

Draft DuPage/Salt Creek Special Condition XX.

1. The Permittee shall participate in the DuPage River Salt Creek Workgroup (DRSCW). The Permittee shall work with other watershed members of the DRSCW to determine the most cost effective means to remove dissolved oxygen (DO) and offensive condition impairments in the DRSCW watersheds.

2. The Permittee shall ensure that the following projects and activities set out in the DRSCW Implementation Plan (April 22, 2014), are completed (either by the permittee or through the DRSCW) by the schedule dates set forth below; and that the short term and long term objectives are achieved for each by the time frames identified below:

Project Name	Completion Date	Short Term Objectives	Long Term Objectives
Oak Meadows Golf Course dam removal	December 31, 2015	Improve DO	Improve fish passage
Oak Meadows Golf Course dam removal and stream restoration	December 31, 2016	Reduce nutrients and sediments	Raise miBi
Fawell Dam Modification	December 31, 2017	Remove dam, restore riffle and pool, allow fish passage	Improve aquatic habitat
Spring Brook Restoration	December 31, 2017	Restore tributary, bank reconstruction	Improve aquatic habitat
Fullersburg Woods dam modification	December 31, 2019	Improve DO	Raise miBi
Fullersburg Woods dam modification area stream restoration	December 31, 2019	Reduce nutrients and sediment	Raise miBi
PAH Abatement – Ban sale of CT sealants	December 31, 2018	Cessation of PAH use by DRSCW	Propose PAH ban, and reduce toxicity in watershed
Southern West Branch Physical Enhancement	December 31, 2018	Restore tributary, bank reconstruction	Improve aquatic habitat
Southern East Branch Stream Enhancement	December 31, 2019	Restore tributary	Improve aquatic habitat
Elgin O’Hare Chloride Offset Implementation	December 31, 2019	Assess trade partners for chloride reductions	Zero increase in winter chloride
Chloride Abatement Implementation	December 31, 2019	Cessation of chloride use for certain users	Reduce summer chloride watershed
QUAL 2K East Branch and West Branch	December 31, 2019	Collect baseline data, assist IEPA complete model.	Quantify improvements in watershed. Identify next round of projects for years 2020-2024.
NPS Phosphorus Feasibility Analysis	December 31, 2019	Assess NPS performance from reductions leaf litter and street sweeping	Reduce NPS contributions to 50% from present levels

3. The Permittee shall submit an annual progress report on the projects listed in Table 1 of the DRSCW Implementation Plan to the Agency by March 31 of each year. The report shall include project implementation progress. The Permittee may work cooperatively with the DRSCW to prepare a single annual progress report that is common among DRSCW permittees.

4. The Permittee shall develop a written Phosphorus Discharge Optimization Plan. In developing the plan, the Permittee shall evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility. The permittee's evaluation shall include, but not necessarily be limited to, an evaluation of the following each optimization measures:
 - a. WWTF influent reduction measures.
 - i. Evaluate the phosphorus reduction potential of users.
 - ii. Determine which sources have the greatest opportunity for reducing phosphorus (e.g., industrial, commercial, institutional, municipal, and others).
 1. Determine whether known sources (e.g., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
 2. Evaluate and implement local limits on influent sources of excessive phosphorus.
 - b. WWTF effluent reduction measures.
 - i. Reduce phosphorus discharges by optimizing existing treatment processes.
 1. Adjust the solids retention time for either nitrification, denitrification, or biological phosphorus removal.
 2. Adjust aeration rates to reduce DO and promote simultaneous nitrification-denitrification.
 3. Add baffles to existing units to improve microorganism conditions by creating divided anaerobic, anoxic, and aerobic zones.
 4. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
 5. Minimize impact on recycle streams by improving aeration within holding tanks.
 6. Reconfigure flow through existing basins to enhance biological nutrient removal.
 7. Increase volatile fatty acids for biological phosphorus removal.

5. Within 12 months of the effective date of this permit, the Permittee shall finalize the written Phosphorus Discharge Optimization Evaluation Plan and submit it to IEPA. The plan shall include a schedule for implementing all of the evaluated optimization measures that can feasibly be implemented and include a report that explains the basis for rejecting any measure that was deemed infeasible. The schedule for implementing all feasible measures shall be no longer than 36 months after the effective date of this permit. The Permittee shall implement the measures set forth in the Phosphorus Discharge Optimization Plan in accordance with the schedule set forth in that Plan. The Permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible.

Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year beginning 12 months from the effective date of the permit.

6. The Permittee shall, within 18 months of the effective date of this permit, complete a feasibility study that evaluates the timeframe, and construction and O & M costs of reducing phosphorus levels in its discharge to a level consistently meeting a limit of 1 mg/L, 0.5 mg/L and 0.1 mg/L utilizing a range of treatment technologies including, but not necessarily limited to, **[to be completed after further discussion]**. The study shall evaluate the construction and O & M costs of the different treatment technologies for these limits on a monthly, seasonal, and annual average basis. For each technology and each phosphorus discharge level evaluated, the study shall also evaluate the amount by which the Permittee's average annual sewer rates would increase if the Permittee constructed and operated the specific type of technology to achieve the specific phosphorus discharge level. Within 18 months of the effective date of this Permit, the Permittee shall submit to the Agency and the DSCW a written report summarizing the results of the study. The report shall include, but not be limited to, the following information: **[to be completed after further discussion]**.

7. The Permittee shall monitor the wastewater effluent, consistent with the monitoring requirements on Page X of this permit, for total phosphorus, dissolved phosphorus, nitrate/nitrite, total Kjeldahl nitrogen (TKN), ammonia, total nitrogen (calculated), alkalinity and temperature at least once a month. The Permittee shall monitor the wastewater influent for total phosphorus and total nitrogen at least once a month. The results shall be submitted on NetDMRs to the Agency unless otherwise specified by the Agency.