



Department of Natural Resources
and Environmental Control
89 Kings Hwy
Dover, DE 19901
dnrec.delaware.gov

Division of Water
Commercial and Government Services Section

Phone: (302) 739-9948

INSTRUCTIONS FOR COMPLETING THE PERMIT APPLICATION FOR THE CONSTRUCTION OF WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS

The following items must accompany the application. **Please note that incomplete application packages will be returned in their entirety and not reviewed until such time as all required information is received.**

- 1. A narrative summary of the intended purpose and design of the proposed facilities.
- 2. One (1) set of final construction plans and specifications (paper copy), if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only.
- 3. One (1) electronic copy of final Plans.
- 4. The final plans must be drawn to scale showing slopes, inverts, pipe types and sizes, existing and proposed ground surfaces, tops of manholes, water lines, stormwater and stream crossings, encasements shown in plan and profile, and other information if pertinent or requested.
- 5. For pump/lift stations and force mains, include all calculations and pump/performance curves.
- 6. A check made payable to the **State of Delaware** for two thousand and five hundred dollars (\$2500.00), the non-refundable permit review fee. This fee covers the initial review and one follow-up review of any corrections or changes made to address the Division's comments. An additional two thousand and five hundred dollars (\$2500.00) non-refundable review fee must be submitted for resubmission of the plans if changes are made to the project which trigger a complete review of the permit application.
- 7. Your permit will have a public notice requirement if your system includes force mains or pump/lift stations. Include a check made payable to the State of Delaware for three hundred dollars (\$300.00) for the reimbursement of legal notices if the system has a force main connection or a pump/lift station.
- Please submit the completed application package, as outlined above, to DE DNREC, Division of Water, Commercial and Government Services Section, 89 Kings Highway, Dover, DE 19901. Please note, a new application, including the review fee, must be submitted if the Division's comments are not addressed or if requested supplemental information is not provided within one (1) year of the comment or request date.
- The following items must be submitted prior to permit issuance:
 - 8. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.
 - 9. A letter from the owner/operator of the wastewater facilities to which the proposed collection and conveyance facilities connect. The letter must include confirmation that the owner/operator has approved the project, that the owner/operator will take responsibility for treating and disposing of the wastewater to be conveyed and that the downstream facilities have the capacity to manage the additional flows without causing or contributing to violations of Delaware's Environmental Protection Act (7 Del. C., Chapter 60) and the regulations promulgated thereafter. This includes, but is not limited to, unauthorized discharges such as overflows at manholes and violations of the treatment system's operating permit (for example, the National Pollutant Discharge Elimination System (NPDES) permit).
 - Visit us on the web at: <https://dnrec.delaware.gov/water/commercial-government/>

**APPLICATION FOR THE CONSTRUCTION OF
WASTEWATER COLLECTION AND CONVEYANCE SYSTEMS**

Application must be complete, typewritten or clearly printed

Date Application Submitted 02/13/2026

PROJECT INFORMATION			
Project Name and Location/ Address Delaware Bayshore Byway Little Creek Land Development Sanitary Sewer Plans Along Rt. 9 between Postles Corner Rd and S. Little Creek Rd 3018 Bayside Drive, Dover, DE 19901			
Tax Parcel Number(s) 2-00-07900-01-0300-00001			
County <input checked="" type="checkbox"/> Kent <input type="checkbox"/> New Castle <input type="checkbox"/> Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) <input type="checkbox"/> Chesapeake Bay <input checked="" type="checkbox"/> DE Bay/Estuary <input type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor KCSDD No. 1		Wastewater Treatment/Disposal Facility Name Kent County Regional Resource Recovery Facility	
Anticipated Construction Start Date June 2026		Treatment/Disposal Facility Owner and Operating Permit Number Kent County Department of Public Works	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment or <u>WPCC Construction Permit issuance?</u> (Circle one)			
Design Flow (gallons/day) Average 10,472	Peak 41,889	Peak Factor 4	Basis of Design 1 EDU = 250 GPD
Description The existing Little Creek facility is served by three On-Site Wastewater (Septic) Systems ranging in age from approximately 13-43 years old. The existing septic systems will be replaced with a low-pressure sewer system that will include 3 grinder pump stations to replace the existing septic systems and three additional grinder pump stations to serve three future buildings to be constructed on the site.			
OWNER/DEVELOPER			
Company Name DNREC - Division of Fish and Wildlife			
Mailing Address 89 Kings Highway			
City Dover	State DE	Zip 19901	
Contact Name Craig Rhoads			
E-Mail Address craig.rhoads@delaware.gov			
Telephone 302.739.9085	Cell 302.379.9771	Fax	

ENGINEER					
Company Name Rummel, Klepper & Kahl, LLP					
Mailing Address 700 East Pratt St., Suite 500					
City Baltimore		State MD		Zip 21202	
Contact Name Dave Olson, PE					
E-Mail Address dolson@rkk.com					
Telephone 717.840.3620		Cell 717.881.4613		Fax	
GRAVITY SEWER INFORMATION					
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private	Type of Sewer System <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?			If Other, list below	
Type of Pipe Fisheries Office - PVC	Length (ft) 5	Diameter (in) 6	Joint Specification Gasket	Min. Slope (ft/ft) 2.0 %	Min. Velocity (ft/sec) 6.45
Training Center - PVC	13	6	Gasket	2.0%*	6.45
Minimum Pipe Cover (ft) 3'-0"	Number of Manholes 0	Drop manholes provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Maximum Distance Between Manholes (ft) N/A	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			If not, explain provisions to prevent cross-contamination:		
<p>Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)</p> <p>The elevations of the existing sewer pipes exiting the buildings is unknown; therefore, the slopes of the new gravity sewer piping will not be known until construction commences. A minimum slope of 2% will be required for all installations and the final as-built drawings will be updated, as necessary, to reflect the final installations.</p> <p>* The required minimum slope will be 2%. The Contractor can either use 11.25 degree vertical bends (20% slope) to get the sewer house connection piping down to the pumping station invert elevation OR a sewer house drop connection can be used to accomplish the same goal.</p>					
Comments					

PUMP/LIFT STATION INFORMATION				
Ownership <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private		Type of Wastewater <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Other?		If Other, list below
Pump Station Flows (gallons/day) Design 41,889		Average 10,472	Peak 53,524	Peak Factor 4
Basis of Design 1 EDU = 250 GPD			Pump Type Progressive Cavity Grinder (E-One)	
Will peak flows be accommodated if largest unit fails? <input type="checkbox"/> Yes <input type="checkbox"/> No n/a		Pump calc's and pump curves attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cycle Time (minutes) n/a	Wet Well Detention Time (minutes) n/a
Check valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Gate valves provided on discharge line? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No *Ball Valve	
If not, explain alternate procedure:				
Ventilation provided in wet well? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Dry Well? n/a <input type="checkbox"/> Yes <input type="checkbox"/> No	Is an alarm system included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Alternate source of power? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
What other provisions for emergency operations?				
Height of Influent Above Pump (suction head) (ft) 0.75'		Height of Effluent Above Pump (discharge head) (ft) 2.52'-7.35'		Friction Loss (ft) 57.90'-116.70'
Pump Design Point 11 GPM @ 92'	Pump Operating Point 11 GPM @ 92'	Static Head (ft) 2.52'-7.35'	Total Head (ft) 57.90'-124.05'	Required Motor Horsepower (hp) 1
FORCE MAIN INFORMATION				
Type of Pipe SDR 11 HDPE		Length (ft) 4,334' *		Diameter (in) 1.5" & 2"
Hazen-Williams "C" Design Factor 150	Type of Joints Fused	Velocity Under Design Conditions (ft/sec) 2.31-5.04		Minimum Pipe Cover (ft) 3'-0"
Air relief valves specified? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Clean-outs provided? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Maximum distance between clean-outs (ft) 500'		
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If not, explain provisions to prevent cross-contamination:		
Comments The low-pressure sewer system is designed to ensure that a minimum velocity of 2 fps is maintained in the force main in both the initial (3 pump stations) and future (4-6 pump stations) conditions. * PS1: 1,104 LF (1.5"); 2,524 LF (2") PS2 (Future): 121 LF (1.5") PS3 (Future): 28 LF (1.5") PS4: 78 LF (1.5") PS5: 474 LF (1.5") PS6 (Future): 5 LF (1.5")				