

Temporary Iron Precipitation System: WetSep

Project Location	Fall River, MA
GWTT Scope	Design / Feasibility Study and Report / Rental / O&M
Flow Rate	50 GPM
Contract Value	\$550K
Project Duration	15 Months
Contaminants	Iron, pH
Key Project Details: - WetSep used for its modular, self-contained treatment capacity; unit installed with automation for sludge removal and heated chemical storage - Automatic dosing used to respond to changing flow conditions - Engineered and installed groundwater infiltration system - Bench tested water samples for chemistry, dosing, and sizing of temporary equipment - Developed and implemented sludge improvement process to minimize water content and disposal cost of wet sludge	
Project Challenges: - Winter conditions - Multiple system upgrades	



Former Petroleum Terminal Project Narrative

GWTT was contracted to design and construct a temporary groundwater treatment system specifically targeting iron reduction at a former bulk oil storage facility in Fall River, Massachusetts. This system was implemented during the client's reconstruction project of the site's current water treatment facility. The on-site permanent treatment system required several upgrades to allow connection to the fully automated injection gallery for all discharge water.

As part of the work, GWTT designed and fabricated a fully winterized temporary water treatment system capable of processing water at a rate of 50 GPM. This multicomponent industrial water treatment system consisted of a WetSep unit, an aeration process, chemical precipitation (coagulation/flocculation), pH adjustment, micro filtration, ultra filtration, ion exchange, sludge handling (thickening), and filter press. The connection of the discharge line to the newly installed injection wells system was also performed by GWTT. As a part of this project, electrical and mechanical work related to the installation, including trenching, piping, valving, and power and control wiring, was performed by GWTT.

The reinjection system processed more than 2.5 million gallons of treated groundwater to be returned to the subsurface during this project. GWTT provided continuous operation and maintenance support for the temporary treatment system and the infiltration system until the permanent system was running.

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