From:	Johnson, Daniel E NWS
To:	Hadley, Hannah F NWS
Cc:	Brown, Keely N NWS; Chang, Margaret NWS
Subject:	FW: Meeting
Date:	Monday, April 30, 2012 12:13:31 PM

Hannah

In case I forget, Larry's concerns need to be molded into our questions on NEPA for the HQ charette.

/r
Dan

Daniel E. Johnson
Project Manager
Civil Programs and Projects Branch
Seattle District, US Army Corps of Engineers

-----Original Message-----
From: Larry Wasserman
Sent: Monday, April 30, 2012 10:01 AM
To: Johnson, Daniel E NWS; Stan Walsh
Cc: Morris, Frances NWS; Smith, Linda S NWS; Alan Hamlet
Subject: RE: Meeting

Dan, thank you for the response regarding climate change evaluation. I would like to get a bit more detail regarding how these issues will actually be addressed given timing and funding constraints. Its not clear to me what specific steps will be taken to develop a risk informed decision. Who should get together to have this discussion? As I expressed at our meeting, I think not incorporating an analysis of ciimate change related hydrology is a fatal flaw from a NEPA perspective, and a think the development of a clear pathway to address this issue would be timely

Larry Wasserman
Environmental Policy Manager
Swinomish Indian Tribal Community

-----Original Message-----
From: Johnson, Daniel E NWS
Sent: Monday, April 30, 2012 9:20 AM
To: Larry Wasserman; Stan Walsh
Cc: Morris, Frances NWS; Smith, Linda S NWS
Subject: RE: Meeting

Larry,

That is fine, I'll let everyone know that we have cancelled this meeting for now.

I'm not sure that we gave you all of the right information on Climate Change modeling. I think our answer was a bit too cut and dried at our last meeting. The information below provides more detail.

I would also add that we are not attempting to build a Flood Risk Management project that meets any specific protection goals such as 100 year protection. As stated when we last met, we will be designing to the level of protection that aligns with the Benefit Cost Ratio that we think makes us competitive at a national level for approval and funding and meets our project goals. While we will address sea level rise and climate change as outlined below, I don't believe that this changes how we determine the magnitude of our project.

v/r
Dan

Sea Level Rise Hydrology

USACE has established procedures to address future sea level rise that are described in EC 1165-2-212. Seattle District will apply the EC
1165-2-212 guidance to the Skagit River GI. The guidance calls for an evaluation of the potential hydraulic impacts of low, intermediate, and high sea level rises on both with and without project conditions. The expected range of sea level rise is 0.3 to 2.0 ft by 2061. With and without project hydraulic modeling of the Skagit River will be conducted using downstream boundary conditions representative of the low, medium, and high sea level rise values.

Climate Change Hydrology

USACE has not yet established a procedure for addressing potential hydrologic changes caused by future climate change. USACE is working with other Federal agencies, Reclamation, USGS, NOAA, FEMA, and others, to address this issue. USACE's efforts on this subject are outlined in "USACE Climate Change Adaptation Plan and Report 2011" dated 30 September 2011. Three key conclusions of this report are 1) the need to implement risk-informed decision making for climate change, 2) continued collaboration with other Federal agencies on climate change impacts, and
3) inclusion of bottom-up approaches at the project level. The 2009 interagency report "Climate Change and Water Resources Management: A Federal Perspective" explores strategies to respond to climate change.

The Skagit Climate Science Consortium, with includes Federal, state, and local agencies, tribes, University of Washington, and NGO's, sponsored the 2011 "Skagit River Basin Climate Science Report". That report describes potential hydrologic changes that may occur in the Skagit Basin under a range of possible climate change scenarios. Key predictions in the report include; reduced spring season snow pack, lower late summer/early fall streamflows, and increased flood peaks.
The predicted flood peak increases are on the order of 30 percent by 2040.

The potential for increased flood peaks caused by climate change should be considered in a risk-informed decision process in our GI study. How this would be done is unknown at this time, but could involve a sensitivity analysis over a low to high range of climate changes. We should work within USACE and with other Federal agencies, including the Climate Change and Water Working Group that is developing a portfolio of approaches to address climate change, before selecting an approach. We should also consult with the Skagit Climate Science Consortium and/or UW to ensure we properly understand their predicted climate change hydrologic impacts. Any analysis of potential hydrologic changes caused by future climate change would be developed in coordination with Skagit County and within the constraints of project schedule and funding.

v/r
Daniel E. Johnson
Project Manager
Civil Programs and Projects Branch
Seattle District, US Army Corps of Engineers


-----Original Message-----

From: Larry Wasserman
Sent: Monday, April 30, 2012 9:06 AM
To: Johnson, Daniel E NWS; Stan Walsh
Subject: Meeting

Dan, I suggest we cancel our meeting on the 7th. I think we got enough information at our meeting last week.

Larry Wasserman

Environmental Policy Manager

Swinomish Indian Tribal Community