GROUNDWATER DATA IN THE SGMA CONTEXT:
Identifying Groundwater Data Needs, Challenges, and Potential Solutions
January 28-29, 2016

Location: Stanford Faculty Club, 439 Lagunita Drive, Stanford CA 94305 (Red Lounge)
Contact: Athena Serapio, 650-724-7609, athena3@stanford.edu

Workshop Goals and Objectives:
1. To exchange information and promote open discussion regarding groundwater data needs in order to support development of regulations and best management practices under the Sustainable Groundwater Management Act, and to support local agencies during the development of groundwater sustainability plans.

2. To identify the major data-related issues or challenges state and local agencies are likely to face during SGMA implementation and potential solutions to address these challenges.

3. To build relationships between meeting participants to coordinate efforts around SGMA implementation.

Possible Workshop Outputs:
1. A report or white paper providing background information, major themes, and recommendations captured during workshop discussion.

2. One or more academic publications focusing on groundwater data challenges and potential solutions identified in the groundwater data workshop series, as well as in the groundwater data survey.

Meeting Details:
When: January 28 and 29, 2016
Where: Stanford Faculty Club, 439 Lagunita Drive, Stanford CA 94305 (Red Lounge)
Hotel: Stanford Guest House, 2575 Sand Hill Road, Menlo Park, CA 94025

Attendees:
The workshop will be attended by a group of approximately 35 representatives of government agencies, groundwater consultants, groundwater managers, NGOs, foundations, research institutions, and facilitators focused on the successful implementation of the Sustainable Groundwater Management Act.

Conference Hosts and Sponsors:
• Stanford University’s Water in the West Program
• Stanford Law School’s Gould Center for Conflict Resolution
• California State University Sacramento’s Center for Collaborative Policy
AGENDA

Day 1: January 28, 2016

11:00am  Lunch at the Stanford Faculty Club
12:00pm  **Welcome & Meeting Overview, Introductions**
          Janet Martinez, Director, Gould Center for Conflict Resolution
          Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento
12:15pm  **Session 1: Legal, regulatory and environmental considerations of groundwater-surface water interactions**
          *Moderator:* Leon Szeptycki, Executive Director, Water in the West
          Jeanette Howard, Associate Director of Science in California, The Nature Conservancy
          Topic: Sustainable Groundwater Management and Groundwater-Dependent Ecosystems: Approach and Best Practices (15 mins)
          Rebecca Nelson, Non-Resident Fellow, Stanford Woods Institute for the Environment and Senior Lecturer, Melbourne Law School, University of Melbourne
          Topic: Groundwater, Rivers and Ecosystems: Regulatory and Policy Approaches to Making Links (15 mins)
          Kevin Rein, Deputy State Engineer, Colorado Department of Water Resources
          Topic: Colorado Ground Water Management: Integrating Ground Water and Surface Water Administration (15 mins)
1:15pm  **Discussion (60 mins)** (Facilitated by Leon Szeptycki, Executive Director, Water in the West)
          *Potential Discussion Topics:*
          • How will significant and unreasonable impacts on beneficial uses of surface water be defined under SGMA?
          • Will SGMA be adequate to protect groundwater-dependent ecosystems?
          • What are the legal and regulatory requirements for surface water and groundwater connectivity in other western states? What lessons can we draw for California that might inform our approach?
2:15pm  **Break**
2:30pm  **Session 2: Approaches and methods for measuring and monitoring groundwater-surface water interactions**
          *Moderator:* Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento
          Topic: Field and Modeling Approaches for Assessing and Managing Streamflow Depletion by Wells (15 mins)
          Howard Reeves, Research Hydrologist, U.S. Geological Survey, Ohio Water Science Center
          Topic: Streamflow Depletion by Pumping Wells and the Michigan Water-Withdrawal Assessment Process (15 mins)
          Marcus Trotta, Hydrogeologist, Sonoma County Water Agency
          Topic: Application of Groundwater-Surface water Interaction Monitoring in Sonoma County (15 mins)
3:30pm  **Discussion (75 mins)** (Facilitated by Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento)

*Potential Discussion Topics:*
- What data are necessary to determine interconnected surface waters and/or groundwater-dependent ecosystems?
- What should be included in regulations and best management practices for surface water-groundwater interactions given the array of local conditions?

4:45pm  **Wrap up and adjourn**
Tara Moran, Program Lead, Sustainable Groundwater, Water in the West

5:15pm  **Shuttle** to the dinner location at MacArthur Park, 27 University Avenue, Palo Alto

5:30pm  **Reception**

6:00pm  **Dinner**

8:30pm  **Shuttle** pick up at MacArthur Park - drop off at the Tressidor Union parking lot & Stanford Guest House

---

**Day 2: January 29, 2016**

8:00am  **Breakfast**

8:30am  **Welcome & Meeting Overview for the Day, Introductions**
Tara Moran, Program Lead, Sustainable Groundwater, Water in the West
Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento

8:45am  **Session 3: Data Requirements under SGMA and Regulatory Update**
Dan McManus, Supervising Engineering Geologist, California Department of Water Resources (20 mins)

9:10am  **Questions and Comments (20 mins)** (Facilitated by Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento)

9:30am  **Break**

9:50am  **Session 4: Data Needs for Sustainable Groundwater Management**
*Moderator: Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento*
Tara Moran, Program Lead, Sustainable Groundwater, Water in the West

*Topic: Groundwater Data Needs and Adequacy in California (15 mins)*

Juliet Christian-Smith, California Climate Scientist, Union of Concerned Scientists

*Topic: Setting Measurable Objectives for Effective Groundwater Management (Title TBD) (15 mins)*
10:30am Discussion (80 mins) (Facilitated by Marci DuPraw, Managing Senior Facilitator and Mediator, California State University, Sacramento)

Potential Discussion Topics:
• What data do local agencies need for sustainable groundwater management? Who should provide them?
• Are additional data requirements needed to ensure sustainable groundwater management beyond what SGMA requires?
• How do we ensure that data enable the development of measurable objectives and thresholds that are meaningful and protective of all groundwater uses and users?

11:50am Lunch

12:50pm Session 5: Data Sharing, Coordination, and Transparency
Moderator: Leon Szeptycki, Executive Director, Water in the West

Bill Cunningham, Chief, U.S. Geological Survey, Office of Groundwater
Topic: Lessons from Planning a Collaborative National Ground Water Monitoring Network (15 mins)

Erik Ekdahl, Groundwater Management Program Manager, California State Water Resources Control Board
Topic: Challenges in Using Large Datasets for State Water Quality Regulatory Activities (15 mins)

Dan McManus, Supervising Engineering Geologist, California Department of Water Resources
Topic: SGMA Data Coordination and Transparency (15 mins)

1:25pm Discussion (90 mins) (Facilitated by Leon Szeptycki, Executive Director, Water in the West)

Potential Discussion Topics:
• What regulations and best management practices should be included to ensure that data can be integrated and shared?
• Are additional data requirements needed to ensure sustainable groundwater management beyond what SGMA requires?
• What are the top barriers (cultural, financial, technical) for local and state agencies in a data-sharing platform?

2:55pm Break

3:15pm Session 6: Potential Solutions
Facilitated by Maurice Hall, Water Program Lead, Water Funder Initiative

Potential Discussion Topics:
• What tools, technologies, or research areas might be most helpful to address the groundwater data challenges identified in workshop discussions?
• What collaborations or partnerships would be most helpful in addressing these challenges?
• Are there policy recommendations or changes, either adjustments to SGMA or otherwise, that could help reduce or overcome the challenges related to groundwater data and information?

4:15pm Meeting Wrap-Up, Next Steps, Feedback
Janet Martinez, Director, Gould Center for Conflict Resolution

4:30pm Adjourn for a light reception