

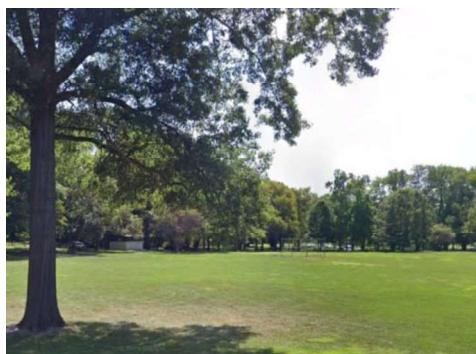
**Long's Park Stormwater Mitigation Project**  
**Contract 7C-FA-28.0**  
**City of Lancaster**

**PROJECT DESCRIPTION** The Long's Park Stormwater Mitigation Project was designed to capture and treat stormwater from portions of State Route (SR) 30, Long's Pond, and Long's Park, located in Lancaster County, PA. Runoff quality improved by the project resulted in reduced nutrient and sediment loading to the Little Conestoga Creek Watershed in the Lower Susquehanna River Basin, ultimately contributing to improved water quality in Chesapeake Bay. An additional benefit of the project was to improve the water quality of Long's Pond through increased flushing. The installation of this project included the construction of a Natural Treatment System (NTS) consisting of a treatment train that includes a Forebay equipped with floating wetland islands, an Iron-Enhanced Media Filter, two constructed Marshes, a vegetated swale, and a pump station. The project was completed in July of 2023

**PROJECT GOALS** Reduce nutrient and sediment loading entering the Little Conestoga Creek Watershed in the Lower Susquehanna River Basin, ultimately contributing to improved water quality in Chesapeake Bay.

**PROJECT RESULTS** The installation of this project included the installation of a pump station to convey water from Long's Pond to a constructed NTS consisting of a treatment train that includes a Forebay equipped with floating wetlands, an Iron-Enhanced Media Filter, and two constructed Marshes, with discharge to Long's Pond. A vegetated swale was also constructed for the conveyance of stormwater runoff from SR 30 to the NTS. On an annual basis, the treatment system will provide an approximate reduction of 12,000 lbs. of TSS, 100 lbs. of TN, and 20 lbs. of TP.

WATER QUALITY	INFLUENT (mg/L)	EFFLUENT (mg/L)	PERCENT REDUCITON
TP	0.30	0.15	50%
NO <sub>3</sub>	1.30	0.80	38%
Organic Nitrogen	0.50	0.50	0%
NH <sub>3</sub>	0.70	0.37	47%
TN	2.50	1.70	32%
TSS	95.00	4.80	95%



*Before Construction*



*After Construction*

**PROJECT COSTS** The cost to construct the Long's Park Stormwater Mitigation Project was \$1,812,049. The project was partially funded by a PA DEP Growing Greener Grant for \$344,848, a PA Fish & Boat Commission Grant for \$48k, and a Lancaster Clean Water Partners Large Implementation Grant for \$112k.

**LESSONS LEARNED** Following construction of the cascade inlet structure, the solid concrete top had to be replaced with a concrete top with a manhole lid insert to allow for access for maintenance purposes. The lesson learned was to always allow for maintenance access to all facilities.

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