

Building Climate Resilience in Pierce County Floodplains

STORY THREE IN A SERIES HIGHLIGHTING WASHINGTON STATE-FUNDED WORK LED BY THE CLIMATE IMPACTS GROUP AT THE UNIVERSITY OF WASHINGTON

Photo courtesy of Pierce County

AN ONGOING PARTNERSHIP BETWEEN THE CLIMATE IMPACTS GROUP AND PIERCE COUNTY'S FLOODPLAINS FOR THE FUTURE INCORPORATES CLIMATE CHANGE SCIENCE INTO FLOODPLAIN MANAGEMENT TO HELP ENSURE RESILIENT FLOODPLAINS.

AT A GLANCE

- > **THE CHALLENGE.** Floodplain management in regions like Pierce County is complex – and is becoming increasingly complicated due to climate change.
- > **THE GAP.** People who manage floodplains need to incorporate climate change into their work, but do not always have access to climate change expertise.
- > **STATE SUPPORT.** Funding from Washington state has supported a seven-year (and counting) partnership between Floodplains for the Future and the Climate Impacts Group.
- > **THE IMPACT.** Floodplains for the Future now considers future flood risk in their management practices and is pursuing six priority studies on climate change and flooding.

THE CHALLENGE OF MANAGING FLOODPLAINS IN A CHANGING CLIMATE

Climate change will have major and significant impacts on floodplains — increasing the frequency and intensity of flooding and decreasing water supply in summer. Flooding is projected to change so significantly that it could alter how floodplain management strategies should be prioritized and even which strategies are viable.

Floodplain management in Washington is a complex challenge, involving many stakeholders with sometimes competing interests. In Pierce County, Floodplains for the Future brings together representatives from flood risk management as well as groups focused on salmon recovery and agriculture to identify shared priorities for floodplain management.



Photo courtesy of Pierce County

ADDRESSING A GAP WITH STATE SUPPORT

"UW Climate Impacts Group provides valuable data and research to our Floodplains for the Future partnership to help us make strategic investments across Pierce County. Through their leadership and expertise, we have a better understanding of the anticipated effects of climate change on the floodplains, farming communities and fish habitats throughout the Puyallup River Watershed."

- Kathleen Berger, Floodplains for the Future Program Manager at Pierce County

Until recently, few floodplain management efforts were considering climate change impacts in their work. Although practitioners are often aware of the need for climate expertise, a lack of funding or capacity can prevent or stall this work. Effective partnerships between scientists and communities require long-term relationships built on trust and understanding, and there is little funding available to support this kind of work.

Funding from the Washington State Legislature helped to bridge this gap, resulting in a seven-year (and counting) partnership between Floodplains for the Future and the Climate Impacts Group. Proviso funding allowed CIG Researcher Guillaume Mauger to attend meetings for more than a year before obtaining funding from Pierce County to support this work. "This allowed me to get to know people, better understand their issues, and share climate change information with the group," Mauger says.

BUILDING RESILIENT FLOODPLAINS IN PIERCE COUNTY

The UW Climate Impacts Group aims to ensure floodplain management plans in Pierce County account for and respond to the anticipated effects of climate change. Alongside the Floodplains for the Future Partnership, we developed a workplan that is directly responsive to the needs and interests of the County. Based on conversations with folks across the group, we developed a series of briefs summarizing climate change impacts on floodplain interests in Pierce County. We also developed a list of potential studies that could better assess specific climate change vulnerabilities, from technical studies to policy analysis to an evaluation of the extent marginalized voices are included in decision-making. The team then identified six priority studies the County is now funding. This includes an impactful new study estimating how much flooding could be reduced through levee setbacks and tributary restoration.

Through frequent presentations and discussions with the group, this work has increased awareness and literacy about climate change impacts and adaptation strategies. More than just awareness of the facts, the discussions delved into the considerations around interpreting projections, how to deal with uncertainty and what the implications are for Floodplains for the Future's priorities. Dr. Mauger is now on his second contract with the County, continuing to help them integrate climate change into their work.

Photo courtesy of Floodplains for the Future