

GROUNDWATER & WATER WELLS

Current groundwater water issues in the State of Oregon
Effective & economic well design and operation

(Conference/workshop - 8:00am to 4:30pm)

Tuesday, Oct 24, 2017 — Holiday Inn, Wilsonville.
 25425 SW 95th Avenue ~ Wilsonville, OR 97070



An American Ground Water Trust education program

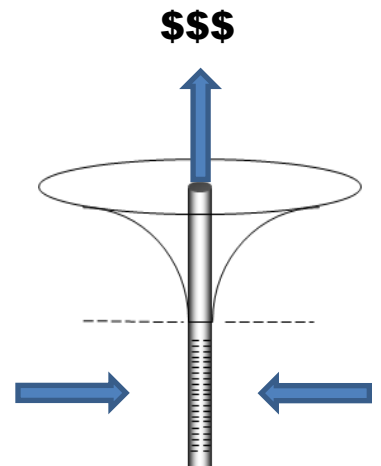
| | | |
|--|--|--|
| | <p>Continuing Education AGWT will issue Certificates of Attendance (Engineers & other professions) Water Well Drillers – Water Operators – Application made for CEU approval</p> | |
|--|--|--|



Who should be there?

Groundwater managers, utility supply professionals, well contractors, pump installers, water well equipment suppliers, water well owners, end-users and operators of high-yield water wells, groundwater specialists, water supply engineering & design consultants, water supply permitting and water quality regulatory officials

- AQUIFER STORAGE RECOVERY**
- WELL CONSTRUCTION REGULATIONS**
- NUMERICAL GROUNDWATER MODELS**
- GROUNDWATER RESEARCH IN OREGON**
- GROUNDWATER SUPPLY ASSET MANAGEMENT**
- WATER QUALITY: WELL PERFORMANCE PREDICTOR**
- MAINTAINING REVERSED GROUNDWATER GRADIENTS**
- WHAT DOES GROUNDWATER SUSTAINABILITY MEAN?**
- DEEP WELL DRILLING AND INSTALLATION CHALLENGES**
- WELL HYDRAULICS: PUMP SELECTION TO MAXIMIZE YIELD**
- MAINTAINING AND OPERATING 700 WELLS IN BERLIN, GERMANY**
- HOW TO SELECT INTELLIGENT PUMP VARIABLE FREQUENCY DRIVES**



Morning Plenary Session Tuesday October 24th - Portland/Wilsonville Program

| | |
|-------------------|---|
| 7:30am – 8:00am | REGISTRATION (coffee & pastries) |
| 8:00am - 8:15am | OPENING REMARKS – PROGRAM OBJECTIVES Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH |
| 8:15am – 8:55am | ASR WELL DESIGN Dave Nazy, Senior Hydrogeologist EA Engineering, Science and Technology, Inc., Portland, OR |
| 8:55am - 9:35am | UPDATE ON LATEST WELL CONSTRUCTION ISSUES Joel Jeffery, Well Construction Program Coordinator, Oregon Water Resources, Salem, OR |
| 9:35am - 10:15am | UPDATE ON USGS GROUNDWATER PROJECTS AND RESEARCH IN OREGON Steve Gingerich, Groundwater Specialist, USGS Oregon Water Science Center, Portland, OR |
| 10:15am – 10:35am | BREAK |

10:35am – 11:15
DEEP WELL DRILLING AND INSTALLATION CHALLENGES
Robert Stadlei, Rotary Division Manager, Holt Drilling Services, Edgewood, WA

11:15am - 12:05pm
MONITORING, MANAGING AND MAINTAINING 700 WELLS: SOLE SOURCE OF SUPPLY FOR THE CITY OF BERLIN, GERMANY
Andreas Wicklein, Manager, Certified Hydrologist, pigadi GmbH, Berlin, Germany

12:05pm – 1:10pm LUNCH (Included)

Afternoon Session –Wilsonville Program Option 1

1:10pm - 1:50pm
USING STANDARD WATER QUALITY PARAMETERS AS PREDICTORS OF FUTURE WELL PERFORMANCE
Jim Bailey, National Well Services Director, Shannon & Wilson Inc., Seattle, WA

1:50pm - 2:30pm
PORTLAND HARBOR SOURCE CONTROL: 100 WELL HYDRAULIC CONTROL AND CONTAINMENT SYSTEM TO MAINTAIN REVERSED GROUNDWATER GRADIENTS
Benjamin Johnson, ANCHOR QEA, LLC, Portland, OR

2:30pm – 3:10pm
NUMERICAL MODELING TO SUPPORT EXPANSION OF WELLFIELD ADJACENT TO WILLAMETTE RIVER, EUGENE OR.
Stephen Thomas, Hydrogeologist, Shannon & Wilson Inc., Seattle, WA

3:10pm - 3:25pm BREAK

3:25pm – 4:00pm
GROUNDWATER SUPPLY ASSET MANAGEMENT
Chris Augustine, Hydrogeologist, Aspect Consulting, Portland, OR

4:00pm - 4:30pm
GROUNDWATER SUSTAINABILITY: WHAT DOES IT MEAN? CAN IT BE ACHIEVED?
Andrew Stone, Executive Director, American Ground Water Trust, Concord, NH

Afternoon Session – Wilsonville Program Option 2

What you will learn:

- ◆ Practical, cost-effective solutions that work to maximize well yields
- ◆ Well design and construction criteria to optimize return on investment
- ◆ Matching pump selection to meet required water delivery expectations
- ◆ Yield /drawdown data that help to diagnose declining well performance
- ◆ Effects of biological growth and chemical deposition on well encrustation
- ◆ How to extend the asset value of wells by proactive maintenance programs
- ◆ Calculations to measure changes in well & pump efficiency and operation costs
- ◆ Latest technologies and equipment for pump controls and well-field operation software
- ◆ Selection of solution options (mechanical and chemical) to rehabilitate wells and restore yield
- ◆ Solutions to water quality in new well construction design and in modifications to existing wells



1:10pm – 2:20pm
THE BASICS OF WELL HYDRAULICS (FROM AQUIFER TO WELL TO PUMP)
SELECTION AND MAINTENANCE OF PUMPS FOR MAXIMIZING WELL YIELD/ COST BENEFITS
David Kill, P.E., Training Consultant, Xylem Goulds Water Technology, St. Paul, MN

2:20pm - 3:10pm
INTELLIGENT PUMP VARIABLE FREQUENCY DRIVES MAXIMIZE PRODUCTION AND EFFICIENCY
Dan Peters, Applications Engineer, Yaskawa America, Inc., Cypress, CA

3:10pm – 3:25pm BREAK

3:25pm – 4:25pm
METHODS FOR IMPROVING WELL PERFORMANCE
Jim Bailey, National Well Services Director, Shannon & Wilson, Seattle, WA

4:25pm – 4:30pm
WRAP UP – FINAL QUESTIONS AND CONTINUING EDUCATION SIGN-OUT

SCROLL DOWN FOR REGISTRATION

SEATTLE GROUNDWATER CONFERENCE/WORKSHOP (October 23, 2017)
- or register on-line at www.agwt.org

EARLY BIRD RATES MUST BE PAID IN FULL BY SEPTEMBER 28, 2017

| | | |
|---|-------|--------------------------|
| EARLY BIRD Registration – Pd by 09/28/2017 | \$235 | <input type="checkbox"/> |
| EARLY BIRD – AGWT Corp Member or Gov't – Pd by 09/28/2017 | \$200 | <input type="checkbox"/> |
| General Registration – Pd 9/29/2017 or later | \$265 | <input type="checkbox"/> |
| AGWT Corp Member or Gov't – Pd 09/29/2017 or later | \$230 | <input type="checkbox"/> |
| Full-Time Student (ID required at Registration) | \$80 | <input type="checkbox"/> |
| PDF of Presentations (Post Conference) – Attendee Pricing | \$30 | <input type="checkbox"/> |
| Exhibit Table (Personal Registration also Required) | \$250 | <input type="checkbox"/> |

PAYMENT CHECK [payable: American Ground Water Trust] **Total \$**.....

AMEX Visa MasterCard PO

HOW TO REGISTER
 → Mail: American Ground Water Trust,
 50 Pleasant Street, Concord, NH 03301
 → Phone: (800) 423-7748 (9am-4pm eastern)
 → Fax: (603) 228-6557
 → Register on line
http://www.agwt.org/events_or_click_here_if_using_online
 Cancellation policy – see website

Credit Card or PO No. _____ Expiration _____

Cardholder Name _____

Registration Name _____

Title/Position _____

Company/ Organization _____

Address _____

City _____ State _____ Zip _____

Phone _____

E-Mail _____