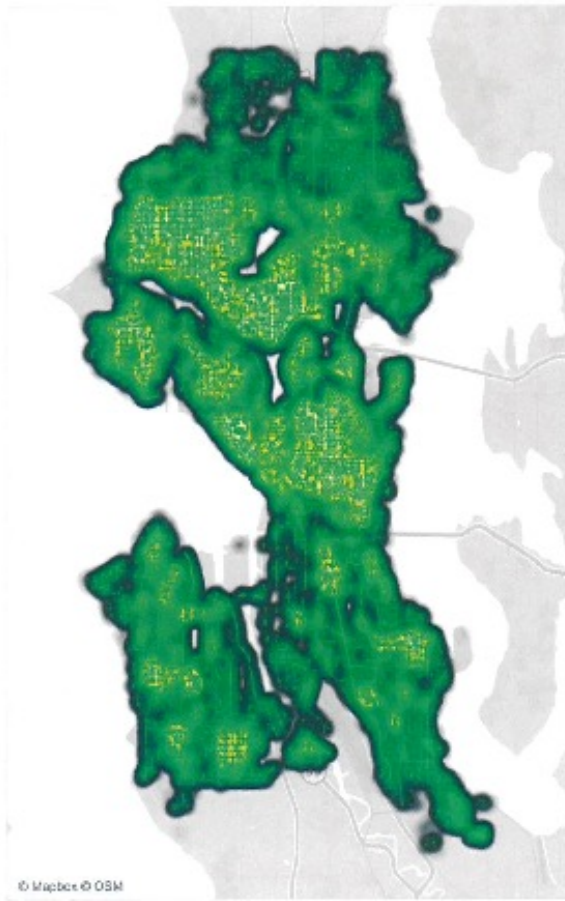
Top 25 Trees by Genus

Genus	Count
Acer (Maple)	35,516
Prunus (Cherry)	28,386
Malus (Crabapple)	8,612
Crataegus (Hawthorn)	7,331
Quercus (Oak)	6,629
Cornus (Dogwood)	5,585
Pyrus (Pear)	5,328
Fraxinus (Ash)	4,344
Tilia (Linden)	4,304
Betula (Birch)	4,258
Amelanchier (Serviceberry)	3,423
Carpinus (Hornbeam)	3,418
Liquidambar (Sweetgum)	3,414
Magnolia (Magnolia)	2,747
Styrax (Snowbell)	2,350
Ulmus (Elm)	2,333
Thuja (Cedar)	2,313
Platanus (London Plane)	1,888
Pinus (Pine)	1,800
Cercidiphyllum (Katsura Tr..)	1,765
Zelkova (Zelkova)	1,712
Sorbus (Mountain)	1,490
Pseudotsuga (Douglas Fir)	1,407
Cercis (Redbud)	1,406
Gleditsia (Honey)	1,404

Trees	Average Diameter	Species	CO2 Lbs/Yr
165,107	8	712	28M

CO2 Sequestration

Seattle calculates the carbon dioxide sequestration and building energy savings provided by individual trees. Planting billions of trees across the world is one of the biggest and cheapest ways of taking CO2 out of the at..

Condition Rating   Rating System ►

SDOT maintains a tree rating system to assess the life of the tree inventory.

Rating	Count
1	2,848
2	8,488
3	38,385
4	89,372
5	22,386
6	3,456
0	172

Tree Diameter

Distribution of Seattle's trees (in inches).

© Mapbox © OSM
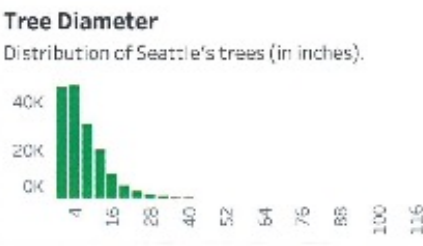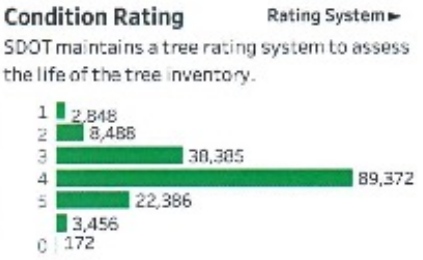
Planting diversification & education

- Tree planting diversification – Tree Planting Coordination
- Early Design Guidance, Landscape Architecture Office
- Updating Recommended Street Tree List
- Trees for Seattle
- Trees for Neighborhoods

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                                    Report on WISC app
         Field
         Staff  ─────────────────→  App  ──────────────────→  WISC

    ┌─────────────────────────────┐
    │  Report to SCIP Representative │
    └─────────────────────────────┘
         │            │                │                │
         ▼            ▼                ▼                ▼
        SDOT          SPU            Parks             SCL

  ┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
  │ Stephanie    │ │ Jana Dilley  │ │ Lisa Ciecko  │ │              │
  │ Helms        │ │ Or           │ │ Or           │ │ Heidi Asplund│
  │ Or           │ │ Trees for    │ │ Nich Johnson │ │              │
  │ seattle.trees│ │ Seattle email│ │              │ │              │
  │ @seattle.gov │ │              │ │              │ │              │
  └──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘

                ┌─────────────────────────┐
                │  SCIP Lead Verifies Status │
                └─────────────────────────┘

  ┌───────────────────────────────────────────────────────────────┐
  │          State and Federal Regulatory Agencies                 │
  └───────────────────────────────────────────────────────────────┘

  ┌──────────────────────────┐    No       ◆         Yes   ┌──────────────────────────┐
  │ Wait for further direction │ ◄───── Authorized ─────►  │ Elevate up chain of command│
  └──────────────────────────┘                            │ Activate ICS response      │
                                                          └──────────────────────────┘
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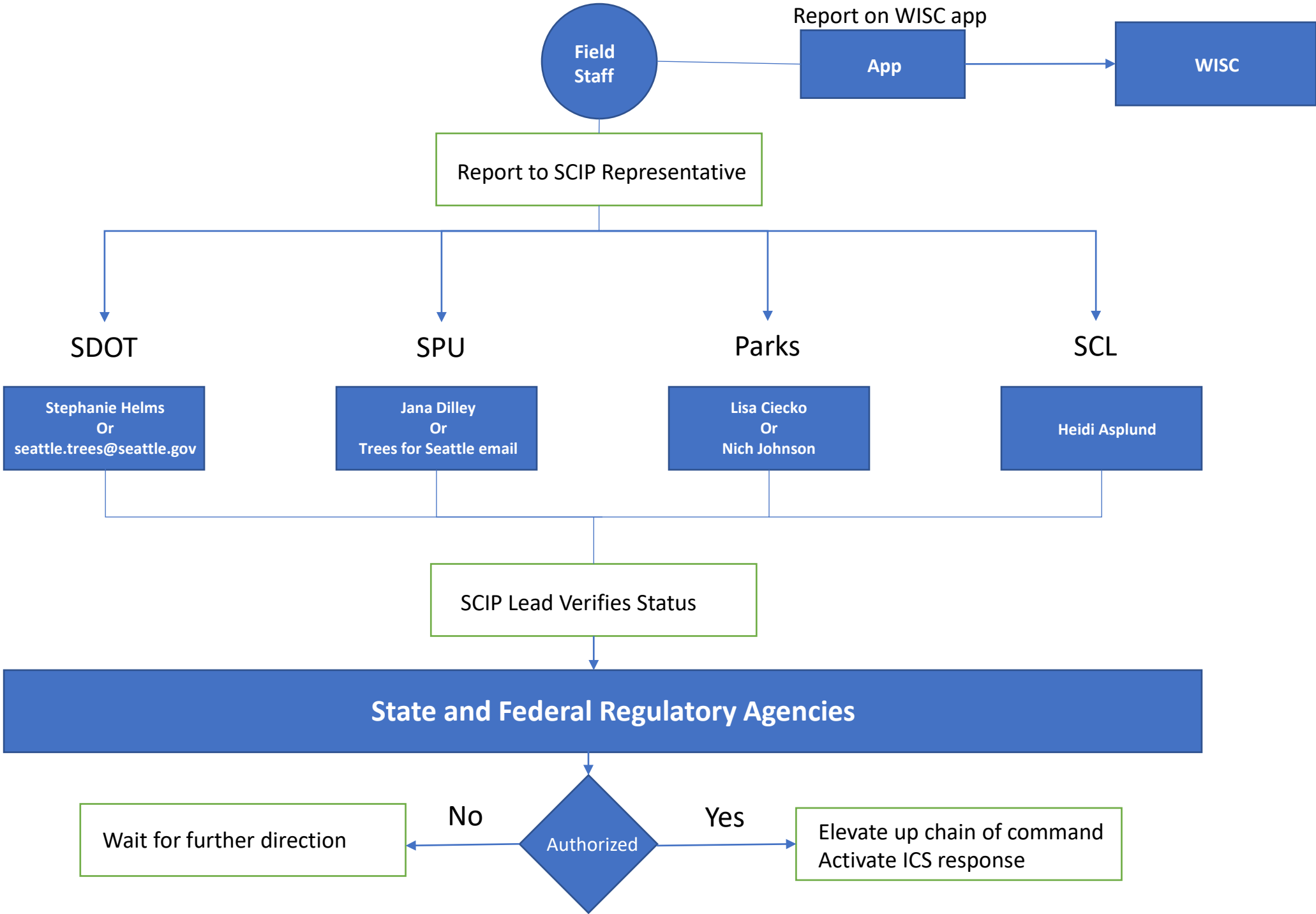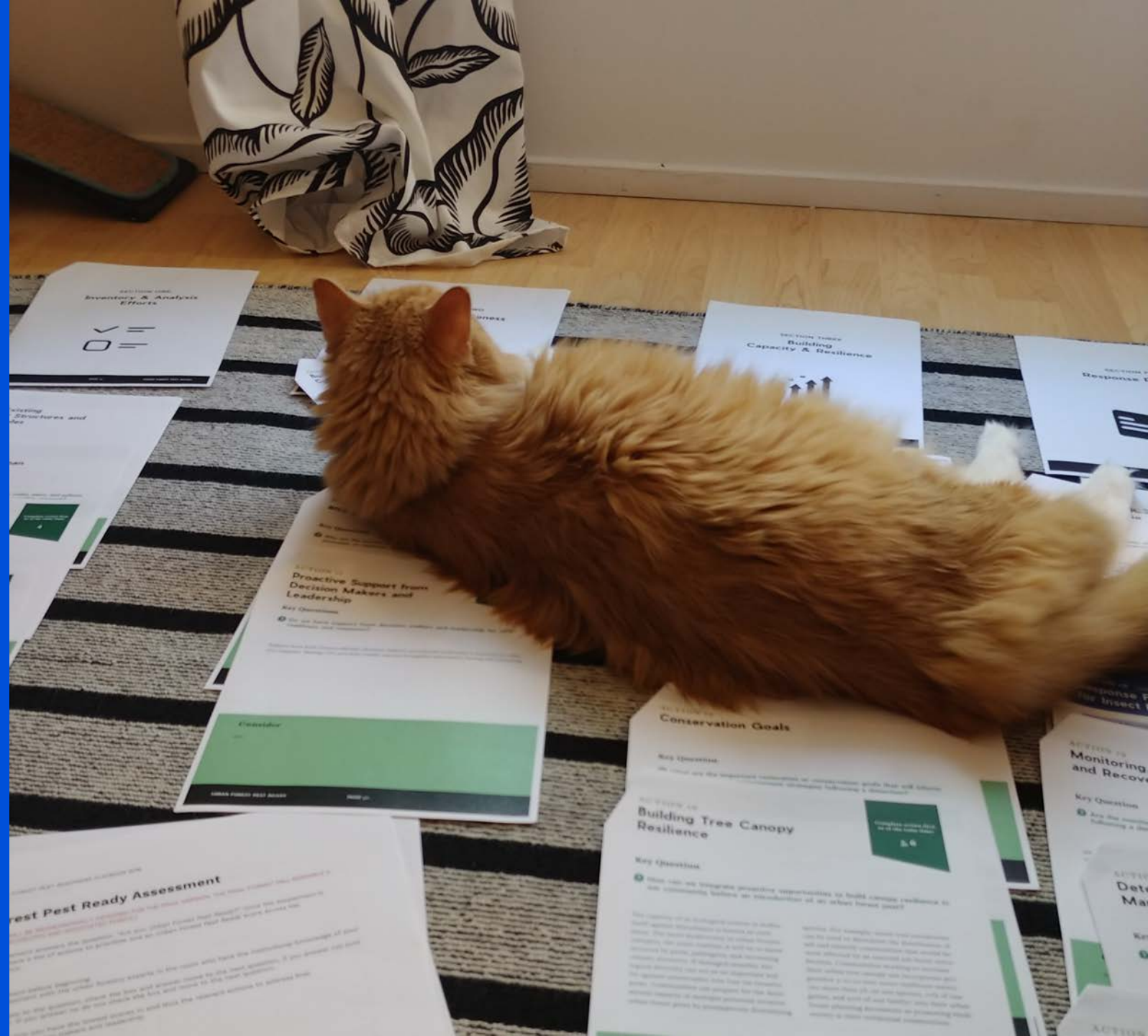
Statewide Playbook Committee

Provided feedback for seminars currently being given

Involved in Playbook Q&A sessions

City of Seattle

Drafting the Plan

On the Horizon

Trainings

- How to report using WISC app
- How to spot symptoms of priority pests

Stakeholder meetings

- Tree service providers
- Community leaders
- Non-profit & environmental educations partners
- Other city & public groups

What We Need

- Engagement, funding, and training in the age of covid-19
- Funding – overcoming shared ownership
- Complete data – filling the gaps in Parks, private property, and unimproved ROW
- Proper disposal - location, protocol, BMPs, staffing, & reutilization

Questions? Contact me: Stephanie.Helms@seattle.gov

- Arboriculturist, SDOT
- ISA/TRAQ
- Geography & Environmental Planning, GIS
- Baltimore, Hon!: Baltimore City Urban Forestry Division, TreeBaltimore, Weed Warriors Program Coordinator and Invasive Species Management Specialist
- Assisted with Baltimore City's Emerald Ash Borer Response Plan

City of Seattle