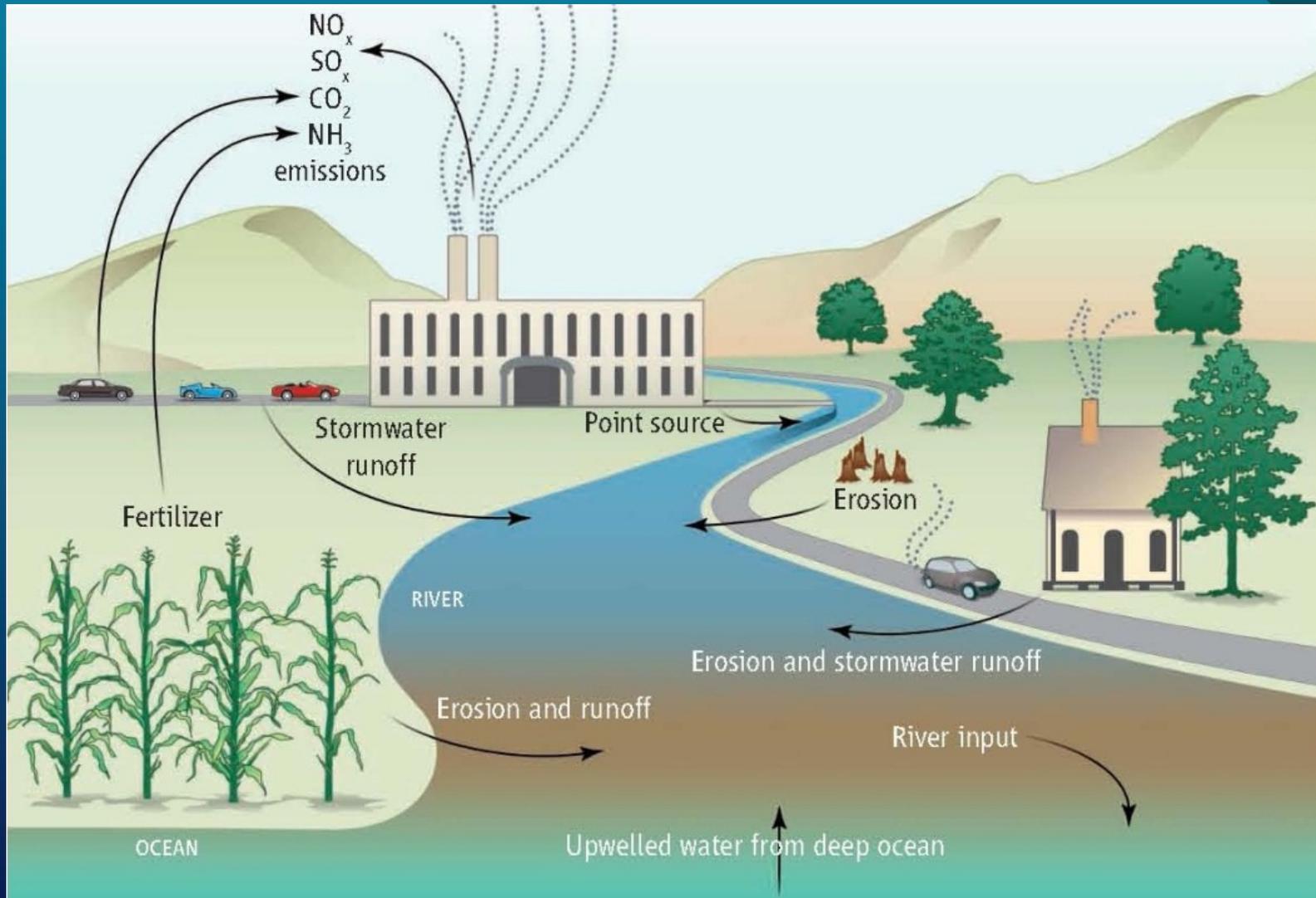


Overview of Policy Tools for Ocean Acidification

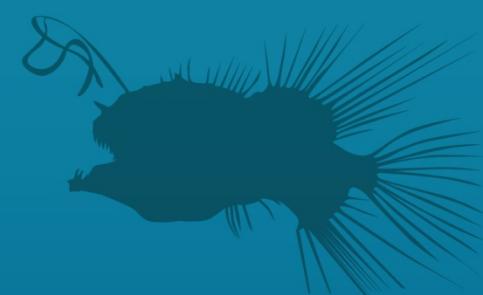
Ryan Kelly
Center for Ocean Solutions
Stanford University

Washington State Blue Ribbon Panel on Ocean Acidification
April 25, 2012

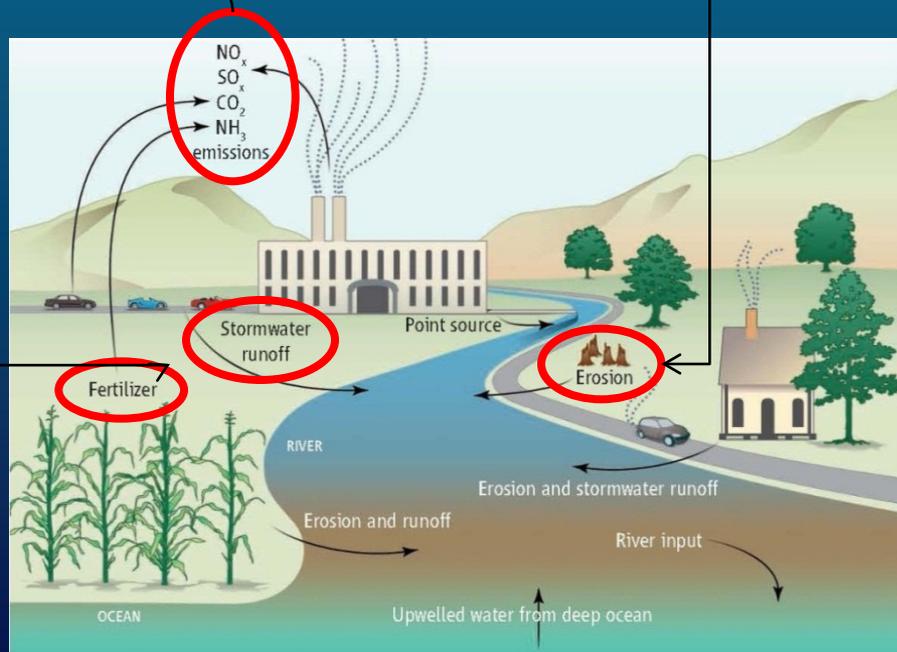
CO₂ and Subsidiary Drivers



No Shortage of Authority



- Clean Water Act
- Coastal Zone Management Act
- Local land use laws & policies
- Clean Air Act



Policy Options from California

Clean Water Act

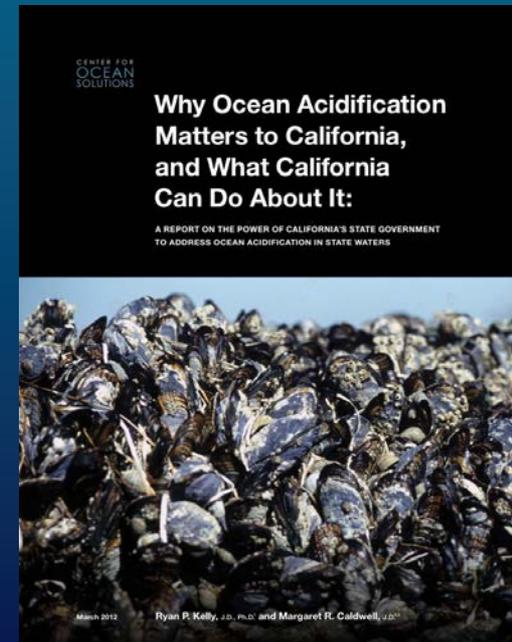
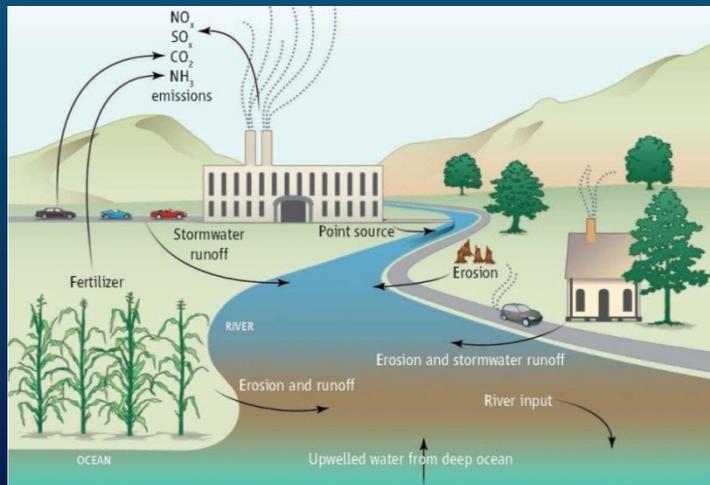
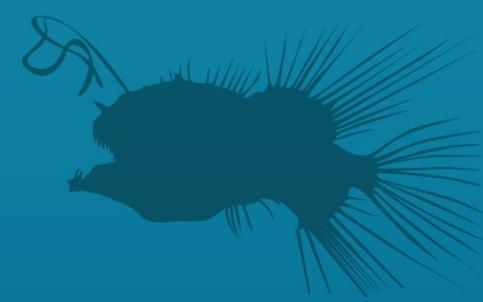
Point Source, Nonpoint sources,
Stormwater

Coastal Zone Management Act

Local land use laws & policies

Clean Air Act

CEQA (CA Environmental Quality Act).



Applying Washington and Federal Laws

Legal Tools → ↓ OA Drivers	Air Quality (e.g., CAA)	Water Quality (e.g., CWA; Watershed Planning Act)	Land Use (e.g., SMA, GMA, Forest Practices)	General Env. Quality (e.g., SEPA)	Common Law (e.g., nuisance)	Criminal Law (e.g., polluting water that may be used for drinking)
CO ₂ emissions	X	X	X	X		
N/P/BOD (decomposition)	X	X	X	X	X	X
Δ freshwater, other			X	X		

Source budget influences policy options

Deliverables:

- Coherent review of relevant laws, policies, and incentives
- Iterative feedback to and from Panel



Washington Laws

Grants and Incentive Programs

- NW Straits Commission Projects
- Urban Waters Initiative
- Stormwater Grants
- Wildlife and Recreation Grants
- Estuary and Salmon Restoration Program
- Conservation Assistance Revolving Account
- Forest Legacy Program
- Farmland Preservation Program
- Wetlands Reserve Program
- Grassland Reserve Program
- Coastal Protection Fund
- Transferrable Development Rights
- Federal EQIP Program

- Growth Management Act
 - Voluntary Stewardship Program
- Shoreline Management Act
 - Ocean Resources Mgmt Act
 - Seashore Conservation Act
 - Shellfish Protection
- State Environmental Policy Act
- Water Pollution Control Act
 - Dairy Nutrient Management Act
 - Waste Discharge Requirements
- Watershed Planning Act
- Forest Practices
- Air Pollution Control
 - GHG limits and inventory
 - Air quality standards

Legal and Administrative Actions



Center for Biological Diversity v. EPA (2009)

- pH is a pollutant under the Clean Water Act
- CBD sued EPA over approval of Washington's 2008 list of impaired waters
- Impaired waters (on 303(d) list) trigger additional Clean Water Act safeguards
- Settled in 2010; EPA agreed to issue memorandum
- Ecology has proposed to classify Puget Sound as "waters of concern"

Ongoing issue: where waters are impaired for pH, state must list them

Necessary Data to Test for Impairment?

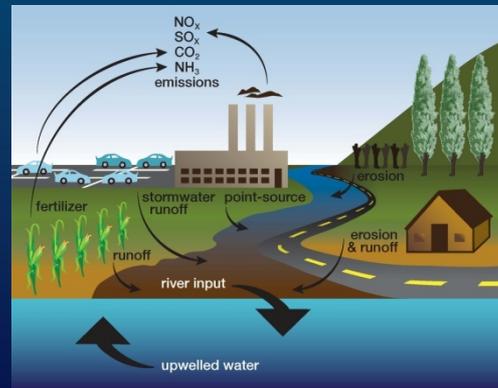
+/- 0.2 pH outside "naturally-occurring" range

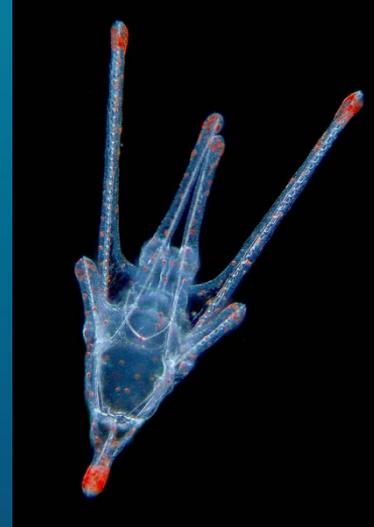
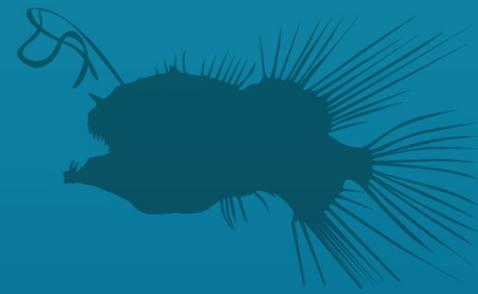
Must be in WA state waters (water-body specific),

Must meet WA state credibility criteria

Summary

- A variety of subsidiary drivers for ocean acidification means a variety of policy options; buying time to combat CO₂
- The relative importance of drivers will define most effective policy responses
- Ongoing legal question of whether waters are impaired for pH under Clean Water Act
- Washington is the undisputed leader on state action to address ocean acidification; will be a model





Questions?

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