

# Environmental Overlay Project



# Environmental Overlay Project

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- Map Updates
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- Technical Overview
- Map Updates
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# Project Overview

## Protecting Natural Resources

Address confusing, overly complex, and outdated resource info.:

- update with best available data
- simplify complicated code and mapping processes

- No significant changes to the overall levels of resource protection in current code.

- Consistent with stakeholder input for Pleasant Valley (1995-2005) and Springwater (2004-2007) Community Plans, Metro Title 3 and 13 processes (2002-2008)

## Natural Hazards Risk Reduction

Use best available data to:

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



# Project History

2016	<ul style="list-style-type: none"><li>• Project authorized by Council</li><li>• Stakeholder meetings</li></ul>	Review and update riparian buffers and adopt floodplain Code and Map issues discussed to inform alternatives
2017	<ul style="list-style-type: none"><li>• Alternatives reviewed</li><li>• Direction decided</li></ul>	Discussion with Metro to ensure the chosen alternative was substantially compliant with Titles 3 and 13
2018	<ul style="list-style-type: none"><li>• Natural resource modeling</li><li>• FEMA mandate</li></ul>	Stream layer updated, remote sensing and field verifications Floodplain needed to be processed separately
2019	<ul style="list-style-type: none"><li>• Floodplain adoption</li><li>• Landslide risk modeling</li></ul>	New DOGAMI study provided landslide risk data DLCD published landslide land use guide
2020	<ul style="list-style-type: none"><li>• Draft Code and Maps</li><li>• Public Outreach</li><li>• Adoption</li></ul>	



# Project Steps

Natural Resource	Floodplain	Hillside + Geologic Risk
Issues Identification	Code Audit NFIP + ESA	Code Audit
Alternatives Analysis	Statewide Tech Meetings	DLCD/DOGAMI Consultations
Creation Of New Stream Layer	State And Federal Review	Receipt Of New Landslide Hazard And Risk Data
Identification Of Wetland Data Issues	Draft Code	Community Risk Tolerance Assessment
Field Work	Outreach	Model Update
Model Update	Hearings	Data Analysis
Data Analysis	Adopted 2019	Draft Code (Multiple Drafts)
Draft Code (Multiple Drafts)		Outreach
Outreach		Hearings
Hearings		



# Project Outreach

	2016	2017	2018	2019	2020	Upcoming
Stakeholder Meetings	✓✓				✓	✓
Work Session/Open House	✓					✓✓
Neighborhood Coalition					✓✓	
Planning Commission		✓			✓	✓
City Council	✓	✓	✓			✓
Technical Experts	✓	✓	✓	✓	✓	
Wildfire Experts				✓	✓	



# Project Elements

## Protect Natural Resources

- Wetlands and Streams
- Riparian Areas
- Upland Habitat

### *Code sections:*

- Environmentally Sensitive Restoration Areas (Pleasant Valley and Springwater)
- Habitat Conservation Areas (“current city” and Kelley Creek Headwaters)

## Protect from Natural Hazards

- Landslides (Hillsides)
- Floodplain (completed 2019)

### *Code sections:*

- Hillside Physical Constraint District





# Natural Resource Protection – Data Issue

Wetland, Stream, Riparian Area, Upland Habitat



## Legend

- 2009 LiDAR streams
- Streams from ESRA analysis
- ▨ Springwater ESRA

0 115 230 460 690 920 Feet

Current buffers don't reflect best available data

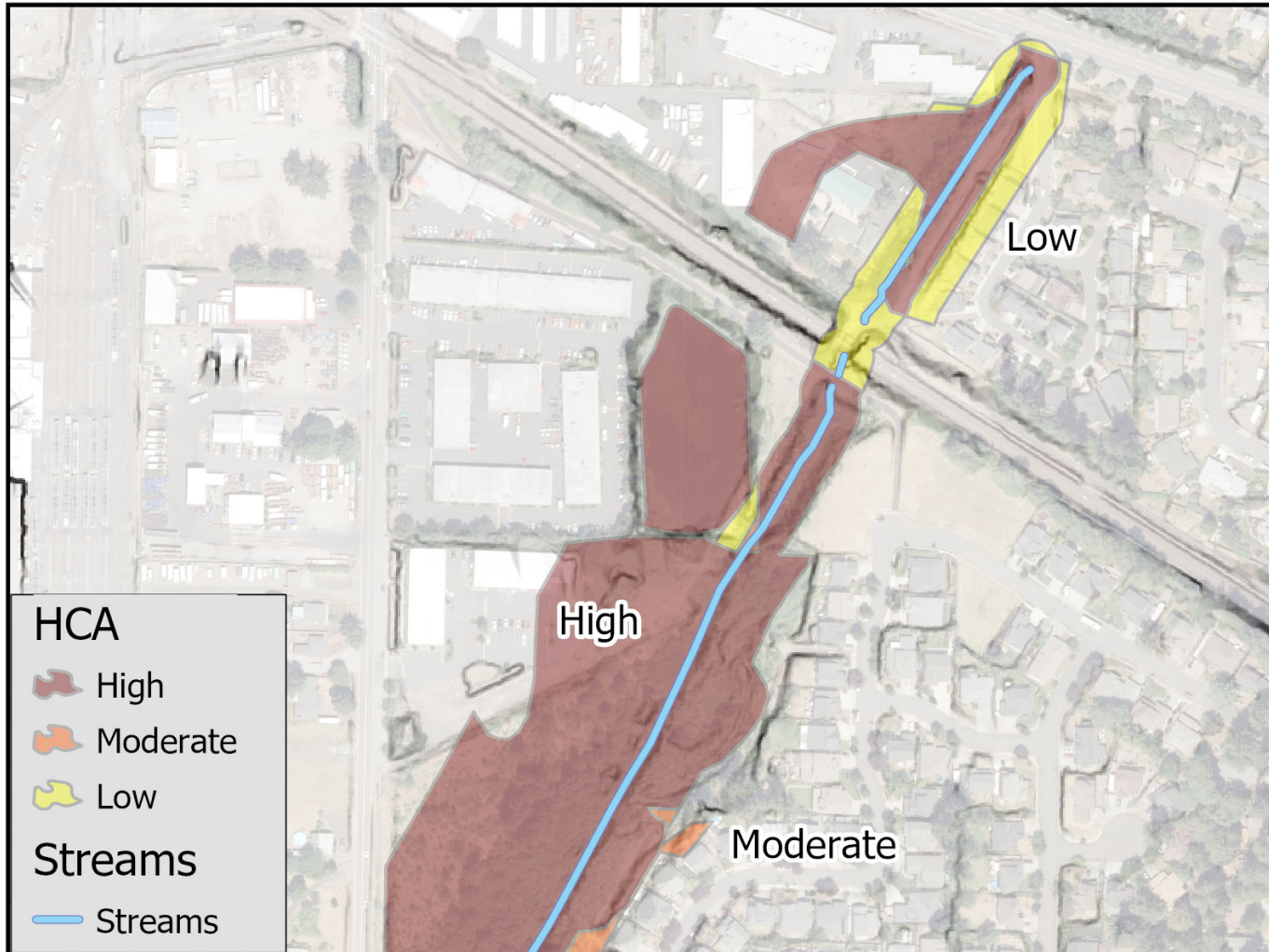
- Most improvements are based on LiDAR data





# Natural Resource Protection – Modeling Issues

Wetland, Stream, Riparian Area, Upland Habitat



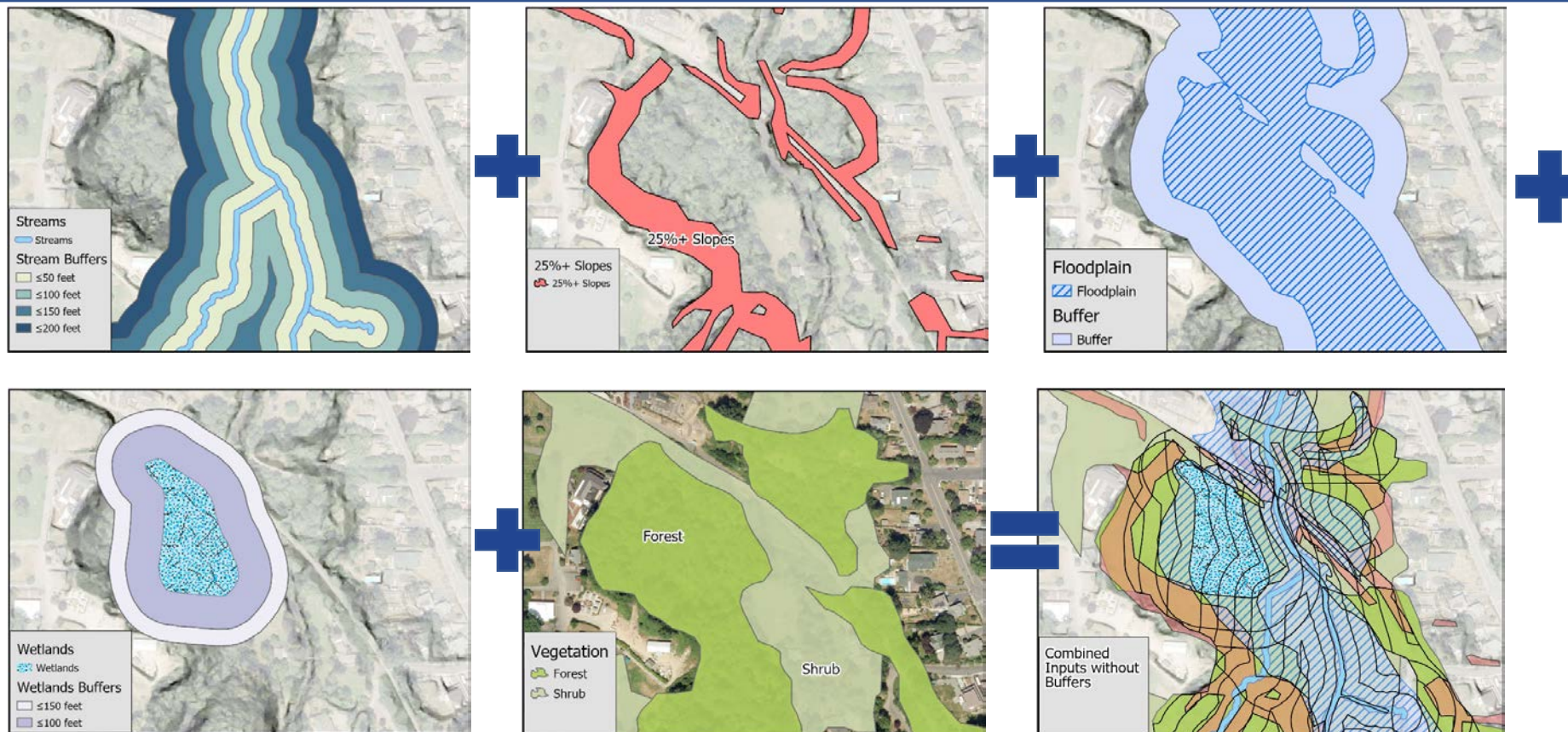
More inputs  $\neq$  Better buffer

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



# Natural Resource Protection – Complex

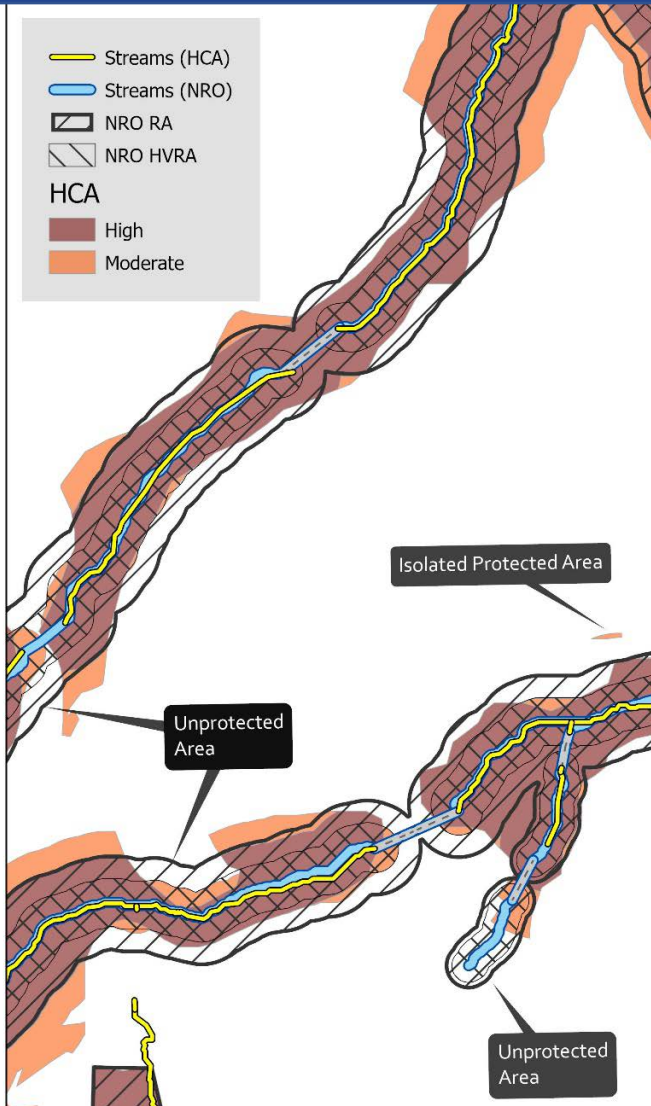
Wetland, Stream, Riparian Area, Upland Habitat





# Natural Resource Protection – Simplify

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)

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



# Natural Resource Protection – Buffer Issue

Wetland, Stream, Riparian Area, Upland Habitat



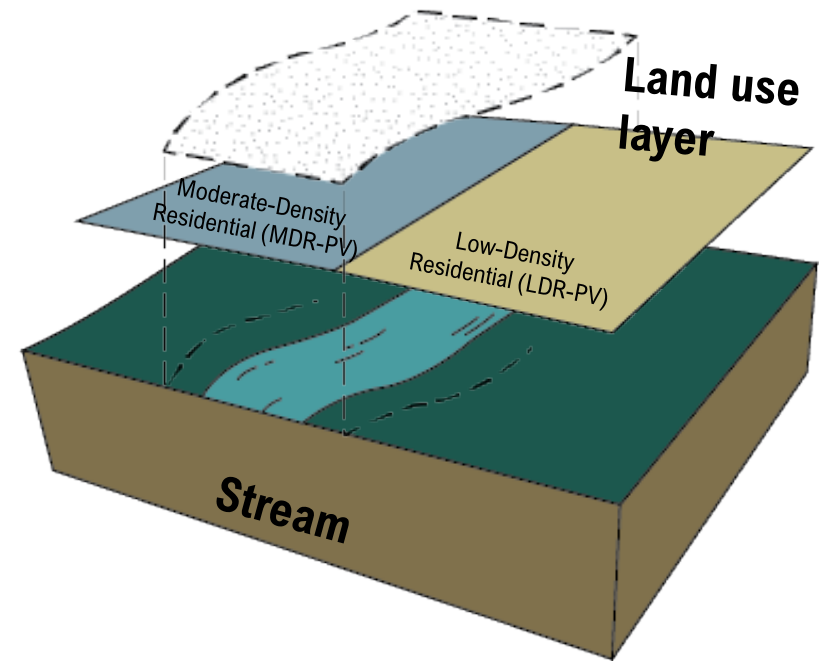
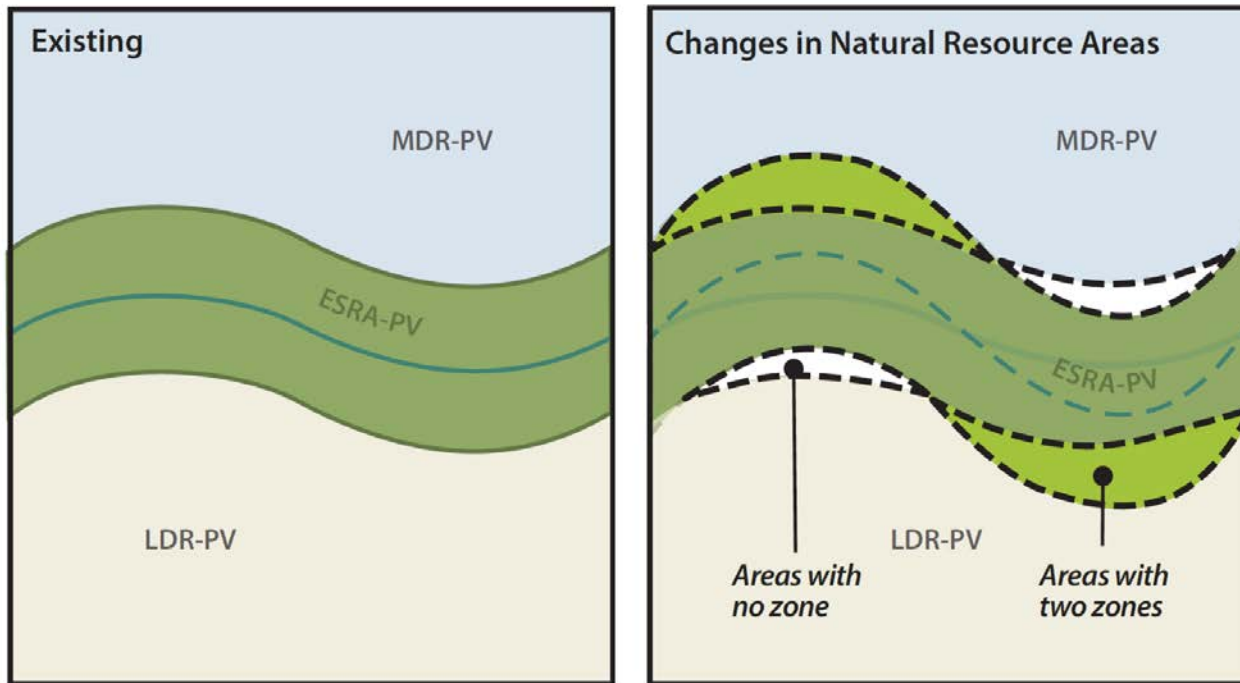
Buffers around natural resources have been created using different methodologies:

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



# Natural Resource Buffers Unified

stream, wetland, upland habitat buffers

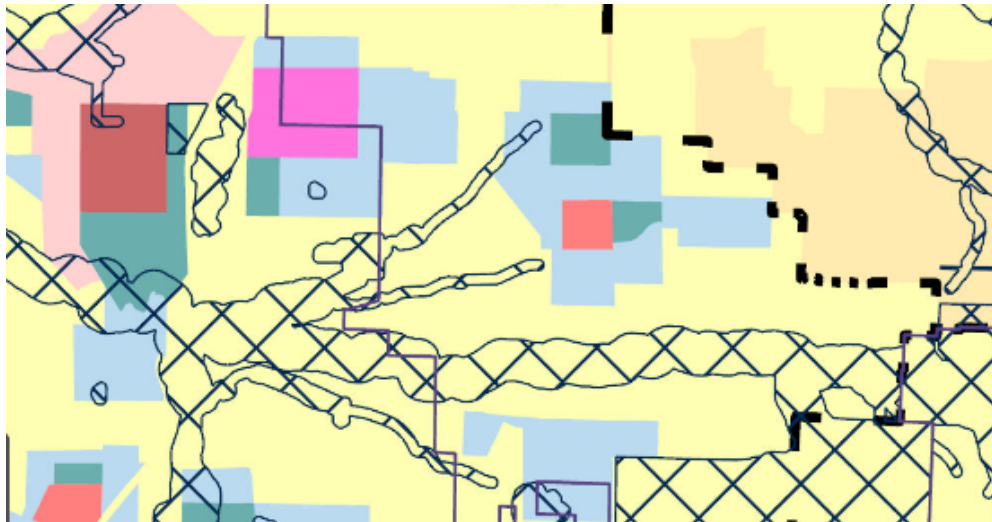


# Natural Resource Protection – Zoning Update

Wetland, Stream, Riparian Area, Upland Habitat

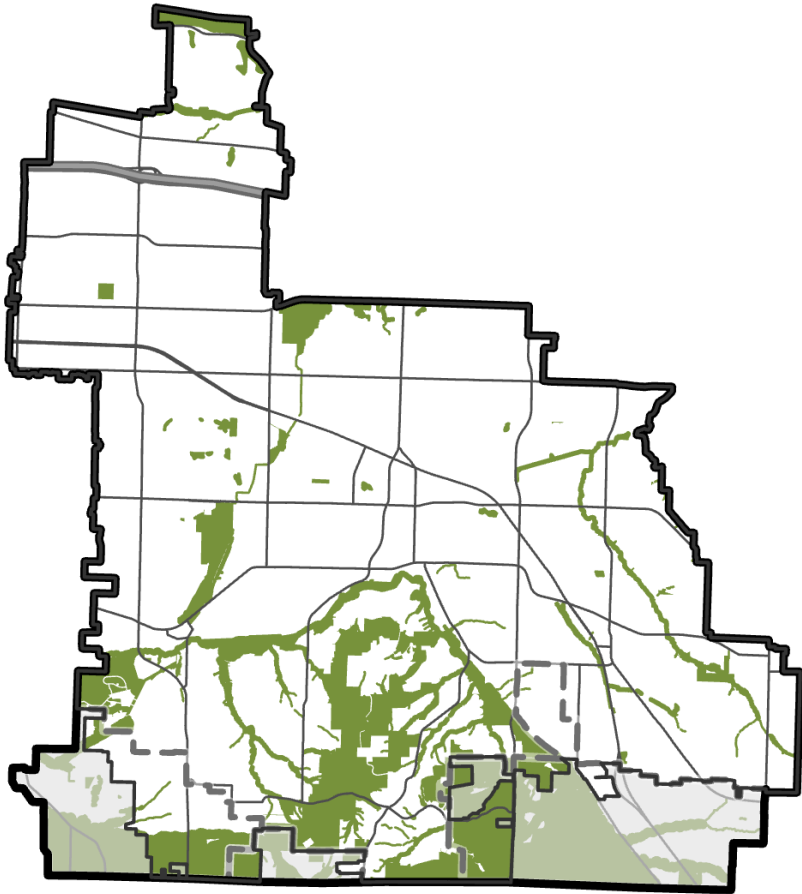
## Pleasant Valley and Springwater Plan Areas

- ESRA zoning removed
- Adjacent land use zones extended to fill “voids” where prior ESRA zoning applied



# Natural Resource Protection – Map Update

Wetland, Stream, Riparian Area, Upland Habitat



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## Simplified, unified Natural Resource Overlay

	Existing Acres	Existing w/ Corrections	Proposed Acres
ESRA-PV	252	275	251
ESRA-SW	394	430	447
HCA	2050	2103	2039
<b>Total</b>	<b>2696</b>	<b>2808</b>	<b>2737</b>





# Natural Resource Protection – Code Update

## Wetland, Stream, Riparian Area, Upland Habitat

- Creating a simple review process for new single-family homes on vacant lots
- Providing clear and objective standards within the resource areas
- 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



# Natural Resource Protection – Incent Not to Disturb

Wetland, Stream, Riparian Area, Upland Habitat

## Density Transfer – Land Divisions

- Incentive to not disturb
- For residential zones 50% of minimum density of underlying zone
- Transfer parcel and receiving parcel both part of Type II application
- Caps on receiving area density (up to 125% of maximum density)
- Slight reductions in setbacks and minimum lot sizes allowed.
- Can only be transferred within a planning area (e.g. Pleasant Valley to Pleasant Valley)



# Natural Resource Protection – Allowed Disturbance

Wetland, Stream, Riparian Area, Upland Habitat

## Single- Family Residential

Maximum disturbance area = 6,000 SF



### Temporary

(up to 2,000 sq ft)

- staging, and stockpiling
- Vegetation removal (inc. small trees)
- Area must be restored

### Permanent

(up to 4,000 sq ft)

- grading and building
- vegetation and tree removal
- Area must be mitigated

## Non- Residential

Maximum disturbance area =

- 25% of the Resource Area on site
- No disturbance in the High-Value Resource Area (HVRA)
- Area must be mitigated



# Natural Resource Protection – Mitigation

Wetland, Stream, Riparian Area, Upland Habitat

## Flexibility in Mitigation Design

Proposed code updates allow flexibility in plant type ratios to suit prioritized ecological needs and 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 plants that do the best job of removing pollutants.



# Natural Resource Protection – Mitigation

Wetland, Stream, Riparian Area, Upland Habitat

## Cash-in-Lieu

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



## Single-Family Residential

- Will not mitigate on-site
- Cash-in-lieu required

## Non-Residential

- All practicable mitigation must be on-site
- Cash-in-lieu an option when there is not room to mitigate on-site



# Natural Hazard Risk Reduction - Hillsides



## 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 OR Department of Geology and Mineral Industries (DOGAMI) determined to be inaccurate

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

### 2. New data

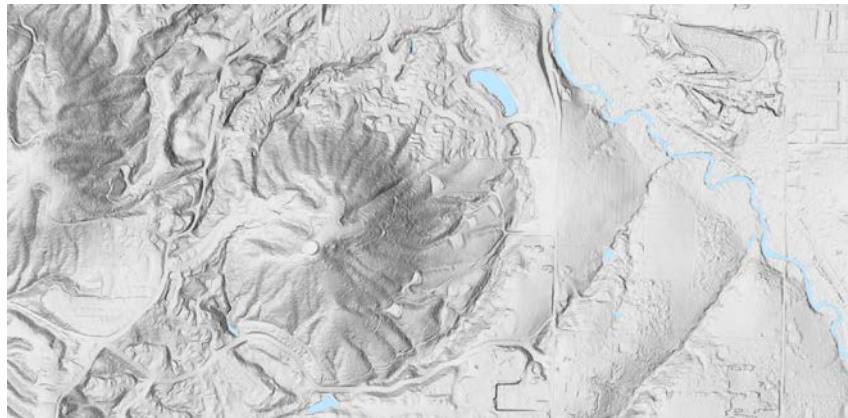
- 2014 higher resolution slope data (LiDAR)
- 2018 DOGAMI updated landslide risk data for Multnomah County
- 2019 State Landslide Land Use Guide (DLCD and DOGAMI)





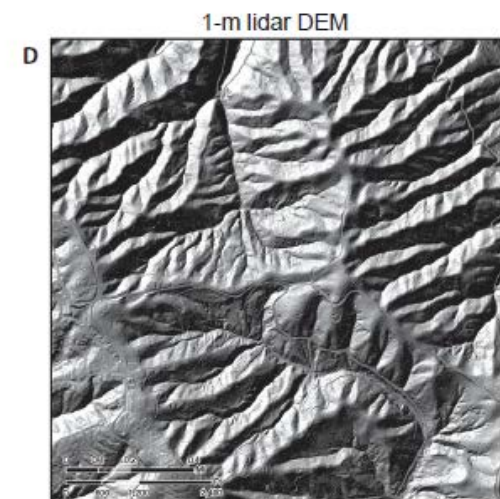
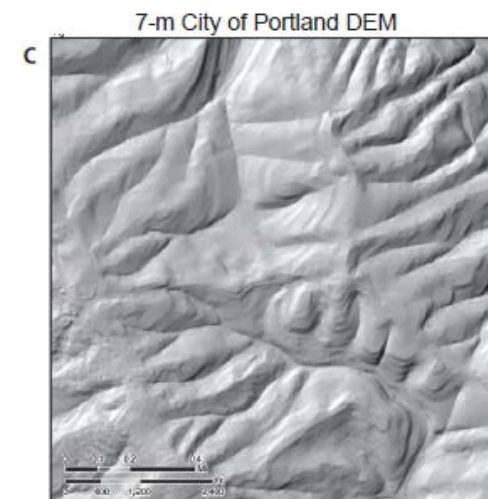
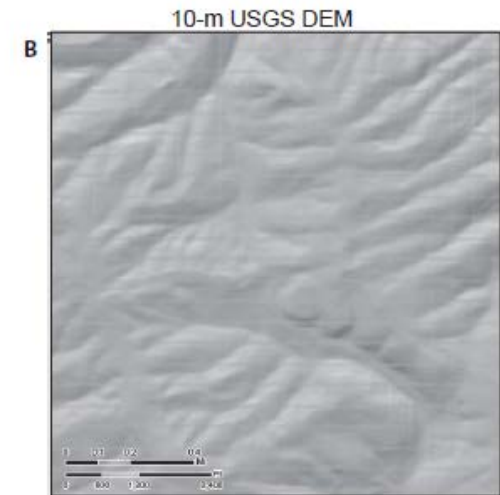
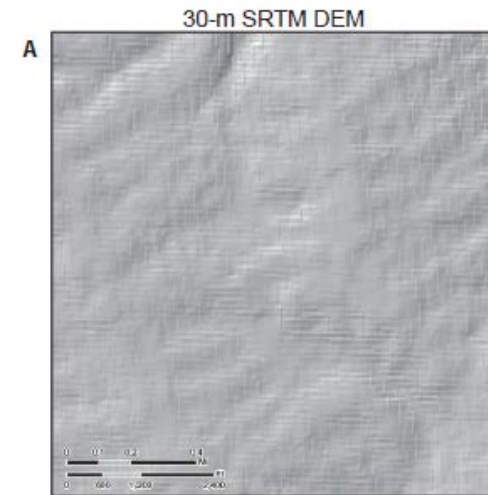
# Natural Hazard Risk Reduction - Hillsides

## New high-quality slope data



*Hogan Butte and Johnson Creek*

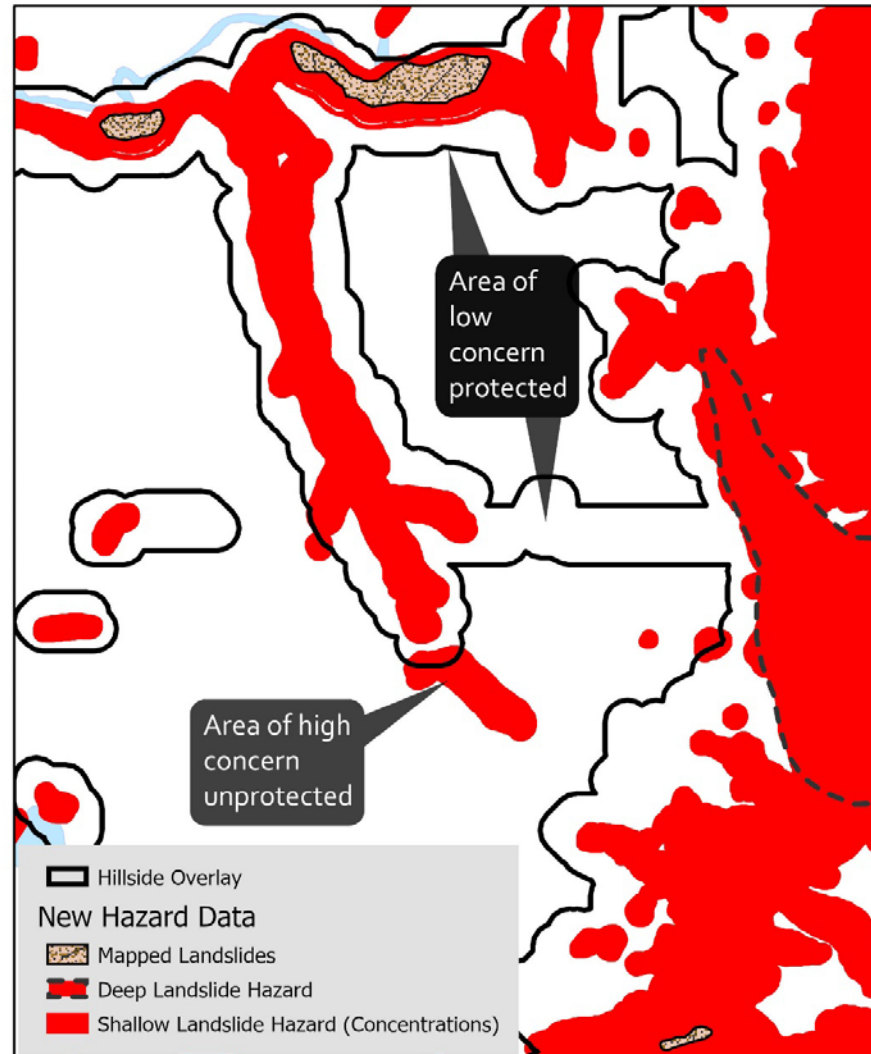
2003 data



2014 data

# Natural Hazard Risk Reduction - Hillsides

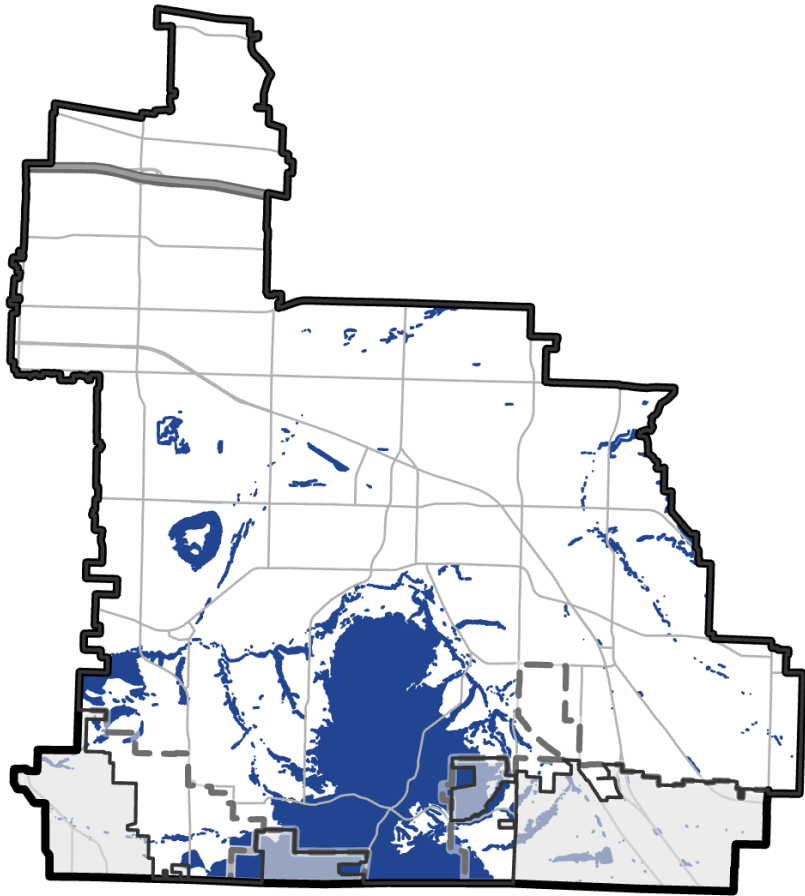
new  
Hazard  
data



# Hillside & Geologic Risk Overlay – Map Update

## Hillside Overlay

Existing Acres	Proposed Acres
2990	2543



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# Hillside & Geologic Risk Overlay – Code Update

## Highlights:

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



# Project 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](http://GreshamOregon.gov/Overlays)*

*Contact  
[Overlays@GreshamOregon.gov](mailto:Overlays@GreshamOregon.gov)  
for more information.*



# Next Steps

September 9:  
Draft code and maps  
available for public review

September 17:  
Public work sessions



November 23:  
Planning Commission



December 15:  
City Council Hearing



Incorporating comments  
and writing reports



# Environmental Overlay Project

## DISCUSSION

