



State of Delaware
Department of Natural Resources
& Environmental Control
Division of Water

Surface Water Discharges Section
Construction Permits Branch

89 Kings Highway
Dover, Delaware 19901

Phone: (302) 739-9946
Fax: (302) 739-8369

**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, if applicable, signed and sealed by a Delaware-registered Professional Engineer, or a Delaware-registered Professional Land Surveyor for gravity systems only. One (1) electronic copy of final Plans.
- 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 eight hundred twenty-five dollars (\$825.00), 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 eight hundred twenty-five dollars (\$825.00) 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.

Please submit the completed application package, as outlined above, to DE DNREC, Division of Water, SWDS, 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:

- 6. Verification from the appropriate county or municipal planning authority that the project has the proper zoning approval.
- 7. 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: <http://www.dnrec.delaware.gov/wr/Services/Pages/SurfaceWaterDischarges.aspx>

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

Application must be complete, typewritten or clearly printed

Date Application Submitted _____

PROJECT INFORMATION			
Project Name and Location/ Address Inland Bays Regional Wastewater Facility (IBRWF): Effluent Disposal Expansion			
Address: 29445 Inland Bay Rd, Millsboro, DE 19966			
Tax Parcel Number(s) 234-22.00-11.00			
County <input type="checkbox"/> Kent <input type="checkbox"/> New Castle <input checked="" type="checkbox"/> Sussex		Watershed (www.dnrec.delaware.gov/swc/wa/Pages/WatershedAssessment.aspx) <input type="checkbox"/> Chesapeake Bay <input type="checkbox"/> DE Bay/Estuary <input checked="" type="checkbox"/> Inland Bays/Atl Ocean <input type="checkbox"/> Piedmont	
Sewer District or Interceptor Inland Bays Planning Area		Wastewater Treatment/Disposal Facility Name Inland Bays Regional Wastewater Facility	
Anticipated Construction Start Date June 2020		Treatment/Disposal Facility Owner and Operating Permit Number State No. LTS 5004-90-12 DEN No. 359141-05	
Please note, construction permits expire three (3) years from the date of permit issuance.			
Are you <u>requesting plan review and comment</u> or WPCC Construction Permit issuance? (circle one)			
Design Flow (gallons/day) Average 2 MGD		Peak N/A	Peak Factor N/A
Basis of Design			
Description This project is part of the overall effluent disposal expansion of Inland Bays Regional Wastewater Facility. The proposed fixed head sprinkler system will dispose the treated effluent to 3 spray fields on County Owned forested land.			
OWNER/DEVELOPER			
Company Name Sussex County			
Mailing Address No. 2 the Circle			
City Georgetown		State DE	Zip 19947
Contact Name Hans Medlarz			
E-Mail Address Hans.medlarz@sussexcountyde.gov			
Telephone 302-855-7718		Cell	Fax 302-855-7799

ENGINEER

Company Name
Whitman, Requardt & Associates, LLP

Mailing Address
801 South Caroline St.

City Baltimore	State MD	Zip 21231
-------------------	-------------	--------------

Contact Name
Francis Bonkowski, PE

E-Mail Address
fbonkowski@wrallp.com

Telephone 443-224-1740	Cell	Fax
---------------------------	------	-----

GRAVITY SEWER INFORMATION

Ownership <input type="checkbox"/> Public <input type="checkbox"/> Private	Type of Sewer System <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> 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? <input type="checkbox"/> Yes <input type="checkbox"/> No	Maximum Distance Between Manholes (ft)
-------------------------	--------------------	---	--

Minimum ten foot (10') horizontal & eighteen inch (18") vertical separation from water lines maintained? <input type="checkbox"/> Yes <input type="checkbox"/> 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

No gravity sewers are included in this project.

PUMP/LIFT STATION INFORMATION				
Ownership <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	Type of Wastewater <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Other?		If Other, list below Reclaimed Water	
Pump Station Flows (gallons/day) Design 2 MGD	Average N/A	Peak N/A	Peak Factor N/A	
Basis of Design		Pump Type 2 Duty, 1 Stand By Split Case Pumps		
Will peak flows be accommodated if largest unit fails? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	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		
If not, explain alternate procedure:				
Ventilation provided in wet well? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Dry Well? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Is an alarm system included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Alternate source of power? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
What other provisions for emergency operations?				
Height of Influent Above Pump (suction head) (ft) 0.5-5 ft	Height of Effluent Above Pump (discharge head) (ft) 185 ft	Friction Loss (ft) 2 ft		
Pump Design Point 175 ft @ 2,600 gpm	Pump Operating Point 164 ft @ 2,800 gpm	Static Head (ft) 162 ft	Total Head (ft) 164 ft	Required Motor Horsepower (hp) 150 hp
FORCE MAIN INFORMATION				
Type of Pipe PVC C900	Length (ft) 186,960 ft of 4" 17,900 ft of 16"		Diameter (in) 4", 16"	
Hazen-Williams "C" Design Factor 120	Type of Joints Ductile Iron AWWA C110 (or AWWA C153) and AWWA C111	Velocity Under Design Conditions (ft/sec) Varies (2.00 ft/s - 3.90 ft/s)	Minimum Pipe Cover (ft) 4'	
Air relief valves specified? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Clean-outs provided? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Maximum distance between clean-outs (ft) N/A		
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 fixed head system consists of 16" distribution lines which feed the 4" lateral lines that connect to the sprinkler heads. The fixed head sprinkler system is fed by an irrigation loop that pulls from the effluent storage lagoons at the treatment plant. The pump station supplying the loop and the loop will be permitted separately.				