



Design and construction of de-aeration systems in New York

PROJECT PROFILE WATER MANAGEMENT

CLIENT
UNITED WATER NEW YORK

MEMBRANE AERATION REMOVES ENTRAINED AIR

Rockland County, New York

SITUATION:

Many public water supplies have entrained air that causes the water to appear “milky” or “cloudy”. Conventional methods to remove entrained air can result in headloss reduced capacity, and – in the case of stilling basins - add significantly to a plant’s footprint and require additional construction. However, left untreated, entrained air can adversely affect flow capacity and result in lower water pressures and reduced fireflow capacity. United Water New York (UWNY) owns and operates the water supply, treatment and distribution system that serves most of Rockland County, New York, including 45 wells. Some of these wells contain high levels of entrained / dissolved air and must be operated below capacity.

SOLUTION:

Following the successful pilot test of Membrane Liqui-Cel Contactor, UWNY contracted with Layne for design and construction of de-aeration systems for two wells. The challenge was to optimize the use of these wells while minimizing capital and operating expenditures. One well was designed to operate at a flow of 1700 gpm; the other at 1000 gpm. The treatment trains installed by Layne were designed for peak capacities of 2400 and 1200 GPM, respectively, and are providing reduced capital and operations expenditures compared to typical technologies used for dissolved air removal.

SERVICES EMPLOYED:

- + Water Treatment-Drinking Water
- + Membrane-Liqui-Cel-Fabrication
- + Water Management Services
- + Field Service Technician Group

