

Chemical Addition Backup System, SWRP

Project Number	19-159-3P
Service Area	Stickney
Location	Stickney
Engineering Consultant	AECOM
Engineering Contractor	To be determined
Estimated Construction Cost	\$8,531,760
Contract Award Date	November 2021
Substantial Completion Date	September 2022



Project Description	The purpose of this project is to provide a secondary phosphorus removal system in the event that the biological phosphorus system is interrupted. This will allow the treatment plant to achieve compliance with the NPDES permit phosphorus effluent limit during any upsets with the biological process. Without a working biological removal process, the annual chemical costs are estimated to be \$11 million to meet the 2021, 1mg/L effluent phosphorus concentration limit. The District has established a working biological phosphorus removal process at the Stickney WRP. The process has proven to be effective in achieving the 2030 phosphorus effluent requirement of .5 mg/L. The District believes that this system will only be used as a back-up system for unforeseen problems with the biological removal process.
Project Justification	The District's NPDES permit will require a 1.0 ppm effluent limit for phosphorus. The District currently employs enhanced biological phosphorus removal treatment operations and a sidestream phosphorus recovery facility to meet these limitations. At times the phosphorus loading to the plant can result in excrescences. This new facility will allow chemical polishing, to ensure that the limitations are consistently met.
Project Status	Design