



Division of Water
Commercial and Government Services Section

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

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 8/3/2026

PROJECT INFORMATION			
Project Name and Location/ Address Grayrock Preserve/Ironhook Harbor Pump Station Intesection of Surf Rod Crossing & Harpoon Drive within Ironhook Habor			
Tax Parcel Number(s) 135-10.00-18.00			
County ☐ Kent ☐ New Castle ☒ Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) ☐ Chesapeake Bay ☒ DE Bay/Estuary ☐ Inland Bays/Atl Ocean ☐ Piedmont	
Sewer District or Interceptor Artesian Wastewater Management, Inc.		Wastewater Treatment/Disposal Facility Name Artesian Wastewater Management, Inc.	
Anticipated Construction Start Date January 2027		Treatment/Disposal Facility Owner and Operating Permit Number Artesian Wastewater Management, Inc.	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you requesting plan review and comment on WPCC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 62,640		Peak 234,900	Peak Factor 3.75
Basis of Design 240 GPD/EDU			
Description The proposed pump station will serve the 165 single family lots in Ironhook Harbor and the 94 single family lots in Grayrock Preserve.			
OWNER/DEVELOPER			
Company Name Grayway Developers, LLC			
Mailing Address 507 North York St. Suite 2D			
City Mechanicsburg		State PA	Zip 17055
Contact Name Webster Gray			
E-Mail Address webster.gray@yahoo.com			
Telephone 717-460-7029		Cell	Fax

ENGINEER					
Company Name George, Miles & Buhr, LLC					
Mailing Address 206 West Main Street					
City Salisbury			State MD		Zip 21801
Contact Name Chris Pfeifer					
E-Mail Address cpfeifer@gmbnet.com					
Telephone 410-742-3115		Cell		Fax	
GRAVITY SEWER INFORMATION					
Ownership ☐ Public ☐ Private		Type of Sewer System ☐ Residential ☐ Commercial ☐ Industrial ☐ Other?		If Other, list below	
Type of Pipe	Length (ft)	Diameter (in)	Joint Specification	Min. Slope (ft/ft)	Min. Velocity (ft/sec)
Minimum Pipe Cover (ft)	Number of Manholes	Drop manholes provided? ☐ Yes ☐ No		Maximum Distance Between Manholes (ft)	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? ☐ Yes ☐ No			If not, explain provisions to prevent cross-contamination:		
Explain any special challenges (for example, stream, highway and/or railroad crossings, directional drilling, elevated sewers, etc.)					
Comments					

PUMP/LIFT STATION INFORMATION				
Ownership ☐ Public ☒ Private		Type of Wastewater ☒ Residential ☐ Commercial ☐ Industrial ☐ Other?		If Other, list below
Pump Station Flows (gallons/day) Design 234,900		Average 62,640	Peak 234,900	Peak Factor 3.75
Basis of Design Submersible in Wet Well with Above Ground Vault			Pump Type Submersible Non-clog	
Will peak flows be accommodated if largest unit fails? ☒ Yes ☐ No		Pump calc's and pump curves attached? ☒ Yes ☐ No		Cycle Time (minutes) 10 Min
				Wet Well Detention Time (minutes) 10.76
Check valves provided on discharge line? ☒ Yes ☐ No			Gate valves provided on discharge line? ☐ Yes ☒ No	
If not, explain alternate procedure: Plug valves will be used on discharge line per Artesian standards.				
Ventilation provided in wet well? ☒ Yes ☐ No		Dry Well? ☐ Yes ☒ No		Is an alarm system included? ☒ Yes ☐ No
				Alternate source of power? ☒ Yes ☐ No
What other provisions for emergency operations? Bypass Pumping Connection				
Height of Influent Above Pump (suction head) (ft) N/A (flooded suction)		Height of Effluent Above Pump (discharge head) (ft) 18.91		Friction Loss (ft) 1.67
Pump Design Point 164 GPM	Pump Operating Point 162.47 GPM	Static Head (ft) 14.45	Total Head (ft) 134.34	Required Motor Horsepower (hp) 17
FORCE MAIN INFORMATION				
Type of Pipe Polyvinyl Chloride (PVC) C900 DR 18 Ductile Iron (discharge pipe)		Length (ft) 88 LF 7103 LF		Diameter (in) 4-inch 16-inch
Hazen-Williams "C" Design Factor C=130 (PVC) C=120 (DI)	Type of Joints Gasketed Bell & Spigot		Velocity Under Design Conditions (ft/sec) 3.73 FPS 0.28 FPS	Minimum Pipe Cover (ft) 4-feet
Air relief valves specified? ☒ Yes ☐ No	Clean-outs provided? ☐ Yes ☒ No		Maximum distance between clean-outs (ft) N/A	
Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? ☒ Yes ☐ No		If not, explain provisions to prevent cross-contamination:		
Comments				

RECEIPT

	August 11, 2026				110	
RCVD FROM	George, Miles & Buhr, LLC				\$2,500.00	
	Two Thousand Five Hundred dollars and 00/100				DOLLARS	
FOR	Plan review fee WPCC 3044/26 Grayrock Preserve-Ironhook Harbor Pump					
ACCT	\$	2,500.00	x	CHECK #	4499	
PAYMENT	\$	2,500.00		CASH		
	\$	-		OTHER	BY	Kevin Bronson
DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901						

RECEIPT

	August 11, 2026					111
RCVD FROM	George, Miles & Buhr, LLC					\$300.00
	Three Hundred Dollars and 00/100					DOLLARS
FOR	WPCC Public Notice Reimbursement 3044/26					
ACCT	\$	300.00	x	CHECK #	4500	
PAYMENT	\$	300.00		CASH		
	\$	-		OTHER	BY	Kevin Bronson
DNREC, Commercial & Government Services Section, 89 Kings Hwy, Dover, DE 19901						