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## MEMO

**DATE:** September 23, 2022  
**TO:** Planning and Sustainability Commission  
**FROM:** Jeff Caudill, Environmental Planner  
**cc:** Sallie Edmunds, Patricia Diefenderfer  
**SUBJECT:** Floodplain Resilience Plan Staff Report

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### I. Staff Recommendation

Staff proposes that the Planning and Sustainability Commission:

- Recommend that City Council adopt an ordinance to amend chapters of the Zoning Code and the official zoning map for the mapped flood hazard area identified in the Floodplain Resilience Plan. Substantive amendments are proposed to Chapter 33.430, Environmental Zones; Chapter 33.475, River Overlay Zones; Chapter 33.510, Central City Plan District; Chapter 33.631, Sites in Flood Hazard Areas; 33.700, Administration and Enforcement; Chapter 33.851, South Waterfront Greenway Review; Chapter 33.865, River Review; and Chapter 33.910, Definitions. Minor amendments, generally focused on incorporating reference to the newly-defined combined flood hazard area (proposed to be added to Chapter 33.910), are proposed in a variety of other chapters.
- Recommend that City Council adopt a resolution that outlines a Floodplain Resilience Plan Action Plan (see *Floodplain Resilience Plan* page 61-65). The Action Plan identifies actions to be completed by other City bureaus, partner jurisdictions, community organizations and others that will contribute to plan implementation.



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## II. Project Purpose and Background

### Purpose

- Maintain access to FEMA floodplain insurance and disaster relief funds by complying with the directives of the 2016 Federal Emergency Management Agency National Flood Insurance Program Biological Opinion (FEMA BiOp) and FEMA's *Oregon Implementation Plan for NFIP-ESA Integration*, published in October 2021.
- Reduce future flood risk for people and buildings along Portland's waterways.
- Expand floodplain habitat to contribute to the recovery of Portland's threatened and endangered fish species (i.e., salmon and steelhead).
- Continue the City's implementation of the *Floodplain Management Update Work Plan*.

### Background

The FEMA BiOp was released in 2016 and concluded that implementation of FEMA's National Flood Insurance Program in Oregon negatively impacts Endangered Species Act (ESA) protected salmon and steelhead. The FEMA BiOp was the result of the settlement of a lawsuit against FEMA by Audubon Society of Portland, National Wildlife Federation, Northwest Environmental Defense Center, and the Association of Northwest Steelheaders. After the release of the BiOp, FEMA worked with Oregon jurisdictions to develop their proposed Implementation Plan (*Oregon Implementation Plan for NFIP-ESA Integration*), which was released in October of 2021. An inter-bureau team made up of staff from eight bureaus has guided the City's response to the FEMA BiOp since its release.

In 2019, the directors of bureaus responsible for planning and development within the City signed on to the *Floodplain Management Update Work Plan*, which established a multi-faceted/multi-bureau approach to ensure continued compliance with FEMA directives and the Endangered Species Act moving forward.

The *Floodplain Management Update Project Work Plan* recommends actions in three key task areas: Regulations, Mitigation Banking and Restoration. The contribution of this project, the *Floodplain Resilience Plan* in each of these task areas is described below.

1. Regulatory Updates (Zoning Code: Title 33), which are a part of the subject action, and (Building Code: Title 24), which have been identified and will be adopted through a separate process.
  - Floodplain Resilience Plan Zoning Code proposals described in Section III implement this Work Plan task area.
2. Mitigation Banking
  - The Floodplain Resilience Plan project team has been working to identify opportunities to expand access to mitigation bank credits as an alternative to on-site mitigation. The River Environmental code currently allows for use of mitigation bank credits for off-site mitigation along the Willamette River.
  - Mitigation bank credits will be most important to provide options for off-site mitigation once the proposed Title 24 changes required to meet the FEMA BiOp directives are



adopted. These building code changes will be a part of a future project (see section VIII below).

### 3. Floodplain Restoration

- The Floodplain Resilience Plan Action Plan supports the strengthening and expansion of the Bureau of Environmental Services (BES) floodplain restoration program to ensure on-going funding for acquisition to continue to improve floodplain habitat for wildlife and endangered and threatened fish.

## III. Key elements of the Floodplain Resiliency Plan

Regulatory updates vary by location in the city and their applicable environmental overlay zone. Key changes in each area are summarized below.

### Combined Flood Hazard Area

Regulatory updates are proposed for the newly defined “combined flood hazard area,” which includes the FEMA 100-year floodplain, the mapped extent of a recently completed model of a February 1996 flood-like event along the Willamette River and Lower Columbia Slough (to be referred to as the “Modeled 1996 Willamette River Flood Extent”) and the Metro 1996 Flood Inundation Area.

### Willamette River Central Reach

- Adopt a map in Zoning Code Chapter 33.475 showing the riparian buffer area and apply the existing requirements to this area shown in the map. Development proposed in the riparian buffer area is required to mitigate all impacts on identified natural resources and demonstrate an improvement in one of two floodplain-related riparian functions. Improvements to floodplain functions are approved through land use review.
- Expand the River Environmental overlay zone to encompass the new riparian buffer area and any undeveloped floodplain landward of the riparian buffer area.

### Willamette River South Reach

- Update the boundaries of the existing riparian buffer area and River Environmental overlay zone to include the areas identified in the Modeled 1996 Willamette River Flood Extent and FEMA 100-year floodplain.
- Remove the River Environmental overlay zone from developed floodplains landward of the riparian buffer area that was adopted as a part of the River Plan/South Reach.

### South Waterfront

- Add new standards for tree and vegetation removal and maintenance, similar to those in the River Overlay Zones Zoning Code Chapter 33.475.
- Restructure the South Waterfront Greenway overlay zone (Zoning Code Chapter 33.510.253) requirements to clarify that the exterior lighting standards apply to all development in the River General overlay zone.



Elsewhere in the City (incl. Fanno Creek, Tryon Creek, Johnson Creek, Columbia River and Columbia Slough)

- Expand the Environmental Conservation overlay zone to encompass undeveloped floodplains along Fanno and Tryon creeks.
- Update Zoning Code Chapter 33.430, Environmental Zones, to limit, in some cases, when a tree can be removed through an exemption and increase the minimum number of trees that must be planted when a tree is removed in the floodplain to three trees.

#### **IV. Outreach and Engagement**

- Public notice of the PSC hearing was sent to all affected property owners (over 3,900 notices sent).
- Held three virtual Discussion Draft open houses.
- Reached out to seven tribal governments prior to and after the release of the Discussion Draft to provide an opportunity for input on the plan's proposals.
- Presentations to over a dozen stakeholder groups, including neighborhood associations, community-based organizations, environmental organizations, and others, from November 2021 to July 2022.
- Conducted three focus groups with: (1) members of the Black, Indigenous and People of Color (BIPOC) community; (2) Urban Native community; and, (3) Environmental stakeholders.
- Project helpline was available during the Discussion Draft and Proposed Draft for staff to answer questions from community members.
- Utilized a project listserv to provide periodic updates via email to interested community members.

#### **V. Topics of Interest/Issues**

- A number of comments on the Discussion Draft focused on the proposed application of the environmental overlay zones to developed floodplains, including in the Central Eastside. After discussions with BDS staff it was determined that the application of these overlay zones would not result in improvements in the floodplain and would simply add development review process and costs.
- Many comments on the Discussion Draft expressed concern about the proposed Building Code changes that were included in the draft; specifically, the perceived difficulty in meeting the higher compensatory excavation ratios on site, especially on smaller sites or previously contaminated sites where excavation is not possible. The issues and implications of the Building Code changes will be evaluated as a part of a future BDS-led effort. (See VIII, Related Future Projects, below for more information.)
- A few individuals have asked questions about the implications of applying the riparian buffer requirements in the Central Reach. The riparian buffer area does not prohibit development but does require that improvement in one of two floodplain-related riparian functions be



demonstrated (along with full mitigation of other impacts to natural resources). The directive for this requirement comes from the FEMA BiOp and is identified as a component of the FEMA Draft Implementation Plan, released in October of 2021.

## **VI. Follow up on Commissioners' Questions from PSC Briefing**

### Mitigation Banks

At the 9/13 briefing, there were a number of questions related to the City's approach to mitigation requirements and the potential role of mitigation banks as an off-site mitigation option. The bullet points below provide clarifications on and responses to those questions.

### *Habitat Mitigation*

- The City's environmental overlay zone requirements, including the Environmental Conservation (c), Environmental Protection (p), River Environmental (e), and others, are based on an "avoid-minimize-mitigate" model that aims to, first, avoid or reduce impacts on natural resources and then require mitigation for impacts that are unavoidable.
- Within the environmental overlay zones, there is a hierarchy of mitigation locations that prioritizes mitigation on site to ensure that mitigation is located nearest the area of impact. When on-site mitigation of habitat impacts is not feasible, mitigation can be located off-site on a property that the applicant either owns or has control over through a legal instrument, such as an easement or deed restriction.
- Off-site mitigation through the purchase of mitigation bank credits is allowed for development proposed in the River Environmental overlay zone. Mitigation banks were added as an off-site mitigation option in the River Environmental overlay (applied in the Willamette River Central and South reaches) with the expectation that mitigation bank credits may be available in the future. However, there are no mitigation banks on the Willamette River selling habitat mitigation credits to meet City regulations at this time.
- Extensive due diligence has been completed by BES staff to evaluate the potential future demand and feasibility of mitigation banks in the city. Led by Commissioner Mapps' office, the inter-bureau Mitigation Banking Finance Working Group is reviewing and evaluating funding options for a mitigation bank at the Eastbank Crescent site (as a part of the OMSI redevelopment). This mitigation bank would be expected to provide both habitat and flood storage mitigation credits for future development along the Willamette River.

### *Flood Storage Mitigation*

- Although not a part of the Proposed Draft, the Discussion Draft included Building Code proposals to increase the compensatory excavation (also known as "cut") required to offset reductions in flood storage resulting from placement of fill or structures in the floodplain (see VIII. Related Projects below for more information). Once these changes are adopted, it is expected that off-site mitigation for flood storage will be needed to ensure options for maintaining flood storage capacity with floodplain development. Increased compensatory



excavation requirements are expected to be most challenging for small sites or those with contaminated soils.

- Recognizing the potential for a greater need for off-site mitigation to maintain flood storage capacity, BES, BDS and BPS staff have worked to identify existing options for flood storage credits. Two existing mitigation banks that currently provide mitigation credits for the Portland Harbor Superfund site – RestorCap’s Linnton Plywood site and PGE Harborton – have been determined to be a potential source for flood storage credits to be used to mitigate future floodplain development. City staff have been coordinating with National Marine Fisheries Service staff to determine a methodology to allow for use of these banks to meet City requirements.
- To ensure an off-site mitigation option for the future BDS-led Building Code update, flood storage mitigation banking options and associated costs are being evaluated and considered. As stated above, the potential Eastbank Crescent mitigation bank would be expected to provide flood storage credits, as well as habitat credits.

## VII. Proposed PSC Schedule

9/27/22	Public Hearing, Oral Record Closes
9/30/22	Written Record Closes
10/25/22	Work Session
11/22/22	Work Session/Recommendation

## VIII. Related Future Projects

### Amendments to Building Code (Title 24), Chapter 24.50 Flood Hazard Areas

As mentioned above, prior to the Proposed Draft it was decided that the proposed building code changes should be addressed as a separate, BDS-led project. Separating out this work will allow the City to continue to evaluate strategies to address comments received in the Discussion Draft phase of the Floodplain Resilience Plan, confirm that the necessary programs, including off-site mitigation banking options, are available for future development where providing flood storage on site is not feasible and allow more time for BDS to prepare for implementation of the changes. Contact [Nancy.Thornington@portlandoregon.gov](mailto:Nancy.Thornington@portlandoregon.gov) to get on a mailing list for this project.

### Mitigation Banking Options

As stated previously, BES staff has completed a variety of analyses focused on the future demand and feasibility of mitigation banks in the city. These efforts included estimating potential demand for mitigation to support future mitigation banks and identifying potential mitigation bank sites. These analyses have demonstrated the viability of future mitigation banks along the Willamette River.

Currently, an inter-bureau Mitigation Banking Finance Working Group led by staff from Commissioner Mapps’ office is evaluating funding options for a Eastbank Crescent mitigation bank. This Mitigation Banking Finance Working Group will identify the best funding approach(es) for the mitigation bank and



will inform a structure for long-term management and operation of the bank. This structure may be an exclusively public- or private-run bank, or may be a public-private partnership model. Staff expects recommendations from the Mitigation Banking Finance Working Group by the end of 2022.

### Economic Opportunities Analysis

The Floodplain Resiliency Plan is not proposing any amendments in the following industrial/employment zones: Heavy Industrial (IH), General Industrial 2 (IG2) and General Employment 2 (EG2). Changes in these areas will be considered as part of the update to the Economic Opportunities Analysis (EOA). During that process, City staff will evaluate floodplain and environmental protections in conjunction with the updated economic growth forecast and buildable land inventory, in order to optimize natural resource protection, reduce natural hazard risks and promote economic opportunity. The Economic Opportunities Analysis update is expected to be completed 2024.

## **IX. For more information**

Website: [www.portland.gov/bps/environ-planning/floodplain-project](http://www.portland.gov/bps/environ-planning/floodplain-project)

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