

# Alaska Climate Change Strategy Natural Systems Adaptation Technical Working Group

## **Teleconference – Monday, September 29, 2008**

The Natural Systems Adaptation Technical Working Group (TWG) met via teleconference on Monday, September 29, 9:00-11:00 a.m. (Attendance listed in Attachment 1.) The objectives of the meeting were to: (1) review work done to date and discuss the products the TWG has been asked to develop, and (2) plan for the October 27-28 TWG meeting in Anchorage, including assigning pre-meeting work to ensure that the October meeting results in completion of a Catalog of natural system adaptation options.

### **Progress to date**

The Natural Systems TWG met on June 18 and 30, 2008, to review an initial/draft catalog provided by the Center for Climate Studies. In August, several TWG members consolidated the document into a more manageable and relevant list of adaptation policy options. However, the full TWG was not involved in that effort and it was not completed.

### **Work to be done**

The TWG is focused on completing a catalog of adaptation options that is relevant to expected changes in Alaska's natural systems as a result of climate change – and the adaptations that users of the biotic resources in Alaska may be required to make. TWG members will refer to the draft catalogs that were developed over the summer, so that work will not be lost.

### **Preparation for October 27-28 TWG work session in Anchorage**

The group agreed to develop two major sections to the Natural Systems Adaptation Catalog:

- I. **Changes to Habitats and Dependent Species** – This section will summarize the expected effects of climate change on Alaska's habitats and the fish and wildlife that depend upon those habitats. It will address potential changes in:
  - Freshwater habitats and dependent species
  - Marine habitats and dependent species
  - Terrestrial habitats and dependent species

This section will set the context for the adaptation analysis by evaluating what changes are likely to occur in Alaska's natural habitats and dependent fish and wildlife species in response to climate change. The section will (1) inform what types of human adaptation will be needed to these changes (presented in Section II, below), and (2) indicate what research and monitoring is needed related to natural systems (to be forwarded to the Research Working Group).

II. **Adaptation of Human Uses of Alaska’s Natural Systems** – This section will be the “catalog” of relevant actions that the State of Alaska could take to adapt to changes in Alaska’s natural systems due to climate change (informed by the summary of natural system change provided in Section I, above). It will address the following topics, for which adaptation options will be recommended:

- Agriculture
- Forestry
- Wildfire
- Invasive Species (all habitats) and Disease (plant/animal)
- Commercial Fishing
- Subsistence Uses
- Sport Hunting & Fishing
- Water Conservation and Management
- Education & Public Outreach (note that this likely spans all TWG areas)

**ASSIGNMENTS** – The TWG members took on assignments to contribute draft sections of the catalog. **TWG members will submit their draft catalog sections to Jan Caulfield at [janc@gci.net](mailto:janc@gci.net) by Monday, October 20.** Jan will compile a working-draft of the catalog to discuss and revise at the October 27-28 meeting.

**Section I Assignments: Summary of expected change in habitats and dependent species**

<b>Catalog Section</b>	<b>TWG Members working on this</b>
Freshwater habitats and dependent species	Eric Volk ( <i>Jan needs to communicate with Eric about this</i> )
Marine habitats and dependent species	Molly McCammon, Amy Holman, Jeff Short
Terrestrial habitats and dependent species	Tom Paragi (wildlife, non-forest habitats), Chris Maisch (forest habitats) ( <i>Jan needs to communicate with Chris about this</i> )

For these three habitat types and their dependent species, prepare a summary (2-4 pages, with citations) of the primary elements of potential change to the habitat and dependent species that must be prudently considered in this adaptation analysis. Address the following:

- Summary of expected changes over three time frames (short: 10-25 years, mid: 50 years, long: 100+ years), with an emphasis on shorter-term change.
- Recommend research and monitoring (long-term data collection) needed to further understand change and to document change in these systems.
- If relevant, recommend products that SNAP could provide to contribute to an understanding of change in these natural systems.

(Note: There is a *very* draft document called “*Sector 3: Natural Systems and Associated Economies*,” prepared by Center for Climate Strategies, that briefly summarizes potential changes. This document lacks citations [which was raised as an issue by the TWG at its June 18 meeting], but was said to be based on: “(1) letters from state agencies to the Climate Impact Assessment Commission; (2) the Arctic Climate Impact Assessment (ACIA); (3) scientific studies, reports, newspaper articles, and other documents published since the ACIA; (4) conversations with state and other officials; and (5) testimony presented before the ACIA Commission and other proceedings.” I have attached that document for your reference.)

**Section II Assignments: Catalog of potential adaptations to human use of natural systems, to respond to change in habitats and dependent species**

<b>Catalog Section</b>	<b>TWG Members working on this</b>
Agriculture	Tony Nakazawa
Forestry	Chris Maisch
Wildfire	Chris Maisch, Gerd Wendler
Invasive Species & Disease (Plant/Animal)	Trish Wurtz
Commercial Fishing	Molly McCammon, Amy Holman
Subsistence Uses	Jim Simon, Tom Paragi
Sport Fishing and Hunting	Tom Paragi
Water Conservation and Management (hydrology, water supply, water conservation, instream flow issues)	Eric Volk (?), or draw adaptation options that were added to the initial catalog regarding instream flow reservations, etc.
Education/Public Outreach (schools, broader public)	Tom Paragi, Molly McCammon

For each topic area, prepare a “catalog” of relevant actions that the State of Alaska could take to adapt to changes in Alaska’s natural systems due to climate change (informed by the summary provided in Section I, above). For each item, list the possible **action(s)**, and very briefly identify **who would be involved** in implementation and the intended **outcome**. I suggest that your list be limited to 6-10 different actions per topic area, if possible. Recommendations could range from fairly broad actions (e.g., establish a local/state/federal task force to consider some focused issue), to more concrete actions that could be implemented more readily.

(Note: Both the initial catalog (distributed by the Center for Climate Strategies prior to the June 18 TWG meeting) and the consolidated catalog (distributed via email from Jan on September 25) could be sources of ideas for these sections.)

**Additional Notes**

- **Important to recommend research and monitoring** that is relevant to natural systems (e.g., data to support models and analysis, data documenting change in systems, research to help understand likely effects of climate change). Recommend these to the Research Working Group.
- Also, need to have a **monitoring component for the adaptation actions** that are recommended. Monitor to ensure that the desired outcome of the recommended

action was achieved. Include this type of monitoring in the Natural Systems TWG report regarding the high priority adaptation options.

- Need to record “loose recommendations or thoughts” to ensure that they are being addressed by another TWG.
- Recommend that the Scenarios Network for Alaska Planning (SNAP), initiated in 1980, be evaluated to determine to what degree the modeling conducted in that 26-year time period has been an effective predictor of the change that has actually occurred.
- Consider in future criteria –
  - How pressing is each issue? Adaptation policy that is addressing an **imminent** concern should be ranked higher.
  - What is the **risk** of not acting, or of taking the wrong action?

## Next Steps

October 27 and 28, 2008 - Anchorage Sheraton Hotel (with teleconference connections)

Objectives: (1) Review and revise draft Catalog; outcome = final Natural Systems TWG catalog. (2) Adopt criteria that will be used to select the highest priority adaptation options to recommend to the Adaptation Advisory Group.

Monday, October 27:

- 9:45 – 11:45 a.m. – Alaska Tribal Conference on Environmental Management. DEC will give an overview of the Climate Change Strategy development and there will be a brief opportunity for discussion with conference attendees about the work of the Adaptation TWGs.
- Lunch – U.S. Climate Change Science Program. Briefing on this program and opportunity for you to provide input to EPA and USGS.
- 1:00 – 5:00 p.m. – Natural Systems TWG meeting

Tuesday, October 28:

- 8:30 a.m. – 12:00 – Continue TWG meeting.

November 7 – Adaptation Advisory Group meeting in Anchorage (TWG members not required to attend)

November – January – (1) Balloting to select highest priority adaptation options to recommend to Advisory Group; (2) for each of the options on this short-list, the TWG needs to develop a 3-5 page white paper that more fully describes the option, outcome, implementation, etc. (Expect topics to be assigned to individuals or small groups for drafting).

Future Teleconferences – Need to set dates farther in advance. Jan will poll members about availability for teleconferences in November, December and January.

Week of February 2-6, 2009 - Natural Systems TWG meeting in Anchorage. Final review of report to Adaptation Advisory Group (review of the compiled white papers for short-listed, high priority adaptation options).

March 2009 – Adaptation Advisory Group meeting, to review TWG recommendations.