COLLABORATIVE PRACTICAL INVENTIVE NIMBLE EQUITABLE



Environmental Overlay Project (EOP) Update

CITY OF GRESHAM

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January 2020

Natural Hazard Areas

Natural Hazards

- Flooding
  - Risk protection through Floodplain Overlay
- Landslides
  - Risk protection through Hillside Physical Constraint District

Natural Resource Areas

Natural Resources

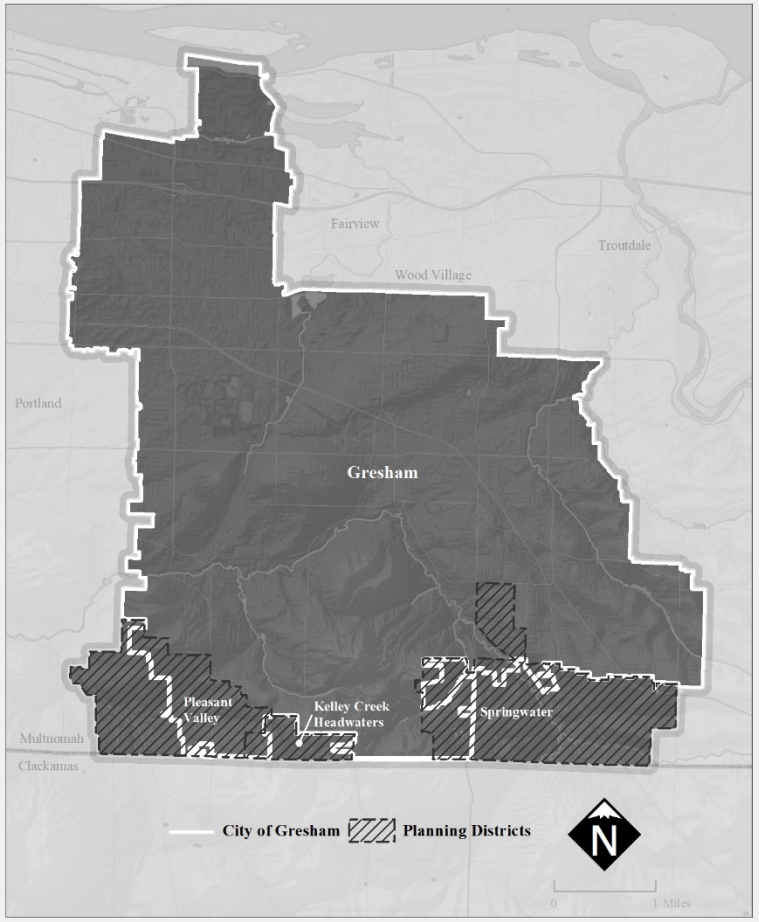
- Wetlands
- Streams
- Riparian Areas
- Upland Habitat

Protected through:

– Environmentally Sensitive Restoration Areas (Pleasant Valley)

– Environmentally Sensitive Resource Areas (Springwater)

– Habitat Conservation Areas (“current city” and Kelley Creek Headwaters)



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Initial Project Drivers

- **Floodplain Maps and Code**
  - Federally mandated timeline
  - Goal: update floodplain maps and code to meet requirements

- **Natural Resource Buffers**
  - confusing, overly complex, and relied on outdated resource info
  - Goals:
    - unify (between planning areas)
    - simplify complicated code and mapping processes
    - update (with best available data)

Project Direction

Natural Hazards:

Use best available data to meet state and federal risk mitigation standards

Natural Resources:

Be consistent with prior stakeholder input: No significant change to the degree of resource protection in current code

- Pleasant Valley Community Plan, 1999-2005
- Springwater Community Plan, 2004-2007
- Metro's Title 3 process, 2002-2008

Environmental Overlay Project Components

	Floodplain	Riparian & Upland Habitat	Hillside
Last updated	1990s (Johnson, Fairview, and Kelly/Burlingame) 2009 (in Columbia Slough)	2001 (ESRA-PV), 2005 (ESRA-SW), 2008 (HCA)	2003
Current Update	2019	2020	2020
Regulates development in	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	• Statewide Planning Goal 5 • Metro Title 3 and 13 • Clean Water Act • Preserve wildlife habitat and water quality	• Statewide Planning Goal 7 (Landslides) • Public health and safety • Preserve property

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EOP Status

- Currently finalizing a draft code for public review
- Currently finalizing GIS models for public review
- Public review begins April 2020.

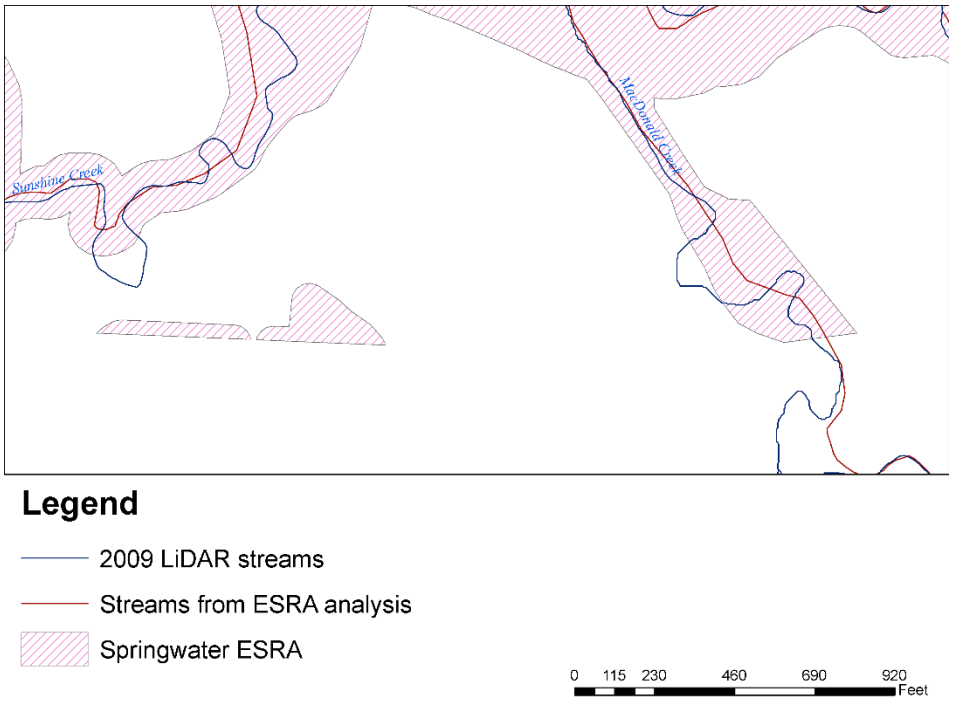
Natural Resource Overlay

(stream, wetland, and upland habitat buffers)

We needed to address 3 primary issues:

Issue 1:

- Current buffers don't reflect best available data
  - Most improvements are LiDAR data



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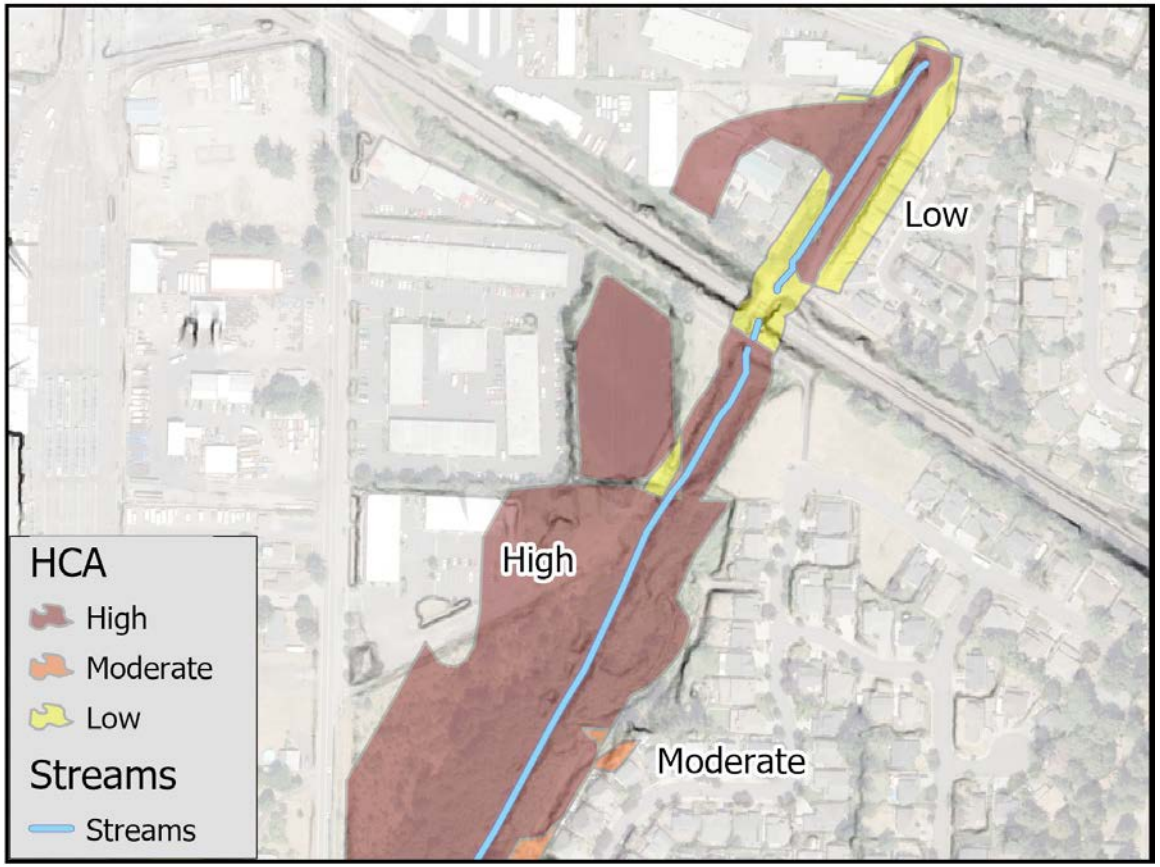
Natural Resource Overlay (cont.)

Issue 2:

- Presence of computer-generated buffer geometries that didn't result in the envisioned resource protection



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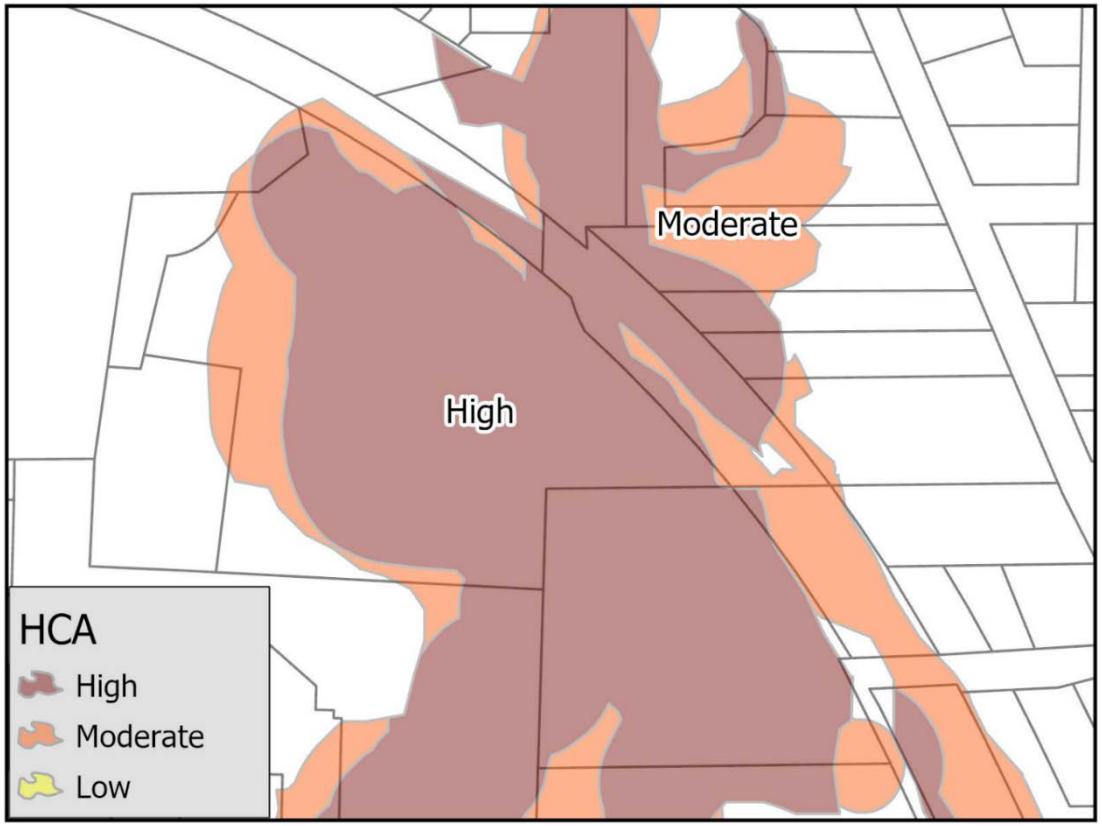
Natural Resource Overlay (cont.)

Issue 3:

- Difficulty of understanding and administering three complicated, differing buffer models



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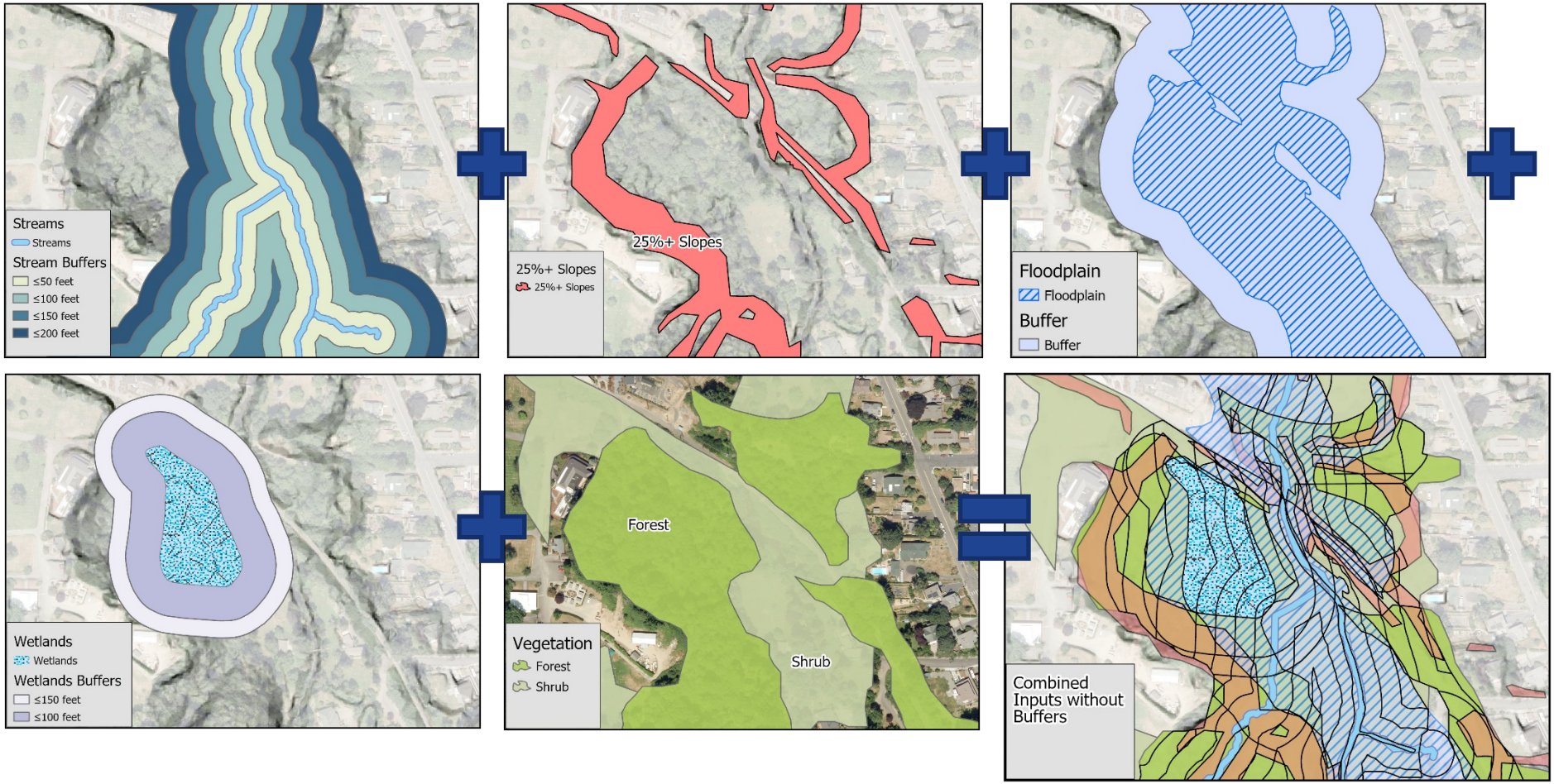
HCA Model - Inputs



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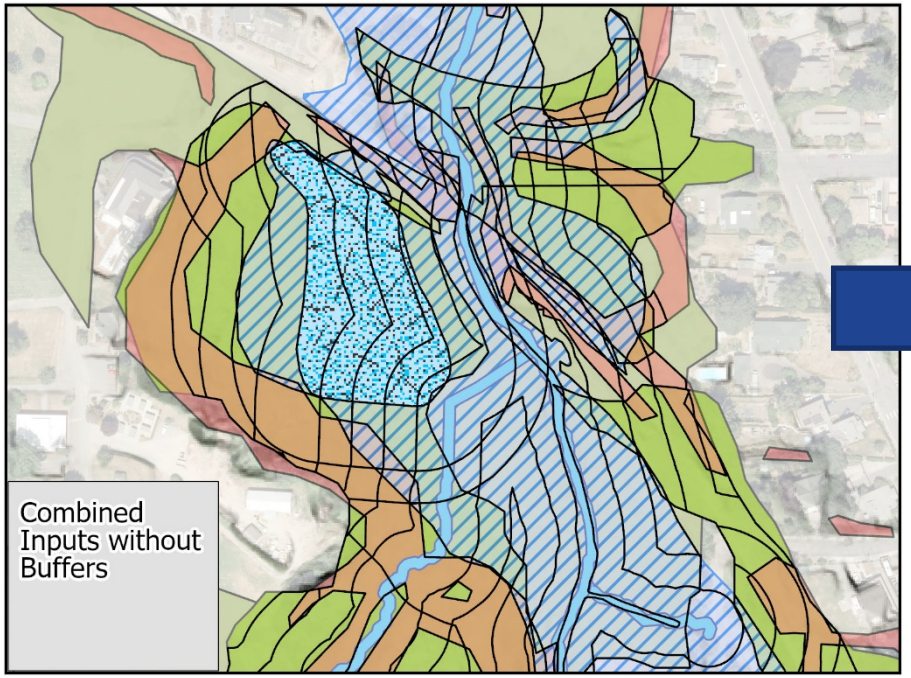
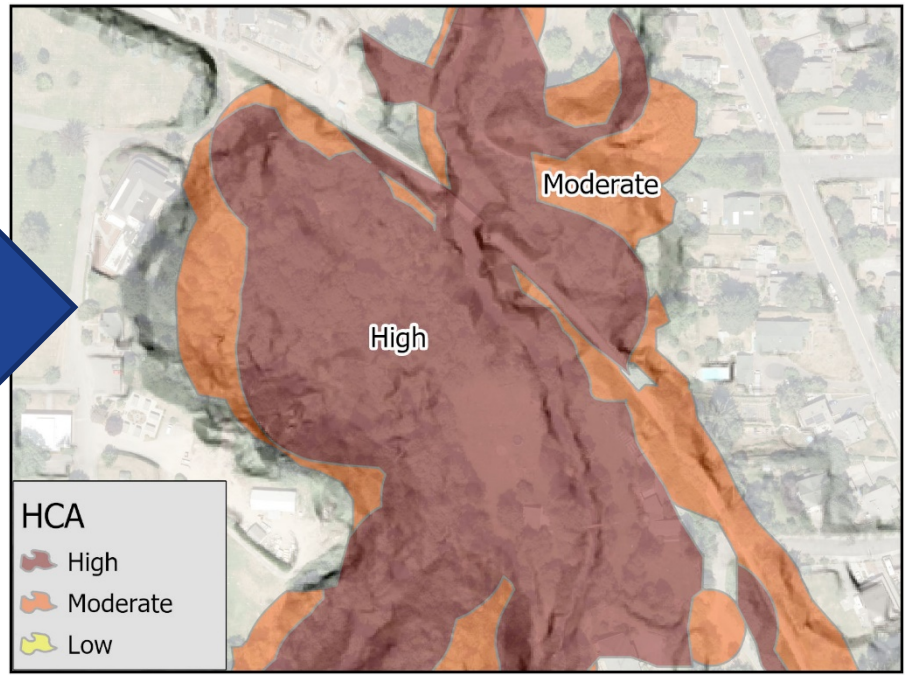
HCA Model – Final Values





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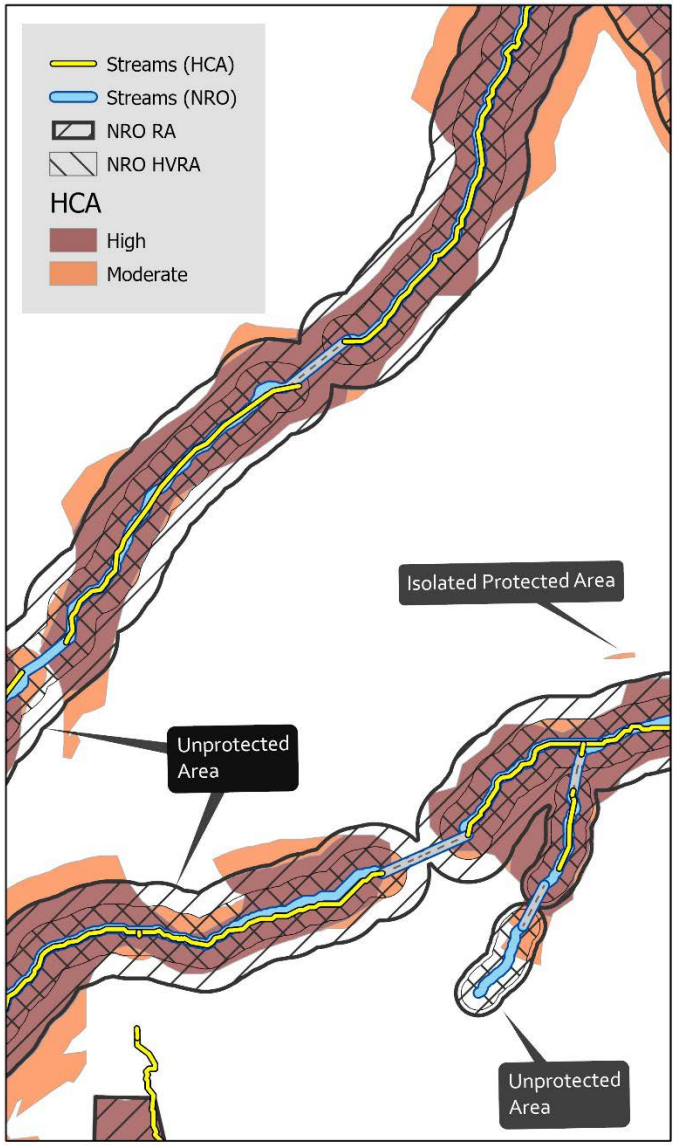
Natural Resource Buffers Simplified



Standard buffer widths around similar resources

- No significant change in level of protection
  - Averaged the pre-existing buffers
- Use easier-to-find field indicators
  - Measure from center of the stream
- Simplified buffer doesn't generate anomalies
- Uses most current, high resolution data

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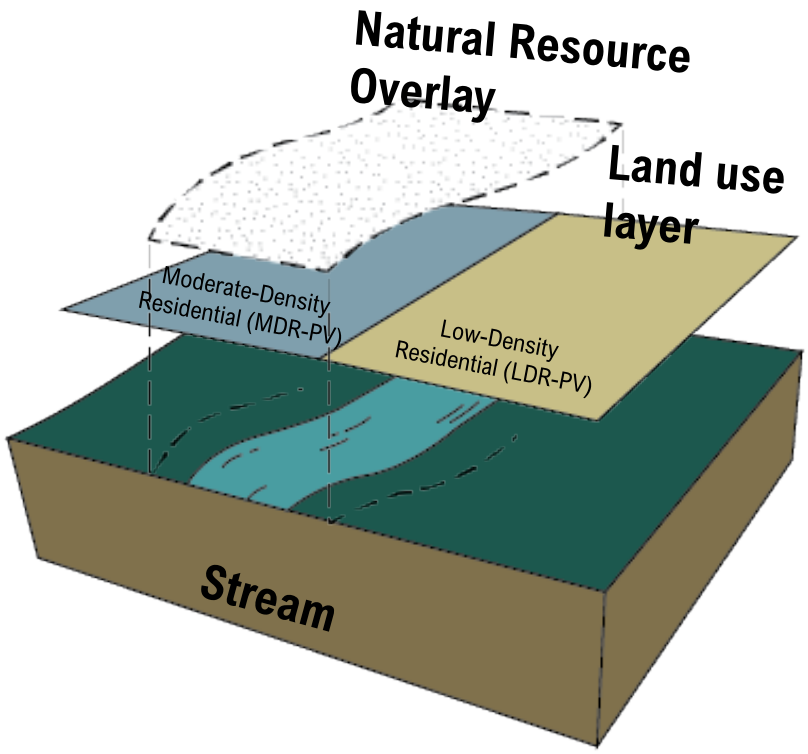
Natural Resource Buffers Unified

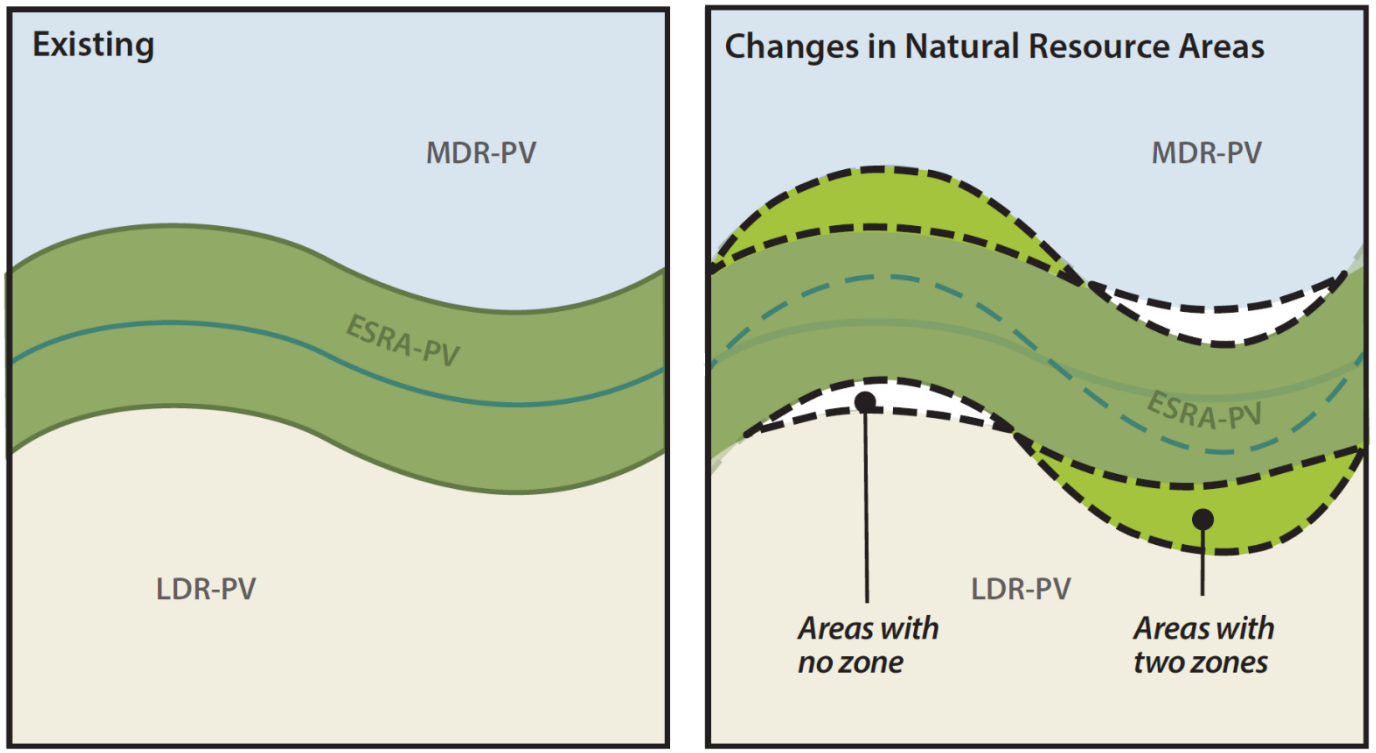
Discrepancies existed because of how the various buffers were adopted:

- 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 as an Overlay



Natural Resource Buffers as a Zone



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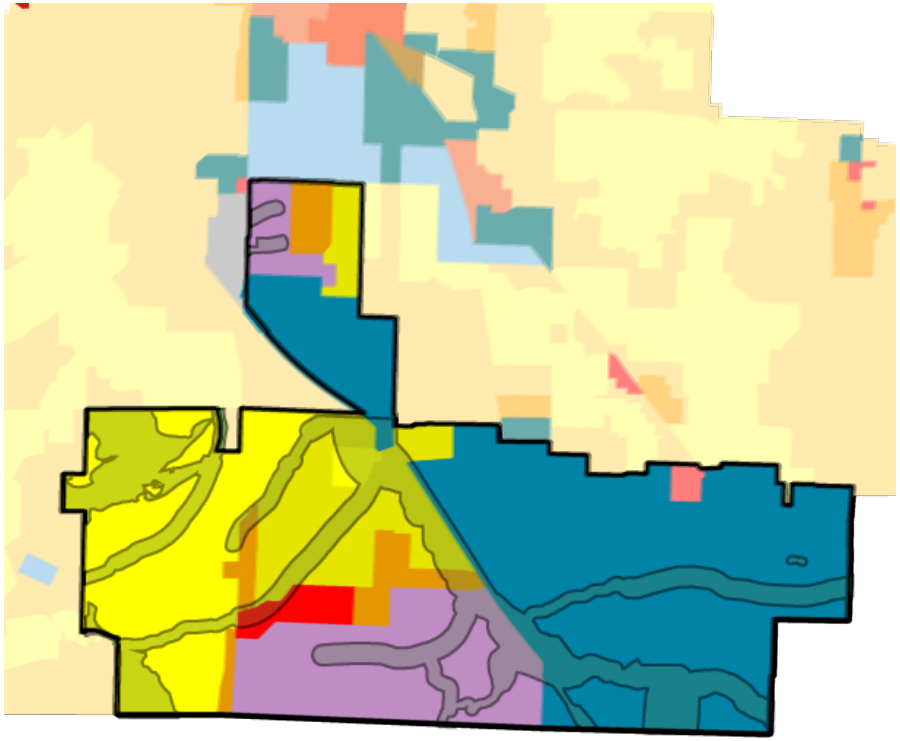
Transitioning from Zone to Overlay



Proposed zoning with Conceptual Natural Resource Overlay

Hillside Overlay – What is it?

Regulates development on
- steep slopes
- landslide prone soils

Consists of:
- Development code
- Overlay boundary

Overlay boundary relies on
- slope data
- landslide hazard data
- risk prioritization criteria

Hillside Overlay – Why update?

Natural Resources Overlay (NRO) removed some steeply sloped areas which prompted a review of our Hillside code and overlay.

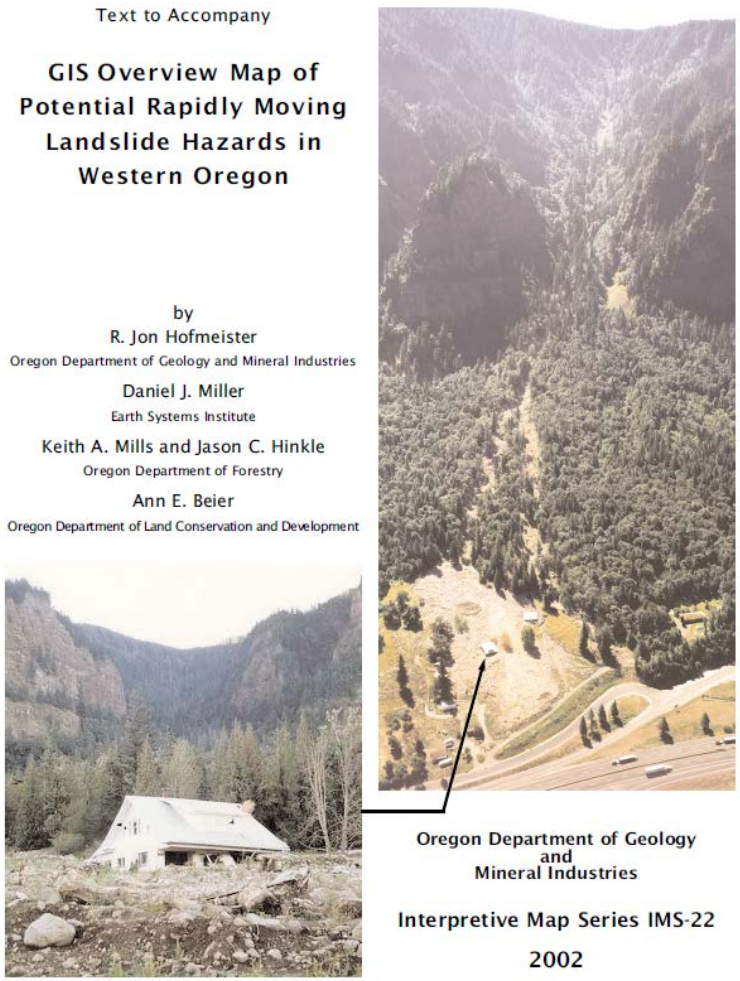
Limitations

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

Opportunities to improve

- Higher resolution slope data
- 2014 landslide inventory
- 2018 landslide hazard data
- 2019 State landslide land use guide

Hillside – Inaccurate Hazard Data



IMS-22 Report

IMS-22 data was used as our “Further Review Areas”

DOGAMI webpage now states:

> **“**IMS-22 hazard zones are now considered to be an inaccurate depiction of this hazard.”

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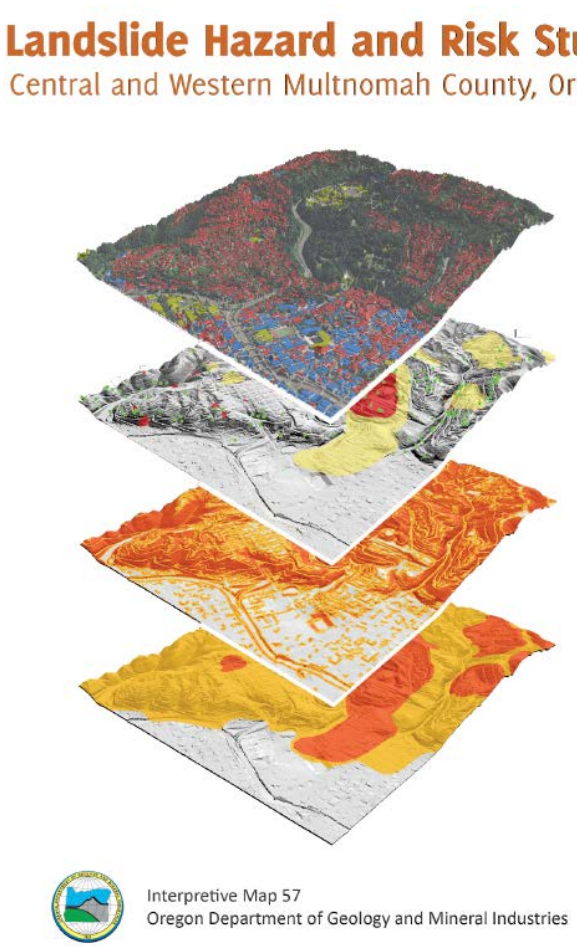
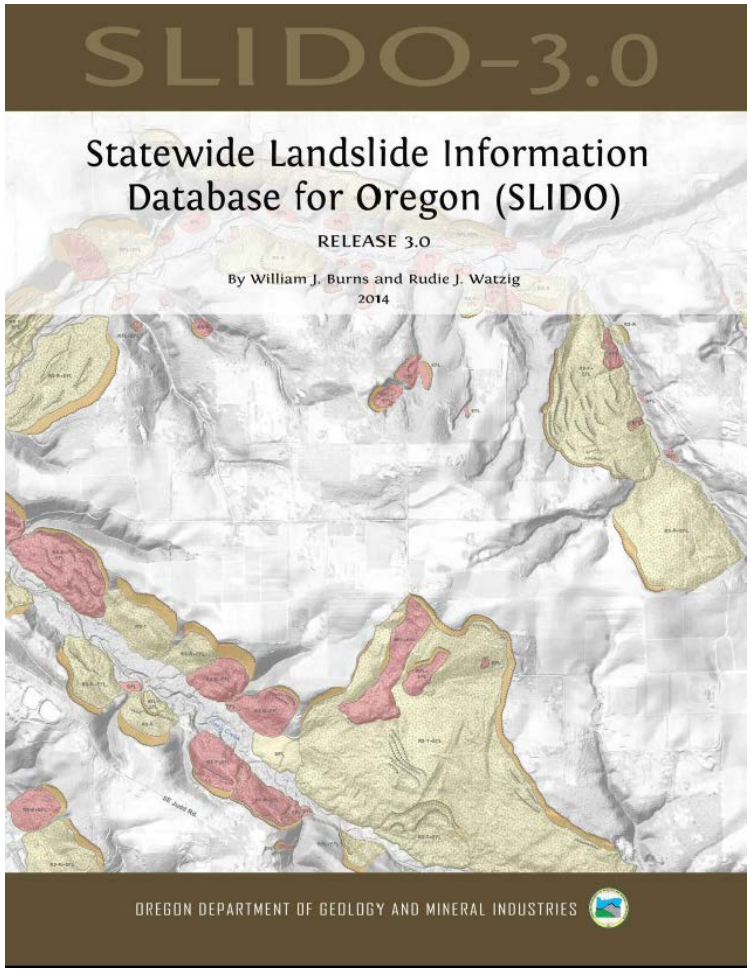
Hillside – New Hazard Data (2014-2018)





IMS-57 Report

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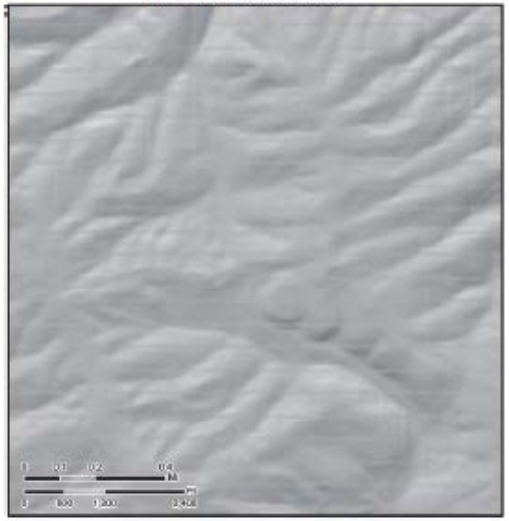
Hillside – Slope data comparison

10-m USGS DEM



2003 available data

1-m lidar DEM

2014 available data

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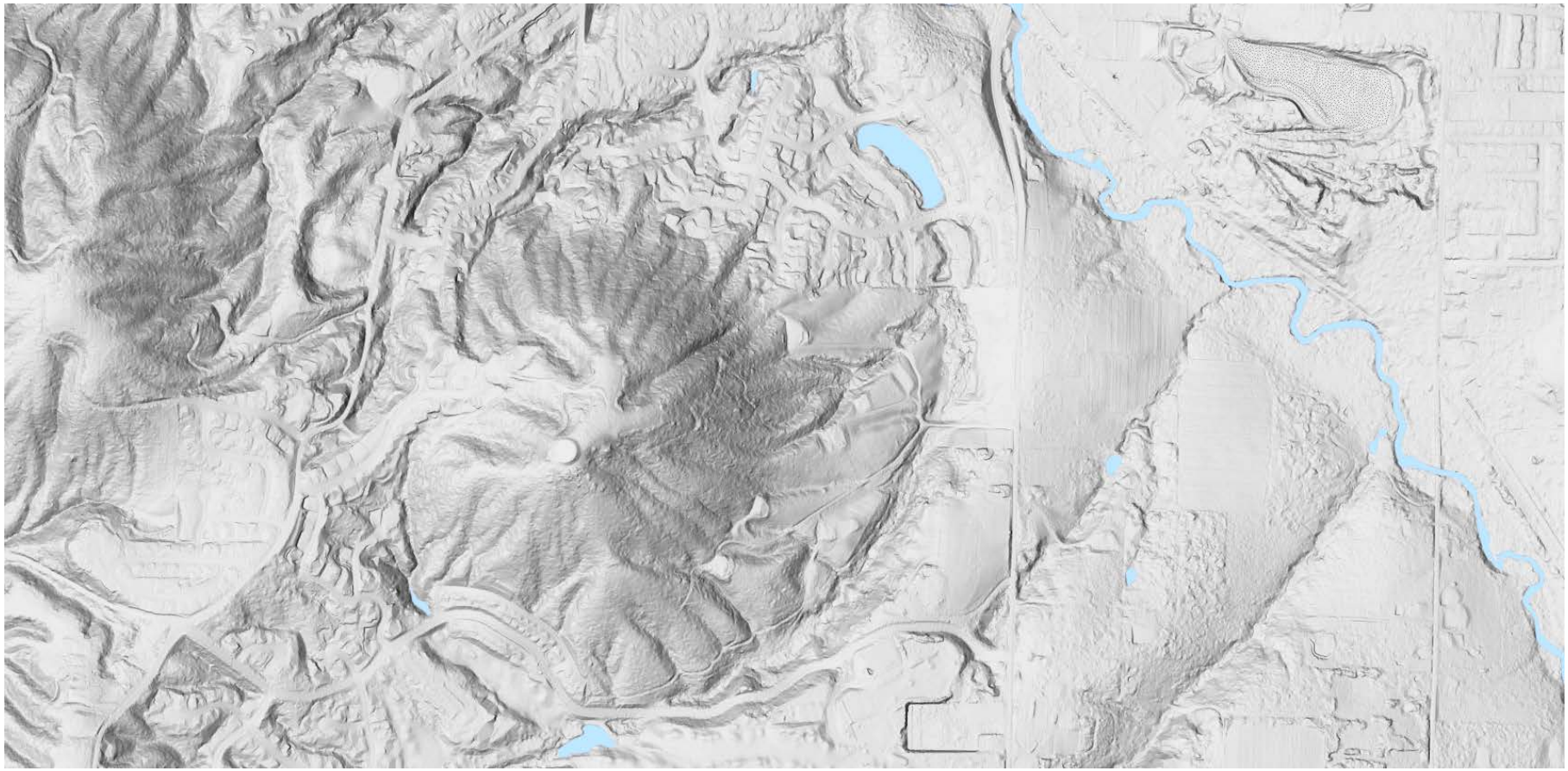
Hillside – New high quality slope data



Hogan Butte and Johnson Creek

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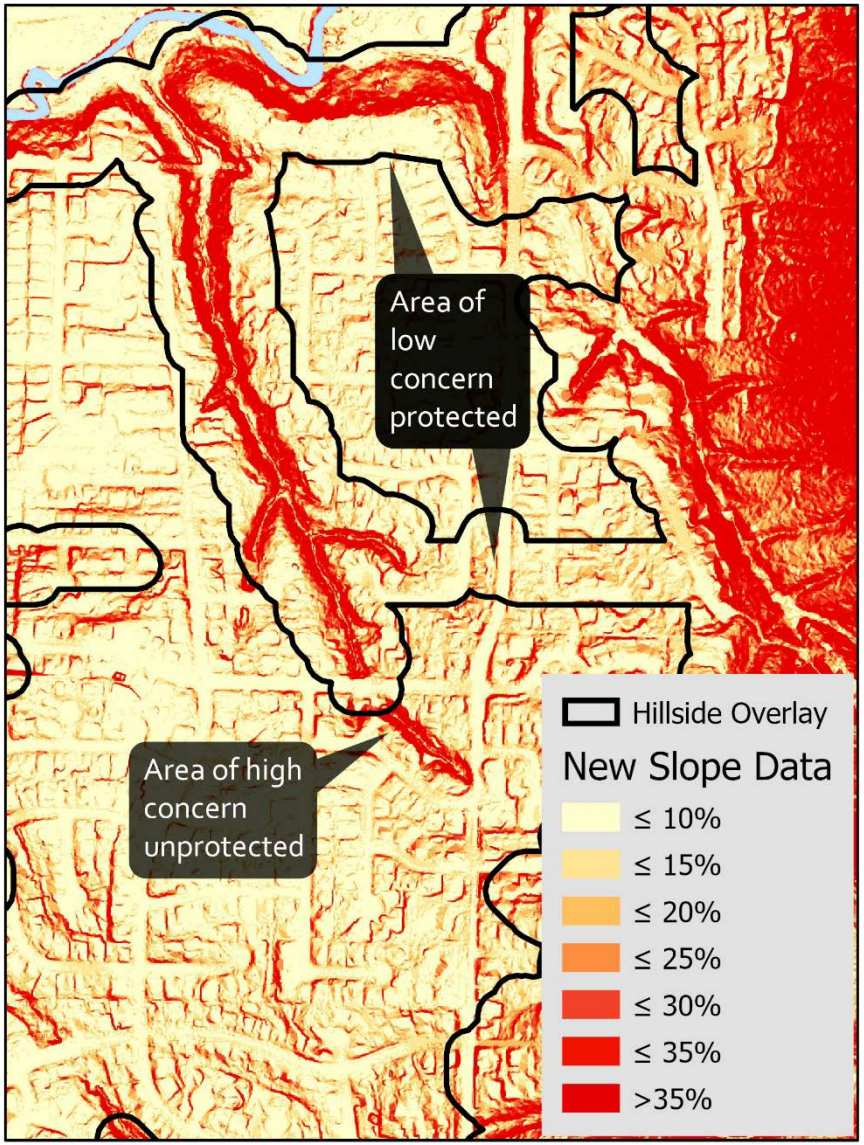
Hillside – Coarse Slope Data



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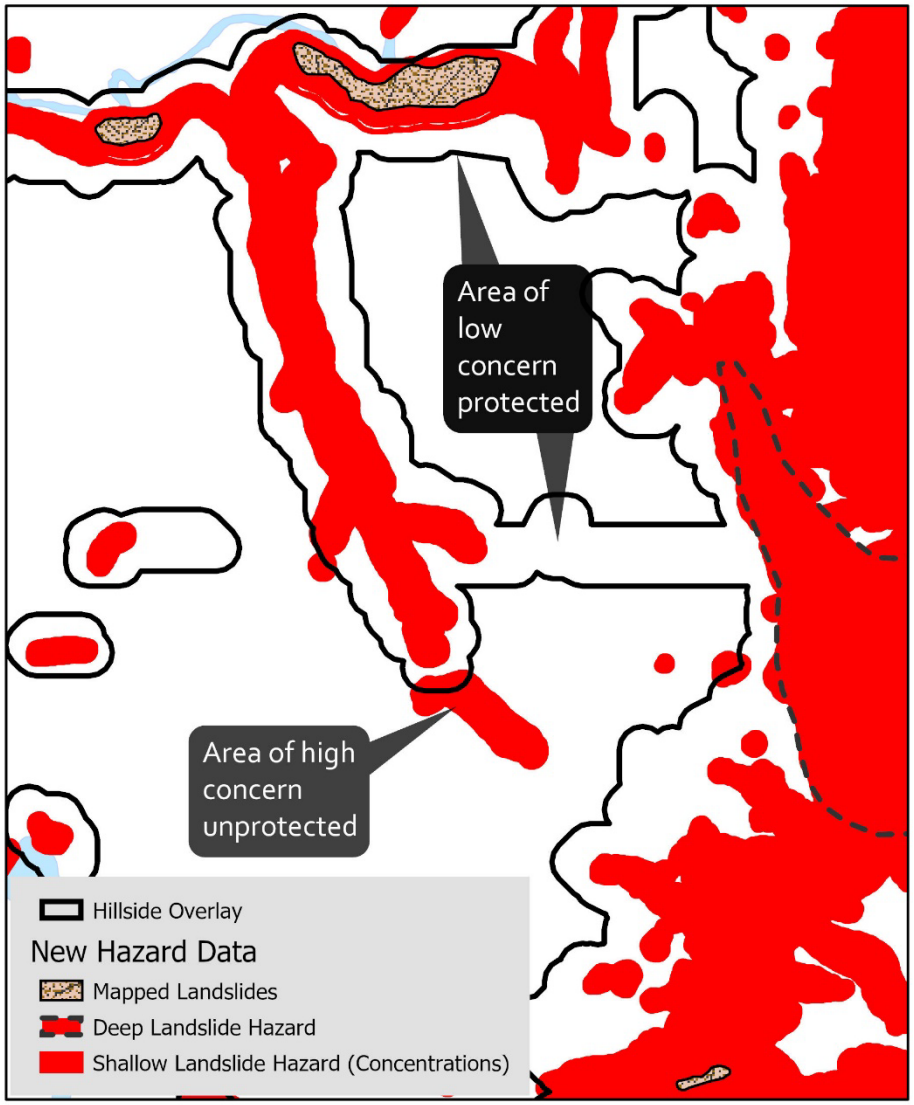
Hillside - New Hazard Data



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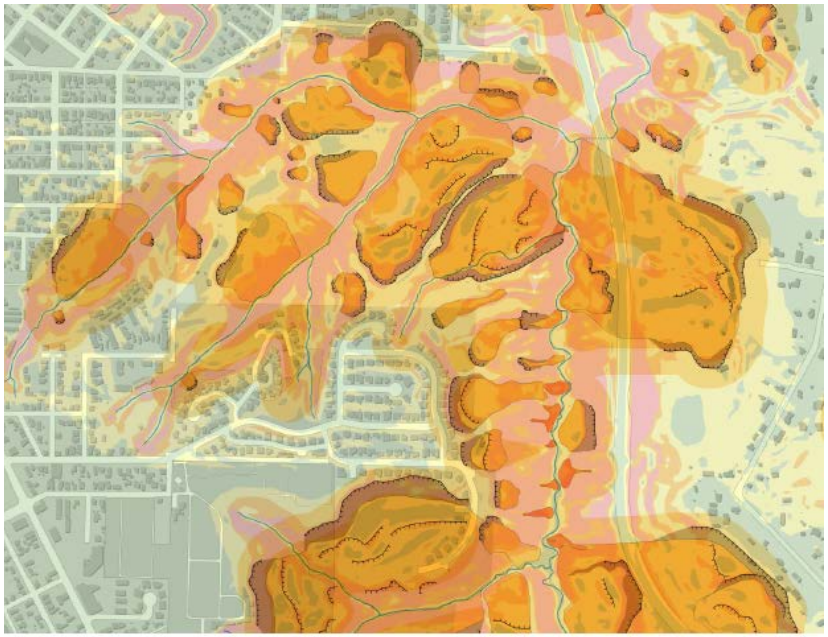
Hillside – Code



Code and overlay development guidance

- Integrating new hazard data
- Goal 7 compliance
- Examples from other jurisdictions

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Coming for your review:

Simplified, unified Natural Resource Overlay

- Updated Map
- Updated Code

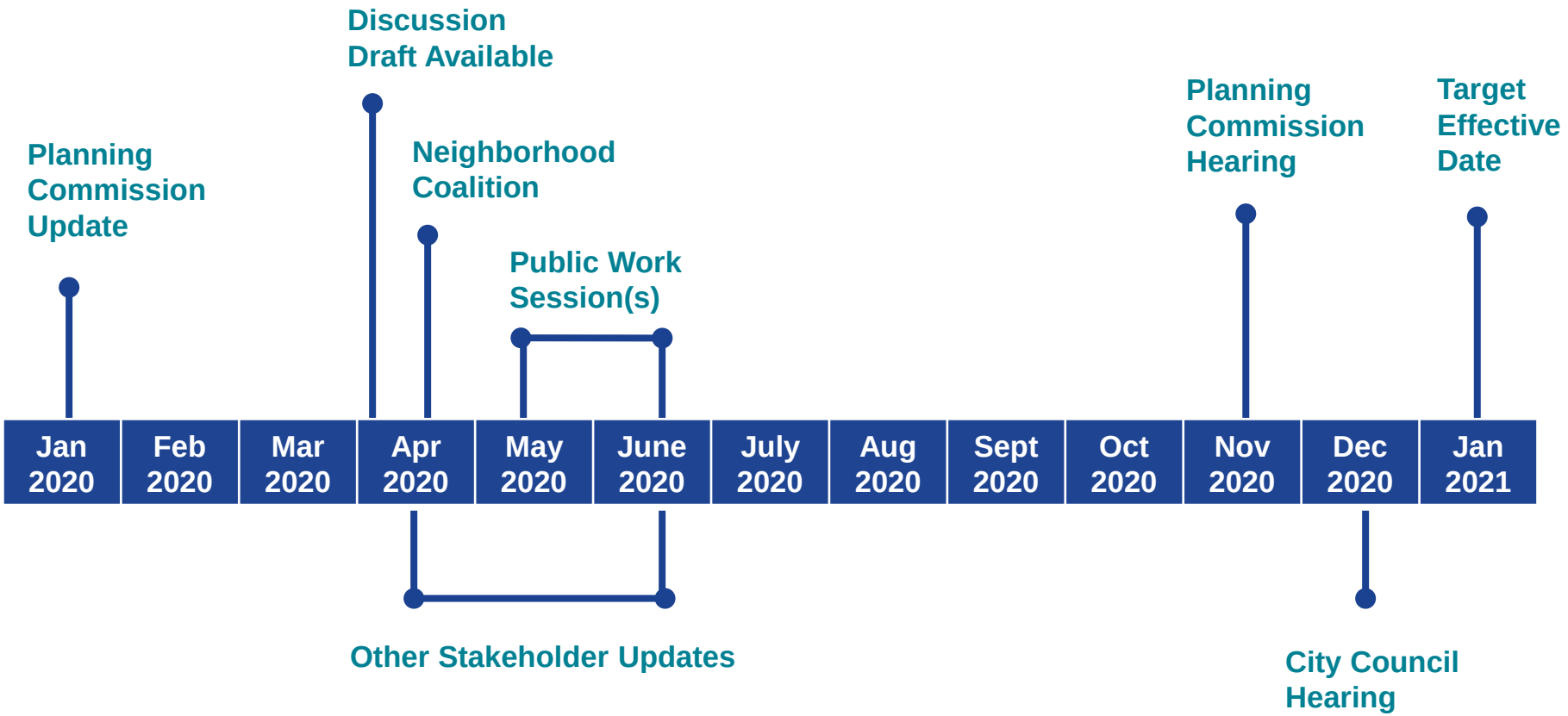
Hillside Overlay

- Updated Map
- Updated Code

Zoning Map Update

- Pleasant Valley and Springwater

Next Steps



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