



STATE OF DELAWARE

**DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL**

DIVISION OF WATER

RICHARDSON & ROBBINS BUILDING

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DOVER, DELAWARE 19901

COMMERCIAL &
GOVERNMENT SERVICES:
WASTEWATER,
STORMWATER, &
BIOSOLIDS
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Public Notice FACT SHEET – October 28, 2026

Lums Pond WWTF
Division of Parks and Recreation
89 Kings Highway
Dover, DE 19901

NPDES Permit No. DE 0050083
State Permit No. WPCC 3150I/74

The Division of Parks and Recreation, Department of Natural Resources and Environmental Control, has applied for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit to discharge treated sanitary sewerage to an unnamed tributary of the Chesapeake and Delaware Canal.

Proposed Changes

1. Removed Special Condition No. 9, as it applied only to the previous 2020 application and required submission of the missing effluent parameters needed to update NPDES Form 2A.

Facility Location

This facility is located at Lums Pond State Park, 1068 Howell School Road, in Bear, New Castle County, Delaware.

Activity Description

The Wastewater Treatment Facility is owned and operated by the Division of Parks and Recreation. It treats sanitary sewerage generated by the visitors to the park, park staff and marina restaurants. The sewage sludge from the treatment operation is sent to the City of Wilmington Wastewater Treatment Plant, via New Castle County's collection system, for further treatment and disposal.

Discharge Description

Lums Pond State Park Wastewater Treatment Facility has one (1) discharge (Outfall 001). It discharges treated wastewater in a batch fashion, typically over a 3 to 9-day period every month or every other

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month. The effluent consists of treated sanitary sewage from residential-type sources, which has received secondary treatment.

Receiving Stream Classification

The facility has one (1) outfall to an unnamed tributary of the Chesapeake and Delaware Canal (C&D Canal), a tidal, estuarine system. The designated uses of the Canal in the area of the discharge are: Industrial Water Supply; Primary Contact Recreation; Secondary Contact Recreation; Fish, Aquatic Life, Wildlife; and Fish Consumption.

The C&D Canal cuts through the northern part of the Delmarva Peninsula and connects Chesapeake Bay on west side of the peninsula with Delaware River and Bay on the east side of the peninsula. The canal is 450 feet wide and 35 feet deep. The portion of the canal across the State of Delaware is about 12 miles long from Reedy Point on the Delaware River to the Delaware-Maryland state line. Lums Pond is on the north side of the C&D Canal and on the east side of Delaware Route 896 near Summit Bridge in New Castle County. The pond has a surface area of approximately 190 acres and is surrounded mainly by forest. It receives water from four small headwater streams on the north end of the pond and releases its water to a marina on the C&D Canal at the pond's southeast corner through a small tributary. The Lums Pond Sub-Watershed has a drainage area of 4.3 square miles, 65% of which is within the Lums Pond State Park.

The Department has identified portions of the C&D Canal and the Lums Pond sub-watershed as impaired for nutrients. These sub-watersheds have been listed on Delaware's 303(d) List since 2002 and were subsequently evaluated for development of a Total Maximum Daily Load (TMDL). In 2012, the Department adopted a TMDL for the Lums Pond sub-watershed establishing daily loads for Total Nitrogen (TN), Total Phosphorus (TP), and 5-day Carbonaceous Biochemical Oxygen Demand (CBOD₅).

The TMDL represents the total load for the entire watershed, including all point-source and nonpoint-source contributions, not solely the discharge from the Lums Pond State Park Wastewater Treatment Facility. The adopted watershed-wide TMDL is shown below:

	TN (lb/day)	TP (lb/day)	CBOD₅ (lb/day)
TMDL	39	3	101

Within this overall TMDL, the Department established specific Waste Load Allocations (WLAs) for the Lums Pond State Park Wastewater Treatment Facility:

- TN 9 lb/day
- TP 2 lb/day
- CBOD₅ 13 lb/day

Statutory and Regulatory Basis

The Delaware Department of Natural Resources and Environmental Control (DNREC) proposes to reissue an NPDES permit to discharge the wastewater subject to certain effluent discharge limitations, monitoring requirements and other terms and conditions identified in the permit. Section 402 of the federal Clean Water Act, as amended, and 7 Del. C. Chapter 60 provide the authority for permit issuance. Federal and state regulations promulgated pursuant to these statutes are the regulatory bases for permit issuance.

Bases for Effluent Limitations

DNREC has examined the application, recent discharge monitoring data, and related information. The Department proposes to reissue the facility's NPDES permit for a period not to exceed five (5) years, subject to the effluent discharge limitations and monitoring requirements shown in the attached permit.

All limits for Outfall 001 for BOD₅, Total Suspended Solids (TSS), Enterococcus, CBOD₅, TN, and TP, Total Residual Chlorine (TRC) and pH are proposed to be retained from the current permit. This Treatment Facility has been in compliance with its existing permit limits. Proper disposal of sludge is stated in special condition No. 3, 4, and 5.

The following table indicates the basis for effluent limitations for Outfall 001:

Bases for Effluent Limitations and Monitoring					
Parameter	Water Quality-Based	Technology-Based		Performance Based ⁽³⁾	Monitoring Only
		RGCWP ⁽¹⁾	DRBC ⁽²⁾		
Flow					X
pH		§ 7.7.1			
BOD ₅		§ 7.7.1			
TSS		§ 7.7.1			
Enterococcus	SWQS ⁽⁴⁾ §4.5.7.1		X		
TN	TMDL				
TP	TMDL				
CBOD ₅	TMDL				
Total Residual Chlorine				X	
1. State of Delaware, Regulations Governing the Control of Water Pollution (RGCWP) 2. Delaware River Basin Commission (DRBC) 3. Performance-based limits are based on the provisions of 40 CFR 122.45(b)(2)(I) 4. State of Delaware, Surface Water Quality Standards (SWQS)					

Flow

The hydraulic design discharge rate of 105,000 gallons per day was used in determining the effluent limitations for this outfall.

pH

Technology-based pH limits and once daily monitoring requirements have been retained from the current permit. These limits are based on Section 7.7.1 of RGCWP.

Total Suspended Solids (TSS) and BOD₅

Based on Section 7.7.1 of the RGCWP, TSS and BOD₅ limits should be 30 mg/L daily average and 45 mg/L daily maximum. The current limits are proposed to retain. The current load limits are calculated using the concentration limits and the design flow of 105,000 GPD. 40CFR §133.102 (a)(3) and (b)(3) require a minimum of 85% removal in the raw waste BOD₅ and TSS on a 30-day average prior to

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discharge. Further, based on our review of the RGCWP, §7.7.1 of the regulations also requires 85% removal of BOD₅ and TSS for facilities employing secondary treatment, and disinfection. This requirement has been added to the permit in Part III.A Special Condition No.7.

The previous factsheet noted that the facility may occasionally have difficulty consistently meeting the 85% removal requirement due to the dilute nature of its influent. This condition aligns with the definition of low-strength wastewater, characterized by TSS concentrations of 120 mg/L or less and/or BOD₅ concentrations of 110 mg/L or less (Metcalf & Eddy, Wastewater Engineering: Treatment and Resource Recovery, 5th ed. (2014)).

A review of recent DMRs shows that the facility generally meets both the numeric effluent limits and the 85% removal requirement. However, influent sampling data also demonstrate periods when BOD₅ and TSS concentrations fall to approximately 30–40 mg/L, making consistent compliance with the percent-removal requirement challenging. For example, the January 2024 DMR reported influent BOD₅ and TSS concentrations of 39.7 mg/L and 37.6 mg/L, respectively. The corresponding effluent TSS concentration was 5.7 mg/L—barely meeting the 85% removal requirement, yet still well below the concentration-based secondary treatment standards.

Under 40 CFR 133.103(d), a mass-loading limit may be substituted for the percent-removal requirement when the permittee demonstrates that: (1) The facility is consistently meeting, or will consistently meet, its effluent concentration limits but cannot meet percent removal due to less-concentrated influent; (2) Meeting the percent-removal requirement would necessitate substantially more stringent effluent limits than otherwise required; and (3) The dilute influent is not caused by excessive inflow/infiltration (I/I).

Because Lums Pond satisfies these criteria, the permit requires compliance with a mass-loading limit in lieu of the percent-removal requirement. Special Condition No. 7 authorizes the use of this alternative approach during periods of diluted influent. The permittee must continue monthly influent monitoring. Based on current influent data, the existing load-based effluent limits remain sufficient to demonstrate compliance under the mass-loading framework.

Enterococcus

The monthly monitoring frequency for Enterococcus has been retained from the current permit. The current Enterococcus limit is based on State of Delaware's Surface Water Quality Standards (SWQS) §4.5.7.1, as amended June 1, 2011. Since this treatment facility directly discharge to an unnamed tributary, the Bacterial Water Quality Criteria for Primary Contact Recreation Fresh Waters in §4.5.7.1 shall apply to this facility. The daily average limit for enterococcus shall be based on a geometric mean of 100 cfu/100ml. The daily maximum effluent limitation for enterococcus is 185 cfu/100ml, which is based on the Single Sample Value criteria in §4.5.7.1 of the SWQS.

CBOD₅, TN, and TP

The Department adopted TMDL Regulations for nutrients for the Lums Pond sub-watershed dated July 2012. The TMDL contains waste load allocations for the Lums Pond State Park Wastewater Facility specified in the Lums Pond sub-watershed for CBOD₅ (13 lb/day), TN (9 lb/day), TP (2 lb/day). The current limits and monthly monitoring frequencies are proposed to be retained.

Total Residual Chlorine (TRC)

The current water TRC limit and once daily monitoring requirement are proposed to be retained.

Special Conditions

Special Condition No. 1 states that this permit supersedes NPDES Permit DE 0050083 and State Permit WPCC 3150H/74, issued on July 15, 2020, with an effective date of August 1, 2020.

Special Condition No. 2 is a standard permit reopener clause. This special condition allows the Department to reopen and modify the permit if the discharger is causing water quality problems.

Special Condition No. 3, 4, and 5 require proper disposal of sludge in accordance with State and Federal requirements.

Special Condition No. 6 outlines wastewater treatment plant operator licensing requirements for this facility.

Special Condition No. 7 requires the permittee to demonstrate a minimum of 85% reduction in the raw waste TSS and BOD₅ concentrations on a monthly average basis prior to discharge.

Special Condition No. 8 requires the permittee to use EPA-approved analytical methods that are capable of detecting and measuring the pollutants at, or below, the applicable water quality criteria or permit limits pursuant to 40 CFR Part 136.

Antidegradation Statement

The effluent limitations included in this NPDES permit comply with the applicable portions of the State of Delaware Surface Water Quality Standards, Section 5: Antidegradation and ERES Waters Policies.

Public Notice and Process for Reaching a Final Decision

The public notice of the Department's receipt of the application and of reaching the tentative determinations outlined herein will be published in the Wilmington News Journal and the Delaware State News on **October 28, 2026**. Interested persons are invited to submit their written views on the draft permit and the tentative determinations made with respect to this NPDES permit application. The Department will not hold a public hearing on this application unless the Department receives a meritorious request to do so or unless the notice of this proposal generates substantial public interest. A public hearing request shall be deemed meritorious if it exhibits a familiarity with the application and a reasoned statement of the permit's probable impact. The request for a public hearing shall be in writing and shall state the nature of the issues to be raised at the hearing. All comments received by 4:30 p.m. on **November 28, 2026** will be considered by the Department in preparing the final permit.

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