

FEMA IMPLEMENTATION OF OREGON BIOLOGICAL OPINION

UPDATE REPORT TO TILLAMOOK COUNTY BOARD OF COMMISSIONERS

PRESENTED BY:

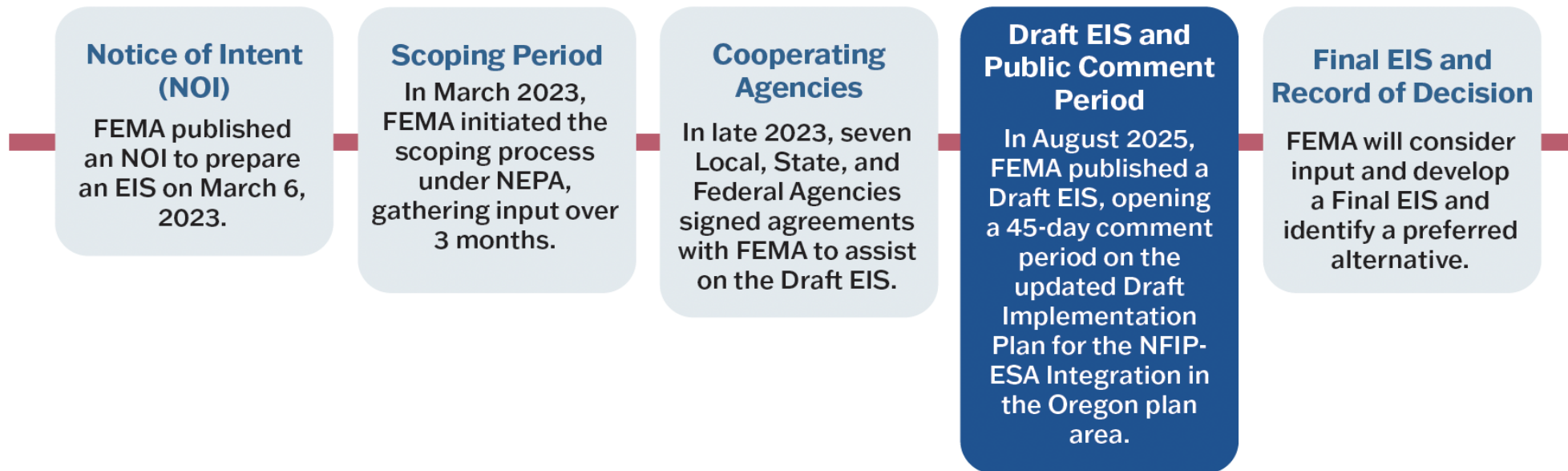
SARAH ABSHER, CFM, DIRECTOR

TILLAMOOK COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

- NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
 - The NEPA process is intended to help agencies make informed decisions that are based on an understanding of environmental consequences and take actions that protect, restore, and enhance the environment
 - **“ESEE” ANALYSIS PART OF NEPA REVIEW PROCESS & PUBLIC COMMENT PERIOD**
 - **Environmental: Natural & Physical Environment (ESA evaluation)**
 - **Social: Human Environment- How Proposal Affects People & Communities**
 - **Economic: Economic Impact Assessment**
 - **Energy: Energy Consumption**
 - COOPERATING AGENCIES 2023
 - ENVIRONMENTAL IMPACT STATEMENT (EIS IS IN DRAFT FORM)
- PUBLIC COMMENT PERIOD
 - Citizen involvement is critical.
- PREPARATION OF FINAL ENVIRONMENTAL IMPACT STATEMENT
- IMPLEMENTATION

Next Steps

FEMA will consider all input received during the Draft EIS public review and comment period. Following the public review and comment period on the Draft EIS, FEMA will develop a Final EIS, identify a preferred alternative, and publish a Record of Decision to conclude the NEPA process.



Purpose and Need

Purpose:

Ensure that the implementation of the NFIP in OR is consistent with ESA/MSA requirements.

Need:

- Avoid jeopardizing the continued existence of listed species.
- Avoid, minimize, or offset potential adverse effects on Essential Fish Habitat (EFH)
- Maintain consistency with FEMA's existing NFIP statutory and regulatory authorities and program objectives.



FEMA



“No Net Loss” (NNL) Standards & Floodplain Functions

NNL standards would apply to development with a new or increased footprint

Location-specific ratios for each proxy

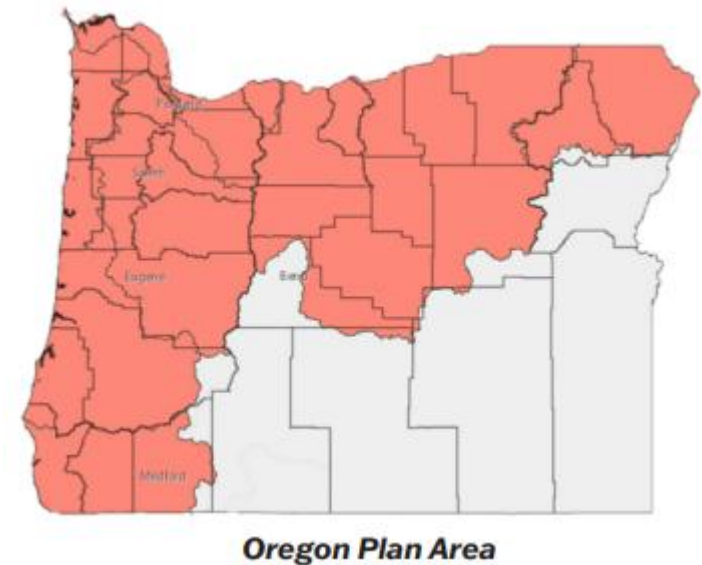
Floodplain Function	Proxy (No net loss of...)	Loss of
Flood Storage	Flood Storage Capacity	Fish accessible and egress-able habitat
Water Quality	Pervious surfaces	Natural filtration, temperature, flow
Vegetation	Trees 6 inches dbh	Canopy habitat, shade, filtration, wood, stabilization



FEMA

Actions Subject to No Net Loss

- Occurring within Oregon NFIP participating community within the “plan area”
- Proposed development located within mapped SFHA on FEMA-approved FIRM
- Activity meets the definition of “development”
 - “Development” defined as any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials
 - No exception for modifications/additions that are not “Substantial Improvements”



Four Paths to Compliance

A	B	C	D
Adopt a model ordinance	Complete an ordinance checklist	Develop a customized community plan	Pursue alternative ESA compliance at the community level.
Developed by FEMA.	Demonstrate that new and/or existing local policies address the required elements of the model ordinance. Includes future State requirements	Customize, mix, and match to implement NNL at community or sub-community level Can include Parcel-by-Parcel and a future State pathway.	Working directly with NMFS: Habitat Conservation Plan under ESA Section 10(a)(1)(B) or an ESA Section 4(d) Limit authorization, as appropriate. This path allows for alternatives to no net loss



FEMA'S EIS ALTERNATIVES (PUBLIC COMMENTS NEEDED)

- **Alternative 1: No Action Alternative (NFIP implementation proceeds in Oregon unmodified and no-net loss standards do not apply.)**
- Alternative 2: One of FEMA's Pathways A-D must be implemented, with exception for projects that have separately achieved ESA compliance through a federal nexus (Section 7 Consultation/Federal Permitting/Permit Requires EIS).
- Alternative 3: One of FEMA's Pathways A-D must be implemented and no exemptions for any project as allowed under Alternative 2.

When do I need a permit under the NFIP?

Examples of projects that meet the definition of development:

Buildings of any size (house, barn, commercial, etc.)

Terracing, fences, and any **structures**

Mining, dredging, filling, grading, excavation, drilling

Paving, roads, driveways, sidewalks

Bank stabilization, habitat restoration

Piers, marinas, port structures, boat ramps

Storage of equipment or materials

Drainage and utility infrastructure

Underground or at grade tanks



FEMA



**AVOID,
MINIMIZE &
MITIGATE**

**MITIGATE
TO ENSURE
NO NET
LOSS
STANDARDS
ARE MET**



No net loss of flood storage capacity includes removing soil from the SFHA to create replacement flood storage to offset the placement of fill and structures in the SFHA.

For a 1,500-square-foot home and 20-foot by 40-foot driveway would require 3,400 cubic feet of soil (126 cubic yards) to be removed from the SFHA for replacement flood storage if mitigated **on-site**.

If mitigated **off-site**, the project would be subject to larger mitigation ratios and might have to remove up to 6,800 cubic feet of soil (252 cubic yards).

A dump truck carries an average of 10 cubic yards of material. Mitigation would require between 12.6 and 25.2 dump trucks of soil to be removed from the SFHA.

Soils removed to create replacement flood storage would need to be disposed of outside the SFHA, thereby altering topography both at the mitigation site and the soil disposal site.



The average dump truck carries 10 cubic yards of material

Figure 4-4. Visual Representation of 10 Cubic Yards of Material

Model Project: Residential New Build – Single Family Home

Floodplain Function	Impact	Required Mitigation
Flood Storage	House and Driveway: 1,700 cubic feet new fill and structure below the base flood elevation.	6,800 cubic feet of replacement fish accessible and egressible flood storage must be created.
Water Quality	House and Driveway: 2,300 square feet new impervious surface.	4,600 square feet of impervious surface must be mitigated.
Vegetation	Removes 5 trees greater than 6 inches dbh.	30 trees must be planted.
Beneficial Gain	House is a non-water dependent use in the RBZ.	115 square feet of the RBZ must be planted with native riparian herbaceous, shrub, and / or tree vegetation.



Legend

- Waterway
- Special Flood Hazard Area
- Riparian Buffer Zone
- Removed Trees

Residential

- SFHA = 5.4% of all residential lands in cities, on average.
- For a 1,500-square-foot home and 20-foot by 40-foot driveway:
 - Mitigation area = 0.26 acre;
 - Average residential lot size in urban areas = 0.17 acre;
 - **“... a typical new single-family house could require a second parcel to implement mitigation for no net loss (Oregon Office of Economic Analysis 2018).”**

Model Project: Port Improvement Project

Floodplain Function	Impact	Required Mitigation
Flood Storage	<ul style="list-style-type: none"> Replacement of existing 5 acres of wharf and construction of an underground vault: No impact. Expanding wharf by 5 acres: volume of piers between high tide line and BFE = 47,624 cubic feet. Dredging: No impact. Parking Pavement improvement (thicker pavement): 54,450 cubic feet in the RBZ and 272,250 cubic feet outside RBZ. <u>Total</u>: 102,074-cubic-foot reduction in flood storage capacity within the RBZ and 272,250 cubic-foot reduction outside of the RBZ. 	<ul style="list-style-type: none"> Within the RBZ: 204,148 cubic feet replacement flood storage required. Outside the RBZ: 408,375 cubic feet replacement flood storage required.
Water Quality	<ul style="list-style-type: none"> Only new impervious surface is the wharf expansion. No impact because reduction of pervious surface is addressed through the underground vault to manage stormwater and protect water quality. 	No further mitigation required.
Vegetation	<ul style="list-style-type: none"> Removes 5 trees from 6 to 20 inches dbh. Removes 5 trees from 20 to 39 inches dbh. 	40 trees must be planted in the RBZ.
Beneficial Gain	<ul style="list-style-type: none"> Parking pavement improvement is a non-functionally dependent use in the RBZ. Beneficial gain required. 	0.25 acre (10,890 square feet) must be planted with native riparian herbaceous, shrub, and/or tree vegetation in the RBZ.

Mitigation Ratio Example — NNL depends on conditions

Remove one
tree 35" dbh



Mitigate in RBZ
in same reach



Replant 5

In different
reach, same
watershed



Replant 10

Remove one
tree 10" dbh



Mitigate in RBZ
in same reach



Replant 3

In different
reach, same
watershed



Replant 6

FEMA'S EIS ALTERNATIVES (PUBLIC COMMENTS NEEDED)

- **Alternative 1: No Action Alternative (NFIP implementation proceeds in Oregon unmodified and no-net loss standards do not apply.)**
- Alternative 2: One of FEMA's Pathways A-D must be implemented, with exception for projects that have separately achieved ESA compliance through a federal nexus (Section 7 Consultation/Federal Permitting/Permit Requires EIS).
- Alternative 3: One of FEMA's Pathways A-D must be implemented and no exemptions for any project as allowed under Alternative 2.

Residential

- The **estimated increase in construction costs** to develop SFR would be **28.8 percent for off-site mitigation** and **9.5 percent if mitigation occurred on-site**.
- **Monthly principal and interest payments** would be approximately **\$630 mo/\$7,590 year more to pay for off-site mitigation**, or approximately **\$209 mo/\$2,510 per more if the mitigation occurred on-site**.
- If a homeowner wanted to add a garage, carport, patio, paved driveway, or sidewalk, then **the percentage increase in costs due to mitigation could be higher than the percentage increase calculated for a full single-family home development**.

Commercial & Industrial

- SFHA = 14.3% of all commercial + industrial lands in cities, average.
- Implementation of No Net Loss standard **would raise the costs of construction by an estimated 9.5 to 28.8 percent** similar to residential.
- Unlike residential property owners, **increased construction costs would increase the costs of doing business, raising the costs of goods or services sold.**
- Remodeling or expanding existing developed commercial and industrial land **could require a different or more expensive design** than required under current regulations to meet the no net loss standards.

Agriculture

- “If development is required to support agricultural or forestry operations, economic impacts on property owners might be considerable because farmers, ranchers, or woodlot owners generally do not have the ability to raise prices, and profit margins are often slim for agricultural producers.”
- For a new barn project, “the net mitigation costs would **increase the estimated project costs by approximately 12 percent.**”

Ports

- For projects that do not have an independent federal nexus, **the economic impact would be similar to the impact on the commercial and industrial sector, with the notable exception that ports cannot relocate construction projects outside the port boundaries.** Therefore, options to move out of the SFHA and avoid impacts would be more limited for ports.
- “The **estimated mitigation costs** required to meet the no net loss standards for a model project **would amount to about \$718,235 or an increase of about 2.6 percent.**”

Cities & Counties

- The majority of jurisdictions would need to supplement or change existing ordinances. Many county and municipal governments would incur additional costs as they implement new or updated ordinances and subsequent reporting requirements.
- “**Larger communities** with extensive undeveloped lands in rapidly growing communities, **might need extensive public process** (including public outreach, meetings, and hearings) **and ordinance drafting sessions.**”
- “To accomplish these tasks, some local governments may need to hire outside consultants or add personnel in-house (or both). **The consultant cost, if this work were performed separately for each local government jurisdiction, might range generally from about \$60,000 to more than \$1 million for an individual jurisdiction.**”

Cities & Counties

- To help gauge the magnitude of this impact for the entire Oregon plan area, **it is assumed that each of the 233 NFIP participating communities would spend an average of \$100,000 to \$200,000 to achieve initial adoption and implementation.** Therefore, the **total cost might total \$23 million to \$47 million for the full Oregon plan area.**
- **These estimated costs do not include increased staff time or training for permit review,** which might be as much as 1 full-time equivalent position split among two to three people in the first year. **Staff time would be much greater for local jurisdictions that take an active role in implementing the no net loss standards.**

Land Use (Generally)

Alternatives 2 and 3 would have a major long-term adverse impact on land development and use from

- 1) the potential for some development to move outside of the SFHA because of increased costs for mitigation,
- 2) the use of land in the SFHA for mitigation thereby reducing development potential and potential increased need for UGB expansion.

Land Use (Generally)

- **Impacts would be significant** because of potential changes in development patterns outside the SFHA, use of land for mitigation could conflict with comprehensive plans and zoning, and UGB expansions may be needed based on reduced land availability.”
- “Land used solely for mitigation could conflict with local comprehensive plans and zoning.”
- “If development were influenced to occur outside of the SFHA, it would be unlikely to be sufficient justification for a community to expand their UGB because a small percentage of development occurs in the SFHA compared to the rest of the UGB under existing conditions.”

DEIS Summary of Impacts (Alt. 2 &3)

- Significant impact on land use based on the potential for some development to move outside of the SFHA due to increased costs for mitigation and the use of land in the SFHA for mitigation thereby reducing development potential and associated potential need for Urban Growth Boundary (UGB) expansion.
- Significant economic impact based on the cost and complexity to implement the no net loss standards.
- Short-term adverse impacts on biological resources related to construction activities to implement the no net loss standards. Soil loss and compaction, vegetation alteration, and pollutants from construction equipment associated with no net loss standards could impair habitat quality, reduce biodiversity, and alter habitat connectivity.
- No net loss standards in the SFHA would result in beneficial effects on fish and aquatic wildlife, including aquatic threatened and endangered species.
- Some adverse impacts on terrestrial habitats and species may still occur due to the potential for development to favor land outside of the SFHA to avoid the cost and complexity of the no net loss standards.
- Compared to existing conditions, reduced impacts on biological resources in the long term by implementing the no net loss standards in the SFHA would result in beneficial effects on aquatic habitats and associated special-status species.

Potential Impacts and Benefits

All three alternatives would result in adverse impacts on resources to varying degrees. The table below indicates the potential adverse and beneficial effects of each alternative.¹

(S) Significant adverse
 (LS) Adverse, less than significant
 (BE) Beneficial effect
 (NI) No impact compared to existing conditions



Resource	No Action Alternative	Alternative 2		Alternative 3	
		Short Term	Long Term	Short Term	Long Term
Short term or long term impacts or benefits					
Land Development, Use, and Value	(NI)	(S)		(S)	
Economic Impacts	(NI)	(S)		(S)	
Seismicity, Geology, Topography, Soils	(NI)	(LS)	(BE)	(LS)	(BE)
Water Quality	(LS)	(LS)	(BE)	(LS)	(BE)
Wetlands	(NI)	(S)	(BE)	(S)	(BE)
Floodplains	(LS)	(LS)	(BE)	(LS)	(BE)
Vegetation	(S)	(LS)	(BE)	(LS)	(BE)
Terrestrial Wildlife	(S)	(LS)	(BE)	(LS)	(BE)
Fish and Aquatic Wildlife	(S)	(LS)	(BE)	(LS)	(BE)
Threatened and Endangered Species	(S)	(LS)	(BE)	(LS)	(BE)
Tribal Treaty Rights	(S)	(LS)	(BE)	(LS)	(BE)
Hazardous Materials	(NI)	(LS)	(BE)	(LS)	(BE)
Transportation	(NI)	(S)		(S)	
Public and Critical Infrastructure, Health, and Safety	(NI)	(NI)	(S) (BE)	(NI)	(S) (BE)
Total Significant Adverse	5	5		5	
Total Beneficial Effects	0	11		11	

FEMA'S EIS ALTERNATIVES (PUBLIC COMMENTS NEEDED)

- **Alternative 1: No Action Alternative (NFIP implementation proceeds in Oregon unmodified and no-net loss standards do not apply.)**
- Alternative 2: One of FEMA's Pathways A-D must be implemented, with exception for projects that have separately achieved ESA compliance through a federal nexus (Section 7 Consultation/Federal Permitting/Permit Requires EIS).
- Alternative 3: One of FEMA's Pathways A-D must be implemented and no exemptions for any project as allowed under Alternative 2.

Public Comments Requested



- We want to hear from you about:
 - Does the Draft EIS disclose the potential impacts of the alternatives on you, your community, and the environment?
 - Any new information or data that would substantively change the analysis and conclusions.
 - Which alternative should FEMA select and why.
 - Anything that should be clarified or corrected.
- Helpful comments:
 - Focus on specific issue or problem.
 - Areas of support
 - Issues of concern
 - Potential solutions
 - Opinions supported with details, facts, references, etc.



FEMA



How to Comment



- Public Comment Period Open until October 6, 2025



Public Meeting:

Court Reporter in attendance to capture verbal comments.



In writing, mail to:

NFIP OR EIS, FEMA, Region 10, 130 – 228th Street SW,
Bothell, WA 98021



Email: fema-r10-or-nfip-esa-integration@fema.dhs.gov

Online comment form: <https://tinyurl.com/FEMA-OR-EIS-Comment>



Fax: 425-775-7560 Attention: FEMA NFIP OR EIS



FEMA



Visit the virtual
meeting room!



PUBLIC PARTICIPATION AT FEMA VIRTUAL MEETINGS

September 11, 2025, 6 to 8 pm

September 30, 2025, 6 to 8 pm

Meeting Links Here:

<https://floodplainprotection.org>

PUBLIC COMMENT LETTERS

FEMA looking for:

- *Potential impacts of the alternatives on you, your community, & environment.*
- *Any new information or data that would substantively change the analysis & conclusions.*
- *Which alternative should FEMA select and why.*
- *Anything that should be clarified or corrected?*

Schedule for Implementation

- The requirement to implement the no net loss standards will be initiated by FEMA providing communities with a formal letter, expressly stating that implementation and annual reporting requirements are going into effect.
- After the formal letter is provided, FEMA and DLCD will provide technical assistance to communities for a 7-to-8-month period.
- Within 18 months after FEMA's initial letter, all NFIP participating communities must have their entire SFHA covered by at least one path and developments must start implementing no net loss.

More info?

- <https://www.tillamookcounty.gov/commdev/page/fema-biop-information>
- <https://floodplainprotection.org>
- info@floodplainprotection.org