

**Pierce County Rivers Flood Hazard Management Plan  
Programmatic Recommendations Overview**

Rec'n #	Title/Description	Status
<b>Information/Mapping/Technical Assistance</b>		
FPW #1	<p><u>Floodplain Mapping</u> These recommendations address the adoption and use of draft FEMA flood maps (DFIRMs) and other flood studies; subsequent periodic update of such studies; related communication with agencies and the public; and other issues related to flood hazard mapping. <i>(Pierce County, cities, other agencies, public)</i></p>	Complete; distributed to FPAC
FPW #2	<p><u>Channel Migration Zone Mapping and Regulation</u> These recommendations address the completion and adoption of CMZ studies within Pierce County; regulation of severe channel migration zones as floodways; and notification of hazards. <i>(Pierce County, cities, public)</i></p>	Complete; distributed to FPAC
FPW #3	<p><u>Technical Assistance</u> These recommendations address internal Pierce County training; external technical assistance to public and private entities; and coordination on repair and replacement of infrastructure in flood hazard areas. Also includes coordination to ensure compatible uses of floodplains. <i>(Pierce County, cities, public)</i></p>	Complete; distributed to FPAC
FPW #4	<p><u>National Flood Insurance Program (CRS)</u> These recommendations address participation in the National Flood Insurance Program and the Community Rating System; and promotion of flood insurance. <i>(Pierce County, cities)</i></p>	Complete; distributed to FPAC
MN#1	<p><u>Elevation Surveys for Floodprone Areas – McKenna</u> These recommendations address completion of an elevation survey for the McKenna area and review of elevation certificates. <i>(Pierce County)</i></p>	Draft in review
<b>Land Use/Regulatory/Acquisition/Structure Elevation</b>		
FPW #5	<p><u>Consistent Floodplain Development Regulations</u> These recommendations address consistency of floodplain and flood hazard area regulations between Pierce County and cities/towns; regulation based on best available data; and zero rise and compensatory storage regulations. <i>(Pierce County, cities/towns)</i></p>	Draft in review

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| FPW #6 | <u>Urban Growth Area Expansion</u><br>This recommendation extends the current prohibition on expansion of the Urban Growth Areas into the 100-year regulatory floodplain of the Flood Plan planning area. <i>(Pierce County, cities/towns)</i>   | Draft in review |
| FPW #7 | <u>Agricultural Land Uses</u><br>These recommendations address review of and amendments to Pierce County code to facilitate agricultural practices in floodplains. May address sediment removal, construction of open structures, livestock sanctuaries, and leasing of publicly held floodplain lands. <i>(Pierce County, public)</i> | In progress     |
| FPW #8 | <u>Floodplain Acquisition and Home Buyout</u><br>These recommendations address identification and evaluation of floodplain properties for acquisition; communication with floodplain property owners; pursuit of grant funding, and coordination with other agencies. <i>(Pierce County, cities, public)</i>                           | Draft in review |
| FPW #9 | <u>Floodproof/Home and Structure Elevation Program</u><br>These recommendations address technical assistance provided to floodplain property owners; identification of areas needing targeted outreach; and pursuit of grant funding to support a floodproofing program. <i>(Pierce County, public)</i>                                | Draft in review |

**River Channel Management**

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| FPW #10                | <u>River Channel Monitoring</u><br>These recommendations address monitoring of river channel conditions including river stage and flow, cross-sections, carrying capacity, sedimentation trends, topography (LiDAR), aerial photos during floods, and project-specific monitoring to evaluate project effectiveness. <i>(Pierce County, other agencies)</i> | Draft in review |
| FPW #11                | <u>Management of Large Woody Material</u><br>These recommendations address the reposition, relocation and removal of large woody material in Pierce County rivers posing imminent threat, as well as LWM removal threatening bridge piers and public infrastructure. <i>(Pierce County, other agencies)</i>   | Draft in review |
| PR#1/<br>WR#1/<br>CR#1 | <u>Sediment Management/Gravel Removal</u><br>These recommendations address the approach for sediment management and gravel removal, including Pierce County's pilot and early action gravel removal projects, monitoring, and development of a gravel-removal plan. <i>(Pierce County)</i>  | Draft in review |

## Facility Repair/Maintenance

- FPW #12 PL 84-99 Program Draft in review  
This recommendation addresses Pierce County's participation in the Corps of Engineers' PL84-99 program for emergency response activities and rehabilitation of flood management facilities. (*Pierce County*)
- FPW #13 Flood Facility Repair and Maintenance Program In progress  
These recommendations address Pierce County's repair and maintenance program for flood facilities, including update of the County's maintenance manual, toe/facing rock repair, bio-revetment repairs, damaged facilities, and vegetation maintenance program. (*Pierce County*)

## Flood Hazard Education and Flood Preparedness, Flood Warning and Emergency Response

- FPW #15 Flood Education and Outreach Program Draft in review  
These recommendations address consistency of education and outreach activities with the CRS program; evaluation for effectiveness; promotion of flood preparedness and purchase of flood insurance; internal and external coordination and collaboration. (*Pierce County, cities, public*)
- FPW #16 Flood Warning and Evacuation System In progress  
These recommendations address regional coordination and communication before and during flood events. (*Pierce County, cities, other agencies, public*)
- FPW #17 Emergency Response and Flood Fighting In progress  
These recommendations address regional coordination of response and recovery services after flood events; sand bagging programs; and other emergency response services. (*Pierce County, other agencies, public*)

## Miscellaneous/Other

- FPW #18 Habitat Conservation Plan In progress  
These recommendations address the development of a Habitat Conservation Plan (HCP) for Pierce County's River Management Program, under section 10 of the Endangered Species Act. (*Pierce County, other agencies*)
- FPW #19 Adaptive Management In progress  
These recommendations address the use of adaptive management as a component of plan implementation, including evaluation and assessment of project and program effectiveness, and incorporation of learned information into future project actions. (*Pierce County, other agencies*)

FPW #20	<u>Climate Change</u> These recommendations address development of an approach to incorporate information about climate change, including predicted changes in precipitation patterns, flood flows, and sediment transport, into future project designs and program implementation. <i>(Pierce County, cities, other agencies)</i>	In progress
FPW #21	<u>Fish Habitat and Riparian Areas - Mitigation</u> These recommendations address the restoration of fish habitat and riparian areas as part of mitigation for flood management projects, for circumstances where mitigation cannot be accomplished onsite. <i>(Pierce County, other agencies)</i>	In progress
FPW #22	<u>Public Access to Rivers</u> These recommendations address public access to rivers, including multi-purpose trail access, opportunities for viewing and passive recreation, and access for boat launching and fishing. <i>(Pierce County, cities, public)</i>	In progress
FPW #23	<u>Water Quality Impacts of Flooding</u> These recommendations address the management of pollutant sources in floodplains subject to flooding, and potential water contamination, including storage of chemicals, pesticides, fertilizers and petroleum-based products in garages, outbuildings, commercial and industrial businesses. <i>(Pierce County and cities)</i>	In progress
FPW #24	<u>Coordination with Other Jurisdictions</u> These recommendations address coordination with other jurisdictions in flood plan implementation, including cities/towns, tribes, and Thurston, Lewis, and King counties <i>(Pierce County cities/towns, tribes, other counties)</i>	In progress
PR#2/ WR#2	<u>Inter-County River Improvement Agreement</u> These recommendations address the need to update the Inter-County River Improvement Agreement to address necessary maintenance and capital project needs on the Lower White and Lower Puyallup Rivers (the original agreement is due to expire in 2013). <i>(Pierce and King counties)</i>	In progress

**Capital Projects**

FPW #25	<u>River Reach Management Strategies - Level of Protection</u> This recommendation proposes four management strategies (level of protection) for levees, two management strategies for revetments, and two non-structural strategies to address flood and channel migration risk reduction goals for different river reaches in the planning area. <i>(Pierce County and cities/towns)</i>	In progress
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- FPW #26 Levee/Revetment Setback Program In progress  
This recommendation proposes development and implementation of a Levee/Revetment Setback program to achieve a widened river corridor over time that will reconnect the mainstem channel with its floodplain, recover lost flood storage and aquatic habitat. (*Pierce County, cities, other agencies*)
- FPW #27 Tier 2 Problem Areas - Additional Analysis In progress  
This recommendation addresses the need to complete further analysis and develop solutions for Tier 2 problem areas for flooding and channel migration that could not be addressed in the flood plan due to resource and time constraints. (*Pierce County*)
- FPW #28 Transportation - Roads/Bridges/Trails (Design, requirements) In progress  
These recommendations address the need to examine transportation infrastructure design and siting issues and requirements such as bridge spans and freeboard, road or trail locations (e.g., along levees, elevation above BFE, and setbacks). (*Pierce County*)

*\*Please note: As “in progress” recommendations are further developed, there may be additional issues or topics that are included in any particular sub-group of recommendations.*