**Mission Statement**
- Sustain natural ecosystem service in Alaska that meet society's essential needs, through adaptation to changing environmental conditions.

**Impact & policy areas considered**
- Agriculture
- Forestry and Wildlife
- Invasive Species
- Habitat & dependent species
- Water conservation
- Sea- and ice-forecasting
- Fish and wildlife management
- Commercial fisheries
- Tourism
- Public education

**Overview of Options**
- Active management of biotic resources
- Focus on each of the impact areas of highest concern
- Build on existing state authorities and programs
- Integrate adaptation into "business as usual"
- Set of actions for the short- to mid-term
- Modest additional funding needs

**Goals Underlying Options**
- Organize, coordinate, and facilitate access to research
- Review and modify (as needed) resource management policies, practices and plans
- Provide strategy plans and tools
- Establish and/or utilize effective forums for coordination
- Increase the adaptive capacity of local communities, the public and others

**List of Options**
1. Fisheries management
2. Wildland fire management
3. Freshwater management
4. Invasive species prevention and response
5. Adaptive fish and wildlife management
6. Sustainable agriculture
7. Public education and outreach

**Option 1. Fisheries management**
- Goal: to incorporate climate change into fisheries management and assist fishing communities and users in adaptation
- Benefits accrue to commercial, recreational, subsistence, and personal use fisheries
- Focus on both management policies and programmatic assistance
Option 1. Fisheries management: elements

1. Review of statutes, policies, management actions, and programs
2. Comprehensive assessment of existing monitoring programs
3. Development of centralized source of information regarding climate effects (linked to OA1-Knowledge Network)
4. Development of a long-term strategy

Option 2. Wildland Fire Management

• Review and modify Alaska's wildland fire policies and programs
• Will help maintain healthy forest ecosystems and improve household and community preparedness
• Benefits to life and property, jobs
• Potential GHG benefits through woody biomass for carbon-neutral energy projects and reduced carbon emissions from wildland fires

Option 2. Wildland Fire Management: elements

1. Increase capacity of communities to develop and implement Community Wildlife Protection Plans (CWPP)
2. Review selected wildland fire management practices for lands in Alaska
3. Develop a comprehensive fuels management program to treat high risk areas through fire and mechanical fuel treatment

Option 3. Freshwater Management

• Address effects of climate change on Alaska's freshwater resources through adaptive management
• Closes data gaps and strengthens water management structure
• Retain benefits of water services for communities, residents, industry, and transportation

Option 3. Freshwater Management: elements

1. Advocate with federal government to fill needs for data on stream flow and groundwater hydrology
2. Re-establish the Alaska Water Resources Board
3. Protect water for fish and wildlife habitat
4. Review and adjust water management laws, policies and practices, as necessary

Option 4. Invasive Species Prevention and Response

• Reduce the introduction and spread of invasive species
• It is more effective to invest in prevention and early control of invasive species than to combat their spread
• Alaska Invasive Species Council (House Bill 12)
• Partnering within state to develop and implement short- to mid-term actions (2-5 years)
Option 5. Adaptive Fish and Wildlife Management

- Improve capability to adaptively manage fish and wildlife species harvested in Alaska
- Elements:
  1. Develop and adopt a more timely regulatory process for the harvest of game
  2. Develop a coordinated framework that documents existing fish and wildlife monitoring efforts, identifies priorities for monitoring, and identifies gaps and potential for collaboration.

Option 5. Adaptive Fish and Wildlife Management (continued)

- Linked to NS-2 (element #2) similar assessment for monitoring focused on marine fishery resources and habitats
- Much of this option could be implemented relatively low-cost, but additional monitoring could be expensive

Option 6. Sustainable Agriculture

- Develop a program to support sustainable agriculture in Alaska that will improve, secure, and sustain the supply of quality, affordable food for all Alaskans
- Proposed actions fit within the framework of the Division of Agriculture’s 2008 strategic plan
- Could be achieved with moderate funding

Option 6. Sustainable Agriculture: elements

1. Encourage community-based agriculture
2. Research the magnitude and composition of food consumption in the state
3. Research the sources of food supply and the risk associated with high reliance on imported foods
4. Develop, cooperatively, a strategic Alaska Food Policy

Option 7. Public Education and Outreach

- Increase emphasis, curriculum, and training for delivery of climate change content in grades K-12 and increase coordination among existing programs and entities that address climate change education
- Can be provided under current science standards framework
- Can take advantage of related programs supported by non-governmental organizations
- Need goes beyond natural ecosystems