



Climate Change

global warming

Washington Action on Climate Change

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Washington State

2005 GHG Emissions



Electricity Consumption 20%



Transportation 47%

Agriculture 6%

Industrial processing 4%

Waste 3%



**Residential, Commercial and
Industrial Fuel Use 20%**

Our Plan for Reducing Emissions

- Cap and trade
- Mandatory reporting
- Complementary policies
 - Regulatory standards
 - Voluntary actions
 - Incentive-based policies
 - Public-private technology initiatives
- Active stakeholder participation
- Public education

Manitoba

GDP 48,586 Million C\$
 Population 1,186,700
 Largest City Winnipeg

Ontario

GDP 582,019 Million C\$
 Population 12,803,900
 Largest City Toronto

British Columbia

GDP 190,214 Million C\$
 Population 4,380,300
 Largest City Vancouver

Quebec

GDP 298,157 Million C\$
 Population 7,700,800
 Largest City Montreal

Washington

GDP 311,270 Million US\$
 Population 6,468,424
 Largest City Seattle

Montana

GDP 34,253 Million US\$
 Population 957,861
 Largest City Billings

Oregon

GDP 158,233 Million US\$
 Population 3,747,455
 Largest City Portland

Utah

GDP 105,658 Million US\$
 Population 2,645,330
 Largest City Salt Lake City

California

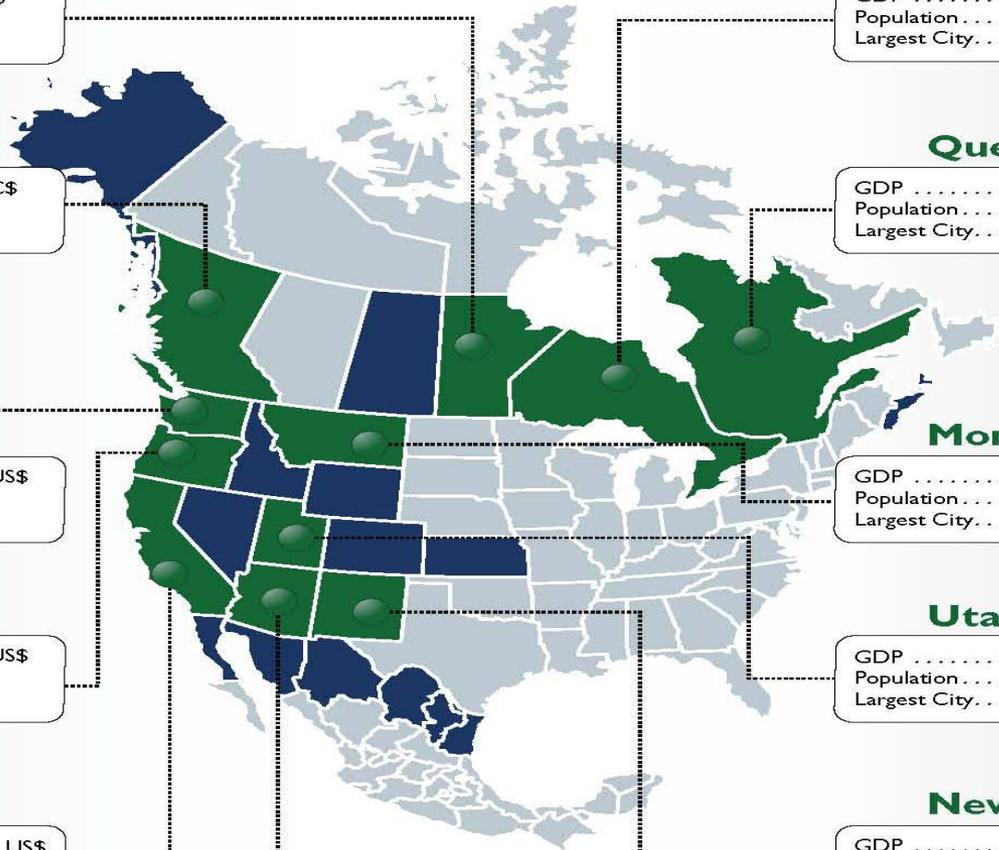
GDP 1,812,968 Million US\$
 Population 36,553,215
 Largest City Los Angeles

New Mexico

GDP 76,178 Million US\$
 Population 1,969,915
 Largest City Albuquerque

Arizona

GDP 247,028 Million US\$
 Population 6,338,755
 Largest City Phoenix



■ Partners ■ Observers

WCI OBSERVERS

CANADA
 Nova Scotia
 Saskatchewan

UNITED STATES

Alaska
 Colorado
 Idaho
 Kansas
 Nevada
 Wyoming

MEXICO

Baja California
 Chihuahua
 Coahuila
 Nuevo Leon
 Sonora
 Tamaulipas

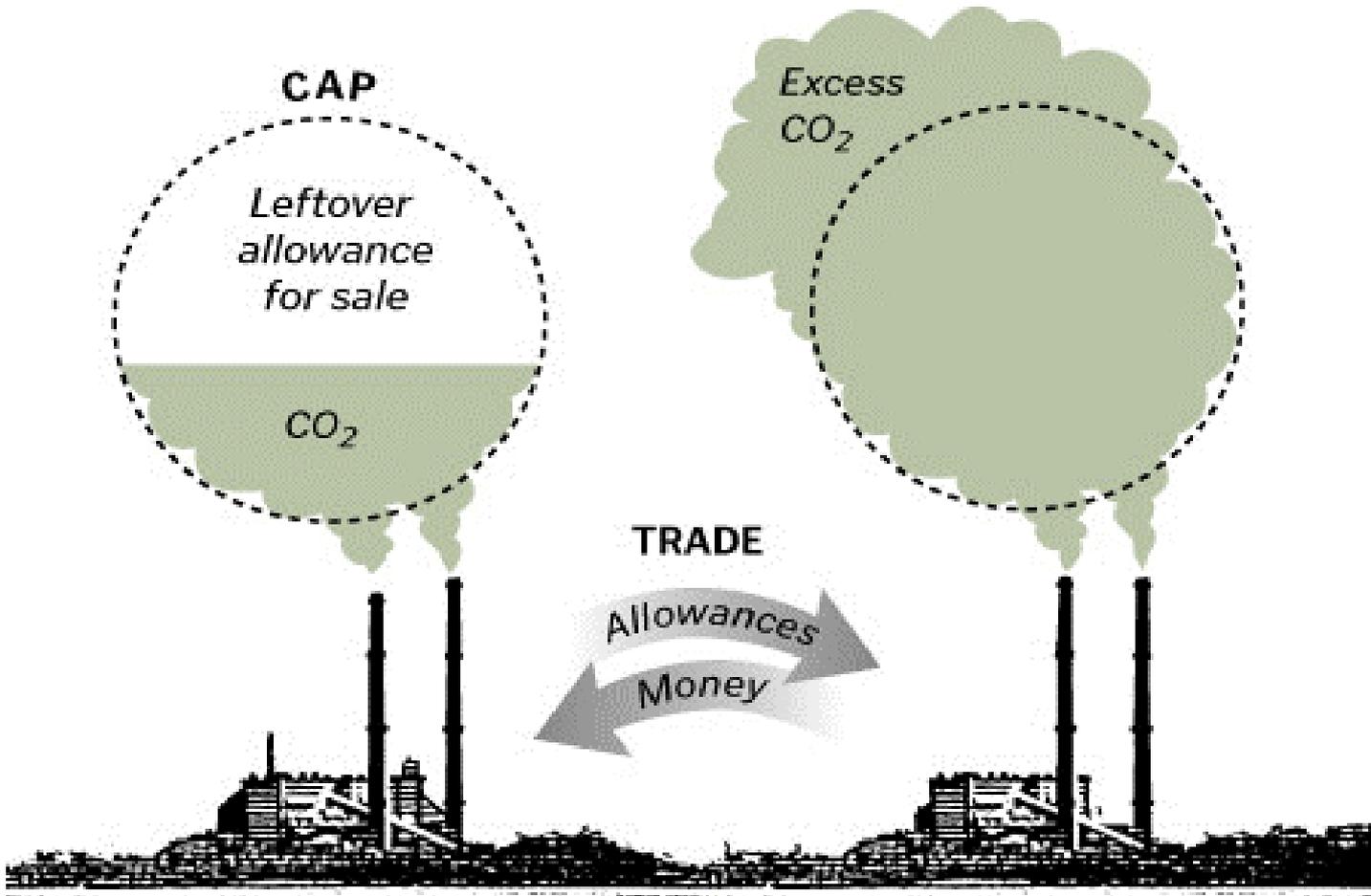
Three specific directives:

- Set a regional emissions reduction goal
- Join a multi-state registry to track, manage and credit reductions
- Design a regional multi-sector market-based mechanism

Joint work to:

- Promote clean and renewable energy in the region
- Increase energy efficiency
- Advocate for regional and national climate policies that are in the interest of western states
- Identify measures to adapt to climate change impacts

How Cap and Trade Works



Innovative companies that develop ways to reduce emissions earn income by selling unneeded allowances.

Economic pressure encourages companies that exceed caps to find ways to cut emissions.

WCI Cap and Trade Framework, September 2008

Reductions and Timetables	<ul style="list-style-type: none">•Start in 2012 with full economy coverage in 2015•Reduces emissions 15% below 2005 levels by 2020
Scope	<ul style="list-style-type: none">•Electricity generation (including imports), industrial combustion and process emissions, transportation emissions, RCI fuels
Threshold for coverage	<ul style="list-style-type: none">•25,000 metric tons CO₂e
Distributing Allowances	<ul style="list-style-type: none">•Allowance distribution left to each partner•10 percent minimum auction
Cost Containment	<ul style="list-style-type: none">•Offsets•Unlimited banking (no borrowing)•3 year compliance periods
Reporting	<ul style="list-style-type: none">•Threshold 10,000 Mt CO₂e, reporting 2010 emissions in 2011
Credit for Early Action	<ul style="list-style-type: none">•Early Reduction Allowances (ERAs)

WCI 2009-2010 Work Plan focuses on:

- Emissions reporting and allowance tracking
- Imported electricity (generated outside WCI)
- Design and operation of the offset system
- Establishing overall regional emission cap, and each Partner's allowance budget
- Market operation and oversight
- Complementary and transition policies
- Expanded economic analyses, including macroeconomic analysis
- Influencing the design of a federal program

National Context:

Waxman-Markey Bill

American Clean Energy and Security Act (H.R. 2454)

- Coverage: 85% of U.S. emissions; 7 GHGs
- Cap: 17% below 2005 levels by 2020; 83% below by 2050
- Threshold: 25,000 metric tons annual emissions; EPA may lower to 10,000 metric tons after 2020
- Offsets allowed
- Unlimited banking, 2 year compliance period, Strategic allowance reserve (allowance price trigger)
- Allocation of allowances: Initially 85% free allocation/15% auction
- Holders of allowances issued by WCI before 12/31/11 can exchange them for federal allowances
- Start date 2012; full economy coverage in 2016

Waxman-Markey Complementary Policies

- Efficiency and Renewable Electricity Standard (20% by 2020)
- Investments in renewable energy and energy efficiency, CCS, advanced technology vehicles, and R&D
- Energy efficiency provisions: Building efficiency codes, appliance standards energy efficiency resource standard
- Transportation: Vehicle standards, PHEV planning and incentives, states and MPOs to develop GHG reduction plans
- GHG performance standards for coal-fuel power plants
- Transmission planning, smart grid advancement, green jobs, worker transition, consumer protection, adaptation,

Washington Low Carbon Policies

- Climate action plan
- Clean Energy
 - ✓ Renewable Portfolio stds
 - ✓ GHG Emissions performance stds for power plants
- Energy efficiency
 - ✓ Building codes, green building, appliance stds
- Clean cars and fuel use reduction
 - ✓ CA clean car stds, low-carbon fuel standard, electric cars, fuel economy, vehicle miles traveled
- Transportation and land-use planning
 - ✓ Lower carbon transportation choices
 - ✓ Building compact communities
- Waste management
 - ✓ Methane capture, anaerobic digesters, recycling and reuse

Key Issues

- Minimizing energy price impacts and protecting consumers
- Protecting jobs and trade vulnerable industries
- Equitable allowance distribution and use of auction revenue
- Ensuring adequate market oversight and integrity of offsets
- Maximizing co-benefits and promoting complementary policies
- Maintaining state authority and flexibility

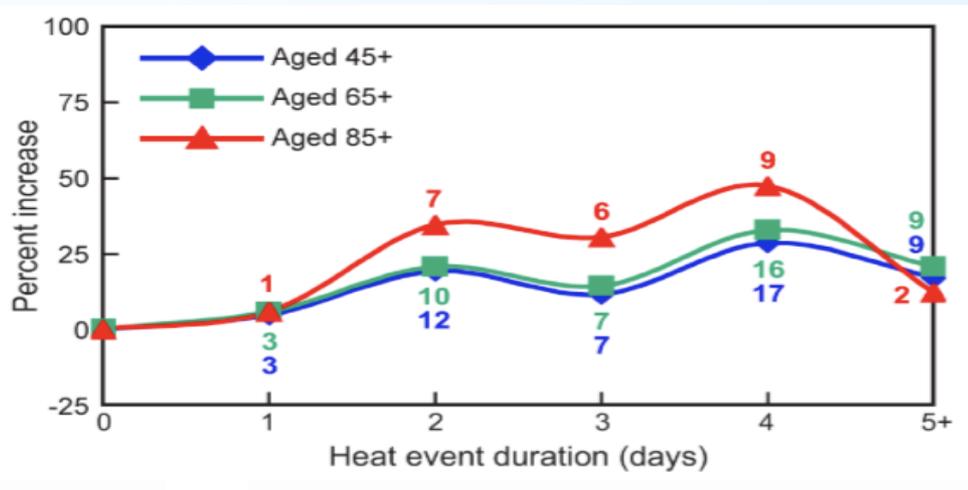
Climate Change Impacts, Preparation, Adaptation

Key Issues of Common Interest:

- Public Health
- Coastal Impacts
- Water Supply
- Forest Health
- Salmon



Public Health Impacts



4 degree increase in temperature = potential 33 additional deaths from heat stress

Washington State residents are particularly vulnerable to temperature stresses since the majority of homes are not air conditioned

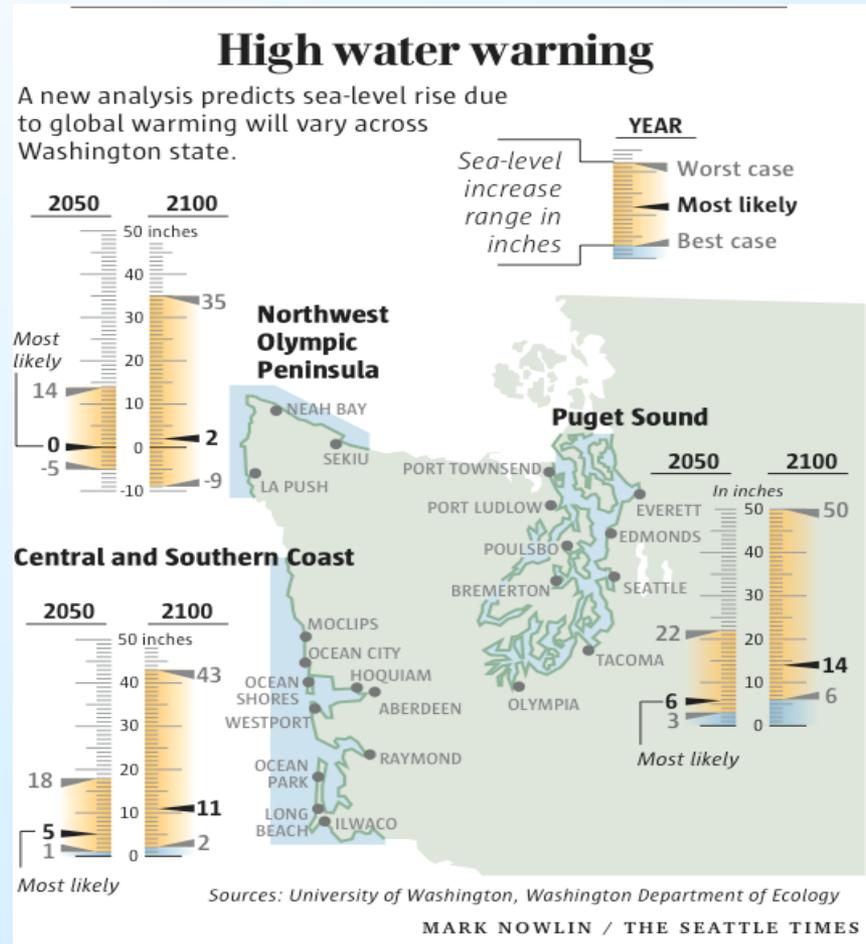
Sea Level Rise

40 communities along
3085 miles of shoreline,
including the most
populous

Puget Sound 2050: 6”
most likely

Central and Southern
Coast 2050: 5” most likely

End of century:
14” along Puget Sound
11” along Central and
Southern Coast



Additional Coastal Challenges

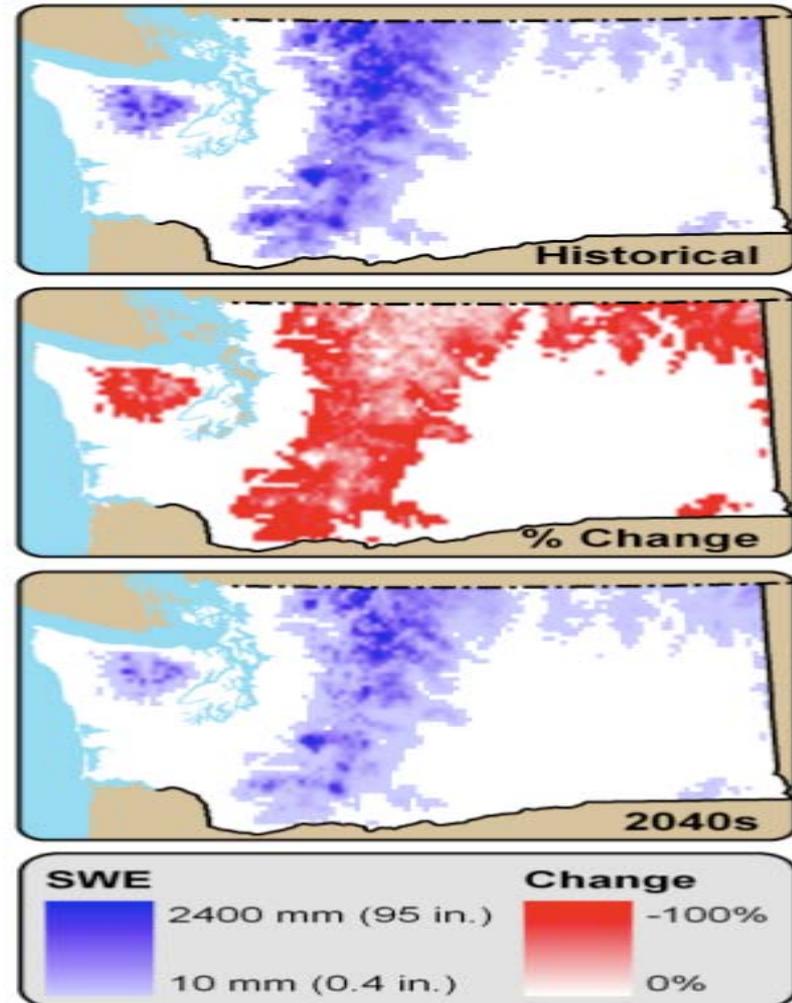
- Ocean Acidification
- Bluff Landslides/Erosion
- Storm Surge Inundation/Flooding
- Shallow Water Habitat Loss
- Species Shifts
- Loss/Shift of Public Beaches

Snow Pack Decline

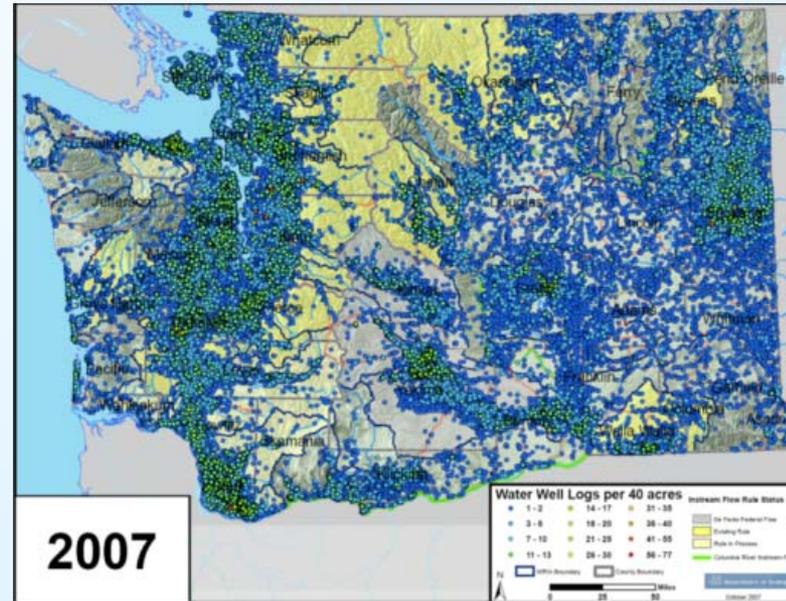
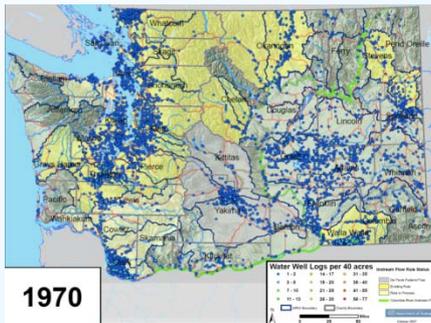
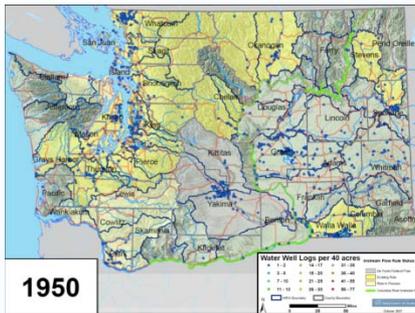
16% declined over last
30 years

By 2040, projected
decline is 40% from
1979-1999 averages

Energy production
expected to decline
similar amount



Proliferation of Permit Exempt Wells

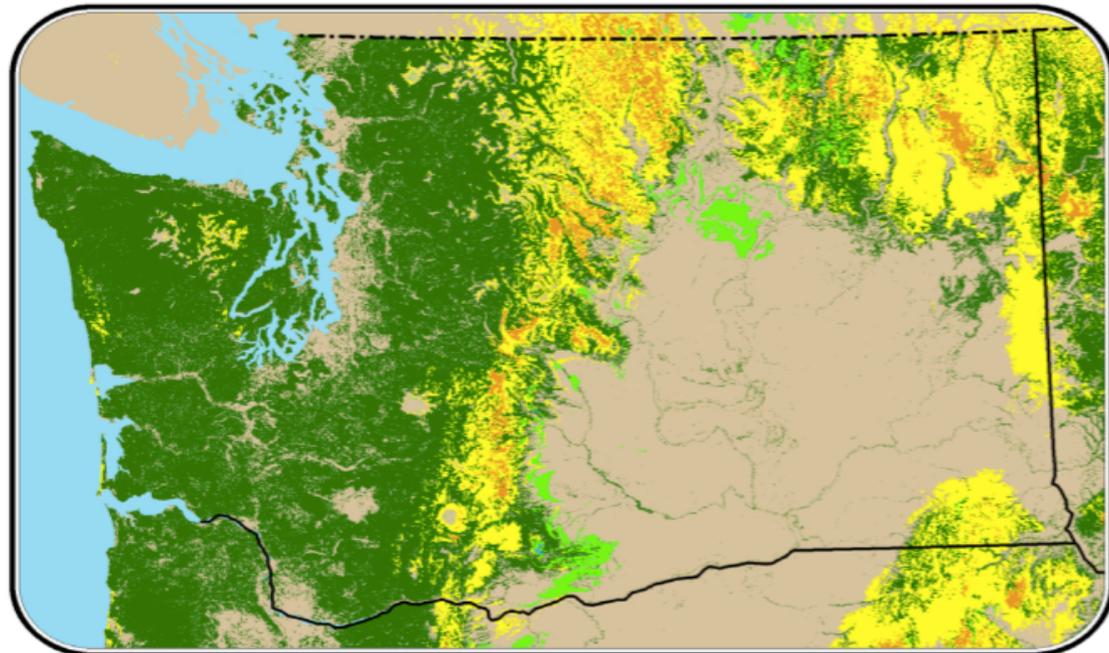


Forests

By 2020,
wildfire
increases
100%

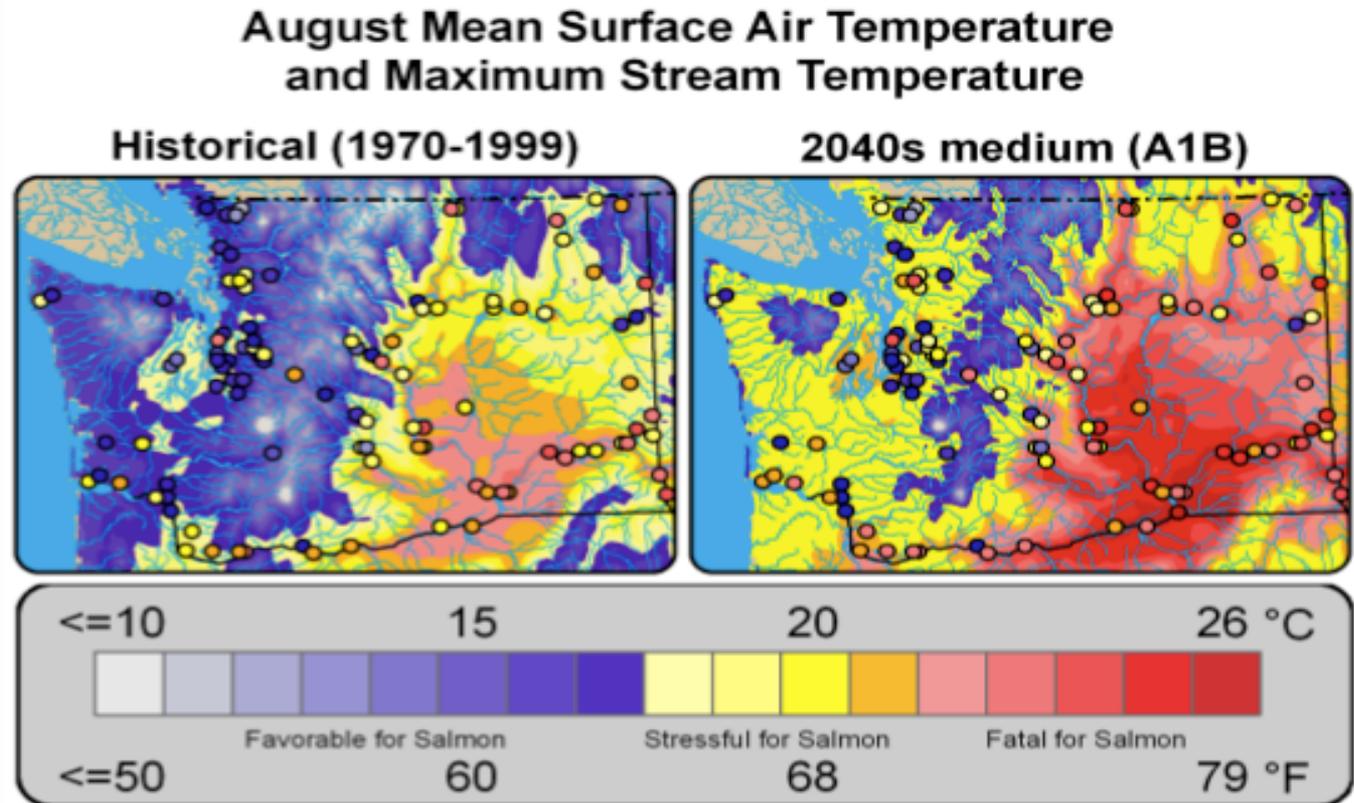
By 2080,
increases by
more than
300%

Large areas of
pines species
loss



Salmon

Impact on salmon from expected increases in stream temperatures by 2040



State Actions on Preparation, Adaptation

BC-WA MOU on sea level rise

West Coast Governor's Agreement on
Ocean Health

National Academy of Sciences West
Coast Sea Level Rise Study

“There is a growing urgency in responding to the climate challenge because choices being made now have long-term implications, and delay will be costly. Aggressive near-term actions would be required to alter the future path of human-induced warming and its impacts. Future generations will inherit the legacy of our decisions.”

For more information

- Washington's Website and listserv –
www.ecy.wa.gov/climatechange
- WCI Website and listserv –
www.westernclimateinitiative.org
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