



Bureau of Planning and Sustainability

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COVER MEMO

DATE: August 25, 2020

TO: Planning and Sustainability Commission

FROM: Mindy Brooks, City Planner

CC: Andrea Durbin, Joe Zehnder, Sallie Edmunds, Daniel Soebbing

SUBJECT: Ezone Map Correction Project Materials for September 8, 2020 Briefing

City staff are pleased to be coming back to you for a briefing and continued discussion regarding the Ezone Map Correction Project proposal. As you will recall, you held a hearing on July 28 and continued the hearing to December 8, 2020 at 12:30pm.

After the July hearing, PSC indicated interest in learning more about or discussing the following topics. This memo includes a summary of each topic along with an attachment that provides additional details.

- A. 33.430 Environmental Overlay Zone exemptions
- B. Existing map error correction process
- C. Who benefits/who is burdened by this project?
- D. Summary of the ESEE analysis process
- E. Will housing capacity be affected?
- F. How do the ezones address Wildfire risk?
- G. How is vegetation mapped?
- H. Why correct maps through a legislative vs quasi-judicial process?
- I. Explain Portland's Unincorporated Multnomah County pockets
- J. What are the vesting rights for development permits?
- K. Spreadsheet and map of site visits to date

I will go over topics A-D at the September 8 briefing and review results of the site visits to date. The issue of septic systems within the overlay zones will be addressed in a separate future memo. Please let me know if you have any other questions that you would like me to answer.



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RESPONSES TO PSC MEMBER QUESTIONS

A. 33.430 Environmental Overlay Zones exemptions

The following activities are exempt from 33.430:

1. Maintenance, repair, and replacement of existing structures including houses, decks, driveways, fences, etc. as long as the development footprint is not increased
2. Maintenance of existing gardens, pastures, lawns, and other planted areas, including the installation of new irrigation and drainage facilities
3. Change of crop type or farming technique on land currently in agricultural use
4. Pruning trees and shrubs within 10 feet of buildings and structures
5. Removal of trees within 10 feet of buildings and structures; or removal of trees that are dead, dying and dangerous (tree replacement is required)
6. Changes to existing disturbance areas to accommodate outdoor activities such as gardens and play areas (no trees >6 inches diameter can be removed)
7. Removal of invasive plants and planting of native plants

PSC asked why all of the project materials say, “and in most cases replaced.” This is because while 33.430 fully exempts replacement of existing structures within the current footprint, there are other regulations outside of 33.430, such as landslide hazard, that may require replacement in a different location. If a structure cannot be replaced in its current footprint, then Environmental Review may be required.

See Attachment A which includes two diagrams that summarize what is allowed on residential and industrial/commercial sites. Also refer to zoning code [33.430.080](#) and [Volume 1, Part B](#), page 9-14 for proposed amendments that clarify some of the exemptions.

B. Existing map error corrections process

At any time, anyone can request a correction to the official zoning maps per [33.855.070](#). An error is found if a map line was intended to follow a topographic feature, such as a stream, and doesn't do so, or if there is a discrepancy between maps and there is sufficient legislative intent for where the line should be located (see also Topic H, Legislative vs Quasi-Judicial below).

A request to correct the official zoning maps is made through the Bureau of Development Services and submitted to the Bureau of Planning and Sustainability to determine if an error exists that meets the code criteria. If an error is found, then a **free** land use review is processed by the Bureau of Development Services to correct the official zoning map. Staff decisions on map error corrections can be appealed to the Hearings Officer.

See Attachment B which is an example of a map error correction review performed by Bureau of Planning and Sustainability.

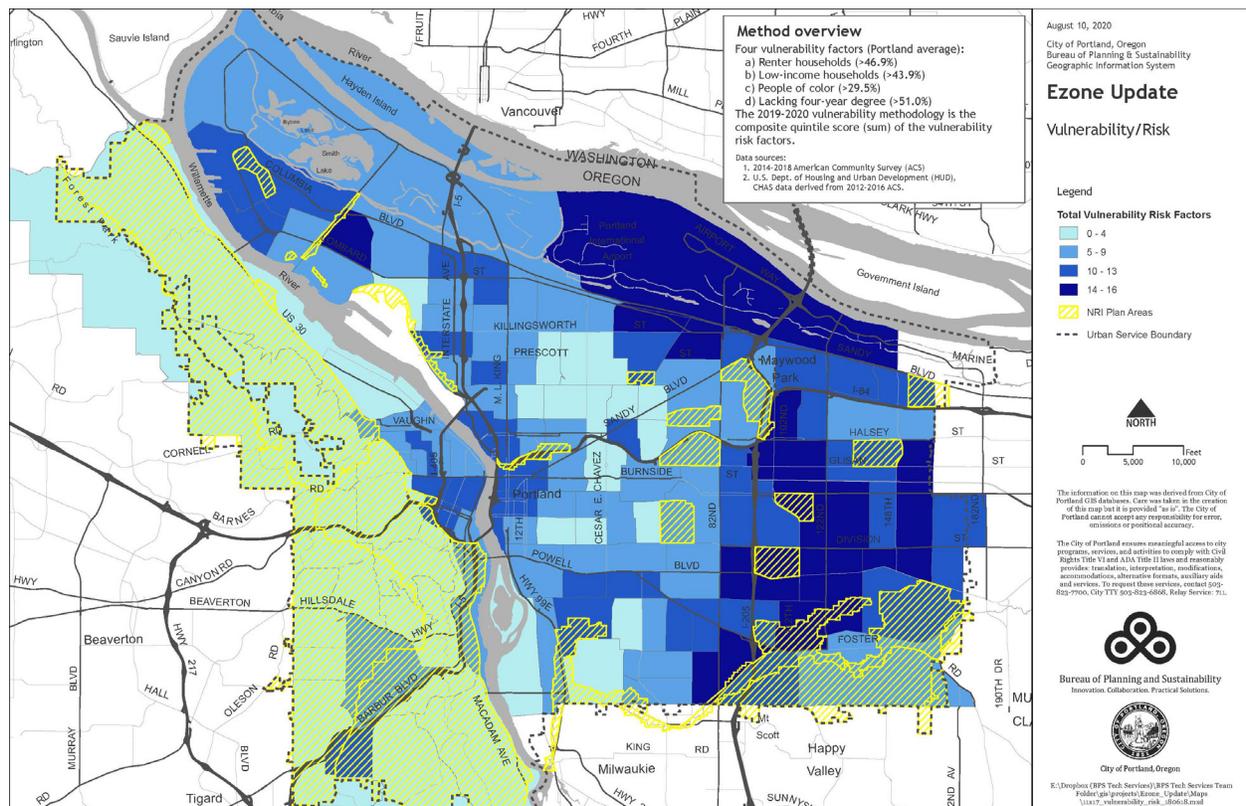


C. Who benefits/who is burdened by this project?

As part of the [Existing Conditions Report](#), staff performed an analysis to better understand who is most vulnerable to changes to the environmental overlay zones.

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 project areas with the most changes to the environmental overlay zone are in the Northwest and Southwest Hills. See Map 1.



Map 1: Ezone Project Area and Vulnerability/Risk

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.

Further, the question of who benefits and who is burdened is also more complicated than just looking at the regulations and where vulnerable people live. The presence of natural resources, such as tree canopy and streams, have numerous benefits for public health and property values. Melody Goodman, an assistant professor at Washington University in St. Louis, conducted research that found “your zip code determines more of your health than your genetic code.” This is because people with a higher vulnerability risk typically live in areas of the city that do not support good health – areas without tree canopy, parks, open spaces. The existence of trees, greenspaces and other natural resources also have been positively correlated with residential property values in Portland (EcoNorthwest, 2009). A Portland-based study done by Donovan and Butry in 2010 found that trees within 100 feet of houses added approximately \$8,870 to the price of a house, which represents 3.0% of sale price. In addition, protection of steep slopes and flood areas reduces risk of property damage and costs associated with landslides and flooding. So, while changes to the regulations may add burden the property owner because of limitations on new development, the same property owner may benefit from the maintenance of the resources on the site and sites around them in terms of public health, property value and reduced risk.

See Attachment C which includes excerpts from Volume 4, Compliance Report related to property values, public health and equity.

D. Summary of the ESEE process

[Volume 4](#) documents compliance with both Metro’s Urban Growth Management Functional Plan Title 13 and Oregon Statewide Land Use Planning Goal 5.

Portland must comply with Metro’s Title 13 for Habitat Conservation Areas, which on private property are high and medium ranked riparian areas as well as Special Habitat Areas (referred to as Habitats of Concern under Title 13). Title 13 includes an ESEE, approved by the state as complying with Goal 5, that local jurisdictions may rely on for compliance with Title 13. Therefore, for Habitat Conservation Areas there is no Portland-specific ESEE.

For natural resources that are not Habitat Conservation Areas, which on private property are low ranked riparian areas and upland areas that are not Special Habitat Areas, Portland must comply with Goal 5 rules by:

1. Completing a natural resources inventory
1. Identifying significant natural resources
2. Determining conflicting uses
3. Performing ESEE for each resource site*
4. Applying a protection program based on the ESEE recommendations



*Resource sites were established through the previous 13 state-approved conservation and protection plans. The boundaries for some resource site are being slightly adjusted through this project.

The following approach to the Goal 5 process is the approach taken by the recently approved Central City 2035 plan that was upheld by the Oregon State Supreme Court as complying with Goal 5. Conflicting uses are based on the existing base zones and the uses that are allowed outright, conditionally or limited through the base zone regulations; as well as general conflicting uses such as noise, light, etc. The ESEE is performed at two levels. First, a general ESEE is performed for types of resources (e.g., forests, steep slopes) and overarching consequences of protection (e.g., housing, jobs, etc.) based on base zones regulations. Second, the general ESEE is affirmed, clarified or modified for each resource site based on resource site-specific characteristics including base zone, land uses and natural resource features present. The ESEE recommendation is made for each resource site.

Note – Some resource sites have only Habitat Conservation Areas and no other upland resources. When that is the case, no resource site-specific ESEE is included because we rely entirely on Title 13.

Attachment D is a letter from Metro confirming the project approach to complying with Metro Title 13. Copies of the Goal 5 rules and the recent LUBA and court rulings on Central City 2035 can be provided upon request.

E. Will housing capacity be affected?

Title 33.430 includes general standards that allow for a maximum amount of disturbance area on every lot (see Table 430-1 below). The allowance is per base zone. Disturbance areas include house, driveway, garage, deck, yard and fence. Large lots that are dividable can still be divided based on the base zone allowances, even if there are environmental overlay zones present on the lot. Staff are doing a property-level analysis to ensure that any undeveloped or dividable lot has sufficient area outside the protection ‘p’ overlay zone to meet the standards of [33.430.140](#) or have development approved through Environmental Review. Therefore, there is no impact on housing capacity from the environmental overlay zones.

Table 430-1 Maximum Disturbance Area Allowed						
	OS and RF Zone	R20	R10	R7	R5	All Other Zones
Maximum Disturbance Area	5,000 sq. ft. [1]	5,000 sq. ft. [1]	5,000 sq. ft. [1]	3,500 sq. ft. [1]	2,500 sq. ft. [1]	50% of the base zone building coverage or 1 acre, whichever is less [1]

Note:

[1] Subtract the amount of area on the site outside the resource area from the number given in the table.

There is no attachment E.



F. How do the ezones address Wildfire risk?

Healthy forests are less susceptible to wildfire than unhealthy forests. A healthy forest has native trees and understory (e.g., shrubs and groundcover) with little to no non-native invasive plants present. Invasive plants like ivy and blackberry are more susceptible to wildfire and are “ladder fuels” that can bring a fire from the ground up into tree canopy. Therefore, the best way to reduce wildfire risk is to remove invasive plants and plant native plants that are more fire resistant. A good resource for homeowners is [Fire-Resistant Plants for Home Landscapes](#) (OSU Extension).

Title [33.430](#) exempts the following from the regulations (see also Topic A, 33.430 Environmental Overlay Zones exemptions):

1. Removal of any trees within 10 feet of buildings and structures; or removal of any trees that are dead, dying and dangerous (tree replacement is required)
2. Pruning any trees and shrubs within 10 feet of buildings and structures
3. Pruning in accordance with Title 11
 - a. Pruning coniferous trees within 30 feet of structures if within a wildfire hazard zone
 - b. Pruning to abate an immediate danger
4. Removal of invasive plants and planting of native plants anywhere in the overlay zone (replanting with non-invasive plants is required)

The national [Firewise](#) program recommends an immediate buffer of 5 feet around homes with non-flammable materials. This area does not need to be free of vegetation; however, flammable vegetation should be removed. Within the intermediate zone, which is 5 to 30 feet, it is recommended that ladder fuels be removed and trees/tree canopy within 10 feet of structures be removed. Title 33.430 is consistent with these national recommendations.

There is no Attachment F.

G. How is vegetation mapped?

The mapping protocols for streams, wetlands and vegetation were adopted through the citywide Natural Resources Inventory (NRI), which was approved by the state as complying with Goal 5 and as factual basis for the 2035 Comprehensive Plan. A map of citywide vegetation was included and adopted with the NRI. That vegetation mapping is being refined as part of the Ezone Map Correction Project.

The mapping protocols can be found in [Volume 3](#), pages 6-18. The mapping protocol for wetlands has been updated since the 2012 NRI adoption; it has been modified to follow the current wetland determination methodology approved by the Oregon Department of State Lands for completing a Local Wetlands Inventory.



Vegetation, for the purpose of the NRI, is defined in the following way:

- Forest: Half-acre or larger patch of trees with their crowns overlapping, generally forming 60-100% of cover.
- Woodland: Half-acre or larger patch of open stands of trees with crowns not usually touching, generally forming 25-60% of cover.
- Shrubland: Half-acre or larger patch of shrubs generally greater than 0.5 m tall with individuals or clumps overlapping to not touching, generally forming more than 25% of cover with trees generally less than 25% of cover. Vegetation dominated by woody vines (i.e., blackberry) is generally included in this class.
- Herbaceous: Half-acre or larger patch of herbs (graminoids, forbs, ferns and shrubs less than 0.5m tall) dominant, generally forming at least 25% of cover. This may include shrubs less than 0.5 m tall.

Vegetation is mapped by creating geographic information system (GIS) polygons using the ArcMap software. The steps staff follow to map vegetation are:

1. Remote mapping is performed first and is based on the most current aerial photography. Remote mapping is performed by staff with expertise in the NRI and GIS technology. The steps are:
 - a. Review previously mapped vegetation patches against the most current aerial photography.
 - b. Refine existing vegetation patches if there is a different pattern, distribution of character of vegetation within the patch boundary.
 - c. Map vegetation patches at a scale of 1:3,000 based on the definitions of vegetation and following the protocols:
 - i. A 4-lane road or highway splits a forest patch; a road less than 4-lanes may split the forest patch if the road is visible or if a single tree connects the patch across the road; and
 - ii. A section of forest that is one-two trees wide can create a break between patches.
 - d. Woodland and shrubland vegetation should be mapped after forest vegetation; herbaceous vegetation is mapped last.
 - e. The understory under trees is not considered when mapping forest and woodland vegetation. Forest and woodland mapping is based solely on tree canopy.

Note – The last citywide update to the forest mapping was conducted in 2007. That is the primary data that is being refined by this project.
2. Site visits are conducted, at the property owners request, to verify the location of tree canopy. Based on the site visit, the GIS mapped polygons are modified.
3. Additional information, such as an arborist-conducted tree survey, may be provided to staff. This data would be used to verify the previous vegetation mapping and make refinements where appropriate.

See Attachment G for a detailed explanation of the vegetation mapping protocol.



H. Why correct maps through a Legislative vs quasi-judicial process?

As was discussed under Topic B, map error corrections can be done through a quasi-judicial process and can be done at any time. So, PSC asked why the project is doing a legislative process instead of doing a quasi-judicial process to correct the conservation and protection overlay zones.

There are two primary reasons:

1. Portland needs to update the NRI Goal 5 natural resources map, which was adopted in 2012 as factual basis for the 2035 Comprehensive Plan, to include current information about the location of streams, wetlands, forests, steep slopes and flood areas.
2. The previous 13 conservation and protection plans, adopted between 1989-2002, did not always provide sufficient legislative intent to meet the second approval criteria of [33.855.070](#). This project is clarifying legislative intent.

See Attachment H which is an example of the legislative intent provided by the Balch Creek Resources Protection Plan, resource site 73. The legislative intent reads:

- Conserving forest edges and protecting forest centers, which in turn moves allowed development from the center of the watershed to the edges.
- Placing all land within 50 feet of the centerline of Balch Creek and its tributaries, including season drainageways and topographic lows, in environmental protection zones.
- Placing most significant native forest in environmental protection zones.
- Placing other significant forests in conservation zones.

This provides sufficient intent to correct the location of the protection zone around streams, drainageways and topographic lows because it specifies 50 feet from such features. However, the intent does not clarify what is “most significant forest” vs “other significant forest” in a way that provides sufficient basis for a correction.

The legislative intent for this resources site, found in [Volume 2, Part A2](#) (updated site number FP31) will be:

1. Apply a protection overlay zone (p zone) to stream channels from top of bank to top of bank and land within 50 feet of stream top of-bank.
2. Apply a protection overlay zone (p zone) to areas of forest vegetation in Forest Park that are contiguous to but more than 50 feet from stream top of bank.
3. Apply a conservation overlay zone (c zone) to areas of forest vegetation in Forest Park that are not contiguous to streams and all forest vegetation outside of Forest Park.
4. Apply a conservation overlay zone (c zone) to areas of forest vegetation located on steep slopes and contiguous to but more than 50 feet from stream top of bank.
5. Allow conflicting uses within all other areas containing significant natural resources.



I. Explain Portland's Unincorporated Multnomah County pockets

Portland adopts land use regulations for unincorporated urban pockets within the city's Urban Services Boundary. Portland has an [Intergovernmental Agreement](#) with Multnomah County that the county adopts the same land use regulations and in return Portland administers the land use review process. In 2002 Multnomah County adopted the environmental overlay zones based on the [Economic, Social, Environmental and Energy Analysis and Recommendations for Natural, Scenic and Open Space Resources within Multnomah County Unincorporated Urban Areas](#). The *Ezone Map Correction Project* is adjusting the overlay zone boundaries in these county pockets similarly to the rest of Portland to make sure the zoning follows the natural resources that are intended to be protected.

There is no Attachment I.

J. What are the vesting rights for development permits?

Any permit applied for or obtained prior to adoption of the correct overlay zone boundaries is vested in the zoning code and maps at the time of permit application. A quasi-judicial map error correction can be done after the development is completed to adjust the overlay zones to match the conditions post-development (this is a free process that can be done at any time.)

There is no attachment J.

K. Spread sheet and maps of site visits to-date

Attachment K includes a spread sheet of all site visits conducted since June 19, 2020 and summary of the outcome of each site visit. Following the spreadsheet are before and after maps of each site visit. Also included in the both spreadsheets and maps are sites where a change to the mapping was done remotely and the property owner opted to not have a site visit. All of these corrections, if approved by PSC, would result in modifications to the overlay zone boundaries following the Title 13 or Goal 5 recommendations found in [Volume B](#), Parts A – G.

The spreadsheet and maps are in order based on the property owner's last name or the business name to make it easier for owners to review the final changes. All property owners who have requested a site visit, along with all people providing written or oral testimony, received an email with a link to this document.

Not all site visits have been conducted and site visits will continue through November. In December, an updated spreadsheet and maps will be provided to PSC, as well as property owners and the public. Also in December, the Ezone Map App will be updated to reflect the changes.

