

Building a Climate-Resilient WDFW



2023-25 Funding Request

\$5.3 million



Climate change is already affecting WDFW's work

Increasing stream temperatures and low summer flows have resulted in fish die-offs and fishing closures along rivers. Declines in snowpack and wildfires have damaged critical habitat and pose challenges for many threatened species. Climate change will intensify these and other climate-related impacts, further challenging our ability to fulfill our mission to preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities.

The 2021 report, 'Preparing WDFW for a Changing Climate: Assessing Risks and Opportunities for Action', identified four aspects of WDFW's mission most vulnerable to the impacts of climate change: (1) species conservation and recovery, (2) harvest and recreation opportunities, (3) effective technical assistance, and (4) WDFW-managed lands and infrastructure.

This proposal will build climate resilience through investments in integrated research, capacity building, public engagement, evaluation, and monitoring across WDFW's projects, programs, and activities.

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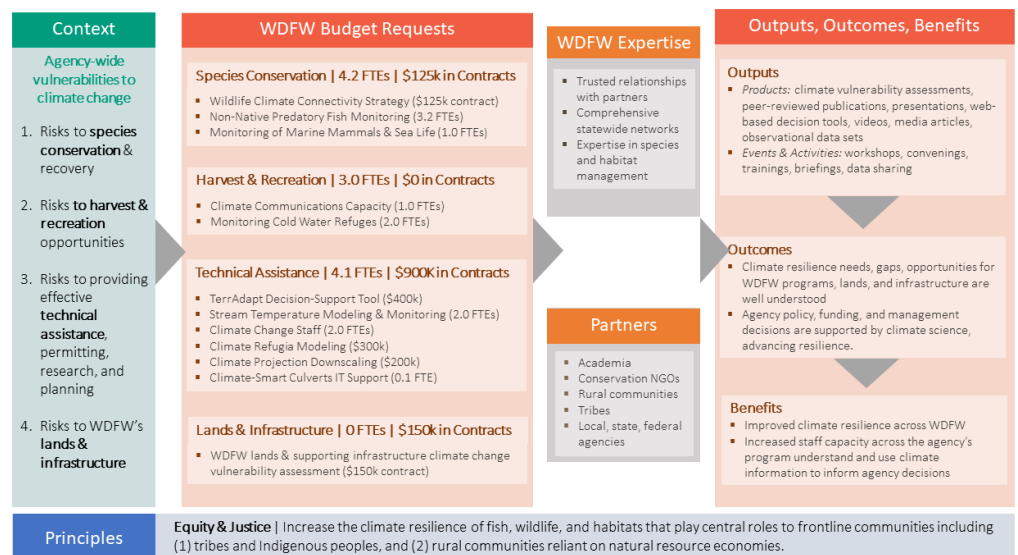
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Species Conservation & Recovery

- Wildlife Climate Connectivity Strategy - A partnership between will allow WDFW, WSDOT, and other partners to collaboratively plan for connectivity in Washington by focusing on 1) conserving areas that facilitate species movement, and 2) mitigating barriers that impede species movement.
- Monitor of Marine Mammals & Sea Life - A research scientist will support implementation of an entanglement risk and by-catch monitoring program to support cross-program marine wildlife recovery efforts and marine fisheries planning to minimize marine life entanglements in state-managed fishing gear.

Harvest & Recreation Opportunities

- Climate Communications Capacity- A communications consultant will develop an externally facing climate communications program.
- Monitor Cold Water Refuges - This monitoring and analysis will improve understanding of CWR utilization now and in the future as stream temperatures warm.

Technical Assistance

- TerrAdapt Decision Support Tool – Climate change and the expanding human footprint are increasing rates of landscape change in Washington. We will work with partners to co-develop and integrate [TerrAdapt](#) into adaptive management plans, enabling WDFW managers to prioritize where conservation actions are implemented to maintain connected networks of habitat that support a resilient network of ecosystems across Washington.
- Stream Temperature Modeling & Monitoring - Monitoring stream temperature in Washington and generating models of current and future (2040, 2080) stream temperature will inform restoration planning, identify areas for protection, and help understand climate change threats to aquatic species. Two scientific technicians will collect samples and a biometrician will oversee sample design, analyze stream temperature data, and generate stream temperature maps across monitored watersheds.
- Climate Change Staff - Funding for climate-focused positions is critical to ensuring WDFW maintains sufficient staff capacity to address climate vulnerabilities and center climate resilience building efforts across the agency.
- Climate Refugia Modeling - To maximize protection of wildlife species from the impacts of climate change there is a need to identify locations on the landscape that may provide climate change refugia locations where species are more likely to persist despite, regional climate changes. This project will investigate how these datasets could be used to better understand, prioritize, and manage climate change refugia for specific species in Washington.
- Climate Projection Downscaling - This funding will support further refinements to the existing approach to generate streamflow projections and create improved model estimates of current and future conditions.

WDFW Lands & Infrastructure

- Vulnerability Assessment of WDFW Lands & Infrastructure - Understanding the impacts of climate change on WDFW lands and infrastructure is a necessary foundation for reducing climate risks, protecting the agency's investments, and ensuring continued program success.

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