



----- Annual LABS SARBS Tour of the Groundwater Replenishment System -----  
----- Educational Pathways to Green Jobs at Rio Hondo College -----  
----- Water for People's Inaugural Blue Planet Run -----  
----- 2007 Hydraulic Measurements and Experimental Methods -----  
----- See Page 7 for the October LABS event -----

October 2007 SEWER LEAKS – A Los Angeles Basin Section of the C W E A Publication



Advanced Water Filtration Facility Microfiltration Area (above left) Lime System (above center left) Decarbonators (above center right) Barrier & Product Water Pumps (above right) Los Angeles Basin Section (LABS) and Santa Ana River Basin Section (SARBS) tour attendees at the Transfer Pump Station of the Groundwater Replenishment System



## Annual Joint LABS SARBS Facility Tour

On September 13, 2007 the Orange County Water District and the Orange County Sanitation District hosted LABS and SARBS participants on their annual joint facility tour. This year attendees were given the opportunity to visit the Groundwater Replenishment (GWR) System, which is the largest water purification project of its kind in the world. When completed the system will have the capacity to produce 70 million gallons per day of finished water or enough to meet the needs of 144,000 families.

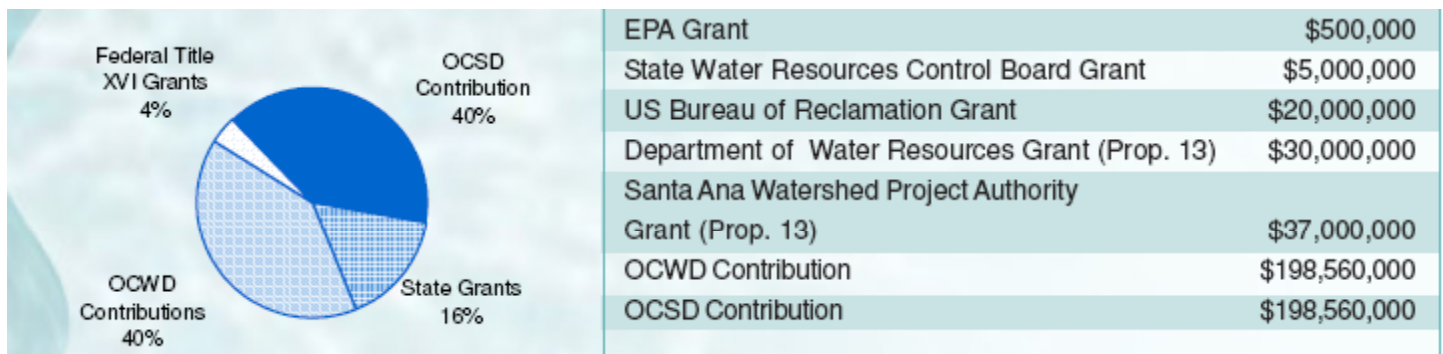


Mike Markus welcomes, Shivaji Deshmukh hosts tour, Ingrid Hellebrand and Richard Watts, Gina Depinto speaks

For decades imported water from Colorado River and State Water Project has been relied upon. In recent years there has been a reduction in imported water supplies due to recurring droughts. Reduced supply has been coupled with population expansion, which leads to the need to secure new water sources.

The Orange County Water District and the Orange County Sanitation District worked together to meet this challenge through the construction of the new GWR System. The GWR System takes highly treated sewer water and purifies it using a state-of-the-art three-step process. The advanced treatment system includes: microfiltration, reverse osmosis, and ultraviolet light with hydrogen peroxide disinfection. Microfiltration is a low-pressure membrane process that removes suspended particles, protozoa, bacteria and some viruses. Reverse osmosis is a high-pressure membrane process that forces water through the molecular structure of a thin membrane that filters out minerals and contaminants, including salts, viruses, pesticides and other materials. During disinfection, water is exposed to ultraviolet light and hydrogen peroxide. Due to the advanced treatment level, some alkalinity must be replaced in order to stabilize the pH. Lime is added to the finished water for this purpose.

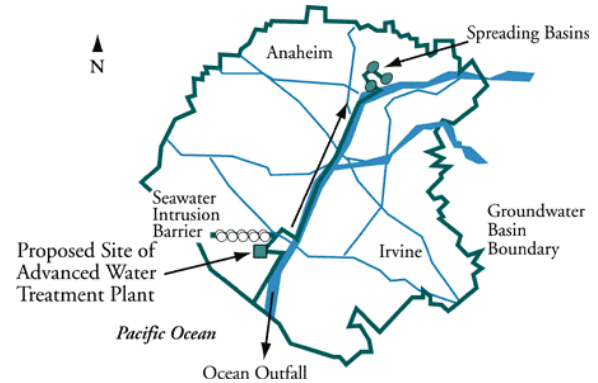
Roughly half of the water from the GWR System will be injected into Orange County’s seawater barrier. The seawater barrier is an underground pressure ridge of water formed by injection wells along the coast of Orange County. The remaining water will be piped to recharge lakes in Anaheim, where the water will filter through clay, sand and rock to the groundwater basin. A mix of federal, state and local funding is being applied to this project, estimated at \$487 million.





## Annual Joint LABS SARBS Facility Tour

One of the most interesting features of this project is the unique partnership between the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD). California’s water supply from the Colorado River will be reduced by 2016. A five-year drought has negatively impacted the Santa Ana and Colorado Rivers. The future supply is complicated by the fact that Orange County’s population is expected to increase by 300,000 to 500,000 people by 2020, Southern California’s by seven million and the state’s by some 15 million.

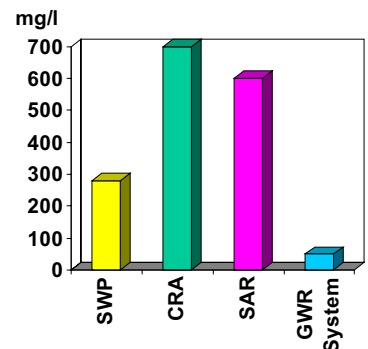


After evaluating many alternatives the OCWD and the OCSD chose to form a joint authorities agreement partnership for the GWR project. This project benefits both agencies and the constituency in general, in that it helps to meet the long-term plan developed by the Metropolitan Water District of Southern California to maintain and improve the reliability of Southern California’s water supply. It also protects against future droughts, produces high-quality water to replenish the groundwater basin, protects the environment by reusing a vital resource. In addition there are energy advantages to the project. The facility will use approximately one-half the amount of energy that is required to transport water from Northern California to Southern California and it provides “water diversity” in an arid region.

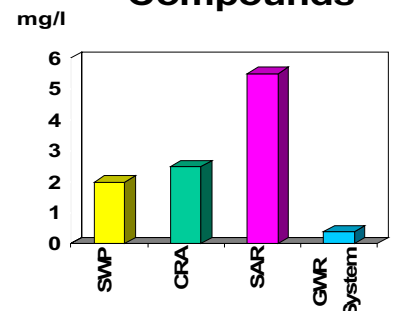


Water reuse projects are subject to scrutiny with respect to health and safety concerns. The GWR System must be reviewed, approved and permitted by the California Department of Health Services and the California Regional Water Quality Control Board, Santa Ana River Basin, to ensure public health, water quality and environmental compliance before the system is brought on-line. The OCWD and the OCSD took a proactive approach to these concerns and initiated a 7-year study to evaluate the water quality of potential raw water sources. Sources include the State Water Project (SWP), Colorado River Allocations (CRA), the Santa Ana River (SAR) and finished product water from the GWR System. Results of the study show the quality of the GWR System source with respect to total dissolved solids and total organic compounds. The award winning GWR System has received the following: 2004 Flex Your Power energy efficiency award, 2002 EPA’s Environmental Achievement Award, and 1998 WaterReuse Association’s Planned Project of the Year.

**Total Dissolved Solids**



**Total Organic Compounds**



## **Reminder “Educational Pathways to Green Jobs” Symposium at Rio Hondo College This Month**

On Friday, October 5, 2007 past CWEA Board Director Mike Selna will facilitate a symposium called “Educational Pathways to Green Jobs” at Rio Hondo College. The event will introduce strategies on curricula development for water quality and operator training certification programs.



The purpose of the symposium is to identify topics and subject areas, which could be included in the general community college curriculum. In addition, there is an interest in identifying two-year vocational/occupational degrees and programs, which can provide community college students with the skills and training necessary to fill environment-related internships and jobs.

Agency members of CWEA who would be willing to lend their voice on the need for wastewater operations training curriculum and who might be willing to volunteer to help with its development are encouraged to attend. For more information go to <http://www.riohondo.edu/green/>

## **Water For People’s Inaugural Blue Planet Run a Success!**

USA Ireland United Kingdom France Belgium Holland Germany Czech Republic Austria Poland Belarus Russia Mongolia China Japan Canada



On September 4, 2007 twenty citizen athletes completed the historic inaugural Blue Planet Run at the United Nations Building New York City. The Blue Planet Run covered 15,200 miles, across 16 countries and 3 continents. Runners participated in a 24 hours relay for 95 days to deliver an important message: we can and must begin today to alleviate the catastrophic burden placed on over a billion people who, every day, must drink unsafe local water, or travel long distances on foot to search for safe water for themselves and their families.

Batons were passed at over 1,500 exchange points. The exchange points were celebrated by well-organized events in major cities. For example Water for People volunteers hosted fund raising events on August 5<sup>th</sup> 2007 at the 3<sup>rd</sup> Street Promenade in Santa Monica.



Through the practical yet innovative water and sanitation projects already funded, The Blue Planet Run Foundation in partnership with Water For People to has brought hope to 100,000 people in 13 countries. If you are interested in learning more about these charitable organizations please plan to attend the **October 11, 2007 Water For People lunch presentation** at the Los Angeles County Sanitation Districts. The program will start at noon. For more information please contact Rupam Soni 562.908.4288 ext. 2303.

## ***“Can I Have Your Attention Please:” Developing and Delivering Better Presentations***

The California Water Environment Association (CWEA) is sponsoring two one-day specialty seminars entitled “Can I Have Your Attention, Please:” Developing and Delivering Better Presentations.



Anyone who is involved in presenting technical information to diverse audiences will benefit from this informative and hands on workshop. Engineers, public works professionals, consultants, directors, and all who present at board meetings, public meetings interviews, professional conferences, etc. are encouraged to attend.

**Southern California — November 7, 2007**

For directions email [MWDEducationPrograms@mwdh2o.com](mailto:MWDEducationPrograms@mwdh2o.com)



**Northern California — October 30, 2007**

Wedgewood Banquet Center @ San Ramon Golf Club  
9430 Fircrest Lane, San Ramon, CA 94583  
For directions call: 925.828.6258 ext.1

Join communication experts Janet Barbieri - Jones & Stokes and Dianne Lee - West Yost Associates to increase your public speaking skills and earn valuable contact hours!

**Janet Barbieri** is the community affairs practice leader for Jones & Stokes. She is a project director for public outreach, public participation, public affairs, and facilitation projects throughout California. Her expertise includes communication planning, stakeholder assessment and outreach, community collaboration—as well as technical writing for environmental programs with diverse and often opposing audiences.

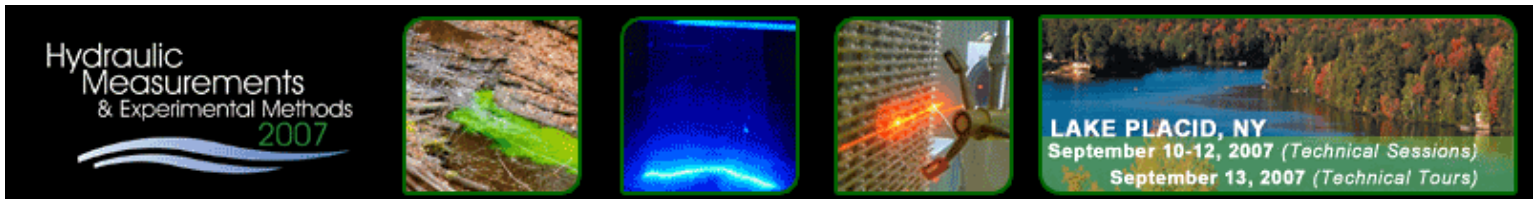


**Dianne Lee** is the Marketing Director for West Yost Associates. She has 16 years of experience producing high-impact communication tools for presentations, marketing pursuits, and public works projects. Her experience covers a broad range of communication topics from facilitation and community outreach, to technical writing and report coordination.

### ***Electronic Sewer Leaks Version Available***

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On September 10<sup>th</sup> – 13<sup>th</sup> the American Society of Civil Engineers' Environmental Water Resources Institute, and the International Association of Hydraulic Research sponsored the 2007 Hydraulic Measurements and experimental Methods (HMEM 2007) Conference. This was the 3<sup>rd</sup> in the HMEM international series.

Hydraulic measurements play an invaluable role in the management of water resources, including natural water bodies such as rivers, lakes, and estuaries and engineered water bodies, such as channels and reservoirs. In all cases, accurate and precise data are required for informed decision making. In addition, field and laboratory data are required for the validation of computational tools as well as the discovery of fundamental fluid flow physics.

HMEM 2007 was organized into three tracks of hydraulic contributions. Track 1 focused on Advances in Measurement technology. Track 2 highlighted Fundamental of Flow Processes. And Track 3 looked at Measurements of BioGeoPhysical Integrated Parameters.



Martin Detert of Baden-Wuerttemberg DEU, Cary David Troy of Purdue University, David Drazen of Oslo, NOR, Chris Rehmann of Stanford, Mohammed Gamal Elenany of University of Alberta



Ichiro Fujita of Kobe JPN, Nicolle Mathys of St. Martin d'Herès FRA, Jim Bonta of USDA, Moderator Aaron Blake with Valentina Defendi of Venice ITA

HMEM 2007 provided an opportunity for researchers, practitioners, and students of hydraulic measurements and methods to meet, exchange ideas, and create a vision for the future of the field through numerous oral and poster technical sessions. California was well represented at this international forum by advanced research out of Stanford on *Richardson Number Measurements in Breaking Internal Waves* and by practitioners such as the Sanitation Districts of Los Angeles County whose innovative *Design Storm Selection with GIS Surfaces* method will be presented at the 2007 Tri-State Seminar. For more information on Tri-State go to <http://www.tristateseminar.com>



THE **LOS ANGELES BASIN SECTION** OF THE **CWEA**  
HOSTS A **DINNER AND TRAINING MEETING**



## Getting the Salt Out:

The Innovative Plan to Reduce Chloride Loadings to the Santa Clara River

Thursday, October 25, 2007

## Monterey Hill Restaurant

----- On West Ramona Blvd in Monterey Park (on top of hill next to golf course - see map below) -----

--Guest Speaker--

**Preeti Ghuman – Civil Engineer, LACSD**

The Santa Clarita Valley Sanitation District must significantly reduce chloride discharges to meet water quality objectives for the Santa Clara River. The largest added source of chloride in the sewer system is salty waste from residential automatic (self-regenerating) water softeners that use rock salt or potassium chloride. To facilitate timely removal of residential automatic water softeners, the District recently launched a landmark voluntary rebate program that compensates residents for 100% of the reasonable value of their automatic water softener and provides for its free removal and disposal.

Ms. Ghuman currently works on residential pollution prevention and source control. She manages the multi-million dollar Santa Clarita Valley Sanitation District's Automatic Water Softener Rebate Program and public outreach campaign. In addition, she evaluates the potential toxicity of residential pesticides discharged into the sewer system and has worked on control strategies for the Sanitation Districts and Tri-TAC.

Dinner is at 6:30; presentation at 7:15; join us at 6:00 for the mixer if you can.

### Dinner Menu:

Meals include one of the following entrees:

- **Roasted Prime Rib of Beef**  
*With Au Jus and Bordelaise Sauce*
- **Pacific Swordfish**  
*Lemon Beurre Blanc Sauce*
- **Baked Chicken Mozzarella**  
*Basil, Mushroom, Spinach and Cheese*
- **Pasta Primavera**  
*(for vegetarians)*

### Reservations:

**RSVP By MONDAY, October 22nd**

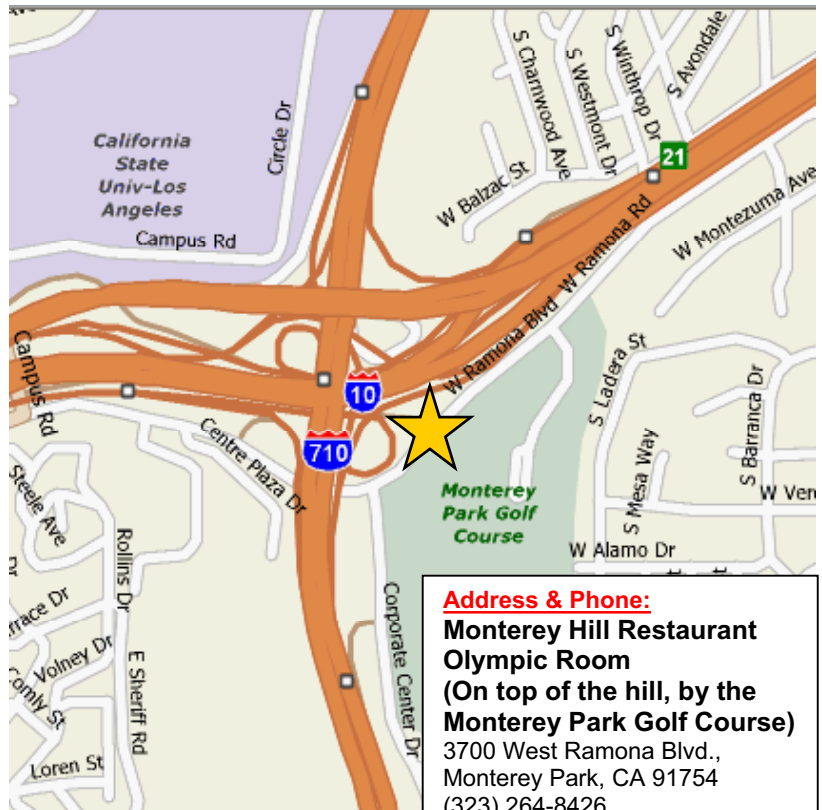
RSVP (with one menu choice from above) to Patrick Griffith by e-mail (preferred method) at <mailto:pgriffith@lacsds.org>

-or-

by phone at 562-908-4288, x-2117

**Event Cost:** (pay at the door)

Member	\$25
Non-Member	\$30
Student / Retiree	\$15



### Address & Phone:

**Monterey Hill Restaurant**  
**Olympic Room**  
**(On top of the hill, by the Monterey Park Golf Course)**  
3700 West Ramona Blvd.,  
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**Open Chair: Safety**

### SPECIAL EVENTS CALENDAR

Oct 5 <sup>th</sup>	Symposium "Educational Pathways to Green Jobs" Rio Hondo College, City of Industry <a href="http://www.riohondo.edu/green/">http://www.riohondo.edu/green/</a>
Oct 11 <sup>th</sup>	Water For People LA Chapter presentation at LACSD contact Rupam Soni (562) 908-4288 ext. 2303
Oct 13 <sup>th</sup> - 17 <sup>th</sup>	80 <sup>th</sup> Annual WEFTEC 2007 Water Quality Conference San Diego, CA <a href="http://www.weftec.org/home.htm">http://www.weftec.org/home.htm</a>
Oct 25 <sup>th</sup>	LABS Training Event Monterey Park, CA <a href="http://www.labsforcwea.com/">http://www.labsforcwea.com/</a>
Oct 30 <sup>th</sup> (North) Nov 7 <sup>th</sup> (South)	"Can I Have Your Attention Please?" Specialty Conference San Ramon and MWD <a href="http://www.cwea.org/conferences/2007/Print_Ed_2007.pdf">http://www.cwea.org/conferences/2007/Print_Ed_2007.pdf</a>

[www.projectpartners.com/ps/index.htm](http://www.projectpartners.com/ps/index.htm)

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