GROUP LETTER submitted July 22, 2021, to Portland's Planning and Sustainability Commission, PSC@portlandoregon.gov

UPDATED GROUP LETTER for written testimony resubmitted August 23, 2021, for Portland's Planning and Sustainability's open public hearing via map app, 25 signatures

FOLLOW UP GROUP LETTER for written testimony submitted September 10, 2021, Portland's Planning and Sustainability's open public hearing via map app, 38 signatures

GROUP LETTER for written testimony submitted February 16, 2022, the City Commission's open public hearing via map app, 34 signatures

GROUP LETTER for written testimony re-submitted February 18, 2022, the City Commission's open public hearing via cctestimony@portlandoregon.gov, with **additional signatures, total of 37 signatures**. Addendum to testimony.

February 18, 2022, addendum testimony:

See the 32-page map analysis submitted of protection P zones shrinking in the large areas of the watershed, headwater and tributary areas effected +++++ (dated 06/16/21)

See Marquam Hill error: map submitted +++++

We ask for a longer open record to follow the City Council's Open Hearing February 16, 2022. The hearing was not posted online to view before the closing of the open record on February 18. This would allow people who could not attend the Open Hearing on February 16 to review oral testimonies and be able to submit written testimony based on the Open Hearing.
The map app's open record was closed before the end of the day on Feb. 18.

COMMUNICATION ISSUES

The Environmental Overlay Zone Map Correction Project has not been transparent to the public. **This is not just a map correction project as the project name implies (The Environmental Overlay Zone Map Correction Project) but a policy change.** The Environmental Overlay Zone Map Correction Project is NOT applying ALL "existing adopted" plans adopted by the current existing mapping policy. The "existing adopted" plan of Metro Title 3 is not being adopted. Metro Title 3 is a supplemental plan that protects the streams up to 200 feet. By not adopting the "existing adopted" plan of Metro Title 3, the Ezone Map Correction Project has reduced the protection of our streams by 100 feet (which is half of the current existing environmental protection of up to 200 feet protection).

If any "existing adopted" policies, conservation plans or environmental reports (of affected areas) are omitted, redacted, and/or combined then there is a policy change. The project needs to reflect "transparency" in its name and its communication to the public. By communicating with the public (ex: sending out mailings under this name of The Environmental Overlay Zone Map Correction Project), the Ezone project is not communicating the scope of this project or change of policy. (Documentation B – Redactions of conservation plans and environmental reports with their maps)

This is a policy change, yet it has not been transparent.
Evidence: The Environmental Overlay Zone Map Correction Project has repeatedly stated that there is no policy change. In Open Public Hearing, August 24, 2021, it was reiterated that "as proposed, our proposal really is a map correction project, and we're not proposing any changes in policy."

Documentation: August 24, 2021, open public hearing, start at 1:05,
https://www.youtube.com/watch?v=OH-uLnY35-8

We stress transparency because the success of The Environmental Overlay Zone Map Correction Project's rezoning of our natural resources is dependent on "active participation" from affected property owners to locate missing natural resources on their properties, in public right of ways and in public areas. For natural resources to be found, property owners need to identity the missing resources on their properties and notify Ezone Staffers for onsite evaluations. Neighbors cannot request site visits of other neighbors' properties even if they see the missing natural resource. The success of this project is wide public notification and active participation.

Notifications were insufficient. The mailings were sent only to affected property owners and those 50 feet of impacted properties. The Environmental Overlay Zone Map Correction Project did not send mailings neighborhood wide although natural resources are on public right of ways and public areas.
Evidence: A headwater tributary stream in the headwaters of Lowell Creek FC3 on a **public right of way** was missed on the Environmental Overlay Zone Map Correction Project's mapping but existed in the current existing maps. Because it was missed, the protection P zone was taken off and construction interest followed to build over the headwater tributary stream.

The Environmental Overlay Zone Map Correction is looking at what the Ezones designations are NOW (at the present moment) and NOT the future underlying Ezone changes. Since the Environmental Overlay Zone Map Correction is not protecting isolated forests of ANY size (1 acre to 1000 acres), a neighbor can potentially carve off a riparian forest on his property which would take off all environmental protection measures (no protection P zone or conservation C zone) on his property. This may DIRECTLY affect his neighbors' properties, eliminating P zones and/or C zones on their properties as well; thereby, affecting neighbors' property values. **Mailings should have been sent neighborhood wide to affected property owners as well as future affected property owners.**

The Environmental Overlay Zone Map Correction Project notified neighborhood associations a year prior to the launching of the maps and slipped the project into the packet of a larger project, the Residential Infill Project. Notification was insufficient at that time since neighborhood associations were unable to review the unlaunched maps. A year later, the maps were launched in 2019 during the beginning of a worldwide pandemic and communications were difficult. The neighborhood associations needed to have been notified (a year later) that the Environmental Overlay Zone Map Correction Project's proposed maps were launched and ready for review. The responsibility lies with The Environmental Overlay Zone Map Correction Project to notify and not the other way around.

Mailing notifications to affected property owners in the beginning of the project was difficult to understand and inadequate. It was dependent of either scanning a QR code or typing in long websites. The mailing did not print detailed information about the project. It did not cater to all demographics—to those not tech savvy and to those who do not know how to scan QR codes. (See documentation AA – mailing sent to affected property owners)

In times of a pandemic, it is more of the responsibility of the City to outreach and not less responsibility.

Equity
The 2035 Comprehensive Plan, which is one of the five main plans of the Environmental Overlay Zone Maps Correction Project, emphasizes the importance of equity and the roles of the neighborhood associations in representing the underserved in their quest for 2035. (See documentation K). The City did not create an open dialog of communication and partnership when

the City defunded Southwest's umbrella neighborhood association, Southwest Neighborhood Inc (SWNI), and in so doing also defunded the 17 Southwest neighborhood associations who relied on funding. The neighborhood associations are having difficulties financially and outreach has been challenging; instead, they are distracted by financially trying to survive. Effective communication with all neighborhoods has been severely effected due to changes in leadership and internal challenges at the Office of Communication and Civic Life which oversees ALL the 95 neighborhood associations throughout Portland. In so doing, the City has not giving affected property owners the means to be properly represented when approximately 17,000 properties and property values are effected by the Environmental Overlay Zone Maps Correction Project.

We ask for more transparency so we can accurately locate our natural resources.

February 16 testimony as follows:

To: Portland's City Council
Mayor Ted Wheeler
Commissioner Mingus Mapps
Commissioner Jo Ann Hardesty
Commissioner Dan Ryan
Commissioner Carmen Rubio

From:
Barrett Streu, owner of 3608 SW Hillside Dr, Portland OR 97221
Rachel Streu, owner of 3608 SW Hillside Dr, Portland OR 97221
Yoann Foucher, owner of 3616 SW Hillside Dr, Portland OR 97221
Laurence Juthy, owner of 3616 SW Hillside Dr, Portland OR 97221
Mike Kutter, owner of 3586 SW Hillside Dr, Portland OR 97221
Marti Kutter, owner of 3586 SW Hillside Dr, Portland OR 97221
Hugh Givens, owner of 3612 SW Hillside Dr, Portland OR 97221
Deb Givens, owner of 3612 SW Hillside Dr, Portland OR 97221
Marilyn Cover, owner of 3707 SW Sweetbriar Dr, Portland OR 97221
Kathy Prosser, owner 3819 SW Sweetbriar Dr, Portland OR 97221
Steve Prosser, owner 3819 SW Sweetbriar Dr, Portland OR 97221
Kevin Pendergast, owner of 3835 SW Sweetbriar Dr, Portland OR 97221
Eugene Yeboah, 2944 SE Tibbetts St, Portland Oregon 97202
Sarah Dandurand, owner of 7321 SE Ellis St, Portland, OR 97206
Prashant Kakad, 2200 SE Ivon St, Portland OR 97202
Tiffany Rohani, owner of 10425 SW 43rd Ave, Portland, OR 97219
Reyaz Rohani, owner of 10425 SW 43rd Ave, Portland, OR 97219
Lynne Chao, owner of 3702 SW Sweetbriar Dr, Portland OR 97221
Alex Cooley, owner of 3718 SW Sweetbriar Dr, Portland OR 97221
Katie Cooley, owner of 3718 SW Sweetbriar Dr, Portland OR 97221
Andrew Markell, owner of 3921 SW Sweetbriar Dr, Portland OR 97221
Kate Markell, owner of 3921 SW Sweetbriar Dr, Portland OR 97221
Chris Baier, owner of 3052 NE 66th Ave, Portland, OR 97213
Russ Black, owner of 3852 SW Greenleaf Dr, Portland OR 97221
Joan Black, owner of 3852 SW Greenleaf Dr, Portland OR 97221
Keph Sherin, 5300 Parkview Dr, # 1031, Lake Oswego, OR 97035

Kristine Dukart-Harrington, owner of 260 SW Nancy Cir, Gresham, OR 97030
Laurie Dukart-Harrington, owner of 260 SW Nancy Cir, Gresham, OR 97030
Audra Oakley, 333 NW 4th Ave, #517, Portland OR 97209
Laura Swingen, owner of 2420 NW 119th Ave, Portland, OR 97229
Carole Bertrand, owner of 2420 NW 119th Ave, Portland, OR 97229
Jill McAllister, owner of 2387 NW Quimby Street, Portland OR 97210
Scott McAllister, owner of 2387 NW Quimby Street, Portland OR 97210
Daniela Schlechter-Keenan, 9933 N Syracuse Street, Portland OR 97203
Dave Fitzpatrick, owner of 6423 SE 74th Ave. Portland, OR 97206
Laurali Hudgins, 11434 NE Fremont Ct, Portland, OR 97220
Joseph Kovar, owner of 3829 SW Sweetbriar Dr, Portland OR 97221

Re: Environmental Overlay Zone Map Correction Project for the City Commission's open public hearing
Sent via map app for written testimony on February 16, 2022, from Lynne Chao

Attachments:
MarquamPark.pdf (70% mapping error in Marquam Park, north side SW9)
See EzoneMaps_061621 (32-page map analysis of shrinking protection P zones in headwater and tributary areas, citywide analysis, created 06/16/21)
Definitions:
protection P zones = P (protected, no development allowed)
conservation C zones = C (conservation, some development allowed)
tributary stream = freshwater stream that merges to the mainstem (river)
headwater = the source of the stream near the watershed
watershed = land area that channels rainfall and snowmelt to streams, creeks, and rivers.
The source of the entire water system.

Dear Commissioners:

We, the 37 of us, thank you for the opportunity to testify in the City Commission's Environmental Overlay Map Correction Project (Ezone Map Correction Project). The Environmental Overlay Map Correction Project's goal is to better align our city's streams, water resources, and wetlands for the protection of our natural resources. **We align with these intentions**; however, we have concerns about the processes, procedures, and specific site issues of the Environmental Overlay Map Correction Project.

The Environmental Overlay Map Correction Project is rezoning the watershed, headwater and tributary stream areas of the Southwest Hills and Northwest Hills and shrinking the protection P zones. Changing the status of these areas from P (protected, no development allowed) to C (conservation, some development allowed) would permit construction near and in currently protected forests and over streams. This change opens the possibility of reduced tree canopy, heat impact, increased stormwater runoff, degraded stream environment and erosion.
(See attachment 32-page map analysis of shrinking P zones, maps updated on 6/6/21: EzoneMaps_combined061621.pdf)

Not protecting with greater protection, the watersheds, headwaters, and tributary stream areas will create more inequities to neighborhoods downstream.
Protecting the watershed, headwater and tributary streams is important. They are the most pristine where the coolest, purest, and cleanest water starts at the top of the watershed. The health of a stream only

degrades as it migrates down slope affecting properties below. Headwaters are small streams (because they are the start of the streams), difficult for the computer mapping program to identify. **Missing "existing" streams in the headwater and tributary areas and allowing construction to happen over them will create more inequity by affecting the neighborhoods downstream.**

The City of Portland and the 2035 Comprehensive Plan (the City's goal for the next 13 years) stress the importance of equity and the importance of watershed health. The Environmental Overlay Map Correction Project's focus to reduce protection P zones in the watershed, headwater, and tributary stream areas, seems counter to the goals of the 2035 Comprehensive Plan. Since 2035 Comprehensive Plan is one of the five main plans of the Environmental Overlay Map Correction Project, it seems like the Environmental Overlay Map Correction Project should align to the goals of its five main plans. (See documentation F-1)

We ask to find the unmapped headwater and tributary streams and protect them with greater protection than the Environmental Overlay Map Correction Project's proposal of decreased protection and reduction of existing protection P zones in these naturally sensitive areas of the watershed, headwater, and tributary stream areas of the Southwest Hills and Northwest Hills.

Protect the best.
The watershed, headwater, and tributary areas are the best of the entire water system.
It is easier to protect than to rehabilitate natural resources.

Because the watershed, headwaters and tributary streams run through miles to the Columbia River, Portland wide is effected. This is not just a Southwest Hills, Northwest Hills, or Southeast initiative, this is a Portland wide initiative affecting neighborhoods and thousands of private properties downstream. The health of our rivers depends on keeping the watershed, headwater, and tributary areas pristine.

POLICY IS CHANGING
<u>This is not just a map correction project as the name implies (the Environmental Overlay Zone Map Correction Project) but this is a policy change as not all "existing adopted" policies, plans, and reports are being adopted.</u>

We request the City Commission consider the following actions:

Requests:

1. Process: Collect new computer LiDAR mapping data for Portland Metro, Metro West, Portland Hills. The computer model is incomplete. The Ezone Map Correction Project's mapping data is outdated with inventory from 12-17 years ago. We are remapping our natural resources with outdated data. <u>Do not approve this project without new updated LiDAR data to reflect changes and development to natural resources from 2005 thru 2022.</u>

2. Process: Collect new computer LiDAR mapping data. The computer model is incomplete and missing vertical slope assessment data. Slope assessment is key to applying computer algorithms to protect our streams. <u>Do not approve this project without new updated LiDAR data which includes slope assessment data.</u>

3. Policy: Adopt the "existing adopted" plan Metro Title 3. The Ezone Map Correction Project has reduced the protection P zones in the watershed, headwater, and tributary areas by <u>not adopting</u> the "existing adopted plan" of Metro Title 3.

Apply greater protection to the watershed, headwater, and tributary areas by adopting the "existing adopted plan" Metro Title 3 which criteria for steep slopes is protection P zone up to 200 feet along riparian areas. This plan was adopted in 1998 and is currently being applied to the current existing mapping. The Ezone Map Correction Project is not adopting this policy and the protection P zones are shrinking in the Southwest and Northwest Hills.

4. Policy: Apply a minimum of a full "HORIZONTAL 50 feet" protection P zone in riparian areas. If the steep slope is right next to a stream, the Ezone Map Correction Project is applying 50 feet straight up on a vertical steep slope and NOT a FULL HORIZONTAL 50 feet. **A FULL HORIZONTAL 50 feet will ensure there is a standard distance of protection.**

   Site Specific: Apply a minimum of a full HORIZONTAL 50 feet protection P zone in riparian areas to resource sites with less than 50 feet protection P zones for: Fanno Creek: FC4 and FC7, Forest Park and Northwest District: FP1, FP2, FP6, FP8, FP11, FP12, FP14, FP16, FP21

5. Policy: Protect isolated forests with ½ acre or more. Isolated forests have no environmental protection at all (no P zone and no C zone) and construction can follow in those forests. With no size limit, this affects forests strategically being carved away in riparian areas. If a neighbor isolates a forest on his property from the riparian forest, it will take off the environmental protection to his property and potentially his neighbors' properties. This also applies to a break in tree canopy. Please consider this very important issue. This happened in the Ezone site visit and remapping. See section.

6. Policy: Adopt the six "existing adopted" natural resource conservation plans (and their maps) that have been **redacted from 33.430.020 Environmental Reports** that applies to remapped areas:
   - Balch Creek Watershed Protection Plan - 1991
   - Fanno Creek and Tributaries Conservation Plan -1993
   - Johnson Creek Basin Protection Plan -1991
   - Skyline West Conservation Plan -1994
   - Southwest Hills Resource Protection Plan -1992
   - ESEE Analysis and Recommendation for Natural, Scenic and Open Space Resources within Multnomah County Unincorporated Areas -2002

   These existing adopted polices (above) are adopted by the 2035 Comprehensive Plan. To be in compliance with 2035 Comprehensive Plan, adopt these plans which The Environmental Overlay Zone Maps Correction Project has redacted.

   Policy: Adopt these **additional** "existing adopted" natural resource conservation plans (and their maps) that applies to remapped areas:
   - Fanno Creek Watershed -1999
   - Boring Lava Domes – Supplement to Johnson Creek Basin Plan - 1997
   - Johnson Creek Watershed Summaries of Resource Site Inventories - 1998
   - Johnson Creek Floodplain Zoning Code Maintenance - 2003
   - Northwest Hills Protection Plan - 1992
   - Northwest Hills Study - 1985
   - NW Hills Natural Areas Protection Plan - 1991
   - NW Hills Natural Areas Protection Plan - 1995
   - Terwilliger Parkway Corridor Plan - 1983

Policy: 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. **Why were these reports redacted in the first place when these areas and natural resources are affected?**

7. Process: Cross-check that known streams, water resources and wetlands on the existing maps are found, mapped, and not missed on the Ezone's proposed computer maps. This is important since this is a new mapping model being applied.

8. Policy: Adopt the Goal 5 Administrative Rule. "The new rule established substantive and procedural requirements for the protection of resources that the City of Portland had not followed in formulating its Comprehensive Plan. Inventory methods, forms of analysis, and protective measures were the most obvious examples."

   Policy: Adopt Fanno Creek and Tributaries Conservation Plan - 1993 and Fanno Creek Watershed – 1999 to comply with Oregon State's review that natural resources of Fanno Creek need to be included for Statewide Planning Goal 5 to be complete. (See documentation H)

9. Process: Establish process for future parks to give them full protection P zones as other parks.

10. Policy & Site Specific: Include Terwilliger Parkway as a significant park in SW10's written criteria due to Terwilliger Parkway's recent elevated status. On March 1, 2021, Terwilliger Parkway is now registered on the National Register of Historic Places as a significant public park deserving of greater preservation and environmental protection.

11. Policy & Site Specific: Apply consistent policy to ALL significant public parks throughout ALL resource sites. Apply FULL protection P zone for all forest vegetation throughout ALL resource sites including Terwilliger Parkway and Marquam Park in SW10.

12. Policy: Apply Environmental Overlay Zone Maps Correction Project's written reports definition of steep slopes criteria: 25% or greater slope to all designated resource areas criteria where steep slope is mentioned. There is a confusion that 40% is being applied. Please confirm that the 25% or greater slope is being applied per written Ezone reports. (Documentation G – Steep slope defined in written report as 25% or greater slope)

13. Process: 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. Update Ezone computer mapping to the new data including upcoming slope data.

REQUEST 1

Collect new computer LiDAR mapping data. The model is incomplete based on outdated mapping from 12-17 years ago which is missing current natural resource data from 2005 to 2022. The foundation of this entire project is based on the accuracy of the computer mapping model. The Ezone Map Correction Project is remapping our valuable natural resources based on old data from 12-17 years ago. Do not approve this project without new updated LiDAR data that reflect changes and development to natural resources from 2005 thru 2022.

New computer mapping is applying older LiDAR data from 12-17 years ago.
The Environmental Overlay Zone Maps Correction Project is applying the 2012 Natural Resource Inventory (approved by City Council 9 years ago) with LiDAR computer map inventory generated prior to 2012. The LiDAR computer mapping collected in 2004 (Portland Hills) and 2007-2009 (Portland) is 12-17 years old and does not reflect the current environmental landscape of 2022. The LiDAR mapping data was updated in 2012-2013 (West Metro) and in 2014 (Metro) is 7-8 years old. The combined mapping which data (from 2004-2014) is missing current data from 2014-2022. Although this is new LiDAR computer technology applied to hand drawn maps, the mapping does not reflect changes and development to natural resources for the past 12-17 years. **The maps are outdated**. (See documentation A)

Project	**Dates Flown (LiDAR)**
Portland Hills	July 2, 2004
Portland – Mt. Hood Study Area	Mar 16, 2007 – Apr 11, 2009
West Metro	Dec 29, 2012 – Jan 2, 2013
Metro	July 9 – Sep 7, 2014

The Environmental Overlay Zone Maps Correction Project rezoning is affecting approximately 17,000 properties, seven Portland areas, and 145 resource sites. **Since this is remapping our natural resources, why is it not accounting for data from the last 12-17 years?** In all fairness to affected property owners, we request that NEW LiDAR data be collected. Once the foundation is solid (and the mapping is accurate and current), everything else will follow.

It is so important to have complete, accurate, up to date computer model mapping.
The mapping is the FOUNDATION of the entire project. If the foundation is not solid, the Environmental Overlay Zone Map Correction Project is not solid. We recommend getting NEW updated LiDAR computer mapping of Portland.

REQUEST 2
Collect new computer LiDAR mapping data. The computer model is incomplete and missing vertical slope assessment data. Slope assessment is key to applying computer algorithms to protect our streams.
Do not approve this project without new updated LiDAR data which includes slope assessment data.

Since the LiDAR mapping data is 12-17 years old and lacks recent data from 2005-2022 if does not have all the necessary slope data to access the vertical component needed to protect streams.

QUESTIONS on the computer mapping model:
Slope data questions:

1. Does the computer model have slope assessment data for **the entire Portland area**?
2. Does the computer model have slope assessment data for **the Southwest Hills and Northwest Hills**?
3. Is the slope data complete in the entire Portland area and able to measure slope angle accurately from 0 to 90 degrees?
4. Is the slope data complete in the Southwest Hills and Northwest Hills and able to measure slope angle accurately from 0 to 90 degrees?

We, the neighbors of the forest between Dosch Road / Dosch Court / Sweetbriar Drive, believe that our forest area's protection P zones were reduced because the "existing adopted" plan Metro Title 3 is NOT being adopted with the Environmental Overlay Zone Map Correction Project**. We asked for assessment of the steep slope ravines, and we were told that it would require "Geotechnical engineering" which would be onsite determination. It does not appear that slope data is available.**

(See documentation X-3: Ezone Staff's reply to our written testimonies for the Planning and Sustainability's Open Hearing on August 24, 2021 noting that **"the slope maps will be updated…"**

Slope data is important because it's the vertical assessment (or the vertical component) of mapping 3-dimensional terrain. Since land is 3-dimensional, the maps need to be able to map 3-dimensional with slope (vertical) assessment data.

5. Some resource sites have steep slope protection listed in their resource site criteria. Is the mapping for those areas done by onsite calculations with "Geotechnical engineering?" Are the LiDAR computer maps unable to assess slope degree automatically for these resource site areas?

6. Do the Environmental Overlay Zone Map Correction Project's maps have the computer algorithm to assess steep slopes 3-dimensional?

7. Or are the Environmental Overlay Zone Map Correction Project's computer maps lacking in slope data and is only mapping 2-dimensionally?

8. Can the Environmental Overlay Zone Map Correction Project's maps access a 25-degree slope which is the Environmental Overlay Zone Map Correction Project's criteria for steep slope protection? Or is only 40-degress assessable?

If the Environmental Overlay Zone Map Correction Project's maps are not able to map 3-dimensional factoring the vertical component of steep slopes, then the LiDAR computer mapping is not comparable or equivalent to the current existing mapping model we have. The current existing model accounts for 3-dimensional terrain by adding the supplemental "adopted existing" plan Metro Title 3.

Metro Title 3 extends the protection up to 200 feet for slopes to a primary protected water feature.
If a slope is greater than 25% slope, and longer than 150 feet in length, **200 feet protection.**
If a slope is greater than 25% slope, and the length is between 25 to 149 feet, protection is applied for the entire length of the slope plus 50 feet more = **75 to 200 feet protection.**
If a slope is less than 25% slope, **50 feet protection.**
If the Environmental Overlay Zone Map Correction Project's computer model is not complete and does not have the ability to assess the steepness of slopes, then the Environmental Overlay Zone Map Correction Project computer model cannot fundamentally apply the "existing adopted" plan Metro Title 3. If this is the case, that is why Metro Title 3 cannot be adopted. If Metro Title 3 cannot be adopted, that is why the watershed, headwater, and tributary areas of the Southwest Hills and Northwest Hills protection is being reduced and why the Environmental Overlay Zone Map Correction Project is shrinking protection P zones.

If this is the case, the Environmental Overlay Zone Map Correction Project is replacing the current existing mapping that has 3-dimensional terrain assessment and replacing it with computer mapping that can only map 2-dimensionally.

Even if new LiDAR data becomes available with slope data, the new data cannot automatically be adopted into the computer model's mapping. The City needs to approve it first. Ex: The Environmental Overlay Zone Map Correction Project outdated maps that the Environmental Overlay Zone Map Correction Project is now applying was approved by the City Council in 2012.

Ezone Map Correction Project's response to testimony G.17 for open hearing August 24, 2021:

> "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."

If the Environmental Overlay Zone Map Correction Project cannot apply a slope assessment in their computer model, then the "obvious" process would be to apply a "sticker" (standard) format of 50 feet protection of streams. This is the "sticker" buffer that the Environmental Overlay Zone Map Correction Project is applying.

To protect a stream at a minimum of a FULL HORIZONTAL 50 feet protection P zones is important.
If the Environmental Overlay Zone Map Correction Project's computer model does not have slope assessment, it cannot apply a FULL HORIZONTAL 50 feet protection because the computer will only follow the path of the terrain. 50 feet can be 50 feet up a steep ravine or 50 feet up a hill that curves up and down or 50 feet horizontal. The Environmental Overlay Zone Map Correction Project may not be able to distinguish what is up, sideways, or horizontal.

The problem with the Environmental Overlay Zone Map Correction Project's mapping algorithm is the 50-foot buffer can be straight up a vertical embankment or on a vertical steep slope. 50 feet straight up is still allowing possible development right next to the stream and not applying a true 50-foot HORIZONTALLY buffer. This is the "sticker" standard the Environmental Overlay Zone Map Correction Project is applying.

Let's switch scenarios and the Environmental Overlay Zone Map Correction Project indeed has a complete slope data:

1. If the Environmental Overlay Zone Map Correction Project has the necessary slope assessment data, then why isn't the Environmental Overlay Zone Map Correction Project applying a minimum of a 50 feet FULL HORIZONTAL BUFFER to protect the streams?

2. If the Environmental Overlay Zone Map Correction Project has the necessary slope assessment data, then why isn't the Environmental Overlay Zone Map Correction Project applying the "existing adopted" plan Metro Title 3 to protect our vital watershed system in the Southwest Hills and Northwest Hills?

3. If the Environmental Overlay Zone Map Correction Project is trying to be compliant with the 2035 Comprehensive Plan, then why is it NOT aligning with the 2035 Comprehensive Plan's environmental goal of the protection of Portland's watersheds?

4. If the Environmental Overlay Zone Map Correction Project has the proper slope assessment data, then why is the Environmental Overlay Zone Map Correction Project redacting and omitting important conservation plans and environmental plans which outlines the importance of protect the watershed, headwater, and tributary stream in Northwest Hills, Southwest Hills and Fanno Creek?

REQUEST 3

#1 The Ezone Map Correction Project has reduced the protection P zones in the headwater and tributary areas by not adopting the "existing adopted plan" of Metro Title 3.

Apply greater protection to the watershed, headwater, and tributary areas by adopting the "existing adopted plan" Metro Title 3

Reason: Not giving greater protection to the watershed, headwaters and tributary streams will create more inequities to the neighborhoods downstream.

Metro Title 3 protects streams with steep slope protection up to 200 feet.

By not adopting Metro Title 3, the Ezone Map Correction Project has reduced the protection to our streams by 100 feet (which is half of the current existing environmental protection of up to 200 feet protection).

The Ezone Map Correction Project is ONLY keeping to each resource site's written criteria for environmental protection and not adding the additional supplemental protection that the "existing adopted" plan Metro Title 3 offers.

Metro Title 3 extends the protection up to 200 feet for slopes to a primary protected water feature.

See Table 3.07-3

If a slope is greater than 25% slope, and longer than 150 feet in length, **200 feet protection.**

If a slope is greater than 25% slope, and the length is between 25 to 149 feet, protection is applied for the entire length of the slope plus 50 feet more = **75 to 200 feet protection.**

If a slope is less than 25% slope, **50 feet protection.**

Table 3.07-3 - Protected Water Features

(Section 3.07.340(b)(2)(A))

Protected Water Feature Type (see definitions)	Slope Adjacent to Protected Water Feature	Starting Point for Measurements from Water Feature	Width of Vegetated Corridor
Primary Protected Water Features[1]	< 25%	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	50 feet
Primary Protected Water Features[1]	≥ 25% for 150 feet or more[5]	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	200 feet
Primary Protected Water Features[1]	≥ 25% for less than 150 feet[5]	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	Distance from starting point of measurement to top of ravine (break in ≥25% slope)[3], plus 50 feet.[4]
Secondary Protected Water Features[2]	< 25%	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	15 feet
Secondary Protected Water Features[2]	≥ 25%[5]	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	50 feet

(See documentation D - Metro Title 3 page 15)

#2 Apply the "existing adopted plan" Metro Title 3, adopted in 1998
Reason: The Ezone Map Correction Project is NOT factoring a FULL HORIZONTAL PROTECTION 50 feet protection P zone from the streams.
With the Ezone Map Correction Project, the streams would not be protected effectively as with the current existing maps of protection up to 200 feet. The Ezone Map Correction Project is applying a 50 feet protection P zone to whatever the terrain angle is. **If the steep slope is right next to a stream, the Ezone Map Correction Project is applying 50 feet straight up on a vertical steep slope and NOT a FULL HORIZONTAL 50 feet protection P zone.** 50 feet straight up is still right next to the stream. This means you can possibly construct on a steep slope with conservation C zone applied after 50 feet. Allowing construction 50 feet straight up next to a stream, opens the possibility of reduced tree canopy to the stream, heat impact, increased stormwater runoff, degraded stream environment and erosion especially in the headwater and tributary streams in the Southwest Hills and Northwest Hills that have streams in deep ravines that can drop more than 400 feet in one elevation mile travelled.
(See documentation H-4)
#3 EVIDENCE the Ezone Map Correction Project is shrinking protection P zones in the Northwest and Southwest Hills.

The Ezone Map Correction Project's mapped "in error" Marquam Hill Ravine Park (north side in SW9) which took away **approximately 70 acres** of protection P zones and changed to conservation C zones (opening for possible construction) in this Southwest Hills' Park with very steep ravines. <u>This large reduction of P zones is reflective of the Ezone Map Correction Project's standard computer algorithm being applied throughout the Southwest and Northwest Hills.</u>
(See attachment for mapping error: MarquamPark.pdf)

The mapping error of Marquam Hill Ravine was resolved, and protection P zones were put back. Although the error was resolved, this is indicative of the Ezone Map Correction Project's computer model reducing protection P zones in the West Hills.

#4 Apply greater protection to the headwater, tributary, and headwater areas. Keep the "existing adopted plans" for protection for headwater, tributary, and watershed areas, including Metro Title 3 for protection P zones of slopes up to 200 feet. Protect steep slopes. (See documentation D – Metro Title 3)

Is policy aligned with Oregon State's bigger concern with wildfires in Wildland Urban Interface (WUI) areas? The Environmental Overlay Zone Maps Correction Project's policy seems counter to wildfire prevention in Wildland Urban Interface (WUI) areas. Proposed policy is shrinking protection P zones in riparian areas in the headwater, tributary, and watershed areas and not allocating protection of steep slopes if not within 50 feet of riparian areas. This applies to WUIs in Fanno Creek, Southwest Hills and Northwest Hills.

"*Governor Kate Brown issued Executive Order 19-01 on January 30, 2019,* *establishing the Governor's Council on Wildfire Response, and directing the Council to review Oregon's current model for wildfire prevention, preparedness and response, analyzing whether or not the current model is sustainable given our increasing wildfire risks. To the extent this review identified insufficient or unsustainable systems, the Council was directed to develop recommendations for improvements*." **This report stresses the importance of wildfire prevention and places *"overall wildfire risk in Oregon is VERY HIGH"* and the *"Overall Priority"* is "*HIGHEST*"** The recommendation from this executive order is creating **defensible space** "*the buffer between*

a building on the property and the grass, trees, shrubs, or any wildland area surrounding it."[1] (See documentation T – Kate Brown"s Executive Order)

Slopes are a main topographical factor in the start and spread of wildfires. Protect steep slopes.

Since there are very steep slopes, ravines and canyons in the headwater, tributary, and watershed areas such as Fanno Creek, these areas are prone to wildfires. Fanno Creek streams can drop 400 feet in elevation per mile. (See documentation H-4, Fanno Creek Watershed environmental report)

The common component of the spread of these wildfires and megafires is slope. The steeper the slope, the faster the fire burns. (See documentation P, S – video)

For further explanation of the dangers of wildfires behaviors in box canyons, narrow canyons, wide canyons, ridges, and saddles. (See documentation P)

REQUEST 4

Apply a minimum of a full "HORIZONTAL 50 feet" protection P zone in riparian areas.

The Ezone Map Correction Project is not factoring a vertical component (steep slopes) next to the streams. Land is 3-dimensional. The Ezone proposed policy is giving LESS protection.

If the steep slope is right next to a stream, the Ezone Map Correction Project is applying 50 feet straight up on a vertical slope and NOT a FULL HORIZONTAL 50 feet. 50 feet straight up is still right next to the stream. Construction can possibly happen on a steep slope with conservation C zone applied after 50 feet. Allowing construction 50 feet straight up next to a stream opens the possibility of reduced tree canopy to the stream, heat impact, increased stormwater runoff, degraded stream environment and erosion. The Southwest Hills and Northwest Hills have streams in deep ravines that can drop more than 400 feet in one elevation mile travelled. (See documentation H-4)

REQUEST 4a Sites specific

Apply a minimum of a full HORIZONTAL 50 feet protection P zone in riparian areas to resource sites with <u>less than 50 feet protection P zones</u> for: Fanno Creek: FC4 and FC7,
Forest Park and Northwest District: FP1, FP2, FP6, FP8, FP11, FP12, FP14, FP16, FP21

Proposed policy is only protecting 25 feet from streams in these resource sites which is not a FULL HORIZONTAL 25 feet protection P zone. This opens the possibility of increased stormwater runoff, degraded stream environment and erosion. 25 feet protection is not enough. It is the length of a driveway.

REQUEST 5

Isolated forests are NOT protected regardless of size.

Privately owned or public isolated forest not designated as parks or unique features (ex: oak) will not have any environmental protection (no P protection zone or C conservation zone) however large the forest patch. The wildlife depends on the riparian corridors as well as isolated forests to travel throughout the city.

By taking away all environmental zoning to isolated forest patches with no size restriction, construction can strategically break larger areas of continuous forest. If one owner develops on his forest property and divides the forest in half, then one side can become an isolated forest patch and the environmental protection zoning will be taken off on the neighbors' properties. Neighbors on that side would lose all environmental protection zoning to their forest properties (no protection P zone or conservation C zone). With no size limit, this could affect multiple neighbors' properties and property values. We ask you to re-evaluate this policy for protection of property owners with forests.

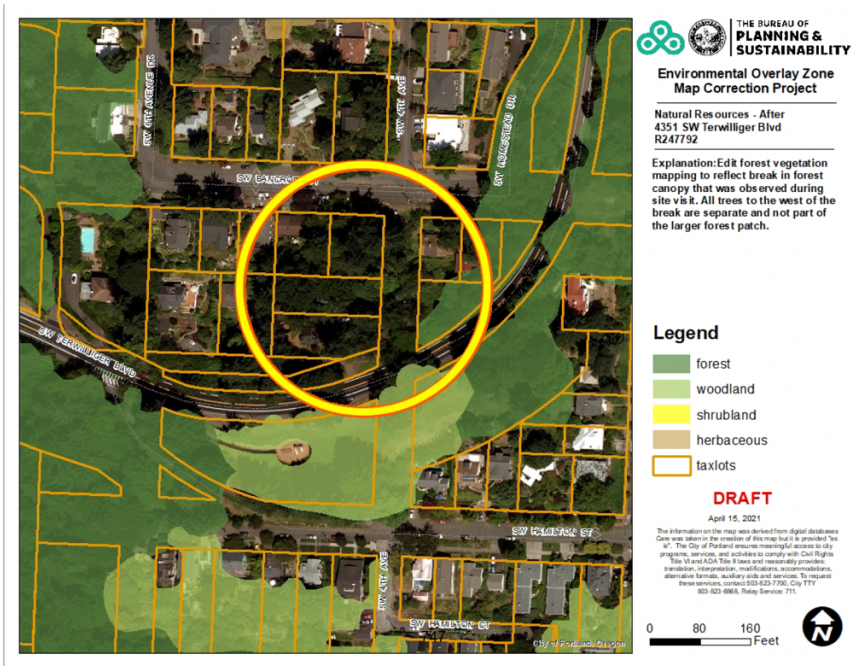


Photo of actual zone change after Ezone site visit: Because there is a break in the forest canopy, this forest patch is getting separated and carved off from the larger forest. Isolated forests are not protected at all. This forest that was once protected is no longer protected (no P zone and no C zone) and construction can follow. Since the request for zoning change was from one neighbor, it is affecting the protection zone of the forest of his neighbor's property taking away environmental protection to his neighbor's forest.

Forests are defined as 60% or greater tree canopy. If a continuous forest has a break in the forest canopy of 59% (1% less than 60%) then one side can become an isolated forest patch however large.

If there is a fire on a property and breaks the tree line (becomes less than 60% tree canopy), it can divide a continuous forest. One side can become an isolated forest patch, no matter how large, and all protection zoning taken off. Private properties with forests are affected.

We ask that isolated forests that are 1/2 acre or larger with a tree canopy of 60% be protected. Apply restrictions to isolated forests so that construction can happen responsibly. Although it is very important to have forests protect the streams along the riparian corridors, forests are not just secondary resources. They are a resource in themselves and need to be protected.

REQUEST 6

Apply consistent policy. There is not consistency in adopting 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 area's natural resources over other resource area's natural resources.**

Adopt these existing adopted plans (and their maps) which were REDACTED from:

(See documentation B – redacted plans and favored plans, C)

• Balch Creek Watershed Protection Plan - 1991

• Fanno Creek and Tributaries Conservation Plan -1993
• Johnson Creek Basin Protection Plan -1991
• Skyline West Conservation Plan -1994
• Southwest Hills Resource Protection Plan -1992

Applies to:	Johnson Creek	Site No. 110	p 91
	Canyon Headwaters	Site No. 111	p 98
	Canyon Road East	Site No. 112	p 104
	Marquam Hill Ravine	Site No. 113	p 109
	Terwilliger Parkway, Central	Site No. 114	p 117
	George Himes Park	Site No. 115	p 128
	Capitol Hill/Burlingame	Site No. 116	p 134
	Stephens Ck/River View Cem	Site No. 117	p 139
	Multnomah	Site No. 118	p 145
	Falling Creek	Site No. 119	p 149
	Marshall Park/Capitol Hill	Site No. 120	p 154
	Arnold Creek Headwaters	Site No. 121	p 159
	Arnold Creek	Site No. 122	p 164
	Tryon Creek State Park	Site No. 123	p 169

• ESEE Analysis and Recommendation for Natural, Scenic and Open Space Resources within Multnomah County Unincorporated Areas -2002

Applies to: Johnson Creek
Linnton
Sylvan
Dunthorp

Adopt these existing adopted plans (and their maps) which were OMITTED: (See documentation E)

• Fanno Creek Watershed -1999
• Boring Lava Domes – Supplement to Johnson Creek Basin Plan - 1997
• Johnson Creek Watershed Summaries of Resource Site Inventories - 1998
• Johnson Creek Floodplain Zoning Code Maintenance - 2003
• Northwest Hills Protection Plan - 1992
• Northwest Hills Study - 1985
• NW Hills Natural Areas Protection Plan - 1991
• NW Hills Natural Areas Protection Plan - 1995
• Terwilliger Parkway Corridor Plan - 1983

Note: Proposed policy adopts “Northwest Hills Natural Areas Protection Plan”

Adopt any additional plans (and their maps) that are not included in this list if it applies to any affected areas.

EVIDENCE OF REDACTIONS on Environmental Overlay Zone Map Correction Project's report
Redaction of six existing environmental reports (and corresponding maps):
These are part of the adopted existing plans from 1989.
(Underlined words are added, redactions are strikethrough)

Environmental Overlay Zone Maps Correction Project Proposed Draft June 2020
VOLUME 1, PART B: Project Report, Zoning Code and Map Updates
33.430.020 Environmental Reports (See below documentation C—links to all redacted plans)
The application of the environmental zones is based on detailed studies that have been carried out within five~~ten~~ separate areas of the City. The City's policy objectives for these study areas are described in ~~the~~ reports. Each study ~~report~~ identifies the natural resources features and describes the functional values ~~of the~~ within resource sites. Functional values are the benefits provided by resources. The values for each resource site are described in the inventory section of these reports. The City has adopted the following five~~ten~~ environmental study reports:

• Environmental Overlay Zone Map Correction Project
~~• Balch Creek Watershed Protection Plan~~
• Columbia Corridor Industrial and Environmental Mapping Project
• East Buttes, Terraces and Wetlands Conservation Plan
~~• Fanno Creek and Tributaries Conservation Plan~~
~~• Johnson Creek Basin Protection Plan~~
• Northwest Hills Natural Areas Protection Plan
~~• Skyline West Conservation Plan~~
~~• Southwest Hills Resource Protection Plan~~
~~• ESEE Analysis and Recommendation for Natural, Scenic and Open Space Resources within Multnomah County Unincorporated Areas~~
• Middle Columbia Corridor/Airport Economic, Social, Environmental and Energy (ESEE) Analysis"

~~Map 430-1 Balch Creek Watershed Protection Plan Area~~
Map 430-1 Environmental Overlay Zone Map Correction Project Area
Map 430-2 Columbia Corridor Industrial and Environmental Mapping Project Area
Map 430-3 East Buttes, Terraces and Wetlands Conservation Plan Area
~~Map 430-4 Fanno Creek and Tributaries Conservation Plan Area~~
~~Map 430-5 Johnson Creek Basin Protection Plan Area~~
Map 430-~~6~~4 Northwest Hills Natural Areas Protection Plan Area
~~Map 430-7 Skyline West Resource Protection Plan Area~~
~~Map 430-8 Southwest Hills Resource Protection Plan Area~~
Map 430-~~9~~5 East Columbia Neighborhood Natural Resources Management Plan Area
~~Map 430-10 (Smith and Bybee Lakes Natural Resources Management Plan Area — repealed on 12/31/13)~~
Map 430-~~12~~6 Peninsula One Natural Resources Management Plan Area
Map 430-~~11~~7 Forest Park Natural Resources Management Plan Area
Map 430-~~13~~8 Middle Columbia Corridor/Airport Natural Resource Inventory Environmental Mapping Project Area
Map 430-~~14~~9 Bank Reconfiguration and Basking Features Area
(See documentation B)

REQUEST 7
Process: Cross-check that known streams, water resources and wetlands on the existing maps are found, mapped, and not missed on the Ezone's proposed computer maps. This is important since this is a new mapping model being applied.

The Ezone Map Correction Project missed vital streams in the Southwest Hills.
One stream is a small tributary stream in the HEADWATERS of Lowell Creek FC3, which is at the top of the tributary of Fanno Creek, near Council Crest, the top of the watershed. The stream existed on the current mapped and missed on the Ezone proposed maps. Since the protection P zones were taken off, construction interest immediately followed to build over the headwater tributary stream.

REQUEST 8
Adopt the Goal 5 Administrative Rule to comply with the Oregon State's review.
Goal 5 Adminstrative Rule says that Fanno Creek natural resources need to be included for Statewide Planning Goal 5 to be complete.

Adopt the existing adopted plan: Fanno Creek and Tributaries Conservation Plan - 1993
Adopt the existing adopted plan: Fanno Creek Watershed - 1999

Fanno Creek and Tributaries Conservation Plan – 1993, pp. 17-18
"Statewide Planning Goal 5 requires all city and county governments to, "Conserve open space and protect natural and scenic resources." The Oregon Land Conservation and Development Commission adopted this Goal in 1974, and provided further guidance for carrying it out in 1981. Between 1974 and 1981 the City enacted a variety of land use regulations to meet Statewide Planning Goal 5. The State agreed that these regulations were sufficient, and approved the Portland Comprehensive Plan on May 1, 1981."

"The State did not draft an administrative rule describing how local governments should apply Statewide Planning Goal 5 until after the Portland Plan had been submitted for approval. Land Conservation and Development Commission records show that the Goal 5 Administrative Rule was adopted during the same meeting in which the Portland Plan received state approval. The rule was not, however, applied to the Portland Plan because the rule was not effective until it was filed with the Secretary of State's office on May 8, 1981. **The new rule established substantive and procedural requirements for the protection of resources that the City of Portland had not followed in formulating its Comprehensive Plan.** Inventory methods, forms of analysis, and protective measures were the most obvious examples. The Oregon Legislative Assembly also enacted legislation in 1981 authorizing periodic review of all previously approved land use plans. **The combined effect of the 1981 legislation and Goal 5 Administrative Rule was a requirement that the City bring its Comprehensive Plan, land use regulations, and zoning maps into compliance with the new rule before its first periodic review. The Portland City Council adopted ordinates in 1982 and 1988 correcting most deficiencies relating to Statewide Planning Goal 5 requirements, but the Goal 5 Administrative Rule has never been applied to natural resources in the Fanno Creek Watershed. Fanno Creek natural resources must, therefore, be identified, and in certain cases protected, before the State will allow the City to complete periodic review.** The following paragraphs outline the content of the Fanno Creek Plan and describe process required by the 1981 administrative rule to identify, evaluate, and protect natural resources."
(See documentation H, pp 17-18 Fanno Creek and Tributaries Conservation Plan)

REQUEST 9
Process: Establish a future process for adding protection P zones to new Parks registered as significant parks. Please include Terwilliger Park in this process.
Do not approve this project until Terwilliger is protected with full protection P zone.

REQUEST 10
Policy & Site Specific: Include Terwilliger Parkway as a significant park in SW10's written criteria due to Terwilliger Parkway's recent elevated status.

Elevate Terwilliger Parkway's status to significant public park in SW10's written criteria and apply full protection P zones for all forest vegetation to the entire park. Proposed policy applies full protection P zone to significant public parks in other resource areas. Apply policy consistency to Terwilliger Parkway.

On March 1, 2021, Terwilliger Parkway is now registered on the National Register of Historic Places as a significant public park deserving of greater preservation and environmental protection.

Official letter from Christine Curran, Deputy State Historic Preservation Officer, which announced on March 1, 2021, the elevated status of Terwilliger Parkway on the National Register of Historic Places and recognizes the significance and preservation of Terwilliger Parkway.
(See documentation V-1, V-2)

The Environmental Overlay Zone Map Correction Project's policy protects public parks with full protection P zones of ALL "vegetation" in 22 resource sites and ALL "forest vegetation" in 11 resource sites. Significant parks with full protection P zones with forest vegetation include: Council Crest, Woods Memorial Nature Area, Forest Park, Pittock Acres Park, Hoyt Arboretum, George Himes Park, Marshall Park, Tryon Creek State Park, and Powell Butte Nature Park. **Apply consistent policy to rest of public parks.**
(See documentation W – list of parks and resource sites protected)

REQUEST 11
Policy is inconsistent "within" the protection of Marquam Park itself as well.
Proposed policy is protecting the north side of Marquam Park SW9 with full protection P zone, and with "limited" protection P zone of 50 feet in riparian areas in SW10. If Marquam Park is worthy of full protection in SW9, why wouldn't Marquam Park be worthy of full protection in SW10? Apply consistent policy for full protection of Marquam Park of full protection P zone. (See documentation F – written criteria)

The south side was adopted as a park after the original Ezone mapping years ago. There should have been a system in place for future processes and procedures so when a park reaches a significant status there is a process to increase the protection of the park to full protection P zones. We are asking for special consideration to be placed for the south side SW10 of Marquam Park so that it is protected with full protection P zones as other significant parks in Portland. If the ezone mapping years ago had set forth a future plan, Marquam Park SW10 would have full protection now.

Parks with full protection:

1. Tryon Creek and Southwest Hills East resource areas:
   SW3-Hoyt Arboretum and Pittock Acres
   SW16–Marshall Park
   SW22–Tryon Creek State Park.

2. Fanno Creek resource areas
   FC5–Council Crest
   FC10–Woods Memorial Nature Area.
3. Forest Park and Northwest District's resource areas
   FP1–FP16,
   FP19–FP23
   FP28
   FP31–Forest Park

Adopt the existing adopted environmental plan Southwest Hills Resources Protection Plan -1992 (redacted). In the report, Marquam Hill is "characterized by steep, unstable slopes. Marquam Nature Park forms the centerpiece for the site's natural habitat and serves to protect its unstable hillsides from development. It is a 71-acre forested upland area bisected by multiple ravines." Protect all of Marquam Park so that all the unstable steep slopes are protected. (See documentation N)

Conclusion:
It is easier to protect than to rehabilitate natural resources.

This is not an environmental remapping project that affects certain areas, this is a Portland wide initiative since streams flow for miles. It is important when one section of stream is found, the neighbors are notified so that other parts of the stream can be mapped.

Although it is very important to have forests protect the streams along the riparian corridors, forests are not just secondary resources. They are a resource in themselves and need to be protected. We request you to apply protection to isolated forests.

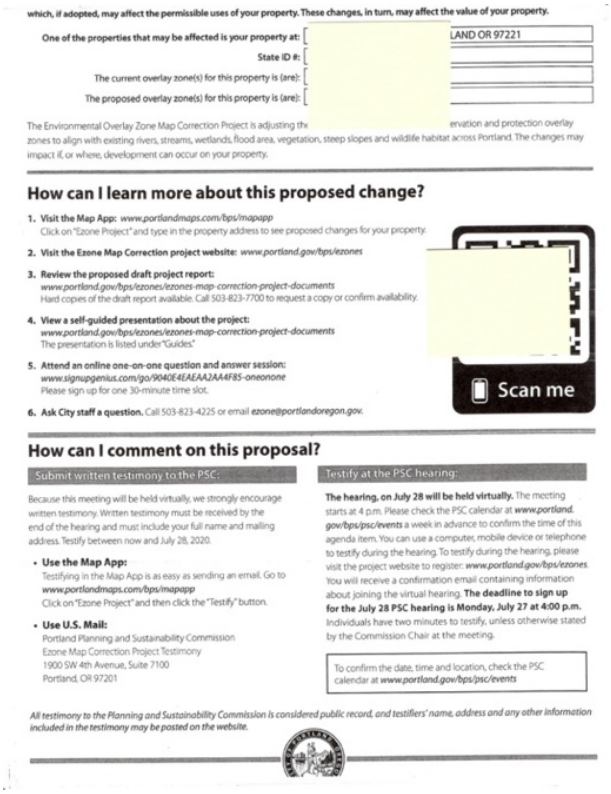
Thank you, Mayor Wheeler and Commissioners, for opening the public hearing. We wish to express our appreciation to the staff for their ongoing efforts and diligence in this enormous project. We look forward to further conversations as the Commission concludes this important work.
The 2035 Comprehensive Plan which is one of the five main plans of the Ezones Remapping Correction Project emphasizes the importance of equity and the importance of the watersheds. We ask you to find the unmapped headwater streams and protect them with greater protection. These are the BEST of the streams and the BEGINNING of the entire water system. **By missing these streams, it creates more inequities to the properties and neighborhoods down below, creating wider disparities.**

Sincerely,
From the 37 of us.

Barrett Streu
Rachel Streu
Yoann Foucher
Laurence Juthy
Mike Kutter
Marti Kutter
Hugh Givens
Deb Givens
Marilyn Cover
Kathy Prosser

Steve Prosser
Kevin Pendergast
Eugene Yeboah
Sarah Dandurand
Prashant Kakad
Tiffany Rohani
Reyaz Rohani
Lynne Chao
Alex Cooley
Katie Cooley
Andrew Markell
Kate Markell
Chris Baier
Russ Black
Joan Black
Keph Sherin
Kristine Dukart-Harrington
Laurie Dukart-Harrington
Audra Oakley
Laura Swingen
Carole Bertrand
Jill McAllister
Scott McAllister
Daniela Schlechter-Keenan
Dave Fitzpatrick
Laurali Hudgins
Joseph Kovar

Documentation AA – mailing to affected property owners



which, if adopted, may affect the permissible uses of your property. These changes, in turn, may affect the value of your property.

One of the properties that may be affected is your property at: [redacted] LAND OR 97221

State ID #: [redacted]

The current overlay zone(s) for this property is (are): [redacted]

The proposed overlay zone(s) for this property is (are): [redacted]

The Environmental Overlay Zone Map Correction Project is adjusting th[redacted]ervation and protection overlay zones to align with existing rivers, streams, wetlands, flood area, vegetation, steep slopes and wildlife habitat across Portland. The changes may impact if, or where, development can occur on your property.

How can I learn more about this proposed change?

1. **Visit the Map App:** *www.portlandmaps.com/bps/mapapp*
   Click on "Ezone Project" and type in the property address to see proposed changes for your property.
2. **Visit the Ezone Map Correction project website:** *www.portland.gov/bps/ezones*
3. **Review the proposed draft project report:**
   www.portland.gov/bps/ezones/ezones-map-correction-project-documents
   Hard copies of the draft report available. Call 503-823-7700 to request a copy or confirm availability.
4. **View a self-guided presentation about the project:**
   www.portland.gov/bps/ezones/ezones-map-correction-project-documents
   The presentation is listed under "Guides."
5. **Attend an online one-on-one question and answer session:**
   www.signupgenius.com/go/9040E4EAEAA2AA4F85-oneonone
   Please sign up for one 30-minute time slot.
6. **Ask City staff a question.** Call 503-823-4225 or email *ezone@portlandoregon.gov.*

Scan me

How can I comment on this proposal?

Submit written testimony to the PSC:

Because this meeting will be held virtually, we strongly encourage written testimony. Written testimony must be received by the end of the hearing and must include your full name and mailing address. Testify between now and July 28, 2020.

- **Use the Map App:**
  Testifying in the Map App is as easy as sending an email. Go to *www.portlandmaps.com/bps/mapapp*
  Click on "Ezone Project" and then click the "Testify" button.
- **Use U.S. Mail:**
  Portland Planning and Sustainability Commission
  Ezone Map Correction Project Testimony
  1900 SW 4th Avenue, Suite 7100
  Portland, OR 97201

Testify at the PSC hearing:

The hearing, on July 28 will be held virtually. The meeting starts at 4 p.m. Please check the PSC calendar at *www.portland.gov/bps/psc/events* a week in advance to confirm the time of this agenda item. You can use a computer, mobile device or telephone to testify during the hearing. To testify during the hearing, please visit the project website to register: *www.portland.gov/bps/ezones*. You will receive a confirmation email containing information about joining the virtual hearing. **The deadline to sign up for the July 28 PSC hearing is Monday, July 27 at 4:00 p.m.** Individuals have two minutes to testify, unless otherwise stated by the Commission Chair at the meeting.

To confirm the date, time and location, check the PSC calendar at *www.portland.gov/bps/psc/events*

All testimony to the Planning and Sustainability Commission is considered public record, and testifiers' name, address and any other information included in the testimony may be posted on the website.

Documentation A – LiDAR mapping dates

Project	Dates Flown (LiDAR)
Portland Hills	July 2, 2004
Portland – Mt. Hood Study Area	Mar 16, 2007 – Apr 11, 2009
West Metro	Dec 29, 2012 – Jan 2, 2013
Metro	July 9 – Sep 7, 2014

https://www.oregongeology.org/lidar/collectinglidar.htm

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Documentation B – Redactions of environmental reports and their maps

Environmental Overlay Zone Map Correction Project redacts six existing environmental reports (and corresponding maps):
These are part of the adopted existing plans from 1989. (underlined words are added, redactions are strikethrough) **Environmental Overlay Zone Maps Correction Project Proposed Draft June 2020**
VOLUME 1, PART B: Project Report, Zoning Code and Map Updates
33.430.020 Environmental Reports
Proposed Draft V1B Project Report Zoning Code and Map Amendments
p. 6 (bottom page numbering)

Environmental Overlay Zone Maps Correction Project Proposed Draft June 2020
VOLUME 1, PART B: Project Report, Zoning Code and Map Updates
33.430.020 Environmental Reports (See documentation C—links to all redacted plans)
The application of the environmental zones is based on detailed studies that have been carried out within five~~ten~~ separate areas of the City. The City's policy objectives for these study areas are described in ~~the~~ reports. Each study ~~report~~ identifies the natural resources features and describes the functional values ~~of the~~ within resource sites. Functional values are the benefits provided by resources. The values for each resource site are described in the inventory section of these reports. The City has adopted the following five~~ten~~ environmental study reports:
• Environmental Overlay Zone Map Correction Project
~~• Balch Creek Watershed Protection Plan~~
• Columbia Corridor Industrial and Environmental Mapping Project
• East Buttes, Terraces and Wetlands Conservation Plan
~~• Fanno Creek and Tributaries Conservation Plan~~
~~• Johnson Creek Basin Protection Plan~~
• Northwest Hills Natural Areas Protection Plan
~~• Skyline West Conservation Plan~~
~~• Southwest Hills Resource Protection Plan~~
~~• ESEE Analysis and Recommendation for Natural, Scenic and Open Space Resources within Multnomah County Unincorporated Areas~~
• Middle Columbia Corridor/Airport Economic, Social, Environmental and Energy (ESEE) Analysis"

~~Map 430-1 Balch Creek Watershed Protection Plan Area~~
Map 430-1 Environmental Overlay Zone Map Correction Project Area
Map 430-2 Columbia Corridor Industrial and Environmental Mapping Project Area
Map 430-3 East Buttes, Terraces and Wetlands Conservation Plan Area
~~Map 430-4 Fanno Creek and Tributaries Conservation Plan Area~~
~~Map 430-5 Johnson Creek Basin Protection Plan Area~~
Map 430-~~6~~4 Northwest Hills Natural Areas Protection Plan Area
~~Map 430-7 Skyline West Resource Protection Plan Area~~
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Map 430-~~9~~5 East Columbia Neighborhood Natural Resources Management Plan Area
~~Map 430-10 (Smith and Bybee Lakes Natural Resources Management Plan Area — repealed on 12/31/13)~~
Map 430-~~12~~6 Peninsula One Natural Resources Management Plan Area
Map 430-~~11~~7 Forest Park Natural Resources Management Plan Area
Map 430-~~13~~8 Middle Columbia Corridor/Airport Natural Resource Inventory Environmental Mapping Project Area
Map 430-~~14~~9 Bank Reconfiguration and Basking Features Area

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Documentation C – Link to redacted Natural Resource Conservation Plans
Environmental Reports links (redacted plans)

Balch Creek Watershed Protection Plan - 1991

Fanno Creek and Tributaries Conservation Plan - 1993

Johnson Creek Basin Protection Plan - 1991

Skyline West Conservation Plan - 1994
Southwest Hills Resource Protection Plan - 1992

ESEE Analysis and Recommendations for Natural, Scenic, and Open Space Resources within Multnomah County Unicorporated Urban Areas - 2002

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Documentation D – Metro Title 3: Criteria for Steep Slopes

Metro Title 3 was adopted in 1998 addressing water quality, flood management, and wildlife habitat. Metro Title 3 extends the protection P zones up to 200 feet for steep slopes (if steepness is ≥25%, 150 feet or longer, and next to a primary protected water feature. For steep slopes ≥25%, slope is under 150 feet, next to a primary water feature, the protection P zone is calculated by the distance from starting point of measurement to top of ravine (break in ≥25% slope), plus 50 feet.

Urban Growth Management Functional Plan
Metro Title 3
Table 3.07-3 Protected Water Features
(Section 3.07.340(b)(2)(A))
p. 15 (bottom page numbering)
https://www.oregonmetro.gov/sites/default/files/2018/04/16/urban-growth-management-functional-plan-04162018.pdf

Table 3.07-3 - Protected Water Features

(Section 3.07.340(b)(2)(A))

Protected Water Feature Type (see definitions)	Slope Adjacent to Protected Water Feature	Starting Point for Measurements from Water Feature	Width of Vegetated Corridor
Primary Protected Water Features[1]	< 25%	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	50 feet
Primary Protected Water Features[1]	≥ 25% for 150 feet or more[5]	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	200 feet
Primary Protected Water Features[1]	≥ 25% for less than 150 feet[5]	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	Distance from starting point of measurement to top of ravine (break in ≥25% slope)[3], plus 50 feet.[4]
Secondary Protected Water Features[2]	< 25%	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	15 feet
Secondary Protected Water Features[2]	≥ 25%[5]	• Edge of bankfull flow or 2-year storm level; • Delineated edge of Title 3 wetland	50 feet

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Documentation E – Link to additional Natural Resource Conservation Plans that were omitted

Boring Lava Domes - Supplement to the Johnson Creek Basin Plan - 1997

Fanno Creek Watershed - 1999

Johnson Creek Watershed Summaries of Resource Site Inventories - 1998

Johnson Creek Floodplain Zoning Code Maintenance - 2003

Northwest Hills Protection Plan - 1992

Northwest Hills Study - 1985

NW Hills Natural Areas Protection Plan - 1991

NW Hills Natural Areas Protection Plan - 1995

Terwilliger Parkway Corridor Plan - 1983

Note: There is a confusion on what Northwest plan was adopted as the name is spelled differently and no adoption date is mentioned. Proposed policy adopts "Northwest Hills Natural Areas Protection Plan"

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Documentation F – Link to resource sites' written criteria (page numbering below)

Proposed Draft V1A Project Report Summary of Results
VOLUME 1, PART A: Project Report, Summary of Results

Forest Park and Northwest Hills District (FP 1 – FP41) pp. 30-46 (bottom page numbering)
Skyline West (SK1 –SK10) pp. 47-52
Tryon Creek and Southwest Hills East (SW 1 - SW 23) pp. 53-61
Fanno Creek (FC1-FC13) p. 62-67
East Buttes and Terraces (EB1-EB16) pp. 68-71
Johnson Creek (JC1-JC27) pp. 72-83
Boring Lava Domes (BL1-BL15) pp. 84-91

+++++++

Documentation F-1 – Five main plans of the Environmental Overlay Zone Map Correction Project

Environmental Overlay Zone Map Correction Project is based on these five main plans.

1. Climate Action Plan
2. 2035 Comprehensive Plan
3. Climate Emergency Declaration
4. State Land Use Goal 5
5. Metro Title 13

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Documentation G – Steep slope defined in written report as 25% or greater slope

Steep slope definition of 25 or greater in main written Proposed Draft Summaries

10 ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT main reports that list the definition of steep slopes per resource sites:

Steep slopes in the Environmental Overlay Zone Map Correction Project reports are defined as land with a 25% or greater slope for these resource sites.

"Steep slopes: Land with a 25% or greater slope."

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 1, PART A: Project Report,
Summary of Results,PROPOSED DRAFT, June 2020, p. 13 (bottom page numbering)
Proposed Draft V1A Project Report Summary of Results

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 2, PART A1:
Forest Park and Northwest District, Natural Resources Inventory and Protection Decisions (Resource Sites 1-20)
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2A1 Forest Park and Northwest Resource Sites 1 – 20

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VOLUME 2, PART A2: Forest Park and Northwest
District, Natural Resources Inventory and Protection Decisions, (Resource Sites 21-41)
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2A2 Forest Park and Northwest Resource Sites 21-41

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VOLUME2, PART B:
Skyline West, Natural Resources Inventory and Protection Decisions
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2B Skyline West

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VOLUME 2, PART C: Tryon Creek and Southwest Hills East, Natural Resources Inventory and Protection Decisions
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2C Tryon Creek and Southwest Hills

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VOLUME 2, PART D:
Fanno Creek, Natural Resources Inventory and Protection Decisions
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2D Fanno Creek

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 2, PART E:

East Buttes and Terraces, Natural Resources Inventory and and Protection Decisions
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2E East Buttes and Terraces

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 2, PART F:
Johnson Creek, Natural Resources Inventory and Protection Decisions
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2F Johnson Creek

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 2, PART G:
Boring Lava Domes, Natural Resources Inventory and Protection Decisions
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft Volume 2G Boring Lava Domes

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 3: Natural Resources Inventory Summary
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft V3 Natural Resources Inventory

"C.2. Verifying Habitat Areas
Steep slopes – land with greater than 25% slope upward from river, streams and open water."

ENVIRONMENTAL OVERLAY ZONE MAP CORRECTION PROJECT
VOLUME 4: Regulatory Compliance
PROPOSED DRAFT, June 2020, p. 5 (bottom page numbering)
Proposed Draft V4 Compliance Report

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Documentation H-1 – Fanno Creek: the importance of protecting streams, steep slopes and unstable soil From Fanno Creek and Tributaries Conservation Plan -1993

Fanno Creek and Tributaries Conservation Plan which has been redacted shows the importance of protection steep slopes due to unstable soil composition. This plan needs to be included.

Fanno Creek and Tributaries Conservation Plan - 1993

Purpose of the Plan
P 5 (upper page numbering) The Fanno Creek Plan has the following objectives:

1. To bring the City's comprehensive plan, zoning code, and zoning maps into compliance with State Wide Planning Goal. 5;
2. To reduce the threat of public health safety and welfare from erosion, land slides, earthquakes, and flooding;
3. To help achieve compliance with state and federal water quality regulations; and
4. To facilitate development designed to maintain and enhance natural values provided by Fanno Creek and its tributaries.

Geology

P 9-10 (upper corner numbering)

The Fanno Creek Watershed…known as the West Hills…are composed mostly of Columbia River Basalt. The mountains contain remnant volcanoes, and these are composed of Boring Basalt. Basalt is an igneous rock that begins as lava and fractures as it cools…In a tropical climate basalt can break down into a red clay called laterite. Red, brown, and black basalt flows are exposed in ravines. In other places the basalt is covered by about 25 feet of wind deposited silt. Because basalt fractures when it cools, it stores water in honey-combed shaped spaces between the rock. Underground streams flowing through these cracks are called aquifers. This is why springs are common in areas of exposed basalt. Fractures and faults in the West Hills are also identified as severe earthquakes hazards. Soil that is saturated, but not consolidated, amplifies the motion of earthquakes.

Soils

P 10 (upper corner numbering)

Fanno Creek watershed soils are mostly silts and clays. The United States Soil Conservation Service has identified five soil types (Cascade, Cornelius, Delena, Goble, and Saum) in the watershed. Prior to urban development, almost 95 percent of Portland's portion of the Fanno Creek Watershed was composed of Cascade Silt-loam. This is a wind-deposited soil that erodes easily and does not soak-up storm water very quickly. This top soil is over a harder layer of soil called a "fragipan." Very little water can soak down through this fragipan: plant roots also have a hard time growing through this layer. When it rains, the top two to five feet of soil saturate because water can penetrate no lower. This situation causes aquifers to perch on fragipans during the winter. This is a naturally occurring but dangerous situation. Erosion potential is high; there is a lot of storm water run-off, and landslides result if vegetation is removed from slopes. In the steep headwater areas of Fanno Creek, forests hold soil to the sides of the hills. In fully vegetated sites, there is still a high natural rate of soil erosion. The rate is about three tons, per acre, per year.

Since Portland contains almost all the steep in the headwaters of Fanno Creek, the City is the only place where water runs fast enough to flush eroding soil from gravel stream beds at a rate faster than the natural rate of erosion can silt them up. Most of Fanno Creek has, and has always had, a mud bottom.

P 17

The balanced relationship between the Fanno Creek Watershed's geologic formations, soils, groundwater, and surface water is perpetuated by the extensive canopy cover and root system of the forest which shelters and stabilizes the hillside slopes. Activities that disturb this fragile relationship can substantially degrade resource values causing landslides, flooding, erosion, and sedimentation. Groundwater and precipitation feed the many creeks within the Fanno Creek Watershed. These creeks provide habitat for fish, amphibians, and other aquatic organisms and, which is in turn, provide a source of food for terrestrial wildlife. These creeks are also the most important source of water for terrestrial wildlife. The mosaic of Fanno Creek Watershed forest types provide a range of habitat for a diverse population of indigenous wildlife. These interacting and interdependent elements play vital roles in protecting the balance, health, and vitality of the Fanno Creek Watershed forest and of watershed ecology as a whole.

P 17

Authorities Guiding the Plan (of Fanno Creek and Tributaries Conservation – 1993

Several authorities have guided the preparation of this plan. They include state, federal, and local authorities. Some of these authorities are advisory and others are mandatory."

P 17-18

Statewide Planning Goal 5 and Administrative Rule

Statewide Planning Goal 5 requires all city and county governments to, "Conserve open space and protect natural and scenic resources." The Oregon Land Conservation and Development Commission adopted this Goal in 1974, and provided further guidance for carrying it out in 1981. Between 1974 and 1981 the City enacted a variety of land use regulations to meet Statewide Planning Goal 5. The State agreed that these regulations were sufficient, and approved the Portland Comprehensive Plan on May 1, 1981.

The State did not draft an administrative rule describing how local governments should apply Statewide Planning Goal 5 until after the Portland Plan had been submitted for approval. Land Conservation and Development Commission records show that the Goal 5 Administrative Rule was adopted during the same meeting in which the Portland Plan received state approval. The rule was not, however, applied to the Portland Plan because the rule was not effective until it was filed with the Secretary of State's office on May 8, 1981. The new rule established substantive and procedural requirements for the protection of resources that the City of Portland had not followed in formulating its Comprehensive Plan. Inventory methods, forms of analysis, and protective measures were the most obvious examples. The Oregon Legislative Assembly also enacted legislation in 1981 authorizing periodic review of all previously approved land use plans. The combined effect of the 1981 legislation and Goal 5 Administrative Rule was a requirement that the City bring its Comprehensive Plan, land use regulations, and zoning maps into compliance with the new rule before its first periodic review. The Portland City Council adopted ordinates in 1982 and 1988 correcting most deficiencies relating to Statewide Planning Goal 5 requirements, but the Goal 5 Administrative Rule has never been applied to natural resources in the Fanno Creek Watershed. Fanno Creek natural resources must, therefore, be identified, and in certain cases protected, before the State will allow the City to complete periodic review. The following paragraphs outline the content of the Fanno Creek Plan and describe process required by the 1981 administrative rule to identify, evaluate, and protect natural resources.

P 89-90
ENVIRONMENTAL CONSEQUENCES
Environmental Consequences of Resource Protection
The construction of buildings and impervious surfaces and other human activities which disturb or remove natural resources such as forest vegetation and soils can affect watershed resources in the following ways:

- Increases in erosion, sedimentation and landslides. The unstable soils and steep slopes of the Fanno Creek Watershed can become highly susceptible to erosion, slumping, and failure when forest cover is removed or when cuts and fills are made for roads and buildings. These activities can result in public safety hazards and can degrade wildlife habitat and increase sediment transport, creek bed siltation and degradation or loss of fish spawning grounds.
- **Decreases in creek flows during dry months.** Reduced forest cover and increased impervious surfaces **reduce groundwater recharge and lower the volume of water in creeks contributed by groundwater during low flow periods.** This my alter stream characteristics by **causing portions of affected creeks to dry up earlier in the season, removing a local source of water and moisture essential to the survival of fish, amphibians and aquatic organisms, and preventing salmonids from reaching spawning grounds.**
- **Increases in peak runoffs.** Increase impervious surfaces can increase surface runoff, reduce vegetative detention functions, and compact soils, and all this can result in increased peak flows. Increased peak flows increase erosion, bank undercutting, creekside landslides, sediment transport, **siltation of spawning beds and flooding.**

- **Increases in creek temperature.** Heated runoffs from roads, roofs and compacted soils combined with reduced vegetative cover raise summer water temperatures. **Water temperatures in the high 60° and 70° can be lethal to salmonids and are likely to reduce fish runs…; high water temperatures can also degrade habit for amphibians and other aquatic organisms.**

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Documentation H-2 – Fanno Creek: Endangered Cutthroat Trout
Fanno Creek and Tributaries Conservation Plan - 1993

P 16 (upper corner numbering)
Fish and Wildlife
Fanno Creek contains Cutthroat trout (Oncorhyncus clarki). There are different types of these trout, and each type has a distinct life cycle. Some live in the ocean and spawn in streams; others live in lakes and spawn in streams; a third kind lives in larger streams and spawns in small streams, **and the last kind spends its entire life in small streams…These small fish are full year residents of Fanno Creek and may only migrated a few hundred yards in an entire life time.** Ocean and lake dwelling cutthroat do not visit Fanno Creek, but an occasional large trout will swim up the Willamette and Tualatin Rivers to spawn in Fanno Creek. The spawning beds for both these cutthroat types are in the faster, gravel-bottomed headwaters. The portion of the watershed within Portland contains almost all known spawning areas. This is because the small hillside tributaries north of Beaverton-Hillsdale Highway, and the Woods Creek tributary south of Beaverton-Hillsdale Highway, have gravel bottoms…These flat-land creeks have mud bottoms that are not suitable for spawning, but they are very important for rearing and feeding, especially during seasonal low water and droughts…

P 35
Fish and Wildlife
Every Fanno Creek Watershed resource site contains important habitat for fish and wildlife. Two species or special concern are the piliated woodpecker and the cutthroat trout. These species are becoming more rare, and will disappear entirely for the urban environment unless their habitat is maintained.

1. Provide for spawning, rearing, feeding and migration of fish. All water bodies in the Fanno Creek Watershed contain significant fish habitat because they provide for spawning, rearing, feeding, and migration of fish. Many drainage ways, seasonal streams, and stream segments where fish are not present, or not present year-round, are also significant because they provide the quantity and quality of water to support down-stream fisheries.

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Documentation H-3 – Fanno Creek: Endangered Pileated Woodpecker
Fanno Creek and Tributaries Conservation Plan - 1993

P 16 (upper corner numbering)
Fish and Wildlife
The Pileated woodpecker (Dryocopus pileatus) is a species dependent on standing dead and dying trees in older forests. The bird is a cavity nester and is disappearing from rural areas because of timber harvest and the use of agricultural chemicals. The woodpecker …can be observed in the Fanno Creek Watershed. Protection of older forests in urban areas is an important conservation strategy for the survival of this species.

P 17

Fish and Wildlife

The balanced relationship between the Fanno Creek Watershed's geologic formations, soil, groundwater, and surface water is perpetuated by the extensive canopy cover and root system of the forest which shelters and stabilizes the hillside slopes. Activities that disturb this fragile relationship can substantially degrade resource values by causing landslides, flooding, erosion, and sedimentation. Groundwater and precipitation feed the many creeks within the Fanno Creek Watershed. These creeks provide habitat for fish, amphibians, and other aquatic organisms and, which in turn, provide a source of food for terrestrial wildlife. These creeks are also the most important source of water for terrestrial wildlife. The mosaic of Fanno Creek Watershed forest types provide a range of habitat for a diverse population of indigenous wildlife. These interaction and interdependent elements play vital roles in protecting the balance, health, and vitality of the Fanno Creek Watershed forest and of watershed ecology as a whole.

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Documentation H-4 – Fanno Creek Watershed environmental report

Fanno Creek Watershed - 1999

P 8

The highest part of Fanno Creek basin is 1,060 feet above sea level at Council Crest. The upper portion of the Watershed contains streams in deep ravines. Some of the upper streams drop more than 400 feet in elevation per mile traveled.

P 9

Soils

Fanno Creek watershed soils are mostly silts and clays. The United States Soil Conservation Service has identified five soil types (Cascade, Cornelius, Delena, Goble, and Saum) in the watershed. Prior to urban development, almost 95 percent of Portland's portion of the Fanno Creek Watershed was composed of Cascade Silt-loam. This is a wind-deposited soil that erodes easily and does not soak-up storm water very quickly. This top soil is over a harder layer of soil called a "fragipan." Very little water can soak down through this fragipan: plant roots also have a hard time growing through this layer. When it rains, the top two to five feet of soil saturate because water can penetrate no lower. This situation causes aquifers to perch on fragipans during the winter. This is a naturally occurring but dangerous situation. Erosion potential is high; there is a lot of storm water run-off, and landslides result if vegetation is removed from slopes. In the steep headwater areas of Fanno Creek, forests hold soil to the sides of the hills. In fully vegetated sites, there is still a high natural rate of soil erosion. The rate is about three tons, per acre, per year.

Since Portland contains almost all the steep headwaters of Fanno Creek, the City is the only place where water runs fast enough to flush eroding soil from gravel stream beds at a rate faster than the natural rate of erosion can silt them up. Most of Fanno Creek has, and has always had, a mud bottom.

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Documentation I – Missing two streams mapped in April 2021

Missing two streams in Southwest Hills in April: one a tributary stream in the headwaters area of Fanno Creek.

April 13, 2021—PSC (closed work session) (starts at 2:09) notes the missing two streams and adds those streams to the maps.
https://www.youtube.com/watch?v=y4y6FRyFfy8&list=PLfrETCbg3gsjbN6XejJe_CS1tlRcX87k-&index=11&t=10325s

Attached is documentation of the two streams from that meeting: ezone_packet.PDF (pp. 4, 13-14 (map of tributary stream), 19 (map of second stream)

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Documentation J – Marquam Park incorrectly mapped

Marquam Park incorrectly mapped:
See attachment MarquamPark.pdf which show errors in proposed ezones mapping of Marquam Park vs. Environmental Overlay Zone Maps Correction Project's written report for SW9 which says all of Marquam Park is protected with P zone.
Or see 32-page map attached, red circle #2

Environmental Overlay Zone Map Correction Project report stating all forest protection vegetation is protected in Marquam Hill Park in SW9.
Volume 1, Part A: Project Report, Summary of Results, Proposed Draft June 2020
Proposed Draft V1A Project Report Summary of Results
p. 56 shows criteria for for SW9 north side of Marquam Park and SW10 for south side of Marquam Park

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Documentation K – 2035 Comprehensive Plan and important roles of Neighborhood Associations

2035 Comprehensive Plan
https://www.portland.gov/sites/default/files/2019-08/comp_plan_intro.pdf
p. I-24

Include under-served and under-represented populations in decisions that affect them Portland has a long history of community involvement and a robust Neighborhood Association system. As the city grows, it is becoming more diverse. It is essential that the needs and interests of all community members are considered. Efforts must be made to improve services for groups that have not been well represented in past decision making — people of color, immigrants and refugee communities, people with disabilities, renters, low-income Portlanders, older adults, youth, and the lesbian, gay, bisexual, transgender and queer (LGBTQ) community. A new paradigm of community involvement and engagement — one that supports intercultural organizing, recognizes that diversity is an advantage and works to achieve equitable outcomes — must be embraced. This, paired with Portland's neighborhood organization network, can create a robust and more inclusive community involvement system informed by principles of environmental justice.

2035 Comprehensive Plan – Community Involvement
https://www.portland.gov/sites/default/files/2019-08/02_community-involvement_0.pdf

p. 2
It is the City's responsibility to promote deep and inclusive community involvement in planning and investment decisions. A new paradigm of community involvement and engagement — one that supports intercultural organizing, recognizes that diversity is an advantage, and works to achieve equitable outcomes — must be embraced and paired with Portland's neighborhood organizations to create a robust and inclusive community involvement system.

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Documentation L – 2035 Comprehensive Plan and Goals and Policies for protection of environment and watersheds
https://www.portland.gov/sites/default/files/2019-08/07_environment.pdf
2035 Comprehensive Plan
ENVIRONMENT AND WATERSHED HEALTH
GOALS AND POLICIES
p. 15
Fanno and Tryon Creek Watersheds

Policy 7.50 **Stream connectivity.** Encourage the daylighting of piped portions of Tryon and Fanno creeks and their tributaries.

Policy 7.51 **Riparian and habitat corridors.** Protect and enhance riparian habitat quality and connectivity along Tryon and Fanno creeks and their tributaries. Enhance connections between riparian areas, parks, anchor habitats, and areas with significant tree canopy. Enhance in-stream and upland habitat connections between Tryon Creek State Natural Area and the Willamette River.

Policy 7.52 **Reduced hazard risks.** Reduce the risks of landslides and stream bank erosion by protecting trees and vegetation that absorb stormwater, especially in areas with steep slopes or limited access to stormwater infrastructure. Johnson Creek Watershed

Johnson Creek and its tributaries.
p. 15-16

Policy 7.53 **In-stream and riparian habitat.** Enhance in-stream and riparian habitat and improve fish passage for salmonids along

Policy 7.54 **Floodplain restoration.** Enhance Johnson Creek floodplain functions to increase flood-storage capacity, improve water quality, and enhance fish and wildlife habitat.

Policy 7.55 **Connected floodplains, springs, and wetlands**. Enhance hydrologic and habitat connectivity between the Johnson Creek floodplain and its springs and wetlands.

Policy 7.56 **Reduced natural hazards**. Reduce the risks of landslides, stream bank erosion and downstream flooding by protecting seeps, springs, trees, vegetation, and soils that absorb stormwater in the East Buttes.

Policy 7.57 **Green space network.** Enhance the network of parks, trails, and natural areas near the Springwater Corridor Trail and the East Buttes.

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Documentation M – 2035 Comprehensive Plan's adopted environmental plans

https://www.portland.gov/sites/default/files/2019-08/07_environment.pdf

P 18
ENVIRONMENT AND WATERSHED HEALTH

Figure 7-2. Adopted Environmental Plans

Plan	**Ordinance No.**	**Effective dates**
Columbia Corridor Industrial and Environmental Mapping Project	NA	1989
Balch Creek Watershed Protection Plan	163770	1990
Columbia South Shore Plan	163609, 167127	1990, 1993
Johnson Creek Basin Protection Plan	164472	1991
Northwest Hills Natural Areas Protection Plan	164517, 168699	1991, 1995
Southwest Hills Resource Protection Plan	165002	1992
East Buttes, Terraces and Wetlands Conservation Plan	166572	1993
Fanno Creek and Tributaries Conservation Plan	167293	1994
Skyline West Conservation Plan	168154	1994
Boring Lava Domes Supplement to the Johnson creek Basin Protection Plan	171740	1997
Portland International Raceway Plan	172978	1999
Multnomah County-Portland Unincorporated Urban Areas	County Ordinance	2001
Functional Plan Compliance Project	No. 967	
Pleasant Valley Plan	178961	2004
Cascade Station/Portland International Center Plan	179076	2005
Portland International Airport Plan	184521	2011

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Documentation N – Marquam Hill Ravine

Southwest Hills Resource Protection Plan - 1992

P 109
SITE LOCATION & DESCRIPTION
Marquam Hill…The total site acreage is 499 acres and characterized by steep, **unstable slopes**. Marquam Nature Park forms the centerpiece for the site natural habitat and serves to protect its unstable hillsides from development. It is a 71-acre forested upland area bisected by multiple ravines.

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Documentation P – Start and Spread of Wildfires: Wind and Slope are major factors

Fire Management Study Unit
Prepared by Rachel G. Schneider
USDA Forest Service
https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsm9_028958.pdf

P3

Start and Spread of Wildland Fire

Weather, fuel and topography are the three principal environmental elements that affect wildland fire behavior.

P4

Wind is the movement of air. The average person thinks of wind as the horizontal movement of air that can be felt, but **convection winds carry air upward**. Wind is one of the most important influences on fire behavior. Wind increases the supply of oxygen, influences the direction the fire will spread, dries fuels, carries sparks ahead of the main fire and moves air heated by convection to downwind fuels.

Winds change direction or intensity throughout the day and night with temperature fluctuations and local topography.

P5

Large fires can make their own weather. Large convection updrafts cause air currents along the ground toward the fire and sometimes cause down drafts beyond the fire perimeter. Smoke clouds may shade the sun and alter the temporary radiation of solar heat toward and away from the earth.

P7

Topography

Topographic factors that affect the start and spread of wildland fire are *aspect, slope, shape of the area, elevation*, and *barriers*.

P8

Slope is the degree of incline of a hillside. Fires burn faster uphill than downhill because the fuels above the fire are brought into closer contact with upward moving flames. The steeper the slope, the faster the fire burns. Convective and radiant heat help the fuel catch on fire easily. A fire near the bottom of a slope will spread more rapidly during daytime conditions than a fire near the top of the slope because it has a greater uphill run. Burning material also can roll downhill and ignite fuel below the main fire.

Shape of the country influences the direction, intensity, and rate the fire will spread. Canyons, ridges and saddles are topographic shapes that influence weather especially wind direction.

Box canyons have steep walls and a generally flat floor. Air will be drawn in from the canyon bottom much like a wood burning stove or fireplace creating strong up slope drafts (the chimney effect) and rapid spread of fire. This can result in extreme fire behavior and be very dangerous.

Narrow canyons also have steep walls with a narrow floor that can best be described as “V” shaped. Wind direction will normally follow the direction of the canyon and fire can easily spread to fuels on the opposite side by radiation and spotting. Wind eddies and strong up slope air movement can be expected at sharp bends in a canyon.

Wide canyons have the same characteristics as box and narrow canyons except the floor is much wider so there is less danger of fire spotting across to a different slope. The prevailing wind will not be deflected by sharp up or down drafts. There will also be strong differences

between fire conditions on the north and south aspects of a wide canyon.

Ridges are the long narrow edges or the crest of a hill. Fires burning along lateral ridges may change direction when they reach a point where the ridge drops off into a canyon. This is caused by the flow of air coming from the canyon. Sometimes a whirling or eddying fire may result around the point of a ridge.

Saddles are the ridges connecting two higher elevations such as a mountain pass. Wind is channeled through narrow or constricted areas and spreads out on the leeward or downwind side with eddying action.

P17

Effects of Fire

Wildlife is affected by the type of fire and type of vegetation being burned. Fire, where heavy fuels exist, tends to burn intensely and kill more animals, especially invertebrates and microorganisms. Generally, vertebrates are rarely killed in fires, but when a deer, rabbit, squirrel or other animal dies in a fire, it usually has little effect on the population of its species. Wildfires that burn hotter also tend to kill more vegetation including overstory trees. Fires are more damaging to wildlife if they occur during nesting and denning season when young animals have a harder time avoiding intense heat and smoke.

PP 17-18

Fire can have negative effects on aquatic life. Leaf packs are the source of energy for stream food chains. When a fire burns streamside vegetation, it reduces the amount of leaves that eventually reach the stream. This results in a reduction of the amount of aquatic life the stream can support. The loss of streamside vegetation removes the "buffer" that prevents eroding sediments from entering the stream. These sediments can reduce productivity for phytoplankton, reduce the size of fish spawning beds and resting places as sediment fills up pools, and can smother fish and aquatic insect eggs. Smothering prevents oxygenated water from reaching the egg surface and kills newly emerged fish fry by covering the gills with fine materials.

P18

Burning streamside vegetation also raises stream temperatures by removing overhanging canopy allowing more sunlight to penetrate the water surface. It can also increase turbidity (a measurement of the amount of suspended particles in water such as silt, clay, phytoplankton, zooplankton and organic matter). Increased turbidity causes fish to have trouble seeing their food and may crush or dislodge eggs. Higher stream temperatures will decrease oxygen content and increase incidence of fish disease and kill or drive away fish species that require cooler water temperatures. Less mobile insects may also die when water temperatures increase. Nutrient loading will proliferate algae production resulting in a more diverse population of insect larvae which is beneficial to fish if toxic levels are not reached.

Water quality responses to fire involve turbidity and sediment. Sediment is the soil that gets in the water of the stream and then settles in the stream bed. Concentrations of various nutrients often increase after a fire. **Some of these such as nitrogen often exceed drinking standards for short periods of time.** Streams usually return to pre-fire levels of these nutrients quickly. Concentrations of a particular nutrient are usually reduced as the stream mixes with tributaries and groundwater flow.

The effect of a fire on water quality is often unpredictable as a number of factors come into play. Site differences in topography, soil characteristics and moisture content, variation in fuel moisture and fuel loads, density of vegetation, microclimates associated with a given slope, aspect and topographic position, and variations in weather patterns before, during and after a fire effect turbidity and sedimentation. As a general rule, the volume of water in a stream increases after a fire due to a reduction in plant cover.

A reduction in plant cover increases the susceptibility of nutrients to erosional losses. Nutrient uptake by plants is then reduced, which further increases the potential for nutrient loss by leaching.

P19
Air quality is affected by fire. Smoke can reduce visibility on roads and airports as well as in the forest itself… These particles can be inhaled into the lungs and compound any respiratory problem. Smoke can irritate the
eyes, nose, and throat, and make breathing difficult.
P20
Increased development in and around forests presents challenges to resource management and protection of human lives and property. House design, building material, site topography, landscaping, road design, accessibility for emergency vehicles, and availability of water are factors that should be considered when building a home in a wooded area. These factors greatly affect suppression efforts not only for defending homes but in controlling and conducting prescribed burns to achieve ecological objectives.

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Documentation R-1a – Yarnell Hill Fire, Arizona (near Phoenix), June 2013

Wall Street Journal: Sudden Turn in Flames Doomed Firefighters
Officials Say 19 'Granite Mountain Hotshots' Were Killed in Burn Over; Arizona Blaze Still Raging
By Erica E. Phillips
Updated July 2, 2013 11:21 am ET
https://www.wsj.com/articles/SB10001424127887323936404578579600222810048

PRESCOTT, Ariz.—The 19 elite firefighters who died Sunday in an out-of-control wildfire were trained to handle the most dangerous conditions, the kind that raced through the nearby village of Yarnell and burned more than 8,000 acres and more than 200 structures.

What rescuers eventually found was that the men had been caught in a "burn over," a sudden change in the direction of the fire that overtook them faster than they could get out of the way, according to a spokesman with the Prescott Fire Department.

Prescott Fire Chief Dan Fraijo, choking back tears, said the firefighters were "protecting property."

Experts said wildfires can create their own weather conditions, generating winds in sometimes unpredictable directions. This can happen when the clouds that form above fires from water in the smoke get so heavy they collapse, said Wally Covington, professor of fire ecology at Northern Arizona University in Flagstaff. "When it does that, the winds go out in all directions," he said.

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Documentation R-1b – Yarnell Hill Fire, Arizona (near Phoenix), June 2013

Fire Rescue 1 by Lexipol: Granite Mountain Hotshots: The firefighting team that died battling the Yarnell Hill Fire
Detailing how tragedy unfolded and how the community has honored the fallen firefighters
By Janelle Foskett
May 27, 2021
https://www.firerescue1.com/yarnell-hill/articles/granite-mountain-hotshots-the-firefighting-team-that-died-battling-the-yarnell-hill-fire-Ot1BJ3uUG8US1wkI/

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Documentation R-2a – Paradise Camp Fire, California, Nov. 2018
Los Angeles Times: Must Reads: Here's how Paradise ignored warnings and became a deathtrap
By Paige St. John, Joseph Serna, Rong-Gong Lin II
DEC. 30, 2018, 3 AM PT
https://www.latimes.com/local/california/la-me-camp-fire-deathtrap-20181230-story.html

Paradise was built upon a system of volcanic ledges bisected by a fan of deep ravines emptying into the Sacramento Valley… There are nearly 100 miles of private roads that dead-end on narrow overlooks and few connector streets… For more than 38,000 people, access to the outside world came via four roads running south, down finger ridges and through forest canopy.

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Documentation R-2b – Paradise Camp Fire, California, Nov. 2018

NBC News: Paradise regained: A year after the Camp Fire, a resilient town rebuilds
By Phil Helsel and Alex Johnson
Nov. 8, 2019, 1:52 AM PST
https://www.nbcnews.com/news/us-news/paradise-regained-year-after-camp-fire-resilient-town-rebuilds-n1077991

The Camp Fire ignited on Nov. 8, 2018, and by the time it was contained 17 days later, it had killed 85 people, laid waste to more than 240 square miles of Northern California forest and destroyed almost 19,000 homes, businesses and other structures.

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Documentation R-3a – Portland Bluff Fire, Oregon 2001

Oregonian: Fire sear Portland bluff
By Peter Farrell
August 9, 2001
http://www.splintercat.org/MockCrestFire/Images/Oregonian/oregonian2.html

What started as a routine brush fire along the east bank of the Willamette River almost instantly spread up a steep North Portland bluff Wednesday evening to threaten homes and buildings and become one of the worst urban wildfires in the Portland's history.

All available firefighters -- about 170 -- were called out in five alarms to the University of Portland area. Many stationed themselves between the onrushing flames and endangered homes to help residents who were desperately using garden hoses against flames roaring 30 to 50 feet into the air in their back yards.

As the fire spread out of control, flames leaped from exploding brush to the tops of trees. As many as 100 homes were in the danger zone, fire officials said. Winds at 18 mph to 20 mph carried embers that started what appeared to be three big fires and several spot fires along the Union Pacific Railroad tracks at the base of the bluff.

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Documentation R-4 – Portland Bluff Fire, Oregon 2011 (same bluff as 2001 fire)

The City of Portland Oregon, Fire & Rescue: Portland Fire & Rescue Responding to 2nd Alarm Wildfire Near North Willamette Blvd
September 25, 2011
https://www.portlandoregon.gov/fire/article/365650

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Documentation R-5a – Oakland Fire, October 1991

FEMA: U.S. Fire Administration/Technical Report Series
The East Bay Hills Fire, Oakland-Berkeley, California
https://www.usfa.fema.gov/downloads/pdf/publications/tr-060.pdf

P 15
"The East Bay Hills fire originated on the steep slope at the very end of Temescal Canyon. The canyon turns north from the portals of the Caldecott Tunnel, forming a a V-shape that leads directly to Grizzy Peak, the highest point in the area at almost 1,500 feet."

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Documentation R-5b – Oakland fire

ABC: FROM THE ARCHIVE: A look back at devastating Oakland Hills firestorm in 1991
By Justin Mendoza
Tuesday, October 20, 2020
https://abc7news.com/oakland-hills-fire-berkeley-storm-1991/7193803/

More than 1,500 firefighters and 450 engines from Northern California battled the catastrophic blaze which burned 1,500 acres and destroyed 3,354 structures, according to the Federal Emergency Management Agency.

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Documentation R-6 – Eagle Creek Fire, Multnomah Falls, Oregon

The Oregonian: See the Eagle Creek fire damage on the trails around Multnomah Falls
By Jamie Hale

Updated: Aug. 29, 2019, 9:37 a.m.
https://www.oregonlive.com/life-and-culture/g66l-2019/04/60f561dc5e9058/see-the-eagle-creek-fire-damage-on-the-trails-around-multnomah-falls.html

In September 2017, the Eagle Creek fire burned out of control as it swept through the Columbia River Gorge. Whipped by the wind and pushed west, it had already burned through thousands of acres before bearing down on Multnomah Falls, one of Oregon's most beloved natural wonders.

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Documentation R-7 – Caldor Fire, South Lake Tahoe, California, August to September 2021 (ongoing)

New York Times: To Save Lake Tahoe, They Spared No Expense. The Fire Came Over the Ridge Anyway.
By Thomas Fuller and Livia Albeck-Ripka
August 21, 2021
https://www.nytimes.com/2021/08/31/us/lake-tahoe-nevada-fire.html

They sent thousands of firefighters, 25 helicopters and an arsenal of more than 400 fire engines and 70 water trucks. Yet the fire still advanced.

Bursting across a granite ridge into the Lake Tahoe basin, the Caldor fire now threatens tens of thousands of homes and hotels that ring the lake.

Experts believe that the challenge is a cautionary tale for future megafires in the West and lays bare a certain futility in trying to fully control the most aggressive wildfires.

No matter how many people you have out on these fires, it's not a large enough work force to put the fire out," said Malcolm North, a fire expert with the U.S. Forest Service and a professor at the University of California, Davis.

On Monday, propelled by strong winds, the fire crested a granite ridge that officials had hoped would serve as a natural barrier. Embers leapfrogged past firefighting crews and descended toward the valley floor just miles from South Lake Tahoe.

It was only the second time, officials said, that a wildfire that began on the western slopes of the Sierra Nevada crossed into the eastern side.

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Documentation R-8 – South Canyon Fire, Colorado, 1994
Research Paper RMRS-RP-9
Fire Behavior Associated with the 1994 South Canyon Fire on Storm King Mountain, Colorado
https://www.fs.fed.us/rm/pubs/rmrs_rp009/5discussion.html

The presence of fire in the West Drainage at the base of the Double Draws is important to the later fire behavior because it places fire at the **bottom of a steep narrow canyon**.
We concentrate on two events: the blowup or transition from surface fire to a fire burning through the shrub canopy, and the fire behavior in the area identified as the **West Flank** that resulted in the entrapment and deaths of 14 firefighters.

We identify three major factors that contributed to the blowup on the afternoon of July 6, 1994. The first factor was the presence of **fire in the bottom of a steep narrow canyon**. Second, strong upcanyon **winds pushing the fire up the canyon**. Third, the fire moving into the green (not previously underburned) Gambel oak canopy.

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Documentation S – Video of how fast a wildfire burns uphill
Video of how fast fire burns on slopes in the Paradise Camp Fire, California in deep ravines–November 2018
Why Fire Move Faster Up a Hill than Down
Paradise, California's Camp Fire accelerated as it moved uphill. U.S. Department of Agriculture scientists conduct an experiment to discover why.
https://www.pbs.org/wgbh/nova/video/why-fires-move-faster-up-a-hill-than-down/

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Documentation T - Governor Kate Brown's Executive Order

Governor Kate Brown issued Executive Order 19-01 on January 30, 2019
https://www.oregon.gov/gov/policy/Documents/FullWFCReport_2019.pdf

P 1
Governor Kate Brown issued Executive Order 19-01 on January 30, 2019, establishing the Governor's Council on Wildfire Response, and directing the Council to review Oregon's current model for wildfire prevention, preparedness and response, analyzing whether or not the current model is sustainable given our increasing wildfire risks. To the extent this review identified insufficient or unsustainable systems, the Council was directed to develop recommendations for improvements.

In summary, upon extensive review over the course of 2019, the Council identified the need for comprehensive change. Consistent with best practices, the Council adopted the framework proposed by the **National Cohesive Wildland Fire Management Strategy**, which establishes three goals:

1. Create fire-adapted communities
2. Restore and maintain resilient landscapes
3. Respond safely and effectively to wildfire.

P 8
Core Causes Trending in the Wrong Direction
The comprehensive costs of wildfire described above are symptoms of larger problems, which are trending in the wrong direction. In March 2018, Oregon State University hosted the inaugural Fire Summit in Portland, which included approximately 30 scientists, land managers and forest policy experts from five states and British Columbia. The Summit report concluded:

"We live in unprecedented conditions; the forest landscape neither looks nor functions as it did 200 years ago. The landscape contains more biomass, and thus more fuel, than ever before. The fuel base is more contiguous and more homogenous. Furthermore, greater numbers of citizens are more closely connected to forests in communities that have an extended area of wildland-urban-interface. Meanwhile, the climate is warming and the forests are becoming drier making fire seasons longer and stretching resources further."6

P 9
"The most obvious impact of climate change in the West has been fire. Recent catastrophic fires in California and major wildfires in Oregon highlight the vulnerability of the state to increasing wildfire in a warming climate. The Eagle Creek Fire September 2017 closed I-84, a crucial transportation corridor between western and eastern Oregon. Fire risk is projected to increase across the entire state by mid- century, with the largest increases in the Willamette Valley and eastern Oregon. The associated wildfire smoke creates a health hazard for vulnerable communities, especially outdoor laborers and children, who may be exposed to poor air quality."9
- Oregon Climate Change Research Institute

P 17
The Cohesive Strategy recognizes fire is a natural part of the landscape, particularly in the West, and our current trajectory of more frequent, larger, costly and destructive wildfires is likely to continue. No area provides greater risk from wildfire to human life than the wildland urban interface, where combustible homes meet combustible vegetation. Threaded through the Cohesive Strategy are approaches for helping communities adjacent to wildlands adapt to a more complex fire environment, from building codes to growth and planning considerations, from public engagement and education to air quality monitoring and reporting mechanisms for health effects. The strategy also recognizes new construction offers risk-mitigation opportunities that may not be available elsewhere, as communities can adapt their policies and practices.

P 34
Magnitude of Impact
Additionally relative to overall wildfire risk in Oregon is VERY HIGH

Overall Priority
HIGHEST

[1] definition of defensible space *"Defensible space is the buffer you create between a building on your property and the grass, trees, shrubs, or any wildland area that surround it."*
https://www.fire.ca.gov/programs/communications/defensible-space-prc-4291/

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Documentation U – Marquam Park History
Oregon Live: Marquam Nature Park is a pocket of tranquility in Portland -- and it almost became apartments
By Jamie Hale
Updated: Jan. 09, 2019, 8:06 p.m.
https://www.oregonlive.com/travel/2016/04/marquam_nature_park_is_a_tranq.html

"Tranquility reminds us that we are a small part of nature in a place where listening and looking inspire us." - Community mosaic at Marquam Nature Park

As the story goes, a group of six local women gathered around a kitchen table in 1968, concerned about recently-announced plans to build a 600-unit apartment building on the land their families enjoyed. They organized a campaign to save the wooded gulch, spending the next 15 years securing funds to preserve the area as a park.

By 1974, that small group of women grew into a nonprofit, Friends of Marquam Nature Park, and by 1983 their dream was realized: the land was theirs, officially dedicated by the city of Portland as a public park.

Today, ownership of the park rests in the hands of Portland Parks and Recreation, and has expanded to about 200 acres of land, with more than seven miles of trails. It's also become a crucial link in Portland's sprawling trail system, connecting Terwilliger Parkway to Council Crest (and to Washington and Forest Parks beyond).

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Documentation V-1 – Terwilliger Parkway listed on National Register of Historic Places

https://www.oregon.gov/oprd/OH/pages/national-register.aspx

Recently Listed Oregon Properties in the National Register of Historic Places

- **Terwilliger Parkway**, Portland, Multnomah County, listed in March 2021 - Designed by noted landscape architect John C. Olmsted, and completed under the leadership of Portland Park Superintendent Emanuel Tillman Mische in 1914, the Terwilliger Parkway is a 2.5-mile lineal road corridor in southwest Portland, Oregon. It runs along the east bank of a hillside less than a mile west of the Willamette River. The Parkway was completed in two sections – the first southern section was completed in 1912, and the northern extension to the south end of downtown was completed in 1914, and reflects the City Beautiful ideals intended by Olmsted to provide beautification within the heart of a city. It is one of several parkways that were proposed in a 1903 plan for Portland parks, but the only one actually constructed. Terwilliger Park nomination form

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Documentation V-2 – Terwilliger Parkway official letter recognizing park status on the National Register of Historic Places

The official letter from Christine Curran, Deputy State Historic Preservation Officer, State of Oregon's Parks and Recreation Department announcing Terwilliger's new status.

Letter as follows:
It is my distinct pleasure to inform you that the property listed below, nominated by the Oregon State's Advisory Committee on Historic Preservation and the Oregon State Historic Preservation Officer, was officially listed in the Natural Register of Historic Places on 3/1/2021.

> Terwilliger Parkway
> 3000 SW Terwilliger Pkwy
> Portland
> NRIS # MP100006188

Listing in the National Register is intended to provide **recognition of a property's significance** as well as encourage its preservation…

(See attachment: OregonParksRecreationDepartment_08March2021_letter-1.pdf)

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Documentation W - Ezone policy protects with full protection of these public parks

Site	Park	Natural resource feature	Ezone Protection
FC5	Council Crest	all forest vegetation	protection (p)
FC10	Woods Memorial Nature Area	all forest vegetation	protection (p)
FP1	Inside public parks	all vegetation	protection (p)
FP2	Inside public parks	all vegetation	protection (p)
FC3	Inside public parks	all vegetation	protection (p)
FP4	Inside public parks	all vegetation	protection (p)
FP5	Inside public parks	all vegetation	protection (p)
FP6	Inside public parks	all vegetation	protection (p)
FP7	Inside public parks	all vegetation	protection (p)
FP8	Inside public parks	all vegetation	protection (p)
FP9	Inside public parks	all vegetation	protection (p)
FP10	Inside public parks	all vegetation	protection (p)
FP11	Inside public parks	all vegetation	protection (p)
FP12	Inside public parks	all vegetation	protection (p)
FP13	Inside public parks	all vegetation	protection (p)
FP14	Inside public parks	all vegetation	protection (p)
FP15	Inside public parks	all vegetation	protection (p)
FP16	Inside public parks	all vegetation	protection (p)
FP19	Inside public parks	all vegetation	protection (p)
FP20	Inside public parks	all vegetation	protection (p)
FP21	Inside public parks	all vegetation	protection (p)
FP22	Inside public parks	all vegetation	protection (p)
FP23	Inside public parks	all vegetation	protection (p)
FP28	Inside public parks	all vegetation	protection (p)
FP31	Forest Park	all forest vegetation	protection (p)
SW3	Pittock Acres Park	all forest vegetation	protection (p)
SW3	Hoyt Arboretum	all forest vegetation	protection (p)
SW9	Marquam Park (north side)	all forest vegetation	protection (p)
SW11	George Himes Park	all forest vegetation	protection (p)
SW16	Marshall Park	all forest vegetation	protection (p)
SW22	Tryon Creek State Park	all forest vegetation	protection (p)
JC18	Inside public parks	forest or woodland vegetation	protection (p)
JC23	Powell Butte Nature Park	forest vegetation	protection (p)

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Documentation X-1 – Staff response redactions and/or omitted conservation plans and environmental plans (See Documentation B)
Ezone Staffers response to our written testimonies sent on August 23, 2021 and September 10, 2021 for Planning and Sustainability's Open Hearing on August 24, 2021

"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."

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Documentation X-2 – Staff response to Lowell Creek FC3 (forest between Dosch Road/Dosch Court /Sweetbriar Drive)

Ezone Staffers response to our written testimonies sent on August 23, 2021 and September 10, 2021 for Planning and Sustainability's Open Hearing on August 24, 2021

"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."

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Documentation X-3 – Staff response: slope inventory coming

Ezone Staffers response to our written testimonies sent on August 23, 2021 and September 10, 2021 for Planning and Sustainability's Open Hearing on August 24, 2021

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.

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Documentation Y-1 – Personal Testimony

<u>About Owen P Kramer, environmentalist, who lived in our neighborhood and revived our forest by planting our trees.</u>

Hugh Givens and Deb Givens, owners of 3612 SW Hillside Drive
Not long after we moved into our home on Hillside Drive, I was contacted by the owner of the property that backs up to ours. Owen P. Cramer wanted to meet and introduce himself in person.

Owen, at the time, was 90 years old. He wanted more than to introduce himself. He wanted to introduce me to the forested ravine on his property at 3327 SW Dosch Road. Owen took me on a walk through the ravine. He told me that he had lived in his home since he was a young boy and that he had seen the Tillamook Burn from his living room window. He showed me a small rock exposure on the east slope of the ravine where his father had quarried rock for projects around their house. He showed me remains of an old apple orchard and said that the ravine had once been barren of trees, with the sides of the ravine and Fanno Creek sullied and trampled by grazing cows.

Owen wanted me to know that he had made it a life's work to restore the ravine. Owen planted most of the trees you see there today. He planted the row of now 75' tall Douglas Fir along the back of his property. **He made a special point of showing me blossoming trillium in the ravine basin.** Trillium was an indicator species, he told me. It had taken about 60 years for it to come back. He wanted me to know how fragile the ravine is.

Owen passed in 2017. Only after that did we come to understand Owen's knowledge and experience. Owen was a USFS forester and weather expert. Since the early 1950's he wrote and co-authored dozens of research papers and books for USFS and USDA concerning forest health and climate. Much of his work continues to be sited and has influence to this day.

We're not environmental experts. But clearly Owen was. His family's generations-long restoration of upper Fanno Creek should be recognized and respected. Knowing how long it took to restore, we hope that the city will take note of this special history and see that it is a treasure to preserve.

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Documentation Y-2
Personal Testimonies
Kathy Prosser, owner of 3819 SW Sweetbriar Drive

Our family has owned 3819 SW Sweetbriar since the late 1930's and I have owned it since 1990, observing growth and change over that period, with significant infill in the last 10 years. While I support urban expansion, the new proposed Ezone change R10C, from R10P, allowing for construction in a healthy forest that has been protected to date and should remain protected is not prudent. It is also not consistent with how other healthy forests have been preserved. We urge you to take the time to understand the forest that will be negatively impacted if construction is allowed.
Michael Kutter and Marti Kutter, owners of 3586 SW Hillside Drive

Fire science & geological engineering 101 informs us that housing should not be placed in an extremely steep canyon. This area is at risk of land movement caused by soil supersaturation and/or any soil disruption. Housing in this canyon would place the structures, residents and Fire Bureau personnel at high risk of loss of homes, injury or death. Such housing would destroy native plants which also allow an amazing community of native animals to thrive in our otherwise hostile City. Housing would damage the riparian area surrounding the stream in the canyon bottom.

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Barrett Streu and Rachel Streu, owners of 3608 SW Hillside Drive

We are fairly new to the neighborhood having purchased our home roughly two years ago. That said, one of the primary reasons we chose this area was the protected ravine behind the property. We strongly believe these wild spaces are integral to living in a sustainable urban environment. We are worried that further development, not only in the ravine directly behind our home but the forest between Sweetbriar Drive / Dosch Road / Dosch Court as well, could displace wildlife (including coyotes) and native plant species that have made it their home. We are also disappointed in the lack of notification regarding the potential change—especially given that this happened during the beginning months of the pandemic.

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Alexander Cooley, owner of 3718 SW Sweetbriar Drive

The city-wide E Zone update is making excellent use of available technology to draw clearer and more rational boundaries. However, the watershed area to the east and south of Sweetbriar Drive is a large and complicated site which deserves some additional scrutiny by city staffers to ensure that the ezone changes adequately & appropriately protect this natural resource from future development which would substantially harm the habitat.

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Yoann Foucher and Laurence Juthy, owners of 3616 SW Hillside Drive

As affected property owners, we request that the public record be re-opened regarding the Environmental Zone Map Correction Project.

We are living next to the protected ravine area potentially affected by the Ezone change, and are very concerned about the long-term consequences of such change on the local protected fauna and flora that are part of this area, as well as the neighborhood's potential additional traffic.

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Kevin Pendergast, owner of 3835 SW Sweetbriar Drive

Whereas I appreciate the committee wanting to find ways to house more people, I think the idea of using inner city green space to accomplish it is the wrong approach. Focusing more on policies to better utilize existing residential zoning is a much more palatable approach. As we become more urbanized, we need the environmental spaces to escape from the impact of city life.

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Lynne Chao, owner of 3702 SW Sweetbriar Drive

You can have urban density and protect the environment responsibly together. Environment and the wildlife cannot speak up for themselves. It is our responsibility to do so. What happens here determines what we give to future generations. I ask, with all these policy changes, how will the landscape of Portland look 5 years and 10 years from now?

The forest between Sweetbriar Drive, Dosch Road to Dosch Court is an amazingly well-maintained forest by neighbors who deeply care about its upkeep and habitat. This forest is in headwaters of Lowell Creek FC3, which is at the top of the tributary of Fanno Creek, near Council Crest, the top of the watershed. Hundreds of trillium plants are thriving in the spring in this forest where protection P zones are taken off. It has taken years for these sensitive flowers to grow back. This is a wildlife corridor with coyotes who travel with their pups following the tributary streams in this forest. We ask that you review this pristine area.

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