Environmental Overlay Project

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Overview

- Council Work Plan Project
- Updates Development Code regarding:
  - natural resources protection
  - natural hazard risk reduction
- Makes code easier to use for property owners, developers, and staff
- Updates maps using new best available data (including new LiDAR)

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Project History

2016	• Project authorized by Council • Stakeholder meetings	Review and update riparian buffers and adopt floodplain maps and update code
2017	• Alternatives reviewed • Direction decided	Discussion with Metro to ensure the chosen alternative was substantially compliant with Titles 3 and 13
2018	• Natural resource modeling • FEMA mandate	Stream layer updated, remote sensing and on the ground worth Floodplain needed to be processed separately
2019	• Floodplain adoption • Landslide risk modeling	New DOGAMI study provided landslide risk data DLCD published landslide land use guide
2020	• Draft Codes • Public Outreach • Adoption	

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Project Elements

Protect Natural Resources

- Wetlands
- Streams
- Riparian Areas
- Upland Habitat

Code sections:

- Environmentally Sensitive Restoration/Resource Areas (Pleasant Valley/Springwater)
- Habitat Conservation Areas ("current city" and Kelley Creek Headwaters)

Reduce Risk from Natural Hazards

- Floods
- Landslides

Code sections:

- Floodplain Overlay (Revised 2019)
- Hillside Physical Constraint District

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Project Direction

Protect Natural Resources

No significant changes to the degree of resource protection in current code.

- Update with best available data
- Simplify complicated code and mapping processes
- Unify methods between city, Pleasant Valley, Springwater in creation of resource buffers.

Reduce Risk from Natural Hazards

Use best available data to meet state and federal hazard mitigation standards.

Use best available data to:

- protect public health and safety
- protect property
- meet state and federal hazard mitigation standards

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Natural Resource Protection and Hazards

	What We Recently Updated (2019)	What We're Currently Updating (2020)	
	Floodplain	**Natural Resources (Riparian & Upland Habitat)**	**Natural Hazards Risk Reduction (Hillside)**
Last updated	1990s (Johnson, Fairview, Kelly /Burlingame) 2009 (in Columbia Slough)	2001 (ESRA-PV), 2005 (ESRA-SW), 2008 (HCA)	2003
Regulates development	Floodplains	Streams, wetlands, uplands, natural areas	Steep slopes and landslide-prone soils
Drivers	• National Flood Insurance Program requirements (FEMA) • Statewide Planning Goal 7 (Flooding) • Public health and safety • Preserve property	• Metro Title 3 and 13 (Statewide Planning Goals 5, 6, and 7) • Clean Water Act • Preserve wildlife habitat and water quality	• Statewide Planning Goal 7 (Landslides) • Public health and safety • Preserve property

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Natural Resource Protection – Planning Area Issue

Wetland, Stream, Riparian Area, Upland Habitat

Buffers around natural resources have been created using different methodologies:

- ESRA-PV: buffers are a land use zone
- ESRA-SW: buffers are a land use zone
- HCA (current city): buffers are an overlay

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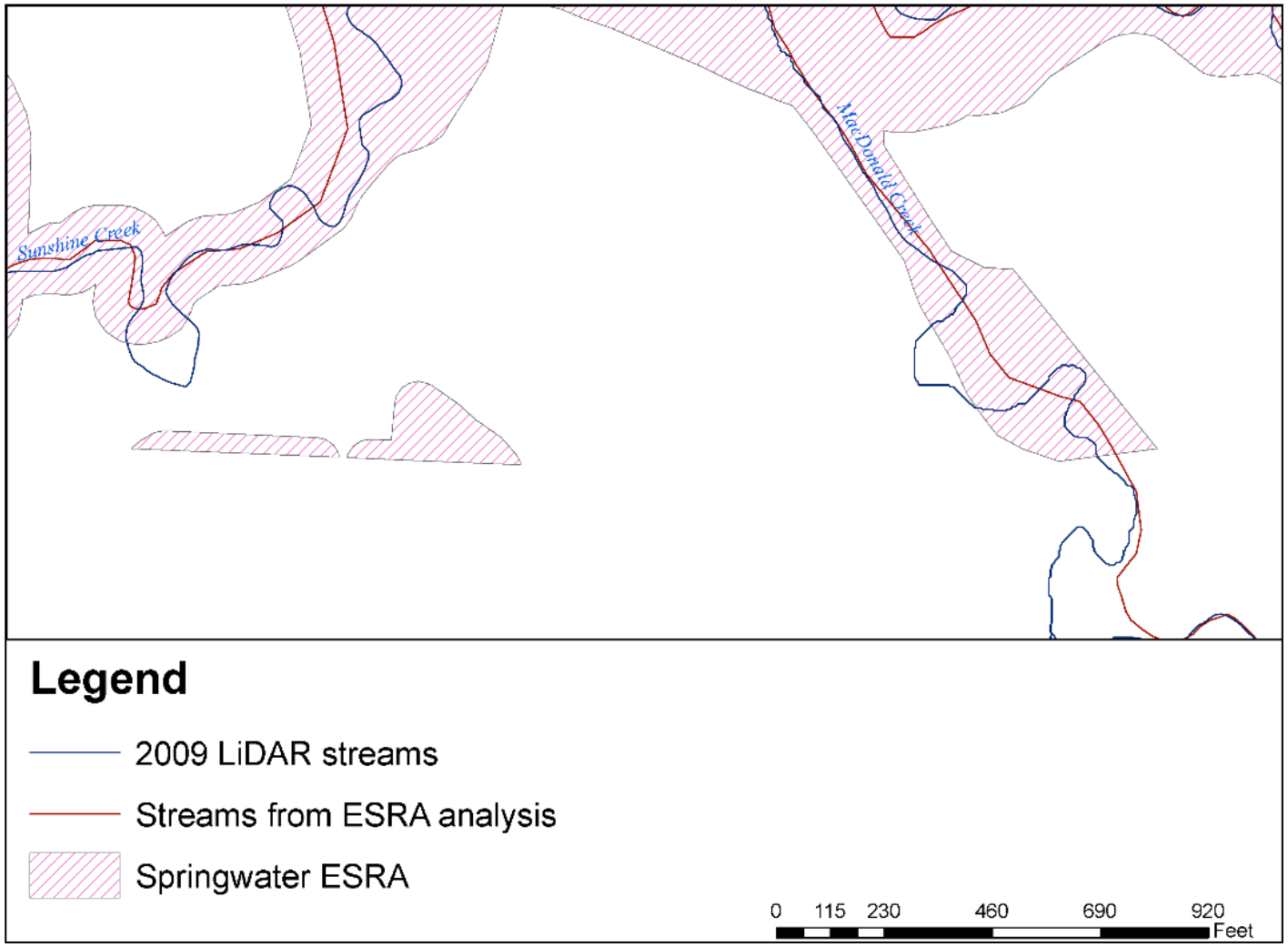
Natural Resource Protection – Data Issue

Wetland, Stream, Riparian Area, Upland Habitat

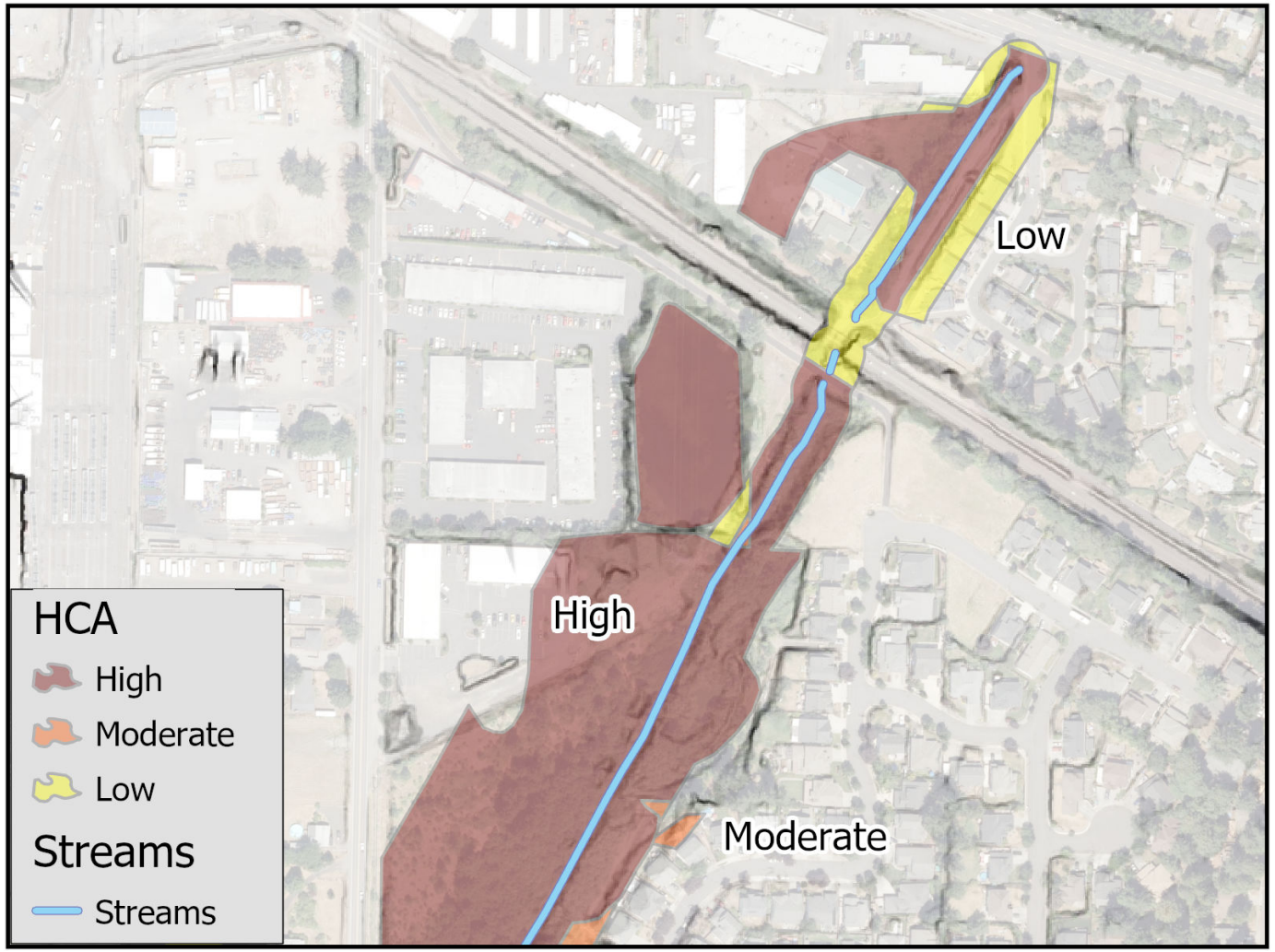


Current buffers don't reflect best available data

- Most improvements are based on LiDAR data

Natural Resource Protection – Model Conflicts Issue

Wetland, Stream, Riparian Area, Upland Habitat

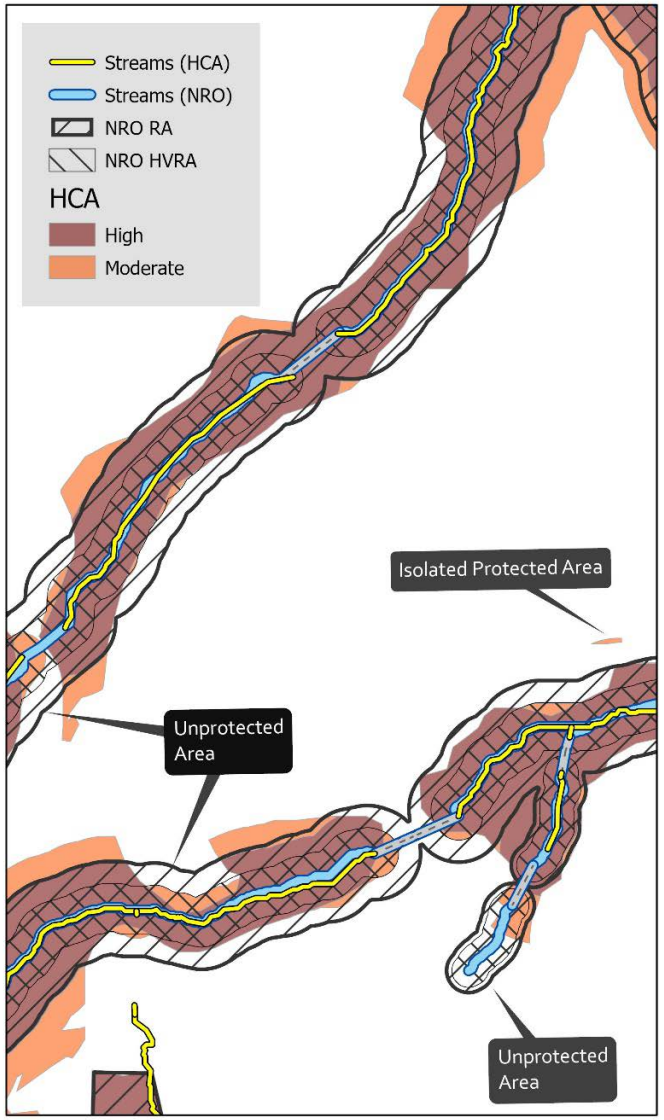


More inputs ≠ Better buffer

Good intentions to include a multitude of inputs lead to some non-sensical model output.

Natural Resource Protection – Simplified Inputs

Wetland, Stream, Riparian Area, Upland Habitat



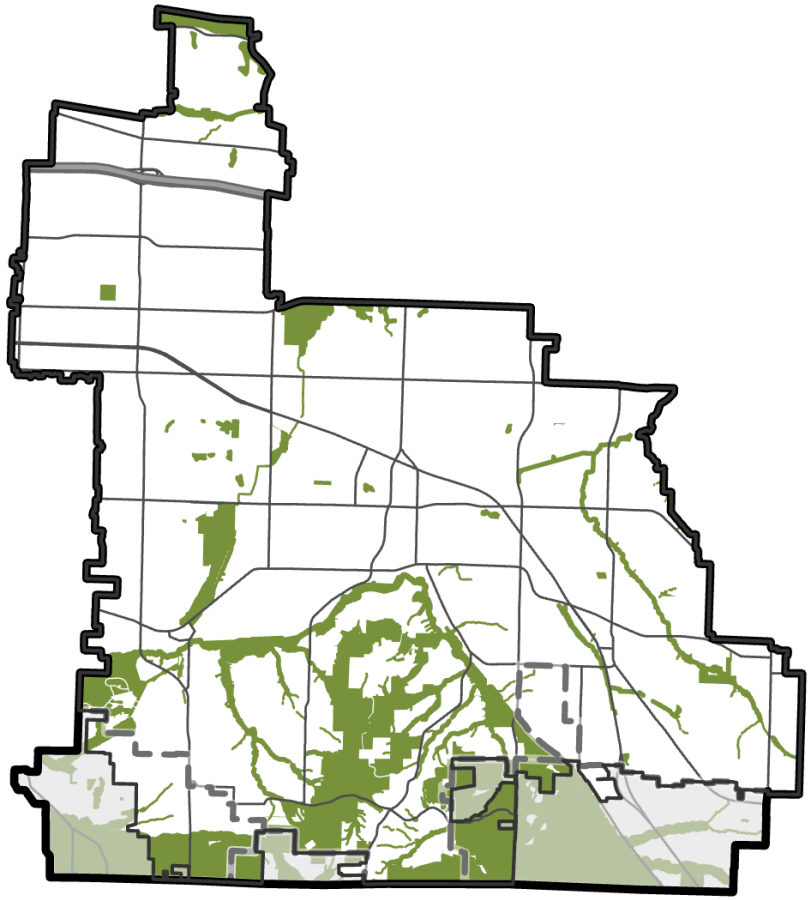
Create standard buffer widths around similar resources

- Uses best available data
- Easier-to-find field indicators
  (i.e., measure from center of the stream)
- Simplified approach doesn't generate anomalies

= No significant change in level of protection (updated buffers average the same as pre-existing buffers)

Natural Resource Overlay

Map



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Simplified, unified Natural Resource Overlay

	Existing Acres	Existing w/ Corrections	Proposed Acres
ESRA-PV	252	272	271
ESRA-SW	395	410	443
HCA	2052	2113	2043
Total	**2698**	**2795**	**2732**

Natural Resource Overlay

Code Highlights

- Simplifying maps with easy-to-identify boundaries
- Clearly identifying the areas near wetlands and waterways that require protection and limits on development
- Establishing the requirement to look for wetlands in areas they are likely to be
- Creating a simple review process for new single family homes on vacant lots
- Providing clear and objective standards within the resource areas
- Increasing availability of density transfer to avoid negative impacts to resource areas

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Natural Resource Overlay

Flexibility In Mitigation Design

The existing mitigation standard provides for dense tree cover only, even when impacting a meadow area. Flexibility in options to suit prioritized ecological needs will support established ecological goals:

- Increased habitat diversity
- Basking areas for reptiles and turtles
- “Edge habitat” needed by native birds and small mammals
- Slope protection for areas of past landslide activity
- Sun exposure for water quality facilities at the edge of the protected area in order to grow the plants that do the best job of removing pollutants

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Natural Resource Overlay

Single Family/Duplex - Temporary Disturbance Area

Building or expanding homes on existing lots

- Maximum disturbance area (6,000 sq ft)

Temporary (up to 2,000 sq ft)

- staging, and stockpiling
- Vegetation removal (including small trees)

Area must be restored

Permanent (4,000 sq ft)

- grading and building
- vegetation and tree removal

Area must be mitigated

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Natural Resource Overlay

Single Family/Duplex - Cash In Lieu Of Mitigation

Building or expanding homes on existing lots

Cash in Lieu of mitigation is required

- Often insufficient room to provide mitigation on-site
- Maintenance of mitigation can be difficult

Other development

Cash in Lieu of mitigation is allowed only when there is insufficient room to provide mitigation on-site

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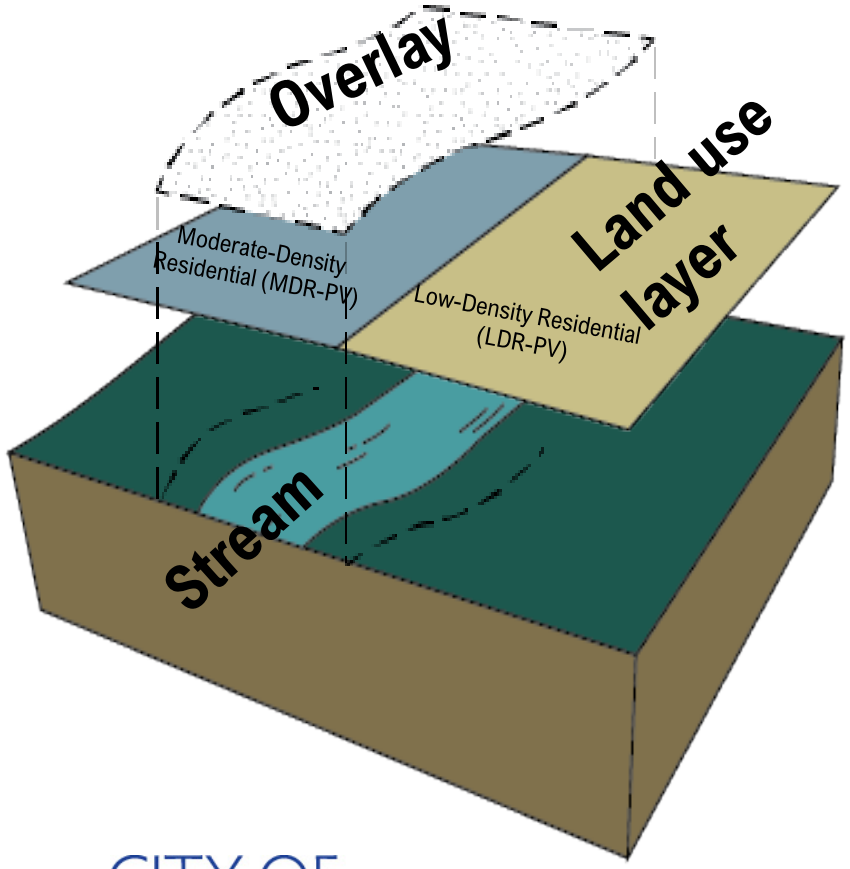
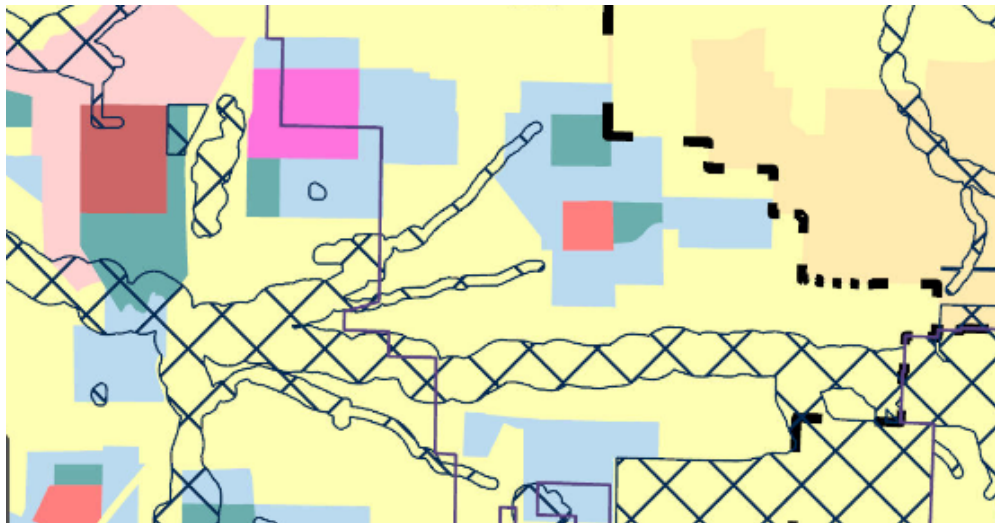
Natural Resource Overlay

Zoning Map Update Pleasant Valley and Springwater



ESRA is being removed from the zoning layer so the gaps behind the overlay need to be filled



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Natural Hazard Risk Reduction - Hillsides

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Hillside Code

- Regulates development on
  - Steep slopes
  - Landslide prone soils

- Hillside Overlay boundary informed by
  - Slope data
  - Landslide hazard data
  - Risk prioritization criteria

Natural Hazard Risk Reduction –Hillsides

Why Update?

1. **Old Data**: 2002 data from DOGAMI (OR Department of Geology and Mineral Industries) determined to be inaccurate

    - Coarse slope data
    - Inaccurate landslide hazard data
    - Lacking clear and objective standards for needed housing

2. **New data!**

- 2014 higher resolution slope data (LiDAR)
- 2018 DOGAMI updated landslide risk data for Multnomah County
- 2019 State Landslide Land Use Guide (DLCD and DOGAMI)

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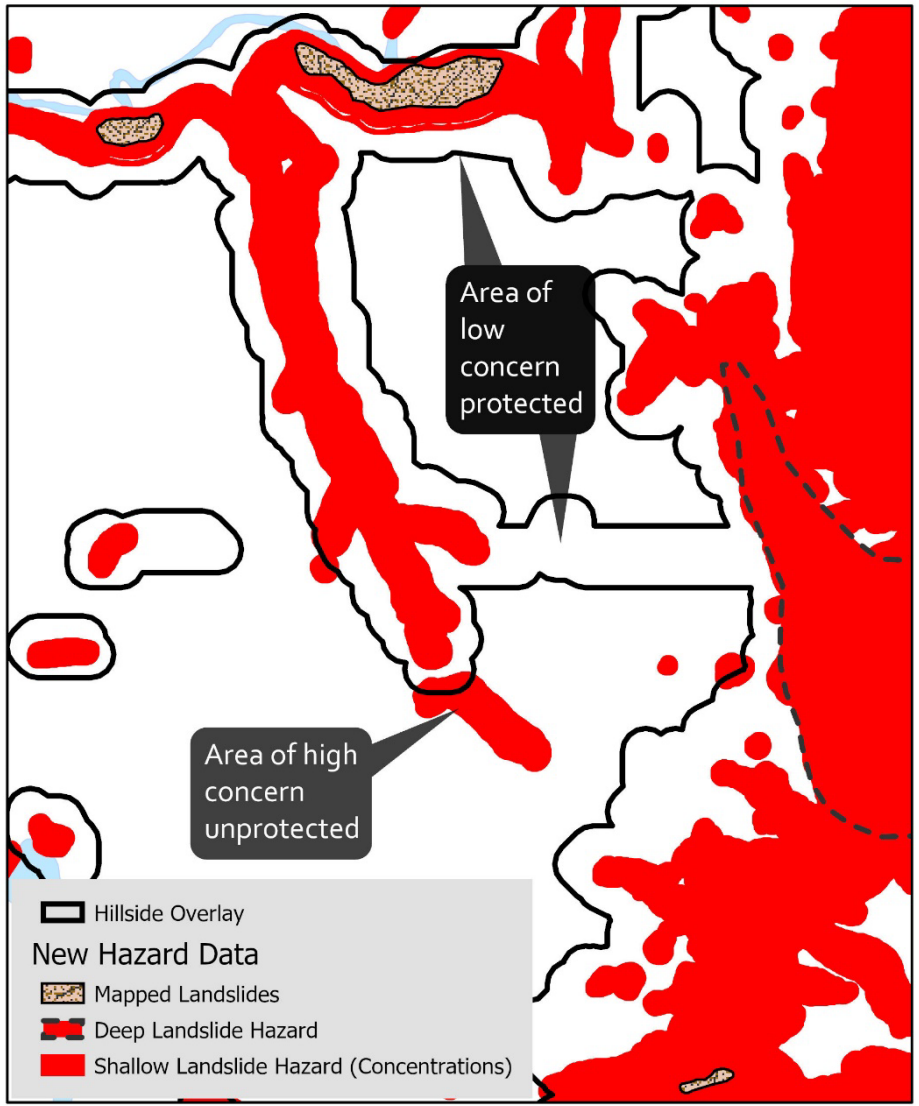
Natural Hazard Risk Reduction – Hillsides

Old Data vs New Data Example



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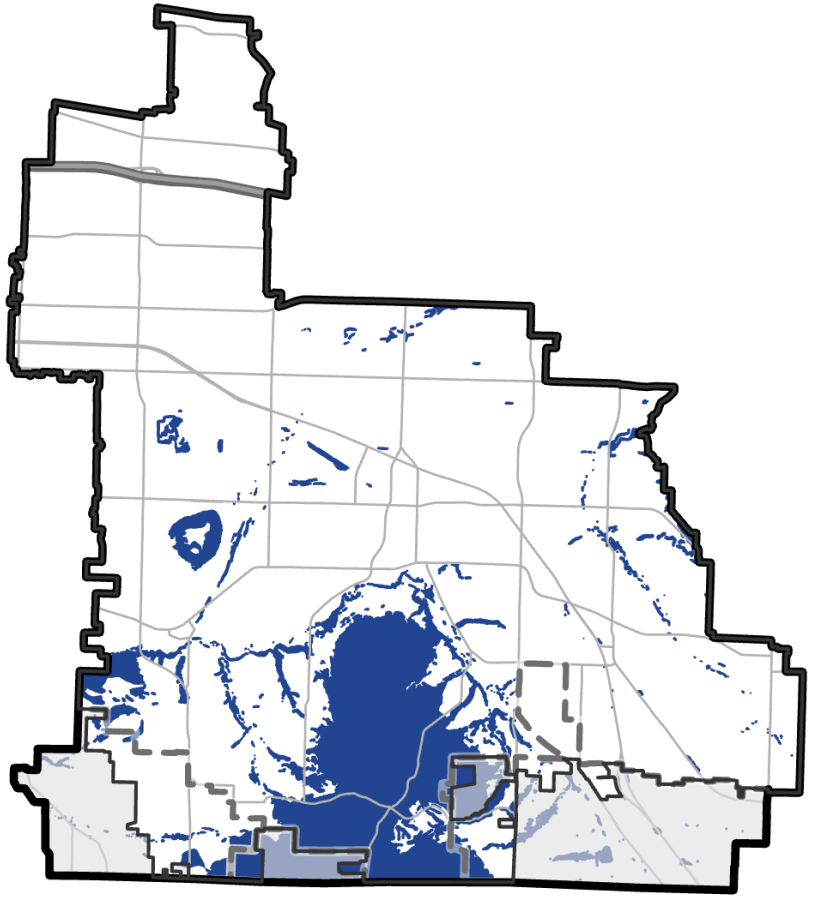
Hillside & Geologic Risk Overlay

Map



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Hillside Overlay

Existing Acres	Proposed Acres
2990	2543

Hillside & Geologic Risk Overlay

Code Highlights

- Revising the overlay boundary using the most recent landslide risk data from the state
- Clearly defining when geotechnical review is required for proposed development
- Ensuring protections for forested hillsides
- Introducing fire-safety considerations with hazard tree removal
- Instituting a simple review process for building single family homes safely
- Requiring that geotechnical issues be taken into consideration during grading and building
- Establishing clear and objective standards within overlay areas
- Providing greater predictability for developers wishing to divide land or build

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Status

Wednesday, September 9:

- Draft codes are ready for public review
- GIS maps are ready for public review

Thursday, September 17:

- Public Work Sessions at 2pm or 7pm
- GIS maps are ready for public review

Thursday, October 1:

- This round of public comments due

Materials available online at GreshamOregon.gov/Overlays

Contact Overlays@GreshamOregon.gov for more information.

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Next Steps

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