



FERMENTATION AND ANCILLARY FACILITIES FOR BIOLOGICAL PHOSPHORUS REMOVAL - CALUMET WATER RECLAMATION PLANT

Participant: Metropolitan Water Reclamation District of Greater Chicago

Location: Chicago, Illinois

Investment class: Green Bonds

Amount to be financed: US\$31,000,000

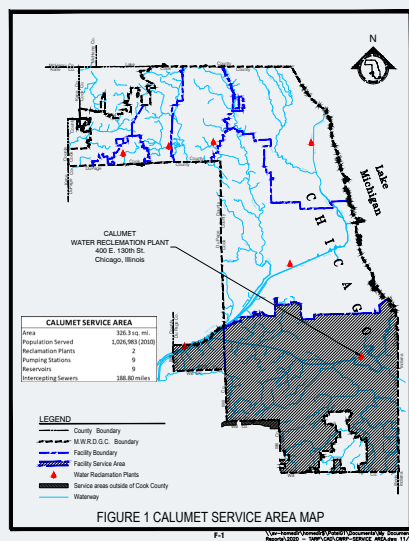
The Project: To provide facilities to support the full-scale enhanced biological phosphorus removal (EBPR) process at the Calumet Water Reclamation Plant. Existing tanks (either old primary tanks or aeration tanks) will be converted for use in this sidestream process. Mixers and baffles will be installed in the aeration tanks to create anaerobic and aerobic zones for EBPR. Pumps will be installed to divert a portion of return activated sludge (RAS) from each aeration battery for fermentation. Either primary tanks or gravity concentration tanks (GCTs) will be converted for use as fermentation tanks. Mixers will be installed in the fermentation tanks to keep RAS in suspension, and pumps will be installed to redirect the RAS back to the aeration tanks. Primary sludge will also be fermented in separate tanks and then conveyed to the sidestream tanks, adding carbon and reducing hydraulic retention time for the fermentation of RAS. Finally, treatment will be added at the GCT overflow and sludge lagoon recycle streams to limit the phosphorus load at the head of the plant.

EBPR will be used to remove phosphorus from the treatment process to meet more stringent phosphorus limits upcoming as dictated in the NPDES Permit.

ESG Outcomes:

- Nutrient reduction
- Carbon sequestration

For more information, contact:
Louis Storino - storinol@mwrdd.org



Alignment with UN Sustainable Development Goals:

