



FLOODPLAIN RESILIENCE PLAN

Planning and Sustainability Briefing
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THE BUREAU OF
**PLANNING &
SUSTAINABILITY**

Agenda

- I. Background
- II. Floodplain Resilience Plan
- III. Schedule
- IV. Discussion

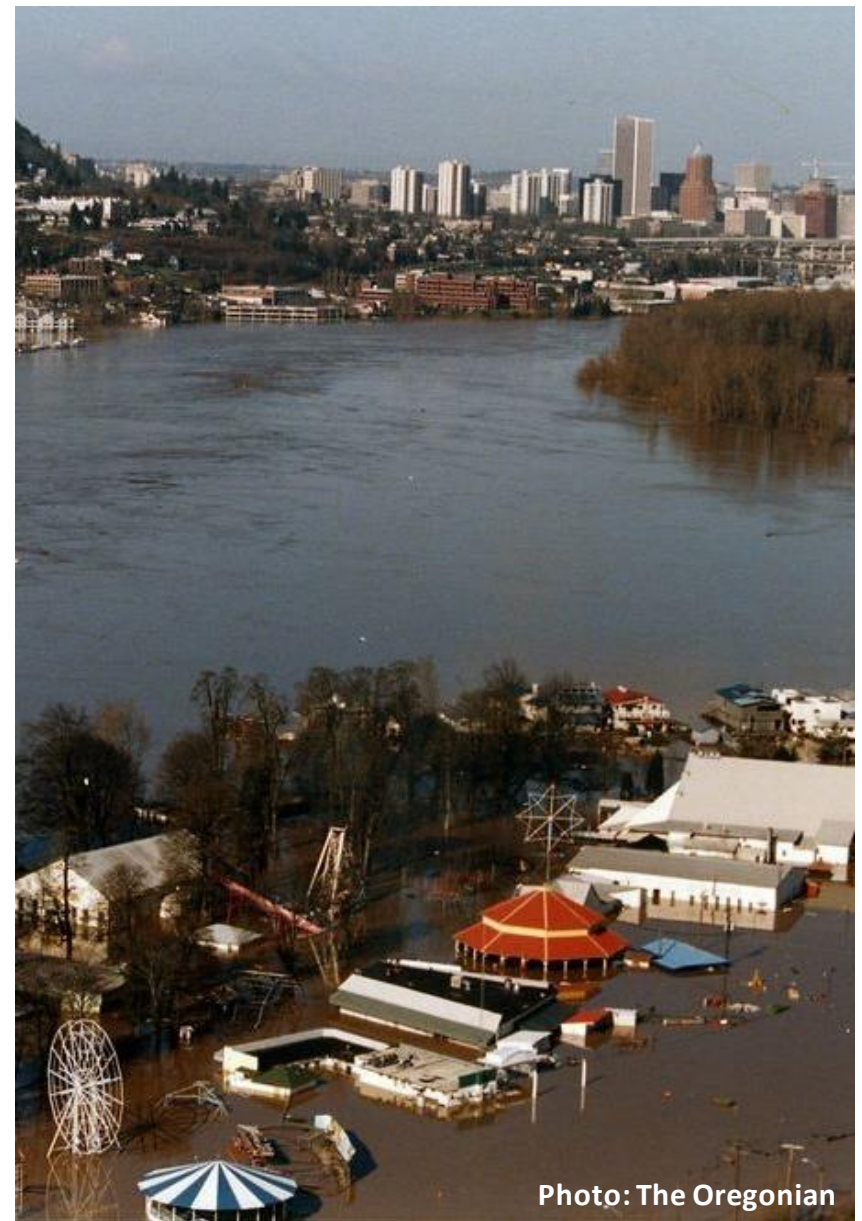


Photo: The Oregonian

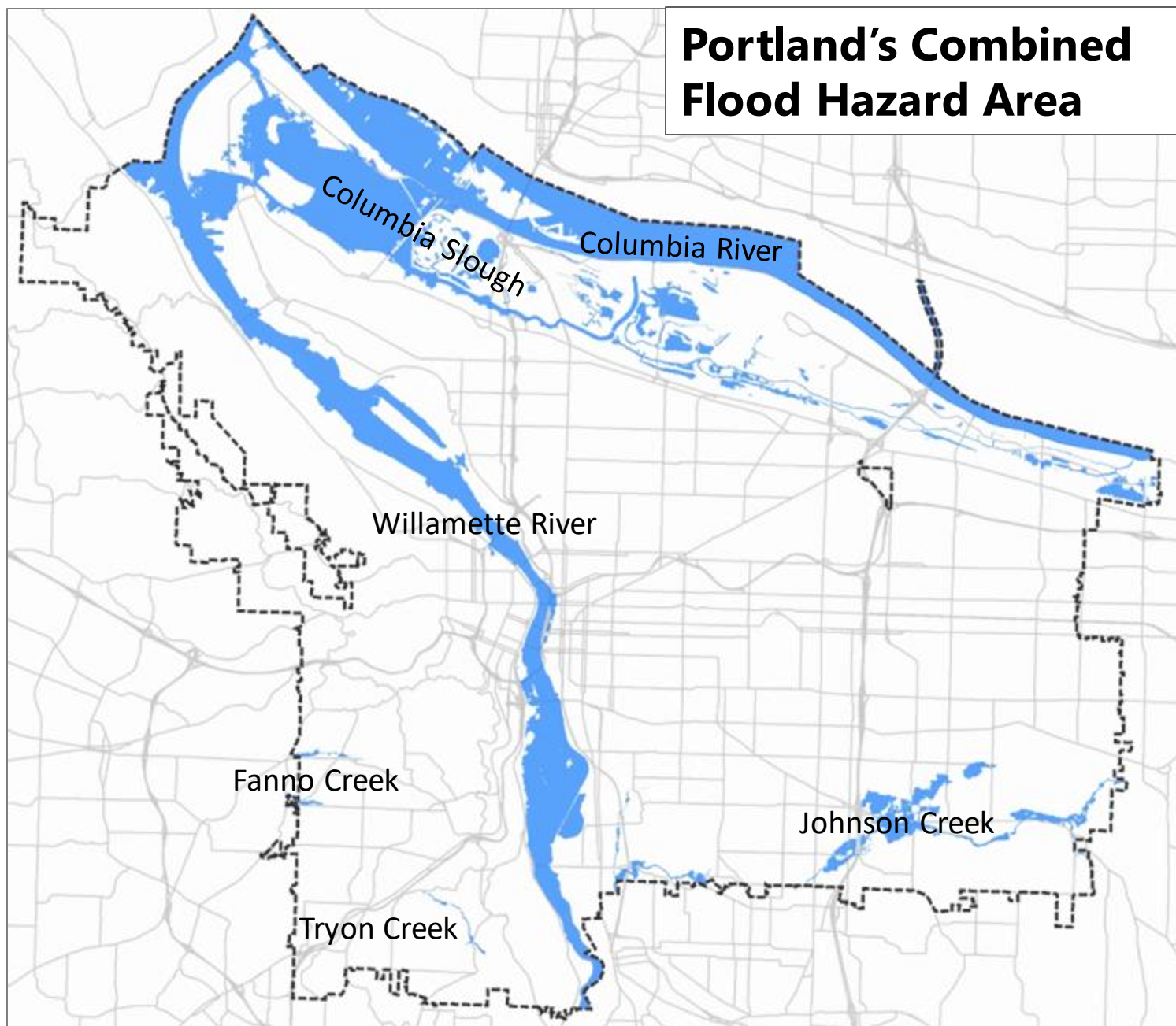
Background

Floodplains and their Benefits

- Slow and store floodwaters
- Reduce surface runoff and siltation into waterway
- Provide off-channel respite, refugia and diverse food sources for juvenile fish



Portland's Combined Flood Hazard Area



Combined Flood Hazard Area

Comprised of two areas:

- FEMA 100-year floodplain
- Metro 1996 Flood Inundation Area

Approx. 6,000 acres



FEMA's National Flood Insurance Program (NFIP)

- Provides flood insurance in floodplains
- Minimum requirements must be met
- Additional Community Rating System (CRS) participation reduces insurance rates



National Flood Insurance Program (NFIP) Biological Opinion

- Determined 16 threatened and endangered salmon and steelhead impacted
- FEMA Implementation Plan to comply with the Biological Opinion released in October 2021



Floodplain Management Update 2019 Work Plan

Agreement signed by 8 bureaus

Three key task areas:

1. Regulations
2. Restoration
3. Mitigation banks



Public Engagement

Before Discussion Draft (Nov 2021)

- Community Involvement Committee (CIC)
- Outreach to tribal governments

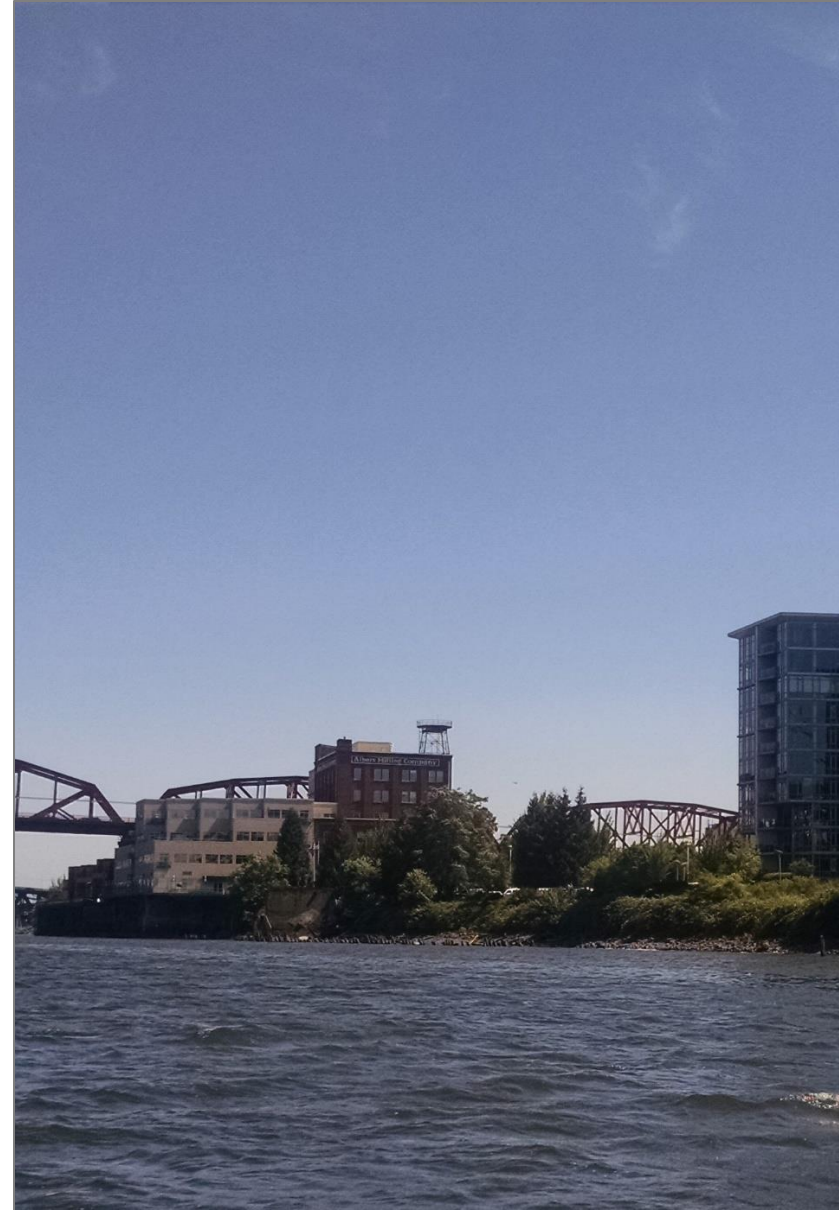
Discussion Draft (Nov 2021 – July 2022)

- 3 virtual open houses
- Comments through Map App
- 3 focus groups, incl. 2 with BIPOC community members
- Presented to/met with neighborhood assoccs and stakeholder groups



Changes Since the Discussion Draft

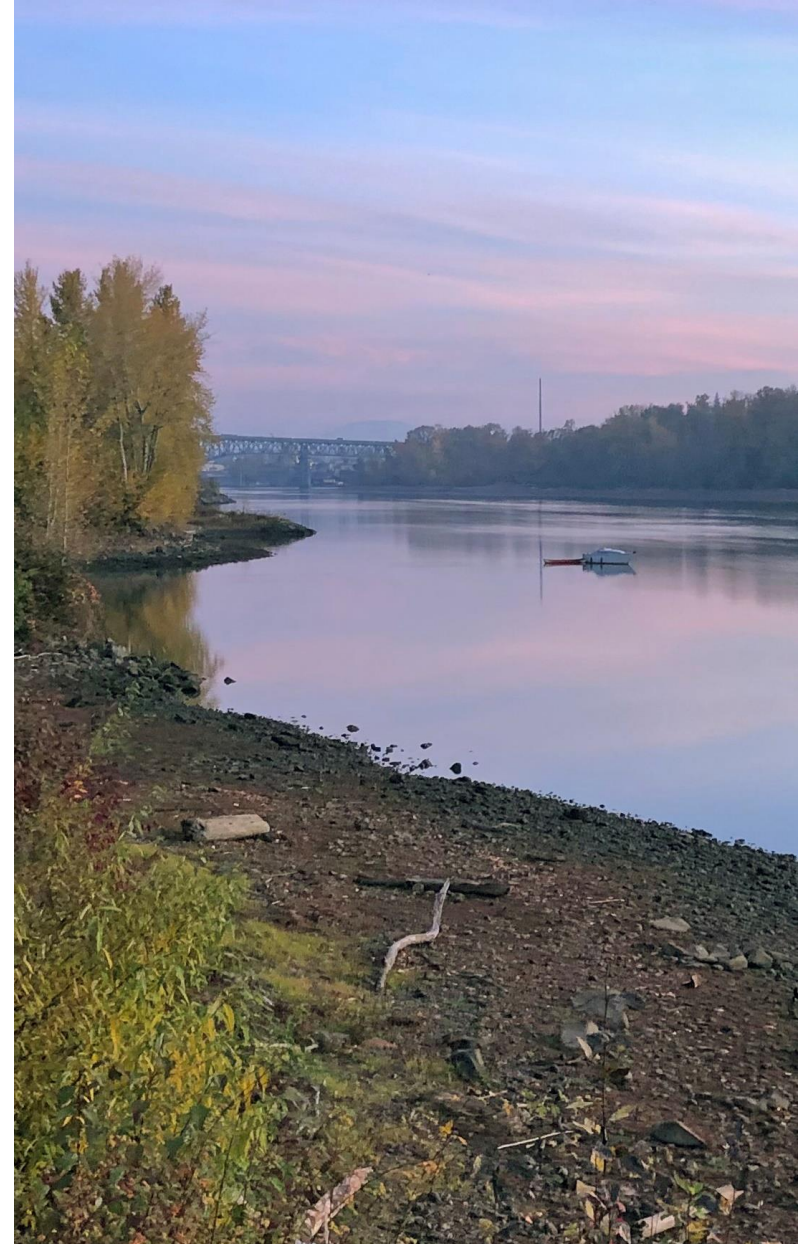
- Split out proposed Building Code (Title 24) changes
- Incorporated new Modeled Willamette River 1996 Flood Extent
- Removed some developed floodplains
- Modified South Reach riparian buffer area and River Environmental overlay zones



Floodplain Resilience Plan: Proposed Draft

Plan Components

- Incorporate new Willamette River flood risk modeling into flood hazard maps
- Update the Zoning Code to address habitat impacts
- Support the City's mitigation and restoration efforts



Floodplain Resilience Plan

Modeled Willamette River 1996 Flood Extent

- Based on U.S. Army Corps of Engineers model of the Lower Willamette River
- City staff simulated a 1996 flood-like event with current conditions and development

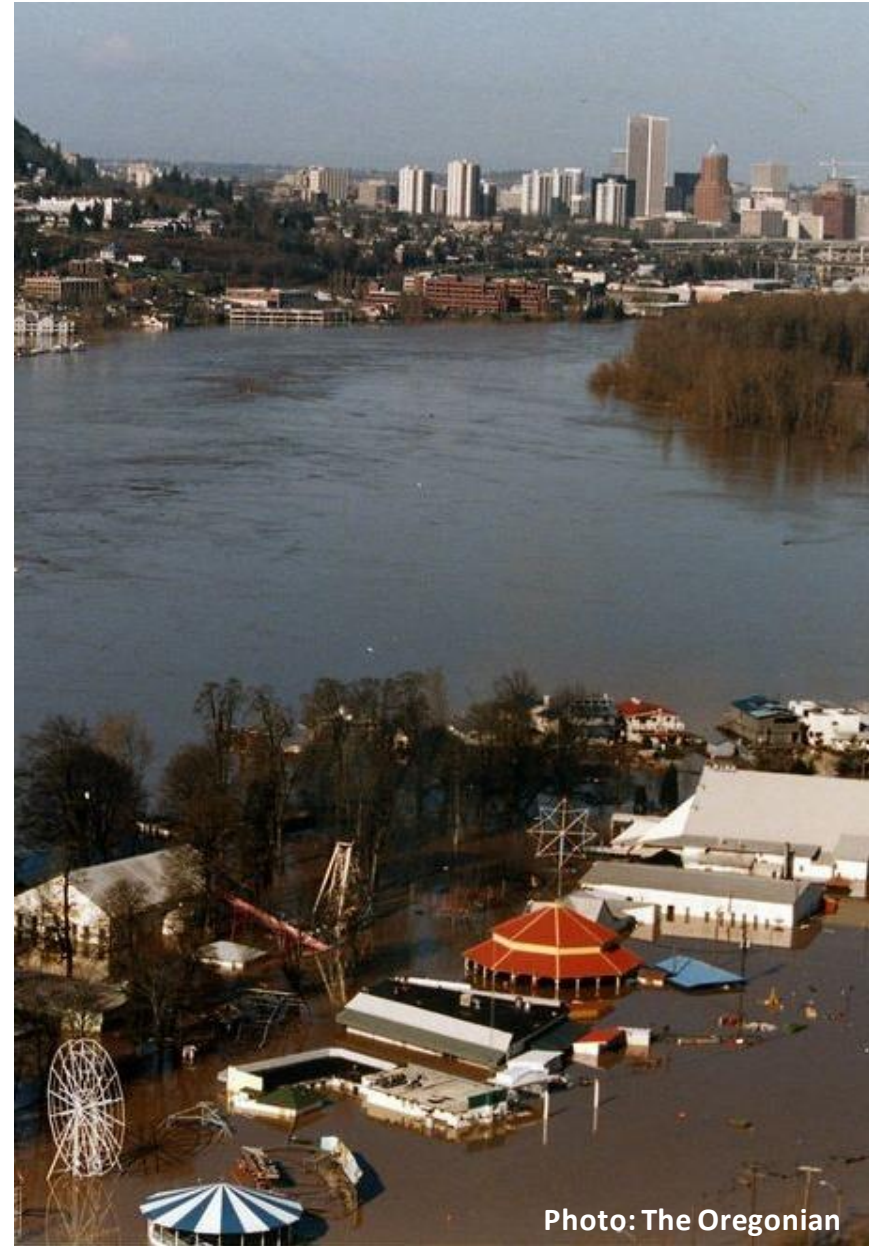
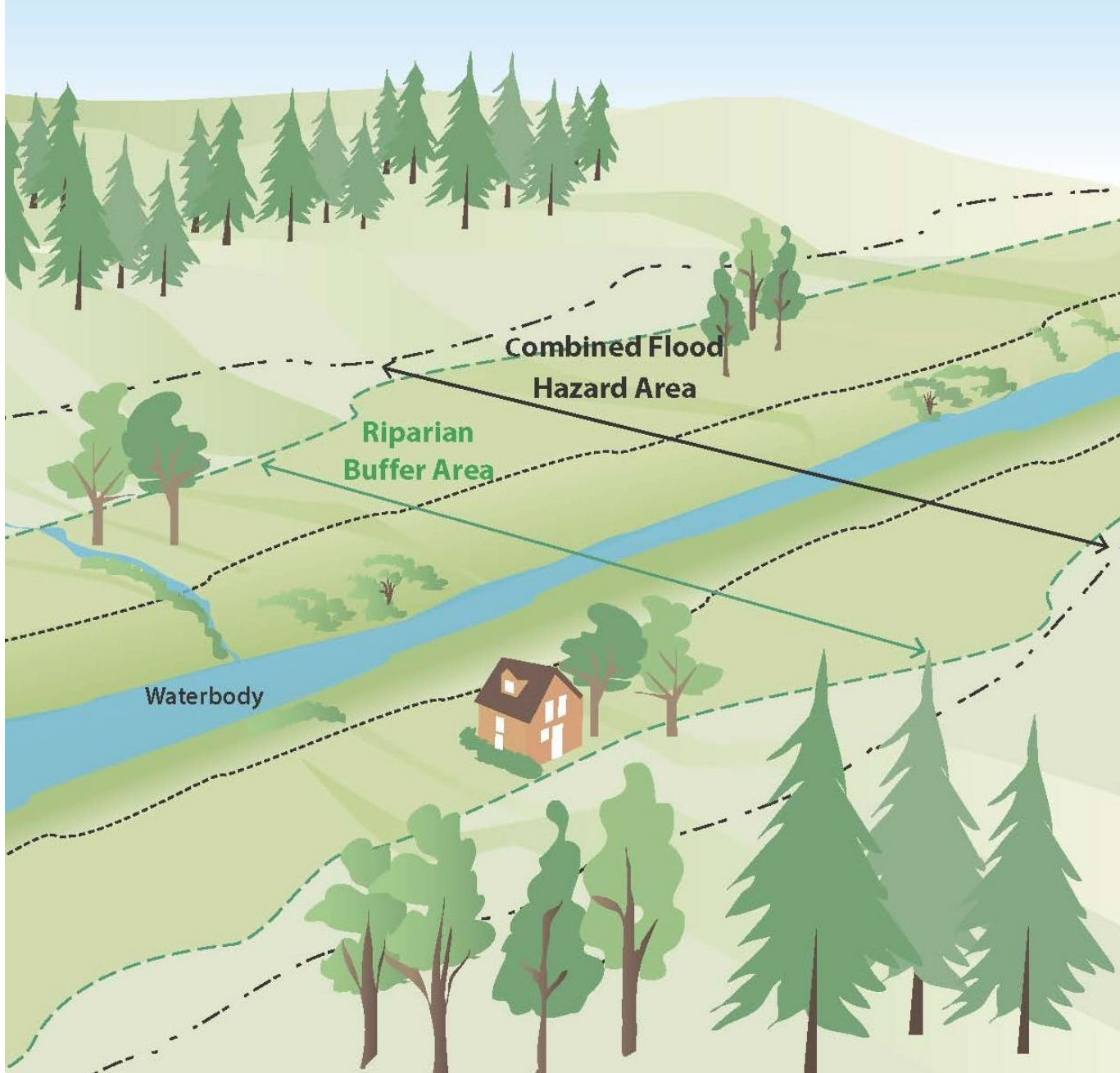


Photo: The Oregonian

Zoning Code Updates

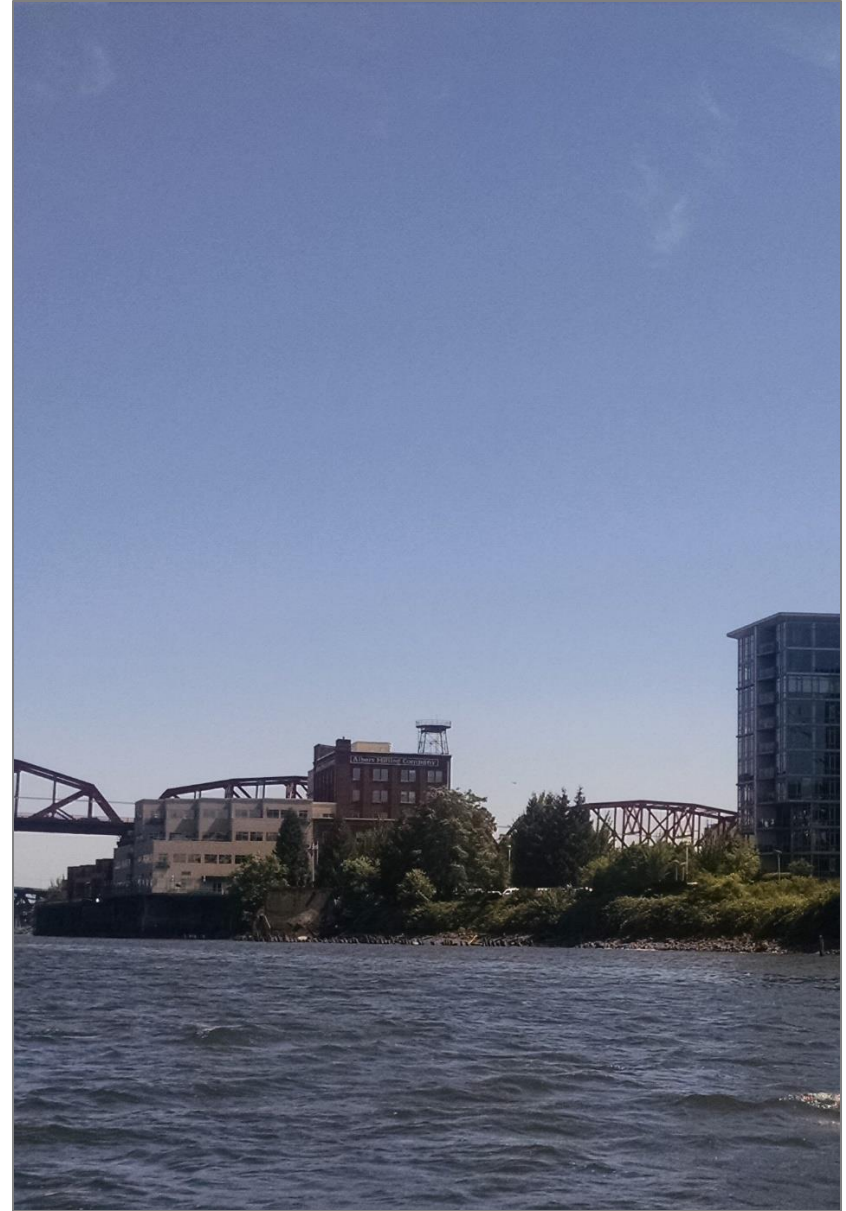
- Overall goal is to apply environmental protections to:
 - Willamette River and Columbia River riparian buffer areas
 - All undeveloped floodplains in combined flood hazard area
- Zoning Code requirements vary by location within the city
- Some technical amendments included



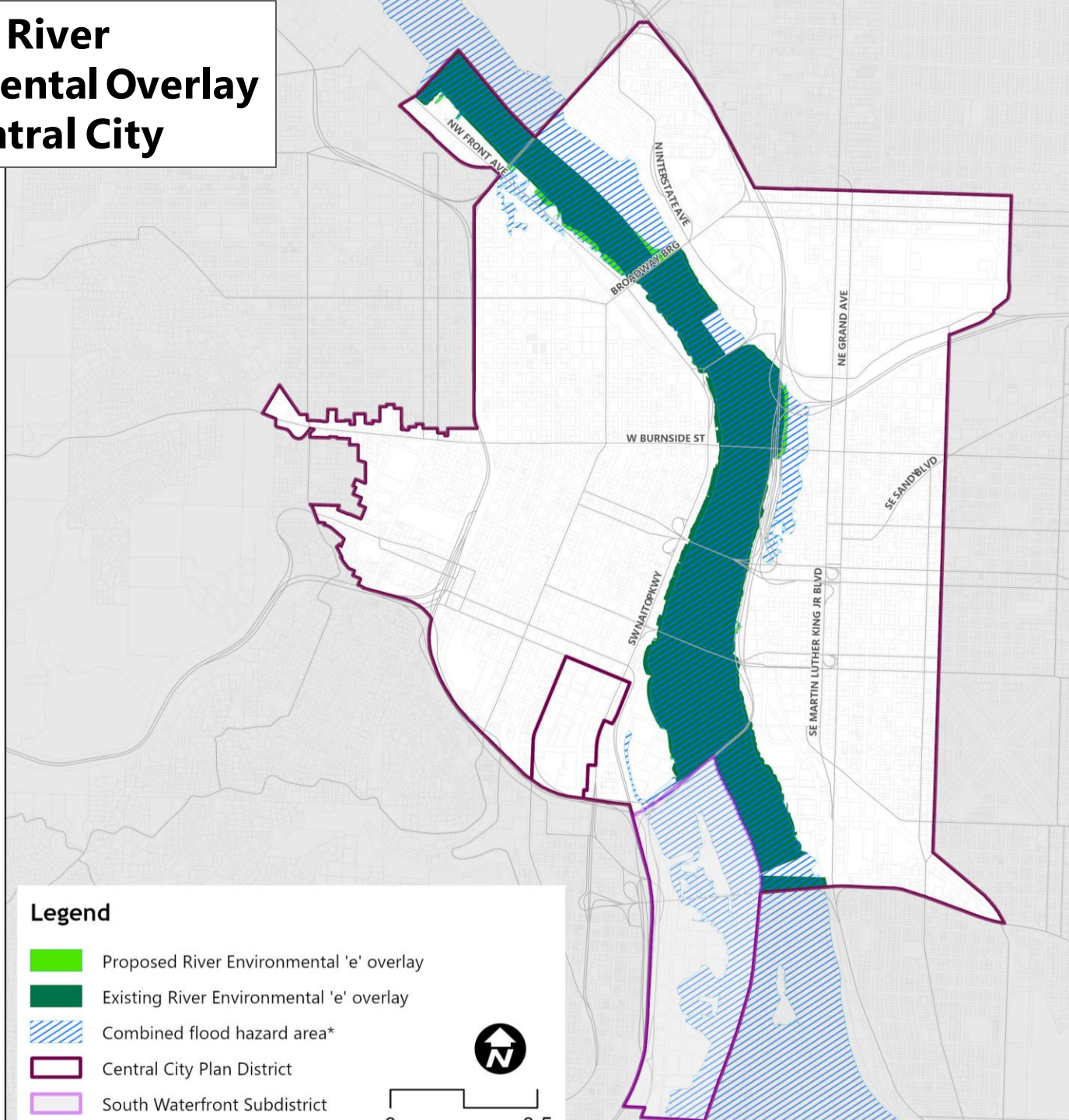


Willamette River Central Reach






- Add riparian buffer area requirements near Willamette
- Expand River Environmental to include riparian buffer area and undeveloped floodplains



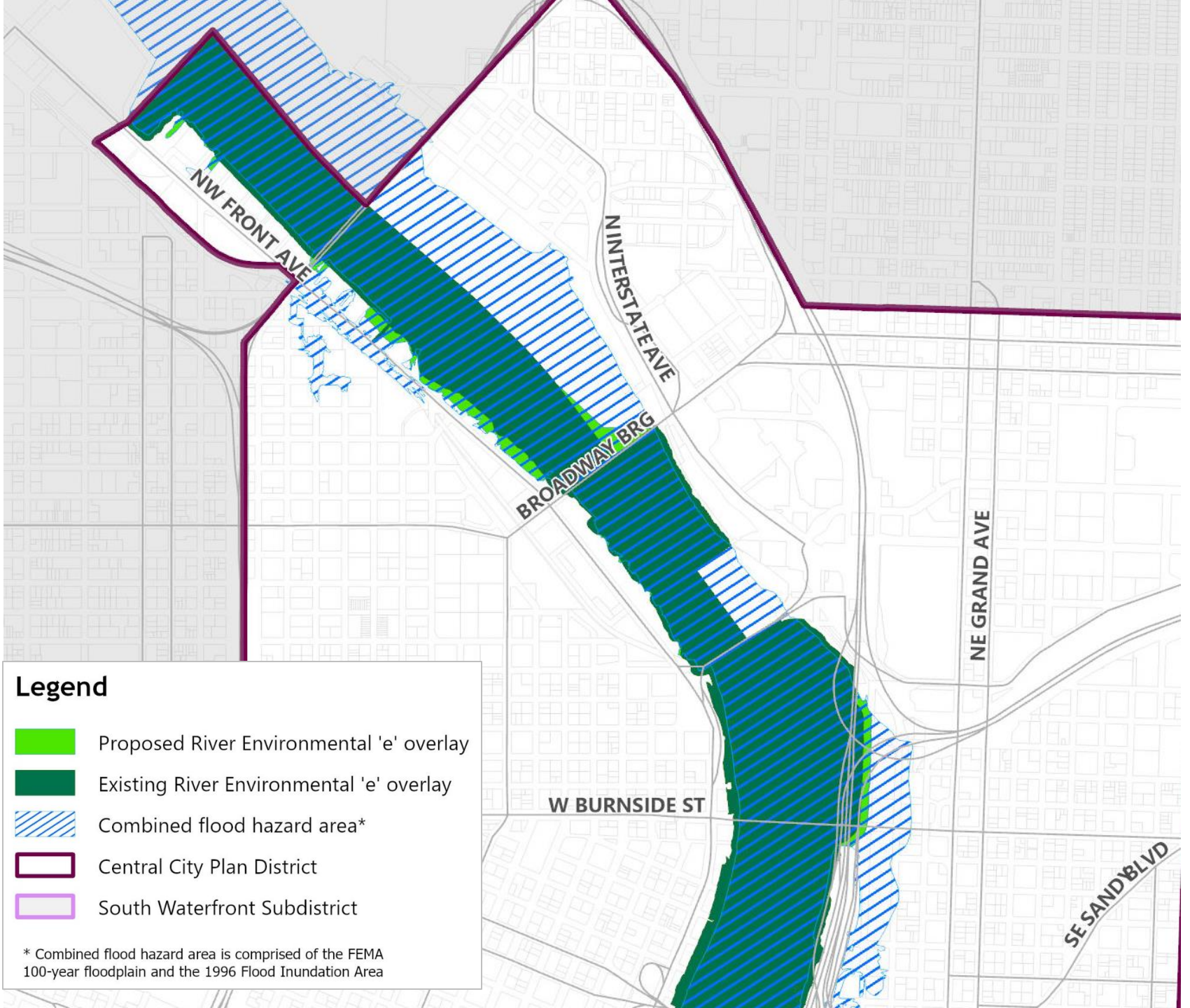
Proposed River Environmental Overlay in the Central City








Legend

-  Proposed River Environmental 'e' overlay
-  Existing River Environmental 'e' overlay
-  Combined flood hazard area*
-  Central City Plan District
-  South Waterfront Subdistrict





Legend

-  Proposed River Environmental 'e' overlay
-  Existing River Environmental 'e' overlay
-  Combined flood hazard area*
-  Central City Plan District
-  South Waterfront Subdistrict

* Combined flood hazard area is comprised of the FEMA 100-year floodplain and the 1996 Flood Inundation Area

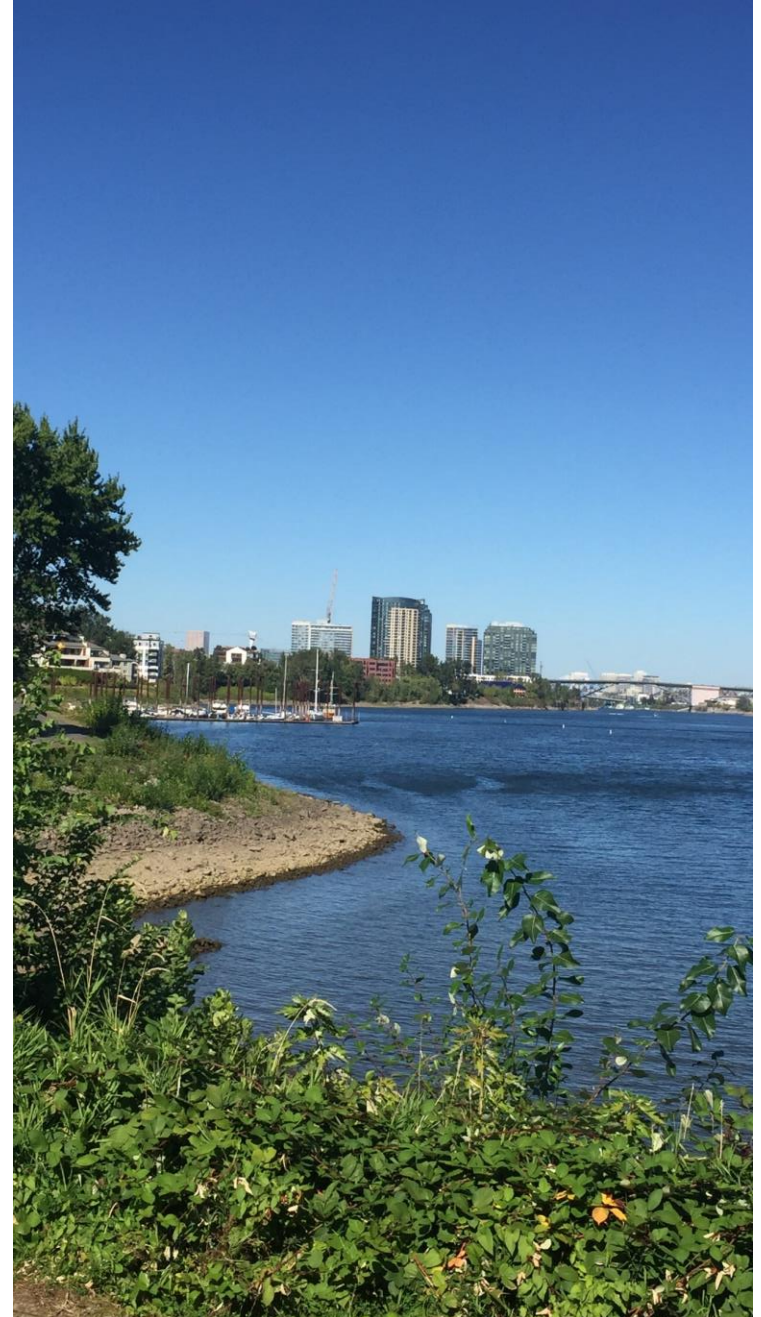
South Waterfront

New Requirements/Allowances

- Tree replacement standards
- Minor updates to exterior lighting standards
- Adjustments and modifications for exterior lighting

Code Clean up

- Reorganization of South Waterfront Greenway Overlay Zone section for clarity



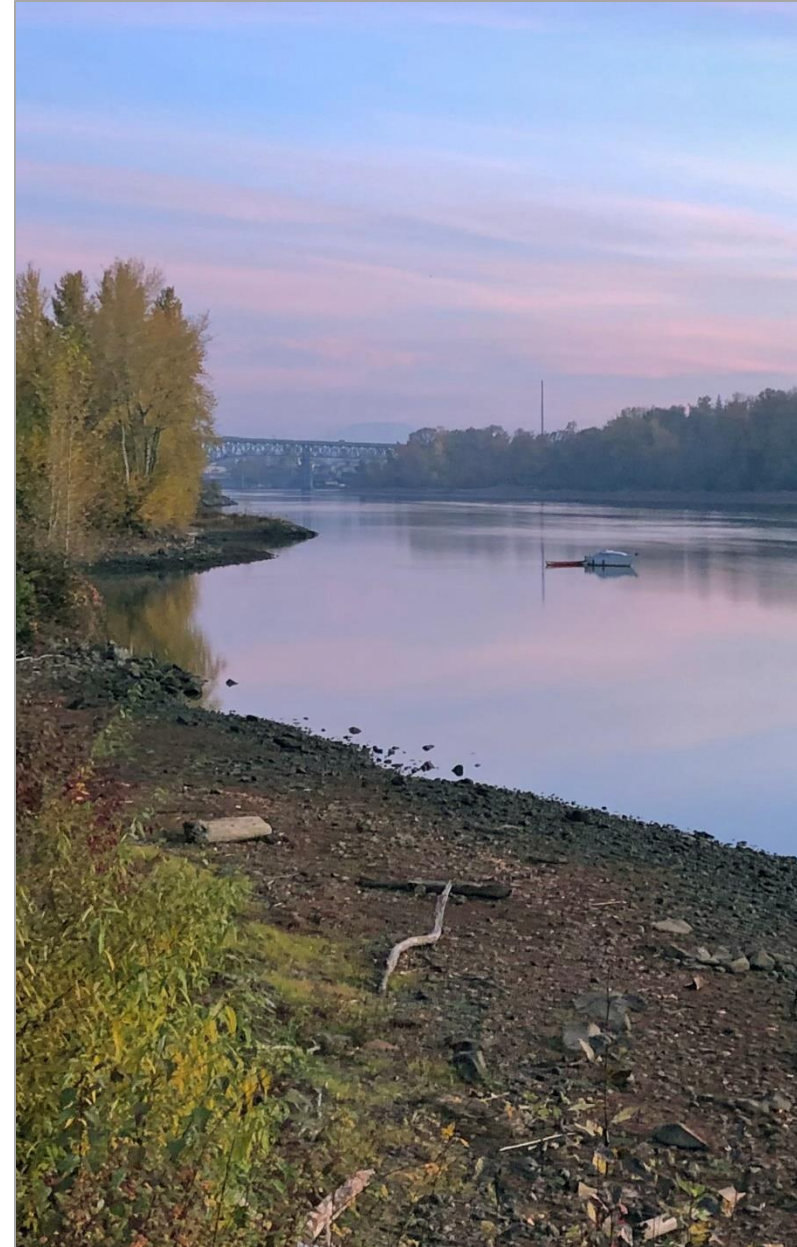
Willamette River South Reach

Modeled Willamette River 1996 Flood Extent

- Update extent of riparian buffer and River Environmental overlay

River Environmental

- Landward of riparian buffer area and 100 feet of top of bank



Elsewhere in the City

Floodplains in the Environmental
overlay zone

- Update tree and vegetation
replacement

Fanno Creek and Tryon Creek

- Apply Environmental Conservation
overlay to undeveloped floodplain



Related Floodplain Management Efforts

Building Code Updates

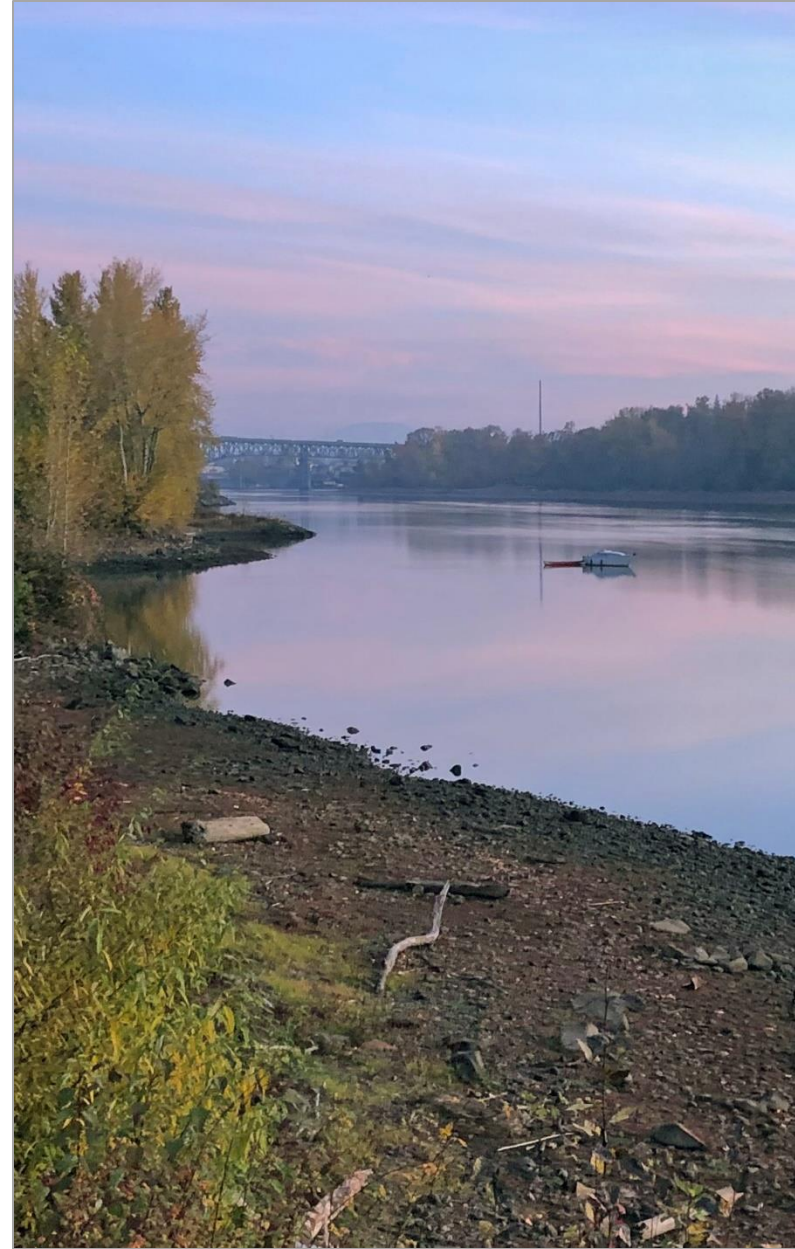
- Require excavation for fill *and* structures
- Increase excavation to offset development along the river



Related Floodplain Management Efforts

Mitigation Banks

- Potential future bank at OMSI/Eastbank Crescent
- Two existing potential sources for flood storage credits



Schedule

Sept 27, 2022 – Hearing

Oct 25, 2022 – Work session

Nov 22, 2022 – Work session/
Recommendation (tentative)

Spring 2023 – Recommended
Draft and City Council



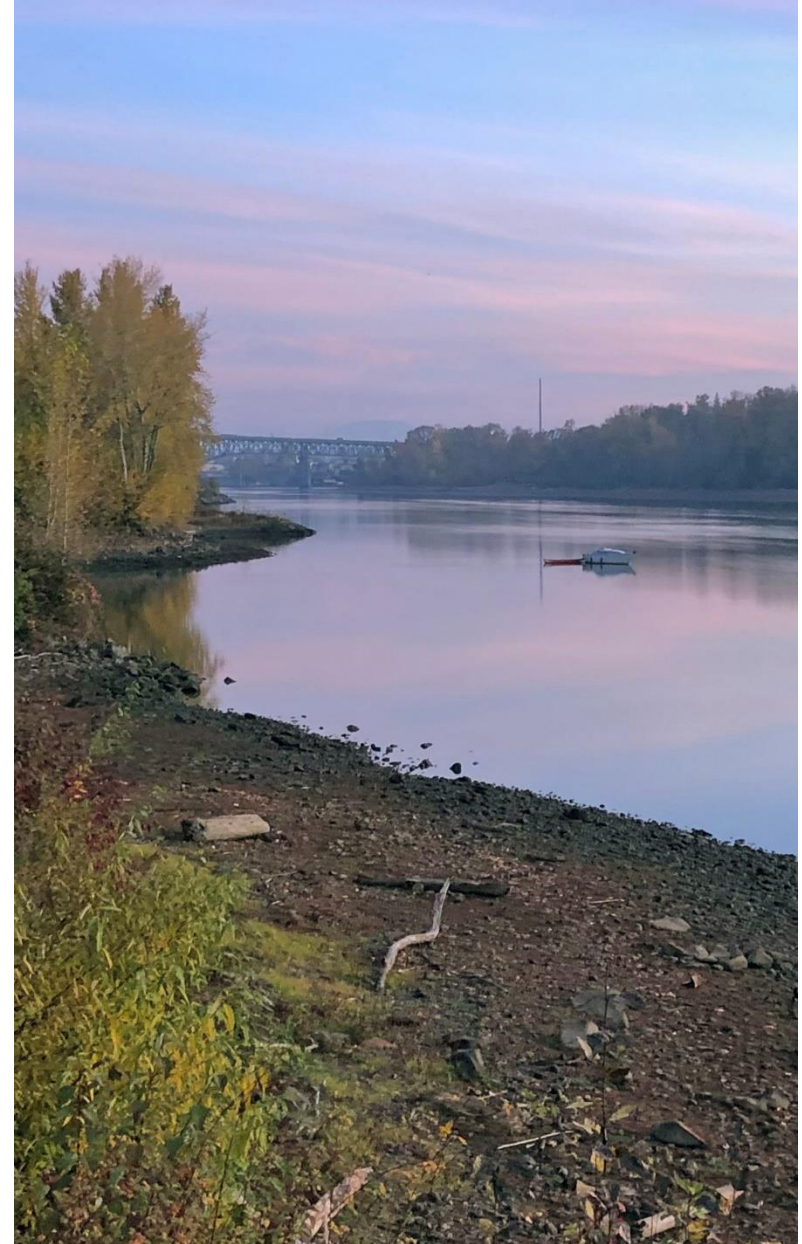
More Information

Visit our website :

<https://www.portland.gov/bps/environment-planning/floodplain-project>

Or get parcel-specific information on our Map App:

<https://www.portlandmaps.com/bps/floodplain/#/map/>

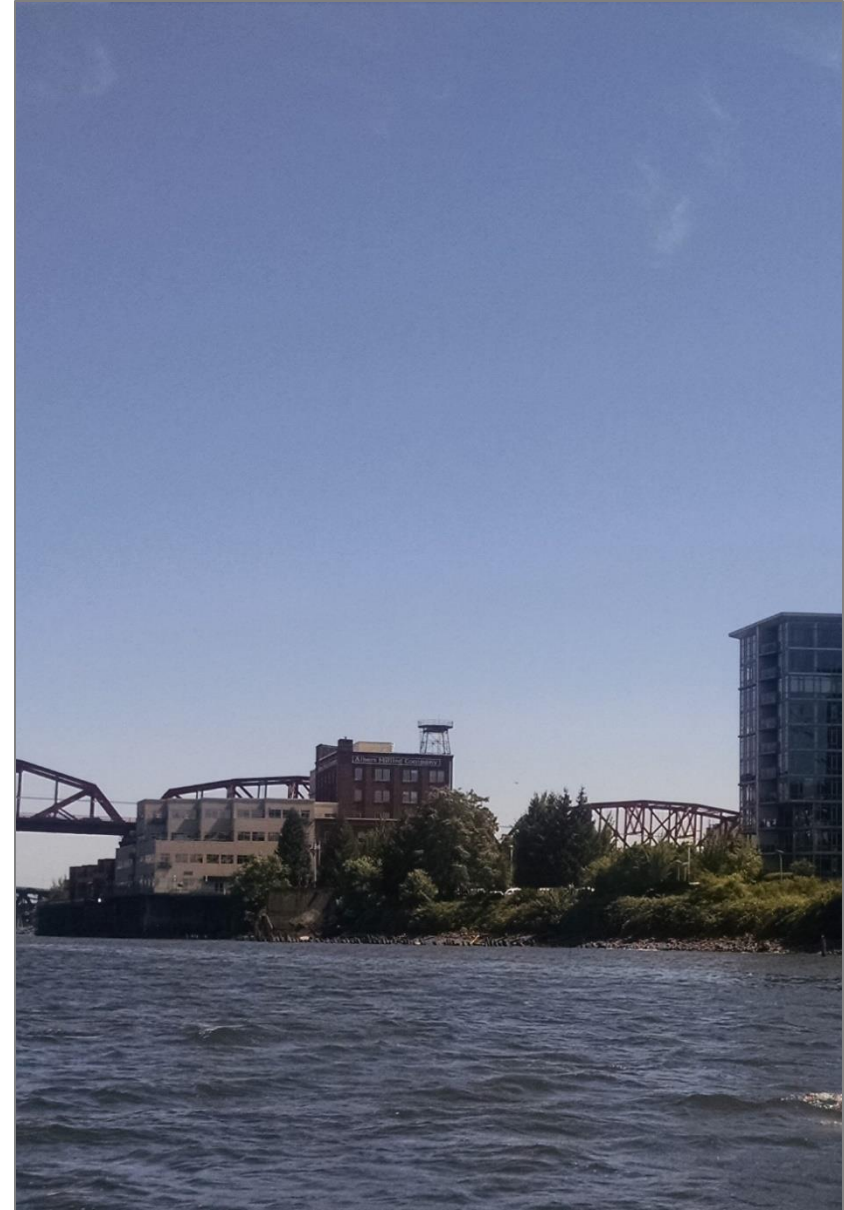


Questions

Zoning Code (Title 33)

Willamette River Central Reach

- Apply River Environmental overlay zone to all floodplains
- Increase mitigation required in a new riparian buffer area



Floodplain Resilience Plan

Building Code (Title 24) Updates

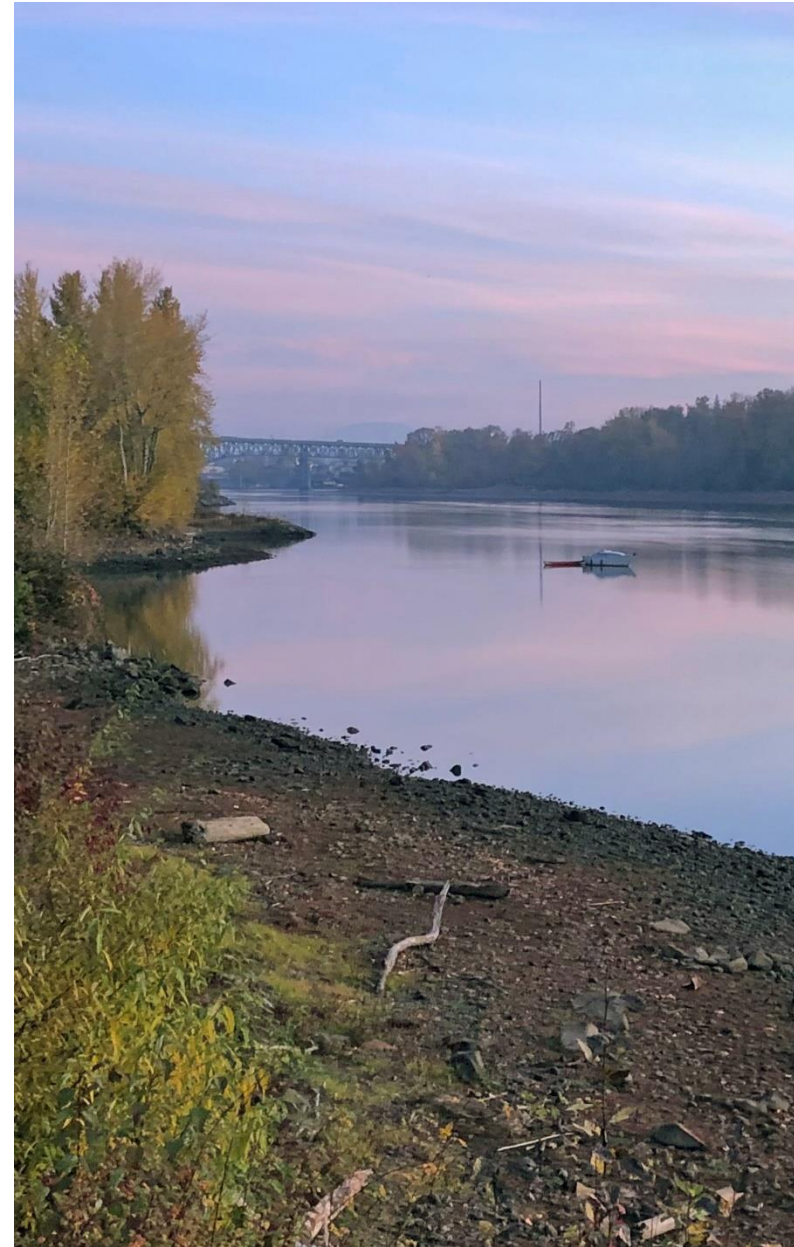
- Require excavation for fill *and* structures
- Increase excavation ratios along the river, in the riparian buffer area and on undeveloped floodplain



Floodplain Resilience Plan

Zoning Code (Title 33) Updates

- Apply environmental zones to riparian buffer area and undeveloped floodplains
- Establish riparian buffer area in Willamette Central Reach
- Update tree and vegetation requirements in floodplains



Building Code (Title 24)

Citywide (some exceptions)

- Increase excavation ratios
 - High hazard area (2:1)
 - Undeveloped floodplain and Riparian buffer area (1.5:1)
- Excavation required in rest of floodplain unchanged (1:1)



Floodplain Resilience Plan

Discussion Draft Issues/Concerns

- Difficulty of on-site excavation on contaminated sites (e.g., South Waterfront)
- Availability/capacity of mitigation banks by compliance deadline
- Appropriateness of environmental overlay on developed sites



Floodplain Resilience Plan

Mitigation Banks

- Two existing potential sources for flood storage credits
- City, led by BES, considering future bank at OMSI/Eastbank Crescent

