

**3rd Annual Pacific Northwest Climate Science Conference, 1-2 October 2012
Boise Centre, Boise, Idaho**

Detailed Agenda - Monday Morning, 1 October

Day 1 - Morning Plenary 8:30 am - 12:10 pm - Summit Auditorium	
Introductory Session <i>Moderator: Von P. Walden</i>	
7:00-8:30	On-site Registration
8:30-9:00	<p><u>Welcome and Introductions</u> <i>Von P. Walden, University of Idaho</i> <i>David H. Bieter, Mayor of Boise, Idaho</i> <i>M. Duane Nellis, President, University of Idaho</i> <i>Jack McIver, Vice President of Research, University of Idaho</i></p>
9:00-10:00	<p>Keynote Presentation <u><i>Climate, Change and Adaptation: Are we learning?</i></u> <i>Dr. Roger Pulwarty, Director, National Integrated Drought Information System</i></p>
10:00-10:30	Break
Columbia Basin Impacts and Adaptation <i>Moderator: Phil Mote</i>	
10:30-10:50	<p><u>The Columbia River Treaty</u> <i>Barbara Cosens, Law School, University of Idaho</i></p>
10:50-11:10	<p><u>Projections of climate change extremes in the Canadian Columbia Basin</u> <i>Trevor Murdock, Pacific Climate Impacts Consortium</i></p>
11:10-11:30	<p><u>Potential Climate Change Impacts and Vulnerabilities to Forest Ecosystems in the West Kootenays</u>, <i>Greg Utzig, Kutenai Nature Investigations Ltd.</i></p>
11:30-11:50	<p><u>Climate and Economic Impacts on 2030 Water Supply and Demand in the Columbia River Basin</u>, <i>Michael Barber, Washington State University</i></p>
11:50-12:10	<p><u>Communities adapting to climate change: From dialogue to action in the Canadian Columbia Basin</u>, <i>Ingrid Liepa and Jeff Zukiwsky, Columbia Basin Trust</i></p>
12:10-1:30	Lunch (on your own)

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Detailed Agenda - Monday Afternoon, 1 October

Day 1 - Concurrent Session A 1:30 pm - 5:10 pm - Waters Room	
Hydrology <i>Moderator: Nick Bond</i>	
1:30-1:50	<u>An Overview of the Columbia Basin Climate Change Scenarios Project</u> <i>Alan Hamlet, Climate Impacts, Group, University of Washington</i>
1:50-2:10	<u>Mapping hydrologic sensitivities in the Columbia River Basin</u> <i>Julie Vano, University of Washington</i>
2:10-2:30	<u>Validation of the VIC model for streamflow metrics on western U.S. streams</u> <i>Charles Luce, U.S. Forest Service R&D, Boise</i>
2:30-2:50	<u>Modeling hydrologic uncertainty and agricultural water security in the PNW</u> <i>Venkat Sridhar, Boise State University</i>
2:50-3:10	<u>The influence of mountain topography on meteorological and runoff characteristics</u> <i>Chris Tennant, Idaho State University</i>
3:10-3:30	Break
Hydrology <i>Moderator: Lynn Helbrecht</i>	
3:30-3:50	<u>Groundwater Control of Summer Stream Temperature in the Pacific Northwest</u> <i>Tim Mayer, U.S. Fish and Wildlife Service</i>
3:50-4:10	<u>Inclusion of climate change projections into flood frequency analysis using Bayesian statistics – application to the American River and Santiam River</u> <i>Kara DiFrancesco, Oregon State University</i>
4:10-4:30	<u>Effects of Climate Change on Hydrology and Water Management in the Skagit River Basin</u> <i>Se-Yuen Lee, University of Washington</i>
4:30-4:50	<u>Effects of Projected Twenty-First Century Sea Level Rise, Storm Surge, and River Flooding on Water Levels in Puget Sound Floodplains and Estuaries</u> <i>Joseph Hamman, University of Washington</i>
4:50-5:10	<u>Spatio-temporal Modeling of Flood Events over the Columbia River Basin Due to Climate Change</u> <i>Mohammad Reza Najafi, Portland State University</i>
5:30-7:30	
Poster Session - Falcons Room	

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Conservation <i>Moderator: David Patte</i>	
1:30-1:50	<u>The Northwest Climate Science Center: science, services, and partnerships</u> <i>Gustavo Bisbal, Director, Northwest Climate Science Center</i>
1:50-2:10	<u>Prioritizing Landscape Conservation Cooperative Science Needs: Climate as a Critical Driver</u> <i>Sean Finn, Great Basin Landscape Conservation Cooperative</i>
2:10-2:25	<u>Assessing Aquatic Ecosystem Responses to Climate Change: Linking Science to Adaptive Management</u> <i>Clint Muhlfeld, USGS Northern Rocky Mountain Science Center, University of MT</i>
2:25-2:40	<u>Climate and Upland Ecosystems: Points of sensitivity and adaptation variability in sagebrush steppe viewed from a single species</u> <i>Lar Svenson and Matt Germino, USGS, Forest and Rangeland Eco. Science Center</i>
2:40-2:55	<u>Modeling climate change effects on the hydrology of Pacific Northwest wetland ecosystems</u> <i>Maureen Ryan, University of Washington</i>
2:55-3:10	<u>Ecological Minimums Required by Greater Sage-grouse: Understanding Fundamental Relationships for Tracking Future Habitat Distributions</u> <i>Steven Knick, U.S. Geological Survey</i>
3:10-3:30	Break
Agriculture <i>Moderator: Chad Kruger</i>	
3:30-3:45	<u>Overview</u> <i>Chad Kruger, Director, Center for Sustaining Agriculture and Natural Resources (CSANR), Washington State University</i>
3:45-5:10	<u>Panel discussion</u> <i>Leaders of large regional Agriculture projects</i> <u>Jennifer Adam</u>, <u>Arron Carter</u>, <u>Elizabeth Whitefield</u> <i>Washington State University</i> <u>Sanford Eigenbrode</u> <i>University of Idaho</i> <i>Topics:</i> <i>Breadth and depth of currently funded transdisciplinary ag/climate projects</i> <i>Benefits and challengings of conducting transdisciplinary, integrated projects</i> <i>How to increase better cross-project integration</i> <i>“Next steps” for coordination of regional ag/climate science</i>
5:30-7:30 Poster Session - Falcons Room	

**3rd Annual Pacific Northwest Climate Science Conference, 1-2 October 2012
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Detailed Agenda - Tuesday Morning, 2 October

Day 2 - Morning Plenary 8:30 am - 12:00 pm - Summit Auditorium	
7:30 - 8:30 On-site Registration	
Climate Variability Moderator: Francis Zwiers	
8:30-8:55	<u>Climate variability of the Pacific Northwest</u> <i>Nick Bond, University of Washington, JISAO</i>
8:55-9:20	<u>Projected climate scenarios for the Pacific Northwest (CMIP5)</u> <i>John Abatzoglou, University of Idaho</i>
Vulnerability Assessments Moderator: Francis Zwiers	
9:20-9:40	<u>The Pacific Northwest Climate Change Vulnerability Assessment</u> <i>Michael Case and Joshua Lawler, University of Washington</i>
9:40-10:00	<u>Climate change in grasslands, shrublands, and deserts of the interior American West: a review and needs assessment</u> <i>Deborah Finch, U.S. Forest Service, Rocky Mountain Research Station</i>
10:00-10:30	Break
Climate Change Communication Moderator: David Patte	
10:30-10:40	<u>Review of Climate Change Communications</u> <i>David Patte, U.S. Fish and Wildlife Service</i>
10:40-11:00	<u>Climate Communications and Behavior Change - Trends and Opportunities</u> <i>Cara Pike, Director, Social Capital Project</i>
11:00-11:20	<u>Communicating Climate Science to Nonscientists and Politicians</u> <i>Gwen Griffith, DVM, MS; Cumberland River Compact; Curriculum Director for Climate Solutions University, a program of the Model Forest Policy Program</i>
11:20-11:40	<u>Place-based Climate Change Education</u> <i>Jessica Thompson, Northern Michigan University</i>
11:40-12:00	<u>Climate Change Youth Ambassadors</u> <i>Aneka Singlaub, North Cascades Institute</i>
12:00-1:30	Lunch (on your own)

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Day 2 - Concurrent Session A 1:30 pm - 5:00 pm - Waters Room	
Terrestrial <i>Moderator: Lief Horwitz</i>	
1:30-1:45	<u>Indicators of climate change in Idaho: The intersection of biophysical change with social perception across a diverse landscape</u> <i>Zion Klos, University of Idaho</i>
1:45-2:00	<u>Cheatgrass and dieoff mapping in the Northern Great Basin</u> <i>Don Major, U.S. Dept of Interior, Bureau of Land Management - Idaho</i>
2:00-2:15	<u>Assessing climate change impacts on forest management and hydrology: new data, new results</u> <i>Guillaume Mauger, Climate Impacts Group, University of Washington</i>
2:15-2:30	<u>Cold Vulnerability in a Warming World: Changes in spring False Starts in the Pacific Northwest</u> <i>Alexander Peterson, University of Idaho</i>
2:30-2:45	<u>Charred Forests Increase Snowmelt: Effects of Soot and Burnt Woody Debris on Snow Albedo</u> <i>Anne Nolin, Oregon State University</i>
2:45-3:00	Modeling potential effects of climate change on aspen and associated bird communities <i>Susan Earnst, U.S. Geological Survey</i>
3:00-3:30	Break
Aquatics <i>Moderator: Von P. Walden</i>	
3:30-3:45	<u>Addressing Ecological Resource Impacts in a Changing Climate in the Bureau of Reclamation</u> <i>Toni Turner, U.S. Bureau of Reclamation</i>
3:45-4:00	<u>NorWeST: A Stream Temperature Database and Model for All Streams in the Northwest</u> <i>Dan Isaak, U.S. Forest Service, Boise</i>
4:00-4:15	<u>Observed coastal ocean chlorophyll variability during 1997-2010</u> <i>Todd Mitchell, Climate Impacts Group, University of Washington</i>
4:15-4:30	<u>Incorporating Climate Change Vulnerability into a Regional Aquatic Restoration Priorities Decision Support Tool</u> <i>Jocelyn Tutak, EcoTrust</i>
Closing (Plenary Session in the Summit Auditorium)	
4:45-5:00	Closing Remarks <i>Von P. Walden, University of Idaho</i>

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Adaptation <i>Moderator: Robert Elleman</i>	
1:30-1:45	California climate change and landscape connectivity <i>Jason Kreitler, Western Geographic Science Center, USGS</i>
1:45-2:00	<u>Influences Of Greenhouse Gas Emission Reduction Options On Water Use In Energy Production: Implications for the Columbia River Basin</u> <i>Craig Cooper, Idaho National Laboratory</i>
2:00-2:15	<u>Development of a National Adaptive-Integrated Water Resources Management (A-IWRM) Framework</u> <i>Gerald Sehlke, Idaho National Laboratory</i>
2:15-2:30	<u>The Impacts of Climatic and Water Supply Conditions on Agricultural Land Use Decisions in Idaho</u> <i>Scott Lowe, Boise State University</i>
2:30-2:45	<u>British Columbia Agriculture Climate Change Adaptation Risk & Opportunity Assessment</u> <i>Erica Crawford and Trevor Murdock, BC Ag & Food Climate Action Initiative, PCIC</i>
2:45-3:00	<u>Visualization and Costing of Adaptation to Sea Level Rise in Metro Vancouver</u> <i>Tina Neale, BC Ministry of Environment</i>
3:00-3:30	Break
Human Health <i>Moderator: Trevor Murdock</i>	
3:30-3:45	<u>The Health Impacts of Climate Change</u> <i>Andrea Hamberg, Oregon Health Authority</i>
3:45-4:00	<u>Extreme heat and health impacts in Oregon</u> <i>Mandy Green, Oregon Health Authority</i>
4:00-4:15	<u>Marine Pathogens as Indicators of Global Climate Change</u> <i>Richard Lillie, Washington Department of Health</i>
4:15-4:30	Modeling favorable habitat for harmful algal blooms in Puget Sound: present-day and future climate pathways and transport patterns <i>Stephanie Moore, NOAA Northwest Fisheries Science Center</i>
Closing (Plenary Session in the Summit Auditorium)	
4:45-5:00	Closing Remarks <i>Von P. Walden, University of Idaho</i>

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Poster Session - Falcons Room

5:30-7:30 pm, Monday, 1 October 2012

<i>Agriculture</i>
BIOEARTH: A REGIONAL-SCALE EARTH SYSTEM MODEL TO INFORM AGRICULTURAL AND NATURAL RESOURCE MANAGEMENT DECISIONS - Adam, Jennifer
CLIMATE FRIENDLY FARMING: ESTABLISHING A TRANSDISCIPLINARY FRAMEWORK FOR AGRICULTURE AND CLIMATE CHANGE SCIENCE IN THE PACIFIC NORTHWEST - Kruger, Chad
ANALYSIS OF EDDY COVARIANCE FLUX MEASUREMENTS IN ROLLING AND FLAT TERRAIN AT FOUR AGRICULTURAL SITES IN THE PACIFIC NORTHWEST - Chi, Jinshu
THE CEREAL LEAF BEETLE AND ITS PARASITOID UNDER PROJECTED CLIMATES IN THE PACIFIC NORTHWEST - Eigenbrode, Sanford
REACCH: CHANGE AND PNW AGRICULTURE - Eigenbrode, Sanford
FACING FACTS: PNW BIODIESEL AND AVIATION FUEL FEEDSTOCK PRODUCTION - Verhey, Steve
PROJECTED CHANGES IN AGROECOLOGICAL INDICATORS FOR THE PACIFIC NORTHWEST, USA - Hegewisch, Katherine
SPATIAL AND SEASONAL CHANGES IN IDAHOS MAXIMUM DAILY PRECIPITATION EVENTS: IMPLICATIONS FOR AGRICULTURE - Magney, Troy
SOIL NITROGEN LOSS IN WINDBLOWN DUST ON THE COLUMBIA PLATEAU - Graves, Laurel
CO2 EDDY COVARIANCE FLUX MEASUREMENTS AT FOUR AGRICULTURAL SITES UNDER DIFFERENT CROP MANAGEMENT PRACTICES IN THE PACIFIC NORTHWEST - Baxter, Heather
THE ROLE OF THE USDA FUNDED TCAP GRANT IN ADDRESSING WHEAT AND BARLEY BREEDING IN A CHANGING CLIMATE - Carter, Arron
DISTRIBUTION OF EARTHWORMS ACROSS CLIMATIC GRADIENTS IN THE WHEAT GROWING REGIONS OF THE PACIFIC NORTHWEST - Walsh, Chelsea
<i>Climate Change Communication</i>
COMMUNICATING CURRENT CLIMATE RESEARCH THROUGH HIGH SCHOOL SCIENCE CURRICULUM - White, Troy
THE IMPORTANCE OF ENGAGING PRIOR LEARNING: LESSONS FROM EVOLUTION EDUCATION - Verhey, Steve
HELLO CLIMATE CHANGE: A TEDX CONFERENCE - Verhey, Steve

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Conservation

[RAMP: A TOOL TO PREDICT SPECIES CLIMATE ENVELOPES](#) - Sanders, Scott

[PROTECTING THE ECOLOGICAL STAGE: APPLYING AND TESTING A LAND-FACET-BASED APPROACH TO CONSERVATION PLANNING IN A CHANGING CLIMATE](#) - Schloss, Carrie

[DEVELOPMENTAL PLASTICITY TO A WARMING CLIMATE IN A HIGH ELEVATION AMPHIBIAN ASSEMBLAGE](#) - Thurman, Lindsey

Human Health

[ADAPTATION TO CLIMATE CHANGE: NURSINGS CRITICAL ROLE IN WORKING WITH THE PUBLIC](#) - Eide, Phyllis

[BLUE-GREEN ALGAE ENCOUNTERS IN IDAHO](#) - Vannoy, Jim

IS NORTH AMERICAN FOOD SECURITY VULNERABLE TO CLIMATE CHANGE? - Carter, Peter

Hydrology

[SEARCHING FOR CLIMATE CHANGE SIGNALS IN THE 2010 MODIFIED FLOWS DATASET](#) - Pytlak, Erik

[UNCERTAINTIES IN VIC STREAMFLOW FOR SMALL WATERSHEDS IN OREGON AND WASHINGTON: IMPACTS OF DRIVING DATA, RESOLUTION, AND GROUNDWATER](#) - Safeeq, Mohammad

[LOOKING BACKWARD TO LOOK FORWARD: WHAT THE HISTORICAL RECORD CAN TELL US ABOUT FUTURE DAM OPERATIONS AT COUGAR DAM IN OREGONS MCKENZIE RIVER BASIN](#) - Danner, Allison

[AN INVESTIGATION INTO THE WATER BUDGET AND MANAGEMENT OF THE UPPER SNAKE RIVER SYSTEM](#) - Sridhar, Venkat

[WHAT CAN WE LEARN ABOUT FUTURE HYDROLOGIC EXTREMES FROM REGIONAL CLIMATE MODELS?](#) - Salathe, Eric

[USING EMPIRICAL DATA TO VALIDATE SIMULATIONS OF HYDROLOGIC EXTREMES IN THE OLYMPIC NATIONAL FOREST](#) - Tohver, Ingrid

[WILLAMETTE WATER 2100: ANTICIPATING WATER SCARCITY AND INFORMING INTEGRATIVE WATER SYSTEM RESPONSE](#) - Nolin, Anne

[THE MAGNITUDE OF SOIL WATER REDISTRIBUTED BY PLANTS: A LABORATORY AND MODELING INVESTIGATION](#) - Neumann, Rebecca

[RESPONSE OF FORCED BAR MORPHOLOGY TO HYDROGRAPH RECESSION RATE IN A SAND-BED CHANNEL](#) - Kenworthy, Megan

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[EVAPOTRANSPIRATION AND ENERGY BALANCE FLUX SITES IN SOUTHERN IDAHO HELP SUPPORT HYDROCLIMATE AND REMOTE SENSING MODELING AND DEVELOPMENT](#) - Greth, Jeremy

[SATELLITE-BASED ENERGY BALANCE FOR EVAPOTRANSPIRATION AT LOCAL SCALES TO INFORM CLIMATE MODELS](#) - Allen, Richard

[THE WESTWIDE DROUGHT TRACKER: DROUGHT MONITORING AT FINE SCALES](#) - VanSant, Donovan

[TOWARD MAPPING GRIDDED DROUGHT INDICES TO MITIGATE DROUGHT IMPACTS IN A RAPIDLY CHANGING GLOBAL ENVIRONMENT](#) - Ryu, Jae

Impacts

[WEATHER EVENTS AND RURAL-URBAN MIGRATION](#) - Saif, Raisa

[FACILITATING CLIMATE CHANGE ASSESSMENTS BY PROVIDING EASY ACCESS TO DATA AND DECISION-SUPPORT TOOLS ON-LINE](#) - Sheehan, Timothy

[IDAHO STATE WATER PLANNING ACTIVITIES](#) - Harrington, Helen

Landscape Conservation Cooperatives

[NATIONAL WILDLIFE REFUGE SYSTEM INVENTORY AND MONITORING INITIATIVE: CONNECTING SCIENCE-DRIVEN MONITORING TO MANAGEMENT AT MULTIPLE LANDSCAPE SCALES](#) - O'Brien, Lee and Newman, Jana

[FOSTERING TRIBAL ENGAGEMENT IN THE NORTH PACIFIC LANDSCAPE CONSERVATION COOPERATIVE](#) - Mankowski, John

Vulnerability Assessments

[PERFORMANCE AND SENSITIVITY OF CURRENT RULE CURVES FOR MEETING WATER DEMANDS UNDER CLIMATE, LAND USE, AND POLICY CHANGES IN THE FUTURE SANTIAM BASIN, OR](#) - Mateus, Maria

General

[CLIMATE EXTREME AND ITS LINKAGE TO REGIONAL DROUGHT OVER IDAHO, USA](#) - Sohrabi, Mohammad

[DEVELOPING TENATIONAL EXTENSION CAPACITY TO ADDRESS ISSUES RELATED TO ANIMAL AGRICULTURE AND CLIMATE CHANGE](#) - Whitefield, Elizabeth

[USING DENSE SENSOR ARRAYS TO DEVELOP AIR MICROCLIMATE MODELS: AN APPLICATION IN A MOUNTAIN BASIN FOR UNDERSTANDING SPATIOTEMPORAL VARIATION IN STREAM TEMPERATURES](#) - Isaak, Dan

[EVALUATION OF CMIP5 MODELS FOR THE PACIFIC NORTHWEST](#) - Rupp, David

[APPLICATION OF A SUITE OF STATISTICALLY DOWNSCALED GLOBAL CLIMATE MODEL RESULTS TO THE TILLAMOOK ESTUARY IN NW OREGON, USA](#) - Sharp, Darrin

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[CIRCULATION-DRIVEN TEMPERATURE VARIABILITY AND TRENDS IN THE NORTHEAST PACIFIC REGION, 1900-2011](#) - Johnstone, James

[CHARACTERISTICS AND TRENDS IN EXTREME SNOWFALL EVENTS IN MONTANE REGIONS OF THE WESTERN UNITED STATES](#) - Lute, Abigail

[OBSERVED CHANGES IN FALSE STARTS TO SPRING ACROSS THE PACIFIC NORTHWEST](#) - Peterson, Alexander

[A HIGH-RESOLUTION RECORD OF LATE HOLOCENE HYDROCLIMATE INFERRED FROM 180 OF LAKE SEDIMENTS, LOST RIVER RANGE, IDAHO](#) - Krueger, Chuck

[ALTERNATIVE FUTURES EVALUATION OF CLIMATE IMPACTS ON WATER SUPPLY IN THE BIG WOOD BASIN, IDAHO](#) - Marshall, Allison

[ENERGY BALANCE AND SENSIBLE HEAT FLUX OVER SAGEBRUSH AND INVASIVE CHEATGRASS COMMUNITIES IN IDAHO](#) - Zhao, Wenguang

[THE NORTHWEST KNOWLEDGE NETWORK \(NKN\): A REGIONAL APPROACH CLIMATE SCIENCE LIFE CYCLE DATA MANAGEMENT](#) - Gollberg, Greg

[VISUALIZING CLIMATE DATA THROUGH GEOPROCESSING SERVICES](#) - Fricke, Stephen

[USE OF MODIS SNOW-COVERED-AREA TO DEVELOP HISTORICAL, CURRENT, AND FUTURE SNOW DEPLETION CURVES FOR SNOWMELT RUNOFF MODELING](#) - Qualls, Russell