



**NOAA  
FISHERIES**

**WEST  
COAST  
REGION**

# Key details of the Oregon RPA for floodplain protection

## Background

*In response to a 2010 lawsuit, the Federal Emergency Management Agency (FEMA) consulted with NOAA Fisheries on whether the National Flood Insurance Program (NFIP) affects salmon and steelhead protected by the Endangered Species Act (ESA) in Oregon. NOAA Fisheries found that the NFIP jeopardizes protected species. As the ESA requires, NOAA Fisheries provided FEMA with a Reasonable and Prudent Alternative (RPA) that includes recommendations to avoid jeopardizing the species. FEMA may adopt the RPA, or draft a different proposal. Key details of the RPA include:*

- 1.** Existing structures are grandfathered and would not be affected. The RPA applies only to new development.
- 2.** The RPA does not prohibit development. In the near term, development in floodplains may proceed as long as it does not impair natural floodplain functions, or if it is mitigated to maintain or improve floodplain functions. Mitigation may

## HEALTHY FLOODPLAINS = THRIVING SALMON



Healthy floodplains help juvenile salmon thrive. Studies have found that salmon and steelhead with access to floodplain habitat along rivers grow larger and faster than those remaining in the main river channels. That's because floodplains provide rich nursery habitat, full of vital insect prey for growing fish. Floodplains also provide refuge from rushing waters, especially in fall and winter when young fish need it most. Floodplains filter rainwater and runoff to replenish river flows with cool, clean water. They also provide shade and wood that cools water temperatures and offers essential shelter for young fish darting through the water.

But much of Oregon's floodplains have been lost, limiting the recovery of threatened and endangered salmon and steelhead. In its consultation with FEMA, NOAA Fisheries developed an alternative – the RPA – that would reduce further losses of floodplains, while providing flexibility for affected communities.

**Above:** Juvenile Chinook salmon reared for 21 days in either a rice field managed as an agricultural floodplain, a canal or a mainstem river. The caged hatchery fish were equal in size when the experiment began, and grew depending on which habitat they lived in. These are preliminary results from *Transect of Riverine Aquatic Habitat* by California Trout. The fish were stocked on February 19 and removed on March 11, 2016. Used by permission.



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include actions such as replacing removed trees. In the longer term, new development in the highest hazard areas alongside rivers would be limited to uses less affected by flooding, such as parks and docks.

**3.** Redevelopment can proceed in rural and urban areas as long as it includes some improvement in floodplain function. Where development already exists in the floodplain, including cities, there may be little ecological value in terms of natural floodplain functions. The RPA does not limit redevelopment in such areas, as long as the work includes some improvement in floodplain function to benefit protected fish. This could include reducing the existing impervious surface, adding bioswales to treat stormwater or planting a buffer strip of riparian vegetation. This type of environmental mitigation is already commonly associated with construction projects in Oregon.

**4.** Agriculture and forestry may continue. The RPA does not consider planting and harvest of trees or crops to be development, so these activities may continue. Only new construction in the floodplain would be subject to the RPA. Parks and water-dependent uses such as docks and bridges could also continue.

**5.** New mapping under the RPA will benefit communities and species. The RPA recommends that FEMA update floodplain mapping to consider current and future risk. This will improve the accuracy of flood risk maps and will account for the expected effects of climate change.

**6.** The RPA gives communities flexibility to find solutions that work for them. The RPA calls for mitigation to offset the impacts of new development in a “no-net loss” approach to floodplain conservation. This means development may proceed in most of the floodplain as long as adverse effects to the floodplain’s function are offset—resulting in no net loss to floodplain habitats that are essential for protected fish. Tighter restrictions exist only in the highest hazard flood and erosion zones next to rivers, where floodwaters are likely to be fast and deep. The measures provide dual benefits: protecting salmon habitat and improving safety for people and property. Communities can propose alternatives to the RPA’s requirements, such as use of conservation banks, or pursue other alternative methods for protecting floodplain functions where RPA implementation would not be practicable.

**7.** NOAA Fisheries is working with FEMA and Oregon to address community concerns. NOAA Fisheries participated in outreach meetings across the state with FEMA and the Oregon Department of Land Conservation and Development (DLCDC). The DLCDC is assembling stakeholder workgroups, including community representatives, to help develop an approach for implementing the RPA. NOAA Fisheries remains committed to working with FEMA and Oregon communities to find solutions that support sustainable economies as well as threatened and endangered species.



*Tillamook County*