Environmental Overlay Project

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Overview

- 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 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

	Recently Updated (2019)	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 Project Aspects

- Consolidate 3 separate buffer systems into 1 while retaining existing protection levels
- Utilize an "Average Buffer Width" that provides consistent set back on a given reach of stream
- Improves density transfer options
- Allow for more mitigation options including cash-in-lieu in certain circumstances
- Technical Guidance Manual to supplement code to provide nuance and simplify code – draft to be available for review mid-October

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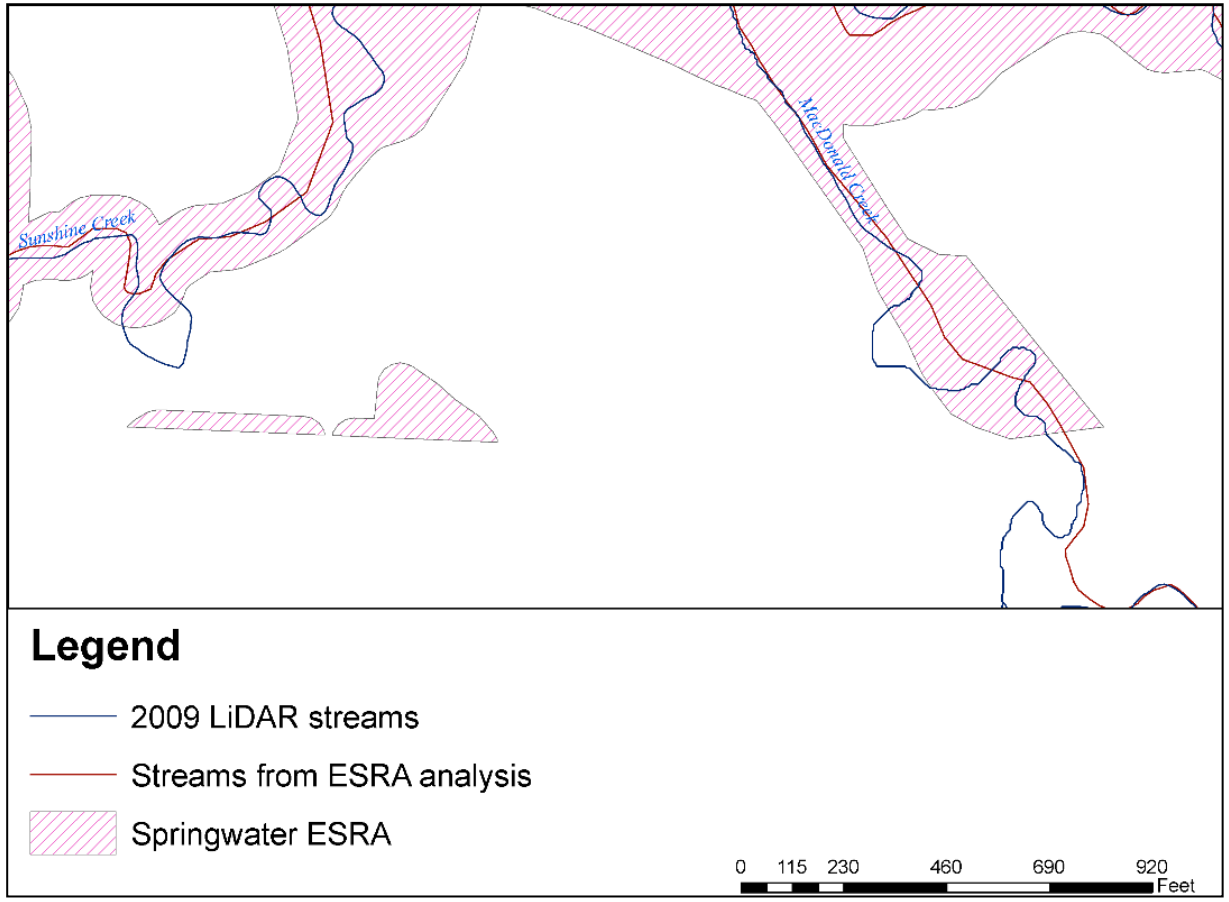
Natural Resource Protection – Data Issue

Wetland, Stream, Riparian Area, Upland Habitat



Current buffers don't reflect best available data

- Most improvements are based on LiDAR data

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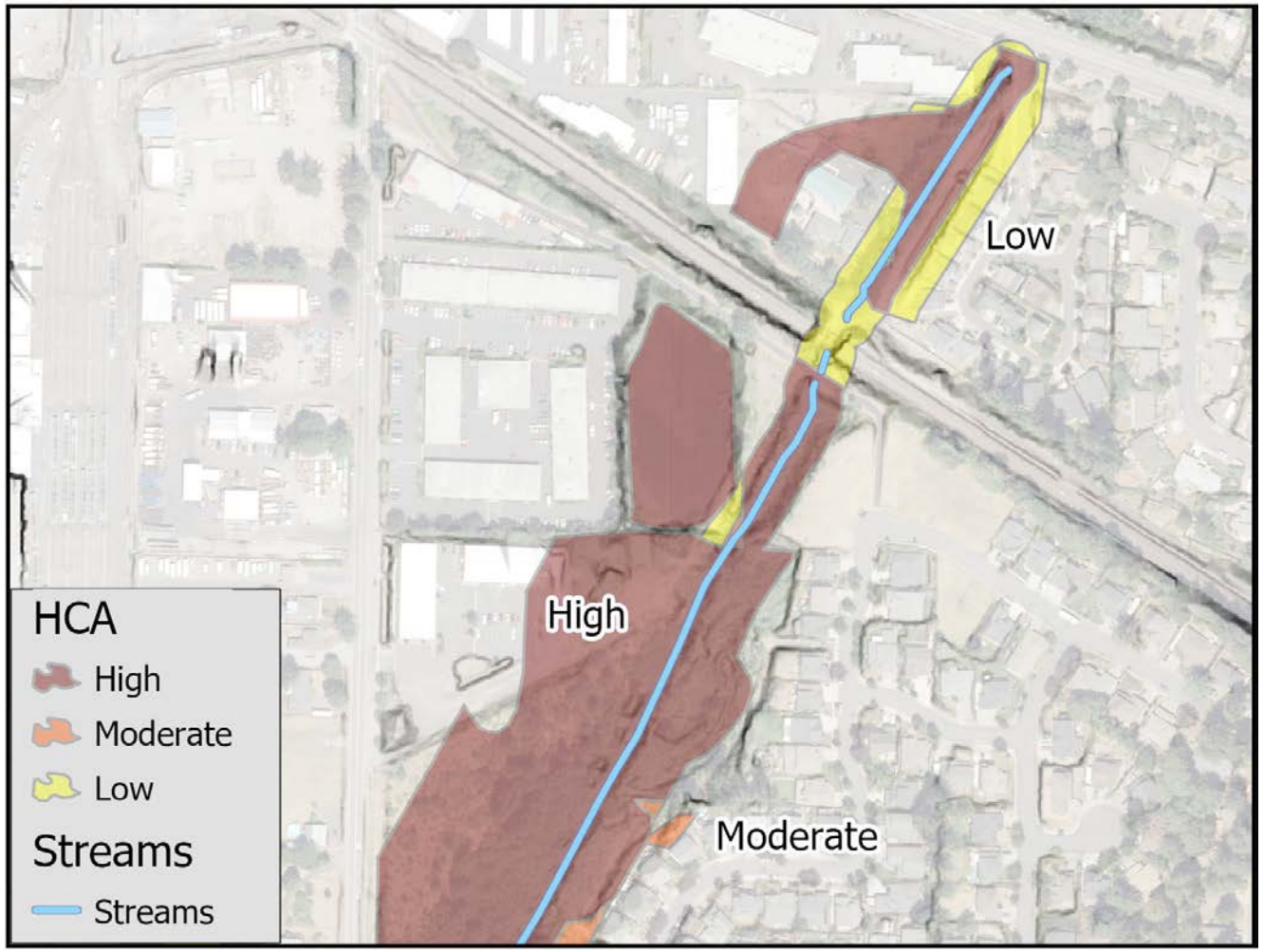
Natural Resource Protection – Model Conflicts Issue

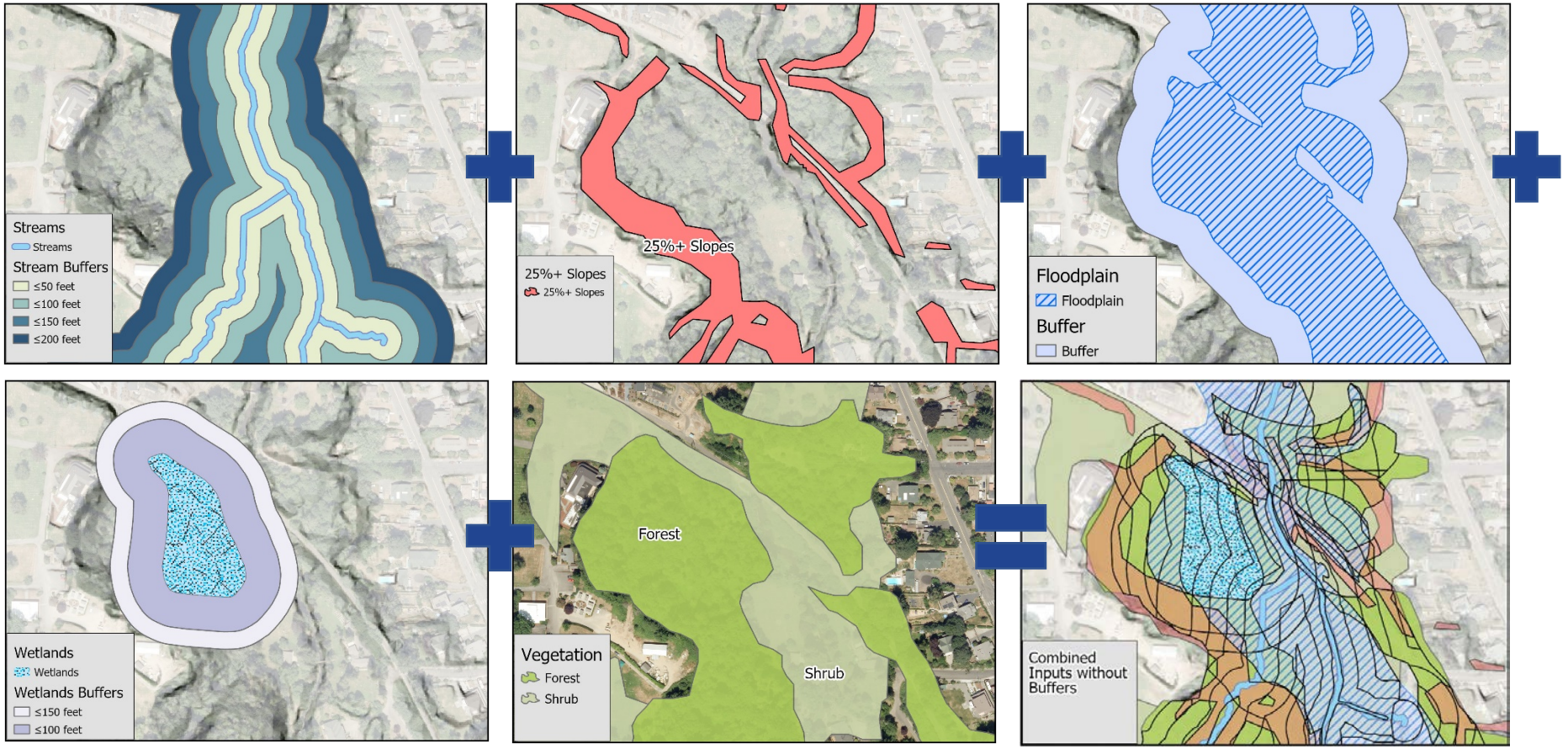
Wetland, Stream, Riparian Area, Upland Habitat



More inputs ≠ Better buffer

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

HCA Model - Inputs



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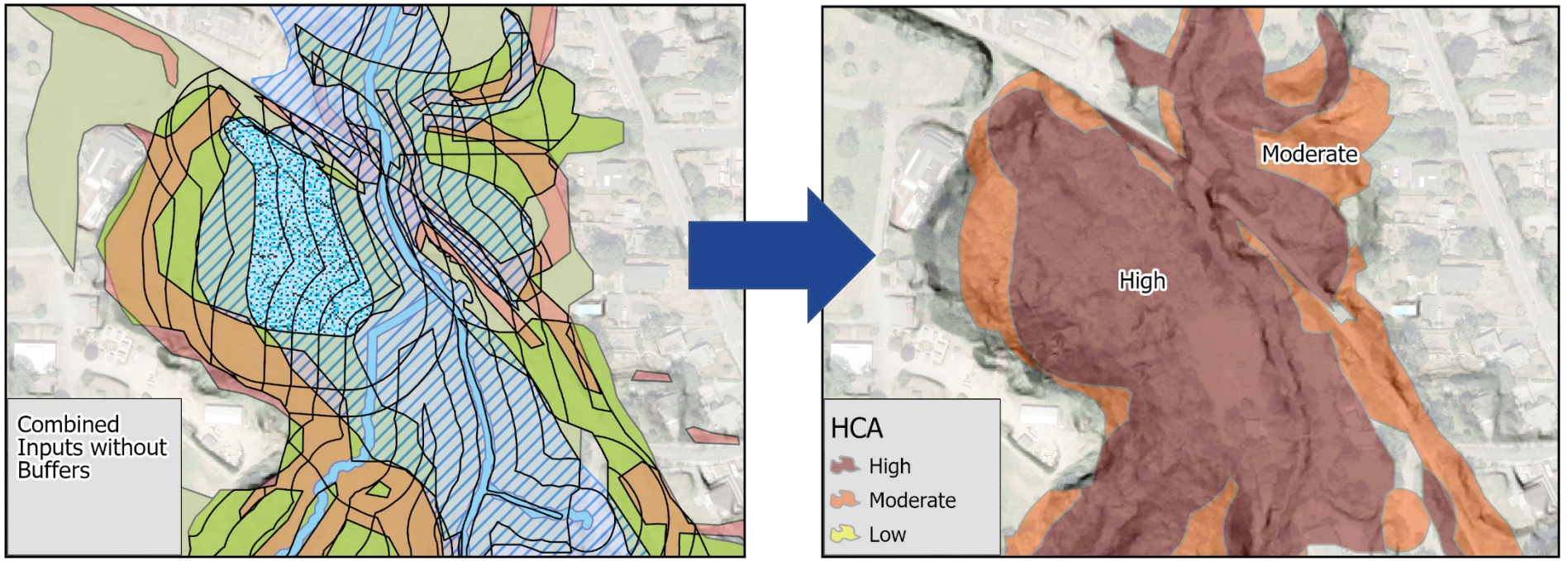
HCA Model – Final Values



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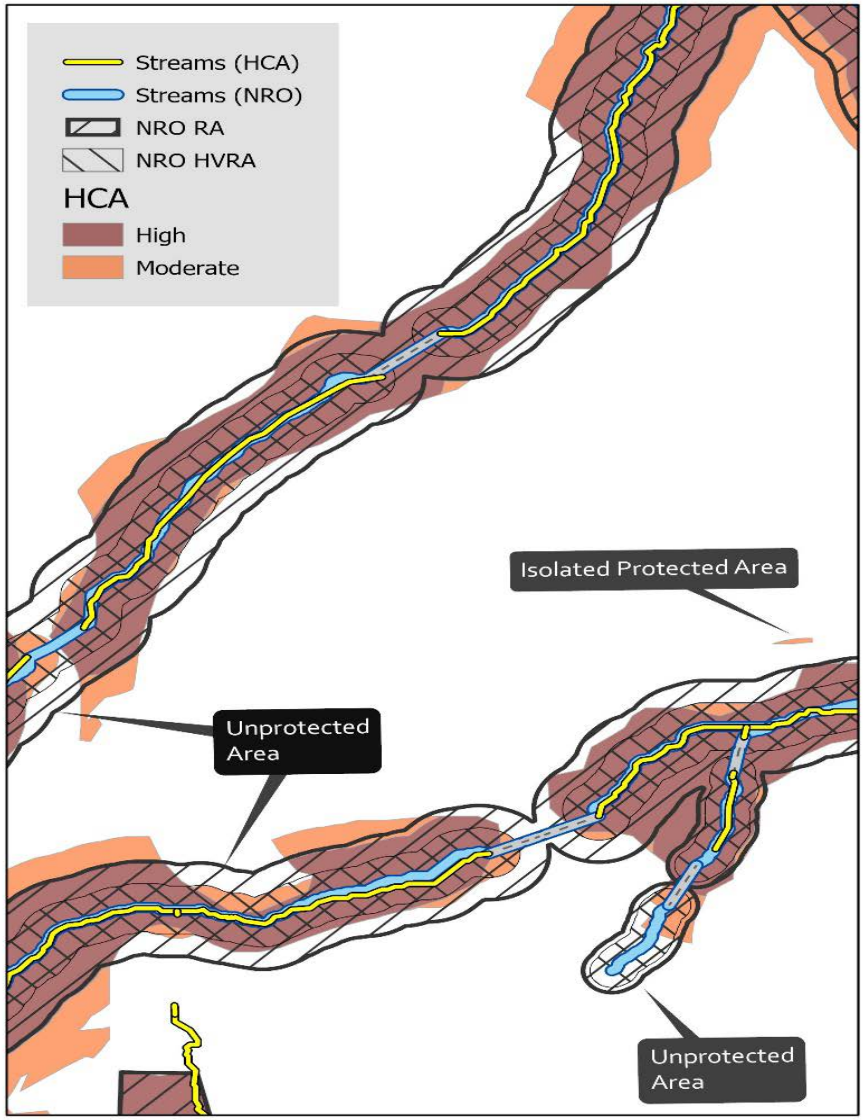
Natural Resource Protection – Simplified Inputs

Wetland, Stream, Riparian Area, Upland Habitat



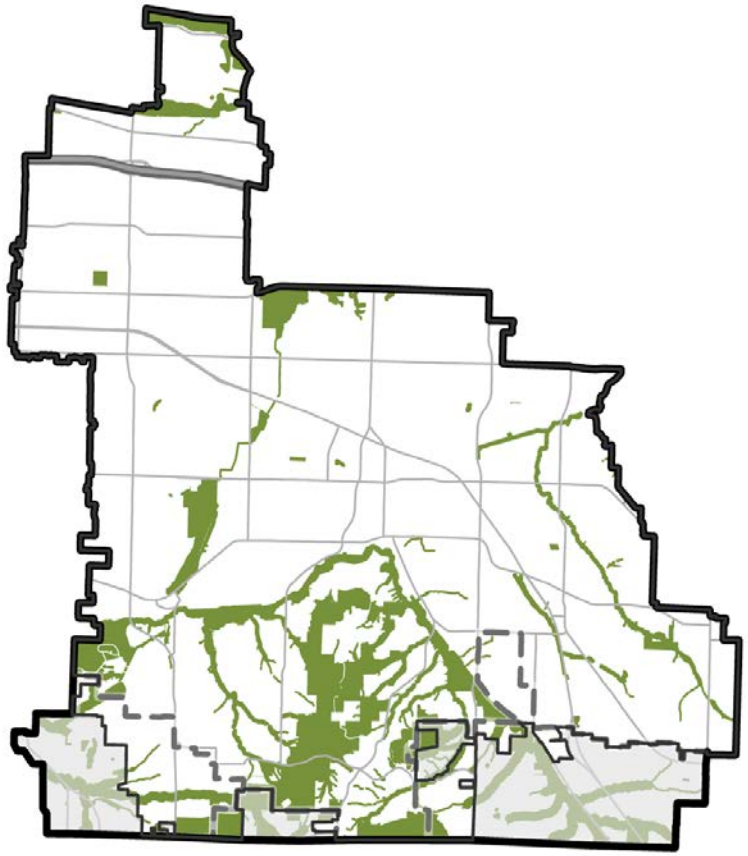
Create standard buffer widths around similar resources

- 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	275	251
ESRA-SW	394	407-447	447
KCHW – HCA	109	124	127
Rest of City	1941	1979	1912
Total	**2698**	**2787**	**2739**

Natural Resource Overlay Components

- **NRO** – All the parcels including land a set distance from a stream and all parcels containing a wetland
  - **RA (Resource Area) The land inside the boundaries**
    - HVRA (High Value Resource Area) Areas within the RA with a higher degree of protection. Generally the resource itself and a narrower corridor along a stream coincident with the Temperature TMDL areas.
- PRA (Potential Resource Area) Areas which are likely to have a wetland and so will need a wetland Determination

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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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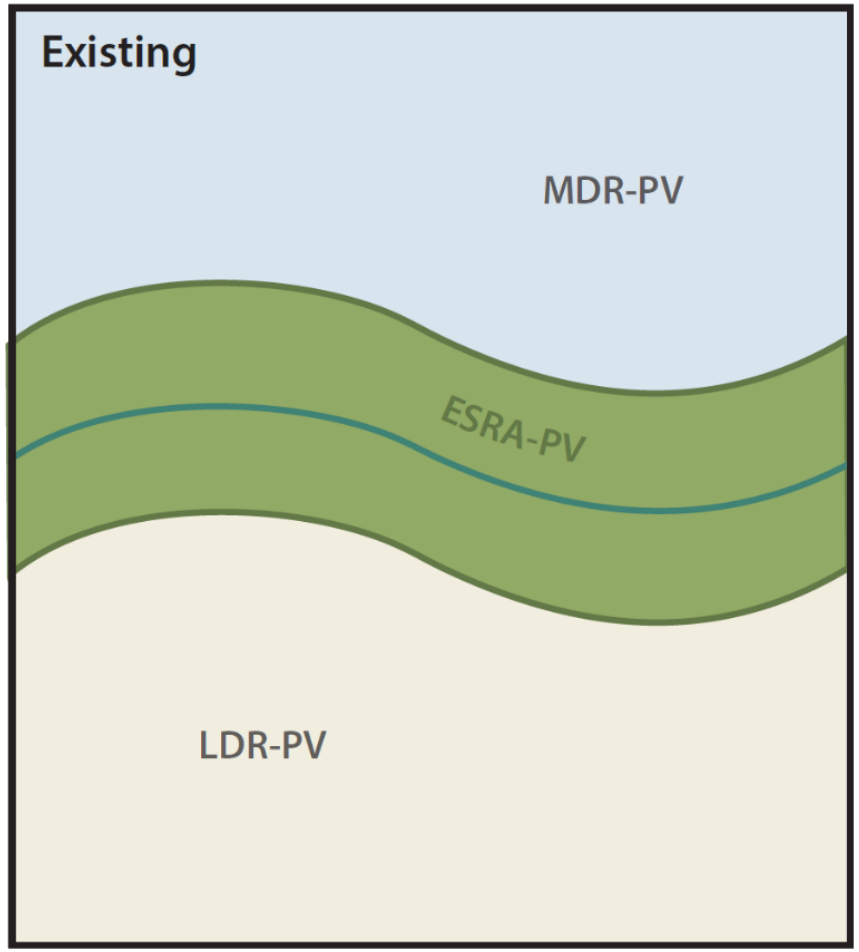
Natural Resource Protection - Buffer Issue

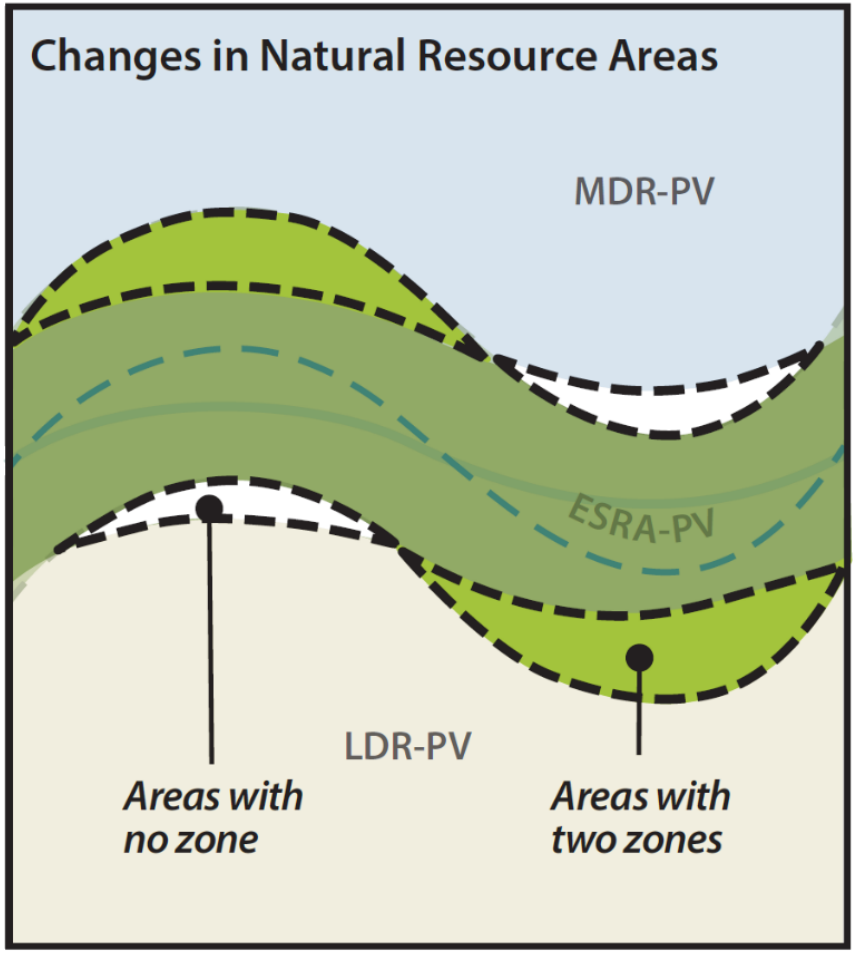
Wetland, Stream, Riparian Area, Upland Habitat

Natural Resource Buffers as Zones

Issues:

- Resources shift over time
- Zones are static over time
- Areas may end up with no zoning
- Areas may end up with two different zones





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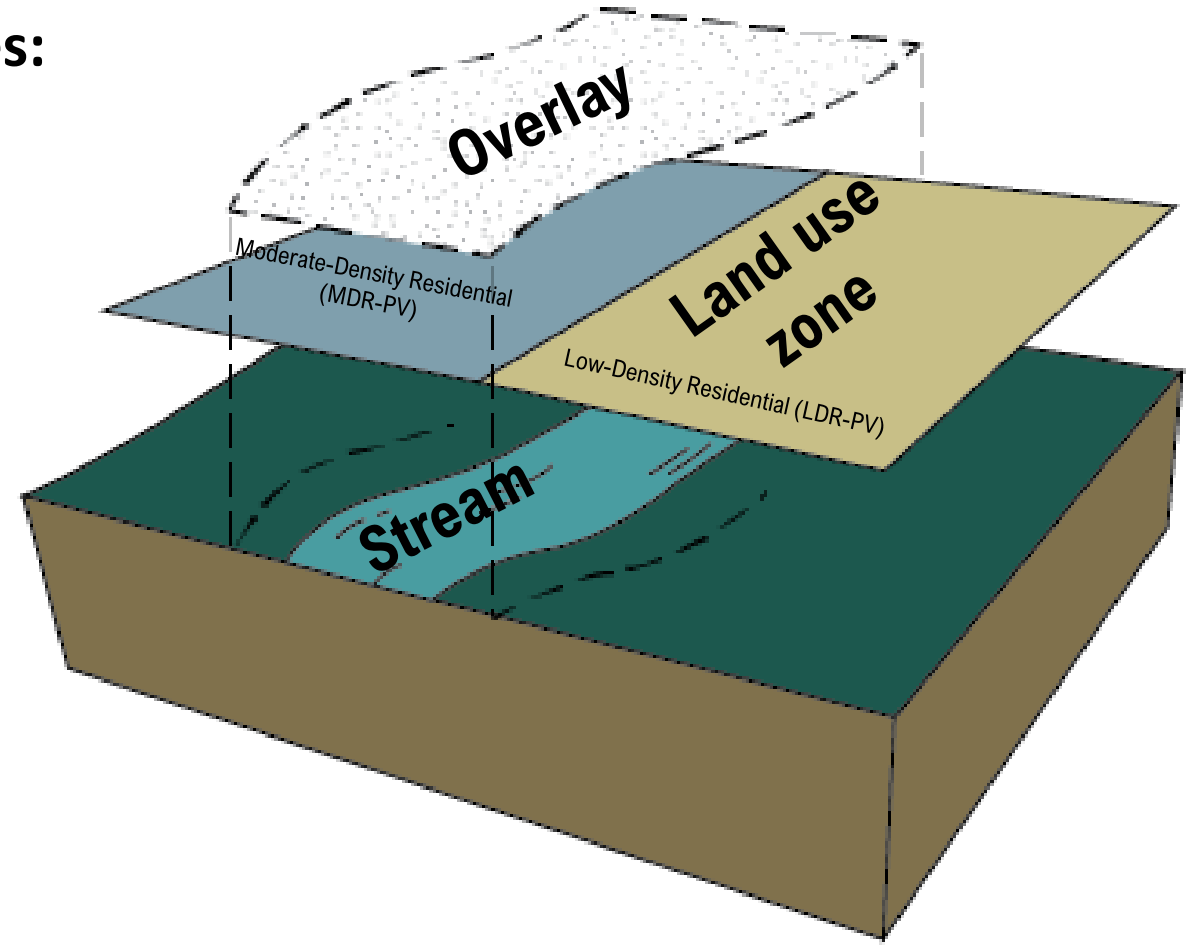
Natural Resource Protection - Improvement

Wetland, Stream, Riparian Area, Upland Habitat

Natural Resource Buffers as Overlays vs. Zones:

Benefits:

- Eliminates potential problem of gaps or overlapping of natural protection areas on a defined land use
- Creates consistency between the City and the Pleasant Valley and Springwater Plan Areas
- Allows for shifting of a boundary as natural resources evolve over time without changing underlying land uses



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Buffer Widths

Streams by Stream Order	Pleasant Valley	Springwater	HCA Areas	HVRA
1	50	50	50	35
2	200	200	100	50
3	200	200	100	50
4	200	200	100	50
5	200	200	125	50
Wetlands	50	50	50	35
Uplands	Previously protected non-water resource-based areas (tree groves) and public Open Space ownership lands			
Potential Resource Areas	Those portions of the buttes with hydric or partially hydric soils above the contour representing toe of slope; plus the 2004 national wetland inventory; plus mapped known wetland sites			

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Natural Resource Density Transfer

The existing density transfer system provided for limited transfer due to external constraints of lot configurations. In order to encourage development and the protection of natural resources the following changes have been made:

- For residential zones, changes allow density transfer at 50% of minimum density of underlying zone (newly applied zones for Pleasant Valley and Springwater). This is a change from one unit per acre.
- Similar transfers, based on floor area ratio, are allowed for non-residential zones.
- Density transfer is allowed to on-site and off-site 'receiving' properties up to 125% of maximum density.
- To be able to take advantage of the density transfer, receiving property will be afforded some reductions in setbacks, minimum lot sizes, and minimum frontage requirements.

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Natural Resource Impact Mitigation

- The existing mitigation standard provides for dense tree cover only, even when impacting a meadow area. Flexibility has been added to suit prioritized ecological needs.
- For building or expanding homes on existing lots, cash-in-lieu is required due to insufficient area to provide mitigation on-site, and to simplify the process.
- For other development, cash-in-lieu will be allowed only when there is insufficient room to provide on-site mitigation.

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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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Hillside & Geologic Risk Project Aspects

- Revising the overlay boundary using the most recent landslide risk data from the state
- Clearly defining when geotechnical review is required for proposed development
- Instituting a simple review process for building single family homes safely

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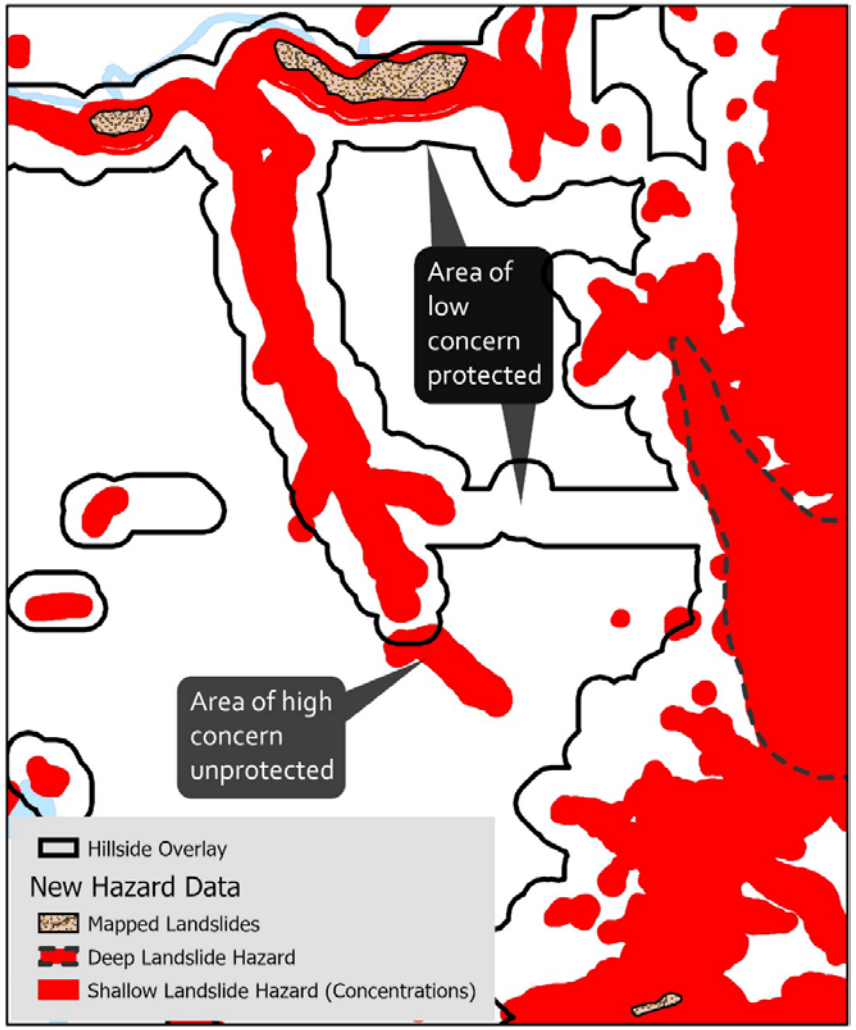
Natural Hazard Risk Reduction – Hillsides

Old Data vs New Data Example



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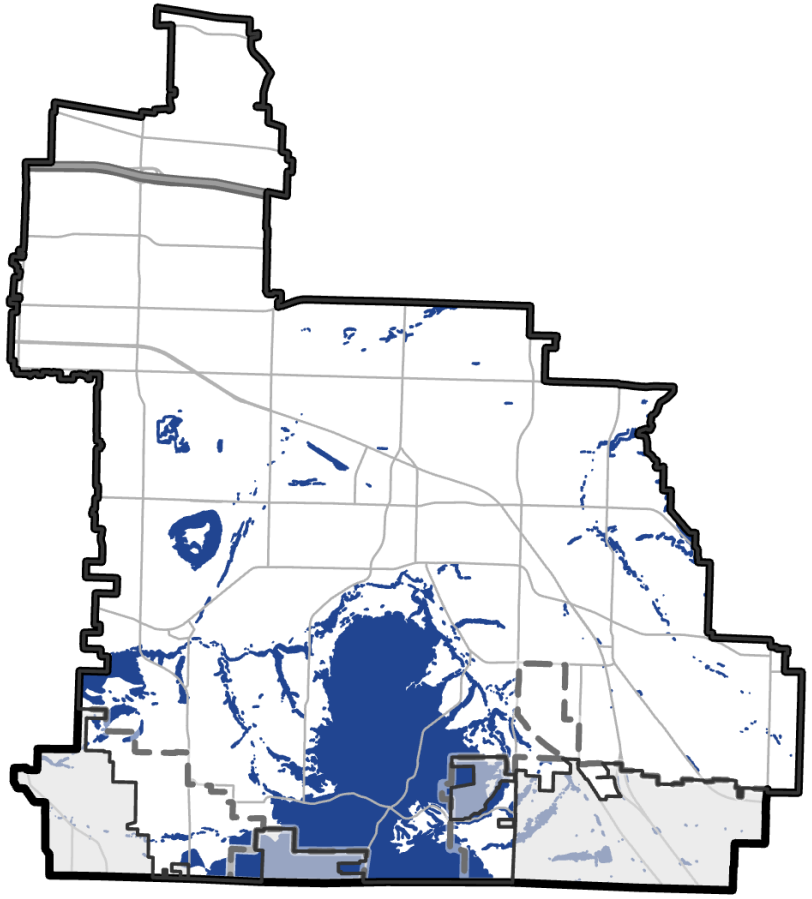
Hillside & Geologic Risk Overlay

Map



Hillside Overlay

Existing Acres	Proposed Acres
2990	2543

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Project Status

Wednesday, September 9:

- Draft codes available for public review
- GIS maps available for public review

Thursday, September 17:

- Public Work Sessions at 2pm or 7pm

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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