Governor's Conference on Managing Drought & Climate Risk October 8 - 10, 2008 Grand Hyatt 1750 Welton Street Denver, CO 80202

*PLEASE NOTE: AGENDA IS SUBJECT TO CHANGE

The Colorado Basin is undergoing the effects of prolonged drought since 1999. The region, including the State of Colorado, has experienced droughts in the past, however, the present and future reliability of its water resources face the combined effects of climate change, increased growth and changing landscapes. Climate change together with natural variability and increasing demand may lead to the State of Colorado and the region experiencing drought conditions rarely or never observed in the historic record. Preparedness is the key to successfully addressing the challenges of increasing drought risk and demands on water availability. Drought preparedness includes drought early warning and mitigation planning, implementation of proactive adaptation measures, and increased public awareness. Participants at the Conference will assess the status of drought risk, impacts, and preparedness in Colorado and the improvements that may needed for management under different conditions such as climate change. The Conference goals are to share information and experience on drought preparedness across the public and private sectors, and to identify pathways for adaptation to the impacts of climate change and demand on water resources in the State of Colorado.

Day 1 - Wednesday, October 8, 2008

Morning Continental Breakfast [7:00-8:00] (*Imperial Ballroom Foyer*)

Conference Begins (*Imperial Ballroom*)

Veva Deheza, Section Chief, CWCB Office of Water Conservation & Drought Planning Introductions – Conference Goals and Logistics [8:15-8:30]

Harris Sherman Introduces Governor [8:30]

Governor Bill Ritter Opens Conference [8:30-9:10] Overview of Colorado Climate Action Plan and what it means for Colorado's water resources

Session 1: Overview: The State of the State [9:10-9:55]

Harris Sherman, Executive Director, Department of Natural Resources A Look to the Future

Martha Rudolph, Director of Environmental Programs, CO Dept of Public Health & Environment

Drought Impacts: Does the absence of water quantity matter for water quality?

Break [10:00-10:20] (*Imperial Ballroom Foyer*) Session 2: Drought & Climate in Colorado [10:20-11:45]

Moderator – Andrea Ray, Scientist, NOAA, Earth System Research Laboratory

- Nolan Doesken, State Climatologist Drought Characteristics in Colorado: 1890 to 2008
- Jennifer Gimbel, Executive Director, Colorado Water Conservation Board Current Initiatives Addressing Water Supply Adaptation to Drought & Climate Change
- Joseph Barsugli, Cooperative Institute for Research in Environmental Sciences, Climate Diagnostic Center CWCB Report on: Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaptation

LUNCH [12:00-1:30] (Grand Ballroom)

Keynote Speaker: Dr. Susan Solomon, Senior Scientist, NOAA and Intergovernmental Panel on Climate Change, Co-chair of Working Group 1 (Physical Science Basis)

Afternoon Session 3: Drought – A Part of Colorado's History [1:30-2:40]

Moderator – John Rehring, Vice President, CDM, Inc.

Jeff Lukas, University of Colorado

The Long View of Drought in Colorado: What Tree Rings Tell Us About Hydrologic Variability

- Ben Harding, AMEC/Hydrosphere The 1977 and 1981 Droughts in Colorado
- Kelly DiNatale, Principal & Senior Water Resources Engineer, CDM, Inc. Lessons Learned from the 2002 Drought: Implications for Municipal Water Supply Planning

Break [2:40-3:00]

Session 4: Lessons from Drought Planning and Management: Other State & Regional Perspectives [3:00-5:30]

Moderator – Mike Hayes, Director, National Drought Mitigation Center An Update on Drought Planning: The West in Perspective

Bill DeOreo, President, Aquacraft As of 10/6/08 11:45am Role of Water Conservation in a Long Range Drought Plan

- Mark Pifher, Director, Aurora Water Water Supply and Water Quality
- Mike Crimmins, Climate Assessment for the Southwest (CLIMAS), Univ of Arizona Drought Planning and Preparedness: Examples from Arizona
- Jeanine Jones, Interstate Resources Mgr, CA Dept of Water Resources Drought Preparedness Lessons from California

Marty Hoerling, Meteorologist, NOAA, Earth Systems Research Laboratory Is a Crisis Looming for Colorado River Water Supply?

RECEPTION [5:30 – 7:30] (Sunlight Peak Room - 37th Floor Pinnacle Club)

Day 2 – Thursday, October 9, 2008 (Imperial Ballroom)

Morning

Continental Breakfast [7:00-8:00] (Imperial Ballroom Foyer)

Morning

Overview of Day 1 and Intro for Day 2 [8:00-8:10]

Veva Deheza, Section Chief, CWCB Office of Water Conservation & Drought Planning

Session 5: National Integrated Drought Information-What is it and what is the NIDIS pilot study in the Upper Colorado River Basin? [8:10-8:30]

Roger Pulwarty, Director of NIDIS, NOAA and, Intergovernmental Panel on Climate Change Author

Session 6: Overview: 2002 Colorado State Drought Mitigation & Response Plan, 2007 Update, & Future Plans [8:30-9:00]

Dick Wolfe, CO State Engineer

Session 7: Expert Panels (all Plenary): Managing Drought-Related Risks: Sectors and Cross-sectors

Panels: Each panel will have 3 – 4 panelists, with a moderator

(3-4 case-based presentations/comments about 20 mins each, 15 min discussion) **Key Issues:**

- What is status and trends?
- How does drought planning and management take place each season/year and over the long-term?
- What are the information and partnership needs?
- What drought triggers do you use? How do you coordinate sustainability?
- How do you plan for drought & climate change?

As of 10/6/08 11:45am

Agriculture Panel [9:00-10:10]

Moderator – James Pritchett, Professor, Colorado State University

- Reagan Waskom, Director, Colorado Water Institute Agricultural Impacts and Adaptation to Drought and Climate Variability in Colorado
- Pat O'Toole, President, Family Farm Alliance Water, Climate and Impact on Rural Communities

John Stulp, Commissioner, Colorado Dept of Agriculture Can Ag Do More With Less?

Break [10:10-10:30] (Imperial Ballroom Foyer)

Municipal Panel [10:30-12:00]

Moderator – Brad Udall, Director, Western Water Assessment

Laurna Kaatz, Climate Scientist, Denver Water Planning for Climate Change: Front Range Climate Change Vulnerability Study

Douglas Kenney, University of Colorado Success Stories in Urban Demand Management during Drought

Lee Rozaklis, Hydrosphere/AMEC Boulder's Experiences Planning for Drought and Climate Change

LUNCH [12:00-1:30] (Grand Ballroom)

Keynote Speaker: Dr. Patricia N. Limerick, Faculty Director, Center of the American West and Professor of History, University of Colorado at Boulder

Afternoon (Imperial Ballroom) Water for Environment & Recreation Panel [1:30-3:00]

Moderator - Geoff Blakeslee, The Nature Conservancy, CWCB Board Member

Greg Espegren, Aquatics Specialist, Trout Unlimited Trout Unlimited's Conservation Success Index

- *Tony Dixon, Regional Deputy Forester, US Forest Service* Saving Our Source: Forest Headwaters and Water Supply in a Changing Climate
- Steve Torbit, Regional Executive Director, National Wildlife Federation Western Governors' Association, Wildlife Habitat and Corridor Initiative Context, Process, Results and Implications

As of 10/6/08 11:45am

Luke Cartin, Environmental Manager, Vail Resorts Inc. Drought and the Ski Industry

Break [3:00-3:20] (Imperial Ballroom Foyer)

Regional and County Watershed and Communication Planning [3:30-5:00]

Moderator – Susan Morea, Senior Vice President, CDM

Eric Kuhn, General Manager, Colorado River Water Conservation District 2002 With Perfect Hindsight

Brian Werner, Public Information Department Manager, Northern Colorado Water Conservancy District Water Managers Worst Fear: 2002

Greg Fisher, Denver Water Is Drought the Same Everywhere?

Day 3 – Friday, October 10, 2008 (Imperial Ballroom)

Morning

Recap of Day 1, 2 and Intro to Day 3: Focus on No-Regrets Planning [8:00-8:20]

Jim Verdin, USGS, Deputy Director of NIDIS

Session 8: Responding to Drought and Adapting to Climate Change [8:20-9:35]

Moderator: Brad Udall, Director, Western Water Assessment

Gordon McCurry, Ph.D, P.G, CDM, Inc. The Effect of Climate Change on Municipal Water Demands in Colorado

- Ted Kowalski, Program Manager, Colorado Water Conservation Board Tools to Keep Colorado River Water Working for Colorado: Augmentation, Water Banking, & Water Administration
- Zeke Williams, Partner, Faegre & Benson Drought and Climate Change in the Environmental Review Process Under the National Environmental Policy Act

Session 9: Developing a Drought Early Warning System for Colorado: Information Services for Adaptation [9:35-11:30]

Robert Webb, Climate Analysis Branch Chief, NOAA

Mark Svoboda, Climatologist, National Drought Mitigation Center [9:35-10:05]

Introduction & Live Demonstration of the US Drought Portal at <u>www.drought.gov</u>

Break [10:05-11:45] (Imperial Ballroom Foyer)

Roger Pulwarty, Director of NIDIS,NOAA, Intergovernmental Panel on Climate Change Author

Duane Smith, Executive Director, Oklahoma Water Resources Board, Past Chairman of Western States Water Council [10:25-11:45]

Facilitating Proactive Risk Management: Challenges, Roles, and Opportunities for Adaptation

Brief Conclusion of All Three Days & Final Thoughts [11:45-12:00]