



25-27 August | University of Washington | Seattle, WA

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## Climate Science to Engineering Operations for Watershed Management: A CCAWWG Workshop

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### AGENDA

25 Aug :: University of Washington, Fisheries Science Building [FSB], 1122 NE Boat Street, Seattle, WA, 98105-6715

0800 – 0830 | | FSB Lobby | | **Registration and Coffee**

0830 – 0915 | | FSB Auditorium | | **Workshop Welcome and Opening, and CCAWWG Updates**

- Welcome: *Tom Ackerman, University of Washington and NOAA Joint Institute for the Study of the Atmosphere and Ocean*
- Opening Talk to Set the **Workshop Goals** : *Levi Brekke, Reclamation; Jeff Arnold, USACE*

***Workshop Goal 1-*** Review and discuss the research and applications begun since 2011 that can help CCAWWG agencies address their current goals for mainstreaming climate change information into their mission activities

***Workshop Goal 2-*** Present and share different perspectives on recurring and emerging needs for climate science and climate change information which impede that mainstreaming today, and help CCAWWG articulate those needs for its planned updated assessment of its partners information needs

***Workshop Goal 3-*** Provide attendees with a fuller scope and context for their mainstreaming work within their agencies while working also in the larger, common and collective contexts of climate change and variability

- Update on CCAWWG Short-term User Needs report and Science Response: *Kevin Werner, NOAA*

0915 – 1030 | | FSB Auditorium | | **CCAWWG Agency Representatives Review Use of the 2011 “Long-term Doc” [LT Doc] in Their Climate Change Preparedness and Resilience Work** :: *Kate White, USACE* :: *Dave Raff, Reclamation* :: *Robin Webb, NOAA* :: *Janet Cushing, USGS* :: *Karen Metchis, EPA* :: *Allison Leidner, NASA* :: *Mike Strobel, USDA* [5 – 10 min each]

1030 – 1045 :: BREAK

1045 – 1145 | | FSB Auditorium | | **Facilitated Discussion of Agency Uses of 2011 LT Doc with CCAWWG Agency Panelists : What Worked? What Still Needs Attention? What's New or Needs Adding? ::**

- *Same panelists from CCAWWG talks above*

1145 – 1245 | | FSB Auditorium | | **First Overview : Science Relevant to the 2011 LT Doc ::**

- *Andy Wood NCAR (Part 1 - evaluating current assessment methods, from downscaling to hydrologic analysis)*
- *Martyn Clark NCAR (Part 2 - advancing tools for climate impacts assessment)*
- *Mimi Hughes CIRES/NOAA ESRL (progress on estimating wet weather extremes)*

1245 – 1400 :: LUNCH | | On Your Own | |

1400 – 1500 | | FSB Auditorium | | **Second Overview :: Science Relevant to the 2011 LT Doc ::**

- *Forrest Melton NASA GSFC (progress from NASA GSFC, Ames, JPL, other labs)*
- *Ben Livneh Univ. CO / CIRES / NOAA-RISA WWA (progress from intermountain west climate networks)*
- *Bart Nijssen Univ. WA / NW Climate Science Center / NOAA-RISA CIRC (progress from northwest climate networks)*

1500 – 1600 | | FSB Auditorium | | **Facilitated Discussion of Science Done and Planned Relevant to the 2011 LT Doc ::**

- *Same panelists from science talks above*

1600 – 1630 :: BREAK

1630 – 1700 | | FSB Auditorium | | **Summary and Discussion of Day 1 :: *Levi and Jeff***

1700 – 1730 | | FSB Auditorium | | **Look-ahead to Day 2 Breakout Session Structure :: *Levi and Jeff***

1730 :: END Day 1

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### AGENDA

26 Aug :: University of Washington, Fisheries Science Building [FSB]

0830 – 0900 :: | | FSB Lobby | | **Registration and Coffee**

0900 – 0930 :: | | FSB Auditorium | | **Day 1 Summary with Discussion; Set-Up and Allocate into Breakout Sessions**

0930 – 1045 :: | | FSB Classrooms | | **Breakout Session I**

1045 – 1115 :: BREAK

1115 – 1230 :: | | FSB Classrooms | | **Breakout Session II**

1230 – 1400 :: LUNCH | | On Your Own | |

1400 – 1515 :: | | FSB Classrooms | | **Breakout Session III**

1515 – 1545 :: BREAK

1545 – 1700 :: | | FSB Classrooms | | **Breakout Session IV**

1700 – 1745 :: | | FSB Auditorium | | **Summary of Breakout Sessions and Look-ahead to Day 3**

1745 :: END Day 2

**About the Breakouts::** Attendees will be allocated to four groups. There will be four breakout rooms, each hosting a unique nature-based theme (#1-4 below). Through four sessions, each group will remain together and cycle through each theme during the day, sharing perspectives on recent science progress, current/future science needs, and potential research opportunities.

**1. Changes in Basin Climate**, including effects on surface water and groundwater :: *Science Co-Leads: Martyn Clark, NCAR; Bart Nijssen, UWashingon (Rapporteur: Kevin Werner NOAA)*

**2. Changes in Wet-weather Extremes**, from heavy downpours to regional floods :: *Science Co-Leads: Dave Easterling, NOAA NCEI; Mimi Hughes, CIRES/NOAA ESRL (Rapporteur: Tim Green, USDA Forest Service)*

**3. Effects at Coasts and Shorelines** :: *Science Co-Leads: Rich Zabel, NOAA Fisheries - Northwest Fisheries Science Center; Adam Terando, USGS / SE CSC (Rapporteur: Forrest Melton NASA)*

**4. Effects in Watershed Ecosystems**, including natural, agricultural, and other managed landscapes :: *Science Co-Leads: Charlie Luce, USDA Forest Service – Rocky Mountain Research Station; Ben Livneh, Univ CO / CIRES / NOAA-RISA WWA (Rapporteur, Karen Metchis EPA)*

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27 Aug :: University of Washington, Fisheries Science Building [FSB]

0830 – 0900 :: | | FSB Lobby | | **Coffee**

0900 – 1000 :: | | FSB Auditorium | | **Recap Summary Outputs from Day 2 with Discussion** :: *Breakout Rapporteurs (Kevin Werner, Tim Green, Karen Metchis, and Forrest Melton), Jeff Arnold, Levi Brekke*

1000 – 1100 :: | | FSB Auditorium | | **Facilitated Discussion of Specific Themes Identified in Days 1 and 2** :: *Jeff Arnold, Levi Brekke*

1130 – 1145 :: **BREAK**

1145 – 1230 :: | | FSB Auditorium | | **Final Summary, Next Steps, Path Forward, and Writing Team Assignments** :: *Jeff Arnold, Levi Brekke*

1230 – 1330 :: **LUNCH** | | **On Your Own** | |

1330 – 1500 :: | | FSB Classroom | | **Writing Teams Meet**

1500 :: **END WORKSHOP**