



**THE GROUNDWATER VISIBILITY
INITIATIVE: INTEGRATING
GROUNDWATER AND SURFACE
WATER MANAGEMENT WORKSHOP**

The Westin Denver Downtown, 1672 Lawrence Street, Denver, Colorado 80202



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Session Goals:

- *Establish the importance of a groundwater visibility initiative*
- *Explore key policy issues related to groundwater and surface water management*
- *Craft concepts and narratives for use in a policy white paper*

Time	Item	Presenters
7:30 a.m.	Registration	
8:30 a.m.	Welcome and Greetings, <ul style="list-style-type: none"> • Overview of the Day • Session Goals 	Kathy Butcher , Director of Professional Development, National Ground Water Association Michael Campana, Ph.D. , Technical Director, American Water Resources Association
8:40 a.m.	Panel 1: What are the major impediments to conjunctive use of groundwater and surface water?	Bill Alley, Ph.D. , NGWAs Science and Technology Director (Previous, Chief, Office of Groundwater, U.S. Geological Survey) Sharon B. Megdal, Ph.D. , Director of The University of Arizona Water Resources Research Center James C. Schneider, Ph.D. , Water Resources Team Senior Scientist, Olsson Associates (Previous, Deputy Director, Nebraska Department of Natural Resources)
9:45 a.m.	Break	
10:00 a.m.	Panel 2: How is groundwater used most effectively for adaptation and resilience? <ul style="list-style-type: none"> • Groundwater, Climate Change, and Resilience 	Katharine Jacobs , Director, Center for Climate Adaptation Science and Solutions, University of Arizona

Time	Item	Presenters
	<ul style="list-style-type: none"> • Drill, Baby, Drill: Groundwater as a Stepping Stone to Water Resource Sustainability • Where Did the Groundwater Go Before We Pumped It? Aligning Hydroservice Benefits with Water Supply Infrastructure 	<p>Robert Mace, Ph.D., Texas Water Development Board</p> <p>John C. Tracy, Ph.D., Director, Texas Water Resources Institute, Texas A&M, (Immediate Past President, American Water Resources Association)</p>
11:15 a.m.	Breakout Session I	Lisa Beutler , Executive Facilitator, MWH (Exec. Facilitator, California Water Plan), All
12:00 p.m.	Lunch (on your own)	All
1:00 p.m.	Group Reports	All
1:45 p.m.	<p>Panel 3: How do we build groundwater considerations into policies for agriculture, energy, land-use planning, and urban development sectors?</p> <ul style="list-style-type: none"> • Albuquerque's Development of a Groundwater Management Reserve • Integrated Water Management from the Ground-Up • Lessons Learned in the High Plains Where Agriculture and Energy Coexist 	<p>John M. Stomp III, PE, Chief Operating Officer, Albuquerque Bernalillo County Water Utility Authority</p> <p>Grant Davis, General Manager, Sonoma County Water Agency</p> <p>Ken Rainwater, Ph.D., Professor, Dept. of Civil, Environmental and Construction Engineering, Texas Tech University.</p>
3:15 p.m.	Break	
3:30 p.m.	Breakout	All
4:15 p.m.	Group Reports	All
4:45 p.m.	Workshop Summary and Next Steps	Team
5:15 p.m.	Workshop Adjourns	



GROUNDWATER VISIBILITY INITIATIVE

WORKING IN GROUPS

You will spend part of the day working in groups. As a group you will be asked to analyze or develop ideas, keep track of the issues you develop, then make a report to the larger group.

For the purposes of these discussions all ideas and points of view are considered to have value. Bold ideas are encouraged. Simply listen, you do not have to agree. Otherwise just have a great conversation, talk about YOUR ideas and thoughts, have fun and be comfortable. Also, please put your cell phones on silent.

Each group will need:

Facilitator/Leader: One or more members should ensure that the group stays with the assigned task and that all participants have an opportunity to share ideas.	Recorder– One or more participants should keep high level notes that can be used to summarize the discussion for the other tables.
Reporter: The group reporter will summarize table conclusions and limit presentation to time allotted	Student Recorder - Some tables may have an assigned student recorder. They are taking notes for the whitepaper. Their goal is to work in the background - so please don't ask them to be your group reporter.
Time Keeper: All activities will involve specific blocks of time. In order to complete tasks, one group member needs to keep track of time.	Participant: Weigh in and encourage others to be actively engaged.

REPORT OUT INSTRUCTIONS

Each group will select a reporter that will spend 3-4 minutes to summarize key points of the table discussions. The group timekeeper is asked to assist the reporter in staying on time. After all the groups have an opportunity to report, the full group will discuss the similarities and differences among the groups and forge a collective perspective.



BREAKOUT SESSION 1

Question 1: Panel 1 discussed the major impediments to conjunctive use of groundwater and surface water. Based on your experience, what additional barriers would you add, and/or what might you modify related to the Panel's comments?

Question 2. Thinking about the barriers, what are the most promising strategies to overcome them? What, if any, issues related to regional differences should be taken into account?

Question 3. Panel 2 discussed how groundwater can be used effectively for adaptation and resilience. Groundwater was characterized as part of an overall management strategy for climate change adaptation, water resource sustainability, and leveraging water supply infrastructure. What are 4 or 5 key findings and recommendations that can be used to accelerate use of groundwater as part of an integrated water use portfolios?

BREAKOUT SESSION 2

Question 4. Panel 3 discussed how to build groundwater considerations into policies for agriculture, energy, land-use planning, and urban development sectors. What are the best strategies for engaging these sectors in the groundwater discussion? What, if anything, should groundwater managers be doing to encourage the other sectors to manage in a more integrated fashion?

Agriculture	
Energy	
Land Use Planning	
Urban Development	

