

# Hydrologic, Environmental and Legislative Challenges to Southern California's Present and Future Managed Aquifer Recharge Programs



Association of Ground Water Agencies/American Ground Water Trust

**A one-day conference program – Monday February 6<sup>th</sup>, 2006  
(Optional fieldtrip, Tuesday, February 7th)**

Marriott Ontario Airport Hotel  
(Ballrooms I and II)  
Ontario, California

## What Is it All About?

The population of the US is growing by 6,000 people a day. Southern California is one of the principal areas of growth. Increasing demand for water requires sophisticated management strategies and imaginative use of water sources. This one day conference has a focus on the major water supply issues and the engineering & management solutions in Southern California. Conjunctive use of surface water and ground water, use of brackish water, desalination and the reuse of waste water are management strategies that have important hydrologic, economic, environmental and regulatory implications.

This program's expert presenters will outline the issues, explain the latest problems and practical solutions and will provide perspectives on the outlook for Southern California's water requirements. The exchange of information and the presentation of expert opinions at the conference will help to ensure that the region's water management decisions are rooted in science based water policy. The presentation panels will give insight on how to implement effective strategies. The conference will provide an excellent networking opportunity for all professionals with an interest in water issues.

## Who Should Attend?

- ◆ Elected Officials and Legislative Staff
- ◆ Municipal and Water Utility Managers/Operators
- ◆ Water Supply Engineers and Consultants
- ◆ Geologists, Hydrogeologists and Hydrologists
- ◆ State and Local Health Officials
- ◆ Ground Water Contractors and Well Specialists
- ◆ State and Local Water Supply Regulators
- ◆ Irrigators and Industries Using Wells

Register online at [www.agwt.org](http://www.agwt.org) (Click on Conferences & Workshops)

All attendees will receive a CD Rom (post-conference) with presentation summaries.



Chino Basin Desalination



Prado Wetlands

CEU Credits Available

## Association of Ground Water Agencies

The mission of the Association of Ground Water Agencies (AGWA) is to promote interagency solutions that enhance the effective management of ground water resources. Specifically, AGWA's purpose is to create a forum for the discussion of groundwater issues of interest to those entities that either by court judgment or statute are responsible for management of groundwater basin resources, and to take action where appropriate in connection with such issues. AGWA's primary objectives are:



- ★ Promote more effective means of enhancing management of groundwater basins
- ★ Promote the reliability of existing groundwater supplies and the increase of basin yield
- ★ Promote the protection and enhancement of groundwater quality

## American Ground Water Trust

The American Ground Water Trust is a national not-for-profit organization. The educational mission of the Trust is to:

- ★ Protect groundwater and promote resource sustainability
- ★ Communicate the environmental and economic value of ground water
- ★ Showcase groundwater science and technology solutions
- ★ Increase citizen, community and decision-maker awareness, and
- ★ Facilitate stakeholder participation in water resources decisions.

The Trust's education programs throughout the US are typically undertaken in partnership with other organizations, agencies and companies.



## Exhibit and Sponsorship Opportunities

**Exhibitors:** All exhibitors will be recognized in the conference program. Exhibit tables are 8 feet long and skirted. Conference registration for exhibitors is required.

**Sponsors:** The American Ground Water Trust is pleased to receive event sponsorships. Benefits of sponsoring at the \$500 level include: distribution of company/organization literature to registrants, web-site listing as a sponsor, recognition in the conference program, CD with participant registration list. Sponsors at the \$1,000 level are entitled to a complimentary exhibit table. Sponsors above the \$1,000 level, in addition, will receive a complimentary registration for every \$500 above \$1,000. For more details call the Trust office (603) 228-5444.

## Conference Program – Monday, February 6th

**7:00 – 8:00 REGISTRATION - COFFEE and DANISH**

**8:00 – 8:30 WELCOME and OPENING REMARKS**

Greg Zlotnick, Chairman, American Ground Water Trust  
John Rossi, Chairman, Association of Ground Water Agencies

**8:30 – 10:00 PANEL ONE: INTEGRATING RESOURCES IN THE REAL WORLD**

The panel will discuss the dynamics of blending water resources and give examples of how it has been accomplished. This will take into consideration supply, which includes storm water, imported water (both State Project Water and Colorado River water), and wastewater, facilities, political realities and seasonal considerations. Each of the speakers will present real-world considerations and provide insight into the regulatory hurdles required to accomplish a truly integrated supply.

Panel Moderator: Ken Manning, CEO, Chino Basin Watermaster

Panelists: Virginia Grebbien General Manager, Orange County Water District  
Mark Wildermuth, P.E., Principal, Wildermuth Environmental, Inc.  
Rich Nagel, Co-General Manager, Central&West Basin Municipal Water Districts

**10:00 – 10:30 BREAK**

**10:30 – 12:00 PANEL TWO:  
GROUNDWATER RECHARGE: REGULATORY SUCCESS STORIES FROM SOUTHERN CA**

Southern California water agencies have implemented numerous groundwater recharge projects over the past decades to ensure a reliable, high quality, and cost-effective water supply. These recharge projects have included recharge of storm water, recharge of nontreated imported water, recycled wastewater for surface recharge, advanced treated wastewater for injection, and treated imported water (including State Project Water and Colorado River water). The panelists will describe the regulatory policies relating to groundwater recharge and how to develop a successful recharge project from a regulatory perspective.

Panel Moderator: Mel Blevins, Groundwater Consultant for Watermaster and LA Department of Water & Power,

Panelists: Gerard Thibeault, Executive Officer, Santa Ana Regional Water Quality Control Board  
Jonathan Bishop, Executive Officer, California Regional Water Quality Control Board  
Cindy Forbes, Chief, Southern California Field Operations, California Department of Health Services

**12:00 – 1:30 LUNCHEON SPEAKER**

### **Wes Bannister, Chairman, Metropolitan Water District of Southern California**

Wes Bannister, is a past president of the Orange County Water District board of directors and has served as the Mayor of Huntington Beach. He was elected as MET Chairman in January 2005. MET provides drinking water to nearly 18 million people in a 5,200-square-mile service area. "We face significant water supply challenges throughout the region. We've lost half of our allocation of the Colorado River, one of our primary sources of imported water. We are experiencing a drought, the most severe in 500 years and, the variability of the supplies we receive from the State Water Project make the storage of wet-year supplies and the development of local projects even more critical. Now, more than ever, it's imperative that the entire Southern California region work together as a team to develop new sources of water...desalination, reclamation and water transfers." (Bannister, January 2005).

**1:30 – 3:00 PANEL THREE: TMDL - TAKING MY DISCHARGE AND LEAVING?**

Wastewater dischargers are dealing with more stringent discharge limitations from their wastewater treatment plants that are requiring more expensive levels of treatment, including reverse osmosis and brine disposal. Downstream groundwater basin managers want to provide protection of their groundwater resources, but they rely on the reliable supply of wastewater to recharge their basins. Find out how the dischargers and groundwater basin managers are collaborating to find solutions to this dilemma in the Santa Clara and Santa Ana River Watersheds.

Panel Moderator: Terry Foreman, Vice President, CH2M Hill

Panelists: Victoria Conway, Department Head, County Sanitation Districts of Los Angeles County  
Stacy Aldstadt, General Manager, City of San Bernardino Water Department  
Dana Wisheart, General Manager, United Water Conservation District  
Greg Woodside, Director of Planning and Watershed Management, Orange County Water District

**3:00 – 3:15 BREAK**

**3:15 – 4:45 PANEL FOUR: DESALINATION- IS THE GLASS HALF-EMPTY OR HALF-FULL?**

There are over 7,500 desalination projects worldwide. The panel will present varying perspectives on the reality of developing Californian desalination projects and the dynamics that are acting as barriers to implementation of a working strategy. Speakers will provide federal, state and local perspectives and explore ways of aligning the regulatory, financial and political policies required to make desalination a reality.

Panel Moderator: John Rossi, General Manager, Western Municipal Water District

Panelists: Hal Furman, Furman Group, Lobbyist for the Desalination Coalition in DC  
Richard Atwater, General Manager, Inland Empire Utilities Agency  
Bill Steel, Regional Manager, Bureau of Reclamation,  
Behrooz Mortazavi, Director of Water Resources Management, Eastern Municipal Water District

**4:45 – 5:00 WRAP UP**

Andrew Stone, Executive Director, American Ground Water Trust

## Post Conference Fieldtrip (Optional) - Tuesday, February 7<sup>th</sup>, 8:30am-12pm

Field trip leaders: IEUA and Orange County Water District  
Fieldtrip Assembly Point: Inland Empire Utilities Agency, 6075 Kimball Avenue, Chino, CA 91710

**PLEASE NOTE**  
Pre-registration required for field trip. Driving directions will be e-mailed to those registering for the field trip.

### Stop 1: Chino Deslater

One hundred years of agriculture and urbanization have caused groundwater in the Chino Basin to become high in salts and nitrates. At the same time, water demand and usage in the area continues to increase. Groundwater pumped from 14 wells throughout the Chino Basin is pumped to the Chino Basin 1 Desalter. Once there, a desalination process uses reverse osmosis technology to remove salt and nitrates from the water, bringing it to drinking water standards. The Chino Basin 1 Desalter produces 14 million gallons per day of high-quality drinking water, serving approximately 35,000 families.

### Stop 2: Prado Wetlands Habitat Area

Within OCWD property and adjacent lands there are nearly 465 acres of constructed wetlands, which have effectively demonstrated the ability to reduce nitrogen levels in Santa Ana River water. The Santa Ana River is the main source of recharge for the vast Orange County groundwater basin, and consists primarily of tertiary treated wastewater from upstream dischargers. The river also receives storm flows, natural run-off, and rising groundwater.

The wetland consists of a system of 50 shallow ponds. The wetland system removes approximately 20 tons of nitrate a month, and during summer months reduces nitrate concentration from 10 milligrams per liter to less than 1 milligram per liter. Several modifications have been made to increase the hydraulic capacity of the Prado wetland pond system in order to handle a potential increase in future base flows to improve operational flexibility.

## Hotel Information

Marriott Ontario Airport, 2200 East Holt Boulevard, Ontario, CA 91761. Sleeping room reservations (800) 284-8811—Ask for the American Ground Water Trust Group rate of \$119. This discount price is effective up to January 16th. The hotel is situated immediately north of the Ontario airport, just south of Interstate 10. A free hotel shuttle service runs every 30 minutes to/from the airport. For driving directions visit the Marriott Ontario Airport Hotel website: <http://marriott.com/property/propertypage/ONTCA>. Conference is scheduled to be held in Ballrooms I and II.

## Continuing Education



Employee Development University is a learning partner with the Trust. CEU credits are available for conference attendees who complete the sign-in and sign-out sheet and who submit an evaluation form.





Certificates will be mailed a few weeks after the event.

**Conference .65 CEU / Fieldtrip .35 CEU**

Visit [www.eduniv.com](http://www.eduniv.com) for more information about this CEU program.



## How To Register

1. To  register Online click your browser Back button then click on **Register**
2. To register by  Mail or  Fax, print the registration form below  
  
**Mail to: American Ground Water Trust, 16 Centre Street, Concord, NH 03301**  
  
**Fax to: (603)228-6557**
3. To register by  Phone call (603) 228-5444

**PLEASE FORWARD THIS CONFERENCE INFORMATION TO YOUR COLLEAGUES AND PROFESSIONAL CONTACTS.**

# Hydrologic, Environmental and Legislative Challenges to Southern California's Present and Future Managed Aquifer Recharge Programs

**Ontario, CA - February 6th, 2006 & Optional Fieldtrip February 7<sup>th</sup>, 2006**

Registration Type			Walk-In (Feb 6)
General Registration	<input type="checkbox"/>	\$210	\$250
Affiliate Members of AGWA	<input type="checkbox"/>	\$190	\$220
Members of AGWA	<input type="checkbox"/>	\$180	\$200
Trust Members	<input type="checkbox"/>	\$180	\$200
Full-Time Students (ID required at Registration)	<input type="checkbox"/>	\$110	\$130
Exhibit Table (Does not include Registration)	<input type="checkbox"/>	\$250	
Fieldtrip (Tues, Feb 7th, 8:30am-12pm Chino Desalter & Prado Wetlands)	<input type="checkbox"/>	\$30	\$35
<b>Total ==&gt;&gt;</b>		\$ _____	\$ _____

**Payment:** Check \_\_\_ AMEX \_\_\_ Visa \_\_\_ MasterCard \_\_\_ PO # \_\_\_  
 Check payable to: "American Ground Water Trust"

**Credit Card or PO#** \_\_\_\_\_ **Expiration Date** \_\_\_\_\_

**Cardholder Name** \_\_\_\_\_

**Cardholder E-mail** \_\_\_\_\_

**Registrants Name** \_\_\_\_\_

**Title** \_\_\_\_\_

**Company** \_\_\_\_\_

**Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Phone** \_\_\_\_\_ **Fax** \_\_\_\_\_ **Registrants E-mail** \_\_\_\_\_

**IF YOU DO NOT RECEIVE A CONFIRMATION WITHIN 24-48 HOURS PLEASE CALL THE TRUST.**

**CANCELLATION POLICY**

- Cancellations received in the Trust office by 5 pm (ET) 15 days prior to the start of the event will be granted a full refund less a \$25 processing fee.
- Cancellation 14 days or less, prior to the start of the event will receive a 50% registration refund.
- Cancellations one day before the start of the event, or on the day of the event are considered "No Shows." Refunds will not be granted for "No Shows" (Substitutions gladly accepted).
- The Trust will not cancel a conference program due to weather. Except that, in the case of an event cancellation resulting from, (but not limited to) circumstances such as a state mandatory evacuation or a fire at the program facility, the Trust will reschedule the event and honor registrations as payment for the new event.

Questions about registration, table-top displays, or sponsorship opportunities call the Trust (603) 228-5444.