PICM Reporting Tool Guidance

Regional Guidance for Oregon

January 2025

FEMA Region 10

Regional Guidance
For
PICM Reporting Requirements in Oregon

Produced by FEMA - Region 10

January 2025

FEMA
Region 10

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Acknowledgements

This guidance document was developed by Region 10 of the Federal Emergency Management Agency, as part of its continuing effort to improve floodplain management practices and assist communities in meeting the requirements of the Endangered Species Act.

Acronyms

BFE	Base Flood Elevation
BiOp	Biological Opinion
Dbh	Diameter Breast Height
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
MA	Mitigation Assessment
MHHW	Mean Higher-High Waterline
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NNL	No Net Loss
OHWM	Ordinary High-Water Mark
PICM	Pre-Implementation Compliance Measures
RBZ	Riparian Buffer Zone
RPA	Reasonable and Prudent Alternative
SFHA	Special Flood Hazard Area

1.0 Introduction

1.1 Background

This Regional Guidance is written to assist communities in meeting the requirements and criteria of the Endangered Species Act (ESA) regarding the National Flood Insurance Program (NFIP). Those requirements are described in Biological Opinions (BiOp) issued by the National Marine Fisheries Service (NMFS) on April 14, 2016, and the January 2017 errata document that supplements the BiOp for most of the State of Oregon

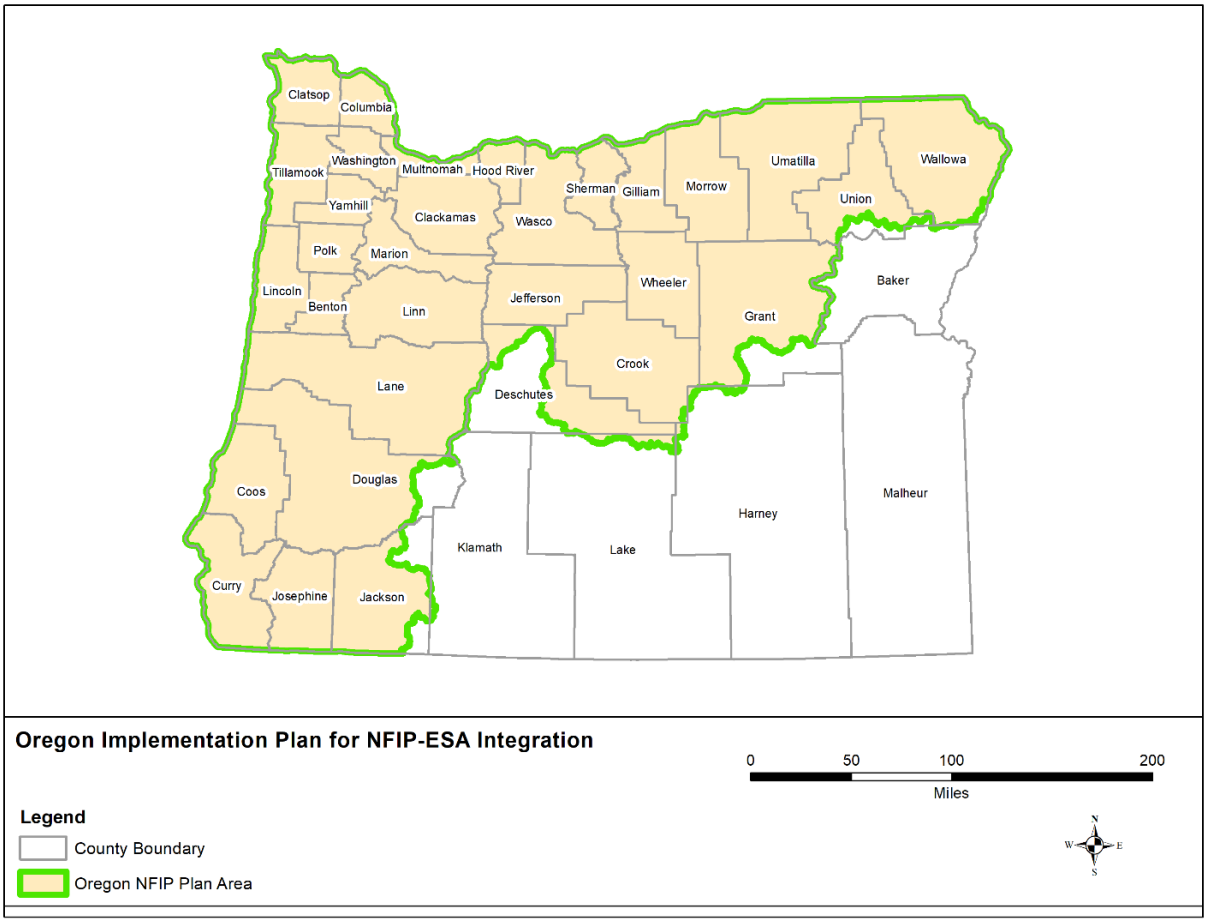

Figure 1 Oregon National Flood Insurance Program Plan Area for Endangered Species Act Integration

The 2016 BiOp and 2017 errata for the NFIP in Oregon apply to 16 ESA-listed fish species and the Southern Resident killer whale. The 16 ESA-listed fish species are identified below:

- Lower Columbia River Chinook salmon
- Upper Willamette River spring-run Chinook salmon
- Upper Columbia River spring-run Chinook salmon

- Snake River spring/summer-run Chinook salmon
- Snake River fall-run Chinook salmon
- Columbia River chum salmon
- Lower Columbia River coho salmon
- Oregon Coast coho salmon
- Southern Oregon/Northern California Coasts coho salmon
- Snake River sockeye salmon
- Lower Columbia River steelhead
- Upper Willamette River steelhead
- Middle Columbia River steelhead
- Upper Columbia River steelhead
- Snake River Basin steelhead
- Southern eulachon
- Southern resident killer whale

Pre-Implementation Compliance Measures, also known as PICMS, are short-term measures that communities must adopt to comply with ESA requirements under the NFIP. FEMA has developed these measures to address Reasonable and Prudent Alternative (RPA) Element 2 (Interim Measures) in the 2016 NMFS BiOp. These interim measures are intended to occur as the agency undertakes a National Environmental Policy Act (NEPA) review to assess the effects of FEMA's proposed NFIP-ESA integration efforts.

Under PICM, communities may select one of three compliance measures:

1. Prohibit all new development in the floodplain;
2. Incorporate the ESA performance standards into local floodplain ordinances through a model ordinance; or
3. Require permit applications to develop a Floodplain Habitat Assessment documenting that their proposed development in the Special Flood Hazard Area (SFHA) will achieve No Net Loss (NNL).

PICM, and future Oregon NFIP-ESA integration performance standards, apply to communities that are:

1. Located in the Oregon implementation area, as specified by the 2016 NMFS BiOp (Figure 1 above);

2. Participating in the NFIP; and
3. Have a mapped SFHA

Communities were required to adopt and implement a PICM by December 1, 2024. If a community did not select or cannot implement a PICM by this date, they have been defaulted to the Permit-by-Permit approach until their preferred PICM is implemented. Communities adopting the model ordinance, must ensure the ordinance is adopted by their community by July 31, 2025. As communities work to adopt the ordinance, they will still be required to implement another PICM option between December 1, 2024 and July 31, 2025.

Whenever a development project is proposed in the SFHA, the property owner must obtain a floodplain development permit from the community. Beginning January 31, 2025, communities subject to PICM will be required to track and report specific data for all floodplain development permits. The information collected will be reported to FEMA on an annual basis beginning January 31, 2026.

FEMA has developed a reporting tool that captures the specific criteria and requirements communities need to report back to FEMA to ensure ESA compliance. This document provides guidance for completing the reporting tool and a model permit application. Both documents are available on the National Flood Insurance Program – Endangered Species Act Integration Oregon website for download.

Additional references included in this document are listed at the end of the document.

1.2 Definitions

The following terms are used throughout this guidance:

Base Flood Elevation (BFE): The elevation to which floodwater is anticipated to rise during the base flood.

Development: 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 or storage of equipment or materials. The Oregon BiOp extends this definition to include subdivision of land, removal of vegetation, other alteration of natural site characteristics (including any remnant natural characteristics existing in a degraded site), substantial repairs and improvements, and the maintenance, repair, or remodel of existing buildings, facilities, and utilities when their existing footprint is expanded.

Fill: Placement of any materials such as soil, gravel, crushed stone, or other materials that change the elevation of the floodplain. The placement of fill is considered "development."

Green Infrastructure: Use of natural or human-made hydrologic features to manage water and provide environmental and community benefits. Green infrastructure uses management approaches and technologies that use, enhance, and/or mimic the natural hydrologic cycle

processes of infiltration, evapotranspiration, and reuse. At a large scale, it is an interconnected network of green space that conserves natural systems and provides assorted benefits to human populations. At a local scale, it manages stormwater by infiltrating it into the ground where it is generated using vegetation or porous surfaces, or by capturing it for later reuse. Green infrastructure practices can be used to achieve NNL of pervious surface by creating infiltration of stormwater in an amount equal to or greater than the infiltration lost by the placement of new impervious surface.

Habitat Restoration Activities: Activities with the sole purpose of restoring habitats that have only temporary impacts and long-term benefits to habitat. Such projects cannot include ancillary structures such as a storage shed for maintenance equipment, must demonstrate that no rise in the BFE would occur as a result of the project and obtain a CLOMR and LOMR, and have obtained any other required permits (e.g., CWA Section 404 permit).

Impervious Surface: A surface that cannot be penetrated by water and thereby prevents infiltration and increases the amount and rate of surface water runoff, leading to erosion of stream banks, degradation of habitat, and increased sediment loads in streams. Such surfaces can accumulate large amounts of pollutants that are then "flushed" into local water bodies during storms and can also interfere with recharge of groundwater and the base flows to water bodies.

Low Impact Development: An approach to land development (or redevelopment) that works with nature to manage stormwater as close to its source as possible. It employs principles such as preserving and recreating natural landscape features and minimizing effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product. Low Impact Development refers to designing and implementing practices that can be employed at the site level to control stormwater and help replicate the predevelopment hydrology of the site. Low impact development helps achieve NNL of pervious surface by infiltrating stormwater in an amount equal to or greater than the infiltration lost by the placement of new impervious surface. LID is a subset of green infrastructure.

Mean Higher-High Water: The average of the higher-high water height of each tidal day observed over the National Tidal Datum Epoch.

No Net Loss: A standard where adverse impacts must be avoided or offset through adherence to certain requirements so that there is no net change in the function from the existing condition when a development application is submitted to the state, tribal, or local jurisdiction. The floodplain functions of floodplain storage, water quality, and vegetation must be maintained.

Offsite: Mitigation occurring outside of the project area.

Onsite: Mitigation occurring within the project area.

Ordinary High Water Mark: The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

Qualified Professional: Appropriate subject matter expert that is defined by the community.

Reach: A section of a stream or river along which similar hydrologic conditions exist, such as discharge, depth, area, and slope. It can also be the length of a stream or river (with varying conditions) between major tributaries or two stream gages, or a length of river for which the characteristics are well described by readings at a single stream gage.

Riparian: Of, adjacent to, or living on, the bank of a river, lake, pond, or other water body.

Riparian Buffer Zone (RBZ): The outer boundary of the riparian buffer zone is measured from the ordinary high water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water line of a marine shoreline or tidally influenced river reach to 170 feet horizontally on each side of the stream or 170 feet inland from the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel. Where the RBZ is larger than the SFHA, the NNL standards shall only apply to the area within the SFHA.

Riparian Buffer Zone Fringe: The area outside of the RBZ and floodway but still within the SFHA.

Silviculture: The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands.

Special Flood Hazard Area: The land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR (V, V1-30, VE). "Special flood hazard area" is synonymous in meaning and definition with the phrase "area of special flood hazard."

Undeveloped Space: The volume of flood capacity and fish-accessible/egress-able habitat from the existing ground to the Base Flood Elevation that is undeveloped. Any form of development including, but not limited to, the addition of fill, structures, concrete structures (vaults or tanks), pilings, levees and dikes, or any other development that reduces flood storage volume and fish accessible/egress-able habitat must achieve NNL.

1.3 Reporting Requirements

1.3.1 Biological Opinion Reasonable and Prudent Alternatives

Beginning January 31st, 2025, communities will be required to collect data elements related to RPA 5 in the NMFS 2016 BiOp. Collection of these data elements is required on all new floodplain development permits when proposed development is permitted. Communities will be required to submit reporting to FEMA on an annual basis.

Required data elements for reporting include:

1. Project information such as the project title, permit number, project status, exemptions (if applicable), size of project area, project description, project location, and location of mitigation.
2. The amount of fill or structural displacement of flood storage, and the amount of compensatory storage measured by volume. This reporting element effectively describes loss of refugia for rearing fish and indicates factors that increase the BFE and flood velocities.
3. If a project disconnects land from the floodplain, identify the type of project and the amount of land disconnected from the floodplain. This reporting element effectively describes loss of refugia for rearing fish and indicates factors that increase the BFE and flood velocities.
4. If a project reconnects land to the floodplain, identify the type of project and amount of land reconnected to the floodplain. This reporting element is indicative of effectiveness of mitigation or of beneficial habitat restoration actions.
5. The amount of new impervious surface created (and the types, amounts (if applicable), and description of water quality mitigation provided.
6. The number of trees equal to or greater than 6” dbh removed (indicates loss of riparian function and reduction of source of large wood recruitment) and the number and timing of trees planted to meet mitigation requirement (indicative of the duration of lost functions).
7. The area within the Riparian Buffer Zone planted with herbaceous, tree, and/or shrub vegetation required to meet the beneficial gain standard.

For further details on the BiOp’s requirements, see the BiOp and RPA for Oregon.

1.3.2 No Net Loss

ESA compliance measures require NNL of three floodplain functions essential to the survival of ESA-listed species under the jurisdiction of NMFS within the implementation area, the establishment of riparian buffer zones (RBZ) measured from the Ordinary High-Water Mark (OHWM) of a fresh waterbody and the Mean Higher-High Waterline (MHHW) from a tidally-influenced waterbody, and a beneficial gain requirement for development that is located within the Riparian Buffer Zone.

1.3.2.1 Floodplain Functions

The objective for NFIP-ESA compliance is to ensure NNL of floodplain functions that provide value to ESA-listed species and their designated critical habitats. NNL is defined as "any development action resulting in negative impacts to one or more key floodplain functions that are then mitigated or avoided to offset said impacts." In other words, all development actions within the SFHA must be adequately avoided, minimized, or mitigated to ensure that floodplain functions can operate at the same capacity as before the development action occurred. NNL is primarily achieved through mitigation, but practicing avoidance and minimization can lessen the impact of development and the amount of mitigation required to achieve compliance. NNL applies to the three floodplain functions of floodplain storage, water quality, and vegetation. To make calculating the values of floodplain functions easier, FEMA has translated these functions into three specific actions that can quantify the value of the functions. These actions are commonly referred to as our proxies and can be found in the table below:

Floodplain Function	Proxy (No net loss of…)	Mitigates Against
Floodplain storage	Undeveloped space	Developed space
Water quality	Previous surfaces	Impervious surface
Vegetation	Trees	Trees removed

Table 1: Floodplain function proxies

The addition of developed space within the SFHA creates an adverse effect to the floodplain function of floodplain storage and requires the creation of undeveloped space to achieve NNL. Likewise, the addition of impervious surfaces and the removal of trees also creates an adverse effect to the floodplain functions of water quality and vegetation, respectively. To achieve NNL for these two functions, the addition of pervious surfaces and trees are required. Mitigation to achieve NNL must be implemented for each floodplain function that is adversely affected by development and its impacts.

1.3.2.2 Mitigation Ratios

Mitigation must be conducted for any loss to floodplain storage, water quality, and vegetation in the SFHA. This is commonly measured through a net increase in fill or structures below the BFE, an increase in impervious surfaces, and the removal of trees 6 inches dbh or higher. Mitigation may include both natural methods (e.g., replanting of trees) or engineered methods (e.g., green infrastructure) depending on the floodplain function impacted.

Mitigation is recommended to occur on the same site and reach as which the impact occurs. Mitigation that does not occur within the same reach as where impacts occurred is subject to higher ratios that increase mitigation required to achieve NNL. Mitigation must occur within the same watershed (i.e., the 5th field watershed). Mitigation for impacts to floodplain functions must occur before, or at the very least, concurrent with the loss of the function. For communities within the plan area of Oregon's BiOp, FEMA requires that all development in the SFHA to be mitigated to achieve NNL of the natural floodplain functions of floodplain storage, water quality, and vegetation and their respective proxies through the ratios below.

Basic Mitigate Ratios	**Unoccupied Space (ft^3)**	**Pervious Surface (ft^2)**	**Trees (6"<dbh≤20")**	**Trees (20"<dbh≤39")**	**Trees (39"<dbh)**
Floodway and/or RBZ	2:1	1:1	3:1	5:1	6:1
RBZ-Fringe	1.5:1	1:1	2:1	4:1	5:1
(Mitigation Multiplier) Mitigation onsite to Mitigation offsite, same reach	100%	100%	100%	100%	100%
(Mitigation Multiplier) Mitigation onsite to Mitigation offsite, different reach, same watershed (5th)	200%	200%	200%	200%	200%

Table 2: Mitigation Ratios Required to Achieve No Net Loss

Mitigation multipliers of 100% result in the required mitigation occurring at the same value described by the ratios above, while multipliers of 200% result in the required mitigation being doubled.

- For example, if only 500 ft2 of the total 1000 ft2 of required pervious surface mitigation can be conducted onsite and in the same reach, the remaining 500 ft2 of required pervious surface mitigation occurring offsite at a different reach would double as a result of the 200% multiplier.

1.3.2.3 Mitigation Assessment

The Mitigation Assessment (MA) needs to describe existing site conditions before development occurs, as well as any impacts to floodplain functions due to actions occurring within any part of the SFHA in the BiOp's action area communities. Furthermore, the

assessment must demonstrate that there will be NNL to floodplain functions in the SFHA through applicable mitigation. Impacts to floodplain functions and mitigation to achieve NNL are assessed using proxies for the respective functions:

- Impacts to floodplain storage are evaluated by calculating the amount of net developed space that is added to the SFHA. Mitigation is calculated by the amount of undeveloped space created.
- Impacts to water quality are evaluated by calculating the amount of impervious surface that is added to the SFHA. Mitigation is calculated by the amount of pervious surface created.
- Impacts to vegetation are evaluated by calculating the number of trees larger than 6" diameter breast height (dbh) removed in the SFHA. Mitigation is calculated by the number of trees that are replaced.

The assessment results can be used to populate the permit application and data points can then be transferred to the reporting tool (see Section 1.4).

1.4 Reporting Tool – Data Collection

Communities will have to determine how the reporting requirements can best be incorporated into their local processes. The Floodplain Administrator of a community must fill out a line in the Reporting Tool (see Section 2 and Appendix B) once a project has been permitted with the data points that are identified above. FEMA has created a reporting tool and model permit application (also known as the model permit), which can be used to collect the required data. Communities requiring a MA, should also be gathering the data in the assessment report (as discussed above). The reporting tool, model permit application, and MA (PICM Mitigation Assessment) can be found on FEMA Region 10's National Flood Insurance Program – Endangered Species Act Integration in Oregon website.

1.4.1 Model Permit Application

Whenever a development project is proposed in the SFHA, the property owner must obtain a floodplain development permit from the community. Beginning January 31, 2025, communities will be required to track and report specific data for all floodplain development permits. The information collected will be reported to FEMA on an annual basis beginning January 31, 2026.

Collecting the required data points in a model permit helps local officials gather the required data in one place and allows for the applicant to provide it. The model permit created by FEMA collects the following data points related to complying with NNL requirements (in addition to those needed to comply with all aspects of the NFIP):

Loss related data

- Changes to footprint of existing structure
- Type of proposed development (e.g., filling, grading, clearing/tree removal, dredging, etc.)
- Proposed project location in coordinates, address or parcel number, and in reference to the Riparian Buffer Zone (RBZ)
- Total size of the project area
- Amount of developed space added as volume in ft3 to the SFHA, RBZ, and/or RBZ fringe
- Area disconnected from floodplain (if applicable) in acres
- Amount of new impervious surface created in SFHA in ft^2
- Total number of trees removed by size (e.g., 6 < dbh ≤ 20", 20" < dbh ≤ 39", dbh > 39") within the RBZ and RBZ fringe

Mitigation related data

- Location coordinates, address or parcel number where mitigation occurring, and if mitigation will be completed within the same reach as development
- Amount of undeveloped space added as volume in ft^3 to the SFHA, RBZ, and/or RBZ fringe
- Area reconnected to the SFHA in acres
- Type of water quality mitigation used: Pervious surface added in ft^2, Low Impact Development/Green Infrastructure, or Stormwater Management
- Amount of water quality mitigation provided (if adding pervious surface) in ft^2. If using Low Impact Development/Green Infrastructure to mitigate, a description will need to be included with the permit if not already included in a Mitigation Assessment.
- Total Number of Trees planted in the RBZ and/or RBZ fringe
- Area of native herbaceous and shrub vegetation planted in ft^2 or acres when needed to meet the beneficial gain standard.[1]

Attachments

- Floodplain Habitat/Mitigation Assessment (if applicable).
- LID/GI Plan (if applicable).

[1] *UNDER FEMA'S BENEFICIAL GAIN STANDARD, 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, SHRUB, AND TREE VEGETATION.*

- Stormwater Management Plan (if applicable).

1.4.2 Alternative Ways to Collect Reporting Data

Although use of the model permit is recommended, it is not required. For communities not using the model permit application, other possible sources of information can be used to collect reporting data. These sources include, but are not limited to:

- Site plans
- Floodplain reports
- Hydraulic modeling reports
- Mitigation Assessments
- Grading/drainage plans

2.0 Data Entry

2.1 Overview of spreadsheet

The Reporting Tool spreadsheet is compiled of 3 individual sheets: Instructions, Examples, and Reporting.

2.1.1 Instructions Sheet

The Instruction sheet contains a detailed explanations of all the required reporting fields. There is also a Glossary of common terms, Stormwater Management criteria, and the Mitigation Ratio table for reference. Section 2.1.3 goes into each of the reporting fields in more detail.

2.1.2 Example Sheet

The Example sheet contains 3 unique examples of sample projects. This includes construction of a residential structure, construction of a detached garage, and construction of a retaining wall. These help demonstrate how to enter information, how to format entries, and what types of information to enter in Column Y (Notes). Section 2.3 goes over the 3 examples in more detail.

2.1.3 Reporting Sheet

The Reporting Sheet is where you will enter in project information and reporting elements for all floodplain development permits issued during the reporting period. The following fields require entries. If there is nothing to report or the field is not applicable, please enter N/A.

Community Name: Enter the name of your community.

County Name: Enter the name of the county in which your community resides.

PICM Selection: Enter the PICM approach being implemented at the time the permit was approved. This ensures there is a record of how NNL standards are implemented during PICM.

Some communities are implementing a Permit-by-Permit approach until they can adopt their preferred PICM approach.

Project Title: Enter a title for the project so that it can be identified by name.

Permit Number: Enter the permit number or other identifier for reference.

Project Status: Indicate if project is permitted, under construction, exempt from No Net Loss, or completed. Any project that is issued a floodplain development permit during the reporting period should be entered as 'Permitted' or 'Exempt from No Net Loss'. If you know the current status of a 'Permitted' project, please indicate it as 'Under Construction' or 'Completed'. All projects that have been issued a floodplain development permit by the end of the reporting period must be included.

IF EXEMPT: Which Exemption is being used?: If the project is exempt from No Net Loss, indicate which exemption the project falls under (See Section 6.3 of the Model Ordinance or 1.3.1.1 of the Mitigation Assessment). Additional information can be provided in Column Y (Notes).

Total Size of the Project Area in the SFHA: Indicate the total size of the project area that occurs in the SFHA in acres or square feet. This only applies to the portion of a project that is occuring in the SFHA. Do not include portions of projects that are outside of the SFHA.

Below the total size, indicate the total size of the project located in the RBZ-Fringe in acres or square feet. This is required to determine mitigation ratios for NNL.

Below the size of RBZ-Fringe, indicate the total size of the project located in the RBZ in acres or square feet. This is required to determine mitigation ratios for NNL.

Brief Project Description: Briefly summarize the development project being permitted. This should include what type of development is occuring such as grading, construction of new structures, road work, hydraulic structures, and any other activities that meet the NFIP definition of development.

Project Location: Indicate where the project is permitted to occur using Coordinates, Address, or Parcel Numbers so that the precise location of a project can be determined.

Location of Mitigation: Indicate if mitigation occurred On-Site, Off-Site in the Same Reach, or Off-Site on a Different Reach in the Same Watershed. This is required to determine mitigation ratios for NNL.

If occurring at multiple locations, enter the location where the majority of mitigation is occurring and then enter additional details in Column Y (Notes). It is possible mitigation has to

occur both on-site and off-site to meet NNL requirements. Ensure you provide enough details in Column Y (Notes) to determine if the reqiured mitigation ratios have been met.

Amount of Developed Space Added In The SFHA: The total volume of developed space added in the SFHA in cubic feet. Flood Storage is one of the three floodplain functions that require mitigation to achieve NNL. Determining the amount of developed space added to the SFHA is required to determine mitigation ratios for NNL. This is a volumetric measurement from the existing ground to the Base Flood Elevation.

Below the total amount, indicate the total volume of developed space added in the RBZ-fringe in cubic feet. This is required to determine mitigation ratios for NNL.

Below the amount in the RBZ-Fringe, indicate the total volume of developed space added in the RBZ in cubic feet. This is required to determine mitigation ratios for NNL.

Amount of Undeveloped Space Added In The SFHA: The total volume of undeveloped space added in cubic feet. Flood Storage is one of the three floodplain functions that require mitigation to achieve NNL. Determining the amount of undeveloped space added to the SFHA is required to determine the total net impact of a project on flood storage. This is a volumetric measurement from the existing ground to the Base Flood Elevation.

The total volume of undeveloped space added in the SFHA in cubic feet. This is required to determine mitigation ratios for NNL. It is possible area outside the SFHA has been added to the SFHA as a result of a project.

Below the total amount, indicate the total volume of undeveloped space added in the RBZ-fringe in cubic feet. This is required to determine mitigation ratios for NNL.

Below the amount in the RBZ-Fringe, indicate the total volume of undeveloped space added in the RBZ in cubic feet. This is required to determine mitigation ratios for NNL.

Area Disconnected from the SFHA: The area of land disconnected from the SFHA in acres or square feet. Development can result in loss of floodplain storage due to activities such as grading. This is to document if the project results in land being removed from the SFHA, based on effective FIS elevations.

Area Reconnected to the SFHA: The area of land reconnected to the SFHA in acres or square feet. Development can result in the addition of floodplain storage due to activities such as grading. This is to document if the project results in land being added to the SFHA, based on effective FIS elevations.

Amount of New Impervious Surface Created in the SFHA: The area of impervious surface added in the SFHA in square feet or acres. Water quality is one of the three floodplain functions that require mitigation to achieve NNL. Determining the amount of impervious

surfaces added to the SFHA is required to determine the total net impact of a project on the water quality floodplain function and to determine mitigation ratios for NNL if applicable.

Type of Water Quality Mitigation Used: Indicate if Pervious Surface Mitigation Ratios, LID/Green Infrastructure, or Stormwater Management technique was used. There are several options for mitigating for impacts to water quality caused by the addition of impervious surfaces in the SFHA. The requirements vary based on the mitigation technique being implemented.

Description of Water Quality Mitigation Used: Response format varies based on water quality mitigation selected:

- If Pervious Surface Mitigation Ratios: Enter amount of pervious surface added in acres or square feet. This is required to determine mitigation ratios for NNL.
- If LID/GI: Describe the LID/GI techniques and analysis. This should include sufficient detail of the design and techniques documenting how it meets the definitions of LID/GI. List any references to detailed reports by qualified professionals in the permit file.
- If Stormwater Management: Describe stormwater management techniques and analysis. This should specifically include details about water quality, water quantity, discharge rates, and fish entrapment.

Number of Trees Removed: The total number of trees removed from the SFHA. Vegetation is one of the three floodplain functions that require mitigation to achieve NNL. Determining the amount of trees removed from the SFHA is required to determine the total net impact of a project on vegetation floodplain function and to determine mitigation ratios for NNL if applicable.

Number of Small Trees Removed: 6" < dbh ≤ 20": The total number of small trees removed in the RBZ-Fringe and RBZ. This is required to determine mitigation ratios for NNL.

Number of Medium Trees Removed: 20" < dbh ≤ 39": The total number of medium trees removed in the RBZ-Fringe and RBZ. This is required to determine mitigation ratios for NNL.

Number of Large Trees removed: dbh > 39": The total number of large trees removed in the RBZ-Fringe and RBZ. This is required to determine mitigation ratios for NNL.

Number of Trees Planted: The total number of trees planted to meet mitigation ratio requirements.

Area of Native Herbaceous and Shrub Vegetation Planted: **Mitigation measure applies only to the Beneficial Gain Standard and when developing in the RBZ**

The area in the RBZ planted with herbaceous and/or shrub vegetation in acres or square feet.

Beneficial Gain Standard

Under FEMA's beneficial gain standard, 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, shrub, and tree vegetation.

Notes: Please enter any important notes or comments that may be relevant to the project. All projects are unique and there may be additional information that is necessary to demonstrate NNL.

2.3 Examples

The following sample projects are shown on the 'Examples' sheet of the Reporting Tool.

2.3.1 Example 1

Example 1 is a project to construct a new 2-story residential structure with a 1000 square foot footprint and a 4000 square foot driveway. Through calculations determined by the certifying engineer, as shown on site plans, it was determined that the construction of the house would add 10,000 cubic feet of development to the SFHA. 5000 square feet of new impervious surface is added reflecting the construction of the residence and driveway with 1000 square foot and 4000 square foot footprints, respectively. 5 trees are being removed as part of the project including 1 small tree, 3 medium trees, and 1 large tree. The BFE was determined for the project site and a depth of flooding at the site during the 1% annual chance event was calculated to be 2 feet. The applicant is not able to mitigate on-site, but is able to mitigate off-site in the same reach.

Developed Space:

- RBZ: 1000 ft^2 house x 2 ft depth = 2000 ft^3
- RBZ-Fringe Grading = 8000 ft^3
- Total: 10,000 ft^3 of new developed space added to the SFHA

Developed spaced in the RBZ must be mitigated with the additional undeveloped space at a 2:1 ratio while the RBZ-Fringe is 1.5:1.

- RBZ: 4000 ft3 required
- RBZ-Fringe: 12,000 ft3 required
- Total: 16,000 ft3 required

In order to meet the requirement to mitigate for new developed space in the SFHA, the applicant is proposing to do a combination of removing old agrilcultural structures and grading to mitigate for lost flood storage and create new undeveloped space in the SFHA. No areas

have been disconnected or reconnected to the flooding source and all grading is occuring in the mapped SFHA.

Impervious Surfaces:

New impervious surface must be mitigated by the creation of pervious surface at a 1:1 ratio, by using LID/GI, or Stormwater Management. The applicant is removing several old agricultural structures and creating new pervious areas in the SFHA to mitigate.

Trees:

Mitigation for removal of trees in the SFHA is required at the following ratios:

- Trees 6" < dbh ≤ 20":
    - RBZ: 3:1
    - RBZ-Fringe: 2:1
- Trees 20" < dbh ≤ 39"
    - RBZ: 5:1
    - RBZ-Fringe: 4:1
- Trees 39" < dbh
    - RBZ: 6:1
    - RBZ-Fringe: 5:1

Project is removing 1 small tree from the RBZ-Fringe which requires 2 new trees, 1 medium tree from the RBZ which requires 5 new trees and 2 medium trees from the RBZ-Fringe which require 8 new trees, and 1 large tree from the RBZ-Fringe whichh requires 5 new trees.

Applicant has planted the appropriate number of new trees (20) based on the mitigation ratio requirements.

Beneficial Gain:

Total project area within the RBZ is 1000 ft^2. Applicant has planted 50 ft^2 of native herbaceous and shrub vegetation due to part of the project occuring in the RBZ which meets the requirement for 5% of the area of the RBZ.

2.3.2 Example 2

Example 2 is a project to remove an existing detached garage and construct a new 200 square foot detached garage. The submitted MA states the new detached garage will create 600 cubic feet developed space and 200 square feet of new impervious surface to the SFHA. Removal of

1 medium tree is required for the project. The depth of flooding at the site during the 1% annual chance event is noted to be 3 feet. The applicant is able to mitigate on-site.

Developed Space:

- RBZ: 0 ft^2
- RBZ-Fringe: 200 ft^2 garage x 3 ft depth = 600 ft^3
- Total: 600 ft^3 of new developed space added to the SFHA

Developed spaced in the RBZ must be mitigated with the additional of undeveloped space at a 1.5:1 ratio in the RBZ-Fringe.

- RBZ: 0 ft^3 required
- RBZ-Fringe: 900 ft^3 required
- Total: 900 ft^3 required

In order to meet the requirement to mitigate for new developed space in the SFHA, the applicant is removing a larger, existing deatched garage. No areas have been disconnected or reconnected to the flooding source and all grading is occuring in the mapped SFHA.

Impervious Surfaces:

New impervious surface must be mitigated by the creation of pervious surface at a 1:1 ratio, by using LID/GI, or Stormwater Management. The applicant is using LID to capture drainage from the roof of the detached garage as part of a submitted certified drainage plan/

Trees:

Mitigation for removal of trees in the SFHA is required at the following ratios:

- Trees 6" < dbh ≤ 20":
    - RBZ: 3:1
    - RBZ-Fringe: 2:1
- Trees 20" < dbh ≤ 39"
    - RBZ: 5:1
    - RBZ-Fringe: 4:1
- Trees 39" < dbh
    - RBZ: 6:1
    - RBZ-Fringe: 5:1

Project is removing 1 medium tree from the RBZ-Fringe which requires replacement at a 4:1 ratio. Applicant has planted the appropriate number of new trees (4) based on the mitigation ratio requirements.

Beneficial Gain:

Not applicable since no development occurring in the RBZ.

2.3.3 Example 3

Example 3 is a project to construct a small retaining wall in the SFHA. The submitted permit application states the retaining wall will create 250 cubic feet developed space and 20 square feet of new impervious surface to the SFHA. No trees are being removed as a result of the project. The depth of flooding at the site during the 1% annual chance event is noted to be 2.5 feet. The applicant is not able to mitigate on-site or in the same reach and is only able to mitigate in the same watershed.

Developed Space:

- RBZ: 100 ft^2 retaining wall x 2.5 ft depth = 250 ft^3
- RBZ-Fringe: 0 ft^3
- Total: 250 ft^3 of new developed space added to the SFHA

Developed spaced in the RBZ must be mitigated with the additional of undeveloped space at a 1.5:1 ratio in the RBZ-Fringe. Since the mitigation is occurring off-site and in a different reach, there is a 200% multiplier for mitigation.

- RBZ: 500 ft^3 required
- RBZ-Fringe: 0 ft^3 required
- Total: 500 ft^3 required
- Off-Site Different Reach Multiplier: 1000 ft^3 required

In order to meet the requirement to mitigate for new developed space in the SFHA, the applicant is grading at another site as part of a habitat restoration project to add additional undeveloped space to the SFHA. Some areas have been disconnected or reconnected to the flooding source.

Impervious Surfaces:

New impervious surface must be mitigated by the creation of pervious surface at a 1:1 ratio. The applicant indicated they are adding 20 ft^2 of new pervious surface area as part of the restoration project.

Trees:

Applicant is not required to plant new trees since none were removed for this project.

Beneficial Gain:

Total project area within the RBZ is 100 ft2. Applicant has planted 5 ft2 of native herbaceous and shrub vegetation due to part of the project occuring in the RBZ which meets the requirement for 5% of the area of the RBZ.

3.0 Data Submittal

3.1 Key Dates

Reporting Period:

- 2025: January 31 – December 31
- 2026 and future: January 1 – December 31

Submittal Date:

- 2025: January 31, 2026
- 2026 and future: January 31 of the following year (e.g. 2026 reporting data is due January 31, 2027).

3.1.1 Record Keeping

The data collection period is February 1 - January 31 of the following year. Data must be submitted for all projects that occur in the SFHA and are issued a floodplain development permit.

Floodplain management records must be kept in perpetuity and are necessary to document activities approved within the SFHA. They create an administrative record that may be needed for legal proceedings related to development projects. Records are vital to create a "paper trail" and demonstrate decisions that were made and if compliance was achieved. They also provide future owners with information about the property.

The reporting tool is meant to provide FEMA information required to meet ESA compliance on an annual basis. It is not meant to be a comprehensive floodplain management record. Absent the reporting tool, your community should have a permit record system that is keyed to a geographical identifier (not just a building permit) such as a street address, lot and block number, township section and range, or county appraiser's property ID number. A file for each permit application should be kept and files should have some indicator that it is a floodplain development permit. An electronic file is acceptable. Permit files should contain copies of these items, as appropriate:

- The permit application form and all attachments, including the site plan.
- All correspondence pertinent to the project.
- Flood and floodway data prepared by the developer.
- Engineering analyses of floodway encroachments and watercourse alterations.
- Special engineering designs for enclosures below the BFE.
- In coastal high hazard areas, certifications of designs and construction methods of new and substantially improved buildings.
- In coastal high hazard areas, certifications of specially designed breakaway walls.
- Any variances or appeals proceedings.
- Records of inspections of the project while under construction.
- Documentation of the "as-built" lowest flood elevation of all new and substantially improved buildings.
- Certification of the elevation to which any nonresidential building has been floodproofed.
- Certificates of compliance or occupancy.

In addition to the documentation listed above, inspection records to demonstrate NNL will be requested including documentation to verify proposed mitigation was completed.

3.1.2 Reporting Tool Submittal

Reporting of data is completed on an annual cycle. Communities are encouraged to fill out their data reporting tool as floodplain development permits are issued throughout the year.

Please ensure that all fields in the reporting tool are completely filled out. For fields where reporting is not applicable, please enter N/A. A report that is not completely filled out will be deemed incomplete and sent back to the community to provide missing information. Failure to provide missing information may result in the community recieving technical assistance and potential non-compliance.

3.1.3 File Naming

Files should be named using the template below:

- Template: PICM_Reporting_CommunityName_DateSubmitted.xlxs
- Example: PICM_Reporting_CityofFloodville_01312026.xlsx

3.2 Follow up

3.2.1 Request for Submittal or More Information

We may send an email request for submittal of the reporting data if we do not receive it. Additionally, we may reach out with questions asking for additional information or clarification on your submittal.

3.2.2 Community Assistance Contact (CAC)/Community Assistance Visit (CAV) Report

We may request permit files during a CAC or CAV. Floodplain management records must be kept in perpetuity and are necessary to document activities approved within the SFHA. See Section 1.4.3 Record Keeping for more details.

4.0 Technical Assitance

Communities can submit requests for technical assistance through the TA Request Form: FEMA Pre-Implementation Compliance Measures Technical Assistance Request Form.

5.0 References and Resources

PICM Model Permit Application, FEMA Region 10. https://www.fema.gov/sites/default/files/documents/fema_r10_model-picm-permit.pdf

PICM Reporting Tool,, FEMA Region 10. https://www.fema.gov/sites/default/files/documents/fema_r10_picm-reporting-tool_2025.xlsx

Endangered Species Consultation Handbook, National Marine Fisheries Service, 1998. https://media.fisheries.noaa.gov/dam-migration/esa_section7_handbook_1998_opr5.pdf

Endangered Species Act (ESA) Section 7(a)(2) Jeopardy and Adverse Modification of Critical Habitat Biological Opinion, ESA Section 7(a)(2) "Not Likely to Adversely Affect" Determination, and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Implementation of the National Flood Insurance Program in the State of Oregon. April 14, 2016. https://media.fisheries.noaa.gov/2022-01/2016-04-14-fema-nfip-nwr-2011-3197.pdf

National Flood Insurance Program- Endangered Species Act Integration in Oregon, FEMA Region 10. https://www.fema.gov/about/organization/region-10/oregon/nfip-esa-integration

National Flood Insurance Program Floodplain Management Requirements A Study Guide & Desk Reference for Local Officials, FEMA 480, 2005. https://library.floods.org/cgi-bin/koha/opac-detail.pl?biblionumber=5219

PICM Mitigation Assessment, FEMA Region 10. https://www.fema.gov/sites/default/files/documents/fema_r10_esa_picm-mitigation-assessment-nov-2024.pdf

PICM Oregon NFIP-ESA Model Ordinance Nov. 24, FEMA Region 10. https://www.fema.gov/sites/default/files/documents/fema_r10_esa_picm-oregon-nfip-esa-model-ordinance-with-appendix-nov-2024.pdf