Safeguarding Coasts and Floodplains for Fish, Wildlife and People

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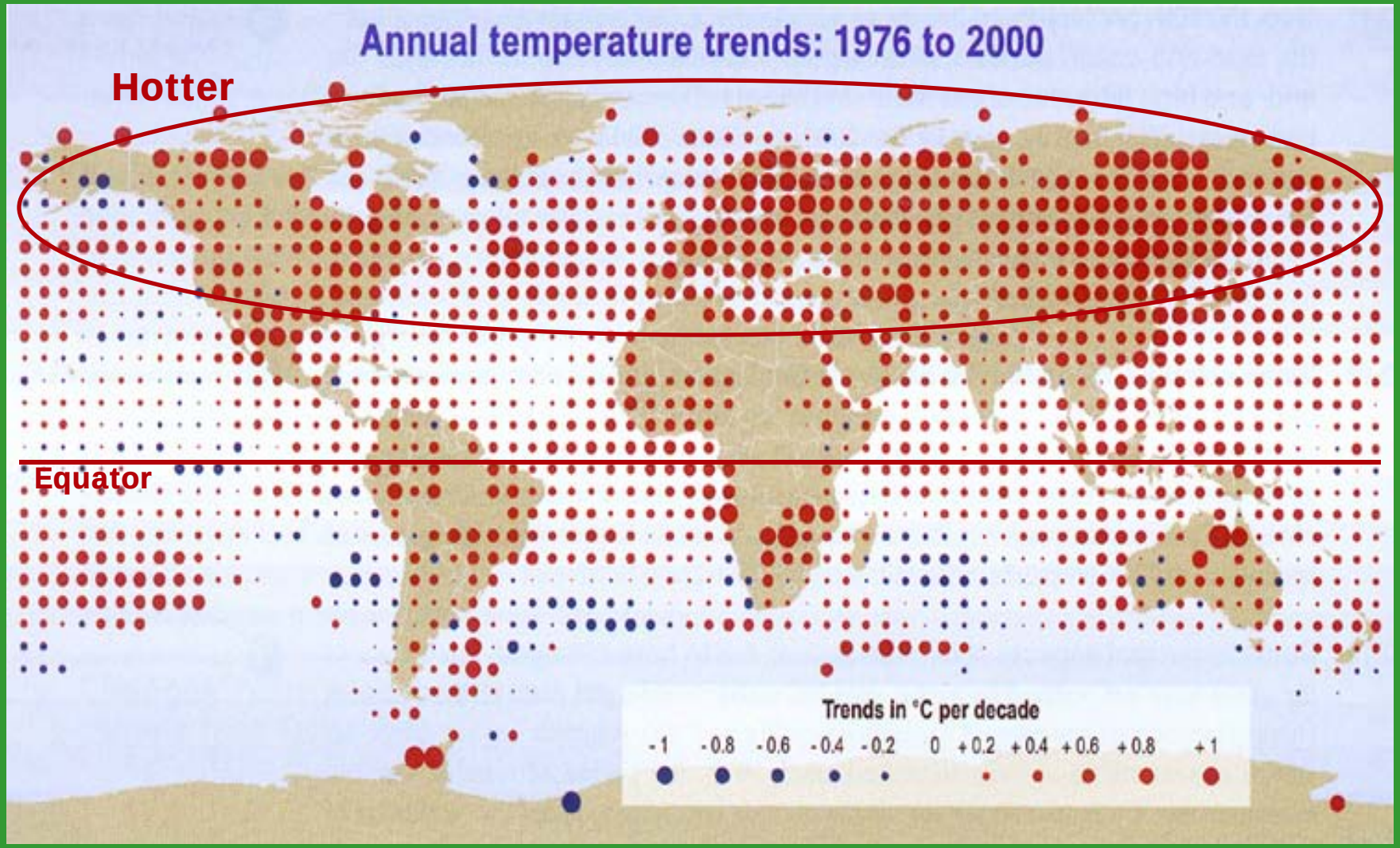
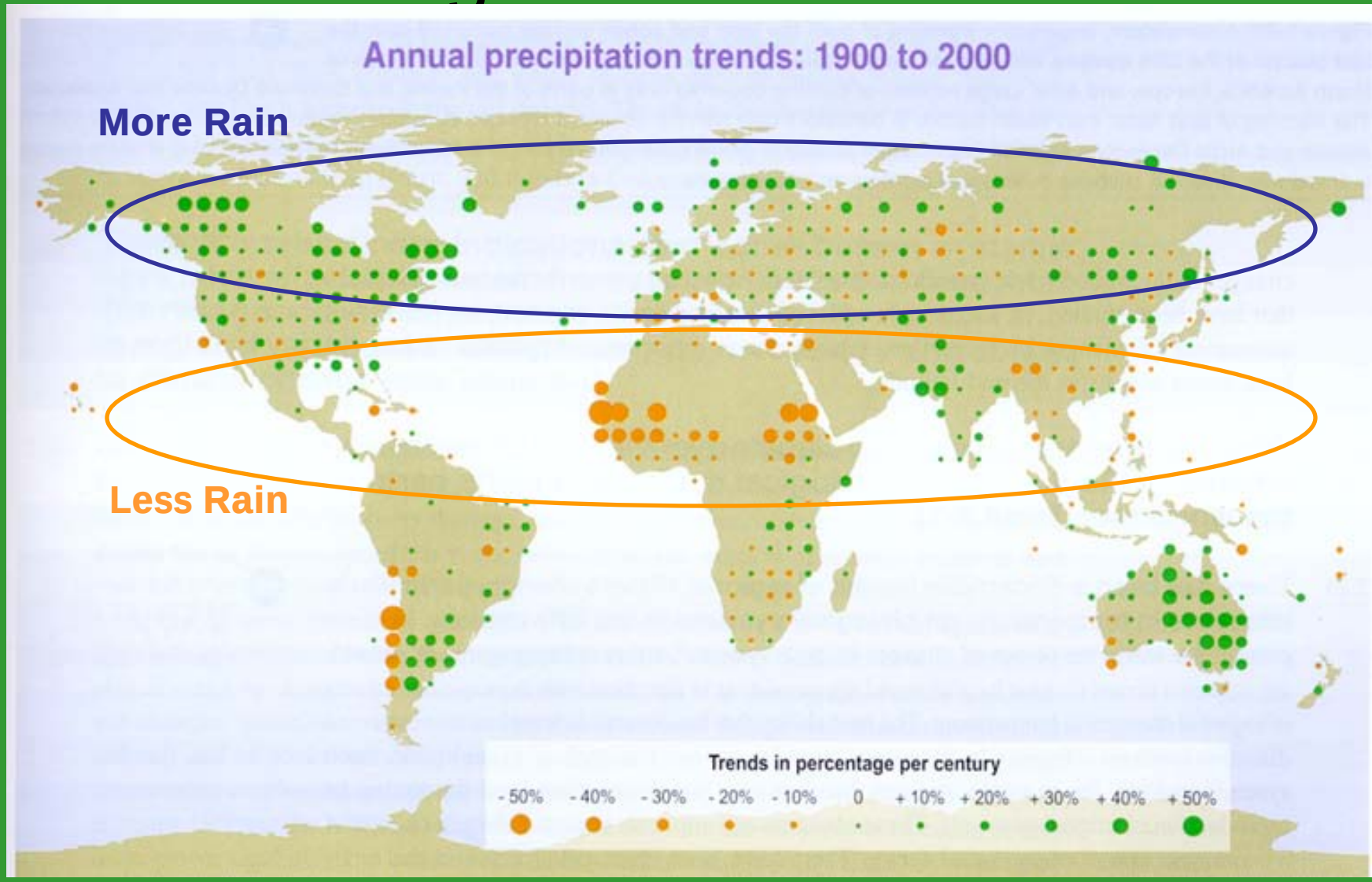
NATIONAL WILDLIFE FEDERATION

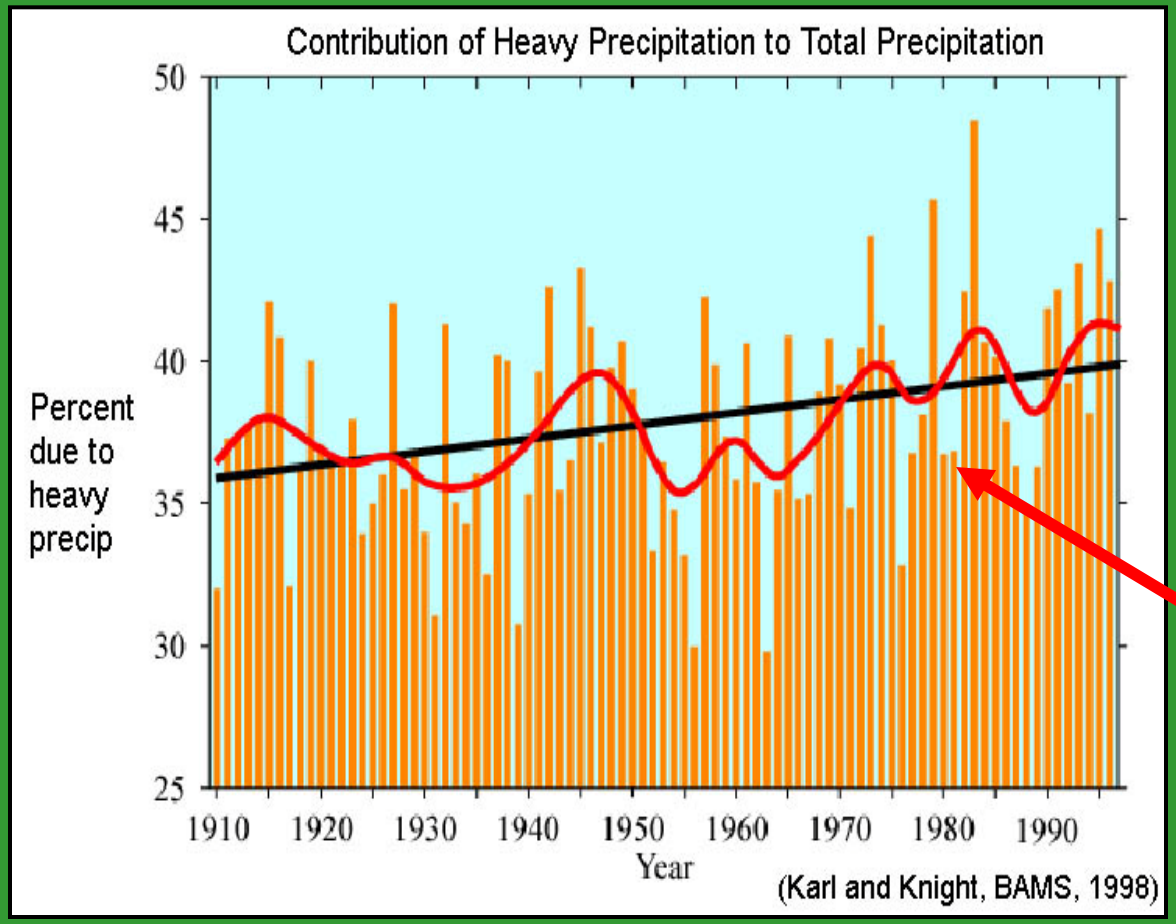
Where has the Earth warmed?



Precipitation Amounts are Increasing in Northern Latitudes

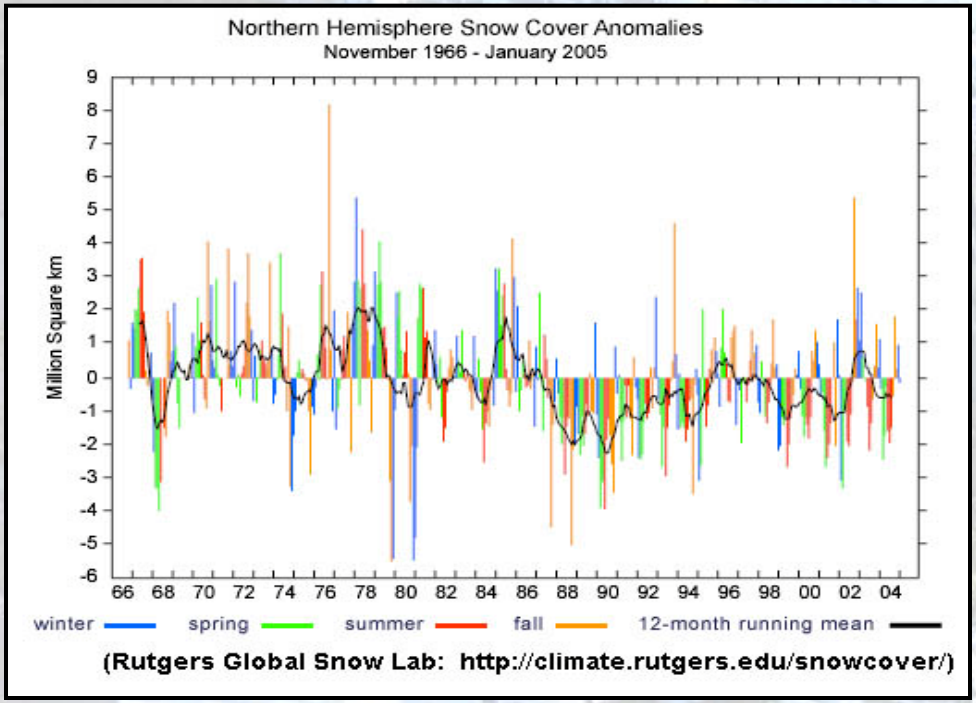


Precipitation Intensity also is Increasing



- More days with precipitation
- More frequent and intense precipitation
- Precipitation increases are due to the strong events

Snow Cover is Receding

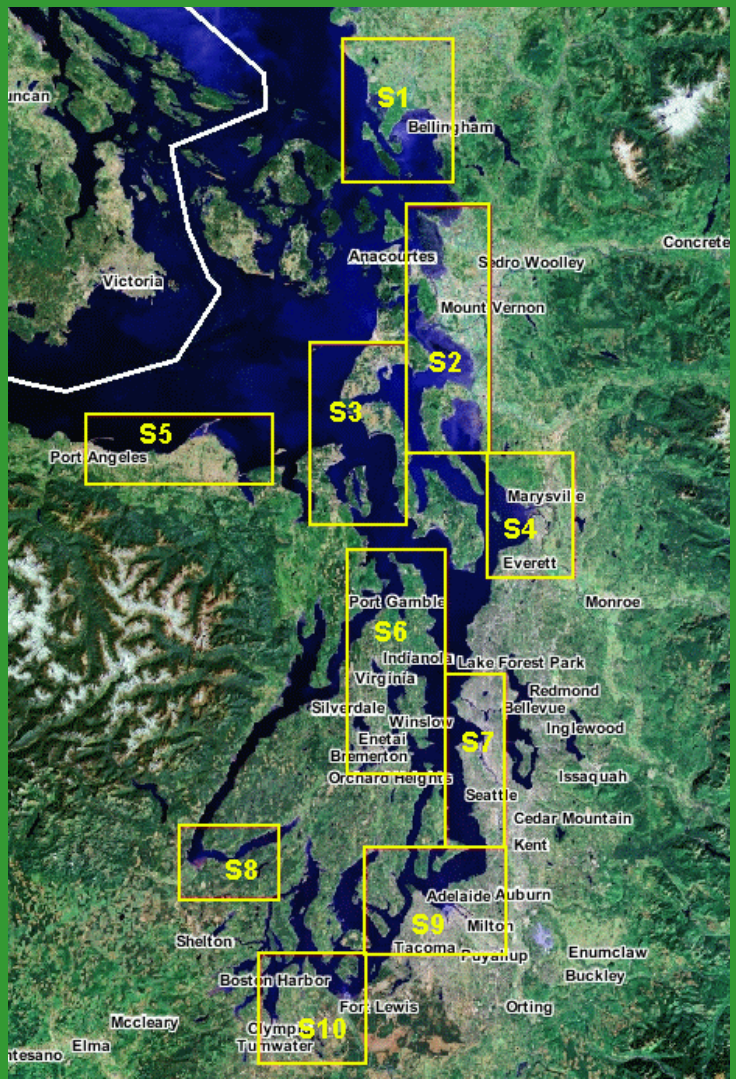


- As temperatures increase:
  - More precipitation is rain
  - Snow line is moving up by 100m per deg C
  - Melt is earlier
  - Snow cover is present 1-2 fewer days each year since early 1970's
  - Water storage in snow pack is reduced

Sea Levels are Rising: NWF Models Show Drastic Habitat Losses are Underway in Pacific NW

Scenario: 27.3 inches by 2100

- 65% loss of estuarine beaches
- 44% decline in tidal flats
- 13% loss of inland fresh marsh
- 25% loss of tidal fresh marsh
- 12% loss of swamp
- 52% loss of brackish marsh
- Loss of 1.5 million acres of undeveloped dry land



A New Conservation Agenda: Safeguarding Natural Resources from Combined Impacts of Development *and* Global Warming

- Protecting Coastal Habitats and Drinking Water from Sea Level Rise and Storm Surges
- Safeguarding Floodplains to Buffer Against Intensified Storms and Floods
- Safeguarding Floodplains to Conserve Fresh Water in the Face of Disappearing Snowpack
- Providing Routes for Wildlife Movement and Habitat Shifts

KEY ELEMENTS OF THE SAFEGUARDING AGENDA

1. Dedicated Funding Stream in Climate Legislation
2. Making Policies and Programs Climate-Smart
3. Reinventing On-the-Ground Conservation

Making Conservation Programs Climate-Smart

- Leadership from the States: Cap-and-Trade Programs, Climate Commissions, Climate Action Plans, State Adaptation Strategies (WA and MD)
- Examples of Federal Leadership??

Reforming the National Flood Insurance Program

- NWF efforts begin in 1990s, before global warming became prominent
- Key motivation: NFIP subsidy fueling harmful development of coastal and floodplain habitats

Key Facts About NFIP

- Most development in coasts and floodplains dependent on NFIP subsidy
- Quid Pro Quo for subsidy: sound floodplain management – reduce flood risk
- FEMA authorized to impose conditions on community eligibility – constrict development of land exposed to floods
- FEMA has refused to exercise this authority. Result has been massive development of coasts and floodplains; NFIP debt is $17B and climbing

Key Facts About Endangered Species Act

- Nation's safety net for species at risk of extinction. Hundreds of ESA-listed species are threatened by coastal/floodplain development and impacts of global warming.

- Section 7(a)(2): Federal agencies required to consult with FWS/ NMFS re impacts of their actions on listed species; duty to avoid jeopardy and adverse modification of critical habitat
- Section 7(a)(1): Federal agencies required to develop and implement programs to conserve listed species.

Florida Key Deer v FEMA: Protecting Endangered Species from FEMA-Fueled Coastal Development

- 1994: Court orders FEMA to consult with FWS under ESA. FWS later finds NFIP is jeopardizing 8 endangered species
- 2005: Court overturns FWS-FEMA remedy, enjoins new FEMA-supported development in end sp. habitat
- 2008: Rulings upheld by appeals court. NFIA does not limit FEMA's ability to address endangered species.

NWF v FEMA: Protecting Salmon and Orcas from FEMA-Fueled Coastal/Floodplain Development

- 2004: Court orders FEMA to consult with NMFS under ESA re NFIP impacts on salmon.

- 2008: NMFS finds NFIP is jeopardizing salmon and orca; global warming contributing to problem. Remedy: FEMA must strengthen land use controls in participating communities.

Where Do We Go from Here?

- Collaboration among FEMA, NMFS, local govt, builders and NGOs to achieve ESA compliance
- Update floodplain maps to factor in global warming and new development
- Develop model land use codes that restrict development, protect floodplain habitats
- Address post-flood scenarios. Voluntary buyouts, habitat restorations needed to avoid repetitive losses