

MAKE SURE YOU MAXIMIZE YIELD FROM YOUR WATER WELLS

An educational workshop program from the American Ground Water Trust

Monday, December 10th Bakersfield, CA ~ 8:30am to 4:00pm

Kern Agricultural Pavilion, 3300 East Belle Terrace, Bakersfield, CA 93307

Will your pumping operations take a hit from SGMA?



SGMA recognizes that there is competition for water. With increased scrutiny on pumping, to achieve “more crop per drop” growers must optimize well performance and follow state of the art technology in well design, construction and operation. This workshop provides a great learning opportunity for irrigation growers, well owners, and farm management water professionals on the latest practical, cost-effective solutions. The program will explain how to maximize the economic return on pumped groundwater by correct pump selection, well operation and the use of real-time data to effectively match well pumping to aquifer conditions and water demands.



Continuing Education

The AGWT will issue Certificates of Attendance:

Approved for CA Drinking Water Operators – 7 CE Hours

Approved for CA Water Well Drillers & Pump Installation Contractors – 7 CE Hours

Approved by IA for Agricultural Irrigation Specialists & Irrigation Designers – 6.5 Hours, Course #IA12181-6.5A

WORKSHOP SPONSORS (please join them)



To become a workshop sponsor or exhibitor – see Registration Information Form below or this event’s webpage at www.agwt/events

PROGRAM PRESENTED BY AMERICAN GROUND WATER TRUST (a 501(c)(3) non-profit education organization)

"Get smart with your water well assets!"



PROGRAM

7:30 – 8:30 REGISTRATION (Coffee & donuts)

8:30 - 8:45

MEASUREMENT OF HYDROLOGIC INPUTS AND OUTPUTS THE KEY TO WATER RESOURCES MANAGEMENT

Andrew Stone Executive Director, American Ground Water Trust, Concord, NH

[To manage you need to measure. Measurement produces data. SGMA requires data-based management. Well design & construction, pumping efficiency and aquifer characteristics impact data used to determine sustainability.]

8:45 – 9:35

WELL & PUMP EFFICIENCY IS NOT A MYTH

David Kill, PE, Training Consultant, Xylem Goulds Water Technology, St. Paul, MN

[The cost of irrigation water is directly connected to well and pump efficiency. The presentation will discuss the basis for pump selection and show the basic calculations that can be used to monitor water well efficiency and high capacity pump performance.]

9:35 – 10:25

DESIGN AND OPERATION PRINCIPLES FOR MAXIMIZING WELL EFFICIENCY

Kevin McGillicuddy, PG, Chief Hydrogeologist, Roscoe Moss Company, Los Angeles, CA

[Stainless steel for your well? What are the economics of the selection of casing and screen materials? What criteria from the driller's log or down-hole geophysics are used to determine screen position, length, slot size and diameter to optimize performance and ensure well longevity?]

10:25 – 10:50 **BREAK**

10:50 – 11:40

WATER WELL DESIGN CONSIDERATIONS FOR THE CENTRAL VALLEY

Larry Ernst, PG, CEG, CHG, Principal, Wood Rodgers, Sacramento, CA

[With a new focus on achieving groundwater sustainability, it is important to understand how local geology, influences groundwater and how pumping and water level changes can impact water quality and subsidence. "Know your well" for SGMA compliance is now a priority for Central Valley agricultural, industrial and municipal groundwater users.]

11:40 – 12:40 **LUNCH** (provided)

12:40 – 1:30

WELL DEVELOPMENT AND ASSESSMENT TECHNIQUES

Chris Johnson, PG, CHG, Founder and Principal Hydrogeologist, AEGIS, Fresno, CA

[Return on investment should be the main operating criteria for water wells. Decades of experience with Central Valley wells show that most wells do not optimize pumping potential. Down-hole videos of well problems can aid in providing technical and operational "fixes" to restore performance.]

1:30 – 2:20

NEXT GENERATION GROUNDWATER-LEVEL INFORMATION SYSTEMS FOR CALIFORNIA: USING FARM WELLS TO INFORM GROUNDWATER MANAGEMENT

Chuck Dunning, PhD, PG, Vice President Business Development, WellIntel, Milwaukee, WI, and

Lee Knudtson, Network Development Representative, WellIntel, Morro Bay, CA

[Managing groundwater under stress requires good planning and lots of data. New acoustic sensor technology can complement and extend existing monitoring programs by harnessing the power of the cloud to create rich, cost-effective datasets.]

2:20 – 2:35 **BREAK**

2:35 – 3:25

INTELLIGENT PUMP VARIABLE FREQUENCY DRIVES FOR THE AGRICULTURAL INDUSTRY

Dan Peters, Applications Engineer, Yaskawa America, Inc., Cypress, CA

[How to add "intelligence" to pump system controls. Case studies of cost advantages of using VFD to improve pump efficiency and VFD controls to optimize management of multi-pump systems.]

3:25 – 4:15

USE OF REAL-TIME DATA TO EFFECTIVELY MATCH WELL PUMPING TO AQUIFER CONDITIONS AND WATER DEMANDS

Greg Allen, VP and Principal, REDtrac, LLC, Bakersfield, CA

[Real time information and timely reports showing pumping and standing water levels, pump efficiency, specific capacity, actual energy costs per acre foot, and applied water are vital to effective farm operations. When coupled with soil moisture, weather and field-specific ET measurement growers and operators can manage their groundwater.]

4:15 **FINAL Q & A AND WRAP-UP**

4:30 **ADJOURN** and continuing education sign-out