



MEMO

DATE: September 15, 2021

TO: Planning and Sustainability Commission

FROM: Mindy Brooks, City Planner, Project Manager
Daniel Soebbing, City Planner

CC: Andrea Durbin, Eric Engstrom, Sallie Edmunds

SUBJECT: September 28, 2021 PSC Work Session on Ezone Map Correction project

ATTACHMENTS:

- B 1-18: Vulnerability Risk Factor Maps
- C 1-3: Wildfire Documents
- D: Permission to Access Form
- E: Zoning Code Language for Map Error Corrections
- G1-31: Site-Specific Testimony and Staff Responses

City staff are pleased to be coming back to you on September 28 for what we envision to be the final PSC work session and vote on the Ezone Map Correction Project.

At the hearing on August 24, commissioners asked for additional information regarding a number of topics listed below. A summary for each topic is provided in this memo along with an attachment with additional details.



City of Portland, Oregon | Bureau of Planning and Sustainability | www.portland.gov/bps1900
SW 4th Avenue, Suite 7100, Portland Oregon, 97201 | phone: 503-823-7700 | tty: 503-823-6868

The City of Portland is committed to providing meaningful access. To request translation, interpretation, modifications, accommodations, or other auxiliary aids or services, contact 503-823-7700, Relay: 711.

Traducción e Interpretación | Biên Dịch và Thông Dịch | अनुवादन तथा व्याख्या | 口笔译服务 | Устный и письменный перевод
| Turjumaad iyo Fasiraad | Письмовий і усний переклад | Traducere și interpretariat | Chiaku me Awewen Kapas |
翻訳または通訳 | ᲙᲠᲚᲗᲐᲗᲚᲗ ᲛᲚᲗ ᲛᲚᲗᲚᲗᲚᲗᲚᲗ ᲛᲚᲗ ᲛᲚᲗᲚᲗᲚᲗᲚᲗ ᲛᲚᲗ ᲛᲚᲗᲚᲗᲚᲗᲚᲗ ᲛᲚᲗ ᲛᲚᲗᲚᲗᲚᲗᲚᲗ | الترجمة التحريرية أو الشفوية | Portland.gov/bps/accommodation

If any commissioner would like staff to present one or more of these topics at the work session, please let us know on or before September 20 so we can prepare PowerPoint materials. Also, if any commissioner would like to propose an amendment, please get those to staff on or before September 20.

Topics:

- A. **General information** about the project
- B. **Demographics**, vulnerability and relationship to proposed ezone changes
- C. **Wildfire** and vegetation management
- D. **Wetlands** definition, mapping protocols and timelines
- E. **Smoothing** the overlay zone boundaries
- F. **Map error corrections** after the project is over
- G. **Site by site analysis** of impacts of ezones on potential site development and land divisions

A. General Information

The intent behind the ezones is to protect systems of natural resources in a consistent way to make sure functions like stream flow, channel migration, flood control, water quality and habitat corridors remain intact. If the project proposals were to take a piecemeal approach, in which some portions of a stream, wetland or forest are protected differently than other portions, it would create a situation where new development could negatively impact stream flow, or cause flooding, erosion, or landslides, on other properties. Project staff have attempted to avoid arbitrary applications of ezones by creating a systematic mapping methodology that is based on clear and objective criteria. The Ezone Map Correction Project is ensuring that the original intent of the ezones is being applied to the resources in a consistent and replicable way. This is why staff are not proposing that individual properties be treated differently from other properties – the policy approaches are being applied to the resource features as systems.

Table 1 provides the existing and proposed total 'c' and 'p' zones in the project area;

Table 1: Comparison Existing and Proposed Ezones			
	'c' zone acres	'p' zone acres	Total acres
Existing	5276.3	7903.6	13,179.9
Proposed	4212.6	9115.4	13,328.1
% Change	-20.2%	+15.3%	+1.12%

Below is a breakdown by ezones changes on individual properties. Because this is a correction project, there are both increases and decreases based on adjusting the zone boundaries to match the existing natural resources.



Number of private properties with:

- Any change to ezone – 12,040
- Existing ezones are increasing – 7,334
- Existing ezones are decreasing – 4,706
- No ezone today, but new ezones are proposed – 3,280
- Existing ezone today, but the ezone is recommended for complete removal - 931

Note the changes may be very small or very large, depending on the site and resources.

Since the start of public testimony in July 2020, project staff have conducted 256 site visits at the request of property owners. The site visits and other edits that staff made by reviewing aerial imagery at the request of property owners have produced 223 changes to feature mapping. The majority of these changes resulted in *reductions* to the proposed coverage of ezones. In each situation, staff are verifying the feature mapping and confirming that the adopted protection policies are appropriately applying to the resources on the site. OHSU and Audubon are two examples of site verifications that reduced the application of the ezones. The other changes are primarily on individual residential properties.

Finally, in May, staff produced a table that summarized all testimony and all site visits completed and attached maps. That table has been updated to reflect site visits completed since May, including the testimony received by the September 10 deadline. The table is available on the [project website](#) under PSC Materials.

B. Demographics, vulnerability and relationship to proposed ezone changes

The City of Portland uses a measure of “Vulnerability Risk”, which includes the collective ranking of the following factors: (1) Renters; (2) Communities of color; (3) Educational attainment; and (4) Households with income at or below 80 percent of median family income (MFI) for the city. This information is collected from the census and provide a census tract-level understanding of where the most vulnerable people live in Portland.

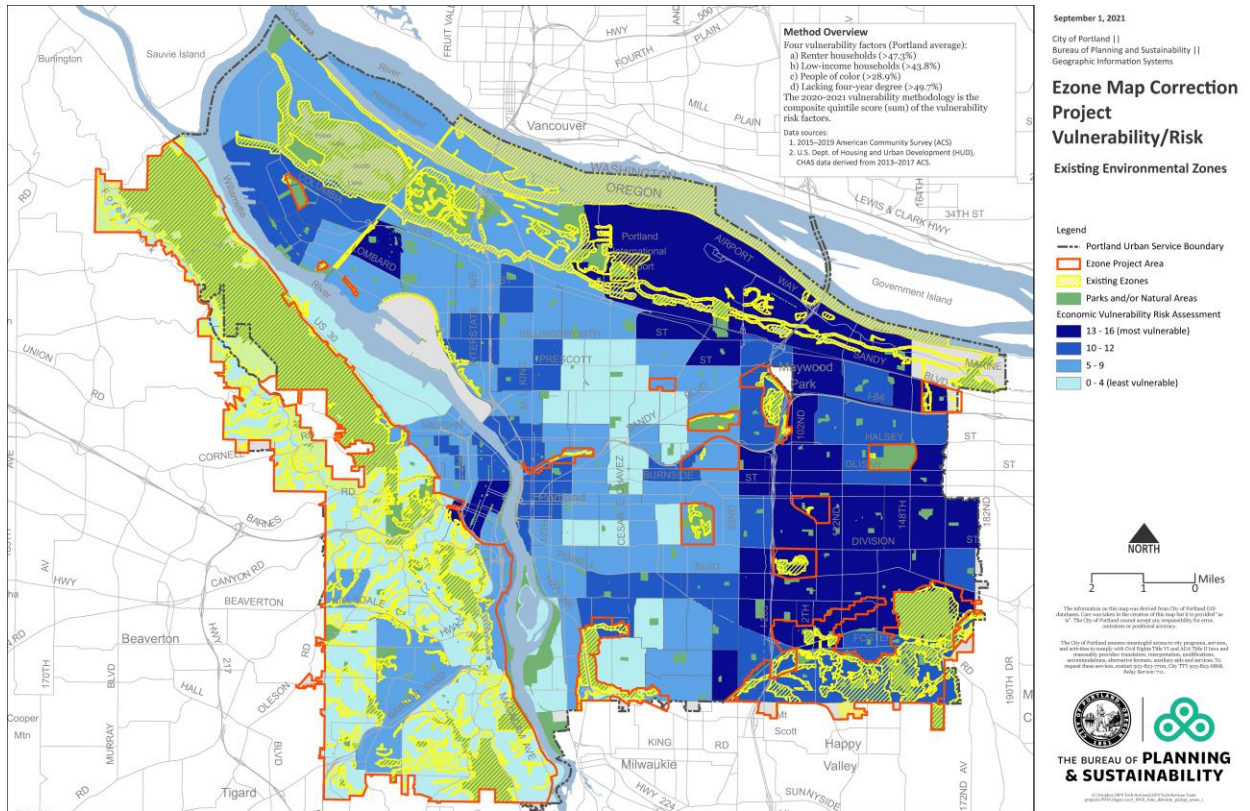
Within the Ezone Map Correction Project area, the census tracts with the highest vulnerability risk are in the following neighborhoods: Powellhurst/Gilbert, Lents, Eastmoreland/Reed, Wilkes, Kenton and St. Johns. The areas with the lowest vulnerability risk are in the Northwest Hills and Southwest Hills. The majority of the changes to the ezones are on the west side of the Willamette River where the vulnerability risks are the lowest.

Maps B.1 – B.18 found in Attachment B show the existing and proposed ezones within the census tracks with the highest vulnerability. Map B.1 and B.2 below show the vulnerability indices citywide overlaid with the ezones. The individual maps (B.3-B.18) are zoomed in views of each of the vulnerable Census Tracts overlaid with the existing and proposed ezones. There are 15 tracts that score high in the vulnerability analysis that intersect with ezones in the project area. In several of these tracts, the majority of the existing and proposed ezones are primarily located in parks, and they intersect with few private properties. But there are several tracts in which the existing and proposed ezones have

3

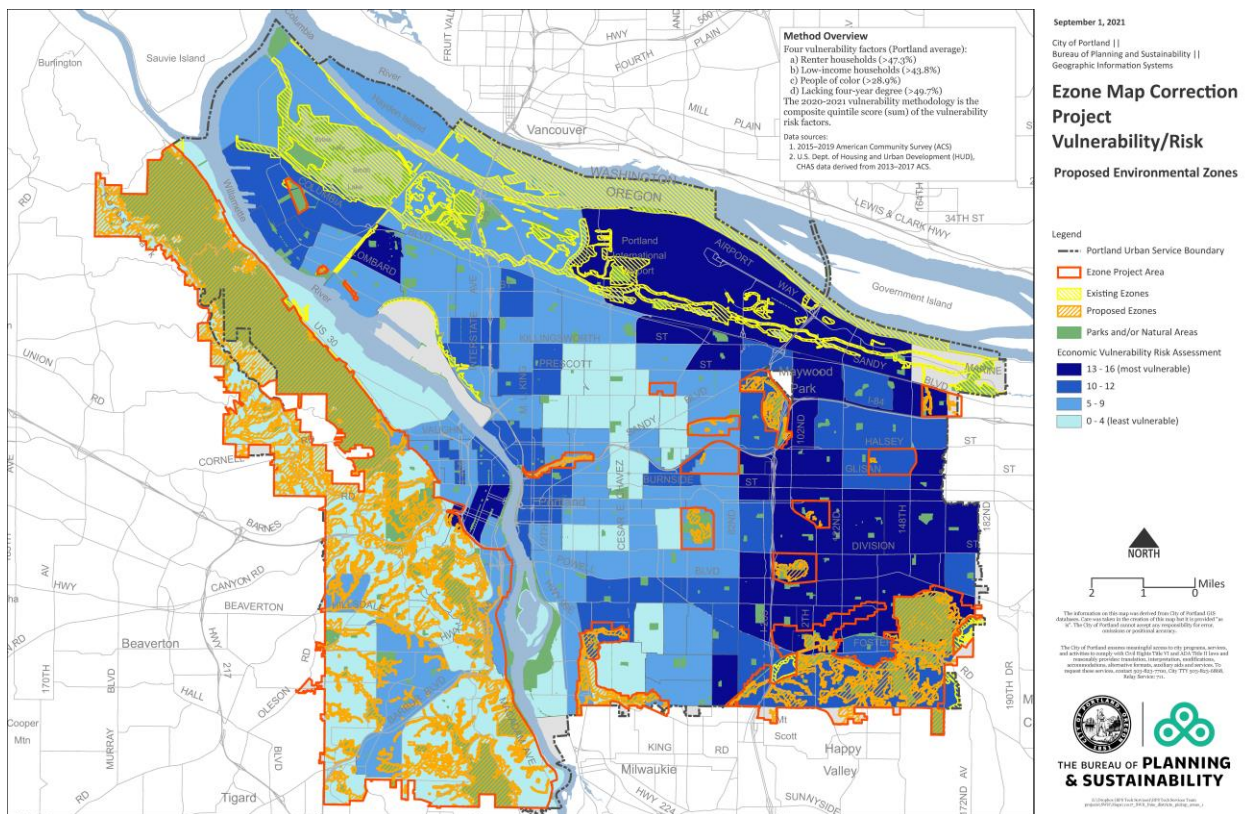


significant overlap with a substantial number of the residential lots that are located therein. Tract 89.01 is the most obvious example of this (maps B.13 and B.14). Within this Tract, there are both areas where ezones are proposed to expand to increase coverage on lots, and places where there are proposed reductions, in which ezones are being removed from lots.



Map B.1: Existing Ezones and Vulnerable Populations





Map B.2: Proposed Ezones and Vulnerable Populations

Because the data is only available at the census tract-level, this analysis does not provide detailed information about where exactly people live who are more vulnerable to regulatory changes or who may not have the same level or type of access to those who are making decisions about regulatory changes. It only provides a general summary of the areas of Portland where those people may live. The potential impacts of ezones are highly specific to individual properties, but the Census data only provides information at a neighborhood level scale.

Additional information: [Existing Conditions Report](#) (pg 66-69) and PSC memo dated August 25, 2020.

C. Wildfire

Wildfire is becoming an increasing concern in Portland and the region. But the issues of wildfire must be discussed in the context of the other risks that homeowners face. For example, vegetation near homes can burn but that vegetation is also holding hillsides in place reducing landslide risks in times of heavy rain; vegetation reduces in-stream rate and volume and erosion, thus minimizing impacts to downstream properties; and trees provide shade and air-cooling benefits. The long-term approach to vegetation management must consider all of the risks and requires a strategic, multi-disciplinary approach. That type of strategic evaluation is not within the scope of the Ezone Map Correction Project. However,



PSC has included a few minor code amendments and has forwarded on a request for the upcoming update of Title 11, Tree Code, to consider additional allowances for tree pruning within wildfire hazard zones.

Attachment C.1 is a handout produced by BPS, Portland Fire and Rescue, Urban Forestry and Bureau of Development Services to help homeowners understand what is currently allowed in Portland to manage vegetation to reduce wildfire risk. **Attachment C.2** is a handout about fire protection produced by OR Department of Forestry. The ezones largely comply with the state guidance:

- Ground cover should be non-flammable, (e.g., rock outcroppings, or fire-resistant including green grass, succulents or wildflowers).
 - The ezones allow for removal of invasive plants and planting native plants; fire-resistant ground covers are encouraged.
 - The PSC amendment will allow firebreaks of non-combustible materials.
- Shrubs and trees should be maintained in a green condition and substantially free of dead plant material or ladder fuels.
 - The ezones allow for removal of dead and dying trees that pose an immediate risk.
 - Ladder fuels, such as ivy and blackberries, can be removed within ezones.
- All dead branches overhanging portions of roofs should be removed.
 - The ezones allow for removal of trees and tree branches within 10 feet of structures.
- Trees and shrubs should be arranged so that fire cannot spread or jump.
 - Pruning to create separation between trees and the shrub layer is allowed in ezones.

Attachment C.3 is the report cited in testimony, *Wildfire Readiness Assessment: Gap Analysis Report* (2009). Two key findings that related to ezones are quoted below:

“The Environmental Overlay Zone provides some balance between protecting natural resources and allowing development, but the land use review process for vegetation removal is cumbersome and expensive, and may not allow enough flammable native vegetation to be cleared or pruned away from buildings even when permits are issued.” (pg 9)

“Modify existing regulations to improve the permitting process and allow an increase of the defensible space around homes.” (pg 12)

Multnomah County is currently updating the *Community Wildfire Protection Plan*. BPS and staff from other city bureaus, are participating. The outcomes of this work may include suggestions about specific changes to zoning codes to reduce the risk of wildfire. These amendments would be part of a follow up project, which could include not only changes to the ezone code, but also a comprehensive look at building codes and other aspects of City

6



Code, and proposals for managing vegetation on public and private property. Proposals could also include outreach, technical assistance and guidance that will instruct property owners on how they can manage properties using existing provisions in the code.

D. Wetlands

Concurrent with but independent of the Ezone Map Correction Project, the Bureau of Environmental Services (BES) has been conducting the Wetland Inventory Project (WIP). This is a rigorous wetland mapping and characterization project that follows Oregon Department of State Lands (DSL) wetland mapping guidance.

BPS staff recommended to PSC, and on July 27 PSC voted to approve, two amendments. The first amendment was to include the WIP data in the Natural Resources Inventory (NRI). The NRI is a city-wide inventory of all existing natural resource features and serves as a factual basis for planning and decision making. The second amendment was to apply a consistent protection policy to wetlands located in resource sites where no wetland policy was previously adopted.

The WIP approach and methodology was presented in Attachment 3 to a [memo to PSC dated July 16, 2021](#), . On July 27, Matt Vesh from BES joined the PSC work session and explained the WIP project. The presentation is available on [YouTube](#) and the discussion of wetlands starts at approximately 49:25 minutes.

BES hired a wetland consultant, SWCA Environmental, to conduct wetland determinations on properties where a “potential wetland” was identified. Wetland determinations are done following DSL’s mapping protocols and are performed in the spring. The first round of wetland determinations were completed in June 2021. Determinations will begin again in March 2022. If a property owner wants a free wetland determination completed, they must fill out a *Permission to Access* form available in [Attachment D](#).

If a wetland determination is performed but the property owner wishes to contest the results, they may hire a consultant to conduct a more in depth wetland determination and have that approved by DSL. Once “Concurred” by DSL as meeting the state’s mapping protocols, the City will simply replace the BES wetland determination with the concurred delineation. This can happen at any time and the ezones can be corrected to match (see E below).

E. Map Error Corrections

The purpose of the Ezone Map Correction Project is to conduct a comprehensive and consistent correction to ezones throughout the city. However, there will be situations where additional site-specific corrections are needed. There is an existing zoning code process already in place and that has been used for many years to correct zone boundaries.



Attachment E is the zoning code language for map error corrections. City code 33.855.070.A says that a correction may be made for mapping errors if the map line was intended to follow a topographic feature (e.g., stream top of bank or edge of wetland) and does not do so, or if there is a discrepancy between maps and there is legislative intent about where the line is supposed to go. That means, after the Ezone Project is completed, if a property owner submits a survey of a stream top of bank or a wetland delineation (see previous section), the ezone boundaries can be corrected.

Map errors are a quasi-judicial Type II land use review with a staff-level decision that is appealable to the Hearings Officer. It is a free process and can be done at any time by any property owner. The reason it is free to property owners in these situations is because if the City has made an error in the mapping, the city becomes the applicant not the property owner.

F. Smoothing

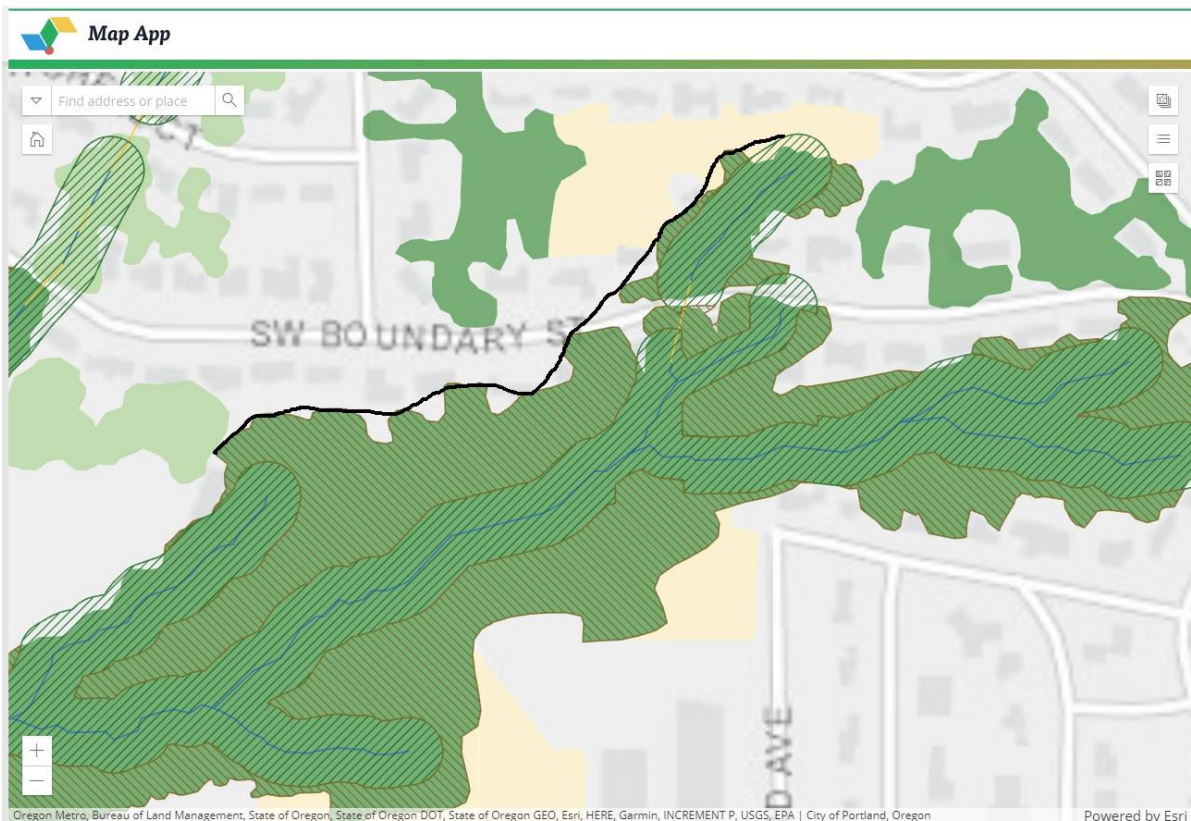
There is always tension between wanting to be clear and specific in the zoning code and wanting to provide for simple and flexible implementation. In the past, the later has been used to draw the ezone boundaries – broad brush, smooth zoning lines. The issue is that these lines don't follow the resources and often times it is very difficult to understand where a zone line is supposed to be on a property. This makes correcting the maps challenging.

As part of this correction project, staff chose to use the best mapping available and tether the zoning lines to the natural resource features themselves. So, when someone asks why the 'c' zone is where it is, staff can say because it follows the edge of tree canopy that is contiguous to the stream. There is clear, specific legislative intent about where the zoning boundary should be located.

See below for an example of two ways to draw the zoning lines. The underlying solid dark green is the forest mapping based on aerial photography and verified by site visits. The blue lines are streams based on LiDAR and verified by site visits. The green hatch applied to streams and riparian areas is the proposed 'p' zone and the brown hatch applied to forest contiguous to streams is the proposed 'c' zone. The black line is a hand drawn "smooth" line that captures the forest contiguous the streams. The black line is subjective, while the proposed ezones follow the resources themselves..

Note – **There is no Attachment F.**





G. Site-Specific Testimony and Staff Responses

There are a number of properties where the owner or a neighborhood recently testified either in person or in writing regarding concerns about either the feature mapping or the application of ezones on a specific site. Attachment G presents each of these properties, a summary of the testimony and concerns, and staff's analysis. Potential impacts to development or fiscal impacts are described to the extent they can be.

A few important notes:

1. Future development depends on many factors, not just the ezones. For example, the standards of the 'c' zone might be met by a development proposal, but the engineering to address landslide hazard may be very expensive or there may not be a sewer hook up resulting in a need to extend a sewer line or street frontage improvements may be required.
2. Property value is complex. A site might already be developed to the maximum extent allowed by the base zone and the project is applying a 'p' zone to a wetland located partially on the site. This may have no impact on property value because no additional development would be allowed anyway. But if the site is dividable, it could impact property value depending on the extent of the 'p' zone coverage. Other factors beyond



ezones that may impact property value are the neighborhood itself, views, proximity to parks, etc.

The properties included in Attachment G are listed below with the attachment's page number to make it easier to find a specific site. In the attached documents, staff responded to specific concerns that were raised about feature mapping, the application of ezones to specific features, or the impact that the application of those ezones would have on the developability of specific sites. Some of the testimony that was submitted also touched on other topics that were not related to these specific topics. The site-specific memos are not intended to address these other topics, some of which are addressed elsewhere in this memo:

- G.1 – 4810 SW 60th Place, Kenneth McGhehey – pg 1
- G.2 – 10134 SW 55th Avenue, Kathy Staat McGowan – pg 3
- G.3 – 2231 SW Montgomery Drive, John Rabkin – pg 5
- G.4 – 4007 SW Comus Street, Dave Salholm – pg 7
- G.5 – 4919 SW Texas Street, David Youmans – pg 12
- G.6 – 6917 SW 49th Avenue, Dominic Corrado – pg 14
- G.7 – 3352 SW Spring Garden St, Erik Swanson – pg 17
- G.8 – 1011 S Comus Street, Thomas Hatch – pg 19
- G.9 – 11411 S Elysium Avenue, John van Staveren – pg 21
- G.10 – 5838 SE 111th Avenue, Jack Benson – pg 23
- G.11 – 15580 NE Siskiyou Court, Donald Bowerman (on behalf of William and Margret Bitar) – pg 25
- G.12 – Marquam Park, Roger Brown – pg 27
- G.13 – 11346 S Northgate Avenue, Dana Krawczuck (on behalf of Paul Francis and Jennifer Johnson) – pg 29
- G.14 – Cornell Mountain, Robin Abadia and Cassandra Dickson – pg 31
- G.15 – 4210 SW 58th Avenue, Devin Holmes – pg 36
- G.16 – 7933 WI/SW 40th Avenue, Matthew Robinson – pg 38
- G.17 – Various Resource Sites, group testimony (supported by 40 people) – pg 40
- G.18 – 11660 SW Lancaster Road, Douglas Kinnaird – pg 51
- G.19 – 11888 S Breyman Avenue, Michael Robinson (on behalf of Leslie Goss and Sam Gruener) – pg 52
- G.20 – 4700 SW Humphrey Blvd, Jamie Howsley – pg 54
- G.21 – Quail Park Association, John Gibbon – pg 56
- G.22 – 1250 SW Englewood Drive, Karen Rafnel – pg 58
- G.23 – 10701 SW 25th Avenue, Laurie Rutenberg and Gary Schoenberg – pg 62
- G.24 – 4504 SE Tenino Street, Amanda Spencer – pg 70
- G.25 – 13927 SE Tenino Street, Sandra Lohstroh – pg 72
- G.26 – 3300 SW Evergreen Lane, James Cameron – pg 74
- G.27 – 3315 SW Marigold Street, Antonie Jetter – pg 76
- G.28 – SW Lancaster Road and SW Coronado St, Kari Hallenburg – pg 78



G.29 – 9735 NW Skyline Blvd, Kim and Mike Johnson – pg 80

G.30 – NW Red Cedar Court #25 (R541487), Kim and Mike Johnson – pg 82

G.31 – Friends of Terwilliger Parkway, Robin Vesey – pg 84

If a commissioner would like staff to provide additional evaluation of any site, please let us know on or before September 20.











Attachment B.1-B.18

Ezone Map Correction Project Vulnerability/Risk

Existing Environmental Zones

Legend

-  Portland Urban Service Boundary
 -  Ezone Project Area
 -  Existing Ezones
 -  Parks and/or Natural Areas
- Economic Vulnerability Risk Assessment**
-  13 - 16 (most vulnerable)
 -  10 - 12
 -  5 - 9
 -  0 - 4 (least vulnerable)

Method Overview

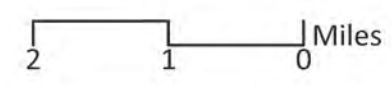
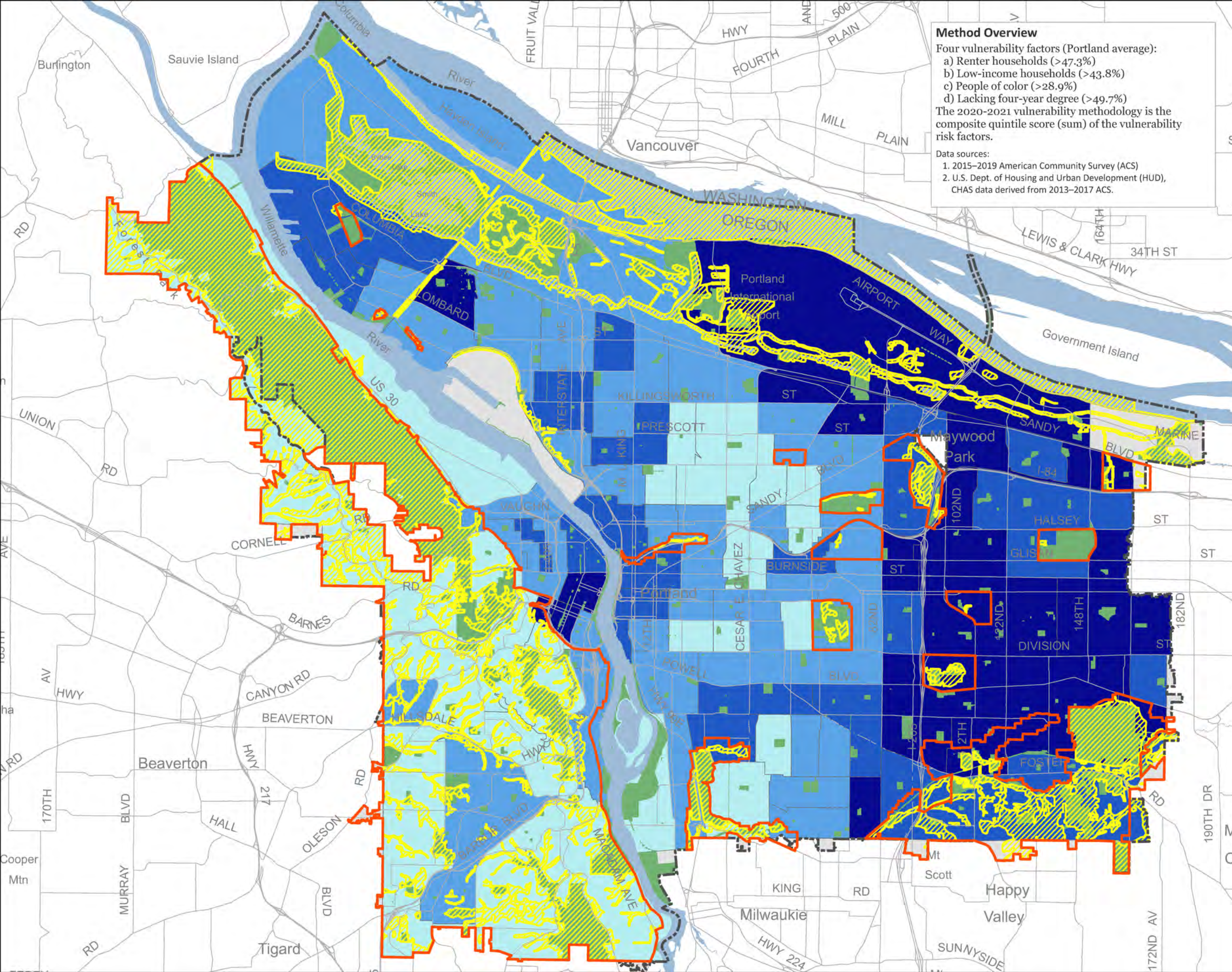
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

E:\Dropbox (BPS Tech Services)\BPS Tech Services Team projects\SWR\Maps\10x17_SWR_hm_districts_pickup_area_1

Ezone Map Correction Project Vulnerability/Risk

Proposed Environmental Zones

Method Overview

Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

Legend

--- Portland Urban Service Boundary

▭ Ezone Project Area

▨ Existing Ezones

▨ Proposed Ezones

▭ Parks and/or Natural Areas

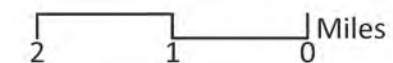
Economic Vulnerability Risk Assessment

■ 13 - 16 (most vulnerable)

■ 10 - 12

■ 5 - 9

■ 0 - 4 (least vulnerable)

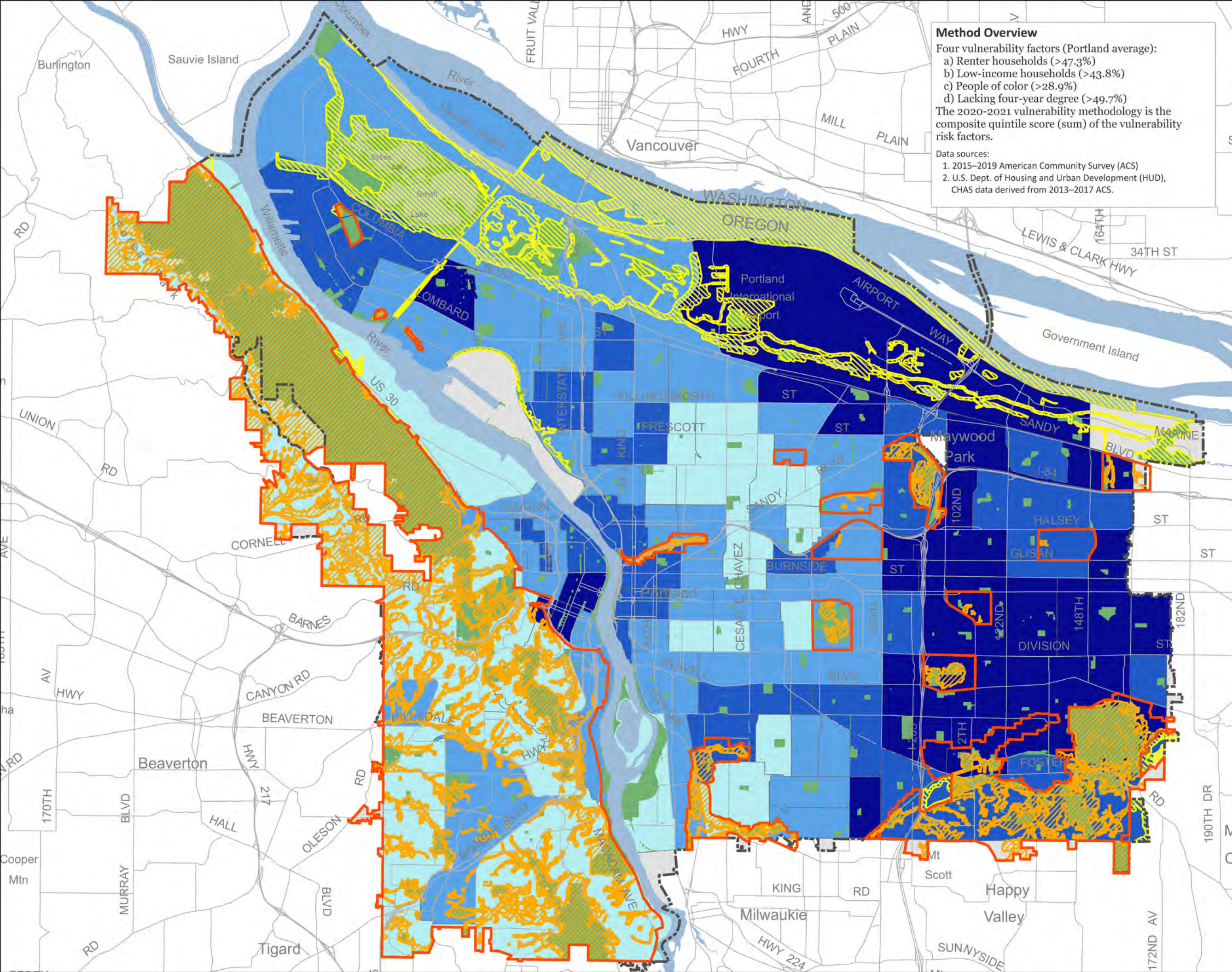


The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**



Ezone Map Correction Project Vulnerability/Risk

Census Tract 21 & 23.03
Composite Score = 11

Legend

Portland Urban Service Boundary

Vulnerability Risk Score >= 10

Ezone Project Area

Parks / Open Space

Wetlands

Open Channel Streams

Proposed Overlay Zones

Conservation (c) Overlay Zone

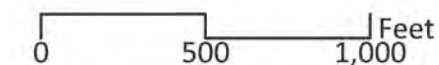
Protection (p) Overlay Zone

Existing Environmental Zones

Conservation (c) Overlay Zone

Protection (p) Overlay Zone

Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Method Overview

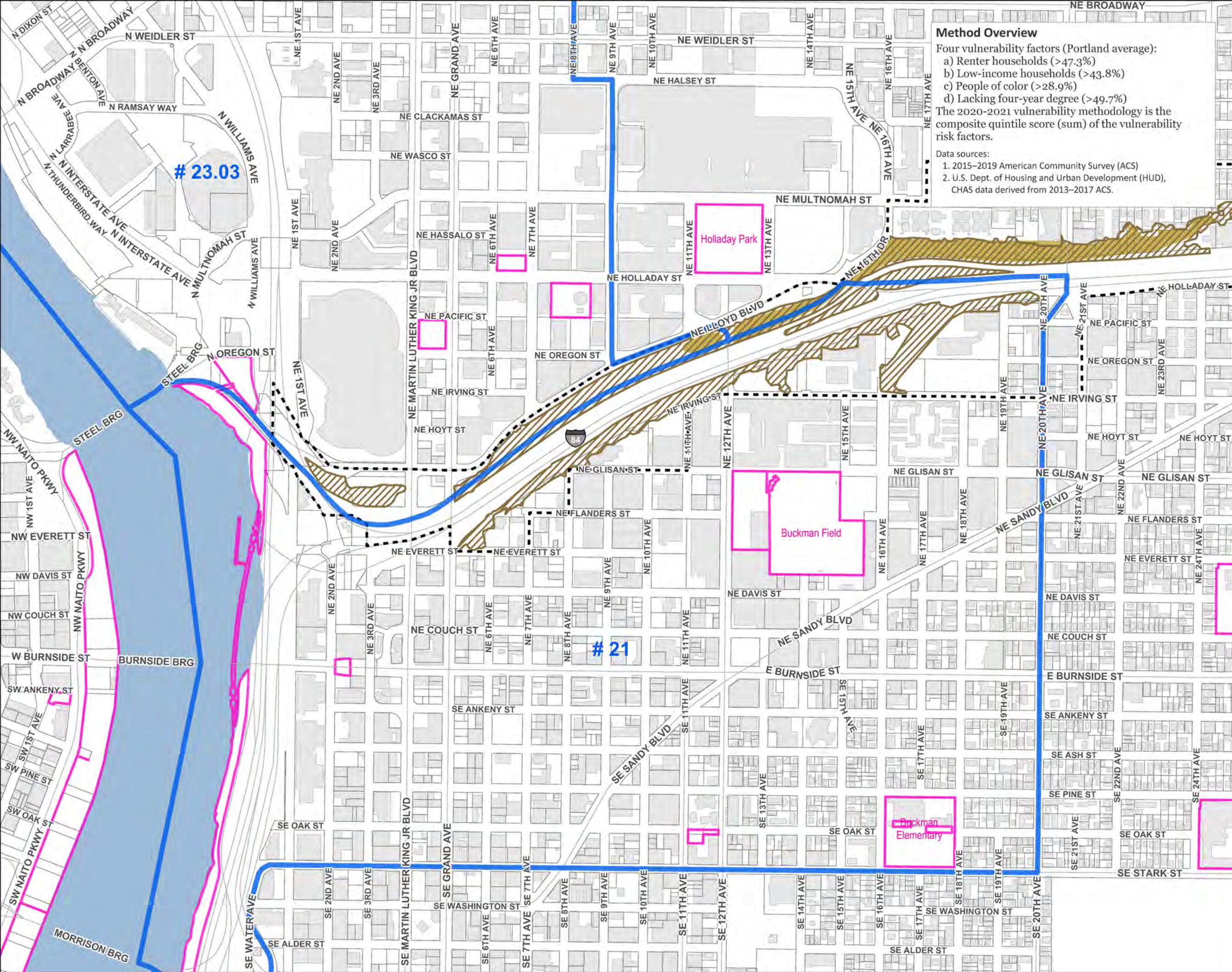
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Ezone Map Correction Project Vulnerability/Risk

Census Tract 29.03 & 78 Composite Score = 10

Method Overview

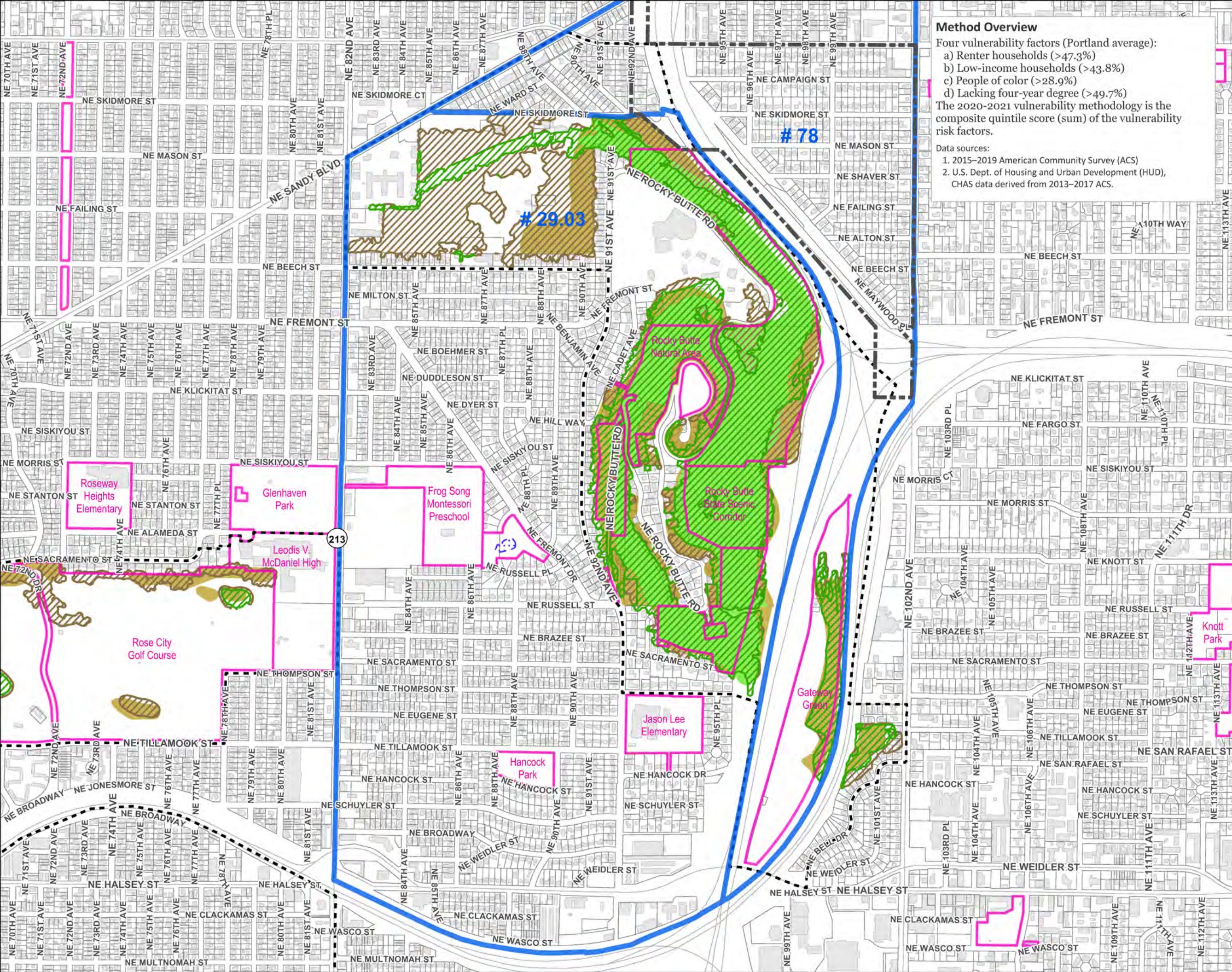
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

1. 2015-2019 American Community Survey (ACS)
2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

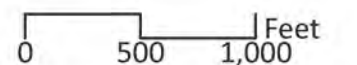
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Ezone Map Correction Project Vulnerability/Risk

Census Tract 3.01
Composite Score = 10

Method Overview

Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

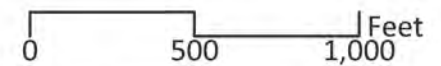
Data sources:

1. 2015-2019 American Community Survey (ACS)
2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

3.01

Legend

- Portland Urban Service Boundary
- Vulnerability Risk Score >= 10
- Ezone Project Area
- Parks / Open Space
- Wetlands
- Open Channel Streams
- Proposed Overlay Zones**
- Conservation (c) Overlay Zone
- Protection (p) Overlay Zone
- Existing Environmental Zones**
- Conservation (c) Overlay Zone
- Protection (p) Overlay Zone
- Building Footprints

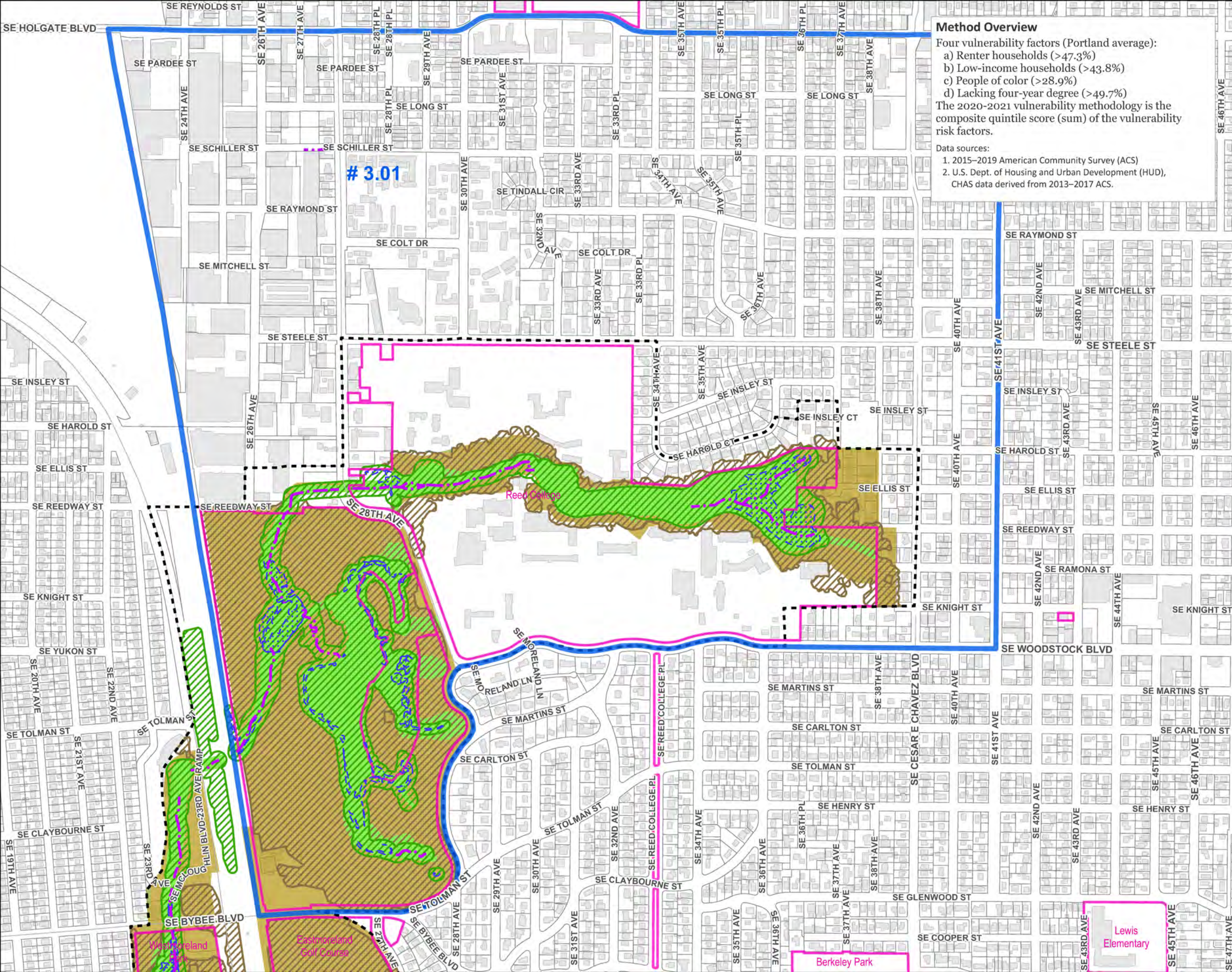


The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**



Ezone Map Correction Project Vulnerability/Risk

Census Tract 41.01
Composite Score = 11

Method Overview

Four vulnerability factors (Portland average):

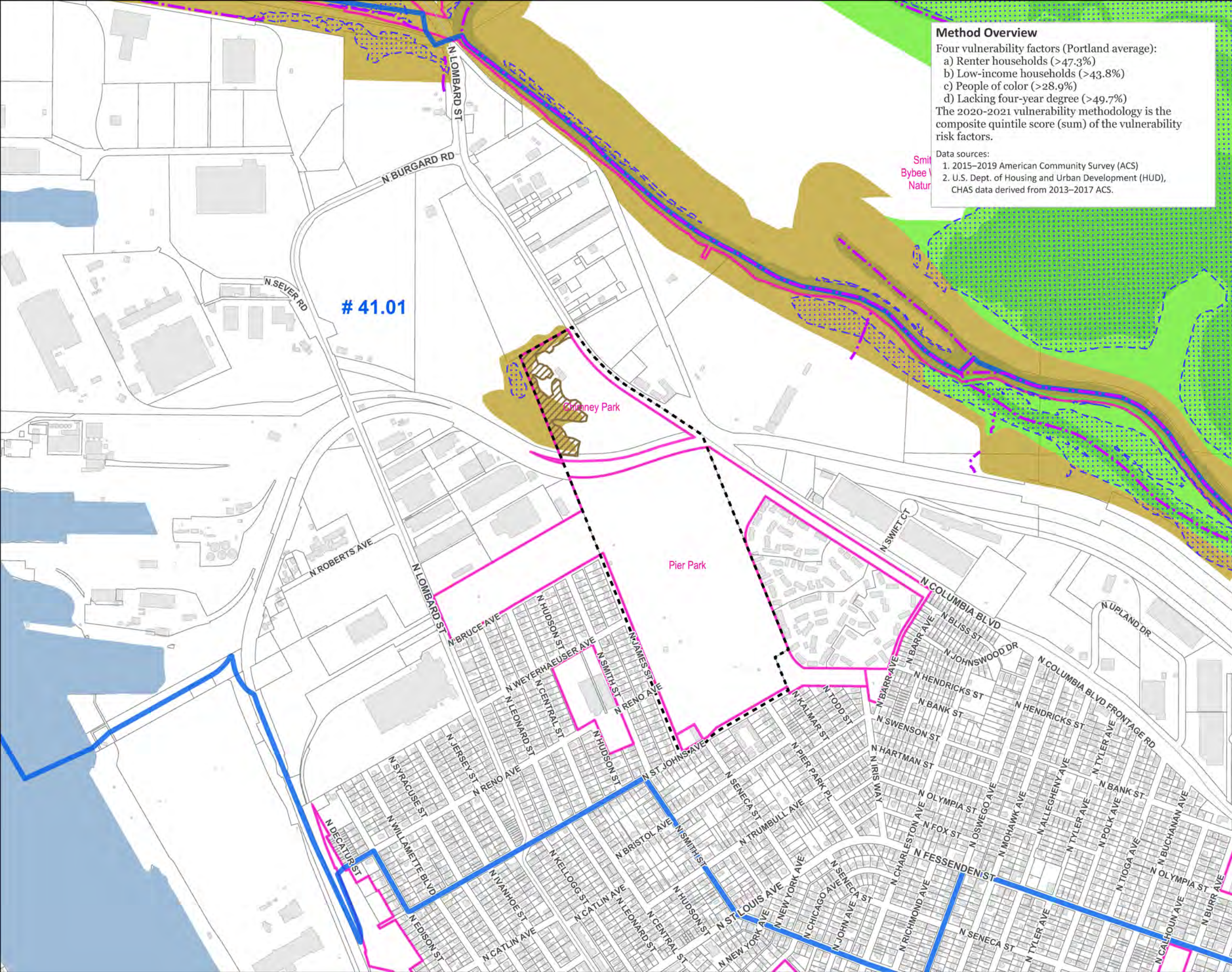
- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

Smit
Bybee
Natur



Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

- - - Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

- · - · Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

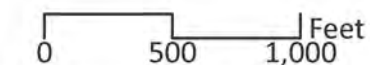
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**

Ezone Map Correction Project

Vulnerability/Risk

Census Tract 55
Composite Score = 13

Method Overview

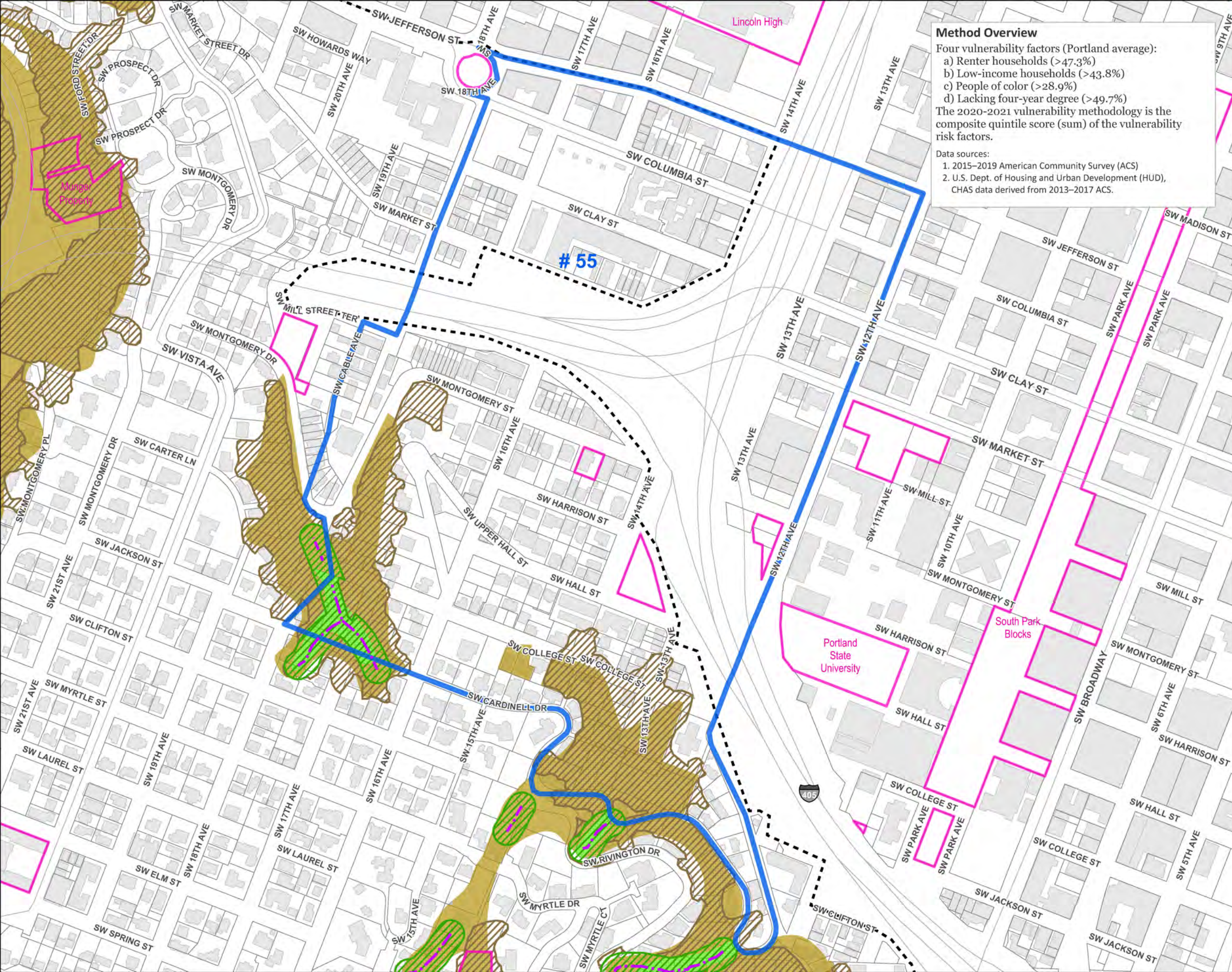
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

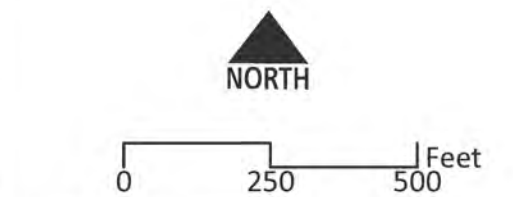
Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Legend

- Portland Urban Service Boundary
- Vulnerability Risk Score >= 10
- Ezone Project Area
- Parks / Open Space
- Wetlands
- Open Channel Streams
- Proposed Overlay Zones**
- Conservation (c) Overlay Zone
- Protection (p) Overlay Zone
- Existing Environmental Zones**
- Conservation (c) Overlay Zone
- Protection (p) Overlay Zone
- Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Ezone Map Correction Project

Vulnerability/Risk

Census Tract 80.01
Composite Score = 13

Method Overview

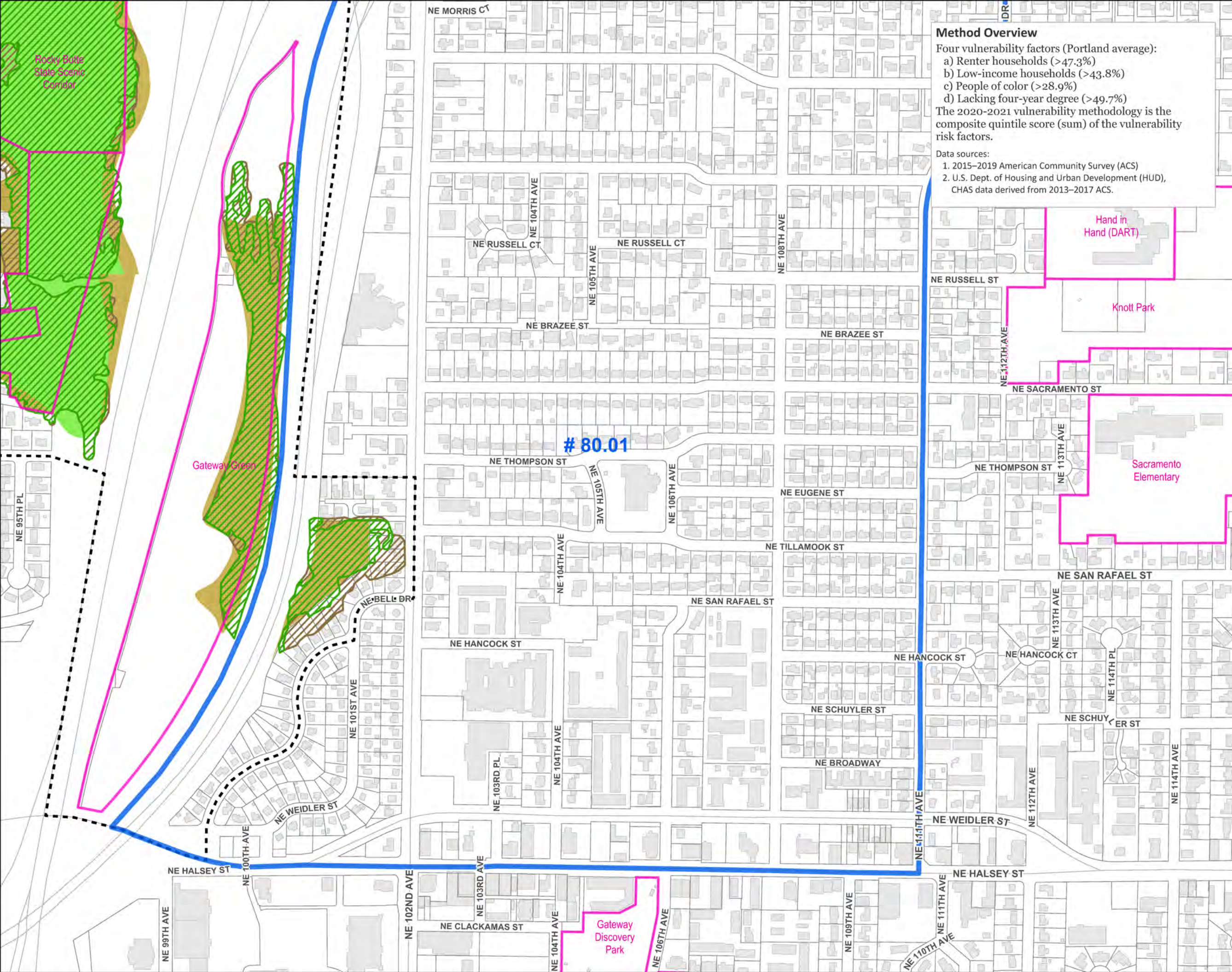
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

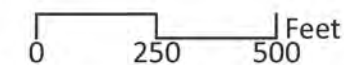
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**

Ezone Map Correction Project Vulnerability/Risk

Census Tract 82.02
Composite Score = 13

Legend

— Portland Urban Service Boundary

▬ Vulnerability Risk Score >= 10

⋯ Ezone Project Area

▭ Parks / Open Space

▨ Wetlands

⋯ Open Channel Streams

Proposed Overlay Zones

▨ Conservation (c) Overlay Zone

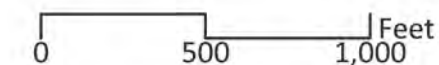
▨ Protection (p) Overlay Zone

Existing Environmental Zones

▨ Conservation (c) Overlay Zone

▨ Protection (p) Overlay Zone

▨ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Method Overview

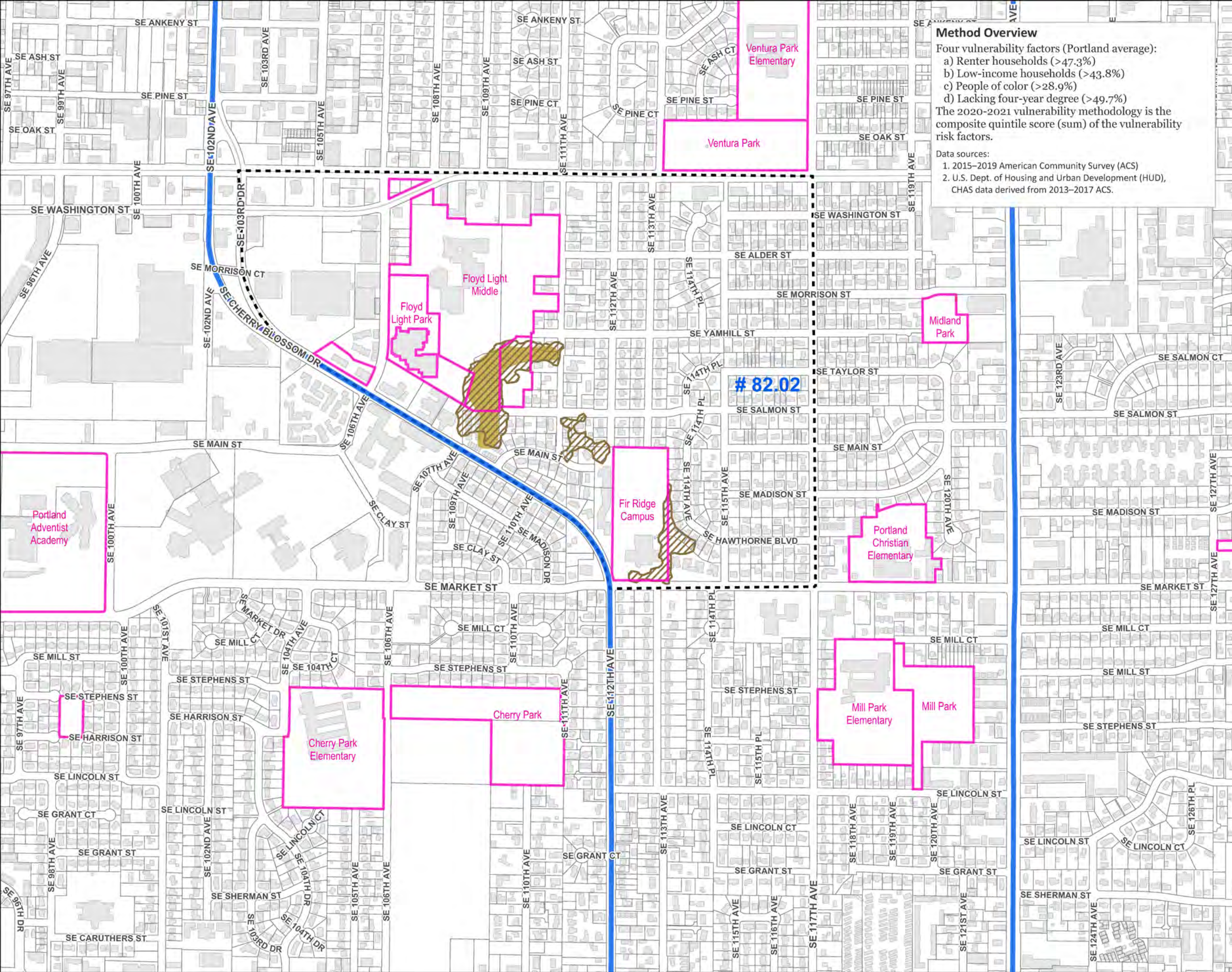
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Ezone Map Correction Project Vulnerability/Risk

Census Tract 83.02
Composite Score = 13

Legend

Portland Urban Service Boundary

Vulnerability Risk Score >= 10

Ezone Project Area

Parks / Open Space

Wetlands

Open Channel Streams

Proposed Overlay Zones

Conservation (c) Overlay Zone

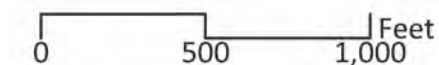
Protection (p) Overlay Zone

Existing Environmental Zones

Conservation (c) Overlay Zone

Protection (p) Overlay Zone

Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Method Overview

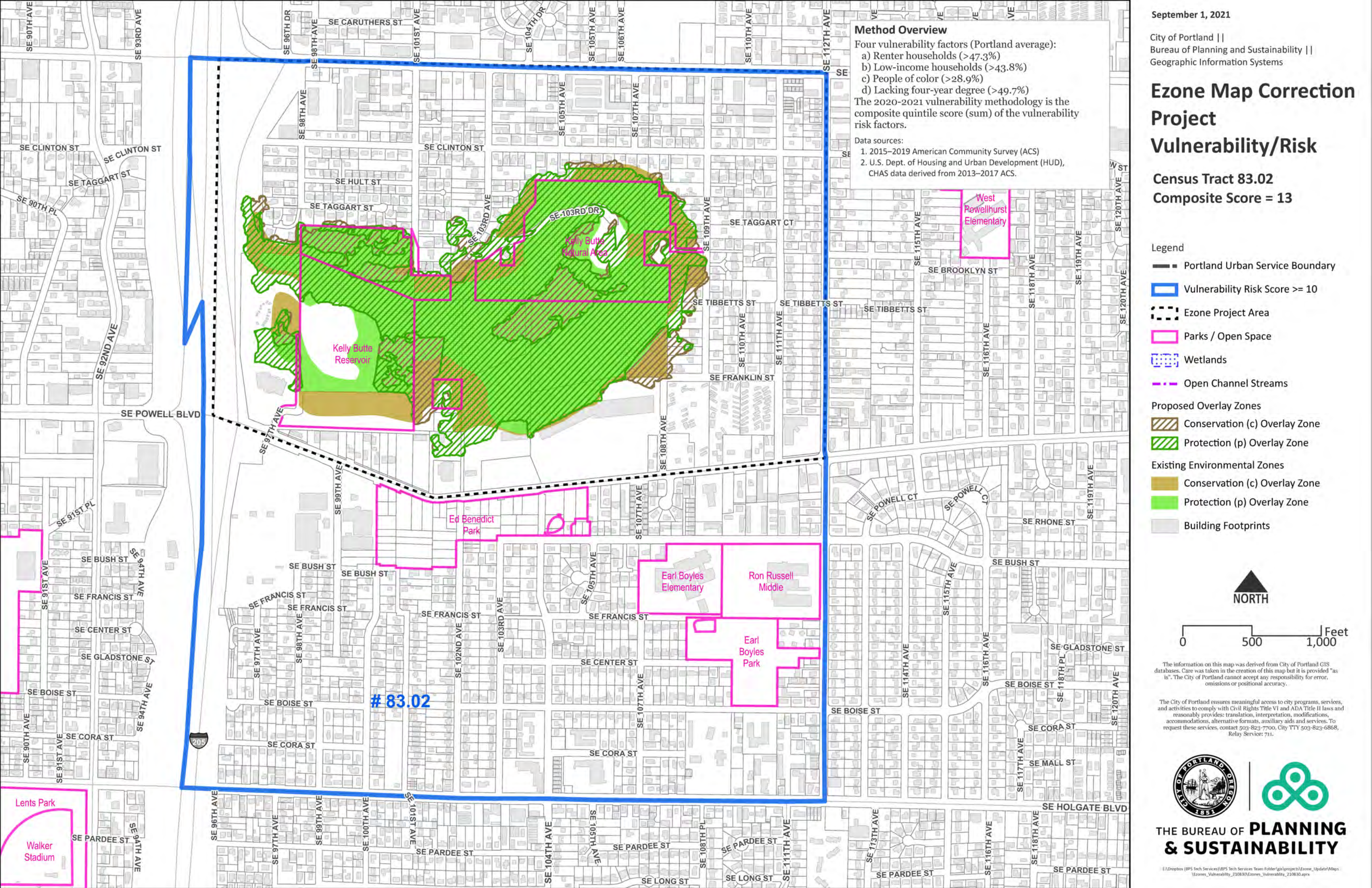
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



83.02

West Powellhurst Elementary

Kelly Butte Natural Area

Kelly Butte Reservoir

Ed Benedict Park

Earl Boyles Elementary

Ron Russell Middle

Earl Boyles Park

Lents Park

Walker Stadium

Ezone Map Correction Project

Vulnerability/Risk

Census Tract 85
Composite Score = 13

Method Overview

Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

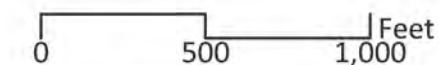
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints

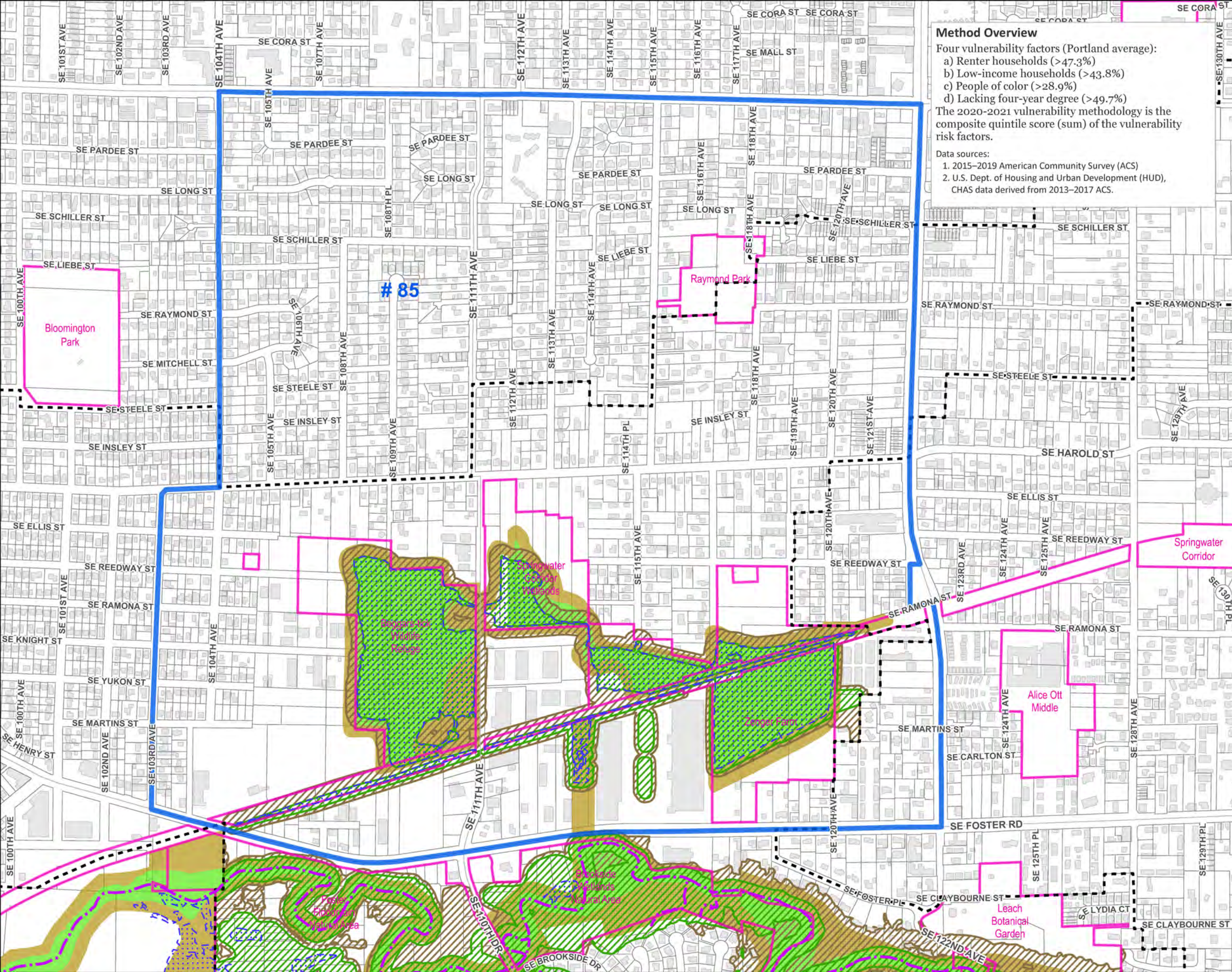


The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

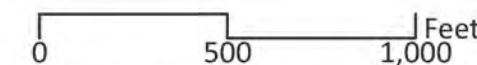


Ezone Map Correction Project Vulnerability/Risk

Census Tract 86
Composite Score = 13

Legend

- Portland Urban Service Boundary
- Vulnerability Risk Score >= 10
- Ezone Project Area
- Parks / Open Space
- Wetlands
- Open Channel Streams
- Proposed Overlay Zones
 - Conservation (c) Overlay Zone
 - Protection (p) Overlay Zone
- Existing Environmental Zones
 - Conservation (c) Overlay Zone
 - Protection (p) Overlay Zone
- Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Method Overview

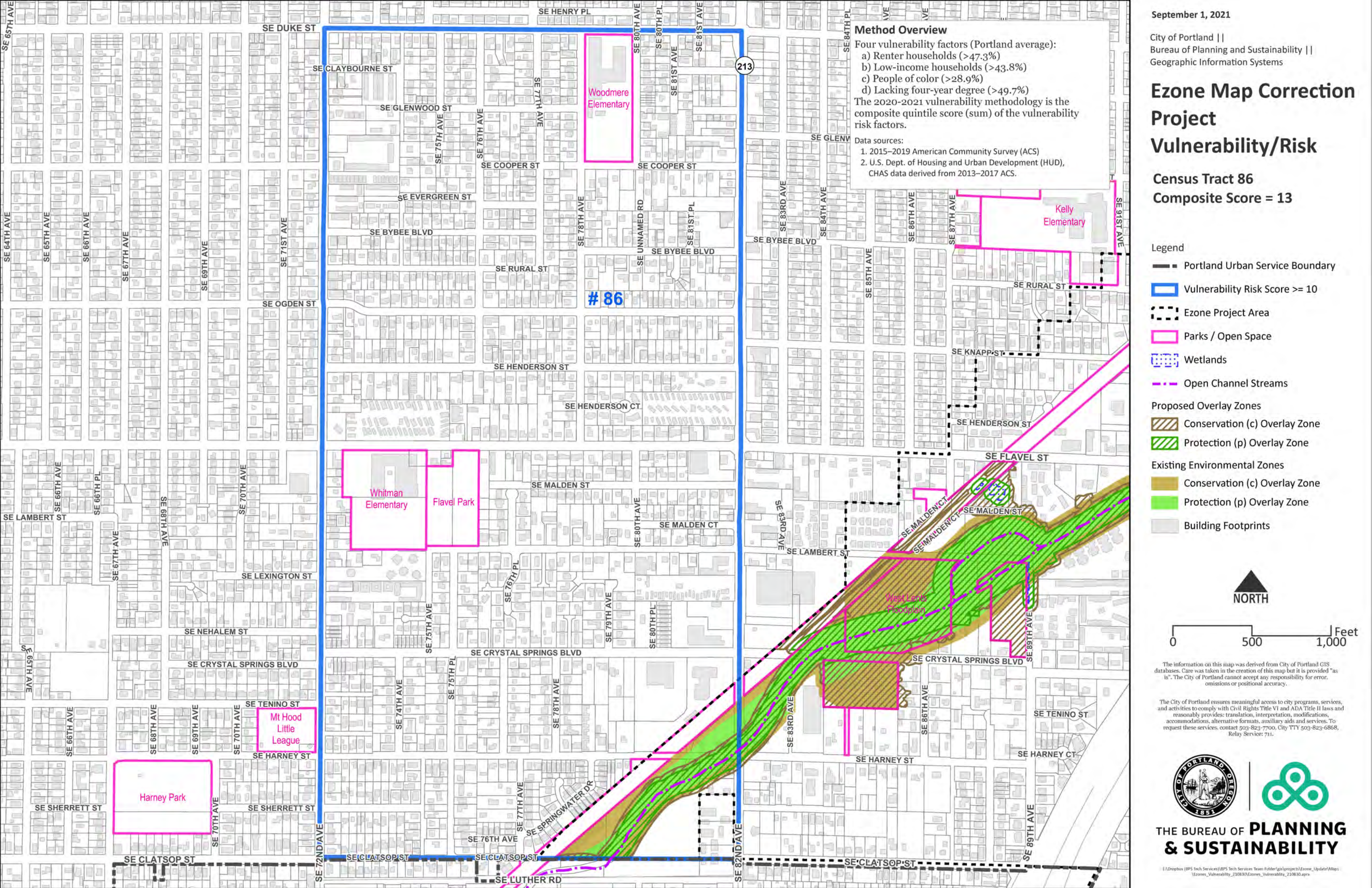
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Ezone Map Correction Project Vulnerability/Risk

Census Tract 89.01 (east)
Composite Score = 10

Method Overview

Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

1. 2015-2019 American Community Survey (ACS)
2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

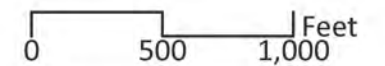
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints

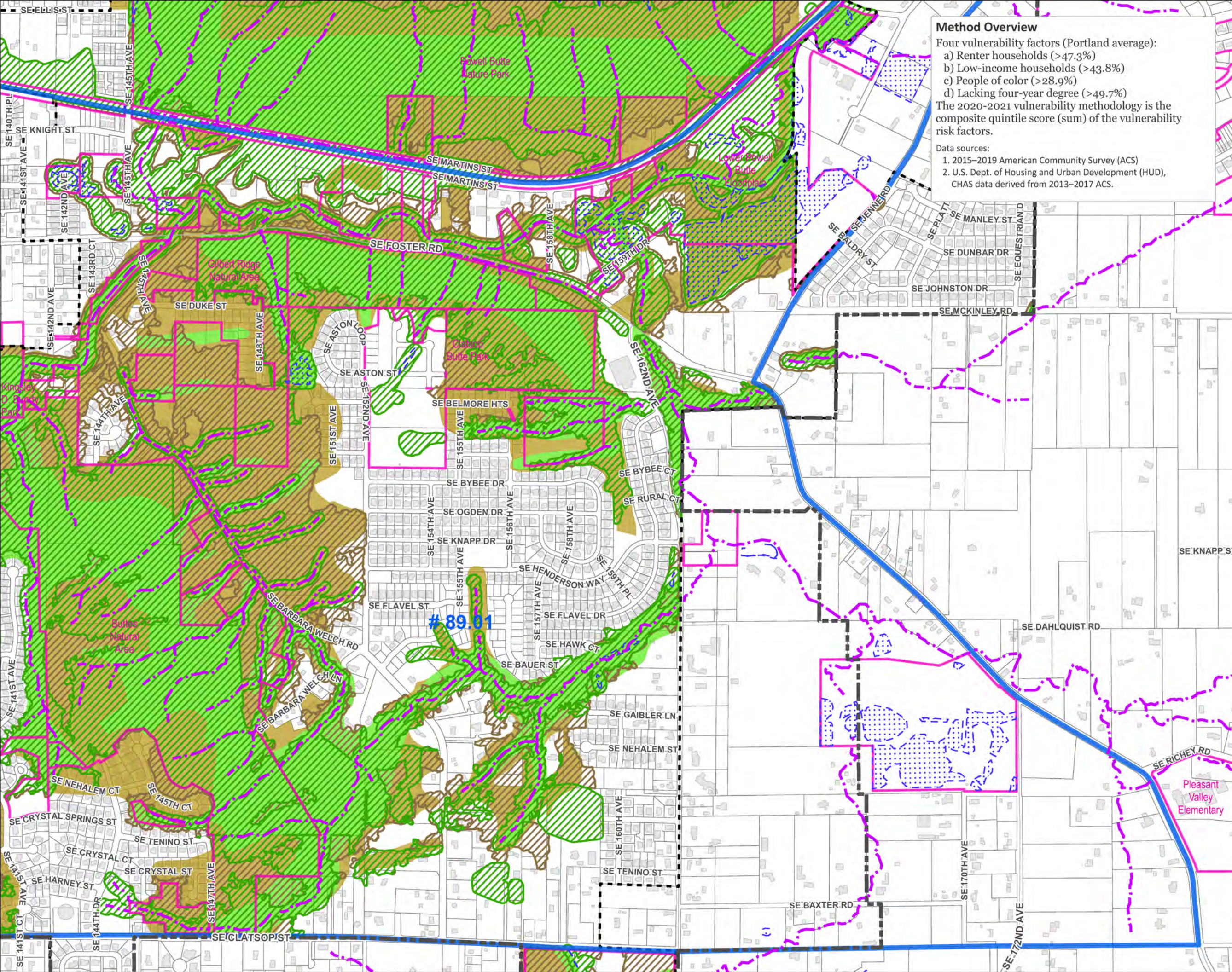


The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY



Ezone Map Correction Project Vulnerability/Risk

Census Tract 89.01 (west)
Composite Score = 10

Method Overview

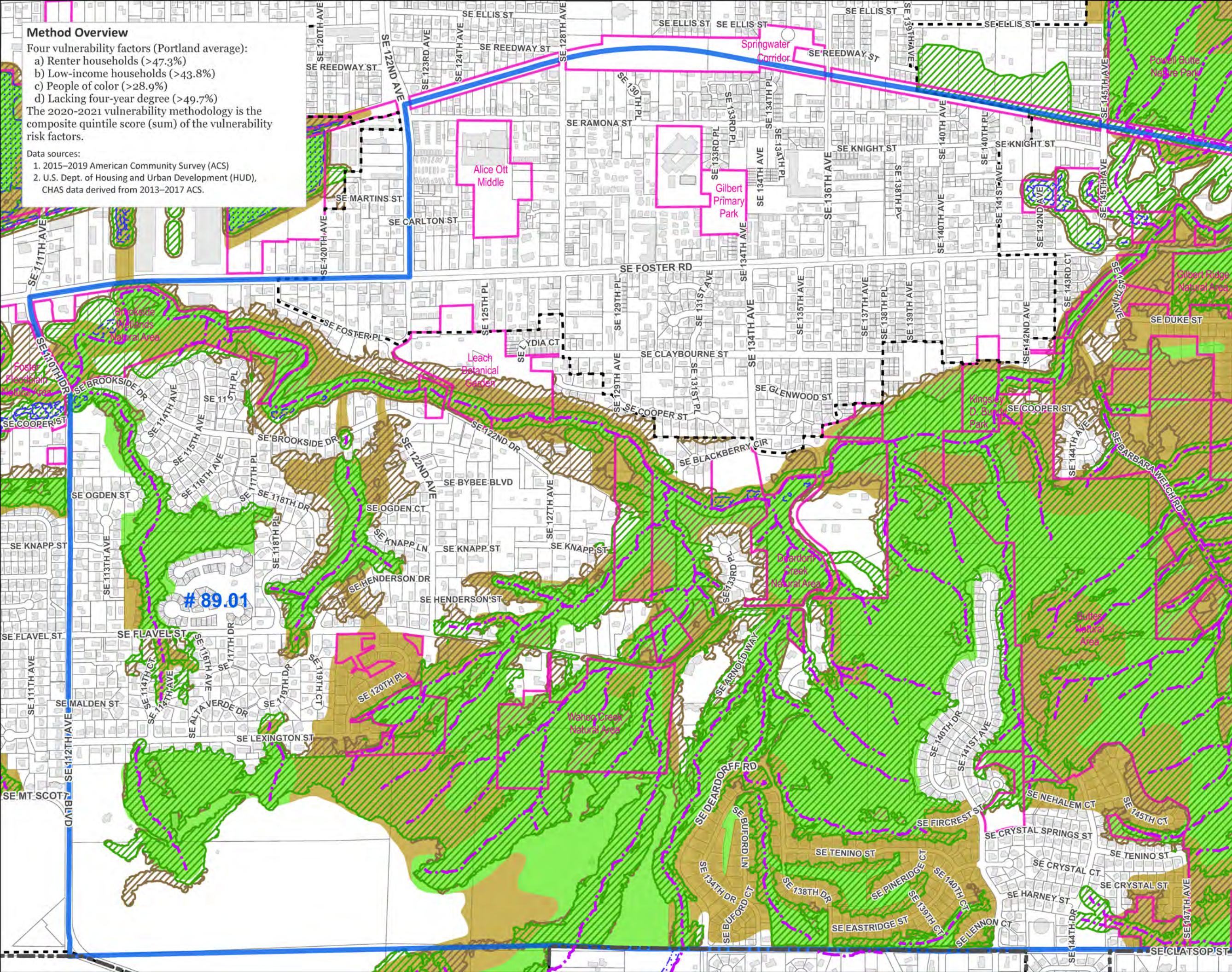
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Legend

— Portland Urban Service Boundary

■ Vulnerability Risk Score >= 10

--- Ezone Project Area

□ Parks / Open Space

■ Wetlands

--- Open Channel Streams

Proposed Overlay Zones

■ Conservation (c) Overlay Zone

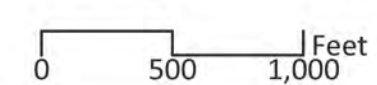
■ Protection (p) Overlay Zone

Existing Environmental Zones

■ Conservation (c) Overlay Zone

■ Protection (p) Overlay Zone

■ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

E:\Dropbox (BPS Tech Services)\BPS Tech Services Team Folder\GIS\projects\Ezone_Update\Maps\Zones_Vulnerability_210830\Ezone_Vulnerability_210830.aprx

Ezone Map Correction Project Vulnerability/Risk

Census Tract 89.02
Composite Score = 12

Method Overview

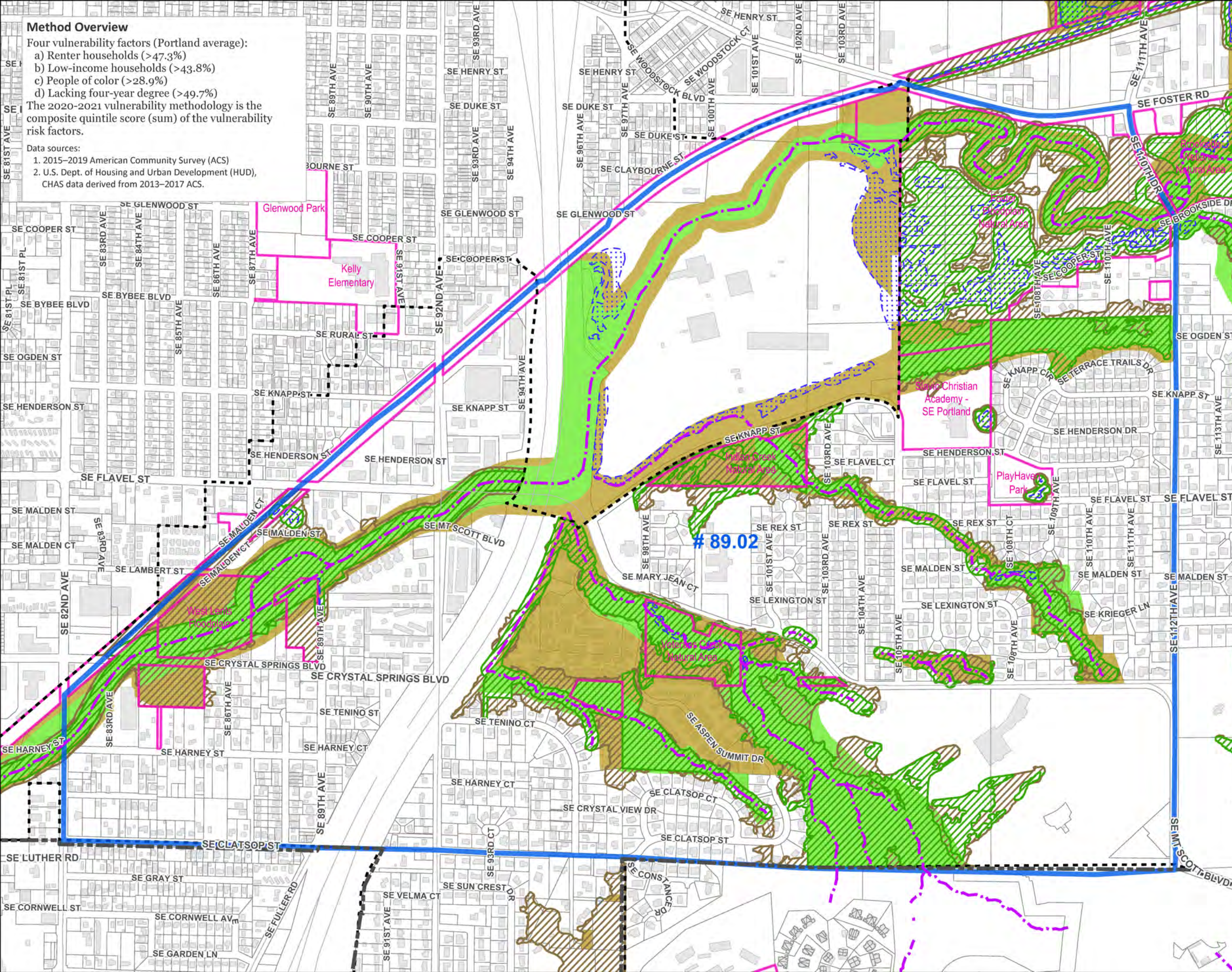
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

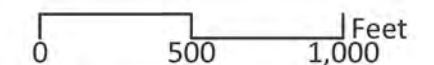
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**

Ezone Map Correction Project Vulnerability/Risk

Census Tract 91.02
Composite Score = 13

Method Overview

Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

91.02

Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

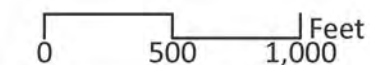
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**

Ezone Map Correction Project Vulnerability/Risk

Census Tract 93.02
Composite Score = 12

Method Overview

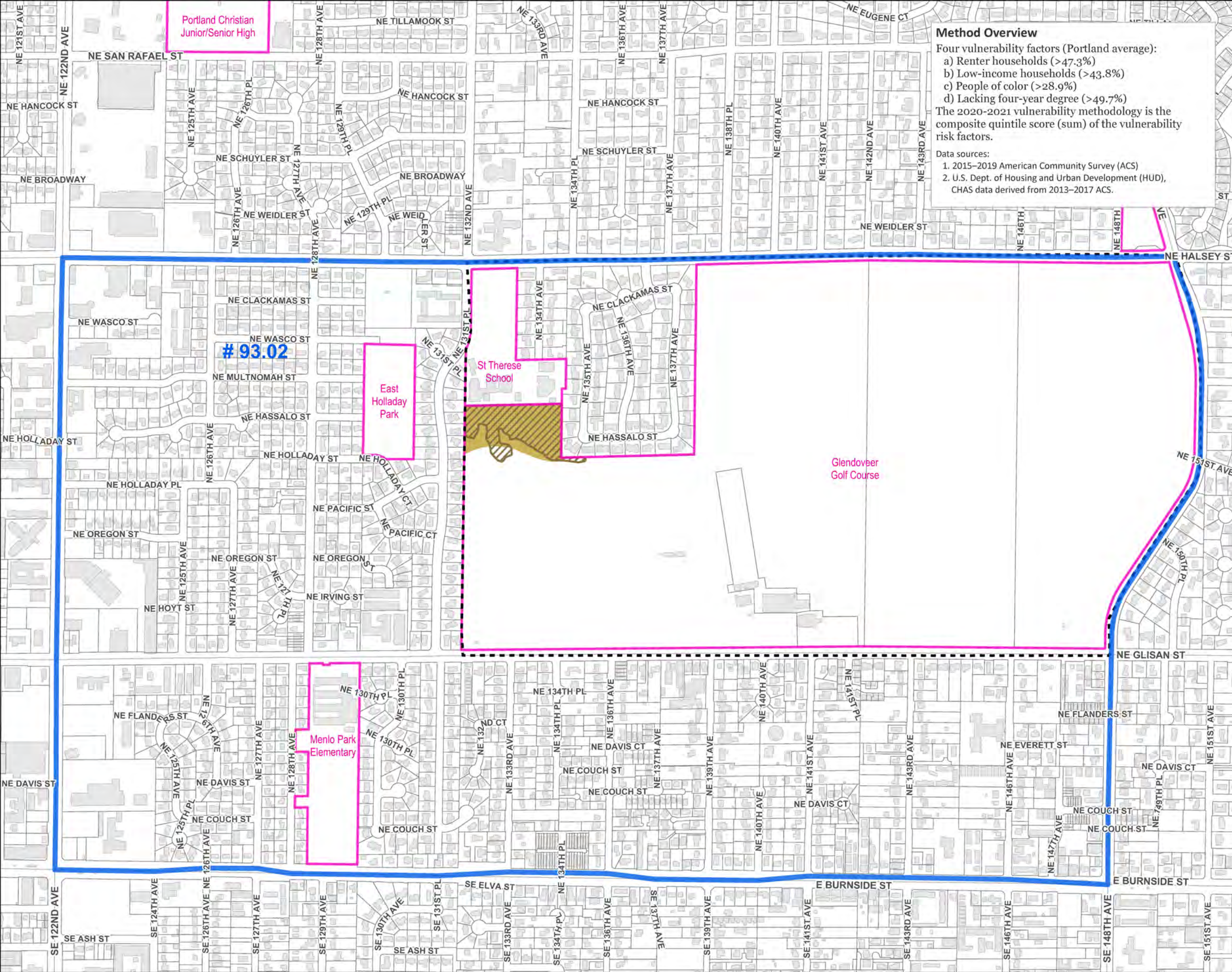
Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

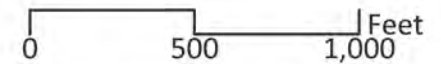
Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.



Legend

- Portland Urban Service Boundary
- Vulnerability Risk Score >= 10
- Ezone Project Area
- Parks / Open Space
- Wetlands
- Open Channel Streams
- Proposed Overlay Zones**
- Conservation (c) Overlay Zone
- Protection (p) Overlay Zone
- Existing Environmental Zones**
- Conservation (c) Overlay Zone
- Protection (p) Overlay Zone
- Building Footprints



The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF PLANNING & SUSTAINABILITY

Ezone Map Correction Project

Vulnerability/Risk

Census Tract 95.01
Composite Score = 13

Method Overview

Four vulnerability factors (Portland average):

- a) Renter households (>47.3%)
- b) Low-income households (>43.8%)
- c) People of color (>28.9%)
- d) Lacking four-year degree (>49.7%)

The 2020-2021 vulnerability methodology is the composite quintile score (sum) of the vulnerability risk factors.

Data sources:

- 1. 2015-2019 American Community Survey (ACS)
- 2. U.S. Dept. of Housing and Urban Development (HUD), CHAS data derived from 2013-2017 ACS.

Legend

— Portland Urban Service Boundary

▭ Vulnerability Risk Score >= 10

▭ Ezone Project Area

▭ Parks / Open Space

▭ Wetlands

▭ Open Channel Streams

Proposed Overlay Zones

▭ Conservation (c) Overlay Zone

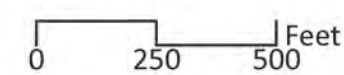
▭ Protection (p) Overlay Zone

Existing Environmental Zones

▭ Conservation (c) Overlay Zone

▭ Protection (p) Overlay Zone

▭ Building Footprints



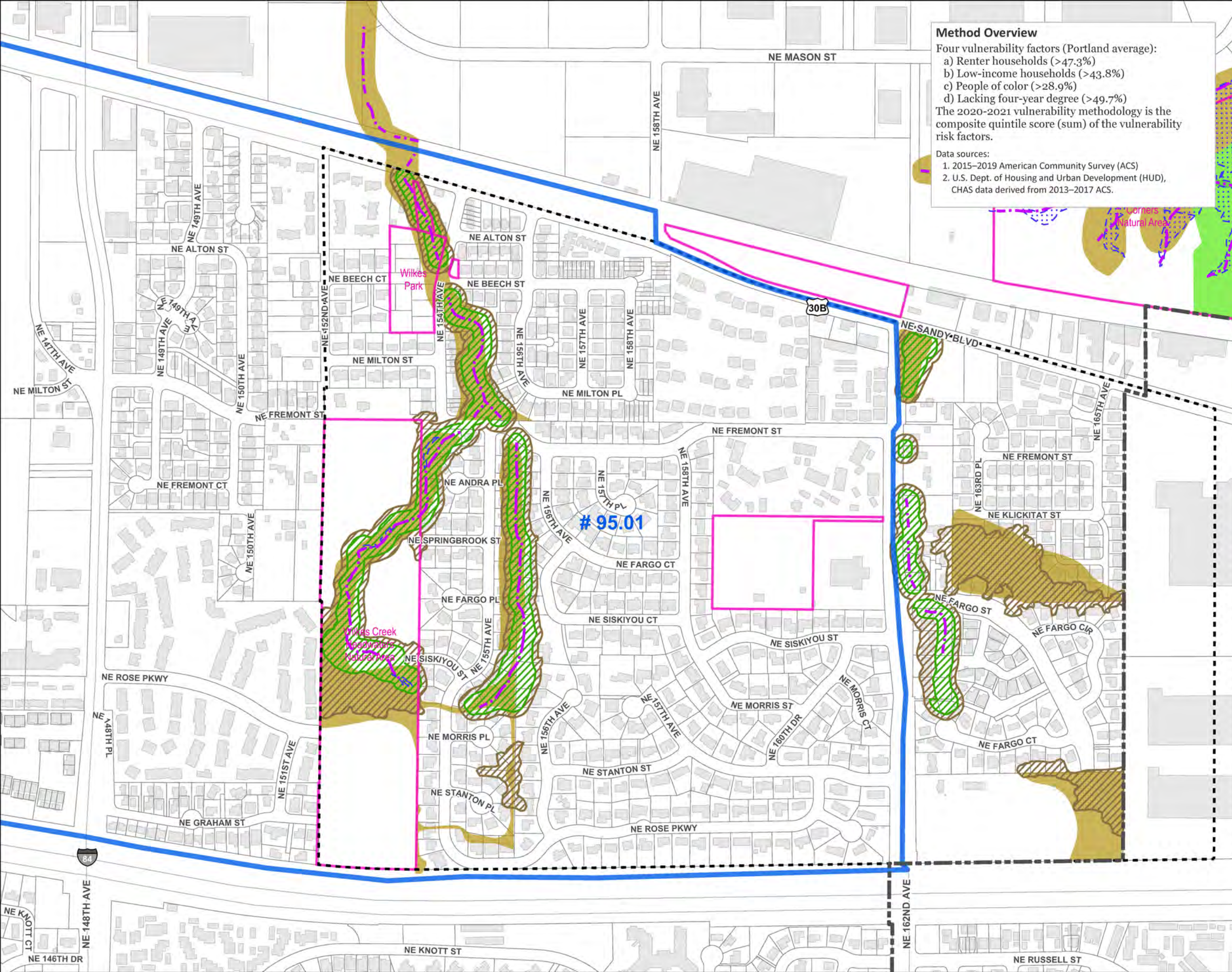
The information on this map was derived from City of Portland GIS databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland cannot accept any responsibility for error, omissions or positional accuracy.

The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



THE BUREAU OF **PLANNING & SUSTAINABILITY**

[I:\Dropbox (BPS Tech Services)\BPS Tech Services Team Folder\GIS\projects\Ezone_Update\Maps\Ezone_Vulnerability_210830\Ezone_Vulnerability_210830.aprx



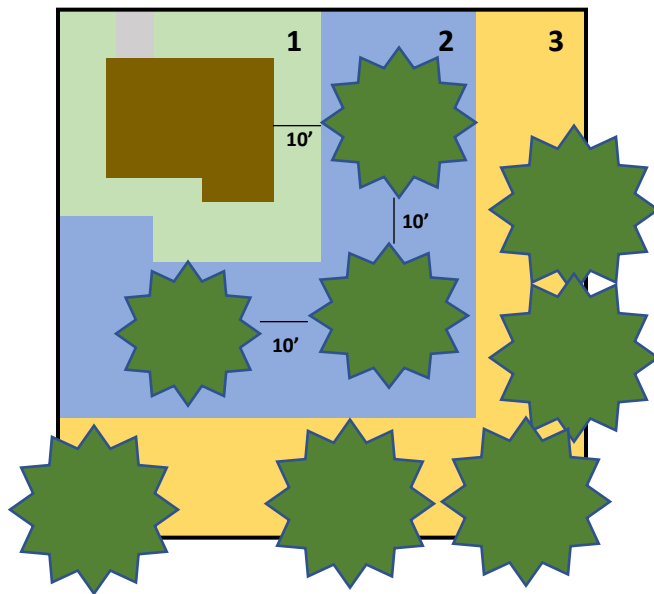
Attachment C.1

The what, where and how of managing landscaping in ezones

How you can plant, prune and remove plants to reduce the risk of wildfire on your property.

Is your property in an environmental zone? If so, this information will help you understand what plants you can prune, remove and plant to reduce the risk wildfire around your home.

The illustration below shows management areas in relation to a structure. To reduce the risk of wildfire, different landscaping techniques are recommended. In all areas, the use of fire-resistant native plants in landscaping is recommended – see page 2.



1: Defensible Space (light green): 0-10 ft from existing structures

2: Intermediate Zone (blue): 10 - 30 ft from existing structures

3: Management Area (yellow): More than 30 ft from existing structures

The requirements for each area are listed below. In all areas, removal of trees 6 inches or greater in diameter, measured at 4 feet 6 inches off the ground, must be replaced per Title 11; and tree topping is prohibited. Visit www.portlandoregon.gov/trees for more information.

Area 1: Defensible Space (0-10 ft from existing structures)

- All trees and tree branches, as well as all non-native vegetation, can be removed.
- Areas within 5 ft of a structure can be left as bare soil, replaced with gravel or decorative rocks, or replanted with non-nuisance plants.
- Areas of bare soil between 5-10 ft of a structure must be replanted with native plants, except in approved permanent disturbance areas where non-nuisance plants may also be used.

Area 2: Intermediate Zone (10-30 ft from existing structures)

- Dead or dying trees, as certified by an arborist, that pose an immediate danger can be removed.
- All non-native vegetation can be removed. All areas of bare soil must be replanted with native plants, except in approved permanent disturbance areas where non-nuisance plants may also be used.
- Tree branches may be pruned to 6 ft above the ground.
- In a Wildfire Hazard Zone, coniferous tree branches can be pruned. It is recommended that branches be pruned to create a 10-ft separation between individual trees.

Area 3: Management Area (more than 30 ft from existing structures)

- Dead or dying trees, as certified by an arborist, that pose an immediate danger can be removed.
- All non-native vegetation can be removed. All areas of bare soil must be replanted with native plants, except in approved permanent disturbance areas where non-nuisance plants may also be used.
- Tree branches may be pruned to 6 ft above the ground.
- Other vegetation pruning to abate an immediate danger is allowed.

Attachment C.2

Landscaping to reduce wildfire risk

1. Remove invasive plants, especially ivy, from tree trunks, and remove ivy and blackberry from under tree branches.
2. Replace invasive plants with fire-resistant native plants.

Recommended native plants to reduce wildfire risk

Ground Cover

Kinnikinnick
Wild Strawberry
Oregon Grape
Lupine
Evening Primrose
Sedum/Stonecrop
Sedges



Kinnikinnick

Shrubs

Salal
Oceanspray
Snowberry
Western Spirea
Vine Maple



Salal

Deciduous Trees

Oregon White Oak
Oregon Ash
Flowering Dogwood
Western Crabapple
Bigleaf Maple
Red Alder



Oceanspray

Additional Resources:

"Fire-resistant Plants for Home Landscapes"

catalog.extension.oregonstate.edu/sites/catalog/files/project/pnw590.pdf

"Fire-resistant Landscape Plants for the Willamette Valley"

catalog.extension.oregonstate.edu/sites/catalog/files/project/supplemental/em9103/em9103print.pdf

The Oregon Forestland-Urban Interface Fire Protection Act (sometimes called SB 360) and YOU



In 1997, the Oregon Legislature passed the Oregon Forestland-Urban Interface Fire Protection Act in response to the escalating problems of wildfires burning homes, firefighters risking their lives in conflagrations, and the rising cost of fire suppression.

The act takes important steps toward an effective protection system by:

- identifying areas where residential development has occurred in wildfire-prone areas.
- classifying fire risk in those areas.
- establishing fuel-reduction measures for each fire-risk classification area so fire intensity around homes will be significantly reduced.

Following the fuel-reduction guidelines described in this brochure will increase your property's margin of protection, and will make the property compliant with the act.

Once fuel-reduction is complete on your property, you are encouraged to return a certification form — which is mailed by the Oregon Department of Forestry to the owners of properties included in forestland-urban interface areas. This certification form will protect you against fire-cost recovery penalties, should a wildfire occur on your property.

There is no fine for not complying with the act's fuel-reduction requirements, but a property owner may be billed for certain fire suppression costs if:

- a certification form is not received by ODF prior to the start of a fire.
- a fire of any origin starts on the property.
- the fire spreads through the parts of the property where fuel-reduction should have been done.
- the fire escapes initial attack and the state pays suppression costs above what is normally budgeted for initial-attack costs.

This liability is capped at \$100,000.

The purpose of a fuel break is to keep an approaching wildfire from reaching your house and other structures. Fire ignites easily and moves rapidly in dry grass, dry needles and leaves, dead branches on trees and shrubs, and piles of firewood and lumber. Reducing the number and arrangement of these flammable materials within fuel break areas will make your structures more defensible against wildfire.

For more information

Contact your local

**Oregon Department of Forestry
or Forest Protective Association office**

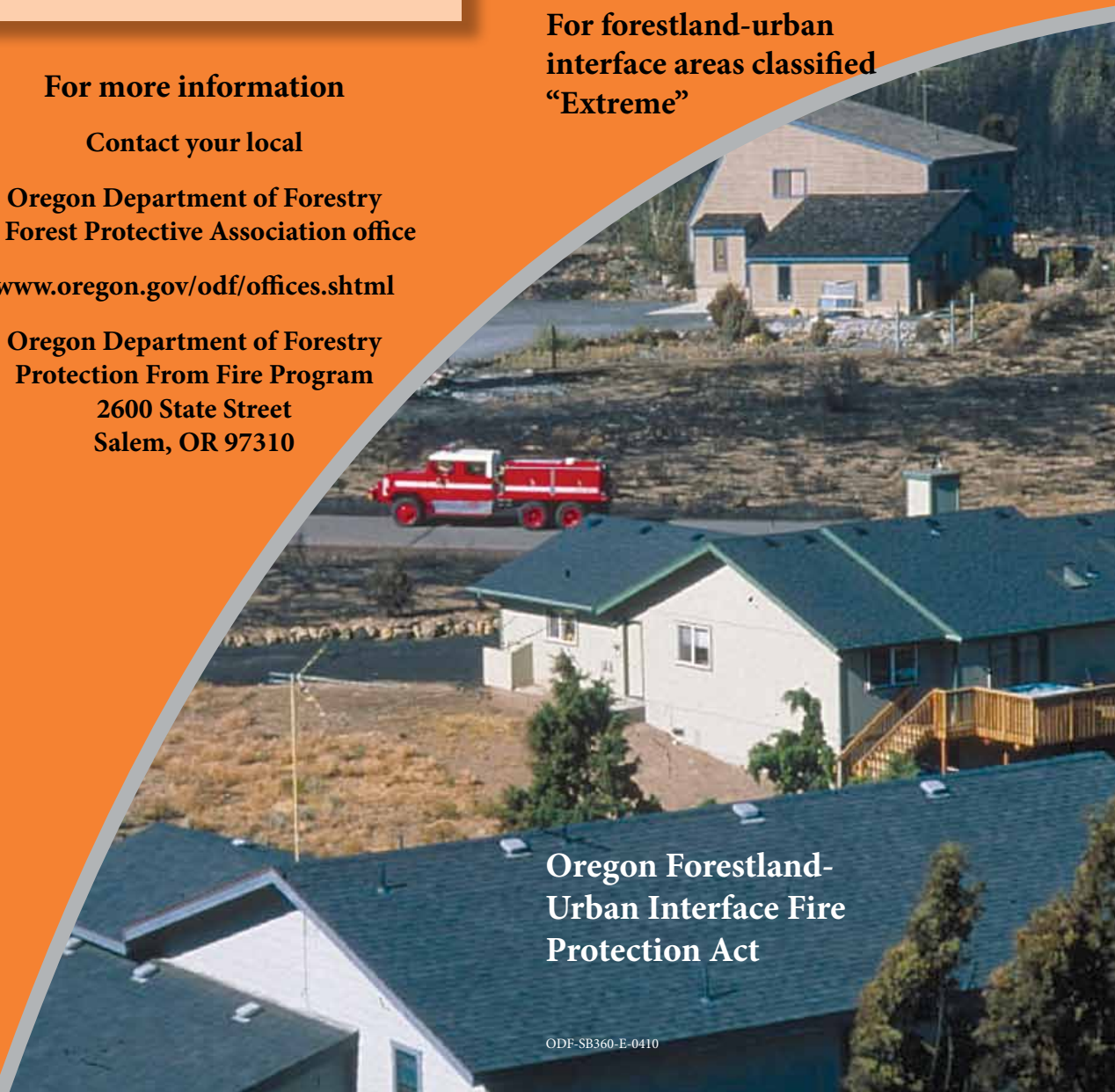
www.oregon.gov/odf/offices.shtml

**Oregon Department of Forestry
Protection From Fire Program
2600 State Street
Salem, OR 97310**



6 Steps to Wildfire Protection

For forestland-urban
interface areas classified
“Extreme”



**Oregon Forestland-
Urban Interface Fire
Protection Act**

Questions & Answers



The Oregon Forestland-Urban Interface Fire Protection Act

requires the owners of forestland-urban interface lands to reduce

potentially flammable vegetation around homes and along driveways. It also requires the Oregon Department of Forestry (ODF) to assist landowners with accomplishing their fuel reduction obligations.

What are forestland-urban interface lands?

They include lands that are within an ODF protection district, and which have been divided into lots for residential development. These are also lands where wildfires are likely to occur.

A forestland-urban interface area is composed of groups of homes. The minimum grouping is four homes per 40 acres.

What is a fire-risk classification?

A classification is the product of several factors that influence an area's vulnerability to wildfire:

- wildfire and climate history
- dominant topographical character
- dominant natural vegetation type

Residential lots within a forestland-urban interface area share the same level of wildfire risk. Therefore, each lot within an area is assigned the same classification. The classification levels are low, moderate, high and extreme. Each level requires a different degree of fuel reduction.

Who identifies and classifies these areas?

Each Oregon county convenes a five-person forestland-urban interface classification committee. Three members of the committee are appointed by the county, one member is appointed by the state fire marshal, and one by the state forester. The committee conducts its identification and classification tasks in five-year cycles.

What is a property owner required to do?

In most cases, the owner of a lot in a forestland-urban interface area must create a fuel break around the home and other structures, and along the driveway.



Fuel reduction around a home can keep a wildfire emergency from becoming a disaster.

What is fuel?

Fuel is anything that can burn. Needles, leaves, dry grass, dead branches and firewood are common fuels in these areas.

A home roofed with cedar shakes is particularly vulnerable to wildfire damage or destruction because of the highly combustible nature of cedar.

Fuel reduction means to lessen the amount of fuel available to a fire, to increase the distance between fuels, and to isolate fuels so fire can't get to them.



Is it necessary to cut down a lot of trees?

In many cases, no. Trees can protect a home from a wildfire's radiant heat and airborne embers. It may be necessary to thin some trees to reduce the volume of fuel on a property, but it is generally wise to leave the oldest trees, if they are healthy. Before removing healthy, mature trees, consult with an ODF fire prevention specialist.

Does ODF have to inspect the property?

No. The property owner may sign and return the certification form without an inspection. However, ODF employees are available to provide advice about how to meet the act's fuel-reduction standards.





6 Steps to Wildfire Protection

1 If there is a home or other structure on your property, then a fuel break is required to be established around it. A structure is defined as a permanently sited building that is at least 500 square feet.

If no home or other structure exists on property then fuel reduction treatment is not required on the property. However, it is recommended that you send in your self-certification form; check the “No Structure” box on the form, sign, and return the form to ODF.

If the home has flame-resistant roofing (Class A, B or C), then a 50-foot fuel break is required. If it is roofed with cedar shakes or other flammable material, the fuel break must be 100 feet in size.

A fuel break begins at the outside edge of a home’s furthest extension. This may be the edge of the roof eave, or the outside edge of a deck attached to the home. The shape of the fuel break mirrors the footprint shape of the home and anything that is attached to it.

A fuel break’s distances are measured along the slope, and does not need to extend beyond the property line.

The fuel break may use natural firebreaks, such as a rock outcropping or a body of water, or it can be completely man-made.

The vegetation within the fuel break must meet the following guidelines:

- Ground cover should be substantially non-flammable or fire-resistant. Examples of this include asphalt, bare soil, clover, concrete, green grass, ivy, mulches, rock, succulent ground cover or wildflowers.



- Dry grass should be cut to a height of less than four inches.
- Cut grass, leaves, needles, twigs and similar small vegetative debris should be broken up so that a continuous fuel bed is not created.
- Shrubs and trees should be maintained in a green condition, be substantially free of dead plant material, and have any potential “ladder fuels” removed.
- Trees and shrubs should also be arranged so that fire cannot spread or jump from plant to plant. Some thinning may be necessary to accomplish this.

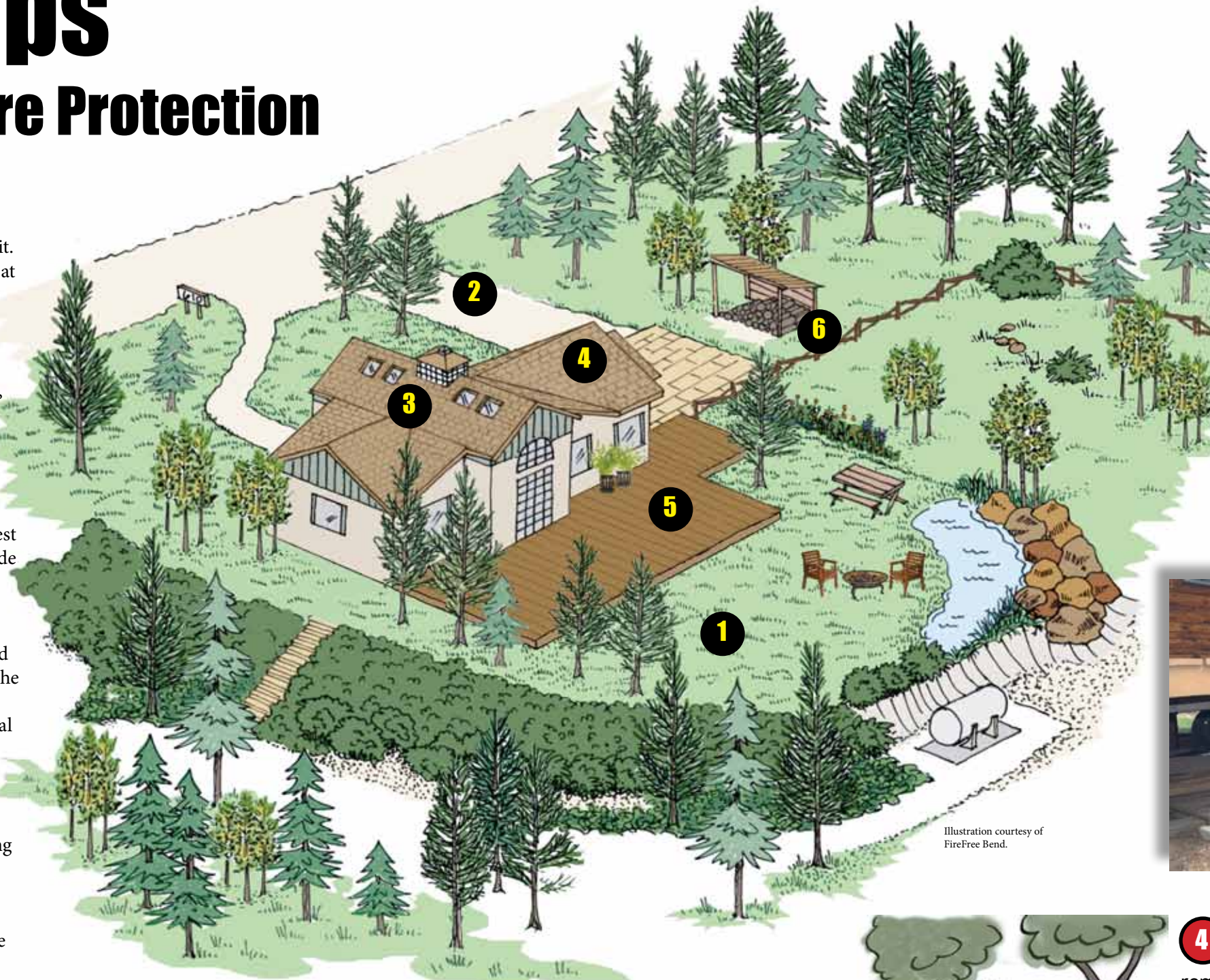


Illustration courtesy of FireFree Bend.

2 On a driveway that is at least 150 feet long, it is necessary to remove obstructions over the driving surface, and create a fuel break along the driveway’s fringe.

The clearance above the driving area must meet these specifications:

- the horizontal clearance must be at least 12 feet
- the vertical clearance must be at least 13 ½ feet

The fuel break along the driveway fringe must extend

10 feet from each side of the driveway’s centerline, creating a total fuel break area that is at least 20 feet wide, including the driving surface.

The vegetation must be modified to the same standards as a fuel break around a structure.

Likewise, the driveway fuel break’s distance is measured along the slope, and does not need to extend beyond the property line.



4 All dead branches overhanging any portion of the roof must be removed. Also remove accumulations of leaves, needles, twigs, bark and other potentially flammable debris that may be on the roofing surface, in the valleys or in the rain gutters.



3 Sparks from a chimney connected to a fireplace or wood-burning stove could catch tree branches on fire. To reduce the chance of this happening, trim all branches ten feet away from a chimney that vents a wood-burning fireplace or stove.

6 Firewood and lumber piles near a structure can become a source of intense, sustained heat if they should catch fire. This could ignite nearby vegetation, or cause windows to break, admitting fire into the structure.

During the months of fire season, move firewood and lumber piles at least 20 feet from any structure. A better solution is to

put firewood and lumber into an enclosed shed.



5 Keeping the space under wooden decks and exterior stairways clean — and enclosed — is one of the best ways to keep a house safe during fire season. Firewood and lumber need to be removed, and dry needles, leaves and other litter need to be cleaned out, too.



Attachment C.3

CITY OF PORTLAND

Wildfire Readiness Assessment: Gap Analysis Report

Prepared By:



Trout Mountain Forestry
721 NW 9th Avenue, Suite 228
Portland, OR 97209
503-445-1291
www.troutmountain.com



MOORE IACOFANO GOLTSMAN, INC.
815 SW 2nd Avenue, Suite 200
Portland, OR 97204
503-297-1005
www.migcom.com

AUGUST 2009

ACKNOWLEDGMENTS

We would like to thank all City staff and technical advisory committee members who participated in this assessment.

Project Management Team

Chris Babcock
Portland Fire & Rescue

Astrid Dragoy
Portland Parks and Recreation

David McAllister
Portland Parks and Recreation

Patty Rueter
Office of Emergency Management

Mark Schmidt
Portland Fire and Rescue

Mark Griswold Wilson
Portland Parks and Recreation

Technical Advisory Committee

Barbara Kennedy
Cooperative Fire Specialist,
Forest Service Pacific Northwest Region

Doug Koellermeier
Deputy Chief – Operations,
Bend Fire and Rescue

Roger Ottmar
Research Forester,
Forest Service Pacific Northwest Research Station

Ron Wakimoto
Professor of Forest Fire Science,
University of Montana College of Forestry

Jen Warren
National Fire Plan Coordinator,
Oregon Department of Forestry

Subject Area Experts

Barbara Aguon
Portland Parks and Recreation

Lynn Barlow
Portland Parks and Recreation

Chris Barney
Portland Fire & Rescue

George Christie
Portland Fire & Rescue

Richard Haney
Portland Fire & Rescue

Kathy Harnden
Bureau of Development Services

Mart Hughes
Portland Parks and Recreation

Kelli McIntire
Portland Fire & Rescue

Dan Moeller
Portland Parks and Recreation

Kathleen Murrin
Portland Parks and Recreation

Kendra Petersen-Morgan
Portland Parks and Recreation

Michael Saling
Portland Water Bureau

Michael Simek
Oregon Department of Forestry

Mark Stairiker
Portland Risk Management

Chris Scarzello
Portland Bureau of Planning and Sustainability

Stakeholders

Forest Park Conservancy
Audubon Society of Portland

TABLE OF CONTENTS

EXECUTIVE SUMMARY I

I. INTRODUCTION 1

II. PLANNING PROCESS 7

III. PORTLAND’S KEY ISSUES 8

IV. RECOMMENDED ACTIONS 10

V. NEXT STEPS 23

BIBLIOGRAPHY 25

TECHNICAL TERMS 27

APPENDICES

- Appendix A: Technical Advisory Committee Professional Experience
- Appendix B: Technical Advisory Committee Interview Results
- Appendix C: Recommendations Priority Matrix
- Appendix D: Funding Sources

EXECUTIVE SUMMARY

This report is the final product of a three year effort known as the City of Portland Wildfire Risk Reduction Project. It identifies and prioritizes 30 action items to improve the ability of officials to cope with wildfire in and around natural areas, especially Forest Park and Powell Butte. This report will help all City managers identify what can be accomplished within their Bureaus to foster better coordination, improve integration of wildfire management into work plans and training, and facilitate access to resources that accomplish longer term objectives. These actions are expected to improve and sustain the inter-bureau coordination that has been a hallmark of this entire effort to date.

Wildfires are increasing across the western United States. This increase is attributed to a buildup of forest fuels as a result of past fire suppression policies. Climate change increases the susceptibility of vegetation to fire due to longer dry seasons. The risk of loss to homes and businesses built at the margins of city natural areas is significant and growing. The Willamette Bluffs fires in 2000 and 2001 demonstrated this mounting wildfire risk. These fires, although successfully contained, highlighted the need for improved preparation, equipment, training and coordination.

KEY ISSUES

- **Coordination** – City of Portland lacks a standing coordinating group to manage current and past wildfire mitigation and response efforts.
- **Communication** –City PP&R City Nature Field staff lack the necessary equipment to communicate with City First Responders (PF&R, PPB, POEM) and external wildfire resources.
- **City Policies** – Policies impede the maintenance of fire-safe yet ecologically functional vegetation on lands adjacent to natural areas. A better balance among ecological function, sustainability and safety within environmental zones is needed.
- **Training & Equipment** – Portland Fire & Rescue needs resources to insure that recent improvements in meeting state and national training & equipment standards in wildland firefighting can be sustained. Parks City Nature field staff needs training in basic wildland firefighting.
- **Community Education** – Expanded outreach to neighbors living in wildfire risk areas can improve the chances of homes and neighborhoods surviving a wildfire while also minimizing the number of firefighters needed for protection.
- **Access** – Some roads and fire lanes are not usable by emergency vehicles due to steepness or lack of maintenance. Roads in surrounding neighborhoods are often narrow or have sharp turns. In an evacuation, emergency vehicles could be blocked by fleeing residents.
- **Funding** – Accomplishing some report recommendations will require funding and staffing above current service levels, reallocation of resources, or temporary grant assistance.

PROPOSED ACTIONS

The following are the 30 recommended actions developed as a result of this project. Each action is assigned a priority level: **Priority 1** **Priority 2** **Priority 3**

#1. Convene a standing City of Portland wildfire technical working group.	#16. Conduct wildfire training for City wildfire response stakeholders.
#2. Identify and map the wildland urban interface area within the City.	#17. Develop a comprehensive, long term vegetation treatment program.
#3. Modify existing regulations to improve the permitting process and allow an increase of the defensible space around structures.	#18. Educate landowners within the Wildfire Hazard Zone about wildfire hazards.
#4. Integrate fire prevention goals and provisions into policies, plans, and codes.	#19. Establish a fire information network in Forest Park and Powell Butte.
#5. Secure funding for continued, long term vegetation management projects that maintain safe fuel levels in key locations.	#20. Create incentives to encourage fuel reduction and defensible space.
#6. Conduct a wildland firefighter training assessment of Portland Fire & Rescue.	#21. Design and install one or more demonstration areas to showcase wildfire resistant plantings.
#7. Reaffirm wildland firefighting standards for Portland Fire & Rescue	#22. Initiate and maintain training opportunities with regional and City incident management teams.
#8. Analyze and prioritize emergency vehicle access routes.	#23. Develop a cross-bureau plan for evacuation of citizens in high fire risk areas.
#9. Conduct a periodic tri-county wildfire coordination meeting.	#24. Develop critical GIS map layers for fire response and planning in natural areas.
#10. Revisit mutual aid agreements to ensure they are current and applicable.	#25. Review and update the Forested and Wildland Interface Areas Fire Protection Plan.
#11. Establish an agreed upon fire danger rating system and develop agency protocols.	#26. Re-Invigorate Neighborhood Emergency Teams with concrete projects.
#12. Continue to conduct annual wildland firefighter training for Portland Fire & Rescue personnel.	#27. Improve the system for identifying new construction in areas subject to wildfires.
#13. Improve enforcement of park rules in natural areas and open space tracts on approved land divisions.	#28. Assess and communicate the capacity of the water infrastructure (e.g. pipes, hydrants, water reservoirs).
#14. Improve emergency radio communications between PP&R Nature field staff and City first responders.	#29. Review the feasibility of adopting portions of state or nationally recognized wildfire interface codes.
#15. Design and conduct an effectiveness study of maintenance agreements that are established when new land divisions are approved to manage vegetation in open space tracts.	#30. Identify conditions of approval and mitigation strategies for new development or redevelopment in high risk areas.

For more information, please contact Mark Wilson, Portland Parks & Recreation, at (503) 823-6736.

I. INTRODUCTION

The City of Portland recognizes the need to minimize the risk of, be prepared to respond to, and manage wildfires in and around its natural areas, including: Powell Butte, Forest Park, the Willamette Bluffs Escarpment, Marquam Nature Park, Terwilliger Parkway, Fanno Creek, Kelly Butte, Smith and Bybee Wetlands Natural Area, and others. The City of Portland Wildfire Risk Reduction Project, funded by the Federal Emergency Management Agency (FEMA), has primarily focused on reducing wildfire risk through proactive management of vegetation at Portland’s two largest nature parks: Forest Park and Powell Butte. The primary objectives include:

- Reduce long-term and short-term wildfire risk to nearby homes and businesses;
- Remove flammable non-native plants;
- Improve wildlife habitat and forest ecosystems;
- Maintain scenic and recreation quality; and
- Set the stage for long range management.

During the course of identifying vegetation management strategies to reduce wildfire risk, it became apparent that there were additional issues to consider on a municipal level, including: emergency response training, equipment, inter-bureau and inter-agency coordination, emergency evacuation, and access. The purpose of this supplemental report is to identify “gaps” to manage wildfire risk.



A powerline corridor in Forest Park.

This report identifies action items that will improve the preparation and ability of City officials to cope with wildfire in and around natural areas. It suggests that these actions be grouped into three priority levels. An expectation is that this report will help managers to establish internal priorities, identify potential resources, and integrate wildfire management into their work plans and training. Additionally, the recommended actions will improve and sustain the inter-bureau coordination that has been a hallmark of this effort.

Trends

Wildfires have been increasing across the western United States for the past several decades. Much of this increase is attributed to unnatural buildup of forest fuels due to past fire suppression policies. In addition, global climate change may have already increased the susceptibility of local vegetation to fire (longer dry and warm seasons) and is expected to continue this trend. Several local wildfires in recent years, particularly the Willamette Bluffs fires in 2000 and 2001, have brought the issue of mounting wildfire risk to the attention of Portland officials. The Willamette Bluffs fires, although successfully contained with no loss of life or homes, highlighted the need for improved preparation, equipment, training and inter-governmental coordination.



Bureau representatives review fire potential spots in Forest Park.

Over the past twenty years, Portland has permitted development of hundreds of new homes at the margins of both Powell Butte and Forest Park, as well as other natural areas. As a result, there are many more homes now at risk from wildfire than previously—increasing the potential loss from fires in these areas.

The good news is that the natural vegetation at Powell Butte and Forest Park is mostly in a relatively fire-resistant state due to the native species mix and relatively low fuel build-up. There are some areas where high risk fuels such as clematis, blackberry, and other exotic species are gradually building up and may increase further over the next few decades. But overall, local native vegetation is not nearly as vulnerable to fire as areas east of the Cascades, southwest Oregon or at higher mountain elevations where fuel loads have increased during the past several decades.

On the other hand, there is an ongoing risk that during a severe drought, park vegetation that is not normally flammable could dry out enough to carry a fire into the forest canopy where it would be very difficult to bring under control.

Three characteristics that influence wildfire behavior are:

- Fuels: the type and density of vegetation, as well as structures in the path of a fire. The four major fuel characteristics are fuel moisture, fuel size, horizontal continuity and vertical arrangement.
- Topography: refers to earth's surface such as slope, aspect, and shape. The steeper the slope the faster fires burn in an uphill direction
- Weather: including temperature, wind, precipitation and humidity

These three variables act together to either reduce or exacerbate fire behavior.

Wildfires can transfer to buildings in three ways:

1. **Conduction:** Direct transfer of fire from burning vegetation to buildings. Many structures that burn in wildfires ignite in this manner.
2. **Convection:** Wind borne embers that land on decks or roofs. A large forest fire can generate embers that carry several miles down wind.
3. **Radiation:** Radiant heat, when an intense flame front raises the air temperature high enough to ignite a building surface.

Research and post-fire analyses suggest that the best location to reduce wildfire risk is nearest to homes and neighborhoods that are adjacent to natural areas. Proven measures include proactive codes that require or encourage fire-resistant building materials, reduction of fuels within a few hundred feet of buildings and adequate emergency vehicle access.

Key Initial Findings

This report notes several areas where Portland can improve wildfire preparation and management in and around Powell Butte and Forest Park. Key areas include:

- Coordination
- Training
- Access
- Communication
- Community Education
- City Policies

Planning Area

The geographic planning area for this project includes Forest Park and Powell Butte Nature Park and their nearby surroundings (generally within a $\frac{1}{4}$ -mile distance). Some findings and recommendations are applicable to other areas of the City that have natural vegetation within or adjacent to neighborhoods.

Forest Park



Forest Park

Forest Park is one of the largest urban natural areas within the City limits of any major metropolitan area in the United States. It also is a key ecological connection between the City of Portland and the Coast Range Mountains. Covering more than 5,000 acres, Forest Park is a varied and continuously evolving forest ecosystem. Overlooking the Willamette River,

the park stretches for nearly eight miles along the northeast slope of the Tualatin Mountains.

Over 60 species of mammals and more than 100 kinds of birds thrive in Forest Park. Mostly blanketed with native trees, the park is home to hundreds of species of flowers and shrubs. There are also over 70 miles of interconnecting trails and fire lanes that provide hiking opportunities, including the 30-mile-long Wildwood Trail, a National Recreational Trail.

Forest Park is a peninsula of habitat bounded on three sides by urban development. To the east is Portland's largest industrial area, which occupies the level terrace between the park and Willamette River. To the south is Northwest Portland, a dense urban neighborhood of older homes. And to the west is a network of subdivisions and rural or semi-rural homesteads that straddle Skyline Boulevard.

About 70% of the park's forest is dominated by deciduous or mixed canopy trees, a condition that reflects both past logging and fire history. These forests are far less flammable than the remaining 30% conifer-dominated forest. Since the current condition of the forest is a mosaic of deciduous, mixed and coniferous stands, a sustained crown fire across a large area is unlikely. However, under present conditions, dry season fires pushed by an east wind could move upslope through favorable vegetation (e.g., conifer trees & brushy areas) and towards residential areas. Over time natural forest succession will result in a gradual increase in conifer cover, thus gradually increasing the potential for sustained crown fire. The presence of big leaf maple trees, which are long-lived and somewhat shade tolerant, will help keep fire risk relatively low for a number of decades. However, a key issue is the management of natural vegetation near homes adjacent to the park, the area where risk is highest. Initial fuel reduction efforts in recent years have included areas at the upper and lower park boundaries. Restoration of open oak woodlands in the lower end accomplishes both ecological and fire risk reduction goals.

Powell Butte

Powell Butte is located in outer Southeast Portland. It is one of a chain of buttes that stretch southeast towards Boring and Damascus. Powell Butte Nature Park is comprised of 608 acres of meadow and forest jointly managed by the Bureau of Parks and Recreation and the Water Bureau.

Before the turn of the century, the native forest on top of the butte was cleared to make way for a large meadow and an orchard. In 1925, the City of Portland purchased the land from George Wilson for future water reservoirs, but continued to lease the northeast portion of the property to Henry Anderegg, a farmer and owner of Meadowland Crest Dairy. Dairy cattle continued to graze on the meadow and helped maintain it as open land up until fairly recently.

In the mid-1970s the Water Bureau prepared a long range development plan that called for the construction of four 50-million gallon underground reservoirs to be located at the north end of the butte. In 1981, the first reservoir was built and still serves as the key hub of the Water Bureau's distribution system. A second 50-million gallon reservoir is now being planned, and is expected to be completed by 2013. The Water Bureau also maintains three smaller distribution reservoirs on the butte that were previously owned by the now defunct Powell Valley Water District. In 1987 the City officially established Powell Butte as a nature park that was opened to the public in 1990.

Today trails accommodate hikers, mountain bikers and horseback riders. Abundant wildlife populates the park, including rabbits, ring-necked pheasants, ground squirrels, raccoons, gray foxes, skunks, bats, chipmunks, coyotes and black-tailed deer. The park is home to many birds of prey and its open meadows allow views of distant peaks in the Cascades. Invasive English hawthorn trees are abundant, though recent restoration projects have reduced the number and extent. The slopes are forested with Douglas-fir, big leaf maple, red alder and western red cedar. A large area of forested wetlands lies along the Springwater Trail, near Johnson Creek.

The main wildfire concern is the potential for a grassland fire to be pushed by east winds to the forest edge, where it could burn up fuel ladders into the forest canopy, where it would be difficult to control. By and large the mixed canopy forest condition is not conducive to crown fire, and since residential areas lie down slope of the forest, this lessens the risk of wildfire reaching homes (fires burn more slowly down slope than up). There have been grassland fires in recent years, but these did not make it into the forest, in part because of the buffer provided by non-native English hawthorne trees, which are somewhat fire resistant. The Bureaus of Fire and Rescue and Parks and Recreation have cooperated on conducting prescribed burns over the past few years that are intended to help reduce the short term risk of grass fires.



Team members tour Powell Butte to view fuel reduction projects.

The Bureaus of Parks and Recreation and Environmental Services have implemented first stage fuel reduction projects for both Powell Butte and Forest Park. These projects largely entail removal of non-native, invasive vegetation by means of cutting and herbicide application. Over the long term the goal is to establish a fire resistant band of native deciduous woodland between the forest and meadow to make fire spread more difficult.

Previous Wildfire Planning Efforts

The City of Portland has been developing wildfire mitigation and response strategies over the past several years. Two documents developed from previous efforts include: *The Forested and Wildland Interface Areas Fire Protection Annex* and *City of Portland Natural Hazard Mitigation Plan, Section 11: Wildfire*.

The Forested and Wildland Interface Areas Fire Protection Plan (2005) outlines the operational responsibilities of departments and bureaus of the Portland municipal government and supporting agencies. It includes Portland Fire and Rescue, Parks and Recreation, Police, Water, Emergency Communications, ComNet and Maintenance. Outside agencies participating include Multnomah County Emergency Management, Oregon Department of Forestry, Civil Air Patrol and the American Red Cross.

The *City of Portland Natural Hazard Mitigation Plan, Section 11: Wildfire* was a collaborative effort by multiple City bureaus approved by the Federal Emergency Management Agency in December 2004 and the 1st Edition released August 2005. It provides an overview of fire history, hazard identification, mitigation plan goals and existing activities, and wildfire action items. Action items identified in the plan have been incorporated into this assessment. These provide direction on specific activities that City organizations and residents can undertake to reduce risk and prevent loss from wildfire events. However, since the development of this plan only 2 of the 21 action items have been completed, 8 others have been identified as “In Progress”, and the remaining 10 have not been started. Recent changes in bureau staff and lack of implementation funding have hindered completion of these action items.

II. PLANNING PROCESS

A variety of individuals were included in this process in order to solicit their feedback on multiple issues, including staff involvement in all three phases. A Technical Advisory Committee (TAC) was recruited to provide broad-based expertise in wildfire and fuels management, especially in urban-wildland interface settings. TAC member biographies are included in Appendix A.

TAC and Staff Interviews

The TAC provided outside, objective expertise in wildland fuels management, firefighting operations and cooperative agreements. They provided a set of recommendations for what the City of Portland should have in place if adequate financial resources are available.

TAC members were interviewed in early January. Each member was e-mailed a list of questions in advance, and a follow-up phone interview was provided for all but one. Each member provided information for one or more of the following categories depending on their expertise:

- Emergency Management
- Codes/Structural Ignitability
- Communication
- Vegetation Management
- Training/Equipment
- Partnerships/Mutual Aid
- Community Outreach/ Education

The results of the TAC interviews are in Appendix B.

Following the TAC interviews, staff members from the Bureaus of Planning and Sustainability, Parks and Recreation, Portland Fire & Rescue and Office of Emergency Management were interviewed the week of January 12, 2009. Questions were based on background research and TAC interviews. The results of the TAC and staff interviews were presented in a January 2009 memorandum, titled Portland Wildfire Risk Assessment Synthesis, which was distributed to all workshop participants.

Workshop

The park tour and workshop was held on January 21, 2009, and drew 29 participants, including City staff, TAC members, stakeholders and consultants.

The park tour stopped at seven locations around the Forest Park perimeter. It provided an opportunity to view typical fuel and access conditions in the wildland urban interface zone.



Workshop participants review emergency vehicle access in Forest Park.

The afternoon workshop first addressed desired outcomes and key issues. Then small groups discussed in detail suggested actions in one of three categories:

- Planning and Mitigation
- Operations and Training
- Vegetation Management and Fire Ecology

Each group identified suggested actions, lead agencies, timelines and priorities.

III. PORTLAND'S KEY ISSUES

As a result of the interviews with City of Portland staff and the team workshop, several potential areas for improvement were identified to ensure a higher level of wildfire preparedness. The most important are described below.

- **Coordination** – At present Portland has no single coordinating group to review current and past wildfire mitigation and response efforts. Policies, projects and resources all require inter-bureau coordination. This results in doubling of efforts or ineffective policies or project follow-through due to conflicting objectives or misdirection. While this process has included coordination between multiple bureaus, there needs to be a more permanent structure in place or the momentum to complete actions will be lost.
- **Communication** – A key component in emergency management, including wildfire response, is the ability of field personnel to communicate amongst each other and with external resources (e.g., dispatch, arriving resources, Incident Command). Having compatible radios and knowing the frequencies used are critical issues during such an emergency. While Fire and Police are well equipped to communicate, Park field staff is unable to communicate with first responders in the field. Cell phones issued in lieu of radios lack coverage within much of Forest Park and the west hills. The ability for staff to communicate with others could prove helpful directing first responders to the scene or providing other critical assistance. In the event the incident grows, the Portland Office of Emergency Management can distribute radios from their radio cache to assisting resources upon their arrival. However, this would not aid in the quick direction Parks staff might provide during the initial moments of an emergency. The ability for better

communication between bureaus should be improved upon and, with proper radio use training, can enhance the integration of all bureau services.

- **City Policies** – The City’s Environmental Overlay Zone, Portland Fire Code, Property Maintenance Code and Wildfire Hazard Zone need adjustments to help facilitate management of wildfire risk. The Environmental Overlay Zone provides some balance between protecting natural resources and allowing development, but the land use review process for vegetation removal is cumbersome and expensive, and may not allow enough flammable native vegetation to be cleared or pruned away from buildings even when permits are issued. The Portland Fire Code regulates fuel accumulations around commercial buildings, but does not require flammable vegetation management on residential properties. Title 29 of the Portland City Code, Property Maintenance Code was written to mitigate nuisances and neighborhood eyesores, not to correct wildfire hazards. The Wildfire Hazard Zone provides a mapping platform to which more stringent building codes and vegetation management regulations can be tiered. What is needed is an agreement among key community stakeholders that strikes a better balance among ecological function, sustainability and safety within environmental zones. If and when an agreement is arrived at, City Codes and enforcement policies can be adapted and better coordinated
- **Training & Equipment** – A well-trained and equipped cadre of firefighters and first responders enhance firefighter safety, increase incident operation efficiency, and improves the coordination and communication of resources. All City of Portland Fire personnel have wildland firefighting training as it relates to fire ecology, operations and fire prevention, but many key personnel have limited wildfire training or experience. Scheduling limitations and financial circumstances have challenged Portland Fire’s ability to focus on wildfire response training and equipment provision in recent years. Adequate funds for training are lacking, in part because other, higher priority firefighting and emergency response-related topics have repeatedly consumed the limited funds available in the Fire Training budget. For example, Portland Fire & Rescue staff participate in training exercises including high-rise and shipboard/marine firefighting, weapons of mass destruction, technical rescue, hazardous materials response, emergency medical drills including mass casualty incidents, driver training, workforce development and cultural competency in addition to other routine and mandated topics. Portland Fire is planning on providing additional wildland training, but city-wide budget shortfalls will continue to limit funding needed for this, as well as other programs.
- **Community Education** – Well-informed and motivated homeowners and neighbors living within the wildland-urban interface can improve the chances of their homes and neighborhoods surviving a wildfire while also minimizing the number of firefighters needed to protect them. Some outreach and education efforts are in place, including an informational brochure, but these could be significantly expanded and improved. A proactive, coordinated effort to educate communities around Forest Park, Powell Butte, and other wildfire risk areas is needed. Key groups, such as neighborhood and homeowner associations or Neighborhood Emergency Teams (NETs), may be used for this purpose.
- **Access** – Emergency apparatus access is clearly limited in key areas around Forest Park. It may also be an issue in other wildland-urban interface areas. Residences, structures and areas adjacent to the forest must be accessible to emergency equipment to allow quick response times and to ensure firefighter safety. The few roads within Forest Park are not accessible in several areas due to instability and/or steepness. Roads in surrounding neighborhoods (e.g., Linnton) are often too narrow or have sharp turns that require

backing up to complete. In case of an evacuation, emergency vehicles could easily be blocked by fleeing residents.

- **Funding** – Accomplishing report recommendations will require funding and staffing above current service levels, reallocation of resources from other programs, and/or acquisition of alternative funding sources.

IV. RECOMMENDED ACTIONS

Key City of Portland staff should be fully prepared for wildfire emergencies. City staff have a strong commitment to professionalism and competency, but there is also clear concern that they are not presently prepared for wildland firefighting. Since wildland fire is not a common occurrence in the City of Portland, the bureaus are not as well-trained or equipped to deal with wildfire as they will need to be when one does occur. Portland firefighters are primarily trained and equipped to fight structural fires, and for the most part utilize established water systems to extinguish it. They understand how fires behave in buildings and know what to watch for and how to attack. Wildfires are often contained or steered rather than directly extinguished, and it takes a different approach, knowledge of wildfire dynamics, different tools, even different personal protective equipment (PPE). Local ecosystems are adapted to periodic fire, and there are plenty of ways fires may start. Being prepared to manage wildfire when the time comes is essential for the safety of fire fighters and for the protection of the community.

This section of the report lists actions that the City of Portland should implement in order to achieve a sufficient level of prevention, mitigation and response to wildfire. The actions are grouped into three priority levels to reflect which actions should be considered first.

Each proposed action was evaluated against four criteria, with a score of 1-3 assigned for each. Generally, the top third of all scores is ranked Priority One, middle third ranked Priority Two, and bottom third ranked Priority Three. Two actions, despite ranking middle to low under the selected criteria, are recommended to be included as Priority One due to their clear importance and urgency. These actions are identified by a double asterisk (**).

The four criteria are:

- *Is the action technically feasible?*
 - (1) Experimental
 - (2) Likely
 - (3) Known
- *Is the completion of this action necessary to implement other actions?*

- (1) Not needed
 - (2) Helpful to other actions
 - (3) Necessary
- *Is this action time sensitive? Is there an opportunity that should be taken advantage of now?*
 - (1) Not time sensitive
 - (2) Upcoming opportunity
 - (3) Present opportunity
 - *How many project goals/objectives does this action meet? (These goals are listed on page one).*
 - (1) Meets one project goal
 - (2) Meets two project goals
 - (3) Meets three or more project goals

Additional criteria to consider for each action (though they were not used in scoring) are funding opportunities and public support. If a funding source, or in some cases a partnership opportunity, for an action is known or likely, this is noted. Also, this document should be referenced when identifying funding and prioritizing projects that align with these actions.

The criteria scoring, funding and public support comments, and action planning matrix are in Appendix C.

WILDFIRE ACTIONS

The following is a summary of 30 actions resulting from this process. The following sections describe each action in great detail and identifies a logical lead for each action.

- | | |
|--|--|
| #1 Convene a standing City of Portland wildfire technical working group. | #16 Conduct wildfire training for City wildfire response stakeholders. |
| #2 Identify and map the wildland urban interface area in the City of Portland. | #17 Develop a comprehensive, long term vegetation treatment program. |
| #3 Modify existing regulations to improve the permitting process and allow an increase of the defensible space around homes. | #18 Educate landowners within the Wildfire Hazard Zone about wildfire hazards. |
| #4 Integrate fire prevention goals and provisions into City policies, plans, and codes. | #19 Establish an information network in Forest Park and Powell Butte. |
| #5 Secure funding for continued, long term vegetation management projects that maintain safe fuel levels in key locations. | #20 Create incentives to encourage fuel reduction and defensible space. |
| #6 Conduct a wildland firefighter training assessment of Portland Fire & Rescue. | #21 Design and install one or more demonstration areas to showcase wildfire resistant plantings. |
| #7 Reaffirm wildland firefighting standards for Portland Fire & Rescue | #22 Initiate and maintain training opportunities with regional and City incident management teams. |
| #8 Analyze and prioritize emergency vehicle access routes. | #23 Develop a cross-bureau plan for evacuation of citizens in high fire risk areas. |
| #9 Conduct a periodic tri-county wildfire coordination meeting. | #24 Develop critical GIS map layers for fire response and planning in natural areas. |
| #10 Revisit mutual aid agreements to ensure they are current and applicable. | #25 Review and update the Forested and Wildland Interface Areas Fire Protection Plan. |
| #11 Establish an agreed upon fire danger rating system and develop agency protocols. | #26 Re-Invigorate Neighborhood Emergency Teams with concrete projects. |
| #12 Continue to conduct annual wildland firefighter training for Portland Fire & Rescue personnel. | #27 Improve the system for identifying new construction in areas subject to wildfires. |
| #13 Improve enforcement of park rules in natural areas and open space tracts on approved land divisions. | #28 Assess and communicate the capacity of the water infrastructure (e.g., pipes, hydrants, water reservoirs). |
| #14 Improve emergency radio communications between PP&R Nature field staff and City first responders. | #29 Review the feasibility of adopting portions of state or nationally recognized wildfire interface codes. |
| #15 Design and conduct an effectiveness study of maintenance agreements that are established when new land divisions are approved to manage vegetation in open space tracts. | #30 Identify conditions of approval and mitigation strategies for new development or redevelopment in high risk areas. |

PRIORITY LEVEL ONE

Action #1

Convene a standing City of Portland wildfire technical working group to implement Actions proposed in the Wildfire Readiness Assessment report.

Lead: Portland Office of Emergency Management, Portland Parks & Recreation, and Portland Fire & Rescue

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. The technical working group, comprised of representatives from relevant City Bureaus and departments, would provide an ongoing forum to discuss and coordinate implementation of wildfire mitigation actions across City bureaus, helping to ensure that such actions are reasonably applied. The key bureau representatives, including those listed in the *Forested and Wildland Interface Areas Fire Protection Plan*, would convene on a regular basis to pursue priority actions such as; vegetation management policy and codes, mapping, education and training, and funding. The first meeting should take place in November 2009.

Action #2

****Identify and map the wildland urban interface areas in the City of Portland, starting with the area around Forest Park.**

Lead: Bureau of Planning and Sustainability

Discussion: Wildland areas provide critical watershed functions including hydrology, water quality, reduction in landslide and flooding risks, and fish and wildlife habitat. The wildland urban interface area needs to be better identified and mapped to inform various planning, programmatic and project-related activities. This identification and mapping will establish a level of risk that could be used to establish a standard in Action #3. This map will need to be updated periodically due to the changing conditions of the natural landscape.

Action #3

Modify existing regulations (e.g., environmental overlay zone code) to improve the review process and increase the defensible space around homes, while continuing to protect significant natural resource values and functions.

Lead: Bureau of Planning and Sustainability

Discussion: The environmental overlay zone was established primarily to protect natural resources in wildland-urban areas. In some cases, a land use review may be required to allow homeowners to remove flammable native vegetation within the critical zone nearest buildings. Land use reviews are expensive and time consuming. There are ways to allow fuel reduction while still retaining high quality native forest and woodland habitats. Generally, this means reducing (but not eliminating) the occurrence of non-native and native flammable plants at all levels (ground, mid-story and canopy) while retaining or even increasing the occurrence of native plants that are resistant to fire. The environmental code should be revised by adding a standard that would allow removal and substitution of flammable native plants with less-flammable native plants within the critical zone nearest buildings. The Portland Plant List includes a list of native plants and a list of nuisance and prohibited plants. The native plant list has been modified to identify flammable (e.g., "fire accelerant") and less flammable trees and shrubs. Native groundcovers have not been identified as flammable and less flammable, but generally broadleaved evergreens with waxy leaves (e.g., salal, ceonothus) are flammable. Consider

adhering to or referencing the Oregon Forestland-Urban Interface Fire Protection Act (SB360) to accomplish this action. In addition, a set of fuel reduction standards may be established based on the level of risk identified in Action #2.

Action #4

Integrate, as appropriate, goals and provisions for fire management and risk reduction into City policies, plans and codes. Identify and address ambiguities or conflicts among City requirements.

Lead: Bureau of Planning and Sustainability, Portland Fire & Rescue, Portland Office of Emergency Management

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. It enhances the ability of City programs to meet multiple objectives to protect public health, safety and the environment, as well as to reduce risk. The review and update of City policies may occur during updates to the comprehensive plan, environmental zoning, Willamette Greenway program and other code titles. The review should address densities and urban form (e.g., the spatial and built environment characteristics), transportation routes and connectivity, public infrastructure capacity (e.g., water), building materials, pruning/thinning, removal of ladder fuels, planting requirements, tree removal, revegetation after a fire, incorporation of fuel breaks, and storage of hazardous materials. This item should be addressed through the Portland Plan project to update the Comprehensive Plan. This project will not be completed for a couple of years or longer, depending on budget priorities being decided now (March - June '09).

Action #5

Secure funding for continued, long term vegetation management projects.

Lead: Bureau of Parks and Recreation

Discussion: The current efforts to manage vegetation in high risk areas around Forest Park and Powell Butte are primarily funded by a three-year duration FEMA grant. This grant is nearly complete (2009,) and no alternative sources of funds have been obtained to continue these projects. Reduction of flammable vegetation in high risk areas is critical in preventing a catastrophic wildfire, and this requires periodic attention. The *Wildfire Risk Reduction – Final Reports* for Forest Park and Powell Butte recommended key projects to mitigate the risk of wildfire. The following sources of funding should be considered: FEMA, U.S. Forest Service, Multnomah County Secure Rural Schools Title III, Oregon Department of Forestry, expanded partnership with Forest Park Conservancy and OWEB.

Action #6

Conduct a wildland firefighter training assessment of Portland Fire & Rescue.

Lead: Portland Fire & Rescue, with an external Fire Agency (e.g., Oregon Department of Forestry [ODF], City of Bend Fire & Rescue)

Discussion: PF&R continues to train staff to the national qualifications appropriate for an urban fire department. PF&R is also continuing to provide and improve upon annual wildfire training for all Portland Fire & Rescue firefighters. Some of Portland Fire's newest members bring strong wildfire backgrounds; current training is drawing on their experiences to enhance the department's wildfire capabilities. In order to evaluate the effectiveness of this improved wildfire training an appropriate external fire agency, (such as Oregon Department of Forestry

[ODF], and/or City of Bend Fire & Rescue) will be asked to assist PF&R to assess wildfire preparations & response capabilities and make recommendations for future improvements.

Action #7

Enhance wildland firefighting standards for Portland Fire & Rescue

Lead: Portland Fire & Rescue

Discussion: Portland Fire endeavors to train their personnel to the highest standards in all aspects of firefighting. As an urban fire department, Portland Fire & Rescue response to wildfire is less frequent. Fire shall continue to evaluate its wildfire response and the level of service it is expected to provide to its mutual aid partners and the State & Federal levels upon request. PF&R will also insure that its firefighters are trained in accordance with expected appropriate National Wildfire Coordinating Group (NWCG) qualifications.

Action #8

Analyze and prioritize emergency vehicle access routes.

Lead: Bureau of Parks and Recreation and Portland Fire & Rescue

Discussion: Forest Park and Powell Butte have limited access for emergency vehicles. Leif Erikson Drive, which transects much of Forest Park about halfway up the slope, has experienced several landslides that have cut off through access for fire trucks. Several of the fire lanes are overgrown, too steep or otherwise not suitable for emergency access. It is essential that appropriate fire lanes be cleared and maintained in order to allow unimpeded access by firefighting personnel and lighter firefighting apparatus such as brush units and all-terrain vehicles. Leif Erikson Drive, Saltzman and Springville Roads need to be cleared and maintained vertically and horizontally to accommodate full-size fire apparatus. Powell Butte has good access to the top, but very limited access to the forested side slopes. At present there has been no systematic analysis of emergency vehicle access to these parks, nor is there any prioritized list of access improvements. This makes it difficult to secure funding to maintain or create the access that will be needed once a fire emergency occurs. This action proposes a coordinated field study by the Bureau of Parks and Recreation to review all emergency access routes within the existing road network, followed by the creation of a prioritized project list for Forest Park. Representatives from the Bureaus of Parks and Recreation, Fire & Rescue, and other key stakeholders should coordinate these efforts, with the assistance of a transportation engineer or forest roads expert (ODF, Forest Service, BLM). To ensure adequate access for emergency vehicles on an ongoing basis, the Bureaus should coordinate periodic efforts to update information and track minor and major access improvement and maintenance projects.

Action #9

Conduct a periodic tri-county wildfire coordination meeting.

Lead: Portland Fire & Rescue

Discussion: The bureaus and surrounding fire jurisdictions from the tri-counties (Multnomah, Clackamas, and Washington) should meet to discuss wildfire mitigation and response on a periodic basis. The meeting(s) will provide an opportunity to discuss preparedness for the upcoming fire season, including response plans, training opportunities and expectations for capabilities of all involved; results of the previous fire season should be discussed, including those items that proved successful, any issues that need alteration for the following season,

future equipment needs, vegetation projects, table top exercise and training plans for the next season.

Action #10

Revisit mutual aid agreements to ensure they are current and applicable.

Lead: Portland Fire & Rescue, Portland Office of Emergency Management

Discussion: Mutual aid agreements identify resources that can be shared between jurisdictions in the event that assistance is needed either within the City of Portland or in neighboring communities. Each mutual aid agreement should be reviewed for relevancy and if necessary updated. If gaps are identified (e.g., lack of air support) explore other opportunities and establish new agreements as needed. Write these agreements into *The Forested and Wildland Interface Areas Fire Protection Plan*.

Action #11

Establish an agreed upon fire danger rating system and develop agency protocols.

Lead: Portland Fire & Rescue, Bureau of Parks and Recreation, Portland Office of Emergency Management

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. Seasonal fire danger is sporadically communicated to fire personnel throughout the summer and fall fire season; however the City of Portland lacks an official fire danger rating system to communicate the seasonal threat to staff and residents. The City of Portland should consider adopting the National Fire Danger Rating System and install signs at key points in Forest Park, Powell Butte and other critical areas in Portland. The Portland area has a NOAA regional office that could provide fire weather forecasting. The identified weather units for the Portland Metropolitan area are ORZ-604 or WAZ-604. After a fire danger rating system is established, each bureau involved in wildfire mitigation and response should develop a set of protocols that will address actions the bureau will take in response to the daily fire danger rating. For instance, during red-flag days or periods of extended high temperatures coupled with high winds, Fire & Rescue should increase staffing levels on brush units full-time and Parks should increase patrols in high risk areas.

Action #12

****Continue to conduct annual wildland firefighter training for Portland Fire & Rescue personnel.**

Lead: Portland Fire & Rescue

Discussion: Recently, Portland Fire & Rescue's wildfire training has greatly improved. New recruits now receive an appropriate introduction to the subject during their initial training. An improved annual training was provided to all members starting in 2009. Portland Fire shall endeavor to maintain this enhanced level of training to ensure their members will perform safely and effectively in wildfire events. Based upon expected levels of service (State and Federal), Portland Fire shall determine what NWCG qualifications may be appropriate for their members and strive to achieve these levels.

****Action #13**

Improve enforcement of park rules in Portland Parks and Recreation managed natural areas and open space tracts on approved land divisions.

Lead: Bureau of Parks and Recreation, Bureau of Development Services

Discussion: Portland Parks and Recreation natural areas and some private open space tracts are regularly inhabited by transient populations and subject to other illegal uses that pose significant wildfire risks. In many cases these areas also have expanses of invasive weeds and grasses that are highly flammable. Maintenance agreements and staffing levels are not adequate to mitigate wildfires. The Portland Parks and Recreation Park Ranger Program (currently 1 full-time ranger for the entire park system) cannot presently enforce rules that protect park users and natural resources from human caused wildfire.

Action #14

****Improve emergency radio communications between City first responders and PP&R City Nature staff.**

Lead: Portland Fire & Rescue, Bureau of Parks and Recreation, Portland Office of Emergency Management

Discussion: A key component in wildland firefighting and emergency management in general is the ability of field personnel to communicate with each other and with external resources (e.g., dispatch, arriving resources, Incident Command). Having the ability to communicate and knowing the frequencies to use on a particular incident are critical. However, Parks staff have no means of radio communications so they are limited in their ability to communicate with first responders. During the initial attack phase of a wildland fire, the ability for field communication within and between some bureaus (with the exception of Portland Fire & Rescue and Portland Police Bureau) is not well established. For example, City Nature staff in the field have a difficult time communicating with each other because radios are not issued and cell phones, issued in lieu of radios, do not have coverage in some areas of Forest Park. The ability for better communication between bureaus should be improved upon and, with proper radio use training, can enhance the integration of all bureau services.

PRIORITY LEVEL TWO

Action #15

Conduct an audit to determine the effectiveness of maintenance agreements on private open space zoned lands.

Lead: Bureau of Development Services

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. Maintenance agreements determine how private open space tracts of land should be managed. Some areas that are managed poorly or not maintained at all can become wildfire risks. The City will need to determine if current maintenance agreements are being implemented by reviewing agreements and visiting properties. Upon review, zoning codes may need to be updated and mechanisms identified for bringing the property owners into compliance with

wildfire risk reduction standards. (Note: Some training or outside expertise may be needed to help Bureau of Development Services recognize wildfire risks).

Action #16

Conduct wildfire training for wildfire response stakeholders.

Lead: Bureau of Parks and Recreation, Bureau of Maintenance

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. Aside from Portland Fire & Rescue, other stakeholders are identified in the *Forested and Wildland Interface Areas Fire Protection Annex* to assist in the wildfire incidents. For example, the Bureau of Parks and Recreation field staff are potential first responders to a fire in Forest Park, Powell Butte or other natural park sites. Water tenders with the Bureau of Maintenance are identified as a possible resource for wildland firefighting. All personnel on the scene of a wildfire, including water tender drivers, should be trained in basic wildland firefighting. The appropriate level of wildland firefighting training is the completion of NWCG S-130 and S-190 courses or an equivalent. Other potentially beneficial training includes fire ecology. This training will heighten their level of awareness and increase their safety during wildfire events. Additionally, park personnel and vehicles should be equipped with basic wildland firefighting equipment.

Action #17

Develop a comprehensive vegetation treatment program that includes both mechanical methods and prescribed fire.

Lead: Bureau of Parks and Recreation, Portland Fire & Rescue.

Discussion: A vegetation treatment program can provide a long-term approach to managing vegetation and reintroducing fire to natural areas. The Department of Interior and U.S. Forest Service vegetation treatment programs includes: (1) establishing and implementing a comprehensive approach for fuels mapping and inventory that includes the location and condition of vegetation, the appropriate treatment frequency, and priorities for treatment; (2) evaluating various treatment techniques for cost effectiveness, ecological consequences and air quality impacts; (3) based on priorities consistent with current vegetation plans and land management plan direction, developing long-range schedules that describe sequencing of treatments, as appropriate, such as commercial or pre-commercial thinning and prescribed burning; and (4) establishing and implementing a protocol for monitoring and evaluating vegetation treatment techniques.

Action #18

Educate landowners within the Wildfire Hazard Zone generally, and within Urban Wildland Interface Zones specifically about wildfire hazards.

Lead: Portland Office of Emergency Management; Portland Fire & Rescue

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. The Bureau of Development Services, Fire & Rescue, and Office of Emergency Management made efforts to educate homeowners about the risks associated with living in the wildland urban interface and how to manage them. The most recent of these is the comprehensive brochure "Residential Structures and Landscaping in Wildfire Hazard Areas". This information is made available when residents visit the Bureau of Development Services office and through an online search. A coordinated effort by the Bureaus of Development Services, Planning and Sustainability, Office of Emergency Management, and Fire & Rescue should be

designed and implemented to ensure a consistent message to a larger number of homeowners. The message needs to be proactively taken to neighborhood and homeowner associations, displayed on community boards, and actively promoted at public outreach events. Project Wildfire is an example of a community education program that the City of Portland may consider for initial ideas.

Action #19

Establish an information network (e.g., identification, orientation, way-finding and interpretive signage) in Forest Park and Powell Butte.

Lead: Bureau of Parks and Recreation

Discussion: An established and well-identified information network in Forest Park and Powell Butte could reduce response times for emergency personnel by helping to identify fire or other incident locations. Currently, Forest Park has a number of trails and roads that are not marked with signs. Entrances of most natural area parks do not have basic park identification and orientation signage. Way-finding is inadequate, not maintained, or is simply absent. A signage policy should be developed, funded and maintained to help the public and emergency responders better navigate and assist them with identifying locations accurately.

Action #20

Create incentives to encourage fuel reduction and defensible space.

Lead: Bureau of Development Services

Discussion: No incentives presently exist for homeowners to create a defensible space or reduce flammable vegetation. An incentive program may encourage homeowners living in wildfire zones to use fire-resistant building materials, plant native vegetation and employ other preventative tactics. Partnering with local building material distributors or landscape companies to help provide incentives is one idea for implementing a program. Consider Title III Funds available to individuals, neighborhoods, subdivisions and similar private residential communities through the Federal Government for projects that help prevent the potential for home ignitions from wildfire.

Action #21

Design and install one or more demonstration areas to showcase wildfire resistant plantings.

Lead: Bureau of Parks and Recreation, Bureau of Planning and Sustainability

Discussion: Prepare site and conceptual landscape designs for one or more demonstration wildfire resistant plantings using site appropriate native plants at Powell Butte Nature Park, Madrona Park and Fire Station 27 near Forest Park. Identify key fire safe landscape messages and concepts for interpretation and education. Grant funding may be available for this through FEMA.

Action #22

Pursue training with regional and City incident management teams.

Lead: Portland Office of Emergency Management, Portland Fire & Rescue

Discussion: The use of the National Incident Management System (NIMS) and Incident Management Teams (IMTs) are national standards at every large wildfire event. These standards guide life safety operations, stabilize incidents, and conserve property loss. Opportunities exist with State and Federal IMTs to gain further training and education in incident management. By next fire season, Portland Fire & Rescue and other City IMT members will be pursuing these training opportunities to improve and enhance their existing knowledge of IMT operations. Currently, POEM has been developing a City incident management team. The added knowledge gained by PF&R staff from State and Federal training will greatly assist the work of the City to develop a Portland IMT.

PRIORITY THREE

Action #23

Develop a cross-bureau plan for evacuation of citizens in high fire risk areas in the event of a severe wildfire.

Lead: Portland Office of Emergency Management, Portland Police Bureau, Multnomah County Sheriff's Office, Bureau of Transportation

Discussion: The *City of Portland Natural Hazard Mitigation Plan* identifies a number of actions that require the development of evacuation plans in the event of a human-made or natural hazard. This action reiterates the need to develop evacuation plans for residential and employment areas with the highest wildfire risk. This Action will be one of the first topics addressed by the new Wildfire Technical Working Group (identified as Action #1).

Action #24

Develop critical GIS map layers for fire response and planning in Portland natural areas.

Lead: Bureau of Parks and Recreation, Portland Fire & Rescue, City of Portland GIS Services

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. A general set of GIS map layers exist for Forest Park and Powell Butte. These include roads, trails, utilities, fire hydrants, boundaries and facility locations. Additional layers that would help with wildfire planning and operations include: sensitive habitats, fuel beds, access (include slope and terrain), water sources (engine and helicopter), ODF protection district boundary and structures.

Action #25**Review and update the *Forested and Wildland Interface Areas Fire Protection Plan*.**

Lead: Portland Fire & Rescue

Discussion: The *Forested and Wildland Interface Areas Fire Protection Plan* establishes the operational responsibilities of departments and bureaus of the Portland municipal government and supporting agencies. Contact information, equipment and apparatus are not up-to-date for each bureau. A thorough review by the City of Portland Wildfire Technical Working Group, including the representatives from each bureau and agency listed in the Plan should be undertaken every 2-3 years or as needed. Any update/edits will be communicated to all involved stakeholders. As of June 2009, this Plan was being updated.

Action #26**Re-Invigorate Neighborhood Emergency Teams (NETs) with concrete projects.**

Lead: Portland Office of Emergency Management

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. NETS are citizens trained by the Portland Office of Emergency Management and Portland Fire & Rescue to provide emergency disaster assistance within their own neighborhoods. NET members receive basic training on how to save lives and property until the professionals can arrive. Currently the NETs located in communities around Forest Park and Powell Butte are not fully active. As an integral part of emergency planning, NETs should be reinvigorated and duties extended, such as being trained in assisting community evacuation efforts in the event of a wildfire. An appropriate level of training is the National Wildland Coordinating Group (NWCG) S-130/S-190 basic wildfire training course required of all wildland firefighters. This action does not imply that NETs will participate in wildland firefighting tactics, but rather that NETs be trained to better understand the environment they would be working in and to fill support roles in wildland firefighting operations. Initial training should focus on NETs that serve the Forest Park and Powell Butte neighborhoods, but future basic wildfire training should be provided for all NETs that operate in and around city natural areas.

Action #27**Improve the system for identifying new construction in areas subject to wildfires and communicating the potential for natural hazards to the affected land owners.**

Lead: Bureau of Development Services

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. While requirements for new construction in wildfire hazard areas are in place, this information is not consistently communicated to applicants during the permitting process. The current system to access this information is GARTH, a standalone GIS data viewing client, and is available to plans examiners in the Bureau of Development Services. Consistent use of GARTH by plans examiners needs to occur. This will require review of current plans examination processes and staff training to ensure everyone is familiar with GARTH and its applications.

Action #28

Assess and communicate the capacity of the water infrastructure (e.g., pipes, hydrants, water reservoirs).

Lead: Water Bureau, Portland Fire & Rescue

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. Water systems in new residential developments in the wildland urban interface provide a fire flow of 1750 gallons per minute for two hours. This flow is available from two simultaneously flowing hydrants and is concurrent with peak day water demands. A large fire may cover an area that would encompass several hydrants, producing a need to identify fire flow requirements for more than two hydrants at a time. Representatives from Portland Fire & Rescue should meet with Water Bureau representatives to identify standards for flow rates and durations and to establish a process for evaluating the current system.

Action #29

Review the feasibility of adopting portions of state or nationally recognized wildfire interface codes to strengthen building standards in Wildfire Hazard Zones.

Lead: Portland Fire & Rescue, Bureau of Development Services

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. The wildland urban interface codes are a model for requiring stricter building standards for new structures in interface areas. Applying these codes to new development areas will reduce the risk of a fire burning down buildings. A multi-bureau committee will need to review documents such as the Urban Wildland Hazard Zone Report and Proposal, the Urban Wildland Interface Code, Senate Bill 360 (Oregon Forestland-Urban Interface Fire Protection Act), and other urban wildfire management approaches to identify appropriate standards. The outcome of this action could require changes to state building codes through the State Building Board.

Action #30**Identify conditions of approval and mitigation strategies that could be applied to new development or redevelopment in high risk areas.**

Lead: Bureau of Development Services, Bureau of Planning and Sustainability

Discussion: This action was previously identified in the *City of Portland Natural Hazard Mitigation Plan*. The City of Portland cannot prevent development in areas that are already platted, but can limit development or impose standards. This action will provide a flexible tool to incorporate a wildfire risk management measure into site and building design, taking into account site-specific characteristics. What is envisioned is a boilerplate set of conditions of approval and mitigation measures to use in land use reviews for development proposals in wildfire areas. This will create consistency in requirements and assist staff in identifying potential requirements at pre-application conferences that will apply to development proposals in wildfire areas. Non-regulatory tools can be emphasized as part of the development process. Educational tools, such as brochures, can be provided to the applicants.

V. NEXT STEPS

The 30 actions listed above represent an ambitious yet achievable program. Each bureau is responsible for providing the highest level of service possible given available resources, including staffing, equipment and funding. Resources are always limited, and priorities may need to be adjusted accordingly. Some of the actions do not require additional funds, but rather better coordination and communication among stakeholders, allowing early implementation. Other actions require funding that may be available through federal and state grants that will take longer to obtain. Appendix D provides a list of available grant sources. The following initial steps are suggested to begin moving towards implementation.

- Present this report's findings and recommendations to appropriate managers or elected officials, and secure their endorsement.
- Identify and appoint a representative from the Portland Office of Emergency Management to lead the City of Portland Wildfire Technical Working Group that will monitor and report on progress towards implementation.
- Identify internal and external funding sources available for each action and/or bureau.
- Align actions with current or upcoming opportunities.
- Align actions with any already identified projects planned for the near future.
- Integrate applicable action items into the updated *City of Portland Natural Hazard Mitigation Plan*.
- Address wildfire risk in all natural areas of the City of Portland through the development of a Community Wildfire Protection Plan.

BIBLIOGRAPHY

The following is a list of resources that have been referenced during the planning process. Some have been used as primary or direct resources for this report, while others have provided secondary information or will provide direct information for subsequent parts of the plan.

City of Portland. 2004. *Forested and Wildland Interface Areas Fire Protection Annex*.

City of Portland Office of Emergency Management. 2005. City of Portland Natural Hazard Mitigation Plan. 1st Edition. <http://www.portlandonline.com/OEM/index.cfm?&a=69318&c=36870>

City of Portland Parks & Recreation. <http://www.portlandonline.com/parks>.

National Wildfire Coordinating Group. <http://www.nwccg.gov>.

National Weather Service. <http://fire.boi.noaa.gov>. Accessed on March 1, 2009.

Oregon State Marshal. 2008. *Oregon Fire Service Mobilization Plan*. http://www.oregon.gov/OSP/SFM/2008_Oregon_Fire_Service_Mobilization_Plan.shtml

Trout Mountain Forestry. 2008. *City of Portland – Forest Park: Wildfire Risk Reduction – Final Report*.

Trout Mountain Forestry. 2008. *City of Portland – Powell Butte: Wildfire Risk Reduction – Final Report*.

TECHNICAL TERMS

The following is a list of technical terms that are used in this report.

Federal Emergency Management Agency (FEMA) – The primary mission of the Federal Emergency Management Agency is to reduce the loss of life and property and protect the Nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting the Nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. FEMA is a part of the Department of Homeland Security.

GARTH – GARTH is a standalone GIS data viewing client used by the City of Portland. The primary purpose is for the examination of plans by the Bureau of Development Services (BDS).

Incident Management Team (IMT) – The incident commander and appropriate general staff or command staff personnel assigned to manage an incident. Teams vary in size and experience and are assigned based on availability of the teams and complexity of the incident.

National Incident Management System (NIMS) – The National Incident Management System provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

National Wildfire Coordinating Group (NWCG) – The National Wildfire Coordinating Group (NWCG) is made up of the USDA Forest Service; four Department of the Interior agencies: Bureau of Land Management (BLM), National Park Service (NPS), Bureau of Indian Affairs (BIA), and the Fish and Wildlife Service (FWS); and State forestry agencies through the National Association of State Foresters. The purpose of NWCG is to coordinate programs of the participating wildfire management agencies so as to avoid wasteful duplication and to provide a means of constructively working together. Its goal is to provide more effective execution of each agency's fire management program. The group provides a formalized system to agree upon standards of training, equipment, qualifications, and other operational functions.

ORZ-604 or WAZ-604 – These are the identified National Oceanic and Atmospheric Administration fire weather forecasting zones for the Portland Metropolitan area and lower Clark County in Washington.

S-130/S-190 – S-130/S-190 refers to the basic wildland fire training course required of all firefighters before they can work on the wildland firelines. S-130 and S-190 are two different courses, but since they are usually taken together the basic wildland fire training is called "S-130/S-190" or "S-130/190" for short. Basic wildland fire training also includes some other courses. The list of courses usually included in "S-130/S-190" are: S-130: Firefighter Training; S-190: Introduction to Wildland Fire Behavior; I-100: Introduction to the Incident Command System; and S-132: Standards for Survival.

Senate Bill 360 (Oregon Forestland-Urban Interface Fire Protection Act) – The Oregon Forestland-Urban Interface Fire Protection Act, often referred to as Senate Bill 360, enlists the aid of property owners toward the goal of turning fire-vulnerable urban and suburban properties into less-volatile zones where firefighters may more safely and effectively defend homes from wildfires. Basically, the law requires property owners in identified forestland-urban interface areas to reduce excess vegetation, which may fuel a fire, around structures and along driveways. In some cases, it is also necessary to create fuel breaks along property lines and roadsides.

Title III Funds – These are federal funds received by a county under title III of the Secure Rural Schools Act to the extent the funds are used in implementing the Firewise Communities program or developing a community wildfire protection plan.

Urban Wildland Interface Code – The provisions of this code, in addition to the provisions of the 2003 International Fire Code, applies to the construction, alteration, moving, repair, maintenance and use of any building, structure or premises within the wild-land interface areas in this jurisdiction. The objective of this code is to establish minimum regulations consistent with nationally recognized good practices for the safeguarding of life and property. Regulations in this code are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels.

APPENDIX A

TECHNICAL ADVISORY COMMITTEE PROFESSIONAL EXPERIENCE

The Technical Advisory Committee (TAC) consists of five professionals with expertise in varying disciplines of wildfire management. The TAC provided invaluable information for the City of Portland to consider when analyzing how to improve the current wildfire mitigation and response system. The professional experience of the five professionals is provided below.

Barbara Kennedy, Cooperative Fire Specialist,
Forest Service Pacific Northwest Region

Professional Experience

Barbara Kennedy is the Cooperative Fire Forester for the Pacific Northwest Region of the Forest Service, and has been so since 1996. She is responsible for interagency cooperation, agreements, and Cooperative Fire grant programs, in order to improve fire protection capabilities on state and private lands, and mitigate wildfire risk in communities. She serves as the facilitator for the National Wildfire Coordinating Group Wildland Urban Interface Working Team, and as Technical Advisor to the Northwest Fire Protection Compact in the Northwestern US and Canada. She began her work for the Forest Service in 1975 and has worked in a number of capacities, including District Ranger and Public Affairs Officer. She graduated from Portland State University with a BS in Geography.

Doug Koellermeier, Deputy Chief-Operations,
Bend Fire and Rescue

Professional Experience

Doug Koellermeier is a career Firefighter with over 33 years in the fire service. He currently serves as Deputy Fire Chief in charge of Operations with the City of Bend Fire Department. In his 28 years with Bend Fire Department he has served in many capacities including Firefighter, Engineer, Captain, Battalion Chief, Paramedic and now Deputy Chief/Operations Chief. Bend Fire Department's protection area covers 132 square miles with a population of approximately 100,000. The protection area is unique in that there is a high risk to summer wildland interface hazards and has been the scene of a number of significant wildland fire incidents. Bend and the Central Oregon area are nationally recognized for their wildland interface incidents and their management and mitigation efforts over the years. Doug has also been intimately involved in public education and fire prevention efforts throughout his career.

He is just completing his Bachelors in Fire Administration (June 09) and has his AAS in Fire Science and holds his certificate in Wildland Fire Suppression. He is certified through state and national

fire training agencies in a number of both wildland and structural fire operational and command officer positions. He also serves as Deputy Incident Commander of the Oregon State Fire Marshal Office Incident Management Team (red team).

Roger D. Ottmar, Research Forester

USDA Forest Service Pacific Northwest Research Station, Pacific Wildland Fire Sciences Laboratory

Professional Experience

Roger Ottmar is a Research Forester with the Fire and Environmental Research Applications Team, Pacific Northwest Research Station at the Pacific Wildland Fire Sciences Laboratory located in Seattle, Washington. He has been involved with fuels, fire, and smoke related research for over 30 years and is leading efforts to continue the development of 1) a natural fuels photo series; 2) fuel consumption and emission production models by combustion phase and fuelbed layer for forested and non-forested fuel types across North America; and 3) a system to characterize fuelbeds. Roger has authored over 100 research publications and final reports and has served as principal investigator on more than 75 grants, agreements (including 13 Joint Fire Science Projects), and coops between other USDA Forest Service Research Stations, governmental agencies, private corporations, and Universities. Roger also teaches over 30 lessons per year at land management Rx training sessions including Smoke management, Fire effects, and Burn Boss. Roger has received an honorary Doctorate of Philosophy from the University of Idaho (2008), thirteen USDA Forest Service Certificates of Merits, USDA Forest Service Chief's Award for Technology Transfer (2006), PNW Station Technology Transfer Award (2006), National Fire Plan for Excellence in Research Award (2005), Outstanding Service in Fire Management Award (2002), and Pacific Northwest Region Excellence in Prescribed Fire Award (1999) and the PNW Research Station Vision Award (1993), and PNW Station Technology Transfer Award (1991).

Ron Wakimoto, Professor of Forest Fire Science

University of Montana College of Forestry

Professional Experience

Dr. Ronald H. Wakimoto is a Professor of Forestry at The University of Montana, Missoula. He received his B.S. in Forestry and M.S. and Ph.D. in Wildland Resource Science from the University of California at Berkeley. He began his faculty career at the University of California, Berkeley in 1976 and has been at The University of Montana since 1982 teaching and conducting research in wildland fire management. He teaches academic

courses in wildland fire management, fuel management, and fire ecology. Dr. Wakimoto currently conducts research on the effectiveness of fuel management treatments, smoke quality and quantity from smoldering combustion, and crown fire spread. In 1988 and 1989 Dr. Wakimoto was one of two academics to serve as technical advisors to the National Fire Policy Review Team following the Yellowstone events. In 1997 he gave testimony on Wildfire Policy to the U.S. House Agriculture Committee. In 2000 he gave testimony on the Montana fire-fuel situation to the U.S. House Natural Resources Sub-Committee on Forests and Forest Health. In 2001 he gave testimony to the same committee concerning the implementation of the National Fire Plan. In 2004 Dr. Wakimoto was elected a Fellow by the Society of American Foresters. In 2006, Dr. Wakimoto taught a 5 day course on fire ecology and prescribed burning in Monger, Bhutan. In 2008 he returned to Bhutan to help run a workshop on disaster preparedness and fire management strategy development for the Kingdom.

Jen Warren, National Fire Plan Coordinator
Oregon Department of Forestry

Professional Experience

Jen Warren is the National Fire Plan Coordinator for the Oregon Department of Forestry. In her position she leads the development of Community Wildfire Protection Plans (CWPPs) throughout the state of Oregon providing technical assistance to communities. These plans aim to develop wildfire-adapted communities which are knowledgeable about the risks of wildfire and better prepared to withstand one should it occur. Jen assists communities with collaboratively identifying their Wildland-Urban Interface (WUI), local priorities for community fire protection, forest resource management, and methods for reducing risks to life and property from wildfire. In addition to her National Fire Plan duties, she serves as the statewide liaison to the national Firewise Communities program, providing technical expertise on reducing wildfire risks using fire-resistant construction and landscaping around homes and businesses in the WUI. She is a resource for communities working toward a common goal: reducing the loss of lives, property and resources to wildland fire by building communities compatible with their natural surroundings.

APPENDIX B

TECHNICAL ADVISORY COMMITTEE INTERVIEW RESULTS

The following is a list of suggested actions that the Technical Advisory Committee identified for consideration during this process. Proposed actions are grouped into three categories: Planning and Mitigation; Operations, Incident Management, and Training; and Vegetation Management and Ecology. While this list is not exhaustive, it may act as a good indication of the City of Portland’s readiness level to cope with wildfire before, during, and after an event.

PLANNING AND MITIGATION

- Modify relevant codes (e.g., zoning and building codes) to provide a streamlined process that will allow residents to reduce or treat flammable vegetation near homes (at least within 100 feet of buildings) in identified urban wildfire interface zones.
- Implement a fire danger rating system to educate and alert public park users and neighbors about the seasonal potential for wildland fire.
- Assess and communicate the capacity of the water infrastructure (e.g., pipes, hydrants, water reservoirs).
- Develop a holistic code framework to integrate fuel management, building construction, and street systems that facilitate fire apparatus access, public evacuations, etc.
- Offer tax incentives or grant assistance to encourage homeowners to make their homes and properties fire safe. (E.g., Project Wildfire has programs for low income families and partnerships with local building material suppliers).
- Consider Multnomah County's Secure Rural Schools Title III funding.
- Educate local residents, particularly within urban wildfire interface zones, about wildland fire risks and steps that can be taken to create fire safe communities (e.g., brochures, pamphlets, public service announcements, neighborhood association meetings, etc.).
- Request additional FEMA funds for projects.
- Create or update mutual aid agreements with nearby jurisdictions - U.S. Forest Service, Oregon Department of Forestry, and other agencies trained and equipped in wildland firefighting.
- Adjust code provisions as needed to allow homeowners to salvage or treat fuels after a major natural event, such as disease, blowdown, or fire.
- Use provisions of Firewise Communities to educate city staff, managers, elected officials, and the public on how to make a defensible space near homes and businesses.

OPERATIONS, INCIDENT MANAGEMENT, AND TRAINING

- Have backup capacity that allows fire response to large incidents while still providing support for smaller incidents.
- Provide clear direction for Incident Commanders regarding when and how to ask for additional City resources and/or mutual aid from neighboring jurisdictions.
- Include in standards the provision of adequate crew rehabilitation in case of extended incidents. (Wildfires can last days or weeks).
- Assess and communicate the human, economic, and environmental risks in the incident area to all incident personnel.
- Be familiar with and adhere to the policies set in the Oregon Fire Service Mobilization Plan.
- Develop an all-incident evacuation plan for Forest Park and Powell Butte. Coordinate to determine who will implement this plan. Communicate the plan with neighbors.
- Be prepared to set up an Emergency Operating Center to allow for interagency coordination and develop a unified command structure.
- Resource type (e.g., Type I, II, III) all emergency personnel and equipment based on FEMA standards. Resource typing definitions provide emergency managers with the information they need to request and receive the resources they need during an emergency or disaster.
- Identify local staging areas for emergency personnel and evacuees.
- Communicate the daily fire danger rating to all field staff throughout the fire season. Staff engines as necessary.
- Establish training standards for Bureau of Parks and Recreation field staff. At a minimum, training should include how to properly size-up a wildland fire.
- Create a wildfire hazards map and communicate it to all field personal.
- Coordinate resource orders for outside support through the State Fire Marshal's office.
- Institute a training and qualifications standard for all firefighters equivalent to the National Interagency Incident Management System Wildland Fire Qualifications. This could include completion of the S-130 and S-190 courses.
- Ensure all incident personnel are trained for basic wildland firefighting (e.g., firefighters, park technicians, maintenance workers, drivers, public information officers).
- Train all firefighters in engine operations and hand line construction techniques.
- Provide training for initial attack as well as prescribed burning.

- Encourage trained personnel to take part on National Interagency Incident Management Teams.
- Train personnel in the Incident Command System.
- Provide wildland firefighting personal protective equipment for initial attack.
- Equip initial attack fire engines and park maintenance vehicles with basic wildland firefighting equipment. Develop a standard appropriate for each bureau.
- Conduct a preseason meeting with neighboring jurisdictions to discuss upcoming wildland fire season, staffing levels, communication plan, resources, and other important information.
- Implement and review mutual aid agreements established by the Bureau of Fire and Rescue.
- Create and practice the communications plan with all potentially responding bureaus and outside jurisdictions. Ensure all initial attack personnel can communicate with each other.
- Designate a Public Information Officer for each incident to ensure accuracy and consistent information to the public.

VEGETATION MANAGEMENT AND FIRE ECOLOGY

- Designate a core group of staff from the Bureau of Parks and Recreation and the Bureau of Fire and Rescue to develop and implement prescribed burn plans. Encourage staff rotation in implementing the plans to provide training opportunities.
- Ensure that all fire personnel (Fire, Parks, other) on a prescribed burn are qualified for assigned tasks (e.g., Burn Boss, Ignition Boss, etc.).
- Investigate if U.S. Forest Service has funds for implementing prescribed burn plans.
- Consider a training partnership between the Bureau of Parks and Recreation and the Forest Service Research Rocky Mountain office in Missoula. This partnership can benefit parks staff by improving their understanding of fire ecology as it relates to local fuels.
- Consider utilizing state prison workers on work release programs for fuel treatments.
- Use Fuel Bed Mapping to help predict fire behavior and crown fire potentials for Forest Park and Powell Butte and assess fuel bed treatment effectiveness.
- Develop a prescribed burn management plan to reintroduce fire in Forest Park and Powell Butte for ecological and fuel reduction purposes.
- Consider managing vegetation through thinning and off-site utilization in addition to or in lieu of prescribed fire.

NUMBER	ACTION	LEAD	CATEGORY	EXTERNAL FUNDING AVAILABLE	KNOWN PUBLIC SUPPORT	TECHNICAL FEASIBILITY	NEEDED TO ALLOW FOR OTHER ACTIONS	TIME SENSITIVE	MEETS MULTIPLE PROJECT GOALS	TOTAL
PRIORITY LEVEL ONE										
1	Convene a standing City of Portland wildfire technical working group.	POEM	Planning and Mitigation			3	3	3	3	12
2	**Identify and map the wildland urban interface area in the City of Portland, starting with the area around Forest Park.	Planning and Sustainability	Planning and Mitigation			3	3	2	1	9
3	Modify existing regulations (e.g., environmental overlay zone code) to improve the permitting process and increase the defensible space around homes, while continuing to protect significant natural resource values and functions.	Planning and Sustainability	Planning and Mitigation			3	3	3	2	11
4	Integrate, as appropriate, fire prevention goals and provisions into City policies, plans, and codes. Identify and address ambiguities or conflicts among City requirements.	Planning and Sustainability; Fire; POEM	Planning and Mitigation			3	2	3	3	11
5	Secure funding for continued, long term vegetation management projects.	Parks; BES	Vegetation Management and Fire Ecology	Federal, State		3	2	3	3	11
6	Conduct a wildland firefighter training audit of Portland Fire & Rescue.	Fire invites external Fire Agency	Operations, Incident Management, and Training			3	3	3	1	10
7	Develop wildland firefighting standards for Portland Fire & Rescue that meet State of Oregon and the National Wildfire Coordinating Group (NWCG) standards.	Fire	Operations, Incident Management, and Training			3	3	3	1	10
8	Analyze and prioritize emergency vehicle access routes.	Parks	Operations, Incident Management, and Training			3	1	3	3	10
9	Conduct a periodic tri-county wildfire coordination meeting.	POEM	Operations, Incident Management, and Training			3	1	3	2	9
10	Revisit mutual aid agreements to ensure they are current and applicable.	Fire; POEM	Operations, Incident Management, and Training			3	3	2	1	9
11	Establish an agreed upon fire danger rating system and develop agency protocols.	Fire	Operations, Incident Management, and Training			3	3	2	1	9
12	**Conduct annual wildland firefighter training for Portland Fire & Rescue personnel.	Fire	Operations, Incident Management, and Training			3	1	2	1	7
13	**Improve enforcement of park rules in Portland Parks and Recreation managed natural areas and open space tracts on approved land divisions.	BDS; Fire	Planning and Mitigation			3	1	1	2	7
14	**Create a radio communication plan with wildfire response stakeholders.	Fire	Operations, Incident Management, and Training			3	1	1	1	6

NUMBER	ACTION	LEAD	CATEGORY	EXTERNAL FUNDING AVAILABLE	KNOWN PUBLIC SUPPORT	TECHNICAL FEASIBILITY	NEEDED TO ALLOW FOR OTHER ACTIONS	TIME SENSITIVE	MEETS MULTIPLE PROJECT GOALS	TOTAL
PRIORITY LEVEL TWO										
15	<i>Design and conduct a study to determine the effectiveness of maintenance agreements that are established when new land divisions are approved to manage vegetation in open space tracts.</i>	BDS; Fire	Planning and Mitigation			3	2	1	2	8
16	<i>Conduct wildfire training for wildfire response stakeholders.</i>	Parks; Maintenance	Operations, Incident Management, and Training			3	1	1	3	8
17	<i>Develop a comprehensive vegetation treatment program that includes both mechanical methods and prescribed fire.</i>	Parks	Vegetation Management and Fire Ecology	Federal, State		2	2	1	3	8
18	<i>Educate landowners within the Wildfire Hazard Zone generally, and within Urban Wildland Interface Zones specifically about wildfire hazards.</i>	POEM; Fire	Planning and Mitigation			3	1	1	2	7
19	<i>Establish an information network (e.g., identification, orientation, wayfinding and interpretation signage) in Forest Park and Powell Butte.</i>	Parks	Operations, Incident Management, and Training		Yes	3	1	1	2	7
20	<i>Create incentives to encourage fuel reduction and create defensible space.</i>	BDS	Planning and Mitigation			3	1	1	2	7
21	<i>Prepare a site plan and conceptual landscape design for demonstration wildfire resistant plantings.</i>	Parks	Vegetation Management and Fire Ecology			3	1	1	2	7
22	<i>Pursue training with regional and City incident management teams.</i>	Fire	Operations, Incident Management, and Training			2	1	3	1	7

NUMBER	ACTION	LEAD	CATEGORY	EXTERNAL FUNDING AVAILABLE	KNOWN PUBLIC SUPPORT	TECHNICAL FEASIBILITY	NEEDED TO ALLOW FOR OTHER ACTIONS	TIME SENSITIVE	MEETS MULTIPLE PROJECT GOALS	TOTAL
PRIORITY LEVEL THREE										
23	<i>Develop a cross-bureau plan for evacuation of citizens in high fire risk areas in the event of a severe wildfire.</i>	POEM; Police; Transportation; Multnomah County Sherriff	Planning and Mitigation			3	1	1	1	6
24	<i>Develop critical GIS map layers for fire response and planning in Portland natural areas.</i>	Fire; Parks; GIS	Operations, Incident Management, and Training			2	1	1	2	6
25	<i>Review and update the Forested and Wildland Interface Areas Fire Protection Plan.</i>	Fire	Operations, Incident Management, and Training			3	1	1	1	6
26	<i>Re-Invigorate Neighborhood Emergency Teams (NETs) with concrete projects.</i>	POEM	Planning and Mitigation			3	1	1	1	6
27	<i>Improve the system for identifying new construction in areas subject to wildfires and communicating this information to the affected land owners.</i>	BDS	Planning and Mitigation			3	1	1	1	6
28	<i>Assess and communicate the capacity of the water infrastructure (e.g., pipes, hydrants, water reservoirs).</i>	Fire; Water	Planning and Mitigation			3	1	1	1	6
29	<i>Review the feasibility of adopting portions of state or nationally recognized wildfire interface codes to strengthen building standards in Wildfire Hazard Zones.</i>	Fire; BDS	Planning and Mitigation			2	1	1	1	5
30	<i>Identify conditions of approval and mitigation strategies that could be applied to new development or redevelopment in high risk areas.</i>	BDS; Planning and Sustainability	Planning and Mitigation			2	1	1	1	5

APPENDIX D

FUNDING SOURCES

Grant Resources

This is a partial list of available grant sources for implementing some of the actions suggested in this report. For more information about eligibility, deadlines, and how to apply, please visit the following websites.

FEMA Pre-Disaster Mitigation Grant Program

<http://www.fema.gov/government/grant/pdm/>

FEMA Firefighter Assistance Grant Program

<http://www.firegrantsupport.com/>

This includes Assistance to Firefighters Grant (AFG) “Fire Grants” , Staffing for Adequate Fire and Emergency Response Grants (SAFER), and Fire Prevention and Safety Grants (FP&S).

Firewise Communities

http://www.firewise.org/usa/grant_funding_sources.htm

Provides a list of grants through government and non-profit organizations.

Interagency National Fire Plan Community Assistance

<http://www.nwfireplan.gov/Grants.htm#Brochure>

This grant provides a collaborative process for awarding funds to hazardous fuels reduction projects on non-federal land in the Wildland-Urban Interface. Applications will be evaluated by a three step local, state and federal review based on the criteria outlined for each of the program categories. Eligible projects must be adjacent to Federal Land and identified in a Community Wildfire Protection Plan (CWPP) completed by February 6, 2009. Collaborated CWPP projects must implement fuels treatments in the wildland-urban interface. Counties, cities, state and local government agencies, federally recognized Tribes, universities, colleges, and state-chartered non-profit organizations in Oregon and Washington may all apply. No more than two proposals per county may be submitted and they must be in high-risk areas as identified in the statewide risk assessment.

Oregon Department of Forestry

<http://egov.oregon.gov/ODF/FIRE/grantopps.shtml>

Provides a list of grants administered through the State of Oregon.

Secure Rural Schools and Community Self-Determination Act (SRS Act) Title III Funds

These projects are submitted directly to County Commissioners for the county in which the project is taking place. Anyone can submit projects, but only very specific projects will be considered. Those are:

- Search, Rescue, and Emergency Services
- Community Service Work Camps
- Forest Related Educational Opportunities
- County Easement Purchases (*for recreation or conservation purposes*)
- Fire Prevention and County Wildfire

Urban Land Institute Community Action Grants

<http://www.uli.org/CommunityBuilding/CommunityActionGrants.aspx>

Grants are awarded for creative, innovative community outreach, research, or education programs. By encouraging new ideas and supporting the most entrepreneurial projects, all communities can benefit because successful projects can be replicated.

Attachment D

Wetland Determination Site Visit Permission to Access

Property Owner Consent Form

I understand that SWCA Environmental Consultants, an environmental consulting firm, has been contracted by the City of Portland to conduct wetland determinations and mapping for the city's natural resource inventory. In order to accurately determine the presence or location of a wetland, staff from SWCA needs to enter onto my property. By signing this form, I grant consultant permission to access my property for the purposes of this inventory.

The site visit will occur between March through the end of June of 2022. It will take place on a weekday and in most cases will not last longer than 30 minutes. When the consultant visits my property, they may dig a few small test holes (1ft wide by 1.5ft deep) to help identify wetland soils. The consultant will fill these holes back in when finished. No gardens or lawns will be disturbed. Although my presence is not necessary, SWCA will be flexible in working with me on any special arrangements that I may require in order to accommodate schedules, pets, livestock, etc.

Property ID: _____

Street Address: _____

Email: _____ Phone: _____

Print Name: _____

Signed: _____ Date: _____

Should the consultant call first to make any special arrangements for access?

No

Yes

Phone (if different than above): _____ Best time to call: _____

Please return this form by February 1, 2022 via email to ezone@portlandoregon.gov or by mail to:

City of Portland
Bureau of Planning and Sustainability
1810 SW 5th Avenue, Suite 710
Portland, Oregon 97201
Attention: Environmental Overlay Zone Map Correction Project

Attachment E

33.855 Zoning Map Amendments

855

Sections:

- 33.855.010 Purpose
- 33.855.020 Initiating a Zoning Map Amendment
- 33.855.030 When a Comprehensive Plan Map Amendment Is Also Required
- 33.855.040 Procedure
- 33.855.050 Approval Criteria for Base Zone Changes
- 33.855.060 Approval Criteria for Other Changes
- 33.855.070 Corrections to the Official Zoning Maps
- 33.855.075 Automatic Map Amendments for Historic Resources
- 33.855.080 Recently Annexed Areas

33.855.010 Purpose

This chapter states the procedures and approval criteria necessary to process an amendment to the base zones, overlay zones, plan districts, and other map symbols of the Official Zoning Maps. The chapter differentiates between amendments which are processed in a quasi-judicial manner and those processed in a legislative manner. A discussion of quasi-judicial and legislative is found in 33.700.070.

33.855.020 Initiating a Zoning Map Amendment

- A. Quasi-Judicial.** Requests for a zoning map amendment that are quasi-judicial may be initiated by an individual, a representative of the owner, the Planning and Sustainability Commission, or the City Council. The Historical Landmarks Commission may initiate amendments concerning historic districts. The Director of BDS may request amendments for initiation by the Planning and Sustainability Commission. Initiations by a review body are made without prejudice towards the outcome.
- B. Legislative.** Requests for zoning map amendments that are legislative may be initiated by the Planning and Sustainability Commission or the City Council. The Historical Landmarks Commission may initiate amendments concerning historic districts. Others may request to the Planning and Sustainability Commission to initiate a legislative zoning map amendment. The Planning and Sustainability Commission will review these amendment requests against adopted initiation criteria. Initiations by a review body are made without prejudice towards the outcome.

33.855.030 When a Comprehensive Plan Map Amendment Is Also Required

Zoning map amendments may also require an amendment to the Comprehensive Plan Map. Determination of whether the Comprehensive Plan Map must also be amended is based upon whether the proposed zoning map amendment is to a zone designated by the Comprehensive Plan Map. See Policy 1.18 in the Comprehensive Plan. If an amendment to the Comprehensive Plan Map is required, the zoning map amendment cannot be made unless the amendment to the Comprehensive Plan Map is approved first. Both amendments may be processed concurrently.

33.855.040 Procedure

- A. Quasi-Judicial.** Requests for quasi-judicial zoning map amendments are reviewed through a Type II or Type III procedure. Zoning map amendments to rezone a site to IR, Institutional Residential, are processed through a Type II procedure. Amendments for all other zones are processed through a Type III procedure.
- B. Legislative.** Requests for legislative zoning map amendments are reviewed through the legislative procedure stated in Chapter 33.740.
- C. Manufactured dwelling park special notice.** The applicant for a zoning map amendment that changes the zoning on a manufactured dwelling park must provide written notice by first class mail to each unit in the manufactured dwelling park. The notice must include the time, date, and location of the public hearing and the new zone being proposed. The notices must be mailed 20 to 40 days before the hearing date.

33.855.050 Approval Criteria for Base Zone Changes

An amendment to the base zone designation on the Official Zoning Maps will be approved (either quasi-judicial or legislative) if the review body finds that the applicant has shown that all of the following approval criteria are met:

- A. Compliance with the Comprehensive Plan Map.** The zone change is to a corresponding zone of the Comprehensive Plan Map. When the Comprehensive Plan Map designation has more than one corresponding zone, it must be shown that the proposed zone is the most appropriate, taking into consideration the purposes or characteristics of each zone and the zoning pattern of surrounding land.
- B. Adequate public services.**
 - 1. Adequacy of services applies only to the specific zone change site.
 - 2. Adequacy of services is determined based on performance standards established by the service bureaus. The burden of proof is on the applicant to provide the necessary analysis. Factors to consider include the projected service demands of the site, the ability of the existing and proposed public services to accommodate those demand numbers, and the characteristics of the site and development proposal, if any.
 - a. Public services for water supply, and capacity, and police and fire protection are capable of supporting the uses allowed by the zone or will be capable by the time development is complete.
 - b. Proposed sanitary waste disposal and stormwater disposal systems are or will be made acceptable to the Bureau of Environmental Services. Performance standards must be applied to the specific site design. Limitations on development level, mitigation measures or discharge restrictions may be necessary in order to assure these services are adequate.
 - c. Public services for transportation system facilities are capable of supporting the uses allowed by the zone or will be capable by the time development is complete. Transportation capacity must be capable of supporting the uses allowed by the zone by the time development is complete, and in the planning

period defined by the Oregon Transportation Rule, which is 20 years from the date the Transportation System Plan was adopted. Limitations on development level or mitigation measures may be necessary in order to assure transportation services are adequate.

- d. The school district within which the site is located has adequate enrollment capacity to accommodate any projected increase in student population over the number that would result from development in the existing zone. This criterion applies only to sites that are within a school district that has an adopted school facility plan that has been acknowledged by the City of Portland.
3. Services to a site that is requesting rezoning to IR Institutional Residential, will be considered adequate if the development proposed is mitigated through an approved impact mitigation plan or conditional use master plan for the institution.
- C. When the requested zone is IR, Institutional Residential.** In addition to the criteria listed in subsections A. and B. of this Section, a site being rezoned to IR, Institutional Residential must be under the control of an institution that is a participant in an approved impact mitigation plan or conditional use master plan that includes the site. A site will be considered under an institution's control when it is owned by the institution or when the institution holds a lease for use of the site that covers the next 20 years or more.
 - D. When the requested zone change is CI1 or CI2.** When the requested zone change is CI1 or CI2, a Transportation Impact Review is required as part of the zoning map amendment.
 - E. Location.** The site must be within the City's boundary of incorporation. See Section 33.855.080.

33.855.060 Approval Criteria for Other Changes

In addition to the base zones and Comprehensive Plan designations, the Official Zoning Maps also show overlay zones, plan districts, and other items such as special setback lines, recreational trails, scenic viewpoints, and historic resources. Amendments to all of these except historic resources and the creation of plan districts are reviewed against the approval criteria stated in this section. Historic resources are reviewed as stated in Chapter 33.846, Historic Resource Reviews. The creation of a new plan district is subject to the approval criteria stated in 33.500.050. An amendment will be approved (either quasi-judicial or legislative) if the review body finds that all of the following approval criteria are met:

- A.** Where a designation is proposed to be added, the designation must be shown to be needed to address a specific situation. When a designation is proposed to be removed, it must be shown that the reason for applying the designation no longer exists or has been addressed through other means;
- B.** The addition or removal is consistent with the purpose and adoption criteria of the regulation and any applicable goals and policies of the Comprehensive Plan and any area plans; and
- C.** In the Marquam Hill plan district, relocation of a scenic viewpoint must be shown to result in a net benefit to the public, taking into consideration such factors as public access, the quality of the view, the breadth of the view, and the public amenities that are or will be available.

33.855.070 Corrections to the Official Zoning Maps

The Director of BDS may initiate and approve a review following the Type II procedure for the types of discretionary corrections to the Official Zoning Maps listed below. Nondiscretionary corrections to the Official Zoning Maps may be initiated by the Director of Planning and Sustainability as described in Section 1.01.037 of the Portland City Code.

- A. Mapping errors.** The correction may be made for mapping errors such as:
 - 1. A map line that was intended to follow a topographical feature does not do so. Topographical features include the tops and bottoms of hillsides, the banks of water bodies, and center lines of creeks or drainage ditches; or
 - 2. There is a discrepancy between maps and on balance there is sufficient evidence of legislative intent for where the line should be located.
- B. Movement of the reference item for the map line.** The correction may be made when it can be clearly shown that a map line is based on the location of a reference item that has since been moved. Reference items are rights-of-way, tentative rights-of-way, utility easements and similar type items. Map line changes in these cases must not be more than a trivial change to the map pattern and must not result in any significant impacts to abutting lots.
- C. Land within the Urban Growth Boundary.** The correction may be made when it involves the removal of the Future Urban overlay zone from properties that are now within the Urban Growth Boundary.

33.855.075 Automatic Map Amendments For Historic Resources

The Official Zoning Maps will be amended automatically to add or remove historic resources as follows:

- A. Resources listed in the National Register of Historic Places.**
 - 1. When a historic resource is listed in the National Register of Historic Places, it is automatically identified on the Official Zoning Maps as a Historic Landmark or Historic District on the date the Bureau of Planning and Sustainability receives notification from the State Historic Preservation Office of the listing of the resource in the National Register; and
 - 2. When a historic resource is removed from the National Register of Historic Places and it has no local historic designation, it is automatically removed from the Official Zoning Maps as a Historic Landmark or Historic District on the date the Bureau of Planning and Sustainability receives notification from the State Historic Preservation Office of the removal of the resource from the National Register.
- B. Removal after destruction.** If a Historic Landmark or Conservation Landmark is destroyed by causes beyond the control of the owner, the Landmark designation for the resource is automatically removed from the Official Zoning Maps.
- C. Removal after demolition.** If a Historic Landmark or Conservation Landmark is demolished, after either approval of demolition through demolition review or after 120-day delay, the

Landmark designation for the resource is automatically removed from the Official Zoning Maps.

- D. Removal after relocation.** If a Historic Landmark or Conservation Landmark is relocated, the Landmark designation for the resource is automatically removed from the sending site on the Official Zoning Maps.

33.855.080 Automatic Zone Map Amendments for Annexed Areas

- A. Areas with Multnomah County zoning.** Areas annexed into the City from Multnomah County with Multnomah County zoning automatically receive comparable City zoning upon officially being incorporated into the City. Comparable zoning is shown in Table 855-1 and will apply to the area unless it is superseded by a special area study or a plan district.
- B. Areas with City zoning.** In areas annexed into the City from Multnomah County that already have City zoning and Comprehensive Plan designations, zoning is automatically changed to conform with the Comprehensive Plan designation when the site is officially incorporated into the City.

Table 855-1 Assigned City Zoning for Multnomah County Zones	
Multnomah County Zones	Assigned City Zoning
Base zones	
Areas with farm or residential zoning outside the UGB	FR + f
Areas with commercial zoning outside the UGB	CM1
CFU, F2, MUA-20, RR, SR, LR-40, R-40, LR-30, R-30, MUF-19, MUF-38	RF [1]
UF-10, UF-20 inside the UGB	[2]
RC inside the UGB	CM1
LR-20, R-20	R20
LR-10, R-10	R10
LR-7, R7	R7
LR-7.5	R7 + Glendoveer Plan District
LR-5	R5
MR-4, MR-3	RM1 [3]
HR-2, A-2	RM1 [3]
HR-1, A1B	RM2 [3]
BPO	CM2
LC, C4, SC	CM1
GC, EC, C2, NC, C3	CE
LM, M3, M4	EG1
Gm, M2	IG2

Table 855-1 Assigned City Zoning for Multnomah County Zones	
HM, M1	IH
THR	RM3
TMR	RM1 [3]
TLR-5	R5
TLC	CM1
TNC	CM2
TGC	CM2
TO	CM2
TLM	EG1
Overlay zones	
SEC	p, c [4]
FH, FF, FW	not mapped; handled by Bureau of Development Services
NI	X
PD, RPD	Not mapped; becomes an approved PUD
OP	Not mapped
CS	If open space, then OS base zone; just the base zone otherwise
HP	D
LF	H
WRG	g, r, i, n [4]

Notes:

[1] The designation will be RF unless this land is in an approved subdivision at a density higher than RF or has been preplanned by an adopted City plan, in which case a higher density zone may be applied.

[2] Reviewed through a quasi-judicial review; initiated by the Director of BDS.

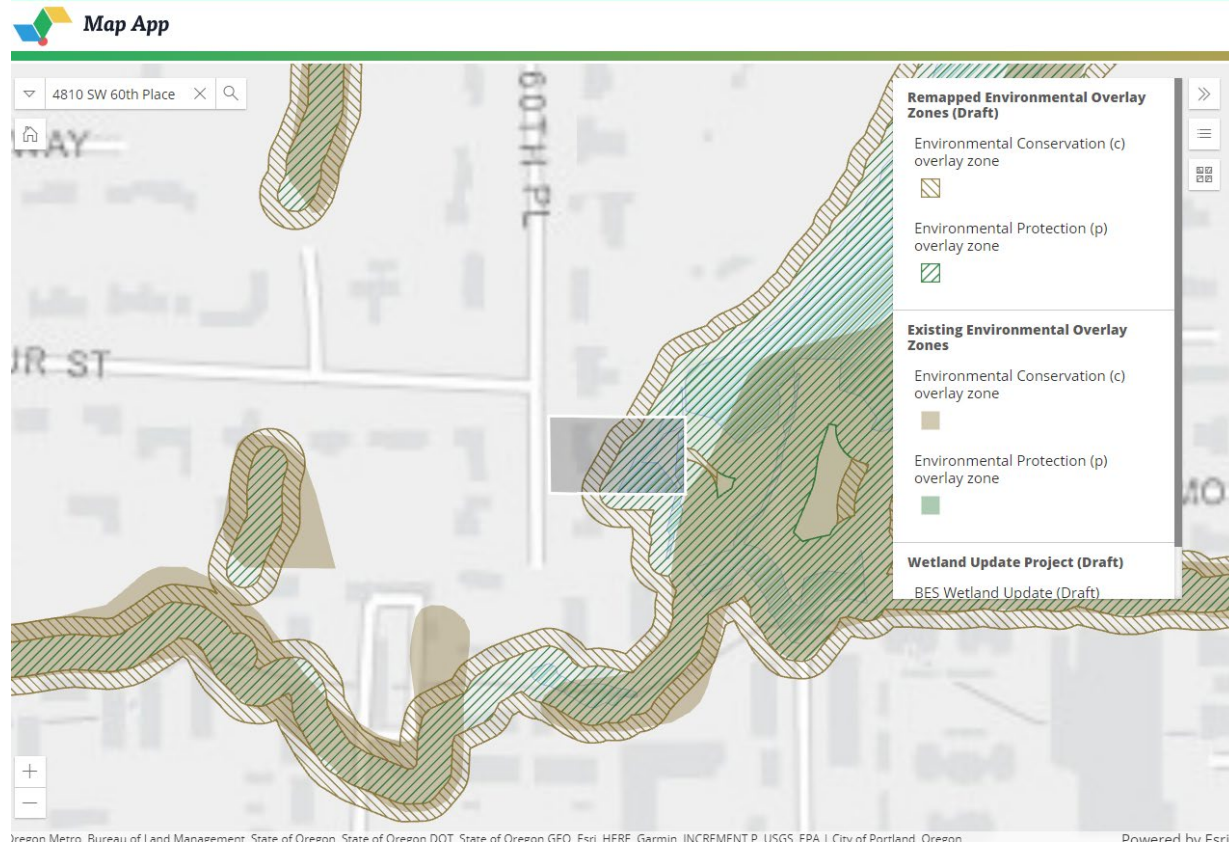
[3] Sites with a documented, approved office are CM1. Sites with a documented, approved retail or commercial use are CM1.

[4] The most appropriate overlay zone will be applied based on any approved City plans.

(Amended by: Ord. No. 167054, effective 10/25/93; Ord. No. 171219, effective 7/1/97; Ord. No. 174263, effective 4/15/00; Ord. No. 176469, effective 7/1/02; Ord. No. 176587, effective 7/20/02; Ord. No. 176742, effective 7/31/02; Ord. No. 177028, effective 12/14/02; Ord. No. 177422, effective 6/7/03; Ord. No. 178961, effective 6/13/05; Ord. No. 182429, effective 1/16/09; Ord. No. 183598, effective 4/24/10; Ord. No. 185915, effective 5/1/13; Ord. No. 188259, effective 3/31/17; Ord. No. 188177, effective 5/24/18; Ord. No. 188958, effective 5/24/18; Ord. No. 189805, effective 3/1/20; Ord. No. 190477, effective 8/1/21.)

Attachment G: Site-Specific Testimony and Staff Responses

G.1 – 4810 SW 60th Place



Testifier: Kenneth McGhehey

Property Owner: Kenneth McGhehey

Site Visit: No

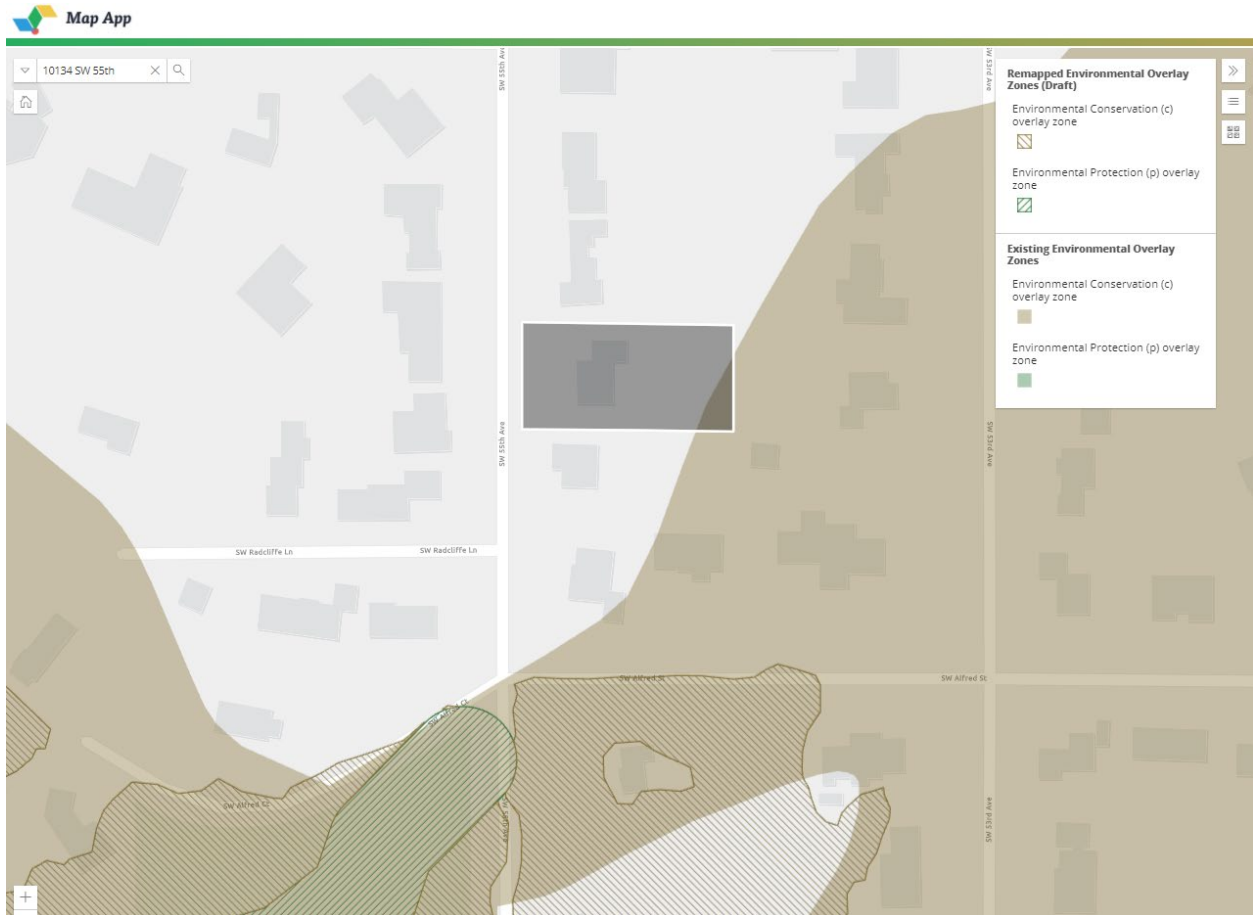
Wetland Determination: The property owner contacted staff and requested wetland a determination in 2021, but project staff did not receive a signed 'permission of access' form. Consultants from SWCA Environmental will only visit sites for which they have received a signed copy of a permission form. A free wetland determination will be offered to verify wetland mapping in 2022. Project staff have contact information for the property owner and will communicate directly with the property owner and all who have requested 2022 wetland determinations to ensure that wetland mapping on their sites is verified.

Description: The lot is 21,450 in size, with an existing 3,015 sq ft structure. The base zone is R10, and the site is potentially dividable into two lots. There is a wetland located on the site. The protection policy is to apply a 'p' zone to the wetland and land within 25 feet and a 'c' zone to land between 25 and 50 feet of the wetland. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

Testimony: The application of ezones on the site reduces the property value. Testimony ID 329898

Staff Response: The presence of a wetland and subsequent application of a 'p' zone will reduce the area that could be developed on this lot in the future. This could potentially prevent the lot from being divided and developed further. However, wetlands are a critical water storage and conveyance feature that are necessary for protection of public safety and state law allows protection of these for public health and safety reasons. The wetland is part of a larger complex and would also be regulated by the state if additional development was proposed on the site, even if ezones were not applied.

G.2 – 10134 SW 55th Avenue



Testifier: Kathy Staat McGowen

Property Owner: Kathy Staat McGowen

Site Visit: Not requested

Description: The site is 0.46 acres in size (approximately 19,870 sq ft), with an existing 2,326 sq ft structure. The base zone is R10. The lot is potentially dividable into two buildable lots. Under current zoning, there is a 'c' zone that intersects with the rear corner of the lot. The protection policy is to apply a 'p' zone to streams and wetlands and land within 50 feet of streams and 25 feet of wetlands and to apply a 'c' zone to forest vegetation contiguous to but more than 50 feet from the top of bank of streams. There is a mapped forest patch that intersects with this site, but the forest vegetation is not contiguous to any streams or wetlands. Therefore, the proposal is to not apply any ezones to the site.

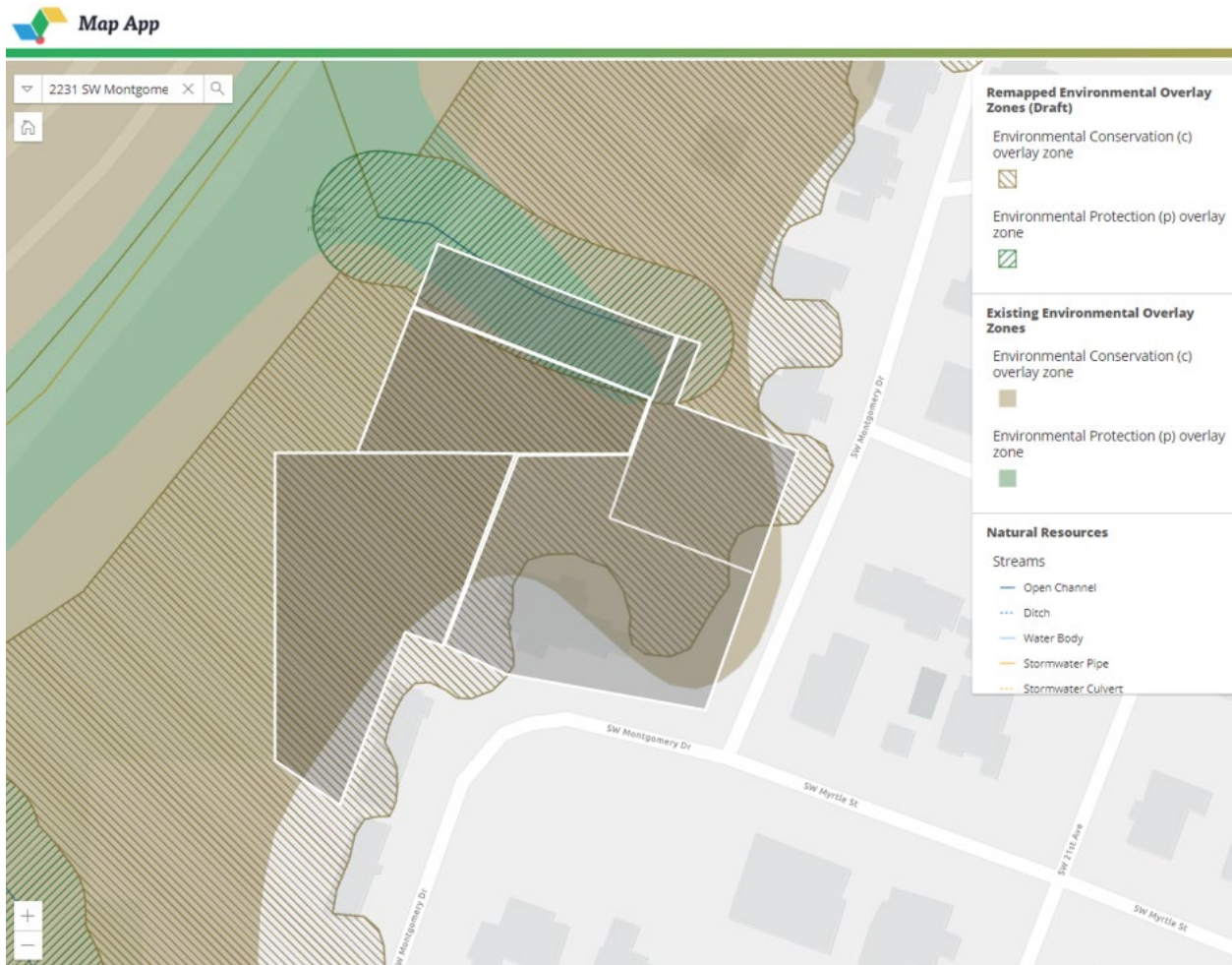
There is, however, a topographic feature near the eastern edge of the site that could potentially be determined to be a drainageway by BES (this has not been confirmed in the field). BES regulations could restrict new development within 15 feet of the drainageway, if present. These

constraints, which are independent and unrelated to ezones, could limit the scope or location of new development on the site.

Testimony: Property owner would like the 'c' zone removed from her property. Testimony ID 329899

Staff Response: The existing 'c' zone is proposed to be removed from this property. The existing ezones would not prevent this lot from being divided and developed further. The proposed change to the ezones likely would not have any impact on divisibility or future development on the site.

G.3 – 2231 SW Montgomery Drive



Testifier: John Rabkin

Property Owner: John Rabkin

Site Visit: September 2, 2021

Description: The site is 0.35 acres (15,246sq ft) in size, with an existing 6,262 sq ft structure. The base zone is R10. The lot is not dividable. The protection policy is to apply a 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams. The conservation zone is being remapped on the site to follow the edge of the forest canopy. The proposed changes to the 'c' zone would not result in a significant increase in the amount of lot that is covered by ezones. The property owner also owns 4 additional vacant lots that are contiguous to the existing, developed lot.

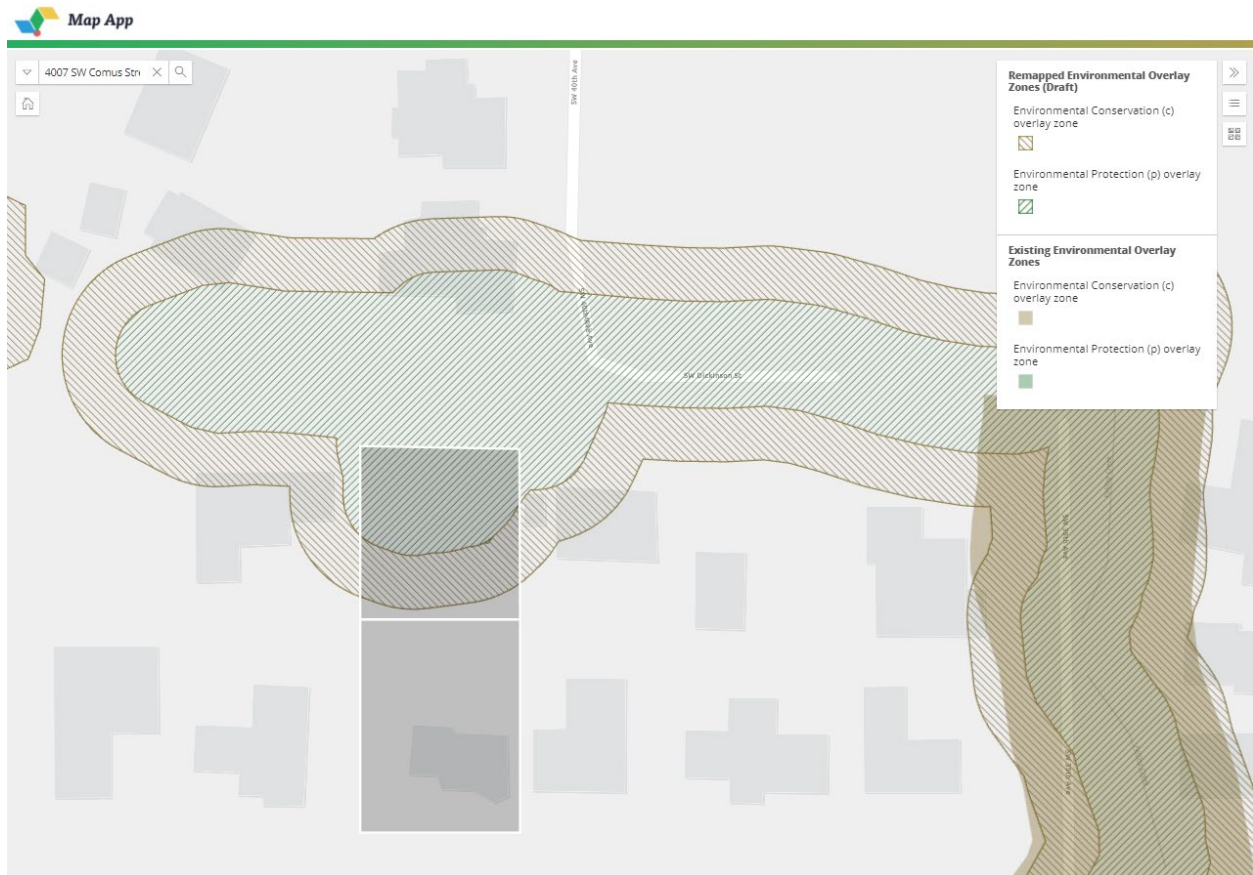
Testimony: The property owner does not agree with 'c' zone being present over the existing lawn, walkways and retaining walls on this lot. Testimony ID 329900

Staff Response: The location of the 'c' zone is based on forest canopy mapping. Because the mapping methodology adopted in 2012 in the Natural Resources Inventory uses tree canopy, it does not matter what is under canopy. The reason why the canopy is used is because it is a proxy for the root zone, which if impacted by development could hurt or kill the tree, and because the canopy is providing a number of important functions like attenuating rainfall, reducing the risk of landslides and erosions, cooling the air and reducing heat island effect, and providing habitat.

There are exemptions in the code that applies to the ezones that allow for the continued use, maintenance and replacement of existing development, such as buildings, structures and lawns. Expansion of buildings or disturbed areas on the lot would be allowed without restriction on portions of the lot that are outside of the ezones or in the transition area (with mitigation). Within the resource area of the ezones, new disturbance area or building expansion would either have to meet standards and be mitigated or be subject to environmental review.

Project staff conducted a site visit with the property owner on September 2, 2021. They reviewed the natural resource mapping on the developed lot and 4 contiguous lots that are under the same ownership. Staff confirmed that the forest canopy was mapped correctly, though some of the mapped forest does encompass portions of the understory that are landscaped, as well as existing retaining walls and other structures. While onsite, staff also reviewed the water feature mapping on the site. Staff found that a stream that was mapped on one of the undeveloped lots does not actually exist. The stream will be deleted from the NRI. Three of the five lots have no access to the right of way and are located on extremely steep slopes. The vacant lots likely could not be developed as currently configured. But a lot line adjustment could allow for the lots to be reconfigured to allow several houses to be built on portions of the lot that is currently developed and on portions of one of the vacant lots that is reasonably flat, and which has direct access to the right of way.

G.4 – 4007 SW Comus Street



Testifier: Dave Salholm

Property Owner: Dave Glenn Salholm Liv Tr and Mary B

Site Visit: No

Wetland Determination: SWCA Environmental visited the site in 2021 and updated the wetland mapping.

Description: The site consists of two lots, one of which is 7,500 sq ft, and which is already developed, and the other is 6000 sq ft and is undeveloped. The developed lot contains a 1,082 sq ft structure. The base zone is R7. There is a stream located to the north of the site and a wetland is located on the undeveloped lot, the mapping of which was verified through a wetland determination. The protection policy is to apply a 'p' zone to the stream and wetland and land within 25 feet and a 'c' zone to land between 25 and 50 feet of the stream or wetland.

Testimony: Property owner requests reduction of the environmental zone on his property or compensation for loss of use and devaluation. Testimony ID 329901

Staff Response: There is a wetland mapped on the northern half of the undeveloped lot. Impacts from new development should be avoided in the area that is immediately adjacent to

wetlands. Wetlands are also regulated at the state and federal level, and development on portions of this lot could potentially be restricted by the state, even without the ezones.

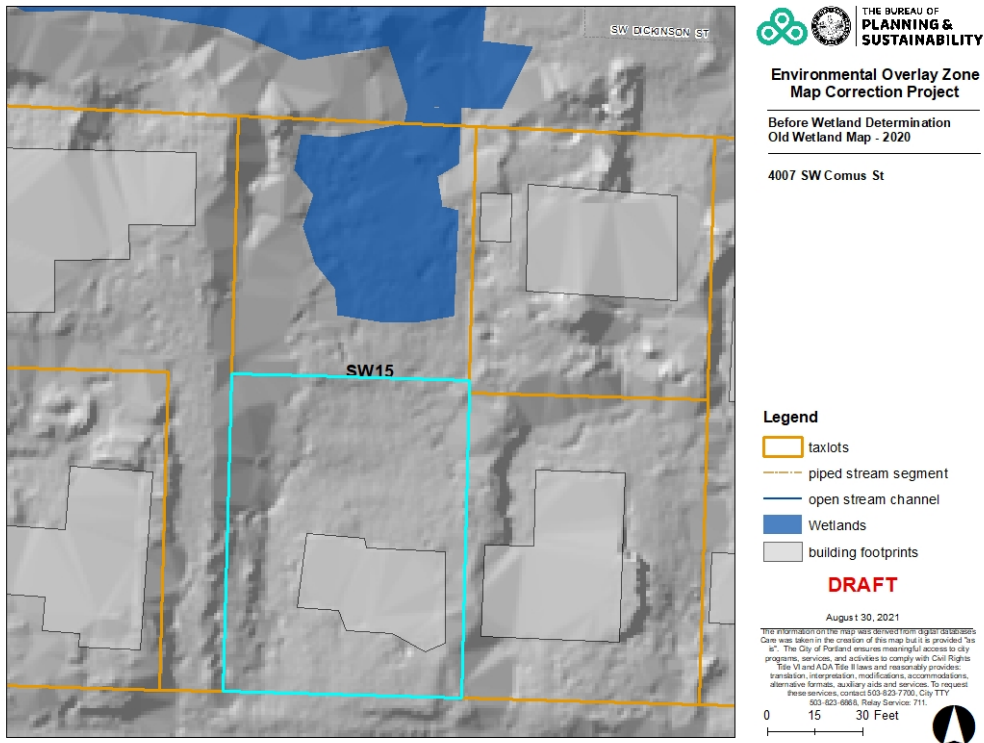
The southern lot is already at maximum density, but the proposed 'p' zone would severely constrain development on the north lot and potentially render it unbuildable in its current configuration. As configured, site access would have to come from SW Dickenson St and cross the wetland, and there is little lot area outside of the resource area of the 'p' zone.

It might be possible to reconfigure these lots to provide space to develop north lot (see maps at end of document). Vehicle access could be provided to the undeveloped lot from SW Comus St by providing an access easement across the developed lot. Such a reconfiguration would either have to meet the standards that apply in the Ezone Code (Chapter 33.430), the Land Division Code (Chapter 33.610) and the Property Line Adjustment Code (Chapter 33.667). If the standards could not be met, a land use review would be required on the site. It is probable that modifications to standards would need to be requested through the Environmental Review Process.

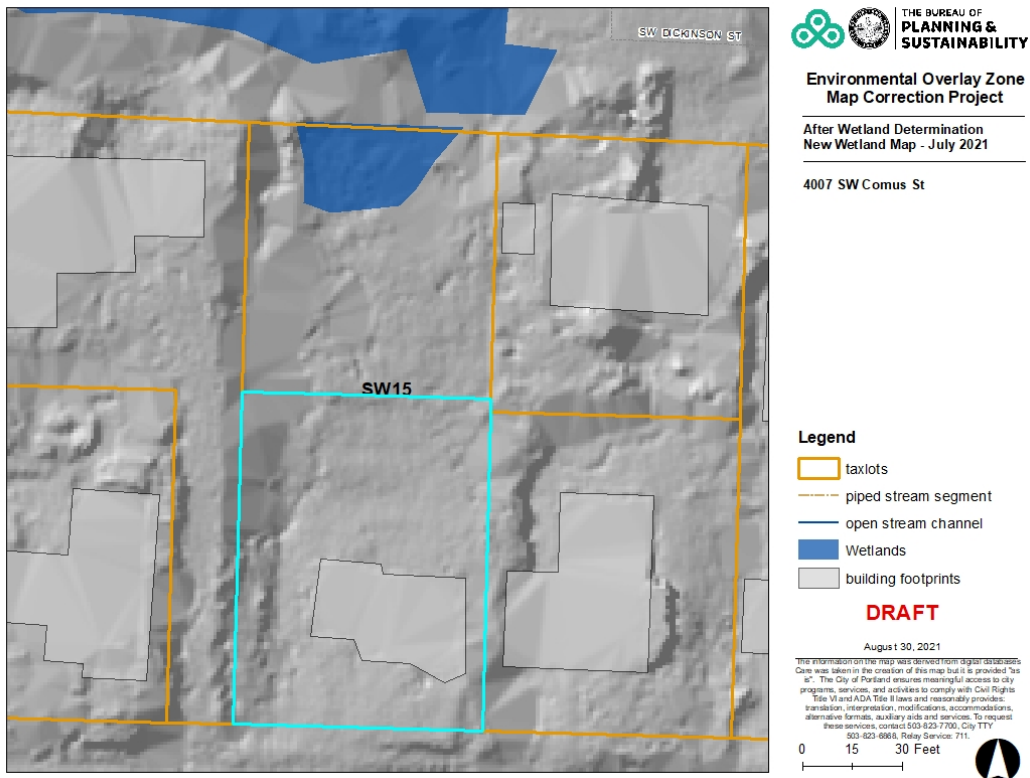
If these lots were reconfigured and developed as described above, the lots could still be developed at the maximum allowed density, but the houses would be closer together and the yards would be smaller than they would be if the lots were developed as they are currently configured and if no ezones or wetlands were located on the lots. The lots are in the 'z' overlay, so they are already excluded from the provisions of the residential infill plan that would otherwise allow for multiple ADUs on R7 lots.

Because the north lot fronts on an unbuilt section of the SW Dickinson St right-of-way, it is possible that a land division, lot line adjustment, or development of the north lot could trigger Title 17 street frontage and right-of-way improvement requirements that are administered by the Bureau of Transportation. New street construction in an ezone would either have to meet the ezone standard or be subject to Environmental Review. Any proposal would also have to address water, sewer, stormwater and other utilities.

Wetland Mapping in January 2021 – Before wetland determination



Wetland Mapping in July 2021 – After wetland determination



Proposed Ezone Mapping Before Wetland Determination



Environmental Overlay Zone Map Correction Project

Before Wetland Determination
Proposed Ezones - January 2021

4007 SW Comus St

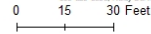
Legend

- taxlots
- Transition Area
- Draft C Zone
- Draft P Zone

DRAFT

August 30, 2021

The information on this map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY: 503-823-6868, Relay Service: 711.



Proposed Ezone Mapping After Wetland Determination



Environmental Overlay Zone Map Correction Project

After Wetland Determination
Proposed Ezones - July 2021

4007 SW Comus St

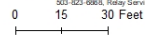
Legend

- taxlots
- Transition Area
- Draft C Zone
- Draft P Zone

DRAFT

August 30, 2021

The information on this map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY: 503-823-6868, Relay Service: 711.







**Environmental Overlay Zone
 Map Correction Project**

After Wetland Determination
 Proposed E-zones - July 2021

4007 SW Cornus St



Lot could be developed if the lot line was adjusted to shrink the developed lot and increase the size of the vacant lot. This would allow for a building site that partially extended into the transition area of the ezones. This likely would not be able to meet standards in the ezone code and would only be possible through the Environmental Review process.

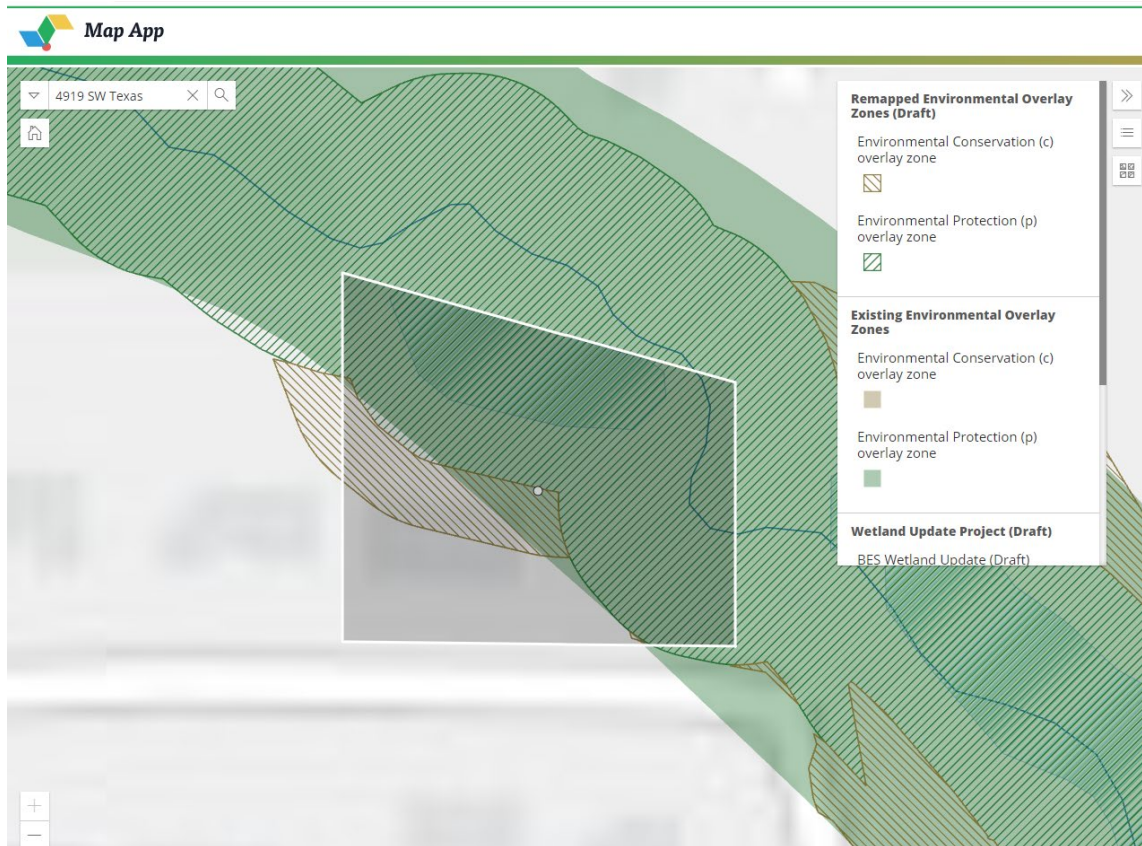
- Legend**
-  taxilots
 -  Transition Area
 -  Draft C Zone
 -  Draft P Zone
- DRAFT**

August 30, 2021

The information on this map was derived from digital datasets. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights laws, including the Americans with Disabilities Act (ADA). The City of Portland provides alternative formats, auxiliary aids and services. To request these services, contact 503-823-7200, City TTY: 503-823-6868, Relay Service: 711.



G.5 – 4919 SW Texas Street



Testifier: David Youmans

Property Owner: David N Youmans Tr and Dana K Via

Site Visit: No

Wetland Determination: Property owner has requested a 2022 wetland determination

Description: The site is 0.39 acres (16,873 sq ft) in size, with an existing 3,422 sq ft structure. The base zone is R7, and the land division standards would allow this lot to be divided into two lots. There is a wetland and a stream located on the site. The protection policy is to apply a 'p' zone to the wetland and land within 25 feet, a 'p' zone to streams and land within 50 feet, and a 'c' zone to land between 25 and 50 feet of the wetland. Existing ezones cover 12,300 sq ft of the lot and the proposed ezones cover 14,000 sq ft of the lot. The expansion is entirely due to wetland mapping. If field verification resulted in the deletion of the wetland from the inventory, the proposed ezones would be reduced to cover less of the site than the existing ezones do. The outer 25 feet at the edge of the ezones is transition area and can be further developed if the standards of 33.430.140 are met. Standards that require setbacks from streams and wetlands would likely preclude any expansion of development footprint in the resource area of the ezones on this site.

Testimony: The property owner contends that because a wetland determination on nearby lots resulted in modifications to wetland mapping on those lots, the wetlands that are mapped on his lot should be removed from the inventory. Testimony ID 329902

Staff Response: All existing development, including buildings, structures, paved areas, and landscaped areas that are permitted and legal or that predate the ezones are vested and are categorically exempt from the ezones. They can be maintained, repaired and/or replaced within their existing footprint without any restrictions from the code that applies to the ezones

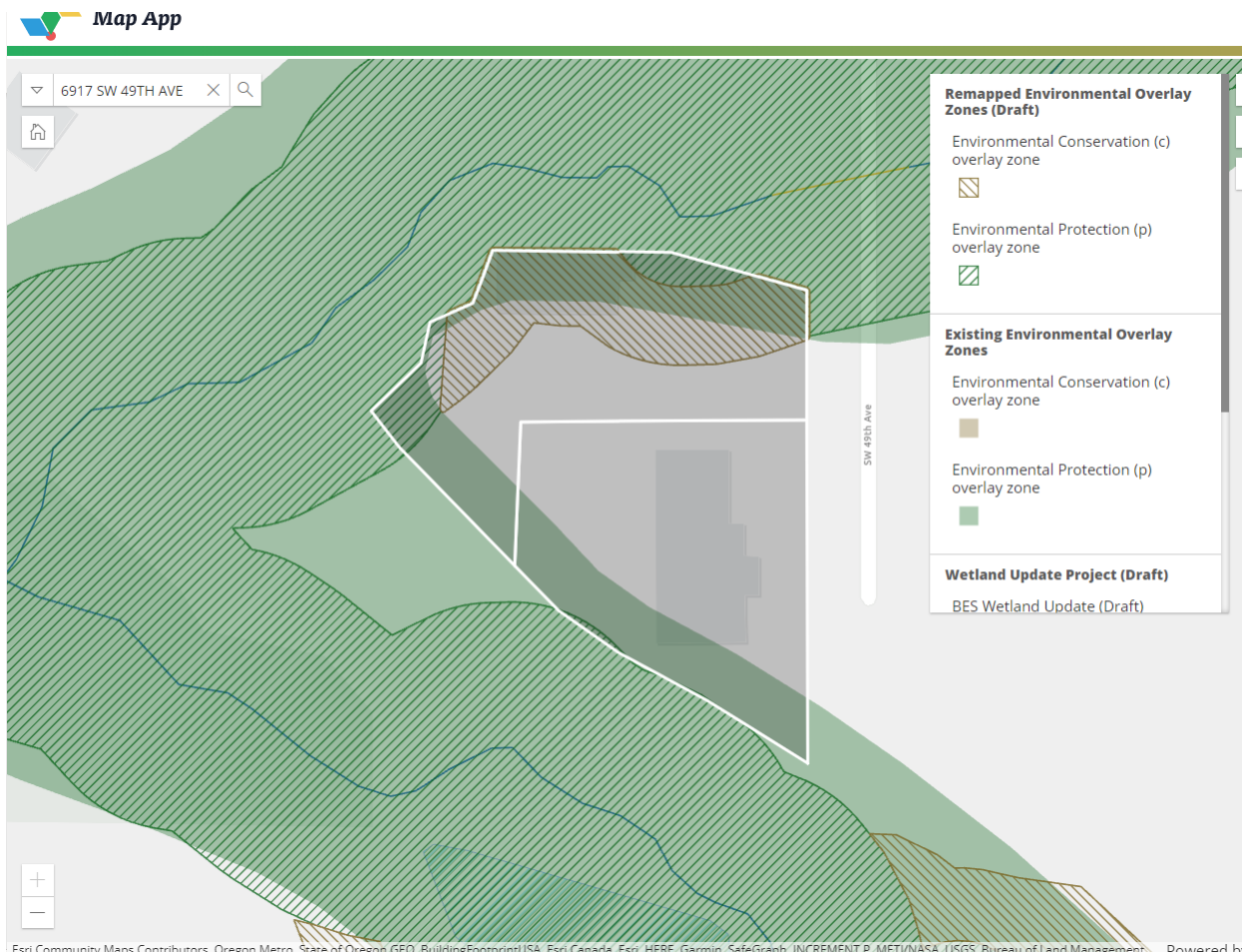
Remote detection methodology suggests that there are potential wetlands on this site. While a wetland determination was conducted by SWCA Environmental on adjacent lots in 2021, the scope of the work that was conducted by their staff did not include this lot. Field staff were working in a location where they could have viewed this lot, but they never walked onto this lot, they never formally characterized the vegetation on this lot, nor did they dig test pits on this lot.

Staff from the BES Wetland Inventory Project have confirmed that a combination of USGS soil data, aerial imagery and Lidar terrain mapping were used as remote indicators to identify a possible wetland on this site. The use of these data sources is consistent with USACE methodology and Oregon DSL Local Wetland Inventory methodology for remote identification of wetlands. All remotely identified wetlands are subject to verification by property owner request.

The 2021 wetland verification field season concluded in May. The owners of 4919 SW Texas St did not contact project staff to request a wetland determination in the 2020 or the 2021 season. After receiving testimony from the property owner in advance of the August 24, 2021 hearing, staff have informed the property owner that they may request a free wetland determination in the 2022 field season. If the wetland mapping is modified through a field verification process, the ezones can be modified, either by amendment while the Ezone Map Correction Project is still ongoing, or if the wetland mapping is modified after the conclusion of the project, the ezones can be modified through a staff-initiated quasi-judicial map error correction process that is free to property owners.

The proposed ezones would constrain this site, making it difficult to divide and develop it further. The existing ezones that are already mapped on this site already impose significant constraints and would likely preclude the possibility of division and additional development outside of the footprint of the existing disturbance area. The wetland is mapped in a location that is already encompassed by the resource area of the existing protection zone.

G.6 – 6917 SW 49th Avenue



Testifier: Dominic Corrado

Property Owner: Dominic Corrado and Maria Corrado

Site Visit: No site visit has been conducted, but project staff have been in communication with the property owner throughout the duration of this project. Staff participated in video chats and phone calls with the property owner, and they communicated by email a number of times. Staff also met in 2020 with staff from BDS to research how an approved land use review would apply to Mr. Corrado's vacant lot if he was to ever attempt to build a house on it.

Wetland Determination: Yes, conducted by SWCA Environmental on April 17th, 2021. Result of wetland determination was the deletion of several wetlands that were mapped on the site and on portions of natural resource tracts that are located to the north and west of the developable lots. Property owner still disputes wetland mapping on neighboring lot that has not yet been field-verified.

Description: The property owner has four lots on this site. Two are buildable lots: One 8,604 sq ft developed lot with a 3,533 sq ft structure, and one vacant and developable lot that is 8,354 sq ft that contains a 600 sq ft garage, and there are two natural resource tracts that can't be

developed. The base zone is R7 and none of the lots can be divided. The property owner has an approved land use review that applies to the vacant lot that vests development on that lot in the existing code with no expiration date (the fact that the LUR approval contains a clause that explicitly states that there is no expiration date is unusual. Most LUR approvals expire within 10 years, unless otherwise specified.)

The proposal for the site is to update the ezones based on current natural resource mapping in order to be consistent with policy proposals throughout the project area. But as long as development complies with the requirements of the approved land use review, no zoning change can impact or restrict development on that lot. The protection policy is to apply a 'p' zone to streams and land within 50 feet of streams and land that is within 25 feet of wetlands. A 'c' zone is applied to land that is between 25 and 50 feet of wetlands. A 'p' zone to 'c' zone conversion has been manually applied by project staff to a portion of the undeveloped lot where future development is likely to occur.

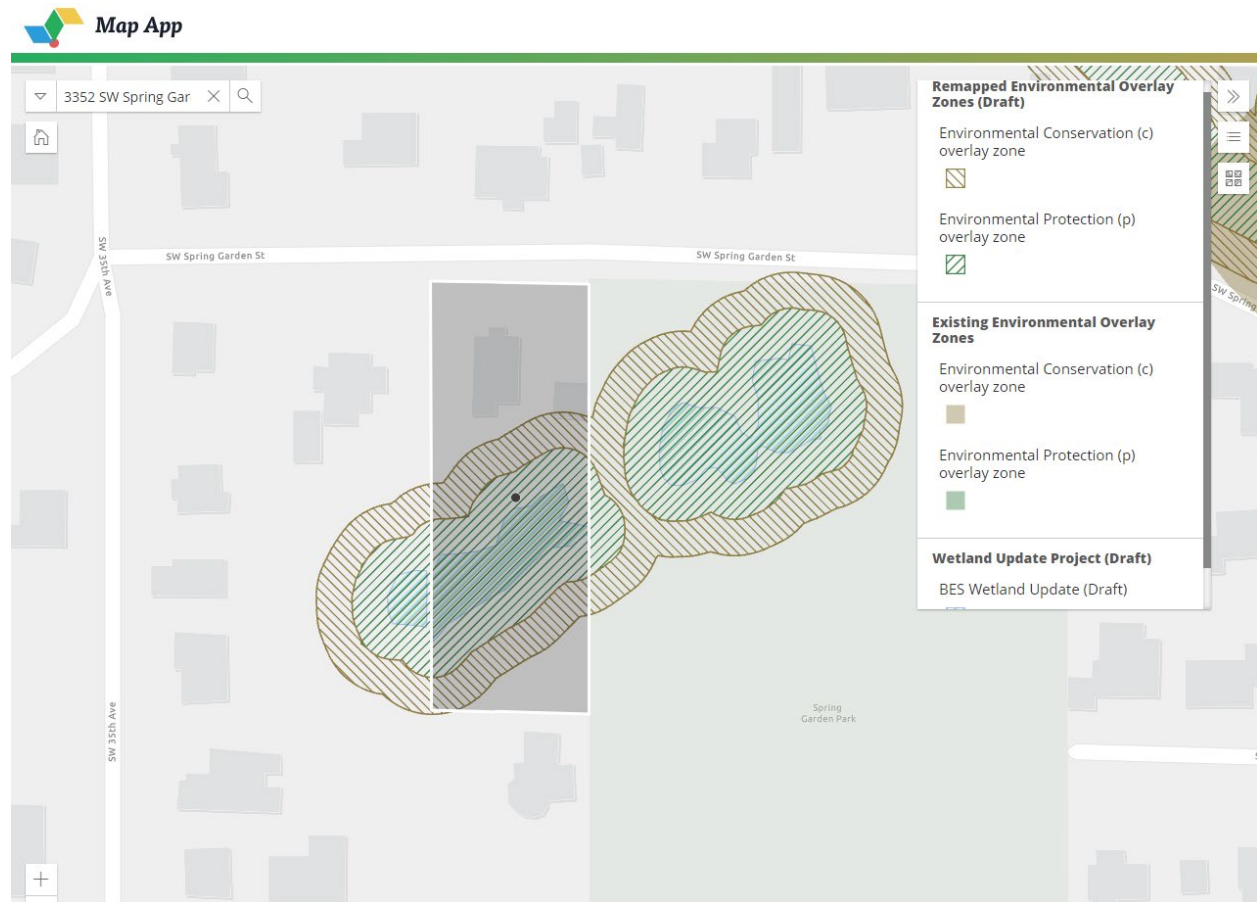
Testimony: The property owner expressed disagreement with the proposed changes to the ezones on his lot, and to the methodology and process by which the Ezone Map Correction Project has been undertaken. He disagrees with the video conference format that is currently being used for PSC hearings and with the 2-minute time allotment that is afforded to people that sign up to testify at hearings. He also disputes the mapping of a wetland on a neighboring lot that has not been field verified. He also argued that the resource mapping techniques that are being employed are inaccurate, and that the provisional remote mapping of wetlands places an undue burden on property owners and impacts property values unfairly, even if BES is offering free wetland determinations to verify wetland mapping in the field. Testimony ID 329903, 329928, 329959, 329960

Staff Response: The approved land use review that applies to the undeveloped lot vests the lot in the zoning maps that were in place at the time of application for the land use review. The vesting effectively exempts the approved development on that lot from any impacts that would be imposed by changes in zoning on the site. None of the proposed changes to the ezones would have any impact at all on the existing development or future development on Mr. Corrado's lots.

The property owner continues to dispute the mapping of a wetland on a neighbor's lot (4919 SW Texas St). While this wetland is located adjacent to a natural resource tract that is owned by Mr. Corrado, all development on that tract would be prohibited by the terms that were stipulated in the approved land use review that applies to these lots (these conditions would apply regardless of whether ezones were mapped on these lots, and they are in no way conditioned on changes to wetland mapping). Also, all portions of Mr. Corrado's tract that are within 50 feet of the wetland are also within 50 feet of a stream; therefore, portions of these lots would be located within a 'p' zone regardless of whether there was a wetland mapped adjacent to that tract. Under current zoning, the entire resource tract is already encompassed by the 'p' zone. The owner of 4919 SW Texas St has requested a wetland determination. BES or their

consultants, SWCA Environmental will visit the site in the 2022 wetland season to verify the wetland mapping.

G.7 – 3352 SW Spring Garden St



Testifier: Erik Swanson (unknown relation to property owners)

Property Owner: Michelle McCabe and Matthew McClenaghan

Site Visit: No

Wetland Determination: Wetland mapping has been field verified through a DSL-concurred wetland delineation.

Description: The site is 0.76 acres (33,300 sq ft) in size, with an existing 1,334 sq ft structure. The base zone is R7, and the site is potentially dividable into four lots. There is a wetland located on the site. The protection policy is to apply a 'p' zone to the wetland and land within 25 feet and a 'c' zone to land between 25 and 50 feet of the wetland. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

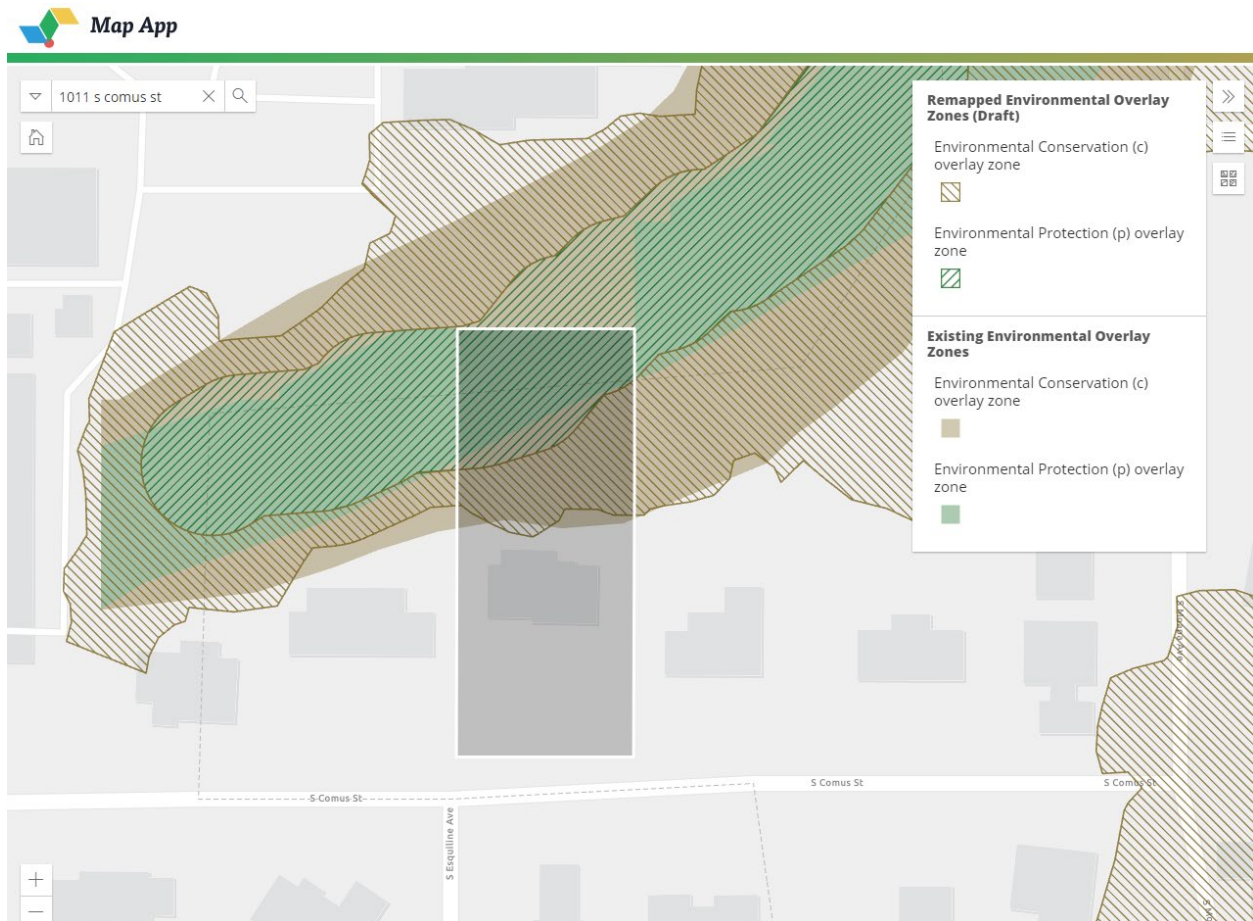
Testimony: The property owner states that the 'c' and 'p' overlays proposed on this site are overly burdensome to this private lot and don't actually protect any significant existing natural resource. Recommends that the environmental zones are only applied in Spring Garden Park and removed from this property. ID 329904

Staff Response: The wetland mapping on the lot has been verified through a DSL-concurred wetland delineation. The proposed ezones on this lot are based entirely on the verified wetland mapping. The options for additional development on this lot are constrained by the proposed ezones. The ezones would not prevent the division of the lot and there could be space for another house to the east of the existing house if the garage was removed or incorporated into the building footprint. Even though additional development on the lot would be possible, the proposed changes to the ezones could limit the total amount of additional development that would be possible and prevent the lot from being divided to the maximum allowed density.

State and Federal regulations that apply to wetlands would potentially limit development on the wetlands even if the ezones were not applied. But the 'p' zone would be a higher level of protection.

Note, that BES has identified a drainageway that overlaps with the wetland on this site. BES Drainageway Reserve requirements would restrict development 15 feet from centerline on both sides of the drainageway. However, since the wetland is generally wider than 30 feet, these regulations could still allow development right up to the edge of the wetland and would not fully protect the riparian area. The proposed 'p' zone would protect this area.

G.8 – 1011 S Comus Street



Testifier: Thomas Hatch

Property Owner: Thomas Hatch and Ann Cleveland

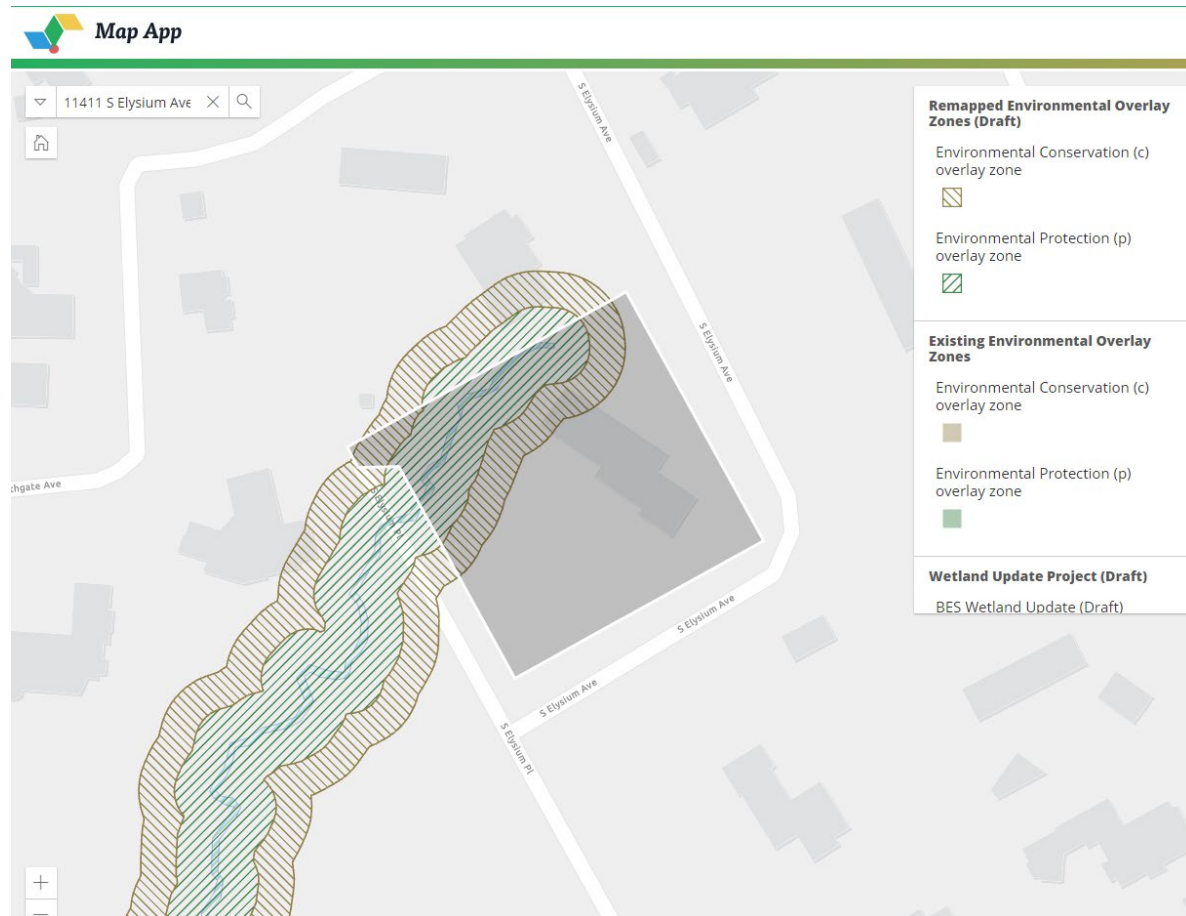
Site Visit: Yes, staff visited the site on 8/25/21 and remapped the environmental zone to follow the tree dripline.

Description: The size is 0.86 acres (37,500 sq ft) in size, with an existing 4,966 sq ft structure. The base zone is R20 and is not dividable. There is a stream and forest vegetation located on the site. The protection policy is to apply a 'p' zone to the stream and land within 50 feet of the top-of-bank and a 'c' zone to land between 50 and 75 feet of the stream and forest vegetation contiguous but more than 50 feet from the top-of-bank of the stream. The outer 25 feet at the edge of the ezones is transition area and can be further developed if the standards of 33.430.140 are met.

Testimony: Property owner contends that the forest mapping is incorrect – it encroaches right up to the house and deck and covers existing rhododendrons. Testimony ID 329913

Staff Response: In response to this testimony, staff conducted a site visit and adjusted the mapped forest to better represent the forest canopy dripline present on the site. As a result of the forest remapping, the 'c' zone will be adjusted. The homeowner appeared to be satisfied by the changes that were made. The proposed ezones align closely with the existing ezones. The changes would likely not have any impacts on this lot.

G.9 – 11411 S Elysium Avenue



Testifier: John van Staveren

Property Owner: Susan and Gary Reynolds

Site Visit: Yes, project staff visited the site on Feb 22, 2021

Wetland Determination: BES WIP staff reviewed the wetland mapping on the site from the public right-of-way on 9-9-2021.

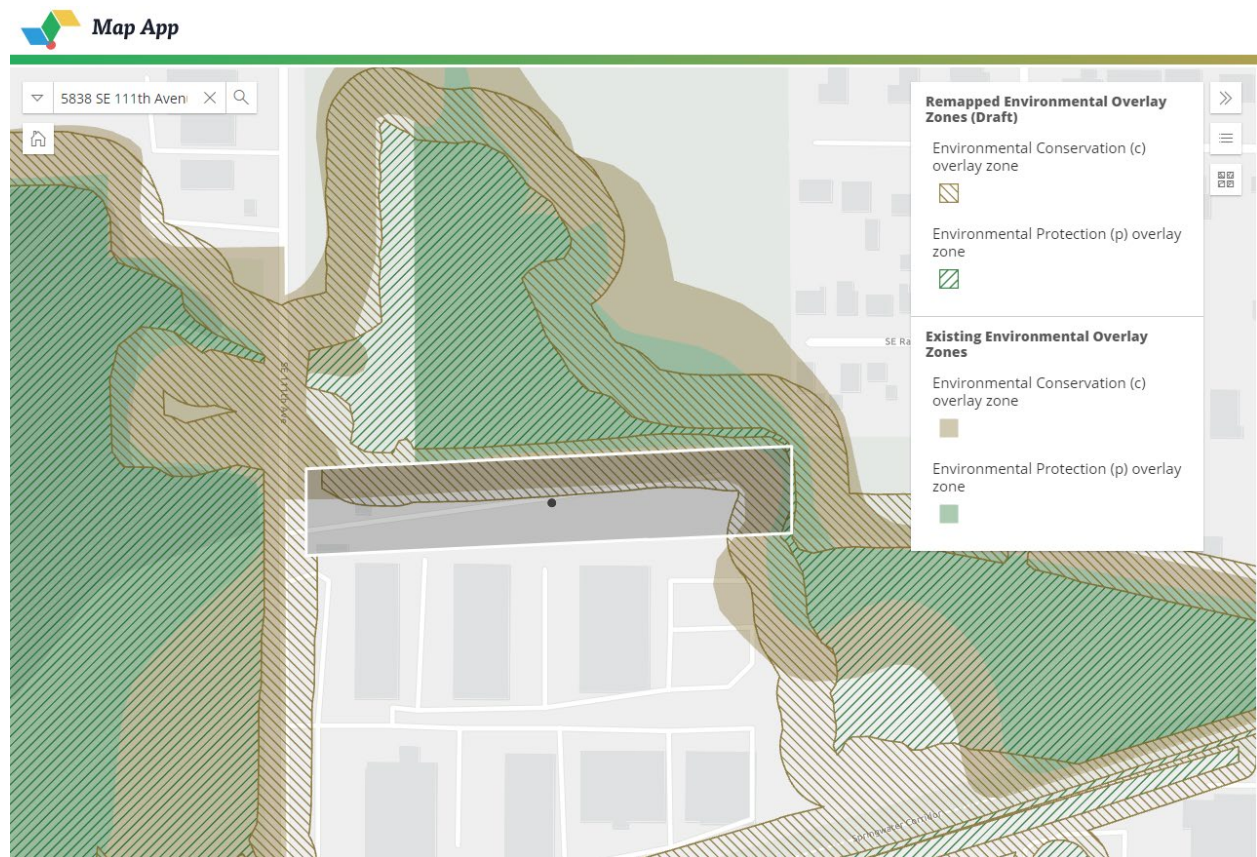
Description: The site is 0.93 acres (40,600 sq ft) in size, with an existing 3,028 sq ft structure. The base zone is R20 and the site is potentially dividable. Mapping indicated is a wetland located on the site. The protection policy is to apply a 'p' zone to the wetland and land within 25 feet and a 'c' zone to land between 25 and 50 feet of the wetland. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

Testimony: The submitted testimony is a Wetland Delineation report from Pacific Habitat Services, Inc., which concludes that no wetlands or defined channels are present on this site. Testimony ID 329917

Staff Response: If the wetland delineation is submitted to Oregon Department of State Lands and the US Army Corps of Engineers for their review, and if it receives a concurrence decision from these organizations, it will be used in place of the wetland determination for this site, and the portion of the wetland that falls within the wetland determination study area will be deleted from the inventory.

BES Wetland Inventory Project staff visited the site on 9-9-2021. They observed the area that was mapped as wetland on the site from the street. Based on their observations, they agreed that there was no evidence of a wetland on the site. The wetland will be removed from this property when the wetland data is next updated, prior to City Council hearings. The draft Ezones will be adjusted accordingly. Any changes to wetland mapping that are made can be incorporated into the NRI and draft Ezones by amendment during the City Council hearings.

G.10 – 5838 SE 111th Avenue



Testifier: Jack Benson

Property Owner: Jack Benson Trust

Site Visit: Yes, site visit was conducted on 2/18/21 and staff made manual edits to ezone mapping on 7/12/21 to make sure existing policy was applied accurately to the site.

Wetland Determination: A wetland delineation was concurred by Oregon Division of State Lands and used by BES to refine the wetland mapping. Because there is a state-concurred wetland delineation, no wetland determination is necessary.

Description: The site is 1.92 acres (83,635 sq ft) in size. There are two small buildings at the west end of the lot, and the site is developed with gravel and used for vehicle storage. The base zone is IG2. There is a wetland located at the east end of this site and on the properties to the north, east and west. The protection policy is to apply a 'p' zone to the wetland and a 'c' zone to land within 75 feet of the wetland. The result of the correction is a slight reduction in 'p' zone and an increase in 'c' zone on the site.

Testimony: The property owner states his opposition to any application of ezones on this lot and believes that the existing uses of the property should be unimpacted by the ezones because the property owner claims that it has been disturbed and maintained as a gravel lot for at least 40 years. The property owner has stated that he was unaware of the 1993 process that adopted

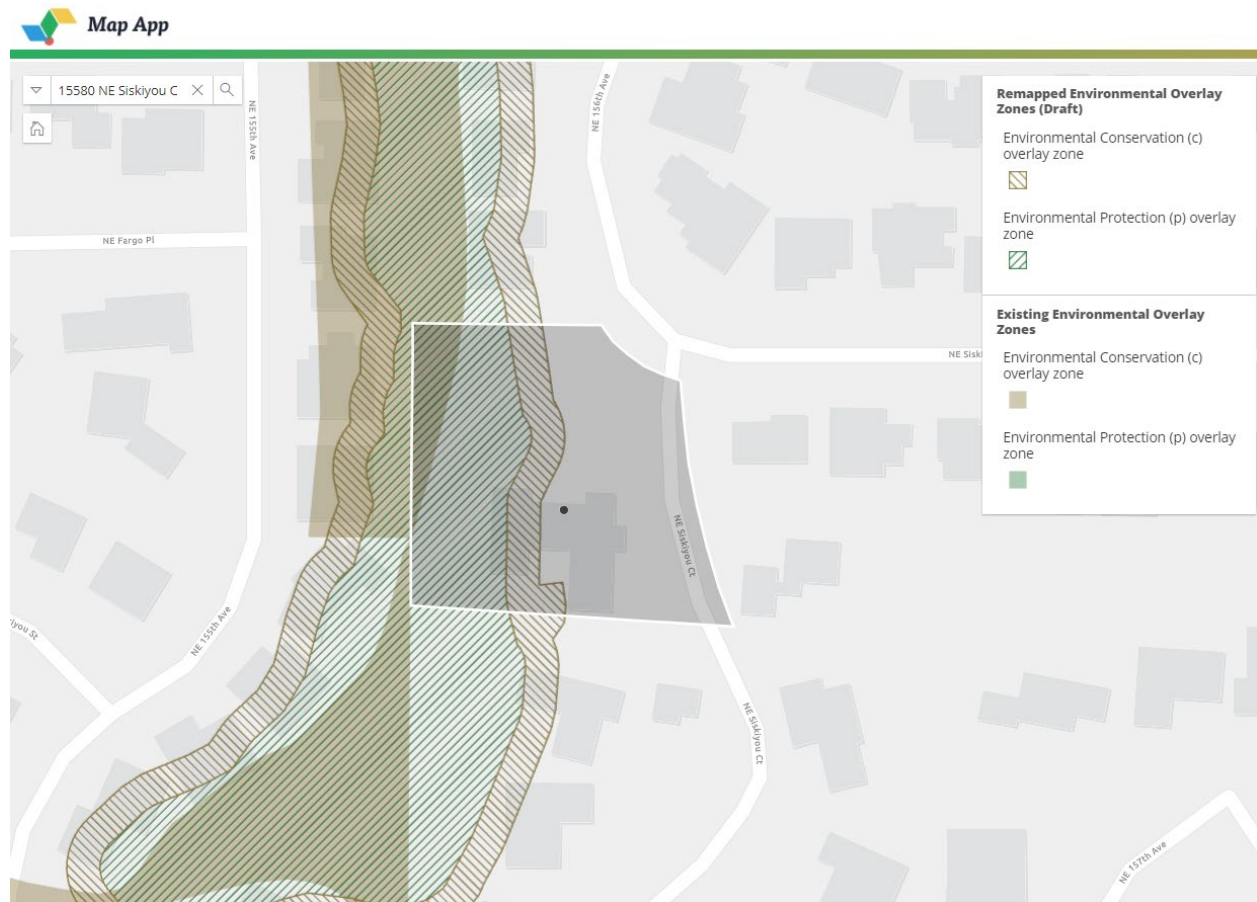
and implemented the existing ezones. The testimony also includes a letter from Hathaway Larson/Christopher P. Koback. In conversation with staff regarding this site, the property owner has stated that they want maximum flexibility on the site for additional development. They are concerned that both the existing and the proposed ezones could potentially limit their ability to build structures or pave portions of the lot that are encompassed by the Ezones. Testimony ID 329918

Staff Response: As a result of the site visit and staff review of the proposed ezone mapping on the site, a 25-foot strip of proposed conservation zone was manually removed from the western edge of this property along the right of way. This ezone was extending across the street from a mapped wetland to the west. Staff determined that it was not appropriate to apply a 'c' zone to this edge of the lot, because to do so would be inconsistent with the policy that was adopted when the existing Ezones were applied to this site.

Though there are existing and proposed ezones that apply to the northern and eastern edges of the property, all legal existing uses and disturbance areas are vested and can stay, be maintained and be replaced in the current footprint. Continued use of the lot as a graveled vehicle storage area would not be restricted by the existing or proposed ezones. New development, such as new buildings, could be allowed on the site through standards described in 33.430.140. For new development on an undisturbed industrial zoned lot, the standards would allow up to 50% or 1 acre, whichever is larger, of the site to be developed. Within an existing disturbance area, additional development would be allowed, even if it exceeds 50% of the lot area or 1 acre as long as the proposed new development didn't extend outside of the area that had already been disturbed on the site, and as long as mitigation was proposed on the site that could meet standards (33.430.140.D.2). If proposed buildings could not meet standards, they could be allowed through Environmental Review. If portions of the lot that are in the ezones were proposed to be converted into paved vehicle areas, this might not be able to meet standards, and could potentially be subject to Environmental Review.

The requirements for mitigation of new impacts in the resource area of the ezone and/or the potential requirement for an Environmental Review that may be necessary for new buildings or paved vehicle areas in the ezones, could make new development on the site more difficult or costly.

G.11 – 15580 NE Siskiyou Court



Testifier: Donald Bowerman on behalf of the property owners

Property Owner: William and Margret Bitar

Site Visit: Yes, 9/28/20, changed top of bank mapping on branch of Columbia Slough

Wetland Determination: Yes, SWCA Environmental conducted a wetland determination at the request of the property owner in the spring of 2021.

Description: The site is 1.07 acres (46,609 sq ft) in size, with an existing 5,778 sq ft house. The base zone is R7 and the site is potentially dividable. There is a stream and a wetland on the site. The protection policy is to apply a 'p' zone to the wetland, stream, and land within 25 feet; and a 'c' zone to land between 25 and 50 feet of the wetland and stream. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met. The mapping of the wetland on the site has been field verified. The wetland is located within an area that is bounded by the top of bank of the stream.

Testimony: The submitted testimony calls into question the determination of the feature on this property as a wetland. It also contends that the ezone Map Correction Project is not a "true up" and is actually a "large expansion" of ezones. In the testimony, it is also contended that the area

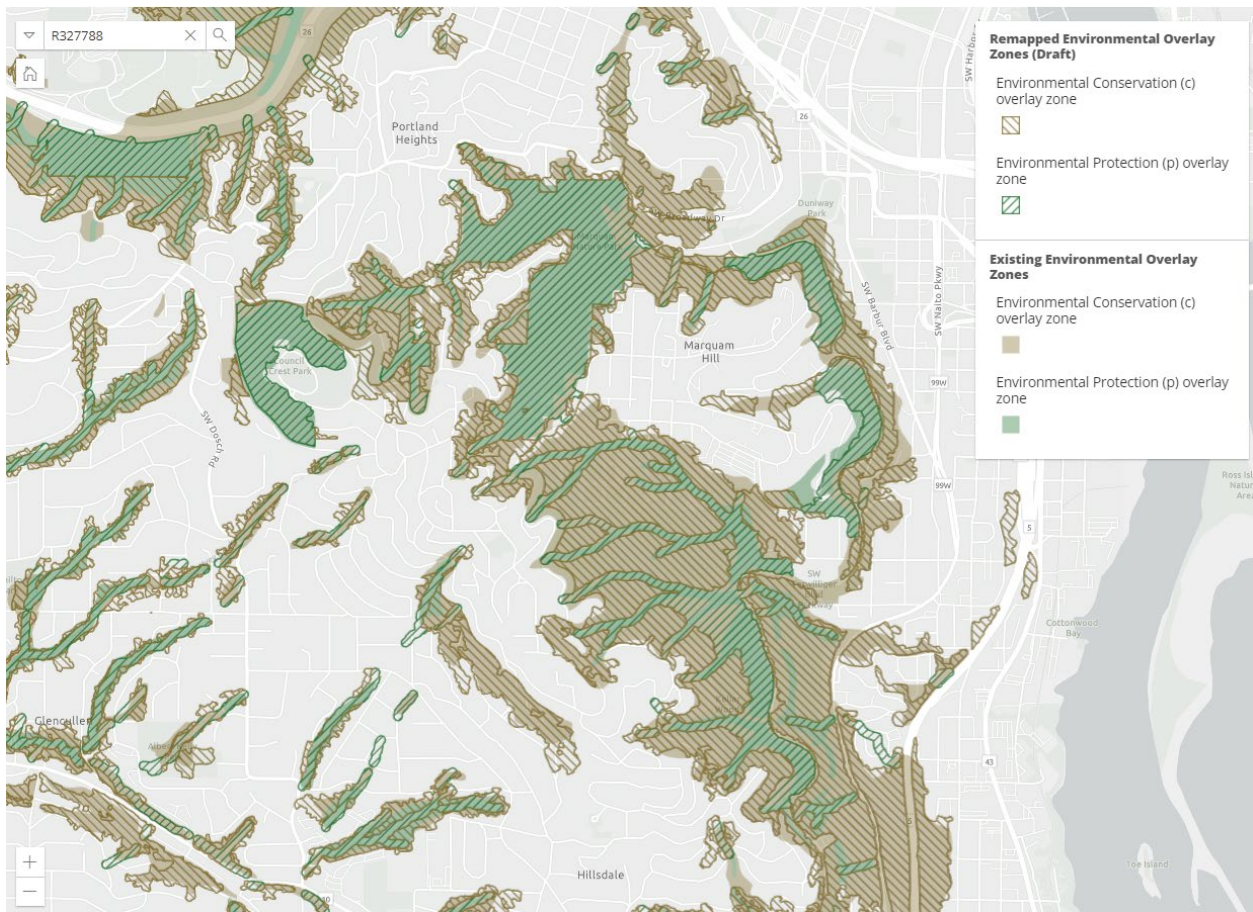
that is mapped as a wetland should be restricted to a narrow portion of the stream channel in which regular stream flow can be observed. Testimony ID 329925

Staff Response: The standard application of 'p' zones to wetlands and streams is consistent citywide policy to protect water storage and flow, which is particularly important for Wilkes Creek which is the only remaining open cold-water input to the Columbia Slough. The existing house and associated structures can stay, be maintained and repaired, and be replaced in the current footprint. This site is large enough to be divided and there is sufficient space outside of the proposed ezones for residential development if the lot was divided to create one or more new lots fronting NE 156th Ave. It would also be possible to build an ADU or other structure in the area to the north of the existing house without a land division.

The top-of-bank of Wilkes Creek has been mapped by Bureau of Planning and Sustainability GIS staff through the application of a computer model to Lidar terrain mapping. The mapping protocols that apply to streams stipulate that the 'p' zones that apply to streams in resource site EB15 should extend 25 feet from the top-of-bank, and that the 'c' zone should apply to land between 25 and 50 feet of the top-of-bank. The same mapping protocols apply to wetlands on the site. Whichever feature extends further onto the site, the mapped stream or the mapped wetland, will determine how far the proposed ezones extend onto the site.

Both the stream bank mapping and the wetland mapping are subject to field verification. The wetland has been field verified by staff from SWCA Environmental in the spring of 2021. If the property owner contends that the wetland mapping is not correct, they may hire a private consultant to conduct a wetland delineation on the site. If the results of a wetland delineation conflict with the results of the SWCA wetland determination and the Oregon DSL concurs with the delineation, the results will supersede the WIP wetland mapping. Similarly, if the property owner conducts a stream bank survey and follows approved methodology that is defined in Portland Zoning Code (33.930.150), the survey results will supersede the mapped top-of-bank on the site. The proposed ezones can be adjusted to reflect any changes to wetland or stream bank mapping, either by amendment at City Council hearings, or by using the Map Error Correction process (33.855.070.A) after the Ezone Map Correction Project has concluded.

G.12 – Marquam Nature Park



Testifier: Roger Brown on behalf of Friends of Marquam Nature Park

Property Owner: Portland Parks and Recreation

Site Visit: Not requested. Portland Parks staff provided data and information to BPS.

Description: The site is over 200 acres of undeveloped park land. The base zone is OS. There are streams, wetlands and forest canopy on this site. The protection policy varies between the northern and southern portions of the park. In the northern portion, the protection policy is to apply a 'p' zone to land within 50 feet of streams, 25 feet of wetlands, and to all forest vegetation in Marquam Hill Park. In the southern portion, the protection policy is to apply a 'p' zone to all land within 50 feet of streams and wetlands, and a 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams.

Testimony: Friends of Marquam Nature Park recommends that BPS designate the entire southern portion of the Marquam Nature Park (i.e., south of SW Marquam Hill Road within Resource Site No. SW10), and adjoining natural areas, as 'p' zone, to be consistent with the northern portion of the Marquam Nature Park and other west-side natural area parks. ID 329926

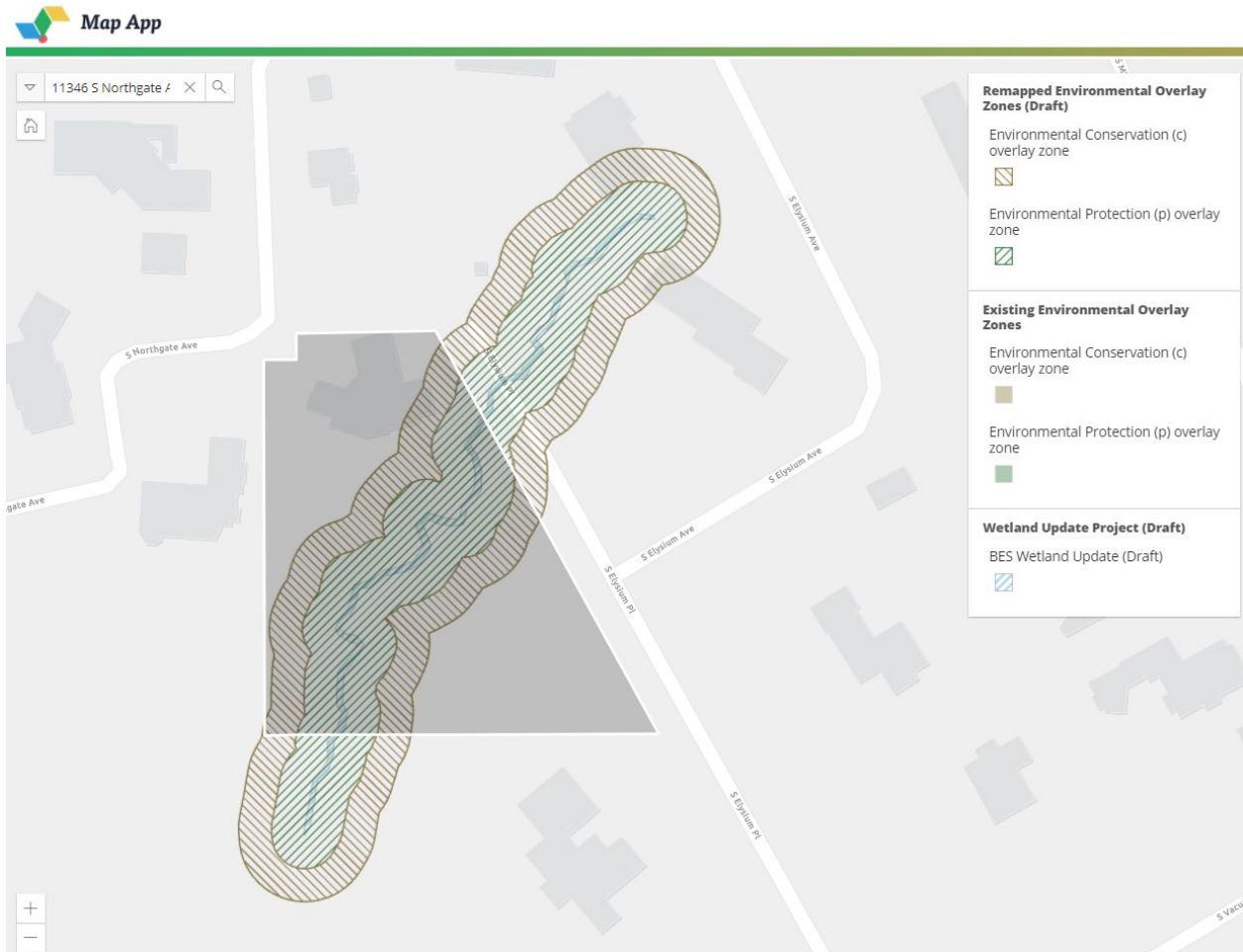
Staff Response: The difference between ezone mapping in the northern portion of the park versus the southern is due to the fact that the two portions of the park are located in different resource sites, in which different resource protection policies were adopted. The resources, themselves, in the northern portion of the park are virtually indistinguishable from the resources in the southern portion of the park; both areas contain large swaths of mid-seral stage Western Hemlock Forest vegetation on moderate to steep slopes that are crossed by a series of headwater streams.

Although many Portland parks that are managed as natural areas do have a policy of applying a 'p' zone to the entire park, the policy that applies to the southern portion of Marquam Park is different. It applies 'p' zone to streams, wetlands and riparian areas and 'c' zone to forests. Note that the ezone maps that are proposed in the Ezone Map Correction Project would result in an increase in the overall 'p' zone coverage in the park. The testifiers are requesting that the 'p' zone coverage be expanded further in the park, beyond what is currently proposed. A change from 'c' to 'p' zone would require a Measure 56 notice be sent to the owners of any lots on which significant changes to draft ezones are proposed before the next hearing so those property owners have a chance to testify on the updated proposal.

For parks that are managed as natural areas, such as the Marquam Nature Park, there is little functional difference between the application of a 'c' zone or a 'p' zone to the park. Operations in the park largely consist of vegetation management and maintenance of existing trail systems. Most vegetation management activities that are carried out by park staff and volunteers would be allowed by exemption in either the 'c' or the 'p' zone, and there are exemptions that allow for the continued use and maintenance of existing disturbance areas, such as trails, provided that the area of disturbance does not increase.

The main activity that the Parks Bureau would be likely to propose in Marquam Nature Park that wouldn't be allowed by exemption is new trail building. Because most public trails that the Parks Bureau builds and maintains, such as the Marquam Nature Trail, exceed the width that is allowed by standard, the Parks Bureau would be required to undergo Environmental Review for most new trail construction, regardless of whether it is in a 'c' or a 'p' zone. In some limited circumstances, the Environmental Review process could be made to be more complicated if the 'p' zone was expanded because the Parks Bureau would have to demonstrate that proposals can meet more stringent approval criteria for new disturbance areas in the 'p' zone than they would for new disturbances in the 'c' zone.

G.13 – 11346 S Northgate Avenue



Testifier: Dana Krawczuck on behalf of property owners

Property Owner: Paul Francis and Jennifer Johnson

Site Visit: Yes, 2-22-2021

Wetland Determination: Not requested. There is an Oregon Department of State Lands-concurred jurisdictional stream and wetland located downstream. The concurrence decision notes that the wetland continues upstream.

BES WIP staff visited the site on 9-9-2021. They viewed the area that is mapped as wetlands from the S Elysium right-of-way. They were able to identify features that appeared to be seeps and wetlands. If the property owners request a wetland determination, SWCA consultants can visit the site to field-verify the wetland mapping.

Description: The site is 1.61 acres (70,132 sq ft) in size, with an existing 3,460 sq ft structure. The base zone is R20 and the site is dividable into up to three lots. There is a wetland located on the site. The protection policy is to apply a 'p' zone to the wetland and land within 25 feet and a 'c'

zone to land between 25 and 50 feet of the wetland. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

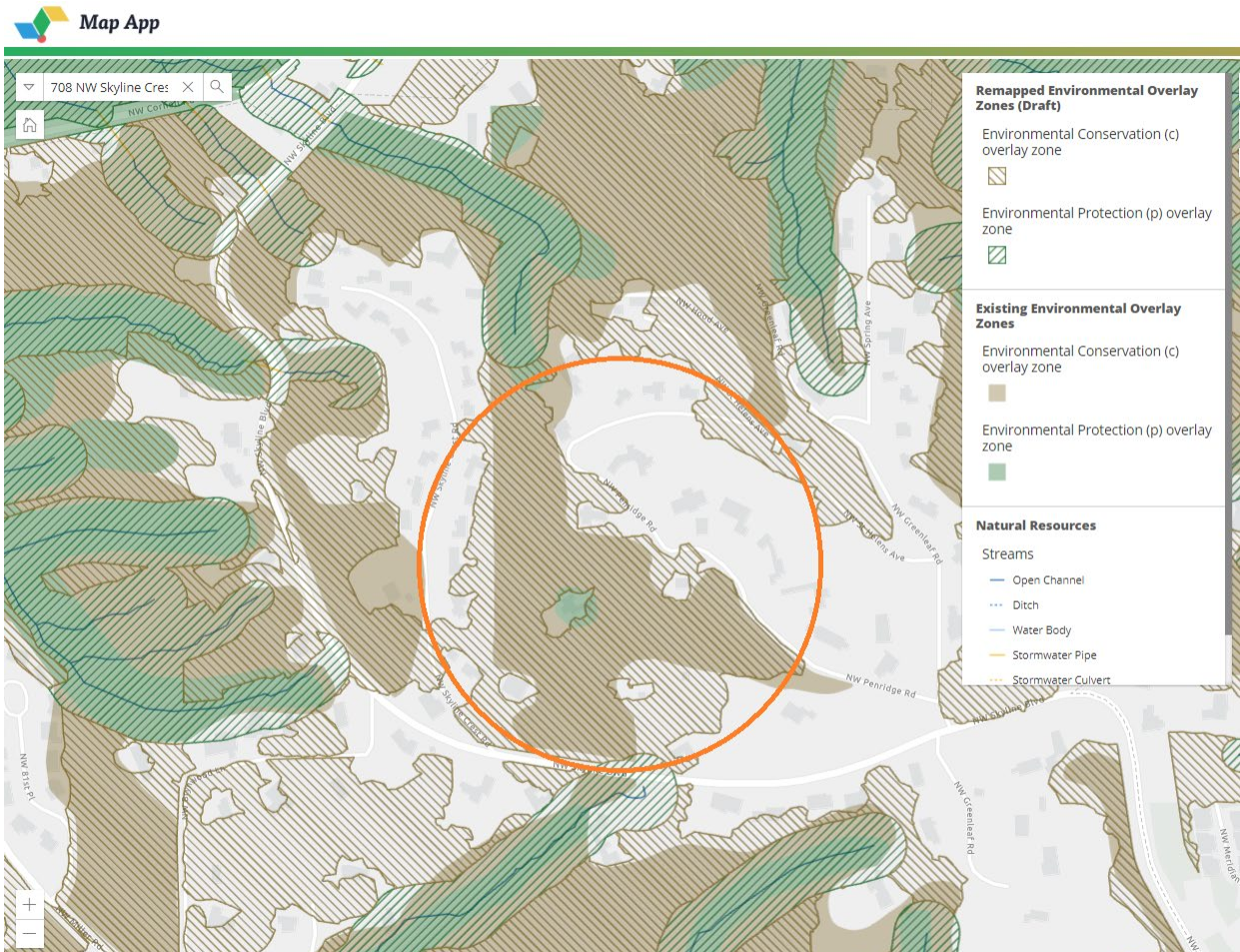
Testimony: The testifier (acting on behalf of the property owners) requests that the proposed 'c' and 'p' zone overlays be removed from this property due to lack of evidence and lack of Goal 5 basis for the designation. Testimony ID 329927

Staff Response: The submitted testimony references an older version of the Proposed Draft documents instead of the updated As Amended version dated July 2021. The updated version includes the results of the Wetland Inventory Project (WIP) wetland determinations and data that has been added to the WIP as a result of Oregon DSL concurrences of wetland studies that were performed by third parties. The updated WIP data includes a newly mapped wetland that has been included in the wetland data that has been posted on the Ezone Map App since January of 2021. A free wetland determination will be provided to the property owner in spring 2022 if the property owner asks for one and provides permission for consultants to access their site.

Staff from the BES Wetland Inventory Project reviewed the wetland mapping on the site from the S Elysium St right-of-way on 9-9-2021 and confirmed that there are probable wetlands on the site. Lacking permission to access the lot, staff did not do a full wetland determination.

The site is dividable into up to 3 lots, with the existing house remaining on one of those lots. Because of the ezones, adjustments would be needed to allow for lots to be created that wouldn't be able to meet the minimum lot size standard in the land division code that applies to the R20 base zone. The lots would need to be configured to avoid impacts to the 'p' zone, and the resource area of the ezones would need to be put into a natural resource tract that would remain under the joint ownership of the owners of the lots. The portions of the lot that are in the 'c' zone are fully developable because the entire 'c' zone on this lot is transition area. The footprints of the 2 additional buildings could extend into the transition area without restriction and still meet standards, though if any trees or native vegetation was removed, mitigation would be required.

G.14 – Cornell Mountain



Testifiers: Robin Abadia (neighbor, 708 NW Skyline Crest Road), Cassandra Dickson (neighbor, 638 NW Skyline Crest Road)

Additional Properties Impacted:

- 7306 W/ NW Penridge Road, owned by Randall S. Carlson and Barbara Carlson (have not testified)
- 7324 SW/ NW Penridge Road, owned by Kevin Dale and Genevieve Krietemeyer (have not testified)
- 7324 NW Penridge Road, owned by Lynne Osmundsen and Blake Osmundsen (have not testified)
- 7226 NW Penridge Road, owned by Charles and Karen Mauro (have not testified)
- 7260 NW Penridge Road, owned by Jason Nims and Maria Bezattis (have not testified)
- 7026 NW Pendrige Rd, owned by Leonard Carr and Hester Carr (have not testified)
- 456 NW Skyline Blvd, owned by Lauren Hirsh (has not testified)

Site Visit: Yes, 8/27/21, 6/17/21, 8/19/2020, 2/11/2020, 4/3/2019, 3/17/2019, 2/17/2019

Description: This area includes multiple lots, under the ownership of several different people. The impacted lots include a 1.17 acre (50,965 sq ft) undeveloped lot, a 0.92 acre (40,254 sq ft) undeveloped lot, a 4.56 acre (198,634 sq ft) lot with an existing 4,043 sq ft structure, a 0.54 acre (23,371 sq ft) developed lot with an existing 3,299 sq ft structure and other adjacent lots. The base zone is R20 and several of the lots are potentially dividable. There is a stream mapped to the north and forest vegetation on the site. The largest of the lots has an existing conservation easement that would preclude any further development or division of the site beyond the home that has already been built there. The protection policy is to apply a 'p' zone to the stream and land within 100 feet of the top-of-bank of the stream and a 'c' zone to forest vegetation contiguous to but more than 100 feet from the top-of-bank of streams.

Testimony: The testifiers both contend that the 'p' zone should be expanded to protect Cornell Mountain due to its unique habitat features, steep slopes, watershed benefits, and function as a wildlife corridor. Testimony ID 329930 and 329941

Staff Response: Staff agree that Cornell Mountain is a unique and important natural resource feature in Portland. However, this is a correction project and applying a 'p' zone to the entire Special Habitat Area would be a change to the protection policy and would impact the proposed zoning and future development capacity of several properties. Whether the proposal is to apply 'p' zone or 'c' zone on these lots, any proposed development or land division would be required to limit impacts to natural resources and to mitigate for the removal of trees or native vegetation.

Some Commissioners asked that staff explore how a higher level of protection could be applied to Cornell Mountain. The requested change would convert roughly 16 acres that are located in the proposed conservation zone to protection zone. One of the largest lots that would be impacted is 4.56 acres in size and is developed with a single house. While it is technically dividable according to the land division code that applies to the R20 base zone, the lot is in a conservation easement that would protect the resources on the lot and prohibit additional development, regardless of the application of ezones to the lot. But there are two vacant dividable lots and two developed dividable lots that are in the proposed 'c' zone, and which would be placed entirely within the 'p' zone if the requested change was implemented. A change from 'c' to 'p' zone would require a Measure 56 notice be sent before the next hearing so those property owners have a chance to testify on the updated proposal.

The additional maps show the draft ezones as currently proposed, and how a 'p' zone could be applied to the Special Habitat Area. Note that staff have included 'p' to 'c' zone conversions, following the methodology laid out in the As Amended Proposed Draft, to ensure that adequate space exists on the four vacant or dividable lots for additional development. Throughout the citywide project area, staff have applied similar conversions, where possible, to portions of lots that would otherwise have 70% or greater 'p' zone coverage to ensure that there is buildable space for new development or land divisions on all privately owned lots.

Staff have conducted site visits with owners of several of the lots on which changes have been requested. The owners of the lots that would be most impacted by the requested changes are not among the people who have testified.

Draft Ezones – As Currently Proposed






**THE BUREAU OF
PLANNING &
SUSTAINABILITY**

**Environmental Overlay Zone
Map Correction Project**

**Cornell Mountain
Proposed Ezones**

**NW Penridge and
NW Skyline Crest**

- Legend**
-  taxlots
 -  Draft C Zone
 -  Draft P Zone

DRAFT

August 30, 2021

This information on this map was derived from digital orthorectified data. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA. Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. For request: 503-923-6888, Relay Service: 711.



Requested Change to Ezones on Cornell Mountain – With 'p' to 'c' Conversions



Environmental Overlay Zone Map Correction Project

Cornell Mountain
Requested Change to Ezones

NW Penridge and
NW Skyline Crest

Legend

 taxlots

Proposed Ezone

 'c' zone

 'p' zone

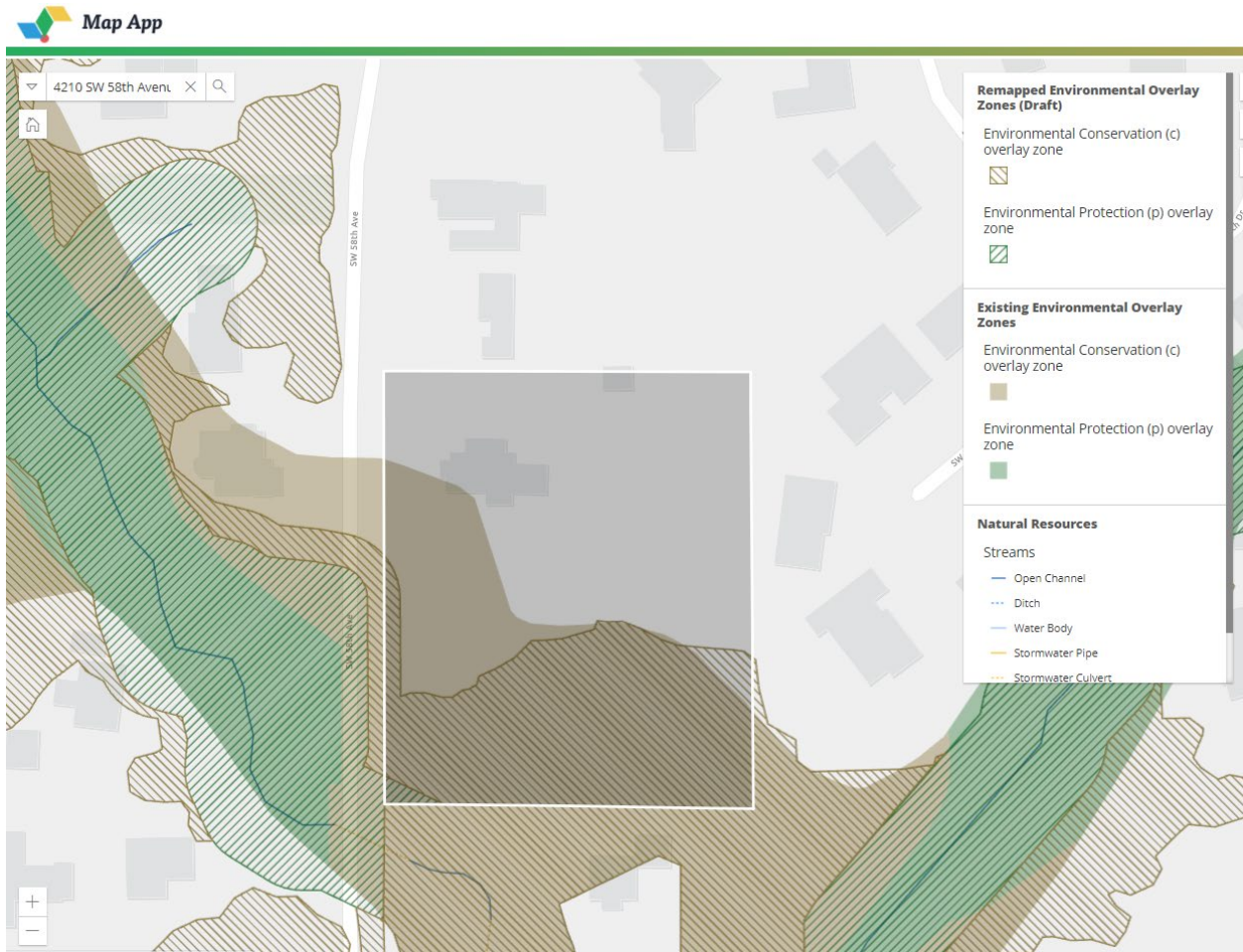
DRAFT

August 30, 2021

This information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids, City of Portland, 503-823-7200, City 11V, 503-823-6888, Relay Services: 711.



G.15 – 4210 SW 58th Avenue



Testifier: Devin Holmes

Property Owner: Devin and Christine Holmes

Site Visit: Yes, 1/16/2020, 12/3/2020

Description: The site is 2.17 acres (94,525 sq ft) in size, with an existing 2,846 sq ft structure. The base zone is R20 and the site is potentially dividable. This site has forest canopy, woodland canopy, and herbaceous vegetation contiguous to the stream to the southwest. The protection policy is to apply a 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams extending to 200 feet from top of bank, to apply protection zone to streams and land within 50 feet of the top of bank of streams, and to apply a protection zone to wetlands and land within 25 feet of wetlands, and a conservation zone to land between 25 and 50 feet of wetlands.

Testimony: The property owner states that he supports the Environmental Overlay Zone Map Correction project overall. However, he is concerned that the ezone determinations are not as

objective or formulaic as explained. He is also disputing the current proposed mapping on his lot. Testimony ID 329931

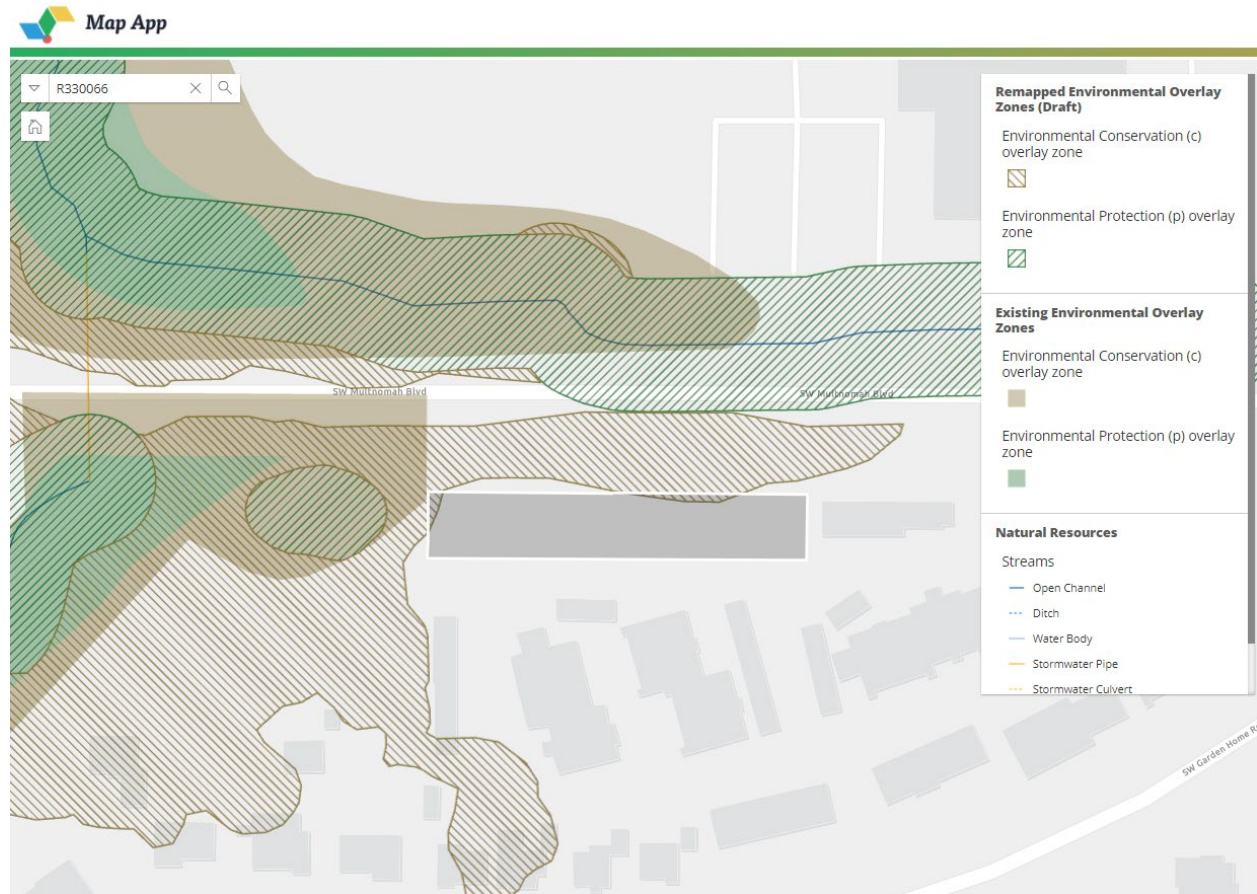
Staff Response: The feature definitions and mapping protocols are detailed in the Natural Resources Inventory, adopted in 2012 as factual basis for the Comprehensive Plan update, and were approved by Metro as meeting the Urban Growth Management Functional Plan, Title 13 Nature in Neighborhoods, requirements. Staff are using the feature definitions and mapping protocol to correct the maps of vegetation, streams and wetlands.

The 'c' zone on the site is based on forest canopy that is contiguous to a stream. Forests are patches of vegetation ½ acre in size or larger with at least 60% tree canopy coverage. The patch is mapped as the edge of the tree canopy. On site staff have confirmed where the forest canopy exists on the site and the 'c' zone follows that canopy.

Project staff followed up with the property owner to discuss the feature mapping on his site. The property owner had requested a third site visit to correct vegetation mapping on the site. The property owner thought that the narrow (~5 ft wide) strip of conservation zone that runs along the west lot line was being applied due to incorrectly mapped forest vegetation. Staff explained that there is no forest vegetation mapped in that location. The strip of conservation zone extends onto the property because there is a wetland that is mapped on the lot that is located across the street from his lot. The edge of the wetland is right at the edge of the street. A protection zone extends 25 feet from the edge of the wetland, and a conservation zone covers the area between 25 and 50 feet of the wetland. The location of the wetland in close proximity to his lot is the reason for the strip of conservation zone on the edge of his lot. Once this was explained to the property owner, he said that he understood, and that he no longer wished to dispute the proposed ezone mapping on his lot or to have another site visit.

Staff believe that the issues that were raised in this testimony are no longer of any concern to the property owner.

G.16 – 7933 WI/SW 40th Avenue



Testifier: Matthew Robinson on behalf of contract purchaser for this property (Gemma Family Investments LLC)

Property Owner: Frog and Toad LLC

Site Visit: No

Description: The site is 0.33 acres (14,314 sq ft) in size and is undeveloped. The base zone is RM1. There is forest canopy adjacent to and on this site that is contiguous to a stream and wetland that are located to the west. The protection policy is to apply a 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

Testimony: On behalf of the contract property purchaser, the testifier requests that the 'c' zone be removed from this site in order to provide for the most efficient use of the site for residential development. Testimony ID 329933

Staff Response: The edge of the transition area of the 'c' zone intersects with the west and north edges of this lot. This would not have any impact on the potential development of the site. If site development required the removal of trees or native vegetation in the transition area

of the 'c' zone, mitigation would be required. Other standards in 33.430 would not be applicable to the site and would impose no restrictions or limitations on site development.

Property owners may request a site visit to verify that natural resources are being mapped correctly on the site.

G.17 – Various Resource Sites

Testifiers:

Barrett Streu and Rachel Streu, owners of 3608 SW Hillside Dr
Yoann Foucher and Laurence Juthy, owners of 3616 SW Hillside Dr
Mike Kutter and Marti Kutter, owners of 3586 SW Hillside Dr
Hugh Givens and Deb Givens, owners of 3612 SW Hillside Dr
Marilyn Cover, owner of 3707 SW Sweetbriar
DrKathy Prosser and Steve Prosser, owners 3819 SW Sweetbriar Dr
Kevin Pendergast, owner of 3835 SW Sweetbriar Dr
Dave Fitzpatrick, owner of 6423 SE 74th Ave
Eugene Yeboah, 2944 SE Tibbetts St
Sarah Dandurand and Dwayne Thomas, owners of 7321 SE Ellis St
Prashant Kakad, 2200 SE Ivon St
Lisa Haggerty, owner of 22695 SW Eno Pl, Tualatin OR
Tiffany Rohani and Reyaz Rohani, owners of 10425 SW 43rd Ave
Lynne Chao, owner of 3702 SW Sweetbriar Dr
Matt Bolt and Gail Bolt, owners of 3509 SW Council Crest Dr
Alex Cooley and Katie Cooley, owners of 3718 SW Sweetbriar Dr
Andrew Markell and Kate Markell, owners of 3921 SW Sweetbriar Dr
Chris Baier, owner of 3052 NE 66th Ave
Russ Black and Joan Black, owners of 3852 SW Greenleaf Dr
Keph Sherin, 5300 Parkview Dr, # 1031, Lake Oswego
Laurali Hudgins, 11434 NE Fremont Ct
Stephen Gerould, owner of 3307 SW Dosch Rd
Kristine Dukart-Harrington and Laurie Dukart-Harrington, owners of 260 SW Nancy Cir,
Gresham, OR
Audra Oakley, 333 NW 4th Ave, #517
Laura Swingen and Carole Bertrand, owners of 2420 NW 119th Ave
Daniela Schlechter, owner of 9933 N Syracuse Street

Craig Koon - Submitted testimony separately in which he stated that he supports this group of testifiers and that he shares their concerns.

Testimony: Two letters of group testimony were submitted by Lynne Chao. The first was dated 8/23/21 and was signed by 25 people. The second was submitted 9/10/21 and was signed by 38 people. However, there was significant overlap of signees on the two letters, with a total of 39 unique signees between the two. In addition to these 39 signees, Craig Koon submitted separate testimony in which he stated that he supports the testimony submitted by Lynne Chao. The submitted group testimony requests that the Commission consider a number of issues, not all of which are specific to features or ezone application. Only testimony that is related to feature mapping or application of ezones is included here. Please see the Testimony ID 329934 and 329970 for other comments.

Overarching feature mapping or ezone application comments:

1. Collect new computer LiDAR mapping data for Portland Metro, Metro West, Portland Hills
2. Review the Environmental Overlay Zone Maps Correction Project's written report's criteria for each resource site is correctly applied to the mapping before finalization of project
3. Cross-check that known streams, water resources and wetlands on the existing maps are found and not missed on the proposed maps
4. When missing streams are located, notify neighbors upstream and downstream so that site visits can be scheduled, and streams can be mapped continuously
5. Continue to inventory natural resources when discovered through regular field work after project's completion with City Council. Quarterly periodic review of the inventory would inform future updates and/or amendments to the mapping project
6. Apply ezones protection zoning to isolate forest patches with 60% tree canopy and 1/2 acre or more.
7. Apply protection 'p' zone to all steep slopes that are greater than 25% in all resources sites.
8. Apply consistent policy. There is not consistency in adopting "existing adopted" natural resource conservation plans and environmental reports of all affected resource areas. Policy favors some resource areas (by including reports) while redacting and/or omitting reports of other resource areas. By doing so, policy favors some resource areas natural resources over other resource areas natural resources.
9. Apply consistent policy to all significant public parks throughout all resource sites.

Site Specific Comments:

Lowell Creek FC3 (forest between Dosch Road / Dosch Court /Sweetbriar Drive): The letter expresses concern that 'p' zones are shrinking in this area along steep slopes in forested areas and requests closer review of this area.

Marquam Park (SW9 and SW10): The testifiers request consistent policy for protection of Marquam Park with 'p' zone.

River View Natural Area (SW17 and SW23): The testimony contends that full 'p' zone protection should apply for the entire River View Natural Area.

East Buttes & Terraces (EB11): The letter requests that the definition of steep slope in the EB11 resource site (40% or greater) be modified so that it is consistent with the definition of steep slopes as defined in the project written report (Volume 1 Part A), which defines steep slopes as slopes 25% or greater.

Fanno Creek (FC4 and FC7): The testimony requests that resource sites FC4 and FC7 apply 50 feet of 'p' zone to riparian areas adjacent to streams instead of 25 feet.

Fanno Creek (FC13): The testimony requests that resource sites FC13 apply 50 feet of 'p' zone to areas adjacent to wetlands instead of 25 feet.

Fanno Creek (FC1-FC13): Apply greater protection to Fanno Creek FC1-FC13 with Metro Title 3.

Forest Park and Northwest District (FP1, FP2, FP6, FP8, FP11, FP12, FP14, FP16, FP21): The testimony requests that the above listed resource sites apply 50 feet of 'p' zone to riparian areas adjacent to streams instead of 25 feet, especially due to the steep slopes prominent in these areas.

Terwilliger Parkway (SW10): Include Terwilliger Parkway as a significant park in SW10's written criteria due to Terwilliger Parkway's recent elevated status.

Staff Response: The Ezone Map Correction Project is using the best available science and technology to correct the maps of features (streams, steep slopes, etc.) and apply the existing protection policies to those features. Staff have thoroughly reviewed all resources site existing protection policies and resulting proposed 'p' and 'c' zone applications.

Going forward, the citywide Natural Resources Inventory (NRI) is updated continuously. For example, any time there is a state-concurred wetland delineation report, the NRI is updated to reflect that information. When new LiDAR is available from Metro, the slope maps will be updated. However, this does not automatically change the ezone maps. The location of the ezones can be change through a Type II land use review (as described in the cover memo, item E). The city could consider periodic ezone corrections, through the quasi-judicial process, that would bring the ezones in alignment with the most current feature mapping. PSC could recommend that City Council explore this option and what staffing would be needed.

Because this is a correction project, staff have not proposed to apply ezones to isolated forest patches, unless there are existing policies (e.g., forests along Terwilliger Blvd), nor have staff proposed to increase the level of protections for steep slopes. Trees in isolated forest patches are addressed under Title 11 and steep slopes are address by the landslide hazards map. In some resource sites, ezones are also applied to steep slopes, e.g., Rocky Butte.

The testifiers referred to the redacting of reports. Project staff believe that this is a misunderstanding of the Ezone Project proposals. The proposals include repealing and replacing several natural resource protection plans that were adopted in compliance with State Land Use Planning Goal 5. The plans that would be repealed and replaced are currently listed in Chapter 33.430 of the Portland Zoning Code. If these plans are replaced by the Ezone Project, it will no

longer be necessary to list them in 33.430, thus they were crossed out in the proposed code changes. There are other plans that are listed in 33.430 that are not being removed. This is because they contain resource sites that are not in the Ezone Project area. The plans that apply to Johnson Creek and the Northwest Hills include several resource sites that are primarily industrial in nature. These resources sites were excluded from the Ezone Project area, and the portions of the documents that pertain to the industrial areas will remain in effect. But new versions of the documents will be adopted that will exclude other resource sites that are being repealed and replaced. Similarly, the plans that apply to resource sites in the Columbia Corridor area were not included in the Ezone Project, and the plans that pertain to them will not be repealed and replaced by the Ezone Project proposals.

The testifiers requested that 'p' zones be applied to all parks. The policy decisions that apply to many parks that are maintained as natural areas are to apply 'p' zones to all of the resources in the park, there are other parks that had different policy decisions. The Ezone Project is intended to just be a map correction project, and the proposals are not intended to change existing policy.

Lowell Creek FC3 (forest between Dosch Road / Dosch Court /Sweetbriar Drive): The 'p' zone is being applied to the corrected feature mapping. There are both areas of increase and decrease to 'p' zone coverage based on where streams area located. The width of *existing* 'p' zones fluctuates throughout resource site FC3. On average, the *existing* 'p' zone covers the area that is within 50 feet of streams, but in various locations the width grows and shrinks in a seemingly arbitrary fashion. The mapping protocols that are employed in the Ezone Project are intended to apply clear, consistent and understandable mapping rules that are applied to specific resources in a way that adheres to the existing resource protection policy as much as possible. In some cases, the switch from the more arbitrary mapping decisions that were made in previous natural resource protection plans to the application of standardized mapping rules will result in increases or decreases in the area that is covered by the ezones, but the overall protection policy is retained.

Marquam Park (SW9 and SW10): See response in Attachment G.12

River View Natural Area (SW17 and SW23): A consistent policy is being applied to Riverview Natural area. Within the natural area itself the 'p' zones are expanding slightly to more accurately follow streams, wetlands and slopes; 'c' zones are applied to contiguous forest canopy. The mapping protocol that is proposed by the Ezone Map Correction Project is consistent with existing policy that applies to Resource Site SW17. Expansion of the 'p' zone to cover the entire forested area would be significantly different than adopted policy.

East Buttes & Terraces (EB11): The GIS model that produces the ezones is applying a 'p' zone to forested steep slopes >25% as is requested in the testimony. The document mapping methodology is in error and staff will fix it to match the GIS model

Fanno Creek (FC4 and FC7): The existing protection policy for FC4 and FC7 is to require development to be setback 25 feet from streams and wetlands, which is effectively a 'p' zone, and to require that trees and native vegetation be maintained within 50 feet of streams and wetlands, except within approved disturbance areas (i.e., yards). The application of a 'p' zone to streams plus land within 25 feet and the application of 'c' zone to land between 25 and 50 feet of streams, matches the existing protection policies.

The PSC recently voted to apply a consistent wetland protections of 'p' zone on wetlands and land within 25 feet and 'c' zone on land between 25 and 50 feet of wetlands in resource sites that didn't previously have wetland protection policies. The mapping protocols that apply in these resource sites are consistent with this decision.

Fanno Creek (FC13): PSC recently approved the new wetland policy to apply a 'p' zone to wetlands and land within 25 feet and a 'c' zone to land between 25 and 50 feet of wetlands. This new policy would apply to resource site that have no existing protection policy for wetlands, including FC13.

Fanno Creek (FC1-FC13): The testimony included a request to apply a wider area of protection to streams and wetland in these resource sites. The request would not be consistent with adopted policy and it would cause a significant increase in the amount of protection zone that is mapped on a large number of private lots. Forest Park and Northwest District (FP1, FP2, FP6, FP8, FP11, FP12, FP14, FP16, FP21): This correction project is using the existing protection policies adopted for each resources site. Some resource sites have a lower level of protection for streams; however, there is always 50 feet of combined 'c'/'p' zone around all streams throughout the city. Changing the policy to apply 50 feet of 'p' zone around all streams would be a change to existing policies.

In all of these resource sites, a 'p' zone is applied to all of the resources that are located within Forest Park, consistent with existing policy. However, on privately-owned lots outside of Forest Park, 'p' zones are limited to streams and wetlands and land within 25 feet of streams or wetlands. Although this is less protection than within public parks, it is consistent with current policy because the standards require new disturbance areas to be set back from streams and wetlands .

Note – If the PSC would like to consider treating all streams consistently and applying a 'p' zone to land within 50 feet in all resource sites, this will require a new thorough review to determine if this would result in additional sites becoming undividable or unbuildable and therefore staff would need to apply the 'p' to 'c' zone conversion. Staff continue to recommend this project remain a *correction* project and allow future area plans to consider increases to the protections for streams and steep slopes.

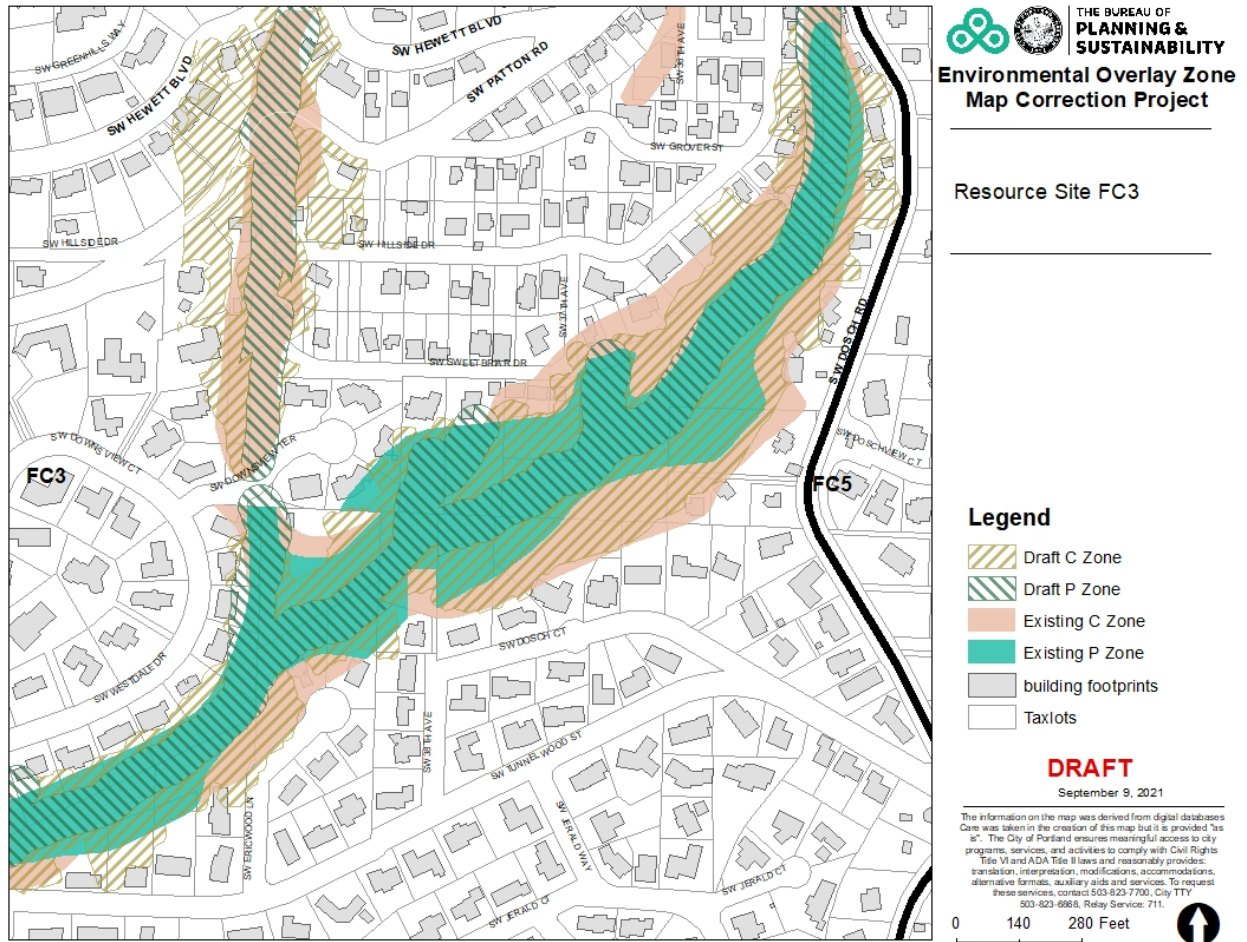
Note that any of the requested changes from 'c' to 'p' zone would have significant impacts on a number of sites. If these changes were implemented in the ezone mapping protocols, it would

require a Measure 56 notice to be sent to each affected property before the next hearing to allow those property owners to have a chance to testify on the updated proposal.

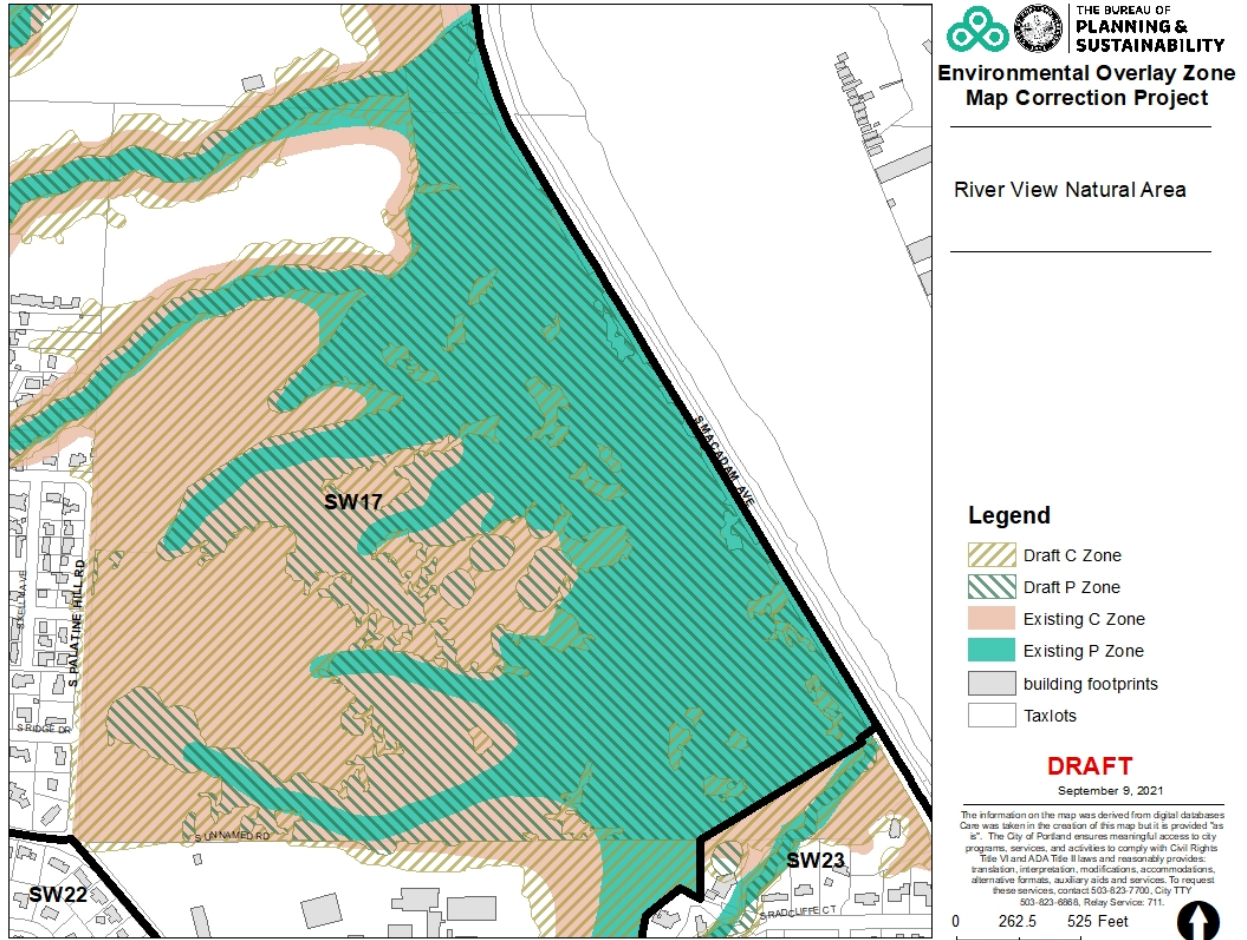
Terwilliger Parkway (SW10): See G.31

Additional Maps:

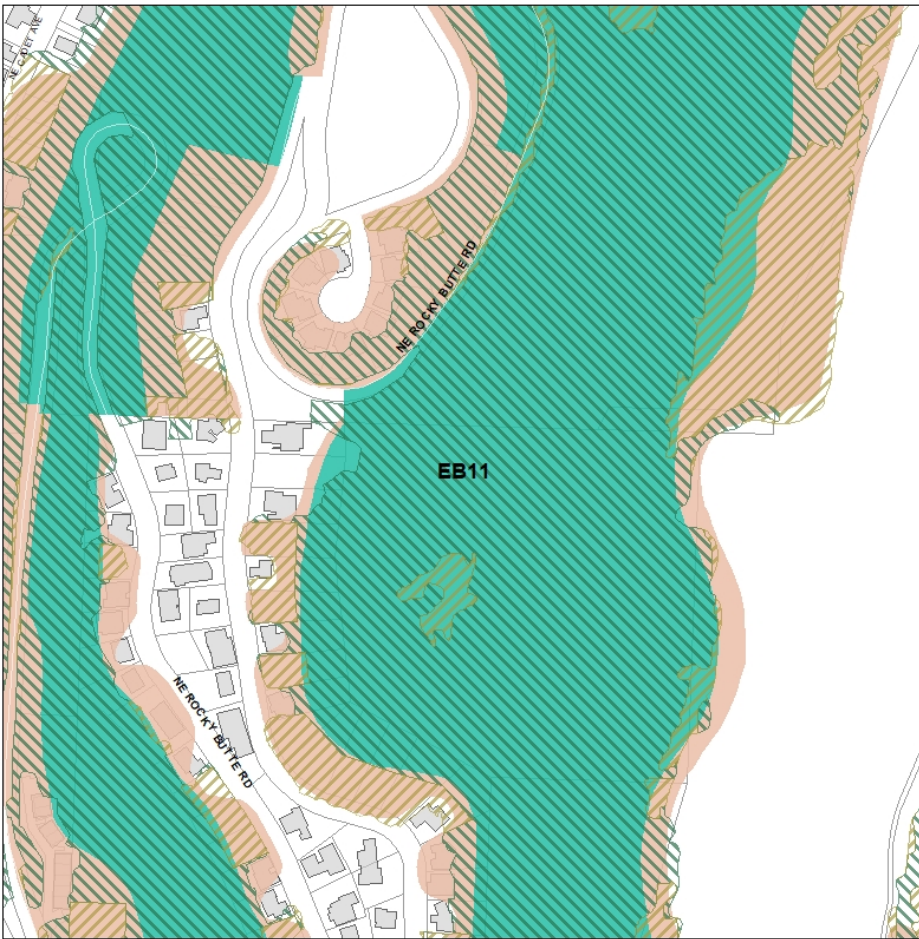
Proposed Ezones Overlayed with Existing Ezones in Resource Site FC3



Proposed Ezones Overlayed with Existing Ezones in Riverview Natural Area









Proposed Ezones Overlayed with Existing Ezones in Resource Site EB11




**THE BUREAU OF
PLANNING &
SUSTAINABILITY**
**Environmental Overlay Zone
Map Correction Project**

Resource Site EB11

Legend

-  Draft C Zone
-  Draft P Zone
-  Existing C Zone
-  Existing P Zone
-  building footprints
-  Taxlots

DRAFT

September 9, 2021

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY: 503-823-6868, Relay Service: 711.

0 135 270 Feet



Proposed Ezones Overlayed with Existing Ezones in Resource Site FC7




**THE BUREAU OF
PLANNING &
SUSTAINABILITY**
**Environmental Overlay Zone
Map Correction Project**

Resource Site FC7

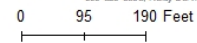
Legend

-  Wetlands
-  Draft C Zone
-  Draft P Zone
-  Existing C Zone
-  Existing P Zone
-  building footprints
-  Taxlots

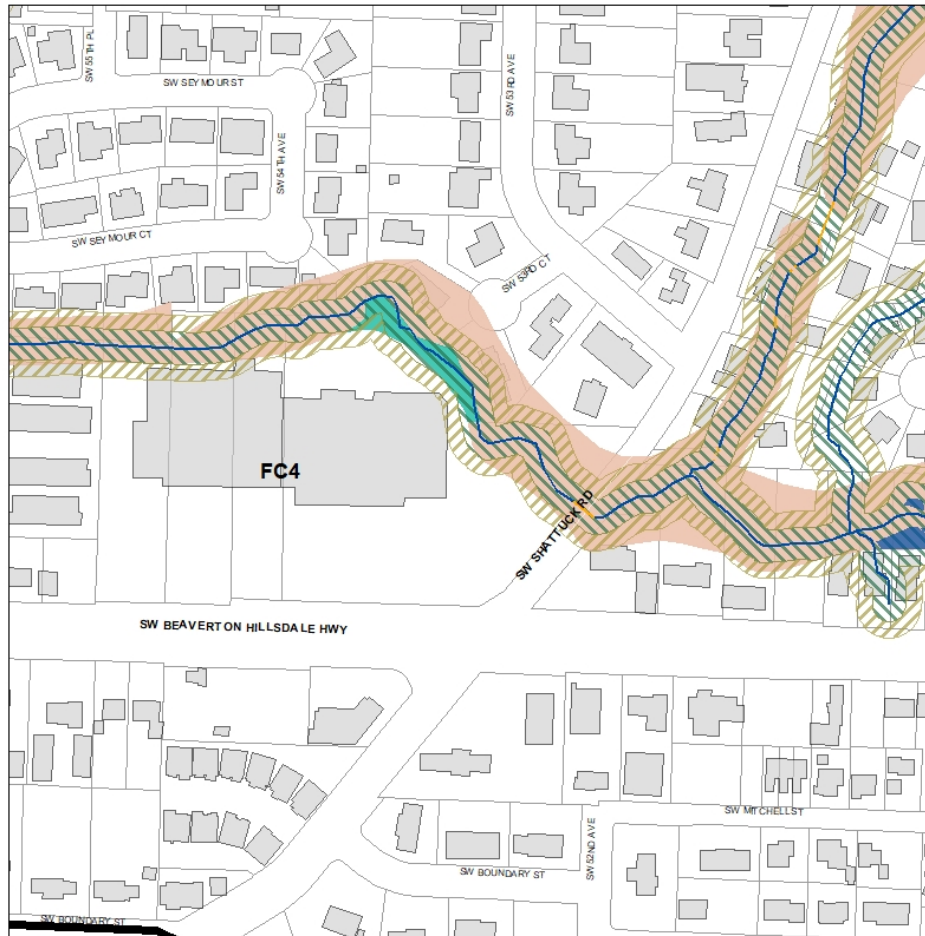
DRAFT

September 9, 2021

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY: 503-823-6888, Relay Service: 711.



Proposed Ezones Overlayed with Existing Ezones in Resource Site FC4




**THE BUREAU OF
PLANNING &
SUSTAINABILITY**
**Environmental Overlay Zone
Map Correction Project**

Resource Site FC4

Legend

-  Wetlands
-  Draft C Zone
-  Draft P Zone
-  Existing C Zone
-  Existing P Zone
-  building footprints
-  Taxlots

DRAFT

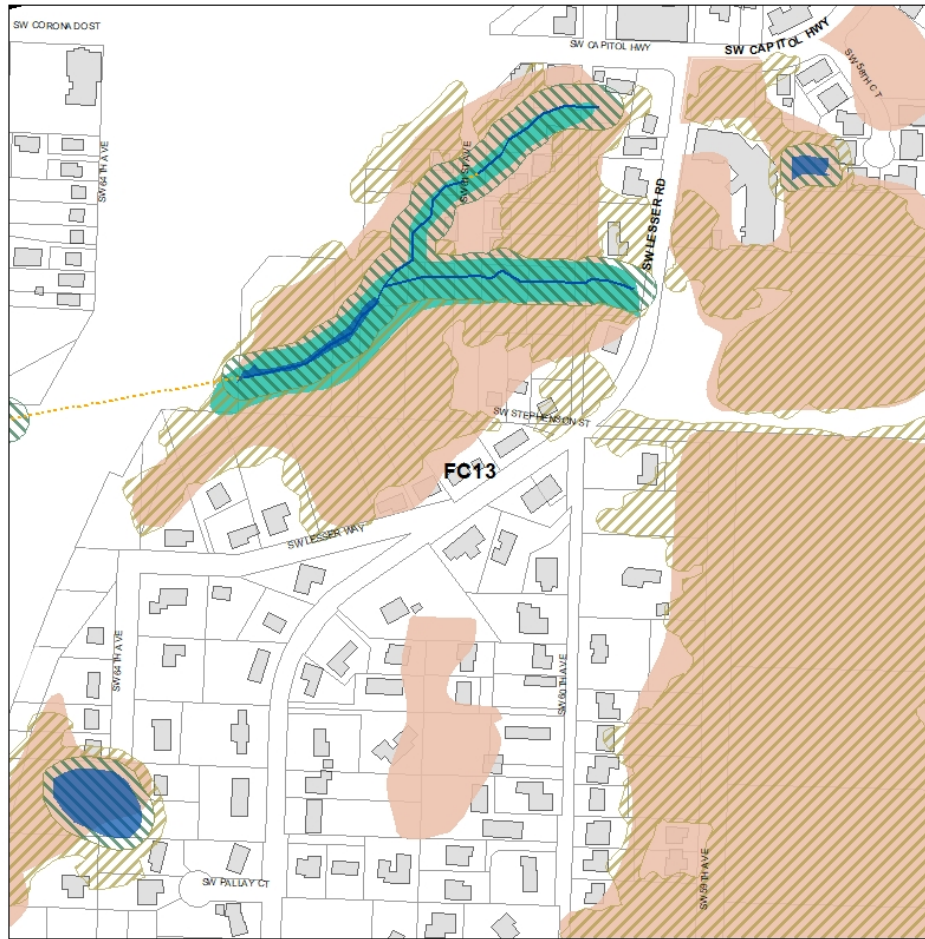
September 9, 2021

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6888, Relay Service: 711.

0 95 190 Feet



Proposed Ezones Overlayed with Existing Ezones in Resource Site FC13




**THE BUREAU OF
PLANNING &
SUSTAINABILITY**
**Environmental Overlay Zone
Map Correction Project**

Resource Site FC13

Legend

-  Wetlands
-  Draft C Zone
-  Draft P Zone
-  Existing C Zone
-  Existing P Zone
-  building footprints
-  Taxlots

DRAFT

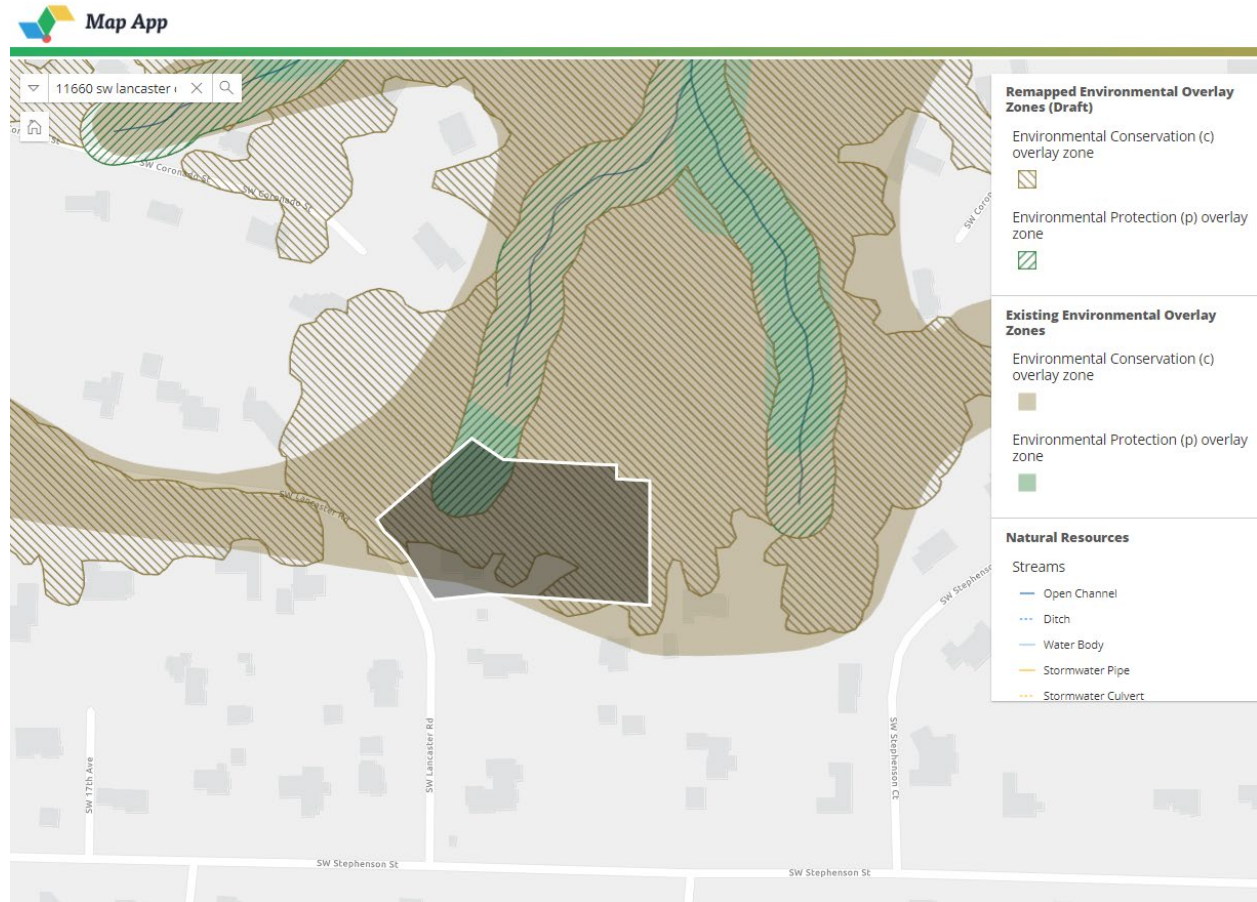
September 9, 2021

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.

0 137.5 275 Feet



G.18 – 11660 SW Lancaster Road



Testifier: Douglas W Kinnaird

Property Owner: Anne Jaqua Trust

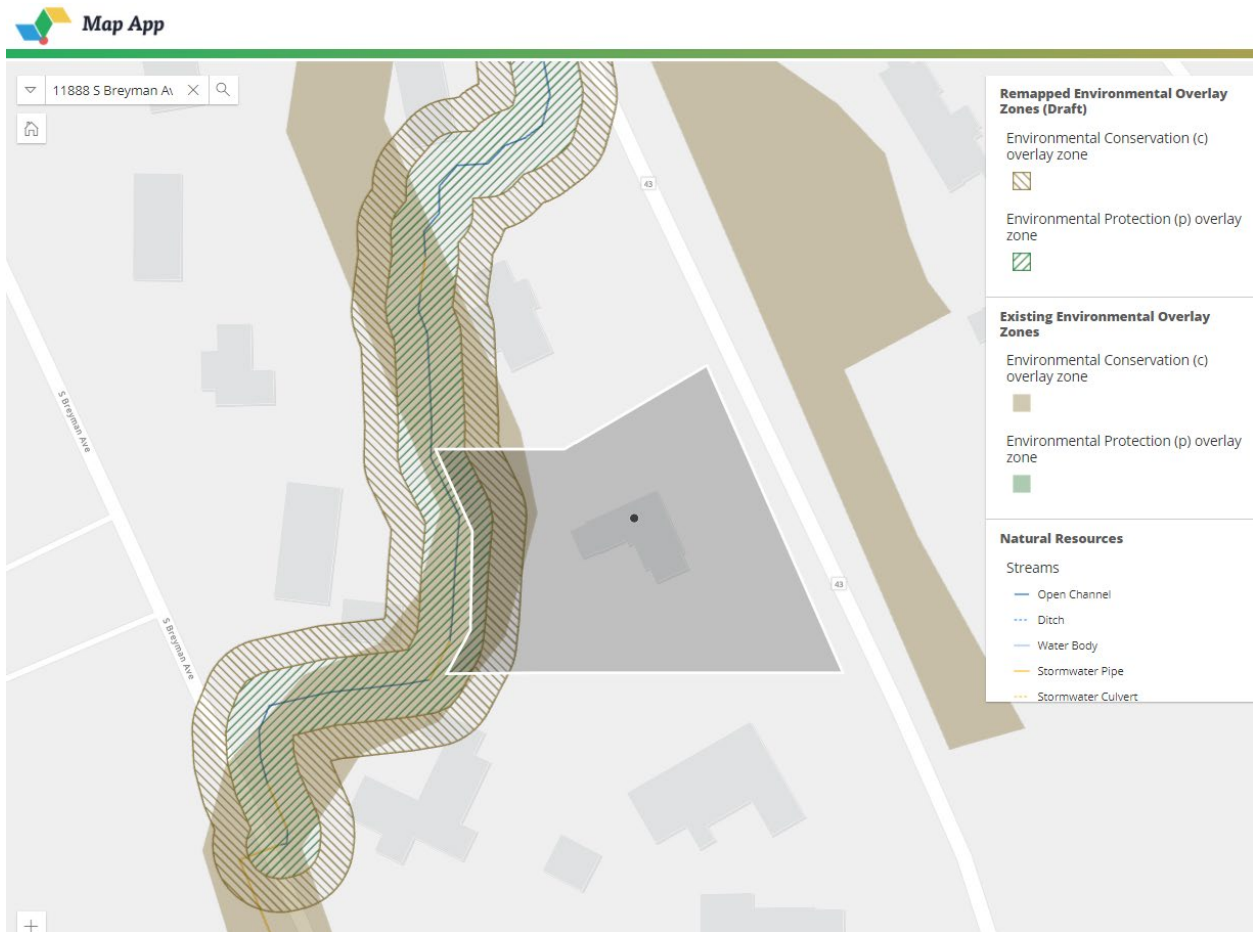
Site Visit: Yes, staff visited the site on 8/27/21.

Description: The site is 1.69 acres (73,616 sq ft) in size with an existing 4,890 sq ft structure. The base zone is R20 and the site is potentially dividable. There is a stream and forest vegetation located on the site. The protection policy is to apply 'p' zone to streams and land within 50 feet of the top-of-bank of streams and 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams.

Testimony: The testifier supports expansion of environmental protection in this area but also requests a minor correction to the configuration of 'c' zone at the southern edge of the property. Testimony ID 329937, 329936, and 329935

Staff Response: Staff visited the site on 8/27/21 and determined that the 'c' zone should be modified slightly to exclude trees that are separate from the forest patch. If the proposed ezones are adopted on this site, the overall ezone coverage would be reduced from its current extent under *existing* zoning.

G.19 – 11888 S Breyman Avenue



Testifier: Michael C. Robinson on behalf of the owners

Property Owner: Leslie Goss and Sam Gruener

Site Visit: Yes, staff visited the site on 2/25/2020 and confirmed presence and location of the stream. Staff have returned to the neighborhood on multiple occasions and have confirmed flow in portions of the stream that are upstream from the subject property during relatively dry parts of the year.

Description: The site is 1.06 acres (46,174 sq ft) in size with an existing 4,295 sq ft structure. The base zone is R20 and the site is potentially dividable. There is a stream and forest vegetation located on the site. The protection policy is to apply 'p' zone to streams and land within 25 feet of the top-of-bank of streams and 'c' zone to land between 25 and 50 feet of the top of bank of streams. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

Testimony: The property owner disagrees with the designation of this feature as a stream and requests that the ezones not be remapped on this property. They also question why the City of Portland doesn't conduct surveys to pinpoint the locations of streams with the greatest possible

precision. In previous testimony, the property owners also stated a concern about their ability to manage vegetation if portions of the existing 'c' zone on their lot are changed to 'p' zone. They noted that a number of trees on their lot were damaged in a recent windstorm. Testimony ID 329938

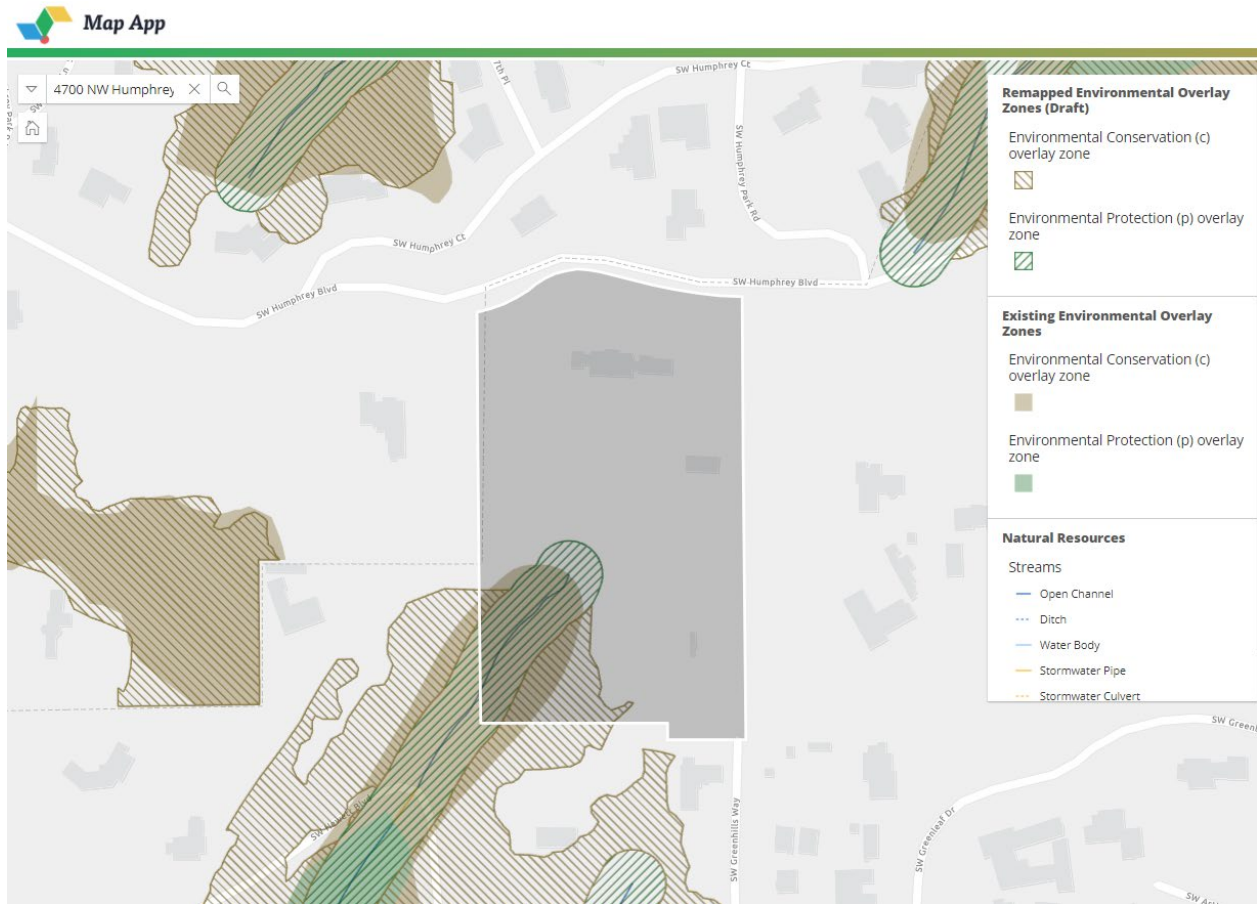
Staff Response: Staff visited the site after multiple days with no rain and observed flow in the stream. Although the stream is altered by the road, development, and pipes, it still meets the definition of stream per the Natural Resources Inventory adopted in 2012 as factual basis for the Comprehensive Plan Update. A stream is a channel, bed and bank, that carries flow for at least weeks to months during the rainy season. The property owner has argued that the channel meets the definition of roadside ditch because the channel is located along the street for some distance. A roadside ditch is a channel that is created and maintained for the purposes of managing stormwater flow from the street. A stream channel that was moved or altered by the construction of a street is not a roadside ditch.

Existing legal disturbances, such as yards or fences, can be maintained; and vegetation can be changed within the disturbance are as long as invasive species are not planted. The site could be divided, and new development could occur outside of the ezones or within the transition area if the standards of 33.430.140 are met. With the proposed changes to the ezones, the majority of the lot remains outside of the ezones.

The testimony included the question of why streams are not mapped using surveying techniques. The basis of the adopted Natural Resource Inventory stream data is LIDAR, combined with data that was obtained through field verification and modifications to reflect the location of mapped pipes, culverts and stormwater infrastructure. The City of Portland contracts with the US Army Corps of Engineers to acquire a highly spatially accurate LIDAR dataset with horizontal resolution of one foot and vertical resolution of less than one foot. Portland receives updates to LIDAR data at regular intervals. Field verification is offered by request to ensure that features that are mapped as streams meet the NRI definition and that the remote mapping is accurate.

Exemptions and standards that apply to tree and vegetation management do not differentiate between the protection and conservation overlays. If a tree meets an exemption and needs to be removed, property owners can do so, regardless of whether it is located in a 'c' or a 'p' zone. Trees can also be pruned and trimmed, as necessary, within both the 'c' and the 'p' zones, provided that property owners follow permitting requirements.

G.20 – 4700 SW Humphrey Blvd



Testifier: Jamie Howsley (on behalf of the property owner)

Property Owner: 4700 SW Humphrey LLC

Site Visit: Not requested

Description: The site is 5.97 acres (260,053 sq ft) in size with 11,172 sq ft of existing building area. The base zone is R20 and the site is potentially dividable. There is a stream, riparian area, forest canopy and herbaceous vegetation on the site. The protection policy is to apply 'p' zone to streams and land within 50 feet of the top-of-bank of streams and 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams extending to 200 feet from top of bank.

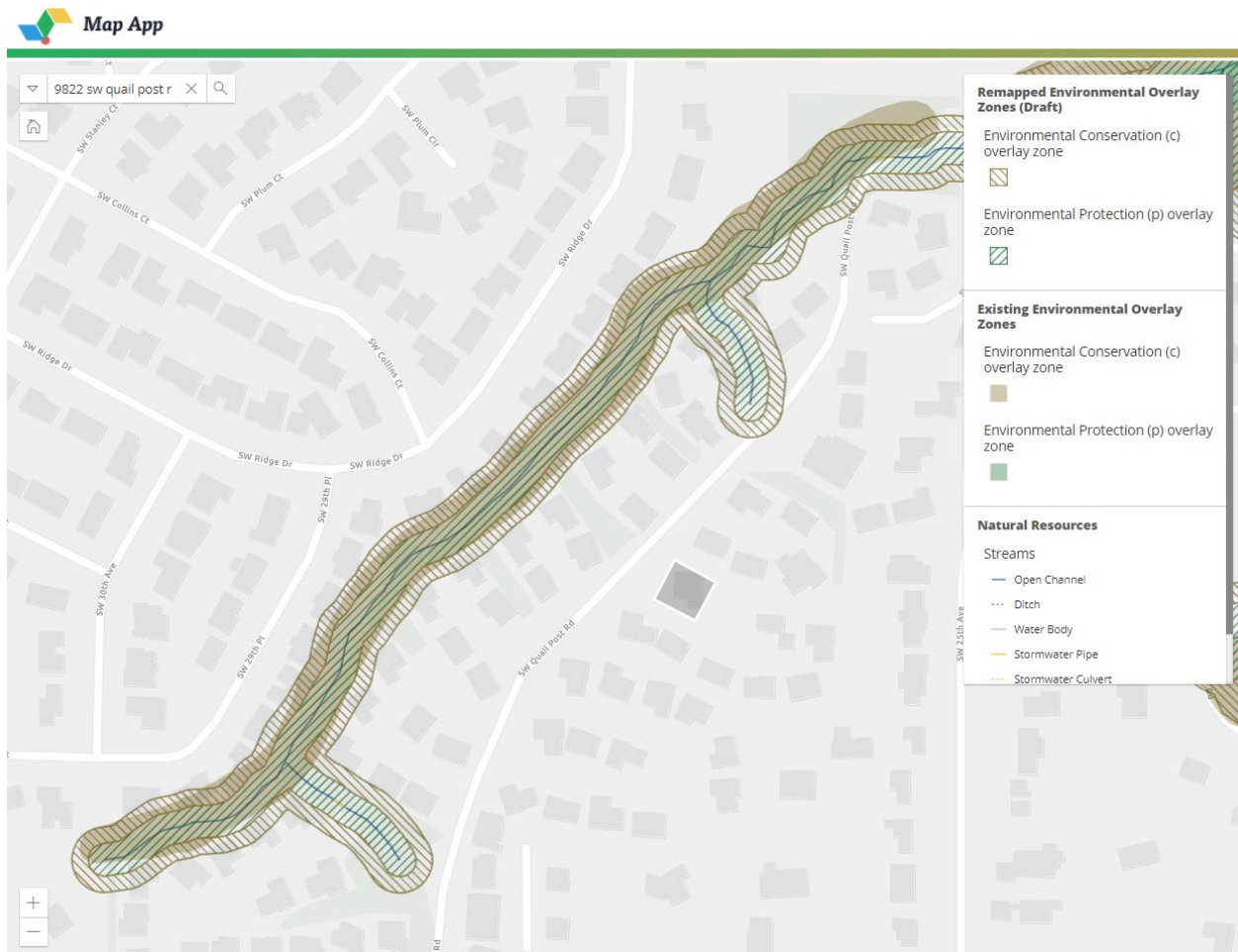
Testimony: The testimony requests that the existing 'c' zone remain in its current configuration and that the proposed 'c' zone modification and addition of 'p' zone be withdrawn. The testifier also contends that the project does not adequately balance the need for expanded housing opportunities or quantify impacts to housing. Testimony ID 329939

Staff Response: The location of the 'c' zone is based on forest canopy that is contiguous to the stream. If the forest canopy is not mapped correctly, it can be corrected based on a site visit.

The site is dividable into up to 13 lots, with the existing house remaining on one of those lots. Because of the ezones, adjustments would be needed to allow for lots to be created that wouldn't be able to meet the minimum lot size standard in the land division code that applies to the R20 base zone. The lots would need to be configured to avoid impacts to the resource area of the 'p' zone, but development in the resource area of the 'c' zone could be approved through Environmental Review. Any portion of the resource area of the ezones that would not be included in the approved disturbance area of the newly created lots would be required to be put into a natural resource tract that would remain under the joint ownership of the owners of the lots or a future HOA. The footprints of the new buildings could extend into the transition area without restriction and still meet standards, though if any trees or native vegetation was removed, mitigation would be required. With the proposed changes to the ezones, the majority of the site would remain outside of the ezones.

The Housing Capacity study was provided to PSC for the February 9, 2021 work session and can be found in [efiles](#), Attachment F. The study found that the corrections to the ezones could result in a loss of approximately 550 housing units; however, citywide there is a surplus of 201,000 housing units (source: 2035 Comprehensive Plan) and the Residential Infill Project adopted in July 2020 added another 25,000 potential housing units. So while there may be impact to housing capacity on individual lots, there will still be a surplus in housing capacity citywide after the ezones are corrected.

G.21 – Quail Park Association



Testifier: John Gibbon, member of the Quail Park Homeowner’s Association Board of Directors and Watershed representative for Markham Neighborhood Association

Property Owners: Many property owners (including the testifier)

Site Visit: Yes, staff visited the site on 5/1/19 and 3/25/21 and confirmed intermittent streams are present.

Wetland Determination: Yes, wetland determination was conducted in 2021. As a result, wetlands that had previously been mapped in the stream riparian area were removed from the wetland inventory.

Description: The Quail Park neighborhood consists of approximately 95 individually owned taxlots, all of which have a base zone of R7. There are intermittent streams, riparian areas, forest canopy and woodland canopy on this site. The protection policy is to apply a ‘p’ zone to streams and land within 25 feet of streams and wetlands and to apply a ‘c’ zone to land between 25-50 feet of streams and wetlands.

Testimony: The testifier is concerned that expansion of ezones within the Quail Park neighborhood will impose unjustified risks and costs onto him and his fellow homeowners. The testifier suggests that rigorous and ongoing outreach to impacted property owners guiding them on environmentally sound maintenance would better serve to protect a resource instead of applying environmental zoning. Testimony ID 329947, 329943, 329942

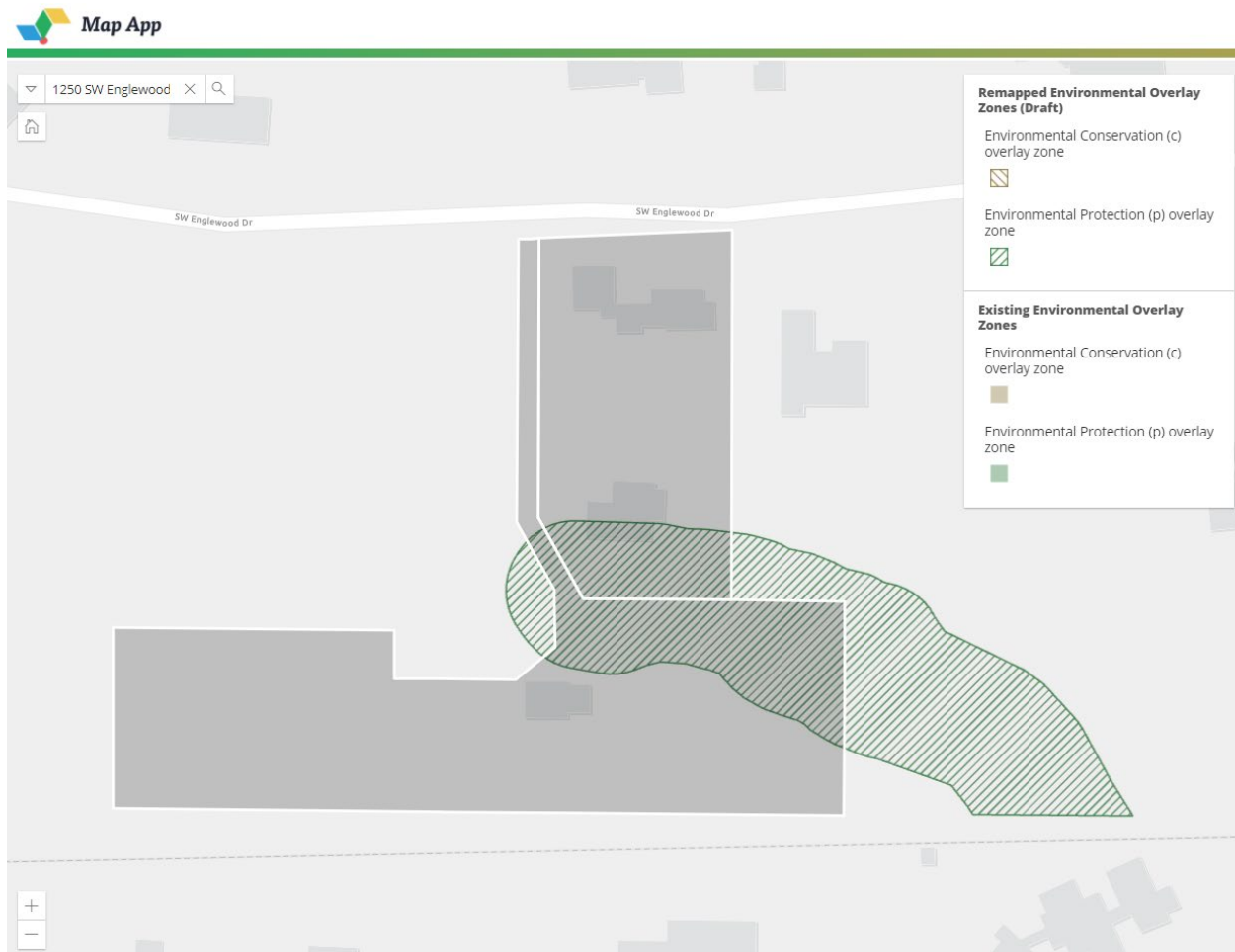
Staff Response: Staff have visited the site on multiple site visits and confirmed that the streams that are mapped on the site meet the NRI definition of seasonal or perennial streams. They are features with defined beds and banks and they appear to have consistent flow in the wet season. These streams appear to be heavily modified through past development when the subdivision was created and built out, and through modifications that were approved in an Environmental Review to mitigate erosion that was caused by the 1996 flood. But despite the impacted nature of the streams, they still provide important ecosystem functions including the drainage and movement of stormwater, and habitat and water quality.

In addition to 'Quail Creek' and the two smaller tributaries that flow into it, there are other drainage features on the site that are ephemeral in nature, and which are not mapped as streams in the NRI. If BES determined that these ephemeral features are drainageways, BES would require new development to be set back at least 15 feet.

The flow of Quail Creek continues offsite in surface channels that pass through a culvert under SW Lancaster Rd, to the east. It is an upper headwater tributary of Tryon Creek, with which it forms a confluence several hundred feet to the east of the Quail Park subdivision. Tryon Creek is a fish-bearing stream. It contains a healthy population of cutthroat trout, and it could provide habitat for salmon and steelhead when the culvert under Highway 43 is replaced. New development in the riparian area of Quail Creek should either be avoided, or its impacts should be mitigated to avoid activities that would have negative consequences for downstream ecosystems.

When project staff met with representatives of the Quail Park HOA, the major concerns that were expressed were regarding their ability to continue to maintain landscaping on the site, maintenance of a number of existing buildings that are located in close proximity to streams, concerns about managing or removing dangerous trees in the stream riparian area, and the potential replacement of an existing community pathway that runs along the stream. The removal of hazardous trees under the supervision of a certified arborist is allowed by exemption. Maintenance of existing buildings and landscaped areas is allowed by exemption. Maintenance of the existing riverside pathway would also be exempt, as long as there were no significant changes to the layout or construction materials. Changes to the pathway that go beyond maintenance or replacement would be subject to Environmental Review, but they would likely be approvable, even within the 'p' zone, as long as adequate mitigation was proposed and if the proposal could demonstrate that it would provide a public benefit (which they could, as long as the pathway is a publicly accessible trail).

G.22 - 1250 SW Englewood Drive



Testifier: Karen Rafnel

Property Owner: Karen Rafnel and Dennis Harris

Site Visit: Yes, 8/24/20

Wetland Determination: Consultants from SWCA Environmental conducted a wetland determination in 2021 and verified wetland mapping on the site.

Description: The site consists of two lots, both under the same ownership. The northern lot is 0.92 acres (40,073 sq ft) with 4,782 sq ft of existing building area. The southern lot is 1.90 acres (82,764 sq ft) with 660 sq ft of existing building area. The base zone for both is RF. There is a wetland on this site. The protection policy is to apply 'p' zone to wetlands and land within 50 feet of wetlands.

Testimony: The property owner disagrees with the western 90-100 feet of the proposed new p-zone on this site and believes that it should not be designated as a wetland. The owner contends that application of the p-zone in this area will adversely impact their ability to maintain and alter the existing gravel road, loading pad, flag road for the southern lot, and firetruck

turnaround. The property owner also contends that they have been unable to review the soil and plant data that were used to make a wetland determination on the site. Testimony ID 329945.

Staff Response: The wetland mapping on the site was field verified in accordance with the protocols that have been employed in the Wetland Inventory Project. At the request of the property owner, Bureau of Environmental Services staff provided data sheets and maps that were produced by SWCA staff as a result of the onsite wetland determination. These records were transmitted as email attachments to the property owner on July 22, 2021.

The wetland determination data sheets note the existence of wetland hydrology, redoximorphic soil conditions that indicate seasonal saturation, and hydrophytic plant dominance in two of the six study plots that were tested by SWCA staff. The results of the field sampling were used to modify and verify the wetland mapping on the site. Wetland mapping was adjusted or deleted in areas where wetlands were not confirmed to be present, and they were retained in locations where wetland mapping was field verified. The wetland appears to be the headwater of a tributary that flows into Tryon Creek.

Property owners that disagree with wetland mapping that has been field verified may conduct an independent wetland delineation on their property. If the results of a wetland delineation conflict with wetland mapping in the Natural Resource Inventory, and if the Oregon DSL concurs with the results of the delineation, the results will supersede the previous wetland determination and the wetland inventory will be modified accordingly.

All existing development is vested and categorically exempt from the code that applies to the ezones. Continued maintenance and use of the gravel driveway and other gravel vehicle areas on the site would be exempt, even though the driveway does intersect with a proposed protection zone. Similarly, existing buildings, utilities, and landscaped areas would not be impacted by the proposed ezones. All existing developed areas that were permitted and legal at the time of their construction are categorically exempt from the code that applies to the ezones. Expansion of the driveway footprint or replacement of the existing gravel driveway with a paved surface within the resource area of the 'p' zone would likely not be able to meet exemptions.

The property owner referenced a Type III land use review that approved a two-lot partition in 2004. Assuming that the land use review approval has not expired, development on the site can proceed according to the terms and conditions that were stipulated therein. The southernmost lot contains an existing agricultural building. There is ample space on this lot outside the resource area of the 'p' zone to add a house or additional building, or to add an expansion onto the existing building. The proposed ezones would not prevent the development of this lot. If the land use review approval was conditioned on the construction of new driveways, new vehicle maneuvering areas or new structures, and if it was necessary for these new structures or vehicle areas to be built in areas that intersect with the resource area of the proposed 'p' zone, their construction would likely be subject to an environmental review.








**Environmental Overlay Zone
Map Correction Project**

**Water Features - January 2021
Before Wetland Determination**

1250 SW Englewood Dr

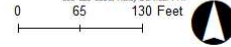
Legend

-  taxlots
-  piped stream segment
-  open stream channel
-  Wetlands
-  building footprints

DRAFT

July 21, 2021

The information on this map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY: 503-823-6968, Relay Service: 711.








**Environmental Overlay Zone
Map Correction Project**

**Water Features - July 2021
After Wetland Determination**

1250 SW Englewood Dr

Legend

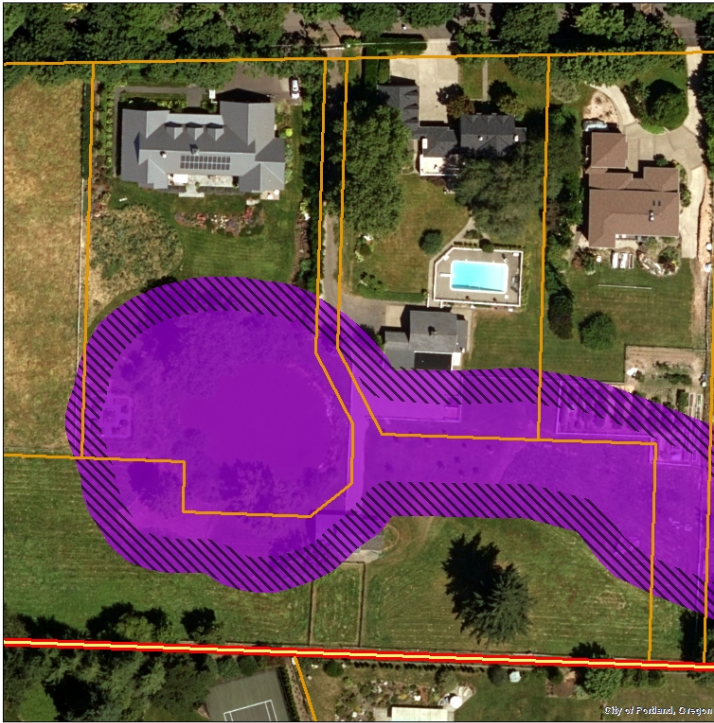
-  taxlots
-  piped stream segment
-  open stream channel
-  wetlands_pdx_wip_210713
-  building footprints

DRAFT

July 21, 2021

The information on this map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides: translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY: 503-823-6968, Relay Service: 711.





**Environmental Overlay Zone
Map Correction Project**

Draft Ezones - July 2021
Before Wetland Determination

1250 SW Englewood Dr

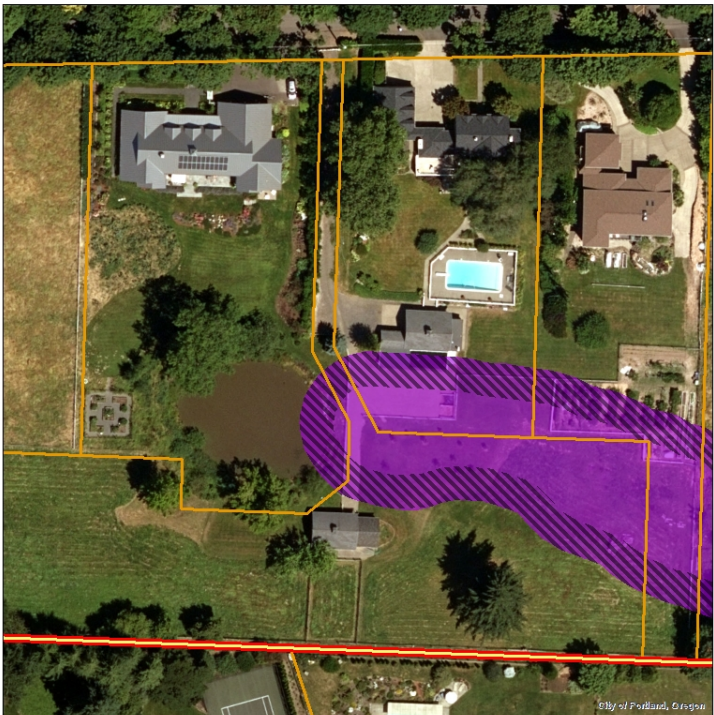
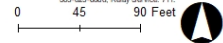
Legend

- taxlots
- Transition Area
- Draft C Zone
- Draft P Zone

DRAFT

July 22, 2021

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



**Environmental Overlay Zone
Map Correction Project**

Draft Ezones - July 2021
After Wetland Determination

1250 SW Englewood Dr

Legend

- taxlots
- Transition Area
- Draft C Zone
- Draft P Zone

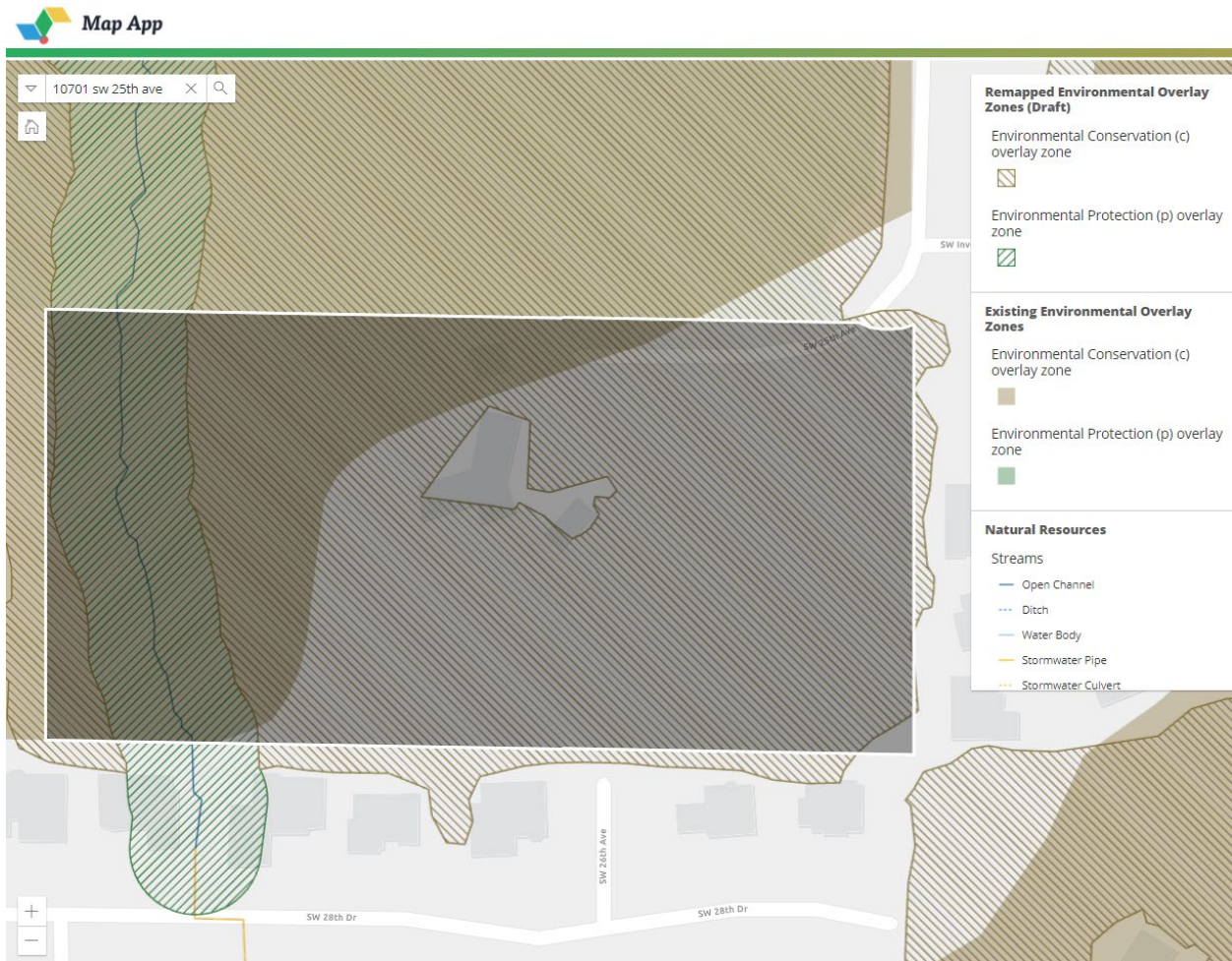
DRAFT

July 22, 2021

The information on the map was derived from digital databases. Care was taken in the creation of this map but it is provided "as is". The City of Portland ensures meaningful access to city programs, services, and activities to comply with Civil Rights Title VI and ADA Title II laws and reasonably provides translation, interpretation, modifications, accommodations, alternative formats, auxiliary aids and services. To request these services, contact 503-823-7700, City TTY 503-823-6868, Relay Service: 711.



G.23 - 10701 SW 25th Ave



Testifier: Laurie Rutenberg and Gary Schoenberg

Property Owner: Laurie Rutenberg and Gary Schoenberg

Site Visit: BPS staff have offered to conduct a site visit to review the natural resource mapping on the site. The property owners have entertained the option of a site visit multiple times, but never agreed to one. Staff have explained that a site visit could potentially result in edits to vegetation mapping on the site, which could impact how much of the site is encompassed by proposed ezones. The most likely location where vegetation edits could be made is in the area near the existing house.

Description: The site is 4.96 acres (216,058 sq ft) with approximately 3,202 sq ft of existing development. The base zone is R10, and the site is dividable. The land division standards would allow this lot to be divided into up to 22 lots at maximum density if no street is required to be created. However, the property owners have obtained preliminary approval through BDS for a 17-lot subdivision of this property, including a new public street. When public streets are required by PBOT as a condition of approval of a land division, the maximum density calculation changes, and the maximum number of lots that is allowed to be created is reduced. In order to

finalize their subdivision and develop their site according to the terms of their LUR approval, the property owners need to file for final plat by 2024 and finish the development by 2029. If they fail to meet the conditions that were laid out in their LUR approval, they would have to start over on the land division and development approval process.

There is a stream, riparian area, and forest canopy on this site. The protection policy is to apply a 'p' zone to streams and land within 50 feet of streams and a 'c' zone to forest contiguous to and more than 50 feet from streams. Under the existing zoning maps, roughly one third of the site is covered by ezones. If the proposal is adopted, the ezones will expand to cover the majority of the site. Most of the lot area that would be covered by proposed ezones would be 'c' zone, which is developable with mitigation.

Testimony: Do not expand the ezones on the site because it will impact the ability to subdivide the site in the future and will decrease property value. Don't change ezone mapping on this site because ezones would prevent the owners from building houses that would help to reduce the citywide housing shortage. Honor the existing land use decision by maintaining the ezones in their current location. Property owners requested a detailed economic analysis of the financial impacts of changing zoning on this specific property. Oral Testimony 8/24/21 PSC Hearing. Testimony ID #329969

Staff Response: The property owners have a land use review approval that would allow them to create a 17-lot subdivision on their site. But there are conditions of approval that could impact how development on the site could move forward. If the conditions are not met, there are potential impacts that could affect future development on the site. These situations are described below.

In discussions with the property owners, staff have learned that the main issue that is preventing them from moving forward with their final plat is the requirement that they remove all buildings from the site prior to final plat approval. The property owners are living in the house that is located on the site, and they are not planning to vacate their home at this time. They have had difficulty identifying developers that are interested in purchasing the site and moving forward with final plat approval and development. The property owners are concerned that they will be unable to satisfy the conditions of the final plat approval using their own financial resources within the specified timeframe.

If the draft ezones are adopted as proposed on the site, future development could proceed according to three possible scenarios:

1. **The property owners could follow the steps that are outlined in their approved land use review.** They could build a 17-lot subdivision or sell the lot to someone else, who could complete the subdivision according to the terms of their LUR approval. They would need to apply for a final plat in 2024, at the latest, and they would need to move forward with permitting and site development no later than 2029 (the timeline for their final plat approval was extended by an act of City Council that granted extra time for the

recipients of LUR decisions because of delays and hardships that were caused by Covid-19).

If they follow these steps, they will remain vested in the code and the zoning maps that were in place when they applied for their land use review. They can proceed with clearing the vegetation within the approved lots and the public street, they can install the required utilities, and they can build out the homesites. If they follow this track, no Environmental Review will be required and no mitigation for impacts to resources will be required, other than those that were stipulated in their LUR approval conditions.

2. **The property owners could obtain their final plat within the specified timeline but fail to move forward with site development by 2029.** If this happens, the land division will still be complete, and the 17 lots that were approved in the LUR decision will exist as separately developable lots. The number of the lots and the size of the lots will be set, but the *vesting* of the development approval would no longer be valid. If at that point, the property owners wanted to develop the site, they would be subject to whatever code and zoning maps were in place at the time, including the ezones. Development of the road and each of the lots would either have to meet standards or be subject to Environmental Review and/or other conditions of approval. Additional mitigation for the impacts of development would likely be required if the site was developed. Mitigation plantings could be installed in the natural resource tract. But the final plat itself would not expire if the property owners obtain approval by 2024. The number of lots, the lot sizes, and the lot layouts would be permanent, even if the LUR decision expired.
3. **If the property owners do not obtain their final plat by 2024, all aspects of the LUR approval will expire.** Any future development on the site would be subject to current zoning. Because the majority of the lot would be covered by ezones if the proposed ezone maps are adopted, any land division would likely not be able to meet the standards in the ezone code and would thus be subject to Environmental Review. Environmental Reviews are negotiated processes with uncertain outcomes. With mitigation, it is possible that the development could be approved on the site with a footprint that would be similar to what was previously approved for the 17-lot subdivision. But it is also possible that a new subdivision on the site would occupy less area than the previous subdivision did. Depending on the proposed layout, the lot sizes and the number of lots in the subdivision could be reduced to minimize the impacts to the natural resources on the site. There are additional conditions of approval that would likely come into play again as part of the new land use review, such as requirements to build public streets and utilities, that complicate site development. These requirements are separate and unrelated to ezones, and they can have a significant impact on how sites can be laid out and developed.

The property owners have requested a detailed financial analysis of the potential impacts of the proposed changes to the ezones on this specific lot. While economic considerations are one of the four key ESEE factors that are required to be weighed when determining how and if Goal 5 protections should be applied to resources, the ESEE analysis is intended to be used at a planning level scale. The ESEE decisions apply to entire resource sites, which typically consist of dozens or hundreds of lots. Project staff have not attempted to quantify the market value of individual lots, or how the resource protections could impact that value. Such a detailed, lot-by-lot analysis is beyond the scope of this project and it would have been beyond the scope of the previous resource protection plans that have previously been adopted in the City of Portland.

The ESEE analysis that is included in the project report focuses on the citywide impacts to land supply that are imposed by applying ezones to resources. An analysis of the impacts of resource protection on an individual lot would inherently involve the estimation of land values based on fluctuating real estate prices in a local market and it would require specific assumptions to be made about the possible results of a hypothetical Environmental Review, the outcomes of which would be uncertain and variable, and would at least partially be based on site-specific factors that are unrelated to ezones.

The property owner questioned the impact of the ezone project on the Portland housing supply. They noted that there is currently a shortage of *existing* housing in the City. Analysis that was prepared for the 2035 Comprehensive Plan demonstrated that the existing residential land supply could produce more than 200,000 new housing units if it was fully built out. The analysis demonstrated that there was surplus of at least 120,000 units more than what would be needed to meet 2035 growth projections. Since the adoption of the Comp Plan in 2018, there have been changes to the residential zoning code that were implemented with the adoption of the Better Housing by Design Project and the Residential Infill Project. These changes have increased the residential land surplus beyond what was projected in 2018. Project staff have conducted an analysis to estimate the impacts that the proposed ezones could have on the supply of buildable land citywide. Staff found that the change from the existing to the proposed ezones could result in an estimated reduction of approximately 550 housing units. The reduction in the number of buildable units that would result from the proposed changes to the ezones would not have a significant impact to the overall supply of buildable residential land in Portland.

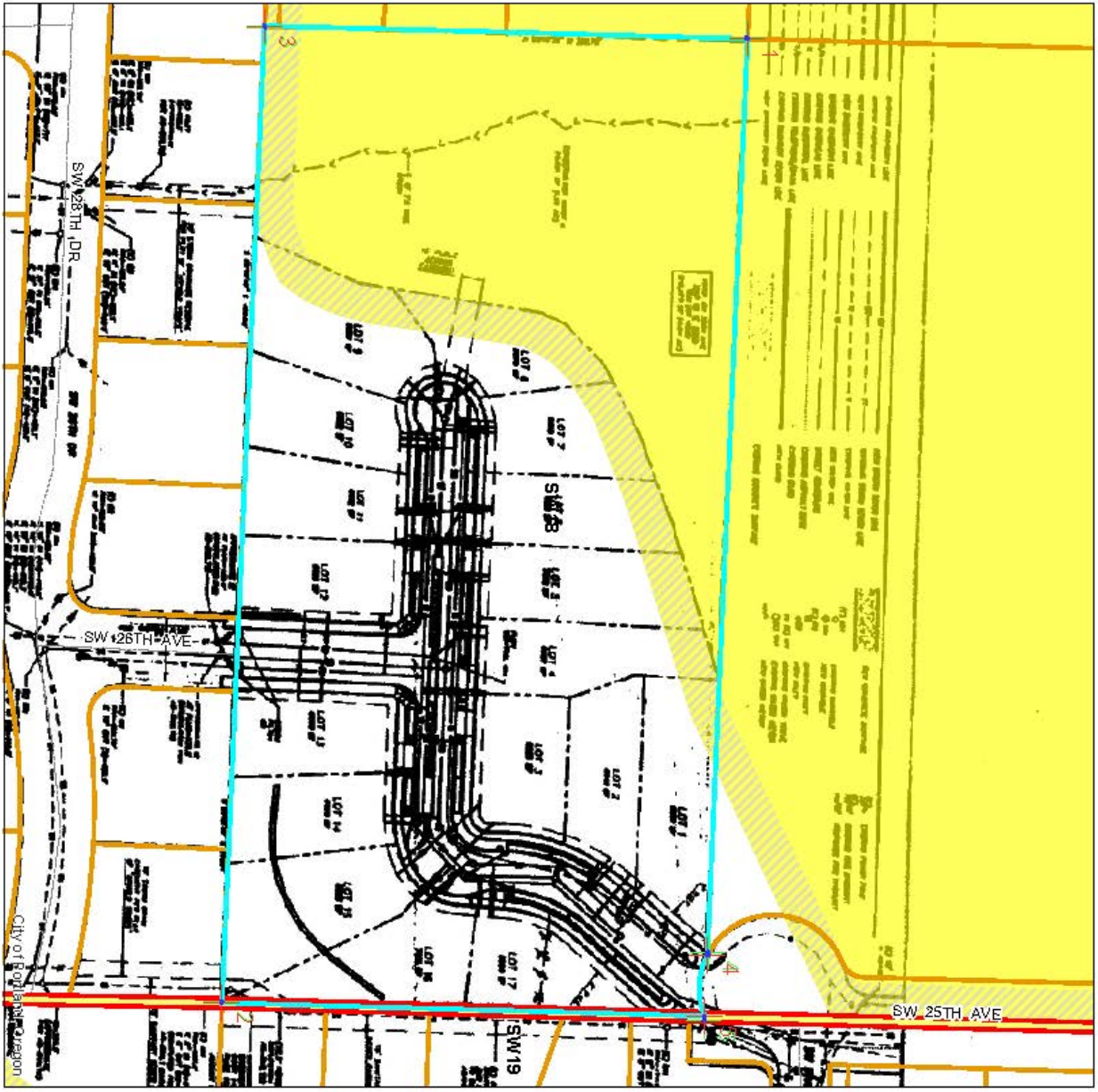
Though project staff have not attempted to calculate the potential financial impacts of ezones in individual properties, staff have tried to ensure, on a site-by-site basis, that resources are mapped correctly and that the ezones are applied consistently. Staff have used two different methodologies to do site-by-site analysis:


1. The first is to conduct site visits at the request of property owners. Staff often find that reviewing sites from the ground can reveal small errors in vegetation mapping or can call attention to breaks or gaps in the forest canopy that wouldn't otherwise be apparent in the aerial imagery. Edits to vegetation mapping can result in changes to how ezones are mapped on a particular site. Staff have offered to conduct a site visit at 10701 SW 25th to

review the resource mapping on the site, but the property owners have not yet availed themselves of the offer.

2. The other site level analysis that staff have employed is the 'p' zone to 'c' zone conversion process. Staff have systematically reviewed the proposed application of ezones to ensure that they are not being applied in a way to would prevent dividable or vacant lots from having a reasonable economic development value. On lots where the mapping protocols would cover 70% or more of the lot in 'p' zone, staff followed a standard process that is detailed in the project report to convert some lot area to 'c' zone. But in this case, the property owners are requesting a complete removal of proposed ezones from an area of a lot where natural resources have been mapped and where the mapping protocols and existing policy call for ezones.

Existing Ezones Overlaid on Preliminary Plat





Bureau of Planning and Sustainability
Innovation. Collaboration. Practical Solutions.
City of Portland, Oregon

**Environmental Overlay Zone
Map Correction Project**

Existing Ezones

LUR Site Plan

Legend

- taxlots
- Transition Area
- Existing C Zone
- Existing P Zone
- Scenic Overlay

LUR_SitePlan.jpg

Value

High : 255


Low : 0

DRAFT

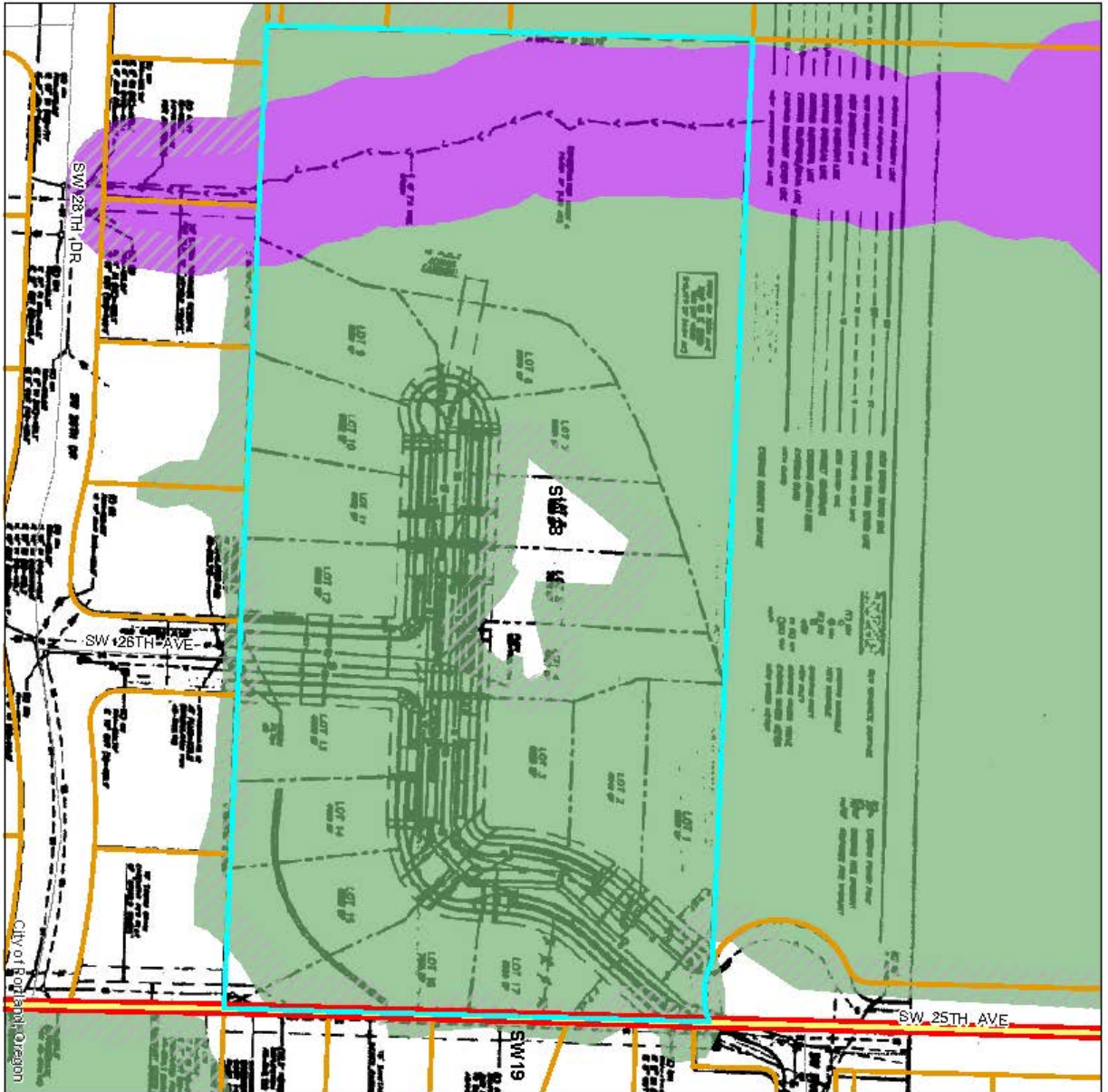
February 16, 2021

The information on the map was derived from digital databases. Care was taken in the creation of the map but the provided as is. The City of Portland does not warrant the accuracy of any programs, features, and activities. To comply with Civil Rights legislation, the various laws and reasonably possible alternatives to the various laws and activities are provided. To request alternative formats, activities and addresses, to request more information, contact the City of Portland, City of Portland, 300 NE Oregon Street, Portland, OR 97232-0880, by phone 503-971-1111.

0 60 120 Feet



Proposed Ezones Overlaid on Preliminary Plat









Bureau of Planning and Sustainability
 Innovation. Collaboration. Practical Solutions.
 City of Portland, Oregon

Environmental Overlay Zone Map Correction Project

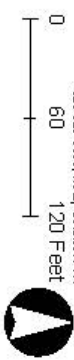
Draft Zones
LUR Site Plan

- Legend**
-  taxlots
 -  Transition Area
 -  Draft P Zone
 -  Draft C Zone
- LUR_SitePlan.jpg**
- Value**
- High : 255
 - Low : 0

DRAFT

February 16, 2021

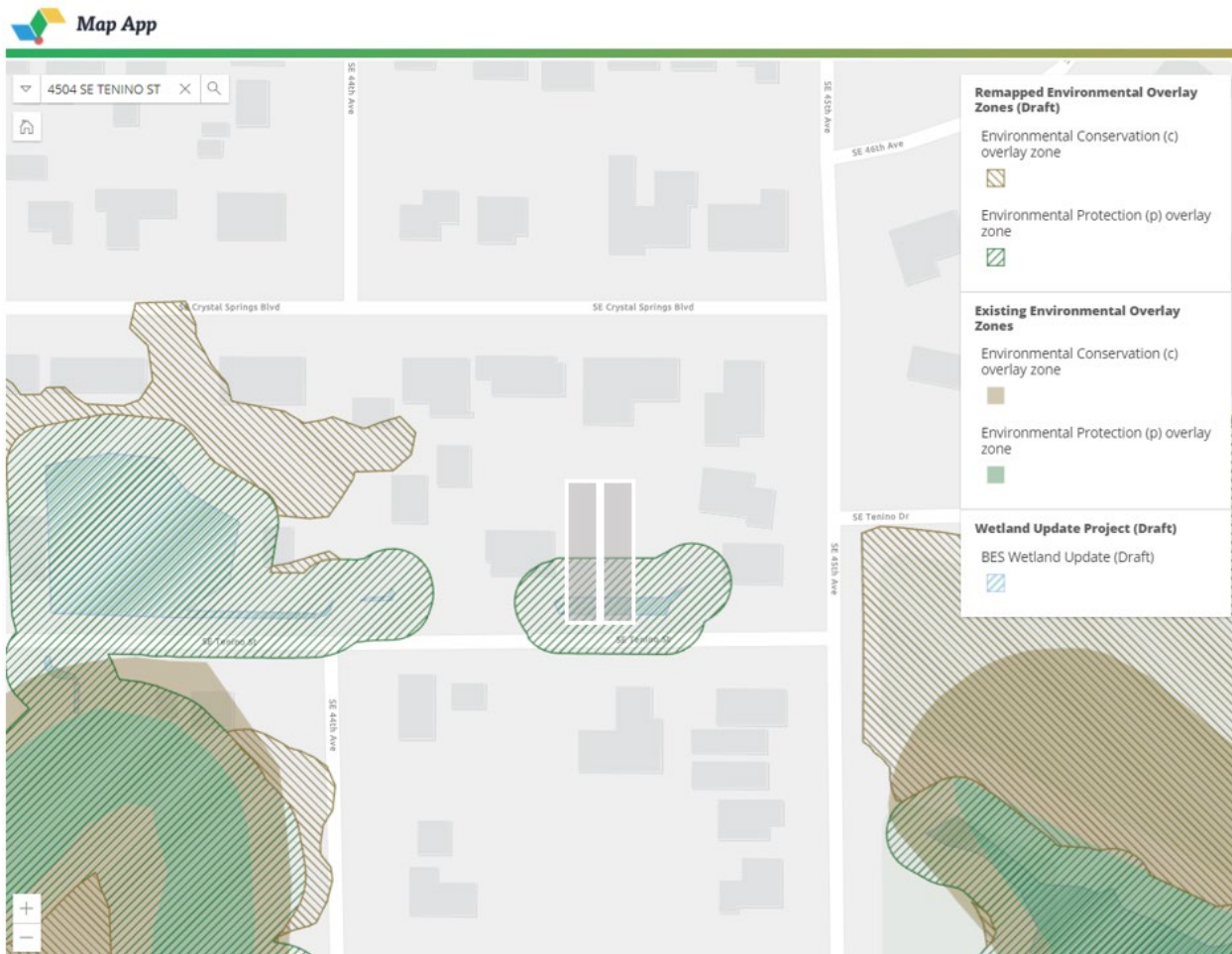
The information on this map was derived from digital databases
 that were taken in the creation of the map. The publisher, as
 a result of the City of Portland's commitment to transparency
 and public participation, is providing this information to the
 public for informational purposes only. The City of Portland
 does not warrant, represent, or guarantee the accuracy,
 completeness, or timeliness of the information. The City of
 Portland is not responsible for any errors or for any actions
 taken in reliance on the information.



Aerial View of 10701 SW 25th Ave



G.24 - 4504 SE Tenino Street



Testifier: Amanda Spencer

Property Owner: Amanda Spencer

Site Visit: 2/17/21 and 9/1/21

Wetland Determination: Yes, a wetland determination was conducted in Spring 2021. Wetland mapping on the site was confirmed.

Description: The testifier owns two adjacent lots on SE Tenino Street. Each lot is 2500 sq ft and both are vacant. The base zone is R5 and the lots are not further dividable. BES staff confirmed the presence of a wetland in the right-of-way at the front of the lots. While the wetland on the sites has been impacted by development of the road and nearby residences, there is a significant and important hydrologic connection to the wetlands and springs to the east and west of the site. The existing protection policy is to apply 'p' zone to wetlands and land within 30 feet of wetlands.

Testimony: The property owner strongly objects to the proposed change because the parcels are surrounded by existing residential development, the proposal limits the developability of the lots and therefore impacts available housing, the owner believes it is not a natural feature, and

because the change would decrease the value of the properties (which the owner purchased as an investment). Testimony ID 246845 and 329967; oral testimony 8/24/2021

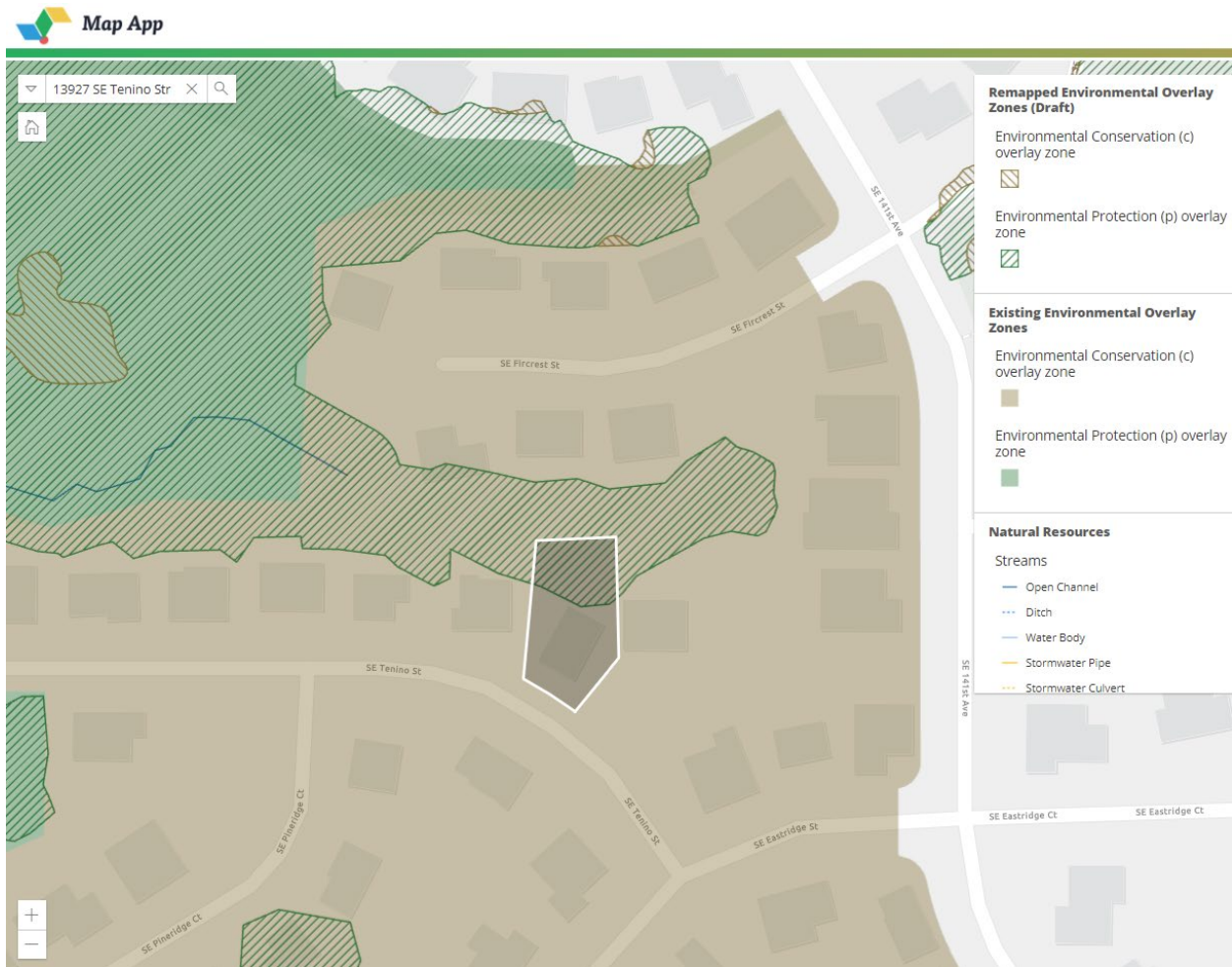
Staff Response: Project staff and wetland scientists from the Bureau of Environmental Services met with the property owner to discuss the wetland feature and the proposed ezones that would apply to it. There is an identified wetland that is located in the right of way in front of the property owner's lot. The wetland is a part of a complex of wetlands that receive a constant flow from seeps and springs that flow out of the hillside to the north of SE Tenino St in the block that is located to the west of SE 45th Ave. The wetlands are perennially saturated with water, and on multiple visits to the site, staff confirmed that there is surface water that is visibly flowing through the wetland complex, even late in the particularly dry summer of 2021. Much of the wetland and spring system has been altered by past development in the area, but the wetlands are naturally occurring and are not constructed wetlands. Though heavily impacted and disturbed, the wetlands in the complex still retain significant natural function, providing groundwater and runoff storage and recharge, filtration of pollutants and limited wildlife habitat. It is appropriate to apply the 'p' zone to these wetlands to ensure that their functions are not impaired by future development, and that if they are impacted, that the impacts are mitigated.

The wetland and the other associated wetlands that are located along SE Tenino St are connected by a series of open channels, pipes and culverts to the side channel of Johnson Creek, which is located to the southwest of the site - just over 300 feet away from 4504 SE Tenino St. The water that flows through the wetland complex serves as a critical cold-water input that discharges directly into the creek.

Studies of Johnson Creek have demonstrated that it contains multiple runs of threatened or endangered salmon and steelhead. Portions of Johnson Creek are suitable spawning grounds for these species, but the stream channel has been significantly impacted by early 20th Century WPA projects, that straightened and armored the stream channel with concrete and rocks. Agricultural, residential, commercial and industrial development along Johnson Creek has further impacted the stream and degraded the quality of habitat by removing trees and other vegetation that could shade the stream and moderate the water temperatures. While salmon and steelhead runs continue to survive in Johnson Creek, elevated water temperatures make these fish more and more reliant on cold-water inputs in the stream system that provide refugia for them as they move through increasingly inhospitable reaches of the stream.

While development in the 'p' zone is generally precluded, property owners are always allowed reasonable economic development of lots that they own. One of the few circumstances in which development may be allowed to cross a stream or a wetland in the resource area of a 'p' zone is when the property owner can demonstrate that it is the only reasonable way to access a property in which development is proposed. However, new development on private property in the resource area of the 'p' zone cannot meet standards. If the proposed 'p' zone is applied in this location and if the property owner wishes to develop these lots, they would have to seek approval through the Environmental Review process, and they would have to propose mitigation for the impacts to the wetlands.

G.25 - 13927 SE Tenino Street



Testifier: Sandra Lohstroh

Property Owner: Sandra and Bret Lohstroh

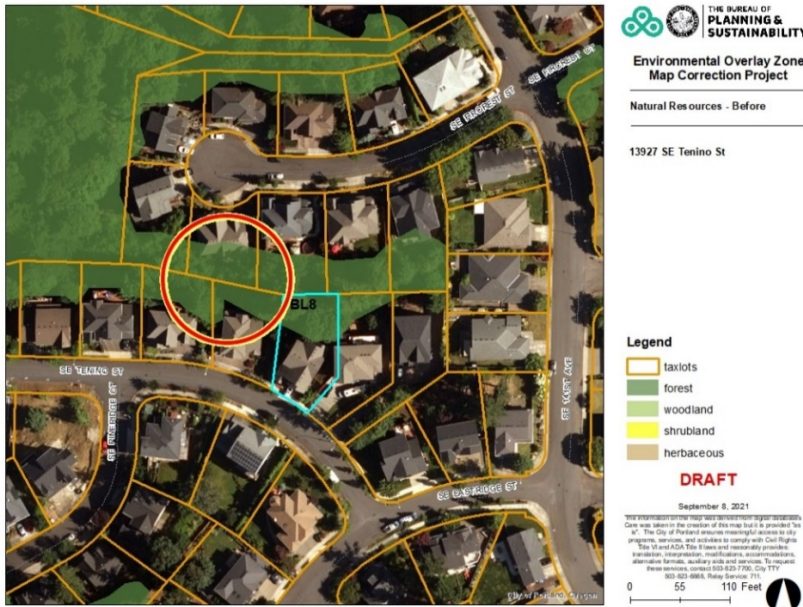
Site Visit: Not requested

Description: The lot is 0.18 acres (7,697 sq ft) with 3,370 sq ft of existing development. The base zone is R10, and the lot is not further dividable. There is forest canopy on the northern portion of this site that is contiguous to the stream to the west. The entire site is steeply sloped (25% or greater). The protection policy is to apply 'p' zone to forest vegetation on steep slopes contiguous but more than 40 feet from the top-of-bank of streams.

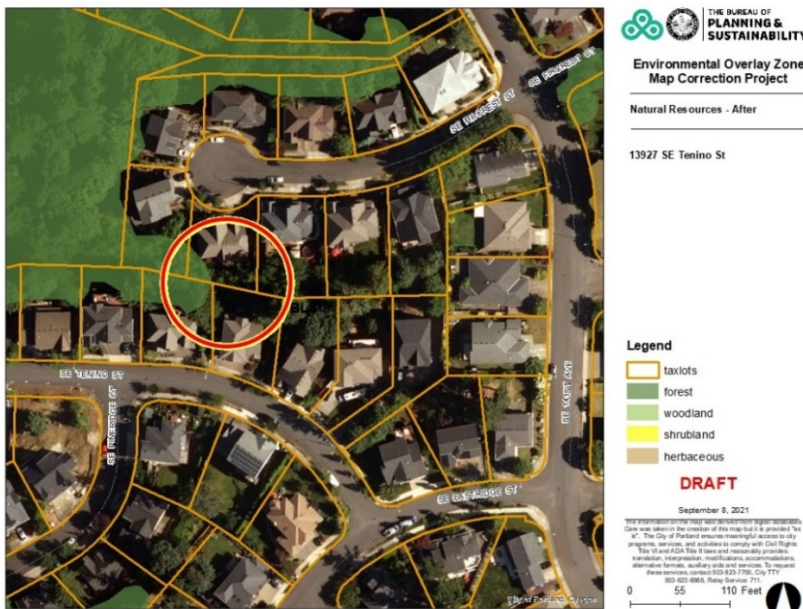
Testimony: The property owners request that the City not change their yard from 'c' to 'p' zone and contend that this change is a "land-grab," that it devalues their land, and that they would not have purchased this property had they known about the environmental zoning. Testimony ID 329955

Staff Response: Upon reviewing the natural resource mapping on this site, staff noted that there is a clear gap in the forest vegetation that is located just to the west of this lot. Noting this gap, it is clear that there are two separate patches of vegetation; a large multi-acre patch to the west of this lot, and the smaller area of vegetation that intersects with this lot. The smaller patch is less than one half acre in size. The minimum patch size that is mapped in the NRI is 1/2 acre. Because it does not meet the definition of a NRI forest patch, the area of vegetation that intersects with this lot will be removed from the NRI. With this change, no draft ezones will be proposed on this site.

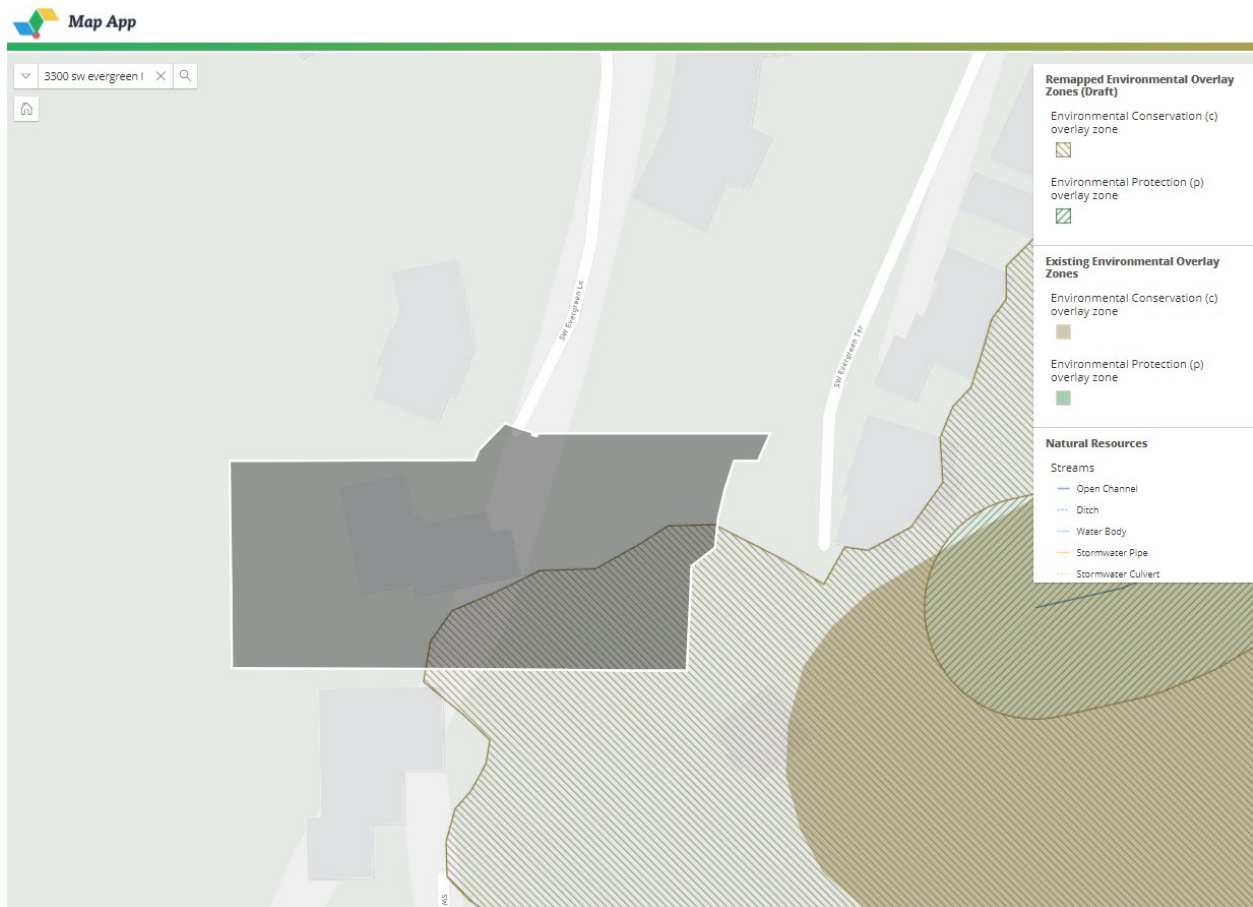
Natural Resource Mapping – Before Edits



Natural Resource Mapping – After Edits



G.26 - 3300 SW Evergreen Lane



Testifier: James Cameron

Property Owner: Claudia L Cameron Tr

Site Visit: Not requested

Description: This site is 0.50 acres (21,657 sq ft) with 2,829 sq ft of existing building area. The base zone is R7 and the site is potentially dividable into up to three lots. There is forest vegetation on the eastern side of this lot that is contiguous to the stream located to the east. The protection policy on this site is to apply a 'c' zone to forest vegetation contiguous but more than 50 feet from the top-of-bank of streams.

Testimony: The testifier is opposed to the proposed expansion of the 'c' zone on this property, stating that it limits his ability to use or improve the property and does not make a significant contribution to the quality of the natural environment. He also states that the proposal limits his ability to implement fire protection measures. Testimony ID 329952

Staff Response: The proposed 'c' zone on the lot would allow for the expansion of the development footprint on the site or a land division and new development with mitigation for

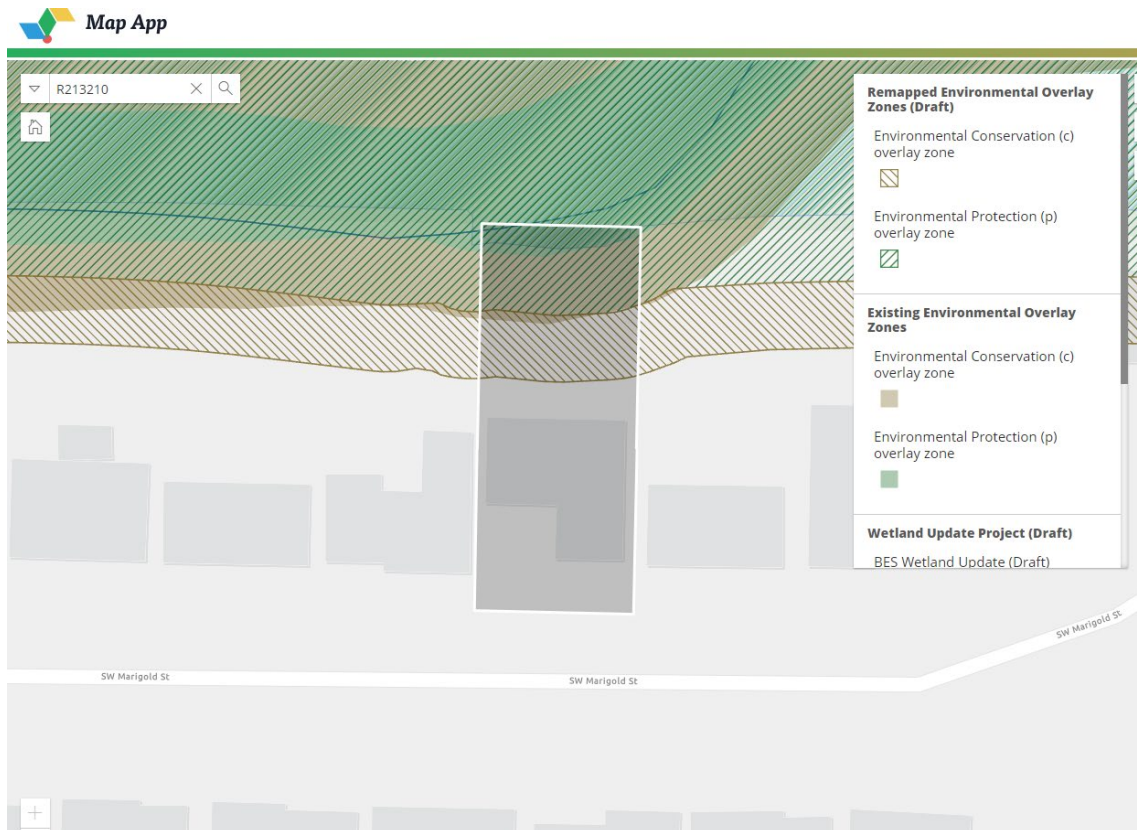
impacts to resources in the 'c' zone. Maintenance of existing disturbance areas, such as existing lawns and landscaping, are exempt.

The ezones do not prevent property owners from implementing fire protection measures on their property. Exemptions allow for:

- removal of flammable invasive vegetation and ladder fuels, such as ivy, clematis and blackberry,
- removal of any tree that is located within 10 feet of a building or attached structure,
- trimming or pruning of any tree or vegetation within 10 feet of a building or attached structure, and
- because the lot is located in a designated Wildfire Hazard Area, the pruning of any coniferous tree that is located within 30 feet of the house.

In the ezones, pruning of deciduous trees that are greater than 10 feet from a building, or coniferous trees that are greater than 30 feet from a building would be allowed by permit. There is also a proposed amendment that would add an exemption to allow property owners to clear a fire break on their lot of up to 36 inches in width, provided that no trees are removed. Property owners can also use the Environmental Review process to propose additional measures to protect their lots from the risk of wildfire that would not be able to meet the standards and exemptions in the code that applies to the ezones (Chapter 33.430).

G.27 – 3315 SW Marigold Street



Testifier: Antonie Jetter

Property Owner: Antonie Jetter and Michael Wallisch

Site Visit: Project staff conducted a site visit and met with the property owners on site in June of 2019 to discuss the draft ezones. Michael Wallisch submitted a second request for a site visit to project staff in 2021. Following the receipt of the second site visit request, staff contacted Michael by phone and email to discuss the proposed ezones. Staff provided maps that showed the location of the verified wetland mapping on the site and explained that the ezone mapping is based primarily on the location of the mapped wetlands. At the end of the phone conversation, Michael said that he was no longer interested in scheduling a second site visit.

Wetland Determination: Yes. Property owners requested a wetland determination. SWCA Environmental visited the site in 2021 and verified the wetland mapping.

Description: The lot is 8,100 sq ft in size, with an existing 2,300 sq ft structure. The base zone is R7, and the site is not dividable. There is a wetland there intersects with a portion of the lot near the rear lot line. The protection policy is to apply a 'p' zone to the wetland and land within 25 feet and a 'c' zone to land between 25 and 50 feet of the wetland. On this site, the 'c' zone is the transition area and can be further developed if the standards of 33.430.140 are met.

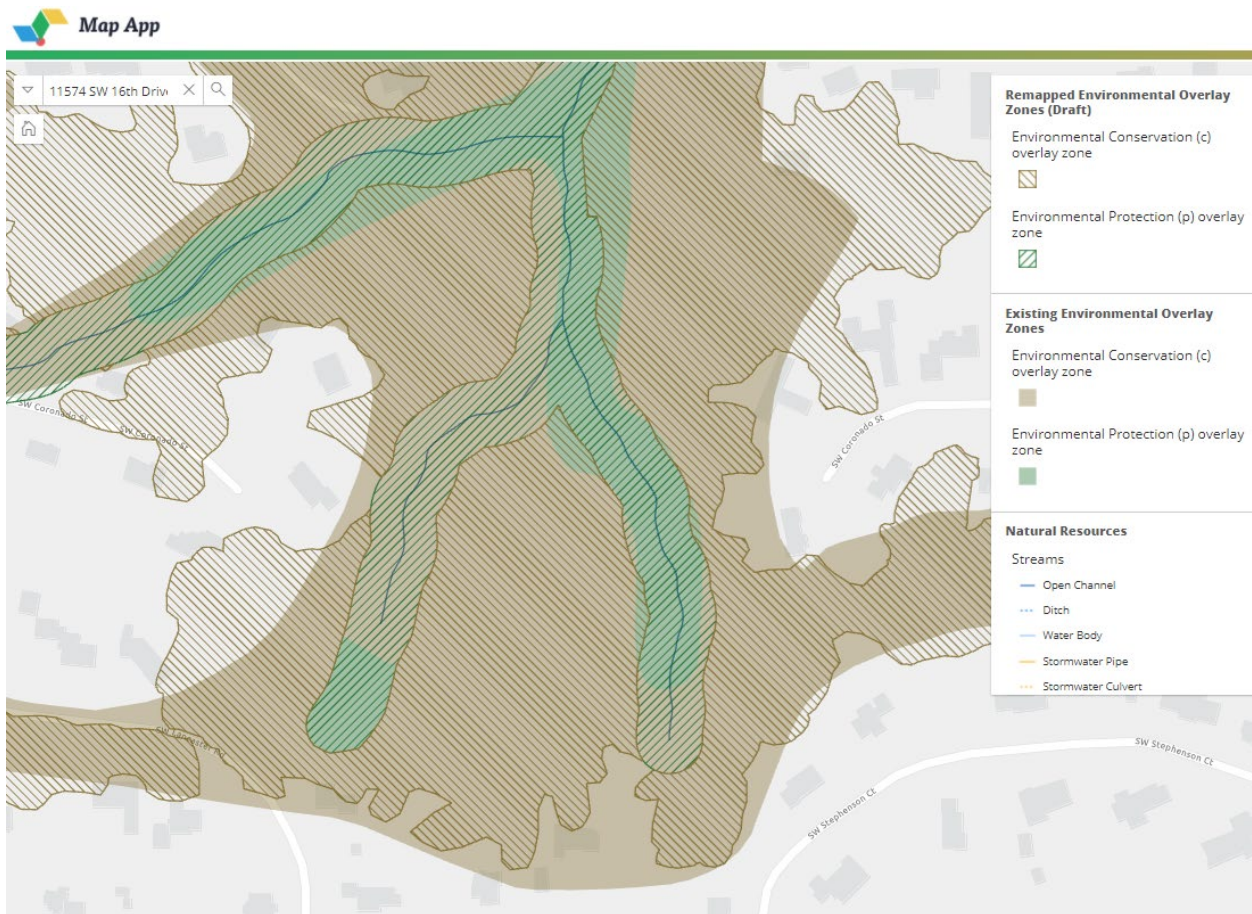
Testimony: This lot is a near a proposed station location for the proposed lightrail line that would run in the Barbur Blvd right of way. Because the lot is so close to the proposed station, it should be allowed to develop to a higher density. The proposed ezones would prevent the

property owners from building an ADU in their back yard. The property owners believe that the resources in the natural area behind their house have degraded and that the resources are not of a quality justifies protection, when weighed against the need for increased housing density. They note the presence of rodents and mention that the Parks Bureau does little to maintain the natural area behind their house. Testimony ID 329929

Staff Response: The proposed ezones would impose constraints on new development within about 30 feet of the rear lot line. The edge of the proposed ezones are approximately 25 feet closer to the house than the location of the existing ezones. These changes reflect updated mapping of streams and wetlands that intersect with the rear lot line.

The 'c' zone on the lot would be transition area and it could be fully developed. But any proposed new development in the proposed 'p' zone would not be able to meet standards. It would be possible to build a small, detached ADU between the existing house and the edge of the protection zone that could meet the ezone standards. But the structure would need to be located close to the existing house, and the size of a possible building footprint would have to be limited to avoid impacts to the 'p' zone. It would also be possible to expand the footprint of the existing building and to partition off a portion of the interior space to create an internal ADU.

G.28 - SW Lancaster Road and SW Coronado St



Testifier: Kari Hallenburg (owner of 11574 SW 16th Drive, which is located to the west of this area and has no existing or proposed ezones)

Property Owner(s): Many (see staff response below)

Site Visit: Not requested

Description: The testifier identified a large area between SW Lancaster Road and SW Coronado Street, which consists of many individually owned lots. The base zone in this area is primarily R20. This area includes streams and forest canopy. The protection policy is to apply a 'p' zone to streams and land within 50 feet of the top-of-bank, and a 'c' zone to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams.

Testimony: The testifier describes the biological importance of this area and strongly encourages the maximum environmental protection in order to protect wildlife, tree canopy and health of streams in this area. Testimony ID 329944

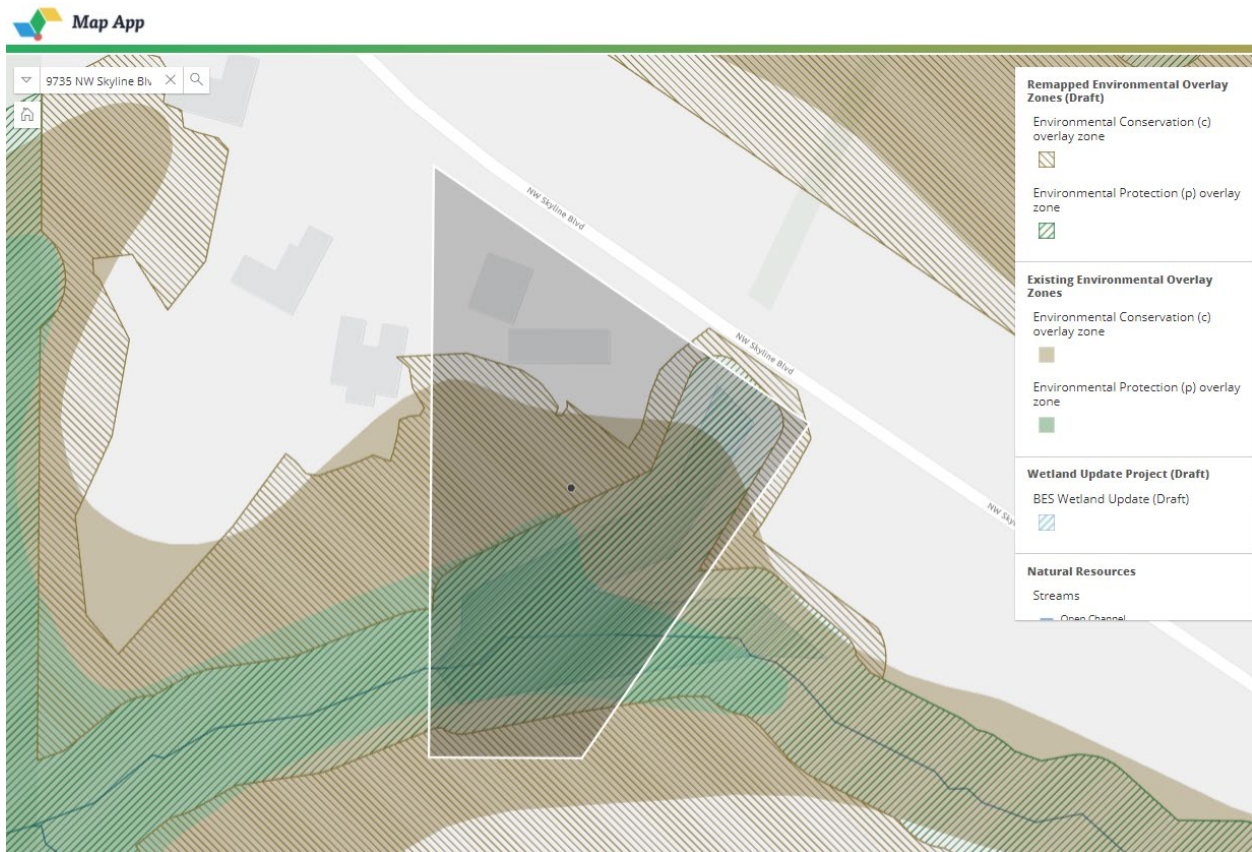
Staff Response: The policy for SW21, the resource area that applies to this area, applies 'p' zone to land with 50 feet of the top-of-bank of a stream and 'c' zone to contiguous forest vegetation. Note that overall 'p' zone coverage is expanding to better protect the streams in this area.

If the protection policy is modified in this area to apply 'p' zone to all contiguous forest vegetation in addition to streams and land within 50 feet of streams, between approximately 7 and 40 properties would be impacted by the change. The specific number of properties impacted would depend on the extent to which the modified 'p' zone policy would be applied in this area (i.e., just in the immediate area identified in the testimony versus a broader area that would be based on the natural resource features present).

If the proposed zoning was changed from 'c' to 'p' zone, it would affect several vacant or dividable lots that have extensive 'c' zone coverage under the current proposal. If the areas of proposed 'c' zone were to become 'p' zone, this would make it impossible for the owners of these lots to get approval to add new development or expand the existing development footprint. Staff would have to manually convert portions of some lots from 'p' to 'c' zone to allow for future development on these lots.

It appears that only one potentially impacted property owner has testified (Douglas Kinnaird, see G.18). Per his testimony, he does generally support expansion of environmental protection in the area near stream headwaters, but he does not speak to the idea of applying 'p' zone to the entire forested area. The other potentially impacted property owners have not testified. If the proposed zoning was changed from 'c' to 'p' zone, Measure 56 notices would be required to be sent to each of the affected property owners before the next hearing to allow those property owners to have a chance to testify on the updated proposal.

G.29 - 9735 NW Skyline Blvd



Testifier: Kim and Mike Johnson

Property Owner(s): Kim and Mike Johnson

Site Visit: Yes, site visit was conducted on 7/9/2020

Description: This property is 2.14 acres (93,218 sq ft) with 4,044 sq ft of existing building area. The base zone is RF and the site is not dividable. There is a wetland, a stream, riparian area, and forest canopy on this site. The protection policy for the site is to apply a 'p' zone to streams and wetlands, to land within 50 feet of streams, and to land within 25 feet of wetlands. Apply a 'c' zone to land between 25 and 50 feet from wetlands, and to forest contiguous to but more than 50 feet from the top-of-bank of streams.

There is a scenic 's' overlay that covers portions of the property that are within 100 feet of the right of way. The proposal for this site includes a slight modification to the 's' overlay in the area where it intersects with a mapped wetland.

Testimony: The property owners contend that the proposed changes will impact their ability to protect their home from wildfires and that the proposal will make managing their land more difficult and costly. They request that the ezones be set back a minimum of 30 feet from any existing structures for fire protection. Testimony ID 329964

Staff Response: The proposed ezones do not come within 30 feet of the house on this site. The outer 25 feet at the edge of the ezones is transition area and can be further developed if the standards of 33.430.140 are met. Mitigation for impacts to native vegetation in the transition area would be required. If trees are removed in the transition area, this could be mitigated by planting trees elsewhere in the ezones, at a location of the property owner's choosing.

The ezones do not prevent property owners from implementing fire protection measures on their property. Exemptions allow for:

- removal of flammable invasive vegetation and ladder fuels, such as ivy, clematis and blackberry,
- removal of any tree that is located within 10 feet of a building or attached structure,
- trimming or pruning of any tree or vegetation within 10 feet of a building or attached structure, and
- because the lot is located in a designated Wildfire Hazard Area, the pruning of any coniferous tree that is located within 30 feet of the house.

In the ezones, pruning of deciduous trees that are greater than 10 feet from a building, or coniferous trees that are greater than 30 feet from a building would be allowed by permit. In addition to pruning that is allowed by exemption, up to 5 trees can be pruned by permit per 10,000 sq ft of lot area per year. There is also a proposed amendment that would add an exemption to allow property owners to clear a fire break on their lot of up to 36 inches in width, provided that no trees are removed.

If the property owners wish to undertake vegetation management or other fire prevention measures that would exceed what is allowed by standards and exemptions, they may be able to do so through the Environmental Review process.

G.30 - NW Red Cedar Court #25 (R541487)



Testifier: Kim and Mike Johnson

Property Owner(s): Kim and Mike Johnson

Site Visit: Yes, site visit was conducted on 7/9/2020

Description: This property is 1.37 acres (59,677 sq ft) with no existing building area. The base zone is RF and the site is not dividable. There is riparian area on this site that extends from the stream to the southwest and forest canopy that is contiguous to that stream. The protection policy for this site is to apply a 'p' zone to land within 50 feet of streams and a 'c' zone to forest contiguous to but more than 50 feet from the top-of-bank of streams.

Testimony: The property owners contend that the mapping of the existing 'c' zone is not accurate and provides a survey of their site for comparison. They oppose the change in ezones, stating that it adds additional cost and challenges for development, and they question the benefit of the proposed changes overall. They also note that development on the site will require the installation of a septic system, and that the location of the 'c' zone on the site could affect future site plans. Testimony ID 329963

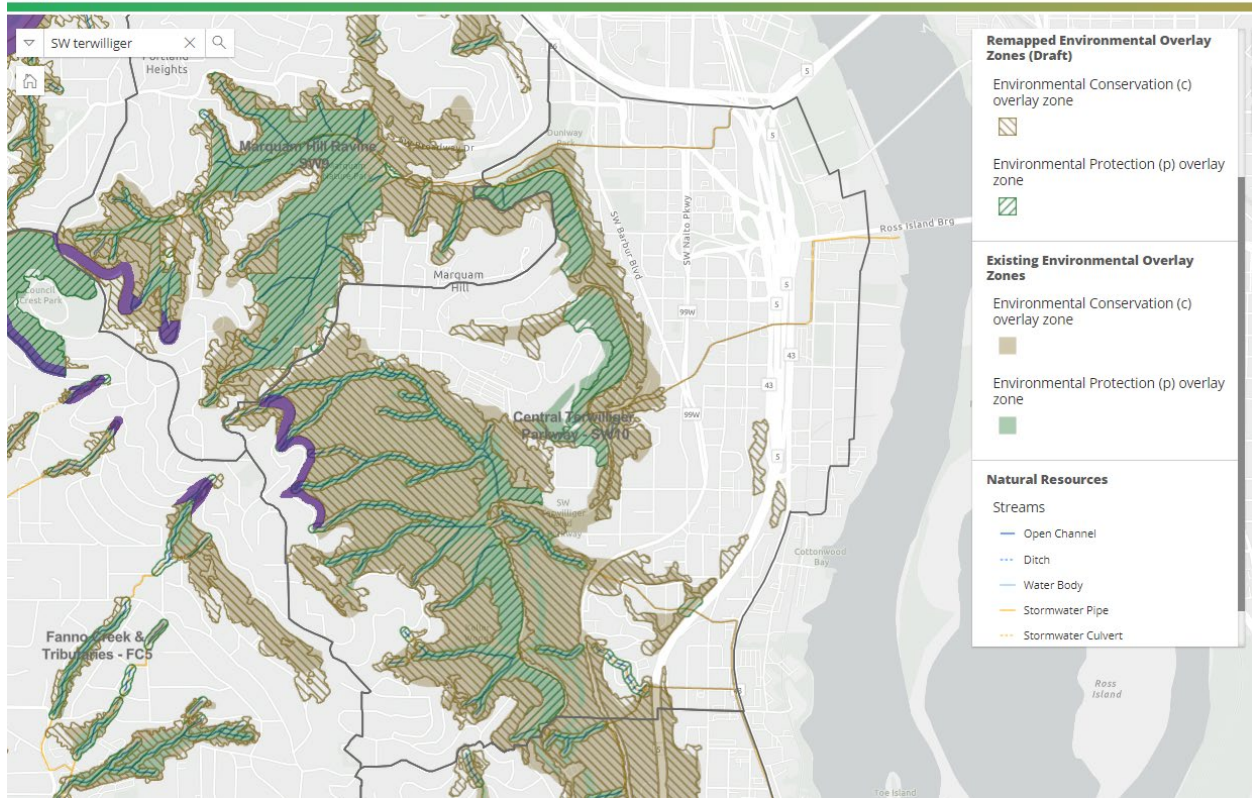
Staff Response: The property owners provided an existing conditions survey and plat sheet for this property, both of which refer to a "conservation easement" on this property. Per the Skyview

Estates No. 2 plat (sheet 9), this is a private conservation easement with further information provided on the recorded deed and maintenance agreement (recorded as County document number 2003-232109). Note that this private conservation easement is not the same as the ezones, which explains why the configuration does not match the existing 'c' zone overlay.

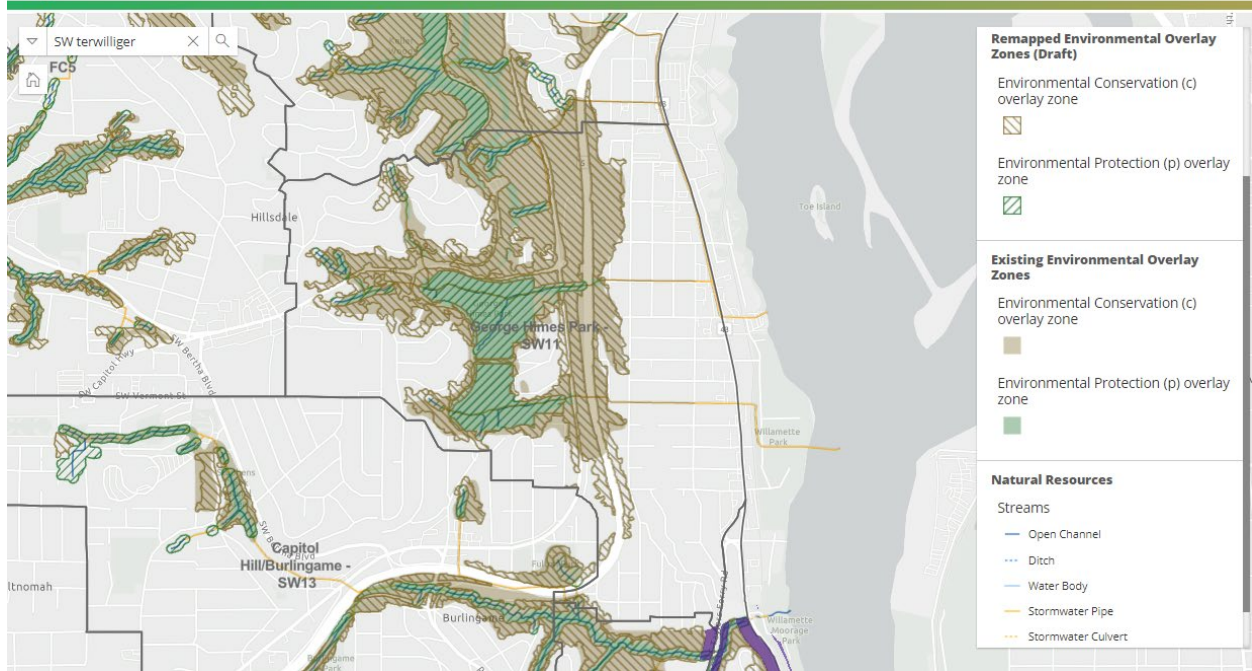
The proposed ezone changes on this site are minimal and unlikely to impact developability of the lot. The amount of 'p' zone is decreasing at the back of the lot and the 'c' boundary will increase in one area but decrease in another. Note that the outer 25 feet at the edge of the ezones is transition area and can be further developed if the standards of 33.430.140 are met.

If proposed development, including septic drain fields, was proposed to extend into the resource area of the 'c' zone or the conservation easement on the site, it would likely not be able to meet the ezone standards and be subject to Environmental Review, and/or the proposed development might not be allowed by CC&Rs pertaining to the conservation easement. The Ezone Map Correction Project is proposing new standards and exemptions for the replacement of failing septic systems on developed lots, where no provision for replacement drain fields was made at the time of development. But these standards would not apply to new development.

G.31 – Friends of Terwilliger SW10



SW11



Testifier: Robin Vesey on behalf of Friends of Terwilliger

Property Owner(s): Portland Parks and Recreation, Oregon State Board of Higher Education, Columbia Land Trust, others

Site Visit: Project staff visited portions of Terwilliger Blvd with staff from the Parks Bureau in 2019. They reviewed natural resource and ezone mapping in the area and verified that the project proposals are consistent with existing policy. Project staff have also visited a number of privately owned lots that front on or are located in close proximity to Terwilliger Blvd between 2019 and 2021.

Description: Terwilliger Parkway is a linear park that extends south from downtown through the west hills, ending near Capitol Hwy and George Himes Park. It spans resource areas SW10 and SW11. The protection policy for SW10 is to apply 'p' zone to streams, wetlands, land within 50 feet of wetlands and the top-of-bank of streams, and forest vegetation on steep slopes contiguous to and east of SW Terwilliger Blvd right-of-way. In SW10, 'c' zone is applied to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams, forest vegetation on steep slopes contiguous to SW Barbur Blvd or Interstate 5 right-of-way, and to forest vegetation in the EX base zone. The protection policy for SW11 is to apply 'p' zone to streams, wetlands, land within 50 feet of wetlands and the top-of-bank of streams, and forest vegetation in George Himes Park that is contiguous to but more than 50 feet from the top-of-bank of streams. In SW11, 'c' zone is applied to forest vegetation contiguous to but more than 50 feet from the top-of-bank of streams and extending to 100 feet from the top-of-bank as well as forest vegetation on steep slopes contiguous to SW Terwilliger Blvd, SW Barbur Blvd and Interstate 5 right-of-way.

Testimony: Friends of Terwilliger request four actions:

1. Include Historic Terwilliger Parkway as a significant park in SW10 because it was recently listed on the National Register of Historic Places
2. Apply 'p' zone to all significant public parks including Terwilliger Parkway and Marquam Nature Park
3. Adopt Southwest Hills Resource Protection Plan - 1992
4. Apply 50 feet of 'p' zone to all riparian areas

Testimony ID 329971

Staff Response:

The Ezone Map Correction Project is using the best available science and technology to correct the maps of features (streams, steep slopes, etc.) and apply the *existing* protection policies to those features. Staff have thoroughly reviewed all resources site existing protection policies and resulting proposed 'p' and 'c' zone applications. Because this is a correction project, staff have not proposed to apply ezones unless there are existing policies dictating their application.

The Ezone Map Correction Project is intended to correct mapping for protection of natural resources. The adopted policies protect the forests, streams and natural areas that are located along Terwilliger Blvd. The existing protection policies align with the goals of the Terwilliger Parkway Corridor Plan.

The Southwest Hills Resource Protection Plan is one of the background documents of the Ezone Map Correction Project. If the Ezone Project is adopted, the resource protection decisions would replace the Southwest Hills Resource Protection Plan. The proposal is to replace Southwest Hills Plan, not to redact it. A number of past resource protection plans will be replaced if the Ezone Project is adopted while other plans will be partially replaced.

The Terwilliger Parkway Corridor Plan was part of the background information that was incorporated into the Southwest Hills Resource Protection Plan. Project proposals will not replace this document, however, many of the proposals that were contained therein are reflected in current zoning and in the project proposals. The plan called for the preservation of mature forest canopy along the street. These protections are reflected in the application of 'c' and 'p' zone to the forested area near the street. And there are a number of 'scenic view corridors' that protect viewpoints along Terwilliger Blvd that already exist, and which are not being changed by the Ezone Project proposals.

If the PSC would like to consider treating all streams consistently and applying a 'p' zone to all land within 50 feet of streams in all resource sites, this will require a new thorough review to determine if this would result in additional sites becoming undividable or unbuildable and therefore staff would need to apply the 'p' to 'c' zone conversion. Staff continue to recommend this project remain a *correction* project and allow future area plans to consider increases to the protections for streams.

Note that any of the requested changes from 'c' to 'p' zone would have significant impacts on a number of sites. If these changes were implemented in the ezone mapping protocols, it would require a Measure 56 notice to be sent to each affected property before the next hearing to allow those property owners to have a chance to testify on the updated proposal.