



Pump & Motor Control Seminar and Geographical Information System (GIS) Applications for Small Water and Wastewater Utilities (ArcGIS Framework)



Free Classes Presented by CRWA, Pentair Water, and North Star Precision Mapping

Day 1: Pump & Motor Control Seminar	6 Water & Wastewater Contact Hours
Review of basic pump hydraulics, centrifugal pump sizing, motor design, construction and operation, wire sizing and controls, and system troubleshooting. Variable Frequency Drives (VFD) will be discussed and why they are becoming more popular with utilities. Cavitation and water hammer will also be discussed.	
Day 2: GIS Applications	6 Water & Wastewater Contact Hours
This important training opportunity will outline the fundamentals necessary to integrate GIS applications for water and wastewater, including collection systems, buying the necessary hardware and software, estimating costs of integration, editing in the ESRI environment, where to obtain free information on the web and using GIS to meet federal regulatory requirements.	
<ul style="list-style-type: none"> • GIS for Water: water valve operations & maintenance, hydrant flushing, cross connection program, field data, etc. • GIS for Wastewater: SSO requirements, inflow & infiltration, ID deficient infrastructure, etc. 	

Instructors:

Rick Hicklin has thirty years of experience in the groundwater industry working for major manufacturers of pumps, motors, and controls. His positions have included sales, marketing, and technical training for all products related to the groundwater industry. Rick has worked for Grundfos Pumps, Red Jacket Pumps, Hydromatic Pumps, and Franklin Electric, and is now with Pentair Water.

Travis W. Engstrom is the president of North Star Precision Mapping, a GIS service company. Travis has over seven years of field experience in GIS mapping, specializing in underground utility infrastructure. He has built more than 200 individual GIS applications from the ground up for government agencies. Travis' projects (including field mapping, map book creation, GPS customization, and staff training) have helped agencies save hundreds of thousands of dollars in treatment costs, and more than \$85 million in fines.

Doug Davenport has been with CRWA for ten years and is currently certified as a WW-2, D-2 and WT-1. Doug holds a degree in Environmental Science and Planning and has been an instructor for over twenty years. Doug has been in the utility business since 1977 and started in the wastewater field at Tahoe-Truckee Sanitation as a lab technician.

Please mark which days you will attend:

<input type="checkbox"/> April 20, 2010 (Pump & Motor Control) <input type="checkbox"/> April 21, 2010 (GIS Applications)	MANTECA (San Joaquin County) Bass Pro Shops, 1356 Bass Pro Drive, Manteca, CA 95337 Registration: 9:00am – 9:30am, Class: 9:30am – 4:30pm Lunch: 12:00pm – 1:00pm (on your own)
<input type="checkbox"/> May 25, 2010 (Pump & Motor Control) <input type="checkbox"/> May 26, 2010 (GIS Applications)	VISALIA (Tulare County) Self Help Enterprises, 8445 W. Elowin Ct., Visalia, CA 93279 Registration: 8:00am – 8:30am, Class: 8:30am – 3:30pm Lunch: 12:00pm – 1:00pm (on your own)
<input type="checkbox"/> June 8, 2010 (Pump & Motor Control) <input type="checkbox"/> June 9, 2010 (GIS Applications)	SUSANVILLE (Lassen County) Alliance for Workforce Development, 2545 Main St., Susanville, CA 96130 Registration: 8:00am – 8:30am, Class: 8:30am – 3:30pm Lunch: 12:00pm – 1:00pm (on your own)

Attendee(s) Name(s): _____

System or Company Name: _____

System or Company Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ FAX: _____ Email: _____

These are free classes. We will not send a registration confirmation but will contact you if the class is full and put you on a waiting list. If you register and cannot attend, please call (800) 833-0322 to cancel. Please let us know if any registrant requires accommodations for disabilities. For more information on CRWA classes, please visit our website: www.calruralwater.org. Questions? (800) 833-0322

TO REGISTER: Fax this form to (916) 553-4904 or email to awoodland@calruralwater.org or mail to California Rural Water Association, 4125 Northgate Blvd., Sacramento, CA 95834.

Opt-out: If you wish to be taken off our distribution list, please call (800) 833-0322 or email rwhipple@calruralwater.org. Thanks!