

National Flood Insurance Program (NFIP) and Endangered Species Act (ESA) Integration and Compliance

Multi-Jurisdiction Study Session
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November 2024

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Objective

- Introduce the **Pre-Implementation Compliance Measures**
 - short-term measures that we communities must implement to comply with coming changes and requirements to the NFIP.

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Agenda

- Welcome
- Background
- Overview of Pre-Implementation Compliance Measures (PICM)
 - Pathway 1 Prohibition on New Development
 - Pathway 2 Model Code
 - Pathway 3 Permit-by-Permit with Habitat Assessment
- New Reporting Requirements
- More Information

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Welcome

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Meeting Guidelines

- Hold **questions** until the end of each section.
- Provide your **name** when you speak.
- Raise your “hand” to speak.
- Stay on **mute** when not speaking.
- Be mindful of your speaking **time**.

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Meeting Guidelines

- Zoom Chat is reserved for **technical** difficulties.
- No **actions** will be taken at this study session
- If you’re an elected or appointed city official, hold your **deliberations** for a public hearing.

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Background

About the NFIP

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National Flood Insurance Program (NFIP)

- Flooding is the single greatest source of damage from natural hazards in the United States
- National Flood Insurance Program created in 1968
 - To protect lives and property and to reduce taxpayer costs due to floods
- Based on **community** participation
 - FEMA provides flood insurance coverage
 - The Community adopts and enforces ordinances

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National Flood Insurance Program (NFIP)

CID	Community	Initial FHBM	Initial FIRM	Curr Eff Map Date
410091	BUTTE FALLS	11/8/1974	6/30/1976	6/30/1976
410107#	CAVE JUNCTION	11/8/1974	6/1/1982	12/3/2009
410094#	GOLD HILL	1/9/1974	9/17/1980	5/3/2011
410095#	JACKSONVILLE	6/21/1974	12/4/1979	5/3/2011
410098#	ROGUE RIVER	5/31/1974	1/2/1980	5/3/2011
410099C	SHADY COVE	8/23/1974	9/30/1980	1/19/2018
410100#	TALENT	5/31/1974	2/1/1980	5/3/2011

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Background

Recent History

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The Endangered Species Act (1973)

Section 7(a)(1)

Protect and conserve endangered and threatened species and their habitats.

Section 7(a)(2)

Ensure that any action federal agencies authorize, fund, or carry out is unlikely to jeopardize the continued existence of any endangered or threatened species; or result in the destruction or adverse modification of their habitat.

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Recent History

- In 2009, FEMA was sued by several environmental groups in Oregon
- In 2010, FEMA settled
 - agreed to consult about the effects of the NFIP on endangered and threatened species and designated critical habitat
- In 2016, NMFS issued the Biological Opinion (**BiOp**) and the Reasonable and Prudent Alternatives (**RPA**)

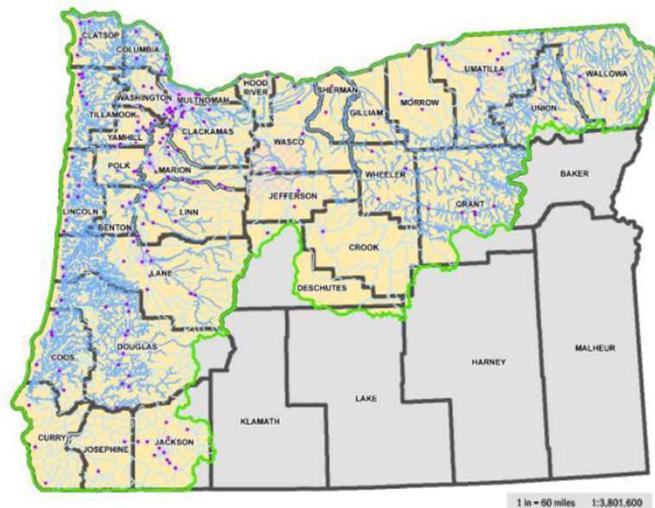
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Recent History

- The **BiOp** concluded FEMA's implementation of the NFIP in Oregon would:
 - likely jeopardize the continued existence of 16 anadromous fish species and the Southern Resident Killer Whale
 - result in the destruction or adverse modification of designated or proposed critical habitat for the 16 anadromous fish species
 - In other words, violates the Endangered Species Act.
- The **RPA** is recommendations for reconciling the NFIP and the ESA, with a focus on new floodplain development and redevelopment.

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Oregon BiOp Action Area



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Recent History

- In 2021, FEMA issued a draft implementation plan
- In 2023, FEMA began the NEPA process to focus on long-term measures.
- In Sept. 2023, environmental advocacy groups sue FEMA, alleging taking too long to implement.
- In July 2024, FEMA announces “**PICM**” or short-term measures.
 - Three choices, with a deadline of **December 1, 2024**

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Recent History

- On August 1, 2024, FEMA temporarily suspended applications for LOMRs and CLOMRs.
- On September 26, 2024, Governor Tina Kotek sent a letter to FEMA expressing concerns about PICM.
- On October 4, 2024, DLCD released a “FAQ” document to assist.

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Background

Near Future

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Near Future

- FEMA has given a deadline of **December 1, 2024** to choose a PICM pathway
 - If no pathway is chosen, the default is “Permit-by-Permit”
- FEMA is requiring cities to gather additional data on local floodplain permitting, starting **January 31, 2025**
- Communities must fully implement a PICM by **July 31, 2025**
 - But they are still required to implement another PICM in the meantime.
- and to submit an annual report, starting **January 2026**

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Near Future

- The Final Implementation Plan is anticipated by **2026**
 - after completing the EIS process
- FEMA will fully implement the plan in **2027**
- Until then, communities need to begin taking action to protect habitat and achieve “no net loss”

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Overview of PICM

“No Net Loss” as a new objective for the NFIP

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“No Net Loss”

- A standard where adverse impacts must be **avoided**, **minimized**, and/or **offset**, so that there is no net change in the existing floodplain functions.
- For all three PICM pathways, the objective is to ensure **no net loss** to the function of the floodplain, to endangered species or to their critical habitats.
- The **floodplain functions** of floodwater storage, water quality, and riparian vegetation must be maintained.

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“Floodplain Functions”

- Floodplain storage
- Water quality
- Riparian vegetation

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Pathway 1: Prohibition on New Development

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Pathway 1: Prohibition on New Development

- FEMA does not have the authority to prohibit development.
- Could be accomplished with either
 - A) Temporary Moratorium, or
 - B) Permanent Rezoning
- **Permanent Rezoning** might make sense if the floodplain area is small, is unlikely to develop, and/or is publicly owned.

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About Moratoria

- Legally complicated – consult carefully with your attorney

- Defined by ORS 197.520 to 197.540
 - ORS 197.520(3) allows a type of moratorium if a city demonstrates a compelling need based on the following criteria:
 1. Existing laws are inadequate to prevent harm
 2. The moratorium is limited
 3. Alternative methods are unsatisfactory
 4. The harm would outweigh the other adverse effects of a moratorium
 5. The city can complete a permanent solution within the timeframe

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Pathway 2: New Model Code

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Pathway 2: New Model Code

- Based on the 2020 Model Ordinance
 - **New additions** in yellow highlighting
 - community-specific information in **red text**
- Gives three proxies for the three floodplain functions
 - undeveloped space
 - pervious surfaces, and
 - Trees at least 6" in diameter

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New Model Code: Changes

- New language to address “no net loss”
 - of undeveloped space *floodplain storage*
 - of pervious surface *as a proxy for water quality*
 - of trees at least 6" dbh *riparian vegetation*
- New language for activities that
 - require a floodplain permit but are exempt from “no net loss” standards
 - are in the “Riparian Buffer Zone” *and subject to the “beneficial gain” standard*
- Changes to definitions, new definitions
- Minor edits for clarity and grammar

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Pathway 2: New Model Code

- Adoption of the ordinance language will ensure **compliance with the minimum standards** for participation in the NFIP
 - Performance standards are built-in
- DLCD has not yet determined whether the PICM Model Ordinance has only **clear and objective** standards

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Pathway 2: New Model Code

- “Undeveloped space”
 - Definition: the **volume** of flood capacity and fish-accessible habitat, from the existing ground to the Base Flood Elevation (BFE) that is undeveloped
 - Development includes fill, structures, tanks, and pilings
 - Mitigation includes **creating an acceptable amount of undeveloped space** between the existing ground and BFE, as determined by the mitigation ratios.

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Pathway 2: New Model Code

- “Pervious surfaces”
 - Definition: surfaces that can be penetrated by **water** and help regulate the rate of surface water runoff
 - Mitigation includes three options:
 - A **replacement** of the **equivalent** amount of area;
 - Using **low impact development** or **green infrastructure** practices to treat stormwater; or
 - Require **professional stormwater retention** to ensure no increase in peak volume or flow and to treat pollutants

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Pathway 2: New Model Code

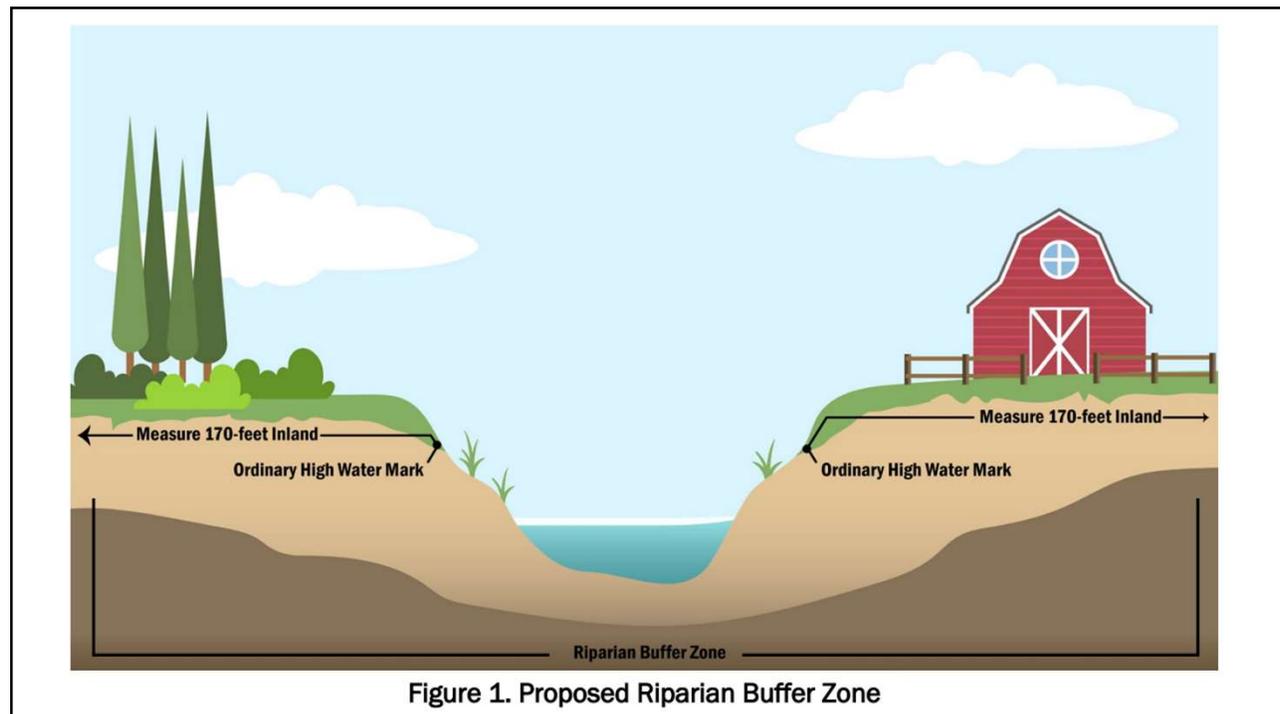
- “Trees”
 - each tree over 6” diameter breast height (dbh) that is removed must be replaced **at least 2-to-1**
 - Mitigation is planting more native trees
 - Larger trees require more replacements, up to 6-to-1

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Pathway 2: New Model Code

- “Riparian Buffer Zone”
 - Definition: measured from the ordinary high-water line to **170 feet** horizontally on each side of the stream

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Beneficial Gain standard

- New uses in the Riparian Buffer Zone require a greater offset
 - except water-dependent uses like ship facilities and habitat restoration
- FEMA's "beneficial gain" standard, on top of "no net loss"
 - "an area within the **same reach** of the project and equivalent to **5%** of the total project area within the RBZ shall be planted with native herbaceous and shrub vegetation **and designated** as open space." *

* FEMA has said they will remove the "designated" bit from Model Code.

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Pathway 2: New Model Code

- "Riparian Buffer Zone"
 - "Where the RBZ is larger than the special flood hazard area, the no net loss standards shall **only apply** to the area within the SFHA" (line 242 of Model Code)
 - "In instances where the 170-foot RBZ may extend farther than the SFHA, only impacts occurring in **both the RBZ and the SFHA** would need to be mitigated." (September 2024 Newsletter)

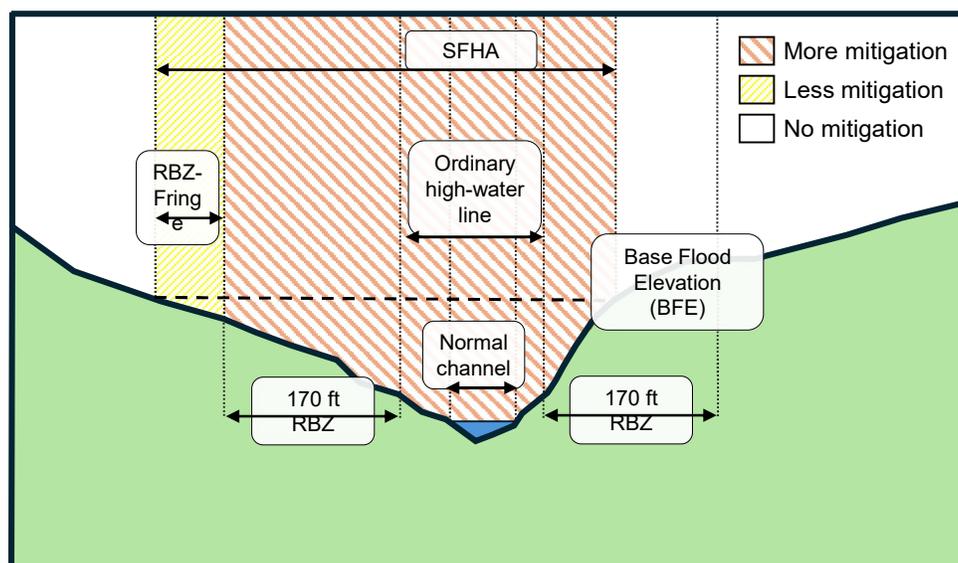
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Pathway 2: New Model Code

- “Riparian Buffer Zone”
 - In effect, splits the SFHA into two groups, “RBZ” and “RBZ-Fringe”
 - “Riparian Buffer Zone **Fringe**”:
The area outside of the RBZ and floodway but still within the SFHA
 - They have slightly different mitigation ratios in Table 1

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RBZ overlaid on SFHA



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Table 1: No Net Loss Standards

	Undeveloped Space (cubic ft)	Impervious Surface (sq ft)	Trees (6" < dbh ≤ 20")	Trees (20" < dbh ≤ 39")	Trees (39" < dbh)	
Basic Mitigate Ratios						
	RBZ and Floodway	2 : 1	1 : 1	3 : 1	5 : 1	6 : 1
	RBZ-Fringe	1.5 : 1	1 : 1	2 : 1	4 : 1	5 : 1
Mitigation multipliers						
	Offsite, same reach	100%	100%	100%	100%	100%
	Offsite, different reach, same watershed (5th field)	200%	200%	200%	200%	200%

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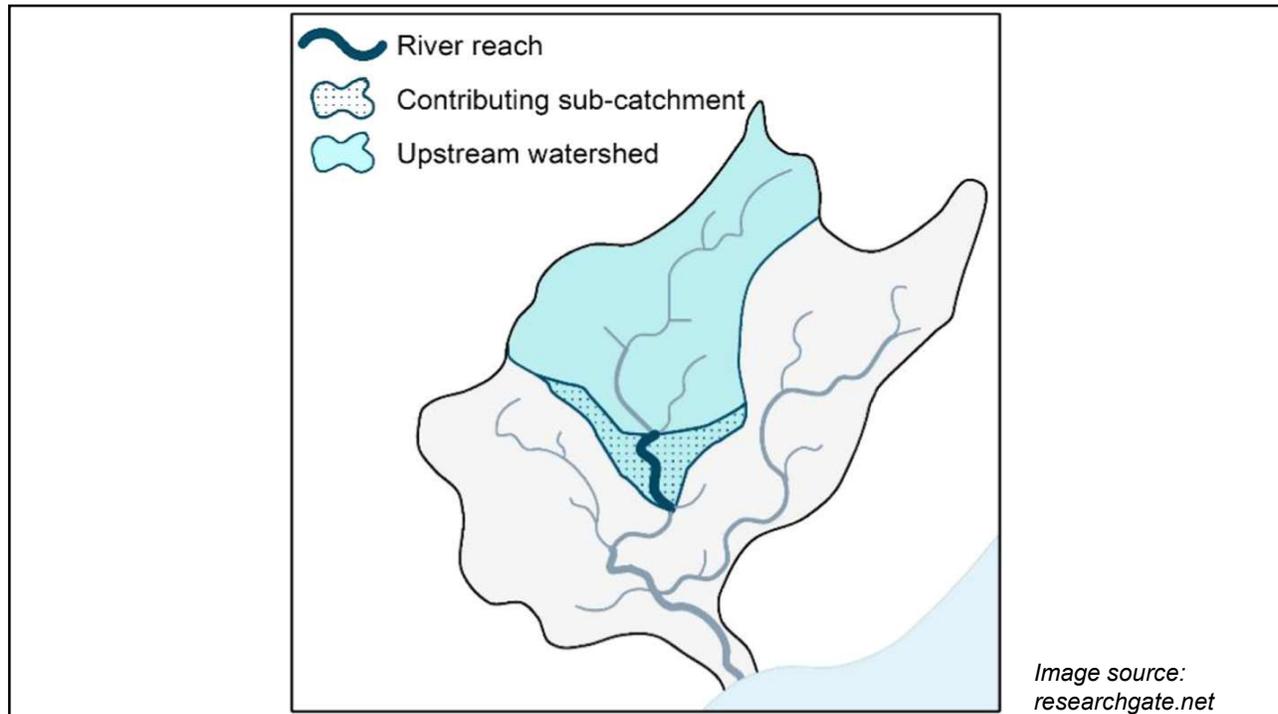
Table 1: No Net Loss Standards

- “Reach”

Definition: A section of stream with similar conditions such as depth, slope, and discharge

Usually between two smaller tributaries

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Table 1: No Net Loss Standards

• “Reach”

Definition: A section of stream with similar conditions such as depth, slope, and discharge

Usually between two smaller tributaries

• “Fifth Field Watershed”

Not defined in the Code.

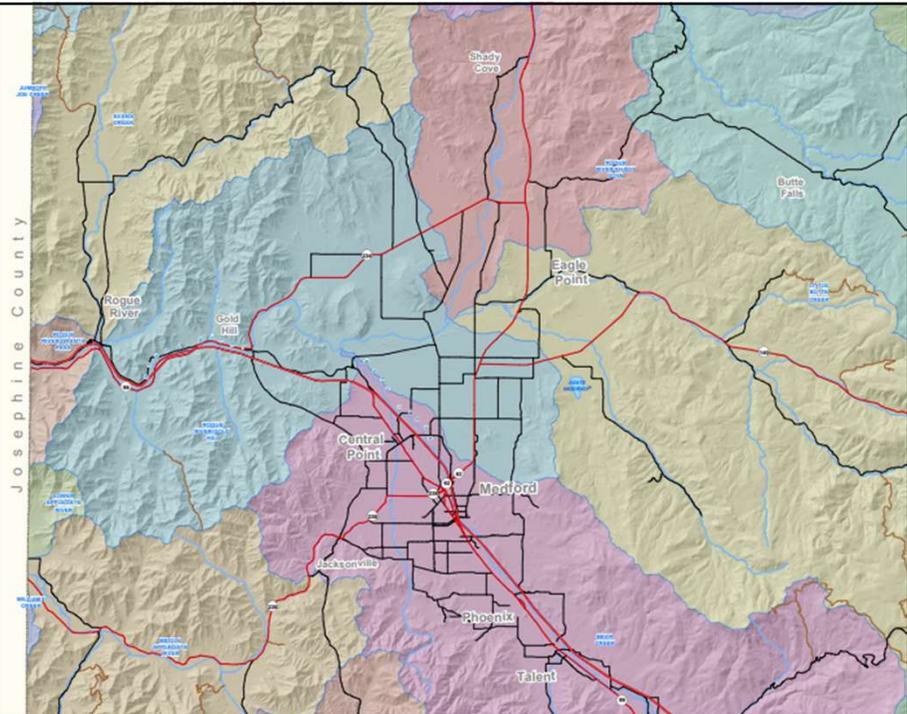
A standard size of watershed, used often for research and projects.

- “First Field” is the entire shed, millions of acres
- “Seventh Field” are the most local, a few thousand acres

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Fifth Field Watersheds in Jackson County

Image source:
Jackson County GIS



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SUMMARY: New Model Code

- Meets the minimum requirements of NFIP
 - And incorporates ESA performance standards
- Has 3 proxies for “no net loss” standards
 - Undeveloped Space
 - Pervious Surfaces
 - Trees
- Has the “beneficial gain” standard for most new uses
- Has mitigation ratios
 - for inside/outside the Riparian Buffer Zone

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Pathway 3: Permit-by-Permit + Habitat Assessment

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Pathway 3: Permit-by-Permit + HA

- Aims for “no net loss” of floodplain functions
- Review individual development proposals and require permit-by-permit **habitat assessment and mitigation**
- Habitat Assessments must be completed and reviewed by a **professional**

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Pathway 3: Permit-by-Permit + HA

- For some projects, no HA is required
 - If exempted in the Biological Opinion (“BiOp”)
 - If covered under another section of the ESA
 - Routine maintenance of roads, facilities, landscaping
 - Normal repair of structures (no expansion)
 - Habitat restoration projects
 - Open space & recreational development (within limits)

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Pathway 3: Permit-by-Permit + HA

- The Habitat Assessment must:
 - **Describe** any impacts to habitat functions
 - **Analyze** the effects on ESA-listed species and their critical habitats
 - **Demonstrate** that there will be **no net loss** to habitat functions
- Preferred order: **Avoid**, then **minimize**, then **mitigate**
 - Applicants must explain why avoidance or minimization was not practicable

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Pathway 3: Permit-by-Permit + HA

- Variety of **formats** are possible – no standardized form
- The level of **detail** necessary will vary with the nature, scope, and scale of the project
- Involves background **research**
- Must be conducted by a **professional biologist**

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Conducting a Habitat Assessment

1. Describe the Project Area
 - include watershed, wetlands, water bodies
 - include a site **map**
2. Describe the existing Habitat
 - include any protected **species**
 - include “Primary Constituent Elements” for those species
 - include **narrative** discussion on factors of decline and local data
 - describe the existing floodplain functions
 - include a habitat **map**

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Conducting a Habitat Assessment

3. Describe the Project

- the **final** product and the **construction** process
- describe measures to **Avoid, Minimize, and Mitigate**
- describe **ongoing** activities and uses after completion

4. Assess the Environmental Effects

- **Direct** impacts such as clearing and grading the site
- **Indirect** impacts like disrupting stream flows and destabilizing banks
- **Cumulative** effects: past, current, and pending actions
- Determine if “no net loss” standard is met

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Conducting a Habitat Assessment

5. Review Mitigation Alternatives

- Avoid, then Minimize, then Mitigate
- On-site and in-kind compensation is preferred
- Explain and justify any off-site and out-of-kind compensation
- Mitigation Ratios and Multipliers

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Table 1: No Net Loss Standards

	Undeveloped Space (cubic ft)	Impervious Surface (sq ft)	Trees (6" < dbh ≤ 20")	Trees (20" < dbh ≤ 39")	Trees (39" < dbh)	
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Mitigation multipliers						
	Offsite, same reach	100%	100%	100%	100%	100%
	Offsite, different reach, same watershed (5th field)	200%	200%	200%	200%	200%

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Conducting a Habitat Assessment

6. Prepare the Mitigation Plan

- Using the materials prepared in steps 1 to 5
- Alternatives considered and mitigation concept
- Construction and permanent measures
- Post-construction monitoring and maintenance plan
- Bond arrangements

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City Responsibilities

- **Review** Habitat Assessments
- **Document** the details of the mitigation plan
- **Identify** which mitigation measures are **required** rather than recommended
- **Monitor** the implementation.
- **Measure** the effectiveness of the plan, **track** any enforcement actions taken, and provide that information to FEMA, if requested

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Reviewing a Habitat Assessment

- Should be consistent with
 - the mitigation guidance requirements of the **Army Corps of Engineers**
 - Chapter 3 of *Wetland Mitigation Banking Guidebook for Oregon: Approval Process*
 - **Goal 5** implementation plans
- Can be a third-party review, with costs passed on to applicant
- Can be a formalized review by staff
- RVCOG has a Natural Resources Department that can help

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SUMMARY: Permit-by-Permit + HA

- HA's need extensive, professional research
- Must mitigate for any loss to floodplain functions
 - “commonly measured though ...”
 - Increase in developed space
 - Increase in impervious surfaces
 - Removal of trees
- Has the “beneficial gain” standard for most new uses in the RBZ
- Has mitigation ratios
 - for inside/outside the Riparian Buffer Zone

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SUMMARY: Permit-by-Permit + HA

- Requiring applicants to submit a HA will still need a text amendment to your Ordinance for Flood Hazard Prevention

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COMPARISON

Model Code

- Performance standards
- “No net loss”
- Mitigation ratios
- “Beneficial Gain” in the RBZ
- Reporting requirements

Permit-by-Permit + HA

- Professional research report
- “No net loss”
- Mitigation ratios
- “Beneficial Gain” in the RBZ
- Reporting requirements

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New Reporting Requirements

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New Reporting Requirements

- Begin collecting on January 31st, **2025**
- Must report all to FEMA, on January 31st, **2026**
- Cities will need to collect this info during the permit process
- FEMA will have a reporting tool online (eventually)

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New Reporting Requirements

- Applicant, project title, description, location
- **Size** of project in SFHA, Riparian Buffer Zone (RBZ), and Floodway;
- Amount of **fill** added and compensatory **storage** created
- Area of **clearing** and **grading** that occurred
- Acres **disconnected** and reconnected to/from the floodplain
- Amount of new **impervious** surface added
- Type and amount of **water quality** mitigation provided
- Number of **trees removed** and their size
- Number of **trees planted**

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Data for Context

Sourced from Jackson and Josephine County data

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Floodplain Tax Lots: Unimproved

	Jacksonville	Shady Cove	Rogue River	Talent	Gold Hill	Cave Junction
Total # of FP Tax Lots	376	421	213	357	70	94
Unimproved # of FP Tax Lots	46	41	36	71	20	34
Unimproved % of FP Tax Lots	12%	10%	17%	20%	29%	36%

* These lots have Improvement Value = 0 in the County Assessor's data

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Floodplain Tax Lots: “dry” area outside SFHA

	Jacksonville	Shady Cove	Rogue River	Talent	Gold Hill	Cave Junction
Total # of FP Tax Lots	376	421	213	357	70	94
# of FP Tax Lots with 5,000 sq ft or less outside the SFHA	86	56	92	166	14	58
% with <= 5k	23%	13%	43%	46%	20%	62%
# of FP Tax Lots with more than 5,000 sq ft outside the SFHA	290	365	121	191	56	36
% with > 5k	77%	87%	57%	54%	80%	38%

* 5,000 sq ft is used here as a benchmark for enough area to build a single, modest home

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Unimproved & less than 5,000 “dry” sq ft

	Jacksonville	Shady Cove	Rogue River	Talent	Gold Hill	Cave Junction
Total # of FP Tax Lots	376	421	213	357	70	94
# of FP Tax Lots that are both Unimproved AND <= 5k sq ft dry	19	16	14	53	9	34
% both	5%	4%	7%	15%	13%	36%

* 5,000 sq ft is used here as a benchmark for enough area to build a single, modest home

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Closing

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Data requests?

- These data will be included in staff reports
- If you have a request for more data like this, please contact Rowan via email at least 2 weeks before your first evidentiary hearing
- Likewise, any questions we can't answer today, please contact Rowan via email

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More Information

- From FEMA
 - Model Floodplain Management Ordinance
 - Floodplain Habitat Assessment and Mitigation, Regional Guidance for Oregon
 - PICM Fact Sheet
 - NFIP-ESA Integration webpage, webinar slides, newsletters
- From DLCD
 - FAQ

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Questions?

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