

Synthesis of Comments and Responses – August 19, 2009

Commenter (* indicates AAG member)	Document name	Page #	Line #	Suggested line edits	Other Comment	Response to comment
Thomas Paragi	Ch. 5 Natural Systems	5-6	33	change "wildlife" to "wildfire" when referring to CWPP		Changed in Ch. 5 and acronym list. No change needed in appendix F.
Thomas Paragi	Ch. 5 Natural Systems	5-12	Box 5-4		Nothing for wildlife (NS-5)?	It is there—just combined with another option.
Terry Chapin*	Chapter 2	2-1	22	Delete "likely". Otherwise the word appears twice in this sentence.		Edit made
Terry Chapin*	Chapter 2	2-3	6	Hyphenate "rain-on-snow"		Edit made
Terry Chapin*	Chapter 2		36-38		I would be surprised if these numbers are correct. Does this mean that 40% of the runoff into the Gulf of Alaska is coming from net loss of glacial ice rather than from current precipitation? That number seems unbelievably huge; even 5-10% would be surprisingly large. If correct, this number certainly needs a citation. Also, the global sea level rise is wrong. According to IPCC 2007, global average sea level rise during the current century is expected to be 0.6-1.9 feet (the range of estimates across all the IPCC scenarios).	Changes made to section and citations added in. Have changed to IPCC citation, and also provided some newer studies that are finding slightly different estimates.
Terry Chapin*	Chapter 2	2-4	8		Oceans absorb about 50% of fossil fuel emissions (see line 1 of box 2-1). At the very least, the number on line 8 should be consistent with box 2-1.	Edited text to be consistent
Terry Chapin*	Chapter 2	2-6	9, 26	citation to IPCC provided		added to reference list and text
Terry Chapin*	Chapter 2	2-7	32-33	I would think the best reference would be Peter Larsen's ISER report (Larsen et al. 2007, which is already in the references).		made changes—but used the later version that has been added.
Terry Chapin*	Chapter 2	2-8	Box 2-2		The best reference for the Arctic Climate Impact Assessment is ACIA 2005, which is the book that provides the detailed documentation for all the statements about arctic change. Weller 2005, which is cited in this box and elsewhere in this chapter is just the verbal summary--not the entire report and	References were left as they are. Detailed documentation for the statements is, indeed, in the ACIA 2005 report. But in writing this Chapter, we did not refer to the full report but only

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					neither is ACIA 2004 (which basically says the same text as Weller 2005 but put out as a preliminary report the previous year). The most appropriate reference to replace Weller 2005 and ACIA 2004 in support of the statements made in the text would be the entire ACIA 2005 report. This reference is: ACIA. 2005. Arctic Climate Impact Assessment. Cambridge University Press, Cambridge. This change in reference should be made throughout the report (all chapters). I think this change is important because many of the statements we make are not backed up by Weller 5005 or Acia 2004 but are only found in the full Acia report (ACIA 2005). Weller 2005 is the summary chapter in ACIA 2005, so would be a component of the information in ACIA 2005.	to the Synthesis Chapter (Weller) and the distillation prepared by Susan Joy Hassol (ACIA 2004). If the reader wants to find the information in the chapter, they would be best served by going to the sources that were used and cited, and then going to the ACIA 2005 report if they need additional information. The ACIA 2005 report is very long and can be difficult to find information in, and so we hesitate to direct the casual reader of this report to that source.
Terry Chapin*	Chapter 2	2-12	Box 2-4	paragraph 3, line 6 should read "in turn"		edit made
Terry Chapin&	Chapter 2	2-13	26	says that agriculture is included in the NS TWG. It currently is not there.		No change. Agriculture was originally identified as part of the impacts to be looked at by the TWG. This is the case, even if there are no options that were identified as high priority, or (because of overlap with other groups) decisions were made about moving options to other groups. Agriculture options that were moved to other groups were originally identified in this group, and were part of its mission.
Terry Chapin*	Chapter 3	Page 3-1, line 13: insert "actions" (or some other noun) after long term. I really like Fig. 3.1. Page 3-2, box 3-2, benefits and effectiveness bullet: The current wording seems more appropriate for the mitigation than the adaptation panel. I would suggest something like: "Effectiveness of recommended				Edits made

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				<p>option in adapting to climate change by minimizing negative effects and maximizing opportunities, as well as gaining ancillary benefits"</p> <p>Page 3-2, Box 3-2, adaptive capacity bullet: insert "adapt" after systems</p>		
Terry Chapin*	Chapter 5			<p>Page 5-1, lines 17-18: Change 4-7 C to "7-13 F" and change reference to ACIA 2005 (see comment about page 2-8).</p> <p>Page 5-3, box 5-2. These summary recommendations are so vague as to be nearly meaningless. Here are a few succinct suggestions:</p> <p>NS-1: Change "fisheries management" to "fisheries assessment and management"</p> <p>NS-2: Change "programs" to "programs to address increased wildfire risk"</p> <p>NS-5: Change to read: "Adapt harvest regulations and monitoring of fish and wildlife to respond adaptively to climate changes."</p> <p>Page 5-5 diagram, freshwater resources: I would add a check marks for "access to data.." and "assessment.."</p> <p>Page 5-8, line 24: Delete "effect"</p> <p>Page 5-8, line 30. Period at end of sentence.</p> <p>Page 5-9, line 13: Change "pilot study" to "pilot collaborative study with communities"</p> <p>Page 5-9, lines 27-33. I would delete all reference to Climate change literacy (NS-7). It is already included in the over-arching themes, and there is no need to tell the state that it was originally attached to this TWG. If this text is retained, change "literacy" to "education"</p> <p>Page 5-10, last bullet (16): Change "Assess" to "Assess and improve"</p> <p>Page 5-11, bullet 33: Remove parenthetical statement; this is an editorial note, not part of the research need. Also, PERHAPS remove the parenthetical statement from bullet 34 regarding sustainable agriculture. Also, I don't understand the numbering system. Why aren't the needs listed in numerical order? I assume the numbers are NOT intended to indicate a priority ranking.</p> <p>Page 5-11, bullet 28: reword statement for clarity: "Improve data and access regarding fish and wildlife populations and harvest rates"</p>		<p>Edits made as indicated or with slight changes, with exception of ACIA (as noted above). Additional changes made to bullets in Boxes on research needs to provide clarity. In all research needs text boxes in all chapters numbers were checked to be sure they conform to numbering in the RN report, and a note was added at the bottom of every RN text box in Chapters 4 through 8.</p>
Terry Chapin*	Chapter 8			<p>Page 8-1, second diagram, CT-1: delete checks under "data collection", "regulatory..", and "infrastructure". The idea is to create a virtual center that will be cost-effective and not collect data or create infrastructure. It should inform but be independent (buffered) from state political actions such as regulatory decisions and policy implementation.</p>		<p>Check boxes changed to reflect comments. All other edits and additions incorporated.</p>

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				<p>CT-3; Add a check to community response and assistance column; delete check under data management; add check under assessment</p> <p>Page 8-3, Box 8-1, CT-1, line 2: Change "manage data" to "manage data and foster its use for adaptation". In the view of the committee that developed this recommendation, fostering use of the data by communities, agencies, businesses and other stakeholders is THE primary purpose of this policy recommendation. That notion should be captured in this summary statement.</p> <p>Page 8-4, line 1: Change "jto" to "to"</p> <p>Page 8-4, line 26: Change "measurements" to "measurements and to receive easily understood and locally relevant information for climate change adaptation" [This is an essential feature of this center that is not captured in the current bullet points.]</p>		
Terry Chapin*		8-7	Box 8-2		<p>This selection of "current activities" fails to capture the breadth of current activities within the state. Three of the activities are planned rather than "current", and 3 of the 4 are NOAA activities. I would suggest the following changes as a relatively quick fix, although a more thorough rethinking of this list to include current activities (including non-federal) would be a good idea. The planned activities are very important for Alaska, so you might even consider splitting this box into two boxes on "Current activities" and "Planned activities". My quick-fix suggestions are:</p> <ol style="list-style-type: none"> 1. Shorten the ACCAP section by deleting the text after "development" on line 5. If the SNAP text (see below) were placed before ACCAP, the following sentence ("They work closely with SNAP to communicate...") would still be appropriate, but the last sentence seems redundant and unnecessary. 2. Combine the two NOAA planned activities into a single bullet (ask Amy Holman to do this). [This is not essential but would avoid the problem of including 3 NOAA activities in the list.] 3. Develop a short description of SNAP. Here is some potential text: Scenarios Network for Alaska Planning (SNAP) is a 	<p>These lists were intended to provide the TWGs an opportunity to insert a sampling of relevant activities & initiatives.</p> <p>The ACCAP text box was removed and info added to ACCAP bullet in first text box.</p>

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					<p>collaborative organization linking the University of Alaska, state, federal, and local agencies, and NGOs to provide timely access to management-relevant scenarios of future conditions in Alaska.</p> <p>4. In general, I think that succinct descriptions of each activity is preferable. Most of them could be shortened.</p>	
Terry Chapin	Chapter 8	general			<p>Chapter 8 verges on advocacy of certain activities/initiatives in a way that strikes me as potentially counterproductive. The report will be more favorably received if no single program or agency gets over-represented in describing existing activities and potential actions. See especially Boxes 8-3 and 8-4.</p>	<p>The TWG members prepared the lists of programs and activities. It would take considerable resources at this stage to expand the lists of programs and activities in all the chapters to be exhaustive. As described above, we have added disclaimers and tried to make the text boxes more balanced, in this as in other chapters.</p>
Terry Chapin*	Chapter 8	8-8	bullet Ct/RN9	Change "provide communities with" to "engage communities in"		Incorporated
Steve Weaver*	Chapter 4	4-8	line 5	I would add to required action item 1 the word "collection" (line 5, pg 4-8) #1 would then read: "There must be across the board improvement in the <u>collection</u> , coordination and accessibility of information." Most folks won't read past the summary and the need to ramp up collection will be missed if it is not highlighted there too.		Added "collection"
Steve Weaver*	Chapter 4	4-8 4-10	Line 9 Line 30		I notice in action item #2 (starts line 9, pg 4-8) that the University of AK is no longer identified as a possible candidate for the clearing house function. Was that deliberate or an oversight? If it was an oversight, it should also be added to PI-1 actions needed list #6 (beginning line 30 pg 4-10)	This was not oversight or removal, but how the Chapter was submitted by the TWG (before the June AAG meeting). The University is still referred to in the Appendix, which is where we would expect folks to go for additional detail or at the stage at which implementation is occurring.

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Steve Weaver*	Chapter 4	4-10	14, 22	<p>I don't think Updating the Environmental Atlas of Alaska is a stand alone task (line 22 pg 4-10) It is really a result of and part of item 2. I recommend you add the following text @ the current line 14: "This information should also be used concurrently to update the Environmental Atlas of Alaska. This would then become the last sentence of Action Item#2. Action item #2 is the collection and organization of the data in the atlas; the two tasks are the same effort, although the overall #2 is broader in usage than just the atlas.</p> <p>In conjunction with this change I suggest you then take the para in current lines 14 thru 21 and use that to make a new action item #3 Vulnerability assessments is a separate effort engaging a different group of people than data collection. I am thinking it will be predominantly local leaders as it will be too expensive to pay professionals to do the whole state. They will be using the data collected in action item #2 to do the job. The effort required is big enough and important enough in my opinion to rate a separate task.</p>		Edits made Appended #2 with Env Atlas and created #3 Vulnerability Assessments with current lines 16-25.
Steve Weaver*	App D			Edit to Steve Weaver's job title		Edit made
Stan Foo*	Chapter 2	2-1			I am concerned about the obvious emphasis placed on the assumption of human causes to global warming in this chapter. Although there is a brief disclaimer that this chapter is "not the product of the AAG", there should be a clearer explanation that it was acknowledged there were differing views on this topic, and we were in fact instructed to not dwell on this debate, only on the assumption that the climate is warming for whatever reason. A stronger disclaimer would clarify this for the sub-cabinet.	Opening paragraph and other material in the chapter edited to remove any references to human-induced climate change. Additional material was not added to disclaimer since the chapter no longer mentions anywhere that climate change might be human-induced, or related to GHG emissions.
Stan Foo*	Chapter 2	2-6			My understanding was there was never consensus from the AAG, nor was the question ever posed, on	This is true. The results of the SNAP modeling process are

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					whether SNAP should be recommended or implied as the entity of choice for developing the climate scenarios. Several questions regarding their modeling never received any form of response. I recommend that the choice of SNAP of other similar entity to research climate models be given to the sub-cabinet, and that thorough oversight of the modeling process be assigned by them to the appropriate agency.	not reported in the chapter. Text has been modified to make it clearer that SNAP is only one method for downscaling results for AK. The intended point in the chapter is that many local entities need local data to make decisions, and so the global data must somehow be downscaled to local data, or local data otherwise generated.
Stan Foo*	Chapter 6	6-7			same as above	Bullet edited. Text box includes a disclaimer at the start as well.
Stan Foo*	Chapter 8				<p>You may recall I raised an objection to CT-2 and provided clarifying language to both of you in an email on June 24 (I am pasting the text of that email below in italics). I do not see in the current draft where this objection is acknowledged.</p> <p><i>I am not opposed to State agencies being coordinated. Regarding my objection to Overarching option #2 (State Coordination): There were 3 "overarching" options presented. I think there is room to combine options #2 and #3 (Community Assistance) to avoid creating a new entity as mentioned in #3. I think this combination of options needs to be explored more, so that #3 is addressed by and within improved State coordination. We were told if we voted for #2 as is, we are closing the door on any opportunity to consider combining it with #3. Therefore, I object to passing #2 as is, as I believe more consideration needs to be given to including #3 in #2.</i></p>	This objection was expressed in the Appendix where all objections were framed. We added the objection into the table in a footnote. For consistency, an objection was added to the Economic Activities chapter.
Pete Larsen	Chapter 2	2-8 (Box 2-2)	End of first paragraph on Impacts to Economy	Larsen et al (2007, 2008) concluded that climate change could add \$3.6–\$6.1 billion (+10% to +20% above normal wear and tear) to future costs for public infrastructure from now to 2030	This citation should probably be included, because it has been published, independently peer-reviewed, and it is currently the only climate change economic	Citation and most of suggested edit added

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			(Box 2-2)	and \$5.6–\$7.6 billion (+10% to +12%) from now to 2080. These estimates take into account different possible levels of climate change and assume agencies strategically adapt infrastructure to changing conditions.	impacts study for Alaska.	
Pete Larsen	Chapter 4	4-5	After Line #2	Larsen et al (2008) found that undertaking plausible adaptation strategies in the near-term reduced the net amount of infrastructure at risk by over 40% over the course of several decades.	This was a <u>MAJOR</u> finding of the infrastructure at risk paper.	Added after line #2.
Pete Larsen	References	Page A-4	Larsen et al (2008)	Larsen P., O.S. Goldsmith, O. Smith, M. Wilson, K. Strzepek, P. Chinowsky, and B. Saylor. 2008. Estimating the Future Costs of Alaska Public Infrastructure at Risk to Climate Change. Global Environmental Change, Elsevier Press: East Anglia.	This is the formal and updated citation for the infrastructure research our team undertook.	Updated reference list.
Pete Larsen	References	Page A-3	Hamlen (2004)	Hamlen, S., 2004. United Utilities Memo to Kate Giard Requesting a UUI Supplementary Funding Request, September.	This reference was lifted from our 2007 infrastructure at risk report. Here is the correct citation.	Updated reference list
Pete Larsen	References	Page A-6	Robinson et al (in prep.)	Robinson, S.D., R. Couture, M.M. Burgess, and S. Smith, (in prep.) Climate change and infrastructure in northern permafrost-affected communities: potential impacts and adaptations. For submission to Adaptations and Mitigation of Climate Change.	This reference was lifted from our 2007 infrastructure at risk report. Here is the correct citation. This one may have been accepted in that journal, so you may want to double-check for an updated reference.	Updated reference list
Pete Larsen	Chapter 4	Page 4-2	Lines 9 & 10	Problems associated with thawing permafrost, including effects on the foundations of buildings and roads, are well documented and often dramatic.	This sentence, word-for-word, was directly lifted from Larsen et al 2008.	Citation added, sentence edited accordingly
Patricia Opheen	Chapter 4					Patricia provided a number of technical edits to an earlier version of the chapter which were incorporated into this version.