

NEW COURSE

Production Wells: Repair, Redevelop or Replace. Case Studies and Guidance

Lunch is Included (Sponsored by Sevee & Maher Engineers - UHL & Associates)

Course Description:

The focus will be on (1) A review of basic well terminology; (2) Case studies documenting well redevelopment and repairs; (3) Cost comparisons of repairing vs. replacing a well; (3) The Production Well replacement process – design boring/test well, bidding, construction, regulatory framework, and timing; (4) An overview of well diagnostic programs and well rehabilitation methods; and (5) Implementing strategies for continuous monitoring for maintenance analysis. The course will present and discuss topics that are relevant for water utility licensed operators, managers, field staff and consulting engineers.

Course Agenda:

- 8:00-8:30** **Welcome and Sign-in**
- 8:30-8:45** **Production Wells – An Overview of Basic Terminology.**
- 8:45-9:15** **Hydrogeology of New Jersey Coastal Plain Aquifers**
- 9:15-9:45** **Repair or Replace**
Case studies on production well repairs; cost analysis of well repairs and well replacements.
- 9:45-10:00** **Production Well Replacement Process - Major and Minor Modifications**
Principal steps – bidding, construction and testing, reporting, permitting.
Regulatory steps from considering a replacement well to obtaining a permit to operate.
- 10:00-10:15** **Coffee Break**
- 10:15-10:45** **Production Well Diagnostic Programs**
Downhole Camera Inspection
Well Efficiency Testing (Specific Capacity)
Focused water quality testing (Iron; Manganese; Hardness; Biofouling Potential)
- 10:45-11:15** **Well Rehabilitation Methods**
Types of methods and specific applications.
Quantifying well re-development progress in real time.
- 11:15-12:00** **Continuous Monitoring to Circumvent Failures**
Using conventional well monitoring instrumentation such as motor kW, well water level, production flow and turbidity, incorporate that information into a continuous monitoring telemetry system to predict well equipment condition and well state.
- 12:00** **Q&A**

Date and Location: November 5, 2025: 11 Birdsall Street, Barnegat, NJ (Firehouse)

Instructors:

Vincent W. Uhl, PH, PG. UHL & Associates, Inc. B.S. Mechanical Engineering, Univ. of Notre Dame; M.S. Agricultural Engineering, Oklahoma State Univ.; M.S. Hydrogeology, Univ. of Arizona.
Sky Morehouse, PE. Morehouse Engineering, Inc.: B.S. Mechanical Engineering, University of Pennsylvania.
Ashish Daw, Senior Hydrogeologist and GIS Expert – UHL & Associates, Inc. B.Sc. Geology, Pune University, India; M.Sc. Applied Geology, Anna University, India.

Accreditation:

3.0 TCH for NJ-Licensed Water Operators. TCH Course Number 04-102507-10
3.0 Hours, CPWM, Technical. DLGS-NJWA-301

Please plan to arrive at 8:00 a.m. Pre-Registration is required and is available at
www.njwater.org.

The New Jersey Water Association