Production Wells:
Repair, Redevelop or Replace.
Case Studies and Guidance (May 6, 2026)

Lunch is Included (Sponsored by SME-UHL, Sevee & Maher Engineers

Date/Location: May 6, 2026: Hopewell Township Offices; 201 Washington Crossing – Pennington Road; Titusville, NJ 08560

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 wells; (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; (5) System-wide approach to tracking well performance over time; and (6) 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**

8:30-9:00 **Production Wells – An Overview of Basic Terminology and the Production Well Replacement Process (V. Uhl)**
Principal steps – bidding, construction and testing, reporting, permitting.
Regulatory steps from considering a replacement well to obtaining a permit to operate.

9:00-9:30 **Repair or Replace (A. Daw)**
Case studies on production well repairs; cost analysis of well repairs and well replacements.

9:30-10:00 **Production Well Diagnostic Programs (A. Daw)**
Downhole camera inspection
Well efficiency testing (Specific Capacity)
Focused water quality testing (Turbidity; Iron; Manganese; Hardness; Biofouling Potential)

10:00-10:15 **Coffee Break**

10:15-10:30 **Well Rehabilitation Methods (V. Uhl)**
Types of methods and specific applications.
Quantifying well re-development progress in real time.

10:30-11:15 **WellHawk Well Yield Evaluation (T. Neilson)**
System-wide approach to tracking well performance over time.
Using well performance tracking as a decision tool to prioritize maintenance budgets, rank well maintenance needs, maximize maintenance effectiveness and minimize cost.

11:15-12:00 **Continuous Monitoring to Circumvent Failures (S. Morehouse)**
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 (Lunch)

Instructors:
Vincent W. Uhl, PH, PG. SME - UHL & Associates. 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, PH, PG. SME - UHL & Associates. B.Sc. Geology, Pune University, India; M.Sc. Applied Geology, Anna University, India.
Thomas B. Neilson, LG. SME. B.S. Geology, Colorado College; M.S. Geology, University of Vermont.

Accreditation:
3.0 TCH for NJ-Licensed Water Operators. TCH Course Number 04-042601-10
3.0 Hours, CPWM, Technical. DLGS-NJWA-309

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