

Location

Skokie, Illinois

Project Type

Feasibility Study

Client

Black & Veatch Corporation

Period of Performance

March 2018 - Ongoing

KALETECH Key Staff

Chetan Kale, P.E., LEED AP

Osoth Jamjun, P.E

Raksha Rai

Raj Garg, P.E

Subhash Singal, P.E

Categories

Civil Engineering Services,

CADD

Contract type

Budgeted Time &

Materials/Cost Plus Fixed Fee

Percent complete

90%

Last Updated May 31,2019

**Metropolitan Water Reclamation District of
Greater Chicago O'Brien Water Reclamation Plant-
P removal Feasibility Study**



Black & Veatch Corporation prepared a report in connection with the P-removal Feasibility Study for the O'Brien Water Reclamation Plant (NRP WRP). The plant cleans an average of 230 million gallons of wastewater per day (mgd) and has the capacity to treat **450 mgd**. Detailed description of Kaletetch's Engineering's role is summarized in the following:

- Developed design basis (flows and loads): Review and analysis of historical data and special sampling data to estimate future design flow and load conditions for the O'Brien WRP.
- Nutrient removal facilities upgrade. The facilities plan included evaluation of future nutrient removal requirements for nitrogen and phosphorus and appropriate technologies for implementation. Preliminary conceptual designs were developed including the order-of-magnitude costs.
- Process modeling: Input parameters and wastewater characteristics were determined for the modeling team to simulate current and future conditions using GPS-X modeling software. Model calibration and validation assistance was provided for capacity analysis and for evaluation of future upgrades for nitrification and for compliance with nutrient removal requirements.