



THE BUREAU OF
**PLANNING &
SUSTAINABILITY**

DATE: January 7, 2022

TO: Planning and Sustainability Commission

FROM: Morgan Tracy, Project Manager
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CC: Andrea Durbin, Director

SUBJECT: Wildfire Hazard Map use in the Residential Infill Project Part 2

Dear Commissioners,

At your meeting on January 11, 2022, we will be discussing potential amendments to the Residential Infill Project Part 2 Proposed Draft. One potential amendment is regarding the use of the wildfire hazard map in the 'z' overlay. The purpose of this memorandum is to explain our thinking behind this issue more thoroughly. We list the reasons we are proposing to restrict three or more units in areas at risk of wildfires, suggest that the PSC make a recommendation about wildfire on its own merits and explain why allowing more housing in infrastructure-deficient areas divert City infrastructure dollars from higher-priority areas.

We commend the Commission for advancing the principles of equity and the intent of decreasing residential segregation in Portland. Undoing the legacy of zoning that is based on the protection of privilege is paramount to becoming a prosperous, healthy, equitable, and resilient city. But, as you'll see in the memo, we also believe that taking a precautionary approach and supporting our long-standing growth management practices – encouraging housing where people of all ages and abilities have safe and convenient access to more of the goods and services needed in daily life -- is the smarter choice.

First, we'd like to provide a few reminders:

- Accessory Dwelling Units (ADUs) are already allowed on all single-dwelling zoned properties.
- Duplexes will be allowed on all single-dwelling zoned properties through this project. This is required by House Bill 2001. The result of applying the 'z' overlay to a property means that 3 or more units would not be allowed on those lots.
- The Proposed Draft allows two ADUS, triplexes, fourplexes, affordable five- and six-plexes and cottage clusters to be built on approximately 133,000¹ residentially zoned lots in the city.
- The Proposed Draft applies the 'z' overlay to 10,576 lots based solely on the wildfire hazard layer. Of these, 5,453 lots are in the R2.5-R7 zones and 5,123 are in the R10/R20 zones. An additional 13,536 lots are constrained due to natural resources, flood hazards, or landslide risk, for a total of 24,112 lots.

¹ Lots located outside the 'z' overlay zone and meet minimum lot size standards: Single dwelling zones- 109,000; multi dwelling zones - 24,000.

Second, we'd like to highlight some Comprehensive Plan policies. As with all planning projects that come before the Commission, we are balancing competing objectives. The most relevant Goals and Policies in the Comprehensive Plan for this discussion include:

Chapter 3: Urban Form

- **Goal 3.B: A climate and hazard resilient urban form**
Portland's compact urban form, sustainable building development practices, green infrastructure, and active transportation system reduce carbon emissions, reduce natural hazard risks and impacts, and improve resilience to the effects of climate change.

Chapter 4: Design and Development

- **Goal 4.D: Urban resilience.**
Buildings, streets, and open spaces are designed to ensure long-term resilience and to adjust to changing demographics, climate, and economy, and withstand and recover from natural disasters.
- **Policy 4.79 - Natural hazards and climate change risks and impacts.** Limit development in or near areas prone to natural hazards, using the most current hazard and climate change-related information and maps.
- **Policy 4.81 - Disaster-resilient development.** Encourage development and site-management approaches that reduce the risks and impacts of natural disasters or other major disturbances and that improve the ability of people, wildlife, natural systems, and property to withstand and recover from such events.
- **Policy 4.84 - Planning and disaster recovery.** Facilitate effective disaster recovery by providing recommended updates to land use designations and development codes, in preparation for natural disasters.

Chapter 5: Housing

- **Policy 5.4 Housing Types.** Encourage new and innovative housing types that meet the evolving needs of Portland's households, and expand housing choices in all neighborhoods.
- **Policy 5.12 Impact Analysis.** Evaluate plans...to identify potential disparate impacts on housing choice, access, and affordability for protected classes and low-income households.
- **Policy 5.22 New development in opportunity areas.** Locate new affordable housing in areas that have high/medium levels of opportunity in terms of access to active transportation, jobs, open spaces, high-quality schools and supportive services and amenities.
- **Policy 5.47 - Healthy housing.** Encourage development and maintenance of all housing, especially multi-dwelling housing, that protects the health and safety of residents and encourages healthy lifestyles and active living.

Chapter 7: Environment and Watershed Health

- **Goal 7.D: Environmental Equity.**
All Portlanders have access to clean air and water, can experience nature in their daily lives, and benefit from development designed to lessen the impacts of natural hazards and environmental contamination.
- **Policy 7.4.b. - Climate adaptation and resilience.** Enhance the ability of rivers, streams, wetlands, floodplains, urban forest, habitats, and wildlife to limit and adapt to climate-exacerbated flooding, landslides, wildfire, and urban heat island effects.
- **Policy 7.11.h. - Managing wildfire risk.** Address wildfire hazard risks and management priorities through plans and investments.

Third, we are proposing to use the wildfire hazard data to map the 'z' overlay for the following reasons:

1. **Limiting development in areas prone to natural hazards is sound public policy,** as Comp Plan Policy 4.79 (Natural hazards and climate change risks and impacts) states.

2. **Wildfires are increasingly becoming a threat** to cities across the country due to climate change, as illustrated in the following articles:

- [As Disasters Worsen, California Looks at Curbing Construction in Risky Areas](#) (New York Times, 4 June 2021)
- [Millions of California Homes are in Fire Prone Areas. Researchers Say It's Time to Reimagine Where People Live.](#) (KQED, 22 June 2021)
- [Officials fear the largest urban forest in America is a wildfire waiting to happen](#) (Willamette Week, 28 July 2021)
- [Millions Of Homes Are At Risk Of Wildfires, But It's Rarely Disclosed](#) (NPR/OPB, 21 Oct 2020)
- [Marshall fire cleanup will take months as toxic debris is removed from burn sites](#) (Denver Post, 6 January 2022)

3. We are concerned about the **loss of life**. The Building Code addresses hardening structures to reduce their flammability, but these measures are about reducing structural loss, and are insufficient to protect people in the case of a wildfire. Also, people often die of smoke inhalation, rather than fire itself.

In a wildfire incident, evacuating people is paramount. Managing an evacuation while enabling firefighters to access properties is more challenging in areas with steep, narrow, and windy disconnected street systems. These conditions are much more prevalent in the R10 and R20 zones of the West Hills and Pleasant Valley areas of the City.

4. We are concerned about the **loss of property** (housing) and displacement that could occur. Following a wildfire, the long-term displacement impact on lower-income households is much more pronounced in terms of loss of housing, loss of personal belongings and loss of stability.

5. We are concerned about **loss of forest and tree canopy**.

This concern is the inverse of the previous two concerns. While a wildfire can cause loss of life and property, more people near forests can increase the risk of a wildfire starting. The term wildland-urban interface (WUI) is used by researchers to describe the area where structures and other human development meet or intermingle with undeveloped wildland. It is where wildfires have their greatest impacts on people.

One study showed that “Human-caused wildfires accounted for 97% of the residential homes threatened...[and the] number of residential homes in the WUI grew by 32 million from 1990–2015....The convergence of warmer, drier conditions and greater development into flammable landscapes is leaving many communities vulnerable to human-caused wildfires. These areas are a high priority for policy and management efforts that aim to reduce human ignitions and promote resilience to future fires, particularly as the number of residential homes in the WUI grew...[between 1990 and 2015]...and are expected to continue to grow in the coming years.”² While these are national figures and illustrates that many communities continue to build in wildfire hazard areas, it reinforces the concern researchers are raising.

² In the Line of Fire: Consequences of Human-Ignited Wildfires to Homes in the U.S. (EarthLab, 7 September 2020) <https://www.mdpi.com/2571-6255/3/3/50/htm>

It's been suggested that we are using the wildfire hazard map as a proxy for infrastructure deficiency. This is not the case. For the reasons listed above, we believe the potential for wildfire hazard should be discussed – and a recommendation made by the PSC – on its own merits.

If the Commission recommends removal of the wildfire hazard layer from the 'z' overlay, new housing in these lower density areas will not be cost effective – for the City or private developers.

On the fiscal side, the City would be obligated to divert infrastructure funding from higher-priority areas to these lower-density areas. Statewide Planning Goal 11 (Public Facilities and Service) calls for municipalities to “plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development...A Timely, Orderly, and Efficient Arrangement – refers to a system or plan that coordinates the type, locations and delivery of public facilities and services in a manner that best supports the existing and proposed land uses.”

Our current infrastructure plan and financially constrained list of capital projects are aligned with the intensity of land uses planned for all areas of the city. This alignment is foundational to the Comprehensive Plan 2035. If we change our land use plan – through zoning map changes or zoning code allowances – we are obligated to either demonstrate that the infrastructure can support the new land use or that we are planning and can afford to build the infrastructure to support the planned land uses.

We know that these areas are deficient in many services – sidewalks, transit, stormwater disposal, etc. We also know that our public investment dollars are limited. The Comp Plan strategy is to focus housing in areas with higher access, transit availability, existing infrastructure, services, and amenities. Expanding higher forms of middle housing to underserved areas diverts limited resources from higher-priority areas to lower-density – and often more affluent – areas. Clearly, this is not an equitable outcome.

On the private development side, the zoning map is an expression of community's desired intent. When a property owner, buyer or developer sees that middle housing is allowed on a site it is extremely frustrating to learn through the building permit process that building a triplex or fourplex is prohibitively expensive in these areas. Special foundation design, geo technical and site engineering, grading and tree removal, and extending or upgrading substandard utility services make the cost of this housing much higher than in areas that are well-served by infrastructure and aren't as steep. This additional cost is a large reason why we don't see much development occurring here in the first place. And the houses that are built are very expensive.

In conclusion, staff proposes to take a measured and precautionary approach regarding wildfire hazards. This approach:

- is authorized under House Bill 2001 and can be accomplished by our July 1, 2022 deadline
- acknowledges that the wildfire hazard map is outdated and provides time for a future project to amend the 'z' overlay using an updated wildfire risk map
- reduces property owner confusion in the future (it is better to expand allowances for middle housing to more properties in the future than to add restrictions)
- is more predictable and sets reasonable expectations for the development community
- does not obligate the City to divert limited infrastructure dollars to these areas
- still allows twice as many housing units as allowed today

We hope this memo clarifies the rationale behind our proposal and look forward to the work session on January 11th.