



STATE PLANNING TO ADDRESS OCEAN ACIDIFICATION

Angie Thomson
EnviroIssues



Why does ocean acidification matter?



Vulnerability to Acidification

- Combination of regional factors exacerbate acidification caused by global CO₂ emissions
 - Coastal upwelling of CO₂-rich waters
 - Runoff of nutrient and organic carbon from land
 - Decay of organic matter in subsurface waters
 - Emissions of acidifying gasses (NO_x and SO_x)

What's at stake?

- Impacts to shellfish industry
- Impacts to marine food webs
- Impacts to continued identity and cultural survival of coastal tribes
- Need a state-level effort of address OA

Washington State Blue Ribbon Panel

- Convened in 2012 under WA Shellfish Initiative
- Comprehensive state-level effort to address OA
- Reviewed best available science and produced recommendations to guide Washington's response
- Scientists, industry, state, local, federal, and tribal policymakers, conservation community



Washington State Panel Reports

NOAA OAR Special Report

Washington Shellfish Initiative
Blue Ribbon Panel on Ocean Acidification

Scientific Summary of Ocean Acidification in Washington State Marine Waters



Ocean
Editors

Richard A. Feely NOAA Pacific Marine Environmental Laboratory
Terrie Klinger University of Washington School of Marine & Environmental Affairs
Jan A. Newton University of Washington Applied Physics Laboratory
Meg Chadsey Washington Sea Grant

Advance Copy – November 2012

Washington State Blue Ribbon Panel on Ocean Acidification



Ocean Acidification: From Knowledge to Action

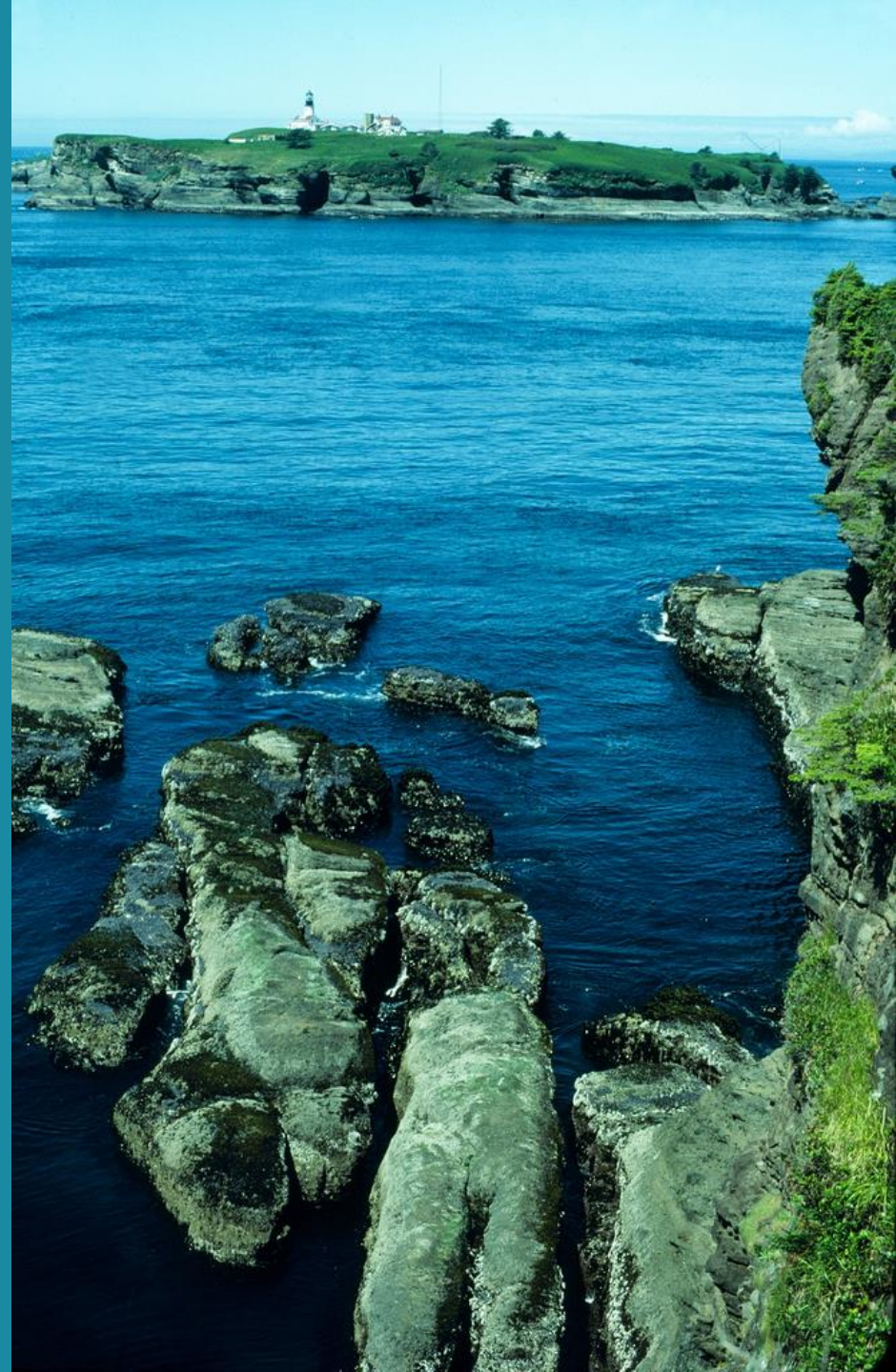
Washington State's Strategic Response



November 2012

Recommendations

- Address CO₂ emissions
- Reduce local land-based pollutants
- Foster adaptation and mitigation
- Increase research and monitoring
- Inform, educate, and engage the public
- Maintain a coordinated focus on ocean acidification



What next?

- Executive order for agencies to implement recommendations
- Created Washington Marine Resources Advisory Council (MRAC) to coordinate and advise on OA
- Created Washington Ocean Acidification Center at UW to coordinate research and monitoring



Marine Resources Advisory Council

- Created by legislature in 2013
- Non-regulatory
- Sunsets in 2017

Advancing implementation of the Blue Ribbon Panel on Ocean Acidification's recommendations

Collaborating with and advocate for the Washington Ocean Acidification Center

Ensure effective and efficient multi-agency coordination and collaboration

Communicating and educating broadly about ocean acidification

MRAC Members

Martha Kongsgaard, Chair
Puget Sound Partnership

Steve Litzow, State Senator

Kevin Ranker, State Senator

Larry Seaquist, State Representative

Dave Hayes, State Representative

TJ Greene, Makah Tribe

Terry Williams, Tulalip Tribes

Bill Dewey, Puget Sound Shellfish Growers

Dick Sheldon, Coastal Shellfish Growers

Brian Allison, Commercial Fishing

Tony Floor, Marine Businesses

Mike Cassinelli, Recreational Fishing

Paul Dye, The Nature Conservancy

Peter Goldmark, Commissioner of Public
Lands

Philip Anderson, WA Department of Fish
and Wildlife

Maia Bellon, WA Department of
Ecology

James Peters, WA State Conservation
Commission

Christine Woodward, Northwest Straits
Commission

Kelly T. Wood, Representing large
businesses

Tom Davis, WA State Farm Bureau

Lisa J. Graumlich, UW College of the
Environment

Dennis J. McLerran, EPA Region 10

Norm Dicks, Former congressman

Libby Jewett, NOAA Ocean
Acidification Program

Steve Hollenhorst, Western Washington
University

Phil Rockefeller, Northwest Power and
Conservation Council

Garrett Dalan, WA Coastal Marine
Advisory Council



Focusing on:

Science and
Monitoring

Local Land-Based
Contributions

Adaptation and
Mitigation

Education & Public
Outreach

**Over the
past year,
the MRAC
has...**

1. Reviewed Blue Ribbon Panel recommended actions
2. Evaluated progress to date for each action
3. Identified work that still needs to be completed or data gaps that need to be filled
4. Prioritized actions
5. Identified steps for moving prioritized actions forward

2015 budget requests

Sustain and expand the ocean acidification monitoring network.

Continue laboratory studies to determine biological response to ocean acidification alone and in combination with other stressors such as low dissolved oxygen and increased temperature.

Sustain and improve the Ocean Acidification Forecast Model established by Washington Ocean Acidification Center.

Funding for the Washington Ocean Acidification Center.

Funding for continuation of the Marine Resources Advisory Council.

Build on current work to assess the effectiveness of seaweed cultivation and harvest as an ocean acidification mitigation strategy.

Investigate the capacity of native oyster beds to increase ocean acidification resilience

Next steps for MRAC



EVALUATE implementation of the Blue Ribbon Panel actions

COORDINATE ocean acidification activities within the state

ADVOCATE for funding and policy changes to advance the panel recommendations

COMMUNICATE knowledge sharing about ocean acidification

For more information

www.ecy.wa.gov Search "ocean acidification"

*Angie Thomson, EnviroIssues
(206) 269-5041
athomson@enviroissues.com*

