

# Alaska Climate Change Strategy

## Alaska Climate Change Adaptation Advisory Group

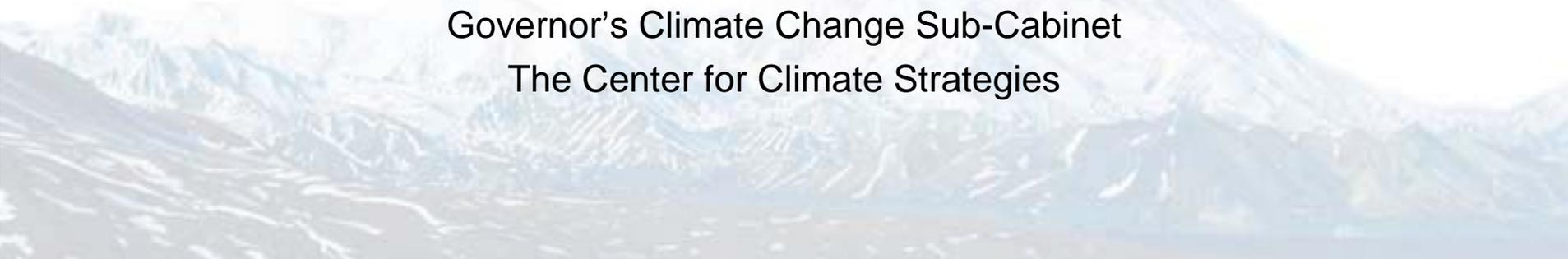
Natural Systems and Associated Economies  
Technical Working Group

Meeting #1

**June 18, 2008, 1:00-3:00 pm (Alaska time)**

Governor's Climate Change Sub-Cabinet

The Center for Climate Strategies



# Agenda

- Welcome and introductions
- Part 1: Review of structure, roles, and processes
- Part 2: Review of climate change impacts
- Part 3: Review and discussion of the state adaptation actions/policies
- Agenda, time and date for next meeting
- Public input and announcements

# Welcome and Introductions

- Facilitators
- Natural Systems and Associated Economies (NS&EA) Technical Work Group (TWG) Members
- Members of the Public
- Center for Climate Strategies



# **Part 1: Review of structure, roles, and processes**

# Overview of Alaska Climate Change Efforts Under Admin Order #238

- A Climate Change Sub-Cabinet (CCSC) was convened by Governor Palin to provide advice to the Office of the Governor
- The CCSC oversees and coordinates the process of responding to Administrative Order No. 238
- The CCSC established a Mitigation Advisory Group (MAG) and an Adaptation Advisory Group (AAG)
- The AGs make recommendations on policy options and activities for mitigation and adaptation to the CCSC
- The AGs provide guidance to and receive input from the Technical Working Groups (TWG)

# AK CCAAG Purpose & Goals

## Purpose (from Administrative Order #238)

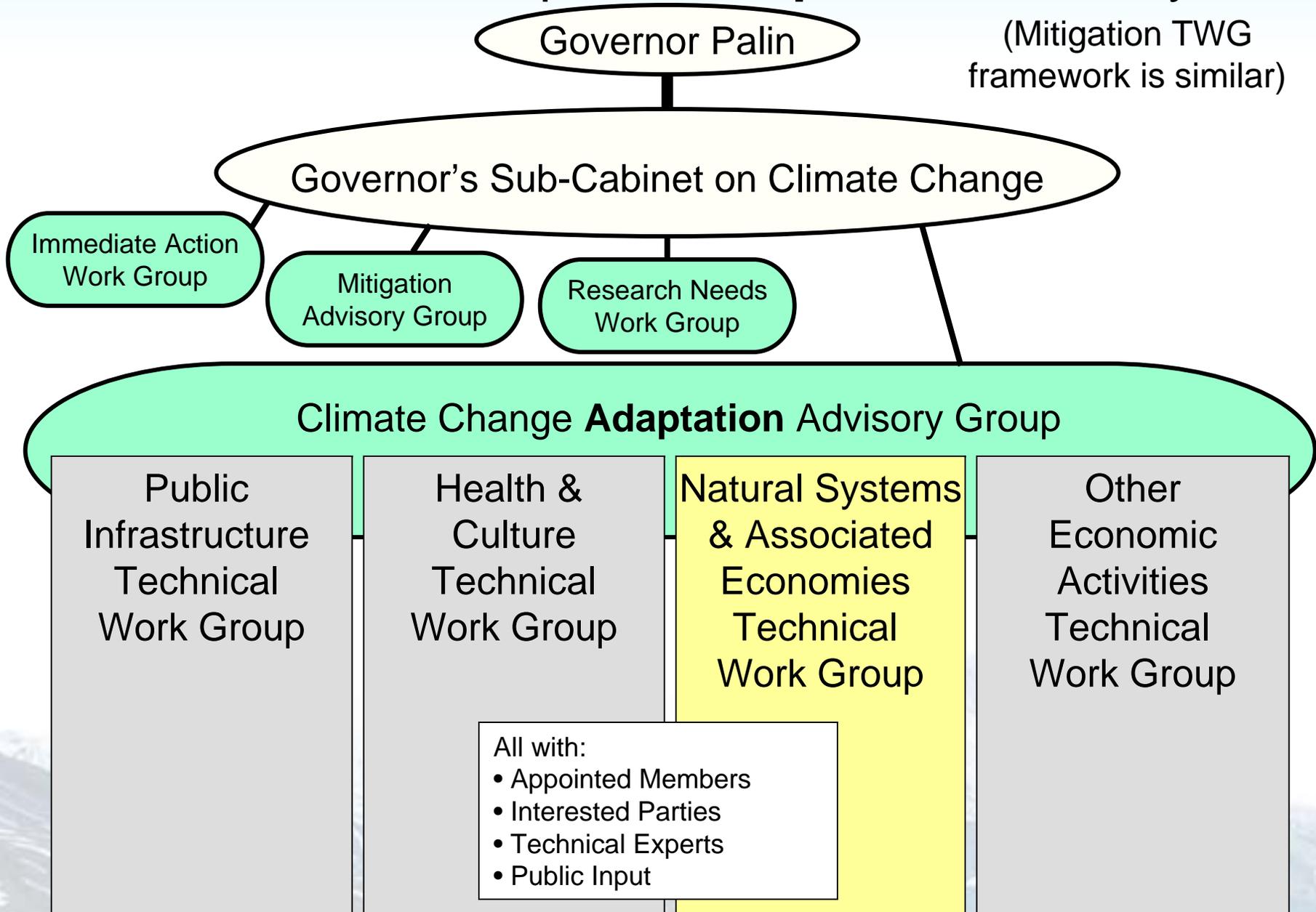
The purpose of the Climate Change Sub-Cabinet is to advise the Office of the Governor on the preparation and implementation of an Alaska climate change strategy. This strategy should include building the state's knowledge of the actual and foreseeable effects of climate warming in Alaska, developing appropriate measures and policies to prepare communities in Alaska for the anticipated impacts from climate change, and providing guidance regarding Alaska's participation in regional and national efforts addressing the causes and effects of climate change.

## Goals (from Administrative Order #238)

- 3) the most effective means of informing, and generating a dialogue with the public regarding climate change in Alaska;
- 4) the early assessment and development of an action plan addressing climate change impacts on coastal and other vulnerable communities in Alaska;
- 7) the evaluation and response to the risks of new, or an increase in the frequency or severity of, disease and pests due to climate change in Alaska;

# Technical Work Groups for **Adaptation** Advisory Group

(Mitigation TWG framework is similar)



# AAG and TWGs

- Adaptation Advisory Group (AAG)
  - Review existing and planned state actions
  - Identify 30-40 potential options for design and priorities for analysis
  - Recommend actions to achieve the Administrative Order goals
- Technical Working Groups (TWGs)
  - Review vulnerabilities, impacts, and opportunities,
  - Analysis, review and early ranking of options
  - Develop initial straw proposals for activities and policies
  - Input to and review of AAG recommendations and reports
- TWG process is fully integrated with the AAG
  - TWGs serve in an advisory role to AAG
  - AAG members serve on the TWGs

# AAG TWG Focus Area

- **Public Infrastructure**
  - the physical impacts of climate change on the built environment and transportation options
- **Health and Culture**
  - Human health, cultural, recreational and quality of life impacts of climate change
- **Natural Systems and Associated Economies**
  - **Impacts of climate change on biodiversity, ecosystem health and associated human economic activities**
- **Other Economic Activity**
  - Economies affected by a changing climate that are not directly dependent on living ecosystems.

# AAG TWG Roles

- ✓ Review and expand the vulnerability and impact assessment listing
- ✓ Review and expand potential policy alternatives
- ...
- Identify potential state actions for a catalog
- Identify potential priorities for analysis
- Develop straw proposals for adaptation actions (costs, timing, geographic area, etc.)
- Assist with analysis and review of options and development of alternatives
- Provide recommendations to the AAG
- Assist with review of AAG final report to the CCSC
- Solicit and respond to public input

# Stepwise Planning Process for Adaptation

- **Develop/revise baseline vulnerability assessment and impact focus areas**
- **Identify a full range of possible actions ("catalog") and programs already in place**
- Identify initial priorities for analysis & development
- Develop straw proposals
- Evaluate (and quantify to the extent possible) costs and benefits
- Evaluate feasibility issues; associated issues; linkages
- Develop alternatives if needed to enhance consensus
- Iterate to final agreement
- Finalize and report recommendations

Red font indicates work to be done by July 16<sup>th</sup> for AAG Meeting

# Timing

- AAG meetings (every two months approximately).
  - Meeting 1 - May 16 in Anchorage
  - *Meeting 2 - July 16 in Fairbanks* ←
  - Meeting 3 - September 23 TBD
  - Meeting 4 - November 7 TBD
  - Meeting 5 - February 6 in Anchorage (may be a weeklong Forum)
  - Meeting 6 - March 20 (tentative) TBD
  - Meeting 7 - April 30 (tentative, if needed) TBD
- TWG calls
  - Regularly scheduled
  - Two 2 hour calls between AAG meetings
- Final Product of AAG –
  - Report to Sub-Cabinet in April 2009
- See Orientation Document for process and timing on:  
**[http://www.akclimatechange.us/Natural\\_Systems.cfm](http://www.akclimatechange.us/Natural_Systems.cfm)**

# Final Report from AAG to CCSC

- Executive Summary
- Background, Purpose, & Goals
- Alaska Vulnerability Assessment (NCEP)
- AAG Recommendations and Results
  - Public Infrastructure
  - Health & Culture
  - Natural Systems & Associated Economies
  - Other Economic Activities
- Appendices

# Key Components of the Process

- Comprehensive
- Stepwise
- Fact based
- Transparent
- Inclusive
- Collaborative
- Consensus driven



# Coverage Of Issues

- All impacts related to natural systems and associated economies
- All conceivable adaptation policy responses
- All potential implementation mechanisms
- Short and long term actions

# Our Group's Ground Rules

- Supportive of the process
- Attendance at meetings
- Equal footing
- Stay current with information
- No backsliding
- Do not represent the CCAAG or TWGs
- Make objective contributions



# **Part 2: Review of climate change impacts**

# Effects of Climate Change in Alaska

- Shorter winters
- Longer and warmer Arctic summers
- Sea level rise
- Coastal erosion
- Thawing permafrost
- Retreating sea ice/glaciers
- Increased forest fires

# How Started?

## Comprehensive Impacts List

- Letters from state agencies to Representative Ralph Samuel, Chair of the Climate Impact Assessment Commission
- The Arctic Climate Impact Assessment (ACIA)
- Scientific studies, reports, newspaper articles, and other documents published since the ACIA
- Conversations with state and other officials
- Testimony presented before the Alaska Climate Impact Assessment Commission and other proceedings

# Focus Area: Natural Systems and Associated Economies

This sector examines the impacts of climate change on biodiversity, ecosystem health, and associated human economic activity.

Basic ‘logic’ of our thought process,

First, stratification by ‘sector’, then stratification by kind of issue in that sector, then current and *future* impact judgments in that issue.

# An Example

Sector = Boreal and Temperate Forests and Dependent  
Species



# An Example

## Boreal and Temperate Forests and Dependent Species

Kind of issue = (1) Forest insects and diseases:



# An Example

## Boreal and Temperate Forests and Dependent Species

Forest insects and diseases:

Impact judgments = Current – greater incidence of existing diseases such as spruce bark beetle, resulting in massive forest death (over 4 million acres); other forest diseases include larch saw fly (killed 90% of larch near Fairbanks), birch leaf roller; birch leaf miner, aspen leaf miner, and wooly saw fly; introduction of new diseases in forests such as spruce bud worm and aphids, resulting in tree injury and death. *Future – greater incidence of existing diseases, resulting in even greater forest death; more new diseases and greater expansion of recently introduced diseases resulting in further tree injury and death*

# NS&AE Sectors

- Agriculture
- Boreal and temperate forests and dependent species
- Forestry
- Tundra and alpine ecosystems and dependent species
- Freshwater ecosystems and dependent species
- Marine, sea ice, coastal environment, and dependent species
- Other warm temperature impacts on animals
- Fishing: commercial and sport
- Subsistence fishing, hunting, trapping, and gathering
- Tourism
- Sport hunting and watchable wildlife

# Example

## Boreal and Temperate Forests and Dependent Species

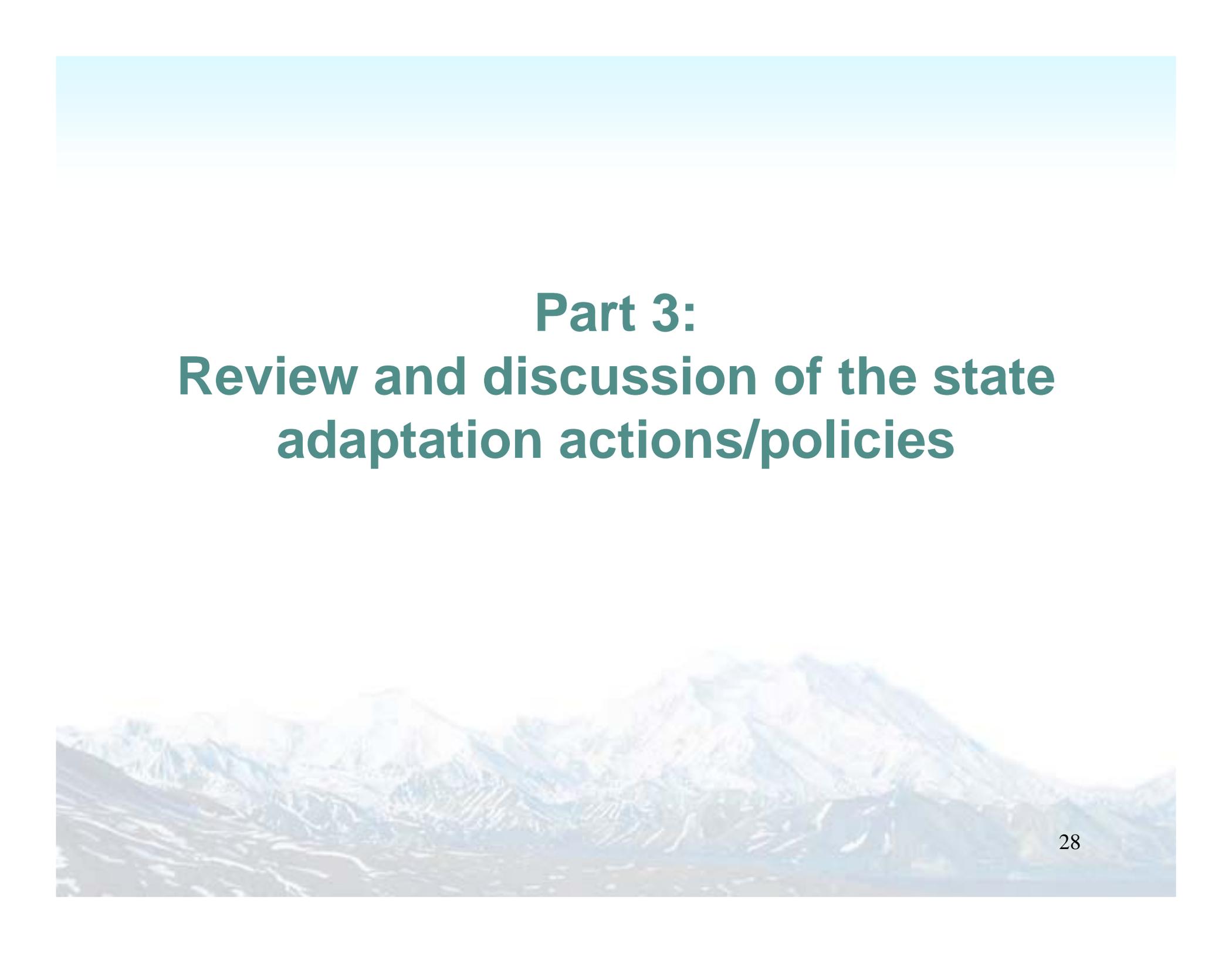
- (2) Forest insects and diseases
- (3) Forest Fires
- (4) Warming effects on trees
- (5) Plant invasive species in forests
- (6) Impacts on forest dependent species

**Others ? ? ?**

# Natural Systems and Associated Economies TWG Task #1: Review and Expand List of Impacts

**Draft of initial list to be posted at:**

[http://www.akclimatechange.us/Natural\\_Systems.cfm](http://www.akclimatechange.us/Natural_Systems.cfm)



# **Part 3: Review and discussion of the state adaptation actions/policies**

# Catalog of Alaska Adaptation Actions/Policies

- Adaptation actions are local, while mitigation actions are global
- Actions considered by a wide variety of US states provide a starting means to consider Alaska actions
- Preliminary Alaska analyses and needs for adaptation have also been conducted and assessed
- Many actions provide GHG reductions coincidentally or as a co-benefit
- Adaptation activities cover all economic sectors and a wide variety of implementation mechanisms

# NS&AE Catalog of State Actions

- Please see separate Catalog handout.  
[http://www.akclimatechange.us/Natural\\_Systems.cfm](http://www.akclimatechange.us/Natural_Systems.cfm)
- This will be covered in more detail in our second call supported with,
  - Brainstorming by you as a between-meeting assignment and
  - Colleen and Mike doing staff support work to compile your ideas.

# Catalog of Alaska Adaptation Actions/Policies

- Initial list developed by the National Commission on Energy Policy, other states, and the Center for Climate Strategies
- Existing, planned, and proposed state-level actions
- Wide variety of impacts and implementation mechanisms
- AAG and TWGs will add new potential actions initially without regard to cost, feasibility, or other issues
- Starting place for identification of AAG priorities

# Our Short-Term Schedule

- **Date:** Send out reference materials to you
  - Re-send of NCEP impact assessment
  - Catalog of States Adaptation Actions developed by NCEP, CCS, other states
  - Existing, planned and proposed state level actions
  - Links to other references
- **Date:** Input from you:
  - Add impacts to the list
  - Provide your personal brainstorm of state adaptation policy options
  - Using ‘Track Changes’
- **Date:** Mike and Colleen compile and return results to you
- **Time and Date of next conference call:** \_\_\_\_\_

# Our Next Meeting

## Agenda:

- Review missing impacts you added to the list
- Review the first catalog of state adaptation policy options you thought up
- Final writing instructions to Mike and Colleen who will draft the document for use by the CCAAG

# Public Input, Announcements

