



Meeting Summary

Alaska Climate Change Strategy - Adaptation Advisory Group (AAG)

Public Infrastructure Technical Work Group (PI TWG)

Meeting # 2 (teleconference) - October 10, 2008 2:00 pm -
4:00 pm

ACTION ITEMS

1. *The 3rd PI TWG meeting will be October 27, from 1:30-5:00 pm at the Sheraton Hotel in Anchorage.* While a call-in will be available, in-person participation is strongly encouraged. (All PI TWG members are planning to attend.)
2. Barbara Sheinberg will prepare a meeting summary to capture today's direction and discussion, and send a draft reorganized catalog with ideas on common, policy/program themes to John Madden and Andy Jones.
3. John Madden and Andy Jones will work on reorganizing the catalog to reflect today's discussion of policy-programs-projects. ***A draft will be sent to Sheinberg by Thur. October 17.***
4. Sheinberg will combine Madden/Jones & other work/information and ***on October 20 distribute a new Draft Catalog and meeting agenda (for October 27 meeting).***
5. On October 27 the PI TWG goal will be to revise and achieve consensus on the catalog of options, and potentially "ballot" (identify top 6-10 policy options to flesh-out in more detail and move forward to AAG and Sub-Cabinet).

Other

Prior to the 1:30pm meeting on October 27, PI TWG members are encouraged to attend the following, all at the Sheraton Hotel (please RSVP to Jackie Poston, ADEC).

- **9:00 am. Plenary for Alaska Tribal Conference on the Environment (ATEM)- Opening Keynote: Peter Captain Sr.**
- **9:45am - 11:45 am. Climate Change – How can Alaskans Adapt to Changes? Session with ATEM to present overview and have dialogue and information exchange.** This is an opportunity to explain and receive input on the State's effort to develop an Alaska Climate Change Strategy and the Climate Change Science Program. Discussion areas: Health and Culture, Natural Systems, and Infrastructure (public and private).
- **12:00 pm - 1:30 pm. Lunch for TWG being provided by USGS and U.S. Climate Change Science Program (CCSP) Office.** Two of the CCSP

Principals, Joel Scheraga, EPA's Director of Global Change Research, and Tom Armstrong, USGS's Sr. Advisor to Global Programs, will be here from Washington DC to ask for Alaskan perspective on Adaptation and Mitigation.

ATTENDANCE

- PI TWG Members: Chris Mello, Greg Magee, John Kreilkamp, John Madden, John Warren, Larry Dietrick, Patricia Opheen, Vladimir Romanovsky
- AAG PI Members: Bob Pawlowski, Bruce Botelho, Denise Michels
- Staff: Andy Jones (Alaska DMVA/HSEM), Jackie Poston (ADEC/EPA), Susan McNeil (ADEC), Barbara Sheinberg (Sheinberg Associates, PI TWG facilitator)

DISCUSSION HIGHLIGHTS

This is the 2nd meeting of the Adaptation Advisory Group's (AAG) Public Infrastructure (PI) Technical Work Group (TWG). The first meeting was in July 2008. Comments on the initial (July) catalog of options were solicited by new group facilitator Barbara Sheinberg in late September. Comments submitted were incorporated into the catalog, and an "October 8" version of the catalog was distributed for review.

No specific policy options in the draft catalog were discussed; instead PI TWG members talked about the larger policy and program matters that must be identified and articulated before any specific policy options/actions are considered. These larger considerations must be captured in the catalog too.

The current (Oct 8) draft catalog is unsatisfactory and unacceptable.

- It is a long, long list of every possible public infrastructure impact due to climate change, and with Lower 48 rather than Alaskan filters and realities applied.
- Reorganize to focus hierarchically on policy-programs-projects. Step back and first identify the key policy issues and decisions that are and will be needed with regard to climate change and the effect on Alaska's public infrastructure and spending. Next, the program areas and topics for which direction is needed must be presented in a logical manner. Finally, the priority projects and actions in each program area can be presented.
- The current list of 'policy options' in the draft catalog is redundant, some are not public infrastructure, some are irrelevant, is unacceptably focused on sea level rise, and is not organized correctly (by type of infrastructure).

Policies and procedures are needed before projects and actions be discussed or occur. Identify the:

1. Key policy decisions that are needed to guide public infrastructure and building investment and design in light of Alaska's changing climate, and in the absence of 'perfect' information;
2. Programs and procedures that are needed, such as data gathering, developing predictive models, etc.; and
3. Priority areas to focus on and actions to take.

Define the best information on current, and expected future, variations and trends due to climate change in Alaska, by region (as there is great regional diversity). A clear statement is needed in order to determine the vulnerability of public infrastructure.

- We need common talking points.
- What change is due to global warming and what due to natural variation?
- What rate of change do we use when assessing impact of climate change on infrastructure?
- What term is preferred: climate change, climate variation and trends, extreme weather?
- Need to do a vulnerability assessment; this is paramount.
- Sea level rise has not been documented or proven in Alaska. The thing that has been documented is sea level fall, because coastal areas are rising in Alaska relative to sea level due to glacial rebound.
- Much more important than 'sea level rise' in Alaska are: increased coastal inundation, increased coastal erosion due to reduced sea ice (longer fetch and more wave action), increased storminess, increased storm surge, increased thawing and degradation of permafrost, reduced extent of sea ice in Arctic Ocean and Beaufort Sea, longer ice-free season in Arctic Ocean and Beaufort Sea, more rapid glacial melting resulting in increased siltation, etc.
- Data, trends, monitoring is needed, recognizing that models and understanding will change over time.

The relationship between public and private infrastructure needs to be considered and explored.

- Look for areas of overlap and define consistent approaches to vulnerability assessment and decision-making for future investment.
- A division between public and private infrastructure is artificial; these topics have more in common than differences.
- Community buildings and infrastructure includes those we own, use, have been built for us, and that are private sector but we use and depend upon.

Outstanding information needs and decision-making processes:

Key questions are:

1. How do we protect existing infrastructure?
2. How do we mitigate damage from the wider range of weather variability that is expected?
3. How do we decide what new infrastructure investments are appropriate, and where?

Decision-making on public infrastructure investments, project design and construction are ongoing. Alaska needs to:

1. Gather data on changing climate conditions,
2. Promulgate new foundation designs for changing conditions,
3. Predict new life cycle operating and maintenance costs for public infrastructure and buildings, and
4. Continually monitor conditions.

How much risk does the public want to take on, what is acceptable?

1. For short term decisions. Assume that permafrost is degrading at a more rapid rate, that melting is occurring more rapidly, etc. and that construction, operation and maintenance costs will all be higher than in the past.
2. For long term decisions. The state needs to identify the best model scientists have to predict future conditions in Alaska, by region.

Alaska must:

1. Protect existing infrastructure that is currently threatened. (Need a systematic way to identify what is currently threatened.)
2. Prevent future problems with existing infrastructure by taking action to mitigate potential problems. (Need a systematic way to identify what infrastructure needs to be protected, and what standards to build to and techniques to use for protection.)
3. Site, design and build future infrastructure in ways that anticipate expected future conditions. (Best information on likely future conditions, by region, must be consistently and clearly defined.)

A process for sharing information and decision-making among local and tribal governments and state and federal agencies is needed.

- There is often times a disconnection between a community's local policies and state and federal government decision-making and policies. Better alignment is needed.
- Local communities often know a great deal about adopting infrastructure to local conditions, and state and federal policies and investment decisions may not be aligned.

An integrated policy, planning and decision-making process is needed.

- It must include local, state and federal infrastructure and building decisions and agencies. For example, it must include schools, clinics, ports, road, airstrips etc.

- There should be a single, cabinet-level review that is one-step and ensures all public infrastructure and building investment decisions have taken climate change into account. This will ensure investment decisions are consistent and compatible. (It is reported that the COE, Denali Commission, ADEC, others are discussing a concept like this now.)

A clear policy statement is needed that Alaska will design public buildings and infrastructure to meet changing climate conditions.

- The state needs a decision-making process and criteria to determine whether public funds should be spent and repairs made to public infrastructure and buildings, or, if relocation of the infrastructure or building is more appropriate.
- Should there be a hierarchy of the types of public infrastructure to protect or relocate first, for example public drinking water and sanitation?
- The state must make informed decisions; without information this is impossible.
- Alaska's decision-makers need to know what conditions will be like in regions and communities in 40 years.

Consider developing a prototype Adaptation Plan for communities that addresses public health, infrastructure and buildings.

- Consider requiring communities to have an Adaptation Plan in place before public infrastructure and building investments are made.