



Public Infrastructure (PI) Technical Work Group (TWG) October 27, 2008 - Meeting Summary

On October 27 some members of the Public Infrastructure (PI) Technical Work Group (TWG) attended sessions of the Alaska Conference on Tribal Environmental Management (ACTEM) and a luncheon among all TWG members and Climate Change staff from the US Geological Survey (USGS) and Environmental Protection Agency (EPA). In the afternoon a PI TWG meeting occurred. All meetings were at the Sheraton Hotel in Anchorage, Alaska. A summary of comments and discussion from each session is in this meeting summary.

1.0 ACTEM Listening Session Comments Relevant to PI TWG

Unalakleet speaker - Pleased with investments and commitment the State and COE have made there; they are pleased and thankful.

Lower Cook Inlet speaker - How are EPA & state coordinating? Tribal representatives are needed on committees. Every tribal organization has an environmental planer and program thanks to EPA IGAP funding, use these resources.

Anaktuvuk Pass speaker- Would like more access to monitoring and climate data being gathered. Would like to see data and photographs on glacial melting rates and patterns in are mountain ranges. There was a 250,000 acre tundra fire burning from July to October last year.

Koyukuk speaker – Need local aerial photography and mapping.

Ft Yukon speaker - It's great to have new infrastructure and facilities, but some rural communities are facing critical operating and maintenance funding and capacity issues. To be sustainable the ability to operate and maintain the infrastructure must be considered. In some cases less sophisticated technology and design may be the best choice.

2.0 Luncheon Comments Relevant to PI TWG

It doesn't help to share climate data gathered 1-3 years; it's needed now, in real time, by communities and others.

Comprehensive threat identification and risk assessments for infrastructure is needed.

Need to develop probabilistic design tools for infrastructure.

Public works projects are generated and funded locally all over the state. Local leaders and communities need climate and hazard data in an understandable format now in a format they can use and make actionable for local needs. Data must be translated and offered in a usable format.

Need to document values, goals and objectives for this process and for each TWG. Make the assumptions that are behind decisions explicit. People are the underlying value.

3.0 PI TWG Meeting, 1:30-5:00 pm

A. Attendance

- PI TWG & AAG members: David Atkinson, Greg Magee, John Madden, John Warren, Larry Dietrick, Mike Black, Mike Coffey, Trish Opheen, Vladimir Romanovsky, Amy Holman, Billy Connor, Bob Pawlowski, Meera Kohler, Steve Ivanoff, Steve Weaver
- Others for at least part of meeting: Fran Sussman, Jackie Poston, Tom Armstrong, Clint Adler, Andy Jones, Joel Scheraga, David Kang, Paul Kendall

B. Discussion Highlights

The Catalog and Process.

The main meeting objectives are to review the catalog and bring it closer to a final version and review criteria to use for balloting. There is a strong push to have PI TWG recommend priority policy options identified by the November 7 Adaptation Advisory Group (AAG) meeting.

This version of the catalog is much better than the July version. The exercise now should not be eliminating, it is consolidating and lumping. The groupings are important. There are only a few key policy issues. The job now is to better identifying the true policy calls, and then identify the projects that are related to that policy and prioritize. This is not an exercise in eliminating.

Many of the examples in the catalog, for example siltation in harbors, may not need to be there. There are lots of reasons for siltation in harbors. We need to be careful with the wording. Some of these tasks or actions are dangerously open ended and need to be more specific.

Public Infrastructure Policy Needs and Considerations.

Does regionalization of vulnerable infrastructure makes sense to minimize risk?

Community relocation is not a new issue. It may be instructive to review past cases and what worked and did not vis-a-vis relocation. It is noted that the Denali Commission did such a report

that reviews 15-20 communities. What has changed, compared to 30 years ago, is that we've removed adaptability from our infrastructure and communities by pouring concrete and driving piles. Before, foundations were not fixed and it was much easier to move and relocate.

A vulnerability assessment tool is needed to determine whether it makes more sense to invest in incremental adaptation of infrastructure or relocating infrastructure.

First, protect already built infrastructure. Second, build new infrastructure to revised standards that address climate change hazards and impacts.

Remember it is hazards that climate change creates or worsens that we must be concerned with addressing, not climate change per se. The sequence of action needed is to:

1. Catalog primary and secondary (derivative) hazards (e.g. vegetation changes, precipitation changes).
2. Conduct a vulnerability analysis at a local or regional level, of risk due to hazards.
3. Then, guides public infrastructure investment to mitigate, prevent and avoid.

We can and should talk about the degrees of hazard and risk.

What is needed is:

1. A vulnerability assessment tool. It must be a usable database that is available to all - federal agencies to local communities.
2. Develop new engineering codes and standards and best management practices based upon our understanding of the vulnerabilities that public infrastructure will be facing.

We need strategies for making immediate, near term and longer term public infrastructure investment decisions.

This cannot be about prioritizing one community, watershed or industry before another; it is not about what or who is more important. It is about identifying short, medium and long term vulnerability and risks and then making sequenced decisions to address risk. No one should drop off a list because they are less important, but is it about sequencing investment decisions.

We need clearer standards, better definitions of what we are building to, better standards.

Steps to take with regard to public infrastructure.

1. Hazards identification.
2. Risk/vulnerability assessment.
3. Retrofit existing infrastructure.
4. Develop new engineering and design standards and codes.
5. Gather data and monitor.
6. Community planning.
7. Provide data to locals in a readable way.

Acknowledge the complexities.

Coordination of Decision-Making.

Encourage coordination so multiple entities are making infrastructure investment decisions through a collaborative process.

A group is needed that reviews, identifies and recommends best designs; we need to know how to build new infrastructure (examples cited of clinics built with ceilings that are too high, barge landing located in wrong locations etc.).

Alaskans should collaborate with Canadians; they have done a lot of work on engineering and design for conditions similar to what we are facing.

The Denali Commission is working on a Memorandum of Agreement for construction of public infrastructure with about 20 other entities.

Community planning and infrastructure planning and investment decisions need to be aligned.

It is not uncommon now to invest in building a road, and a few years later invest in a sewer system, which requires tearing the road up and putting in patches. We need to have better coordination. This isn't about climate change per se but climate change is bringing these issues to the forefront.

Community Information Needs.

Community and regional leaders need to be able to forecast how much time they have. Will their community's infrastructure last 10 years or 20 years before an investment to fix it is needed? They need to be able to forecast. Communities need a projected timeline to assist with their planning and investment decisions.

A prototype community adaption plan is being currently developed.

What communities need is a multi-layered map with public infrastructure vulnerabilities and risks shown; like an isothermic map. We need maps that show predicted shoreline erosion and rates, river erosion, flooding etc. What and where are the key vulnerabilities? Are these short-term, long-term is risks? Communities, utility and power managers are reacting all the time; we need a predicative tool.

Problems with Current Policy.

Current policies sometimes force bad decisions. For example:

- In an emergency or disaster, funding is available to accomplish repairs, but funding is not available to prevent an emergency by protecting a road so it doesn't wash out.

- Policy now generally prohibits investment in a community facing relocation, yet policies prevent building the infrastructure in the new community location because no one is living there yet.

Discussion of Draft Criteria for Balloting.

Six criteria were discussed that are similar to those that other TWG are using to identify the priority recommendations they wish to forward to the AAG (“ballot”). The criteria are Significance, Benefits and Effectiveness, Costs, Feasibility, Timing of Impact and Adaptive Capacity.

There is discussion about whether concerns being discussed regarding draft criteria reflect a lack of having stated the PI TWG values, objectives and goals. In response it is suggested that this is not the concern, that the Governor, subcabinet and AAG have established our overall values, goals and objectives with regard to climate change. The PI TWG job is to focus on our specific deliverables, to recommend policies that must be addressed to adapt Alaska’s public infrastructure to the hazards climate change is creating.

There is objection that balloting dilutes the group’s work. More discussion is merited to allow identification of higher level policy and programs. There is still work to be done to consolidate.

Some suggest that the criteria are value-laden. For example, with regard to cost, infrastructure investment decisions should not be eliminated because the cost is high or low. Virtually all communities need an evacuation route, but some communities need one immediately.

Regarding feasibility, the issue isn’t whether a policy can realistically be implemented by the state, or is it instead more appropriately a federal matter. It isn’t a problem if others are needed besides the state, in fact many options will require partnerships to implement.

Regarding timing of the impact, it is noted that the IAWG is looking at actions for 12-18 months and will likely broaden the number of communities it addresses. This is not duplicative with our work though and we would not eliminate consideration of options that might be needed in 12-18 months. However, this may not be a good rating for policy options, it may be more appropriate for programs or tasks.

We need criteria that considers the impact overtime, the sustainability. This is important; protecting communities for the long haul.

Is there a place in the criteria where cultural implications are considered?

What Is Next.

After priority options are identified, the PI TWG is to develop a 2-6 page paper for each. A strawman for the paper is being developed, it will include items such as:

1. These are the impacts and vulnerabilities to this sector.
2. This is the process we used, how substantive was the analysis.
3. The criteria used.
4. What came to the top and why.
5. What did not come to the top and why.

Next PI WTG meetings

- **Friday, October 31, 2008, 11:00-1:00 pm** (CALL-IN phone number to be identified)
- **Wednesday, November 19, 2008 3:00-5:00 pm**(CALL-IN phone number to be identified)