The Washington Coastal Resilience Project

Coastal flooding, wave damage and shoreline erosion will increase as climate change continues to raise sea levels and create more severe storms along Washington's coast.

Washington's Coastal Resilience Project is a three-year effort to rapidly increase the state's capacity to prepare for natural events that threaten the coast. The project will improve risk projections, provide better guidance for land use planners and strengthen capital investment programs for coastal restoration and infrastructure. These are the tools that coastal communities need to become more resilient to disasters.

WHAT MAKES THIS PROJECT UNIQUE?

• Improving Risk Forecasts
  New research will focus on improving how we forecast and communicate the risks associated with sea level rise and storm damage, making these risks easier to understand.

• Focusing Existing Resources
  The project will rapidly increase community governments' ability to support coastal resilience. This will be accomplished by refitting existing state funding programs with guidelines and criteria that address climate change and coastal hazards more specifically, and by identifying existing resources and opportunities to enhance local planning efforts.

WHAT IS AT STAKE

Washington has over 3,000 miles of coastline. People living along the coast face a host of natural perils, from eroding shorelines to floods, earthquakes and tsunamis. The impacts of some of these hazards are increasing as the region's climate continues to change. Sea level rise, for instance, will increase coastal flooding over time and lead to more severe wave damage from winter storms.

Washington has over 3,000 miles of coastline, and more than 400 square miles of land at an elevation within three feet of the high tide line. Critical community infrastructure and 9,000 homes, worth more than $5.25 billion, have been built in these vulnerable areas.*

These hazards are financially and socially disruptive, and some events are truly catastrophic. Such perils cannot be avoided, but by forecasting risks and planning ahead, communities can minimize the damage and injury, and recover more quickly, after a disastrous event.

APPLYING LOCAL EXPERIENCE
Three place-based situations will help local
governments explore local needs and how best
to meet them:
• Island County (Whidbey Island), serving as a
rural community model;
• City of Tacoma, serving as an urban commu-
nity model; and
• a project of the Estuary and Salmon Resto-
ratron Program within the Department of
Fish & Wildlife, serving as a model for coastal
habitat restoration.

SHARING TOOLS AND TRAINING
The project expands upon existing training and
educational programs to provide local planners
and decision makers with the guidance and
technical information they need to address
future risks.

WHAT EACH PARTNER CONTRIBUTES
Washington Sea Grant and the Washington
Department of Ecology are leading an expert
team of partners from public agencies, academ-
ic institutions and nonprofit organizations.

UNIVERSITIES
• Scientists from University of Washington’s
Washington Sea Grant, Climate Impacts
Group and the Department of Earth and
Space Sciences are collaborating with scien-
tists at the University of Oregon to improve
sea level and coastal flooding forecasts and
how the information is presented to planners
and resource managers.

FEDERAL AGENCIES
• Scientists from the U.S. Department of Ener-
gy’s Pacific Northwest National Laboratory
and the U.S. Geological Service are contrib-
uting to better forecasts by improving models
for storm surge and waves.
• Regional staff from NOAA’s Office of Coastal
Management are providing guidance to the
overall project and participating in the out-
reach and training elements.

STATE AGENCIES
• The Washington Department of Ecology is
 tasked with a multi-agency effort to revise ex-
isting state programs, providing guidance and
funding criteria that address coastal hazards
and climate change. Through their Padilla
Bay National Estuarine Reserve, they are
also developing outreach and training prod-
ucts and incorporating them into Washing-
ton’s Coastal Training Program.
• The Washington Department of Fish and
Wildlife is developing similar guidance for its
Estuary and Salmon Restoration Program in
Puget Sound.

LOCAL JURISDICTIONS
• Island County and the City of Tacoma are
using their own planning processes and
costal restoration projects as case studies to
understand resilience issues at a local scale
and test how science, planning, funding and
outreach can meet community needs.

NON-GOVERNMENTAL ORGANIZATION
• The Nature Conservancy is co-leading the
outreach and training elements of the project
with the Department of Ecology and contrib-
uting expertise on using natural systems and
habitat restoration to protect communities
from coastal hazards.

FUNDING SOURCE
NOAA’s Office for Coastal Management’s
awarded Washington Sea Grant a $879,255
regional coastal resilience grant to carry out the
Coastal Resilience Project.

SUMMARY
Through a smart combination
of activities — investing in
new science, coordinating existing
programs and applying and sharing
what is learned from three commu-
nity models, our state can efficiently
expand its capacity to “weather”
future coastal hazards.

FOR MORE INFORMATION
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