AUTHORIZATION TO CONSTRUCT UNDER THE LAWS OF THE STATE OF DELAWARE

PERMITTEE: Sussex County Council
P.O. Box 589
Georgetown, DE 19947

FACILITY: Inland Bays Regional Wastewater Treatment Facility (IBRWTF)
Located at 29445 Inland Bay Rd, Millsboro, DE 19966 near the north side of County Road 306, between County Road 307 and 303, Sussex County

CONSTRUCTION SITE: Tax Map/Parcel Numbers: 234-21.00-151.00, 234-21.00-151.03, 234-22.00-10.00, 234-22.00-8.00

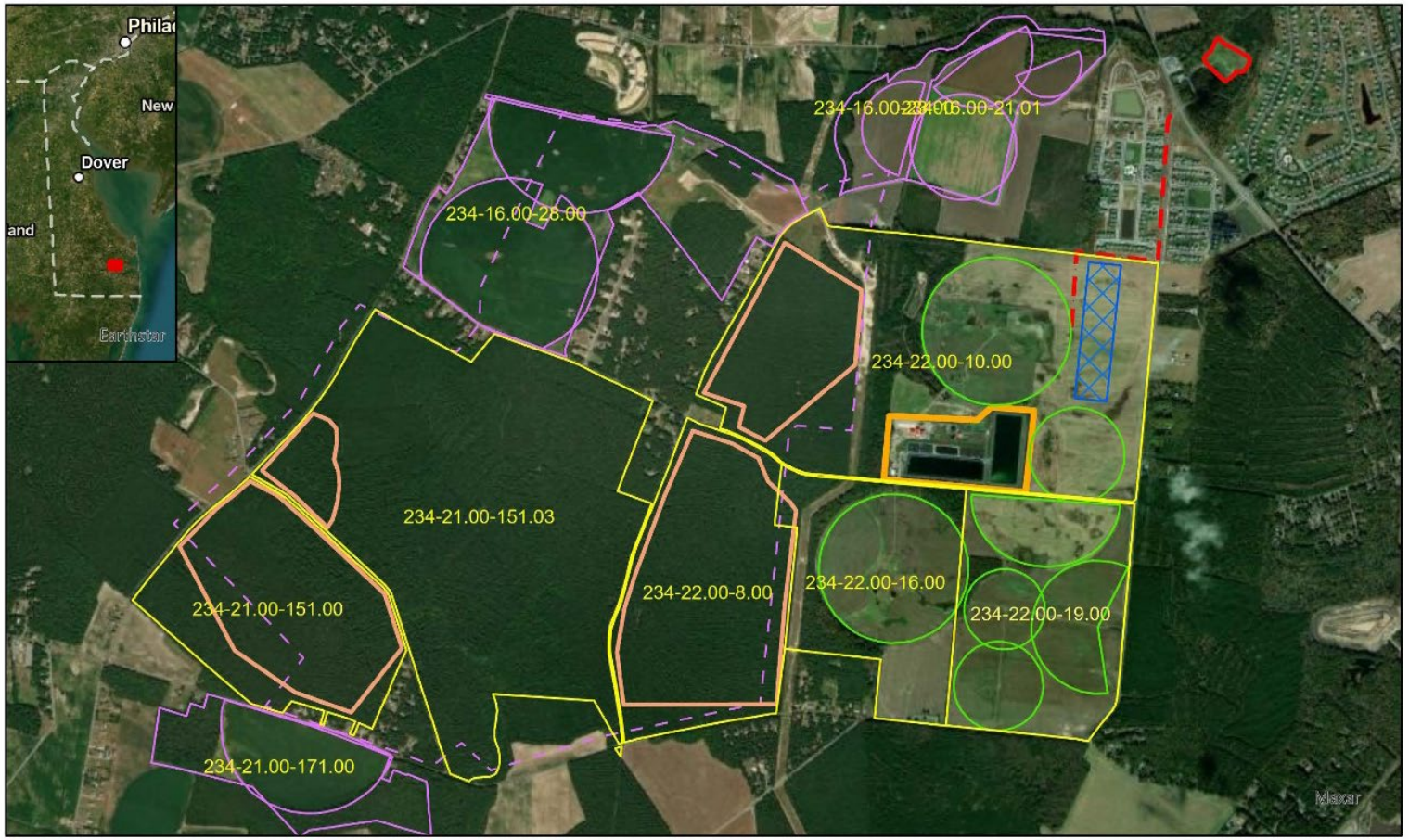
1. Pursuant to the provisions of 7 Del. C., 6003, **Sussex County Council** (the Permitee) is herein authorized to construct the IBWTF Phase 2 upgrade and expansion project including a constructed submerged gravel wetland system demonstration and research project and a treated wastewater (effluent) distribution project designed to increase both the treatment and disposal capacities of the Inland Bays Regional Wastewater Treatment Facility.

2. The Delaware Department of Natural Resources and Environmental Control's (the Department's or DNREC's) purpose in issuing this Permit, and in imposing the requirements and conditions specified herein, is for the protection of public health and the environment as required by 7 Del. Admin. C. §7101 *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (the Regulations). The construction requirements and other permit terms and conditions are set forth herein.

_____ _____

John J. Rebar, Jr. Dated Signed
Environmental Program Manager II
Division of Water
Delaware Department of Natural Resources
and Environmental Control

Inland Bays RWTF - Site Map



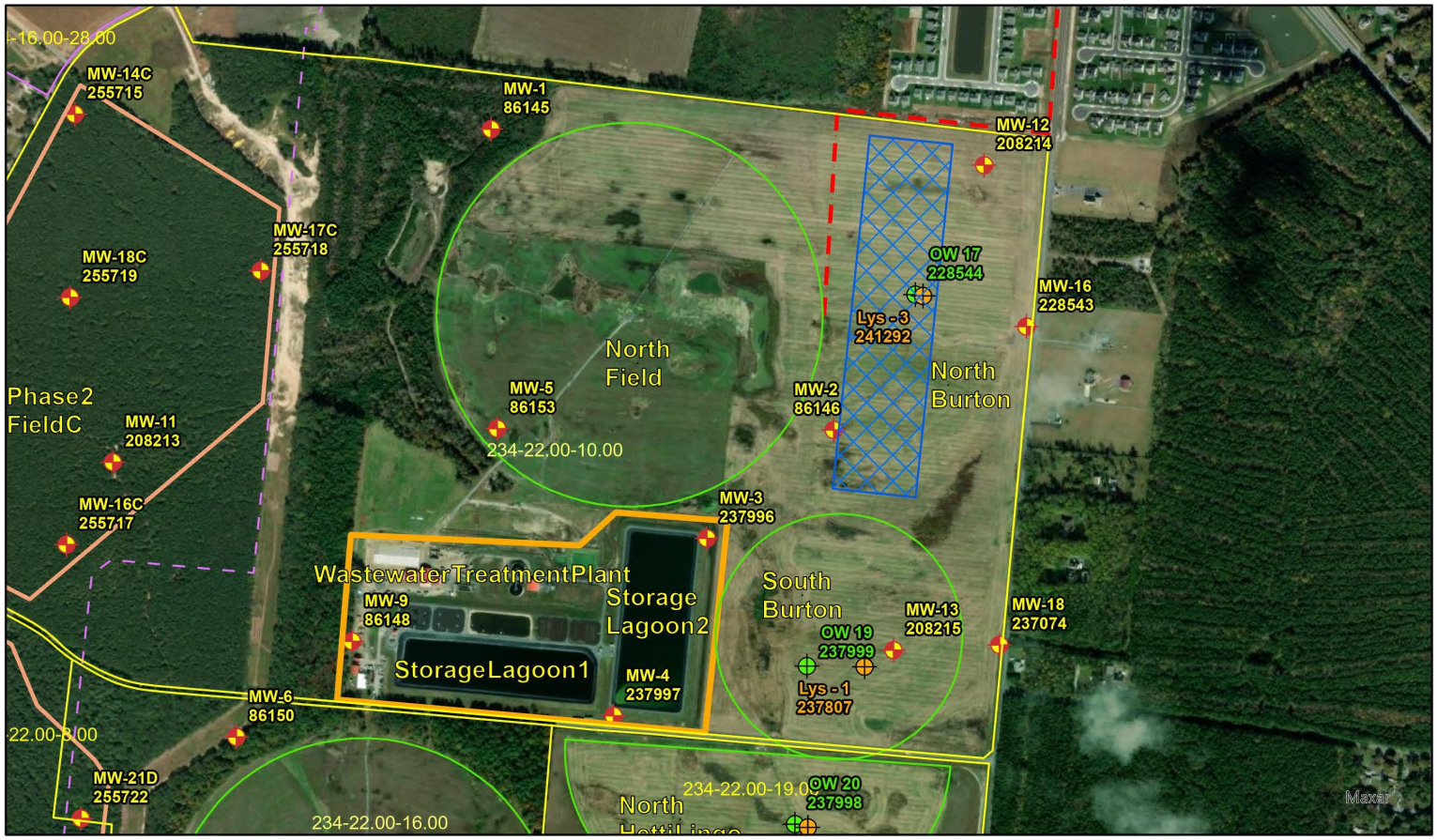
Legend

- Spray Irrigation Pivots
- Parcels Existing and ABCD
- Parcels Distribution
- Distribution Piping
- Constructed Wetlands
- Stonewater Creek
- Fields ABCD Spray Areas

N W E S

0 500 1,000 2,000 3,000 4,000 Feet

North Field - Site Map



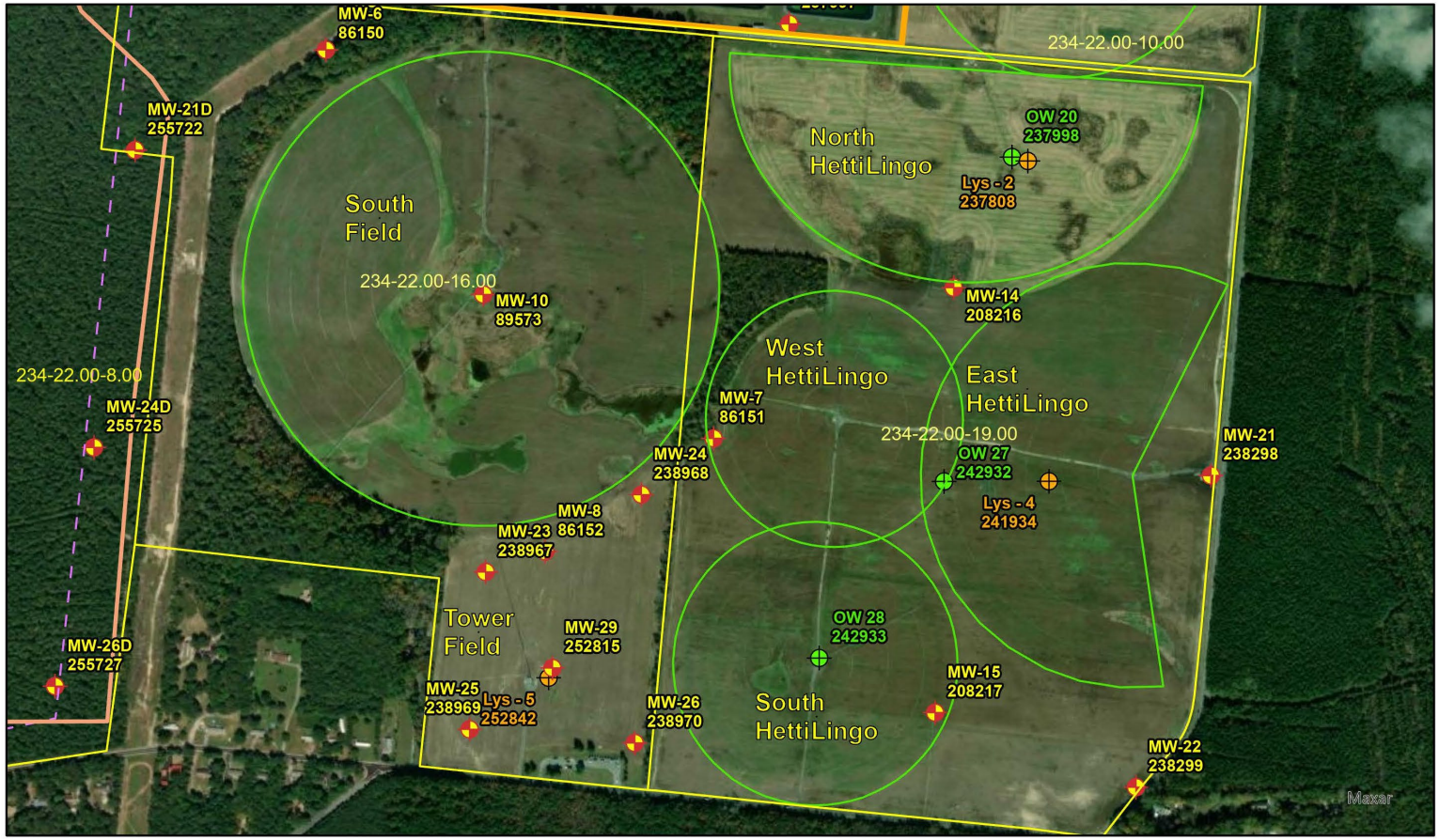
Legend

- Lysimeters
- Observation Wells
- Monitoring Wells
- Distrubution Site Pivots
- Spray Irrigation Pivots
- Parcels Existing and ABCD
- Parcels Distribution
- Distribution Piping
- Constructed Wetlands
- Stonewater Creek
- Fields ABCD Spray Areas

N W E S

0 205410 820 1,230 1,640 Feet

South Field and Hettie Lingo Fields - Site Map



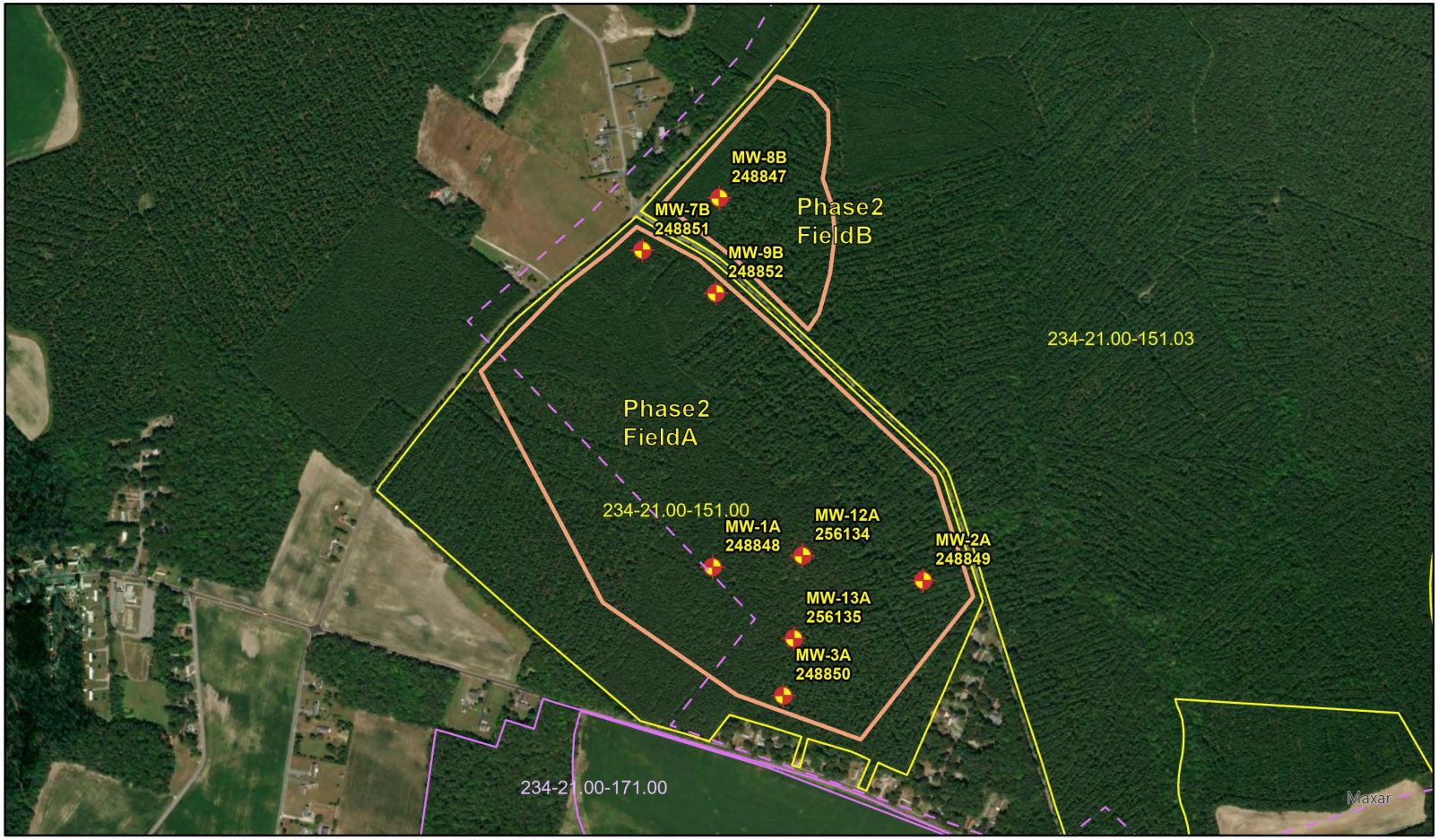
Legend

- Lysimeters
- Observation Wells
- Monitoring Wells
- Distrubution Site Pivots
- Spray Irrigation Pivots
- Parcels Existing and ABCD
- Parcels Distribution
- Distribution Piping
- Constructed Wetlands
- Stonewater Creek
- Fields ABCD Spray Areas

N
W
E
S

0 165330 660 990 1,320
Feet

Phase 2 Fields A and B - Site Map



Legend

- Lysimeters
- Observation Wells
- Monitoring Wells
- Distrubution Site Pivots
- Spray Irrigation Pivots
- Parcels Existing and ABCD
- Parcels Distribution
- Distribution Piping
- Constructed Wetlands
- Stonewater Creek
- Fields ABCD Spray Areas

N
W
E
S

0 240480 960 1,440 1,920
Feet

Phase 2 Field C - Site Map

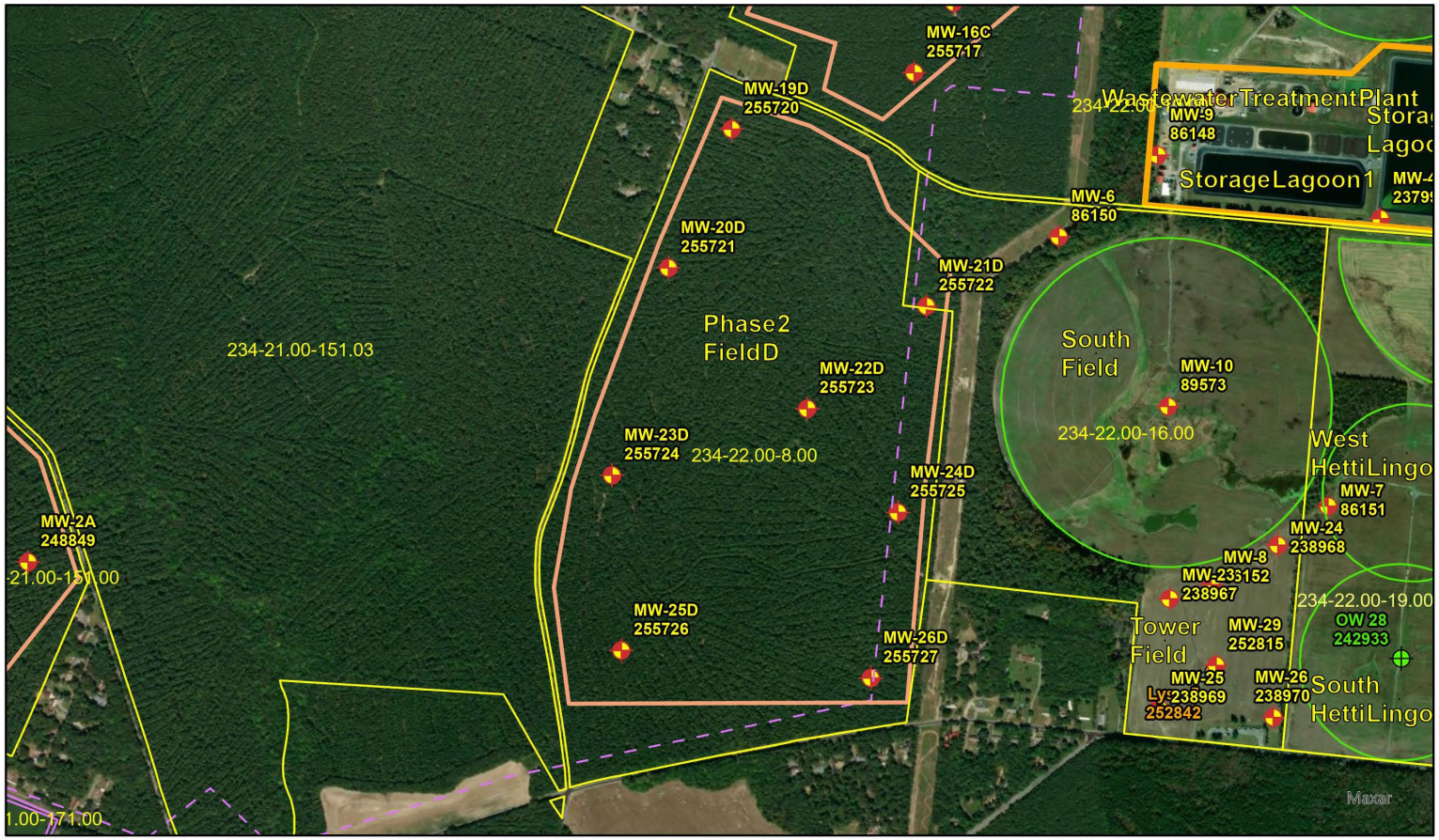
Legend

- Lysimeters
- Observation Wells
- Monitoring Wells
- Distrubution Site Pivots
- Spray Irrigation Pivots
- Parcels Existing and ABCD
- Parcels Distribution
- Distribution Piping
- Constructed Wetlands
- Stonewater Creek
- Fields ABCD Spray Areas

N
W E
S

0 155310 620 930 1,240
Feet

Phase 2 Field D - Site Map



Legend

- Lysimeters
- Observation Wells
- Monitoring Wells
- Distrubution Site Pivots
- Spray Irrigation Pivots
- Parcels Existing and ABCD
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- Distribution Piping
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- Stonewater Creek
- Fields ABCD Spray Areas

N
W
E
S

0 240480 960 1,440 1,920
Feet

Part I

A. GENERAL DESCRIPTION

The Inland Bays Regional Wastewater Treatment Facility is a regional on-site wastewater treatment and disposal system (OWTDS) that serves the existing and future wastewater treatment and disposal needs for Sussex County's wastewater service territories in southern Delaware. See Map Page 2.

Wastewater Treatment System

The Inland Bays Regional Wastewater Treatment Facility (IBRWTF) is designed to be upgraded and expanded in phases. In 2010, the Phase 1 upgrades included the addition of a biological nutrient removal (BNR) process to the treatment system. The current system consists of influent headworks for screening and grit removal, two Biolac aeration lagoons for BNR, two secondary clarifiers, chlorine contact tank for disinfection, and two treated wastewater (effluent) storage lagoons. The facility's biosolids handling system includes three waste solids holding lagoons (one of which also serves as an overflow lagoon) and a belt filter press for sludge dewatering installed in 2014.

The current treatment system is designed to receive and treat up to 2.0 million gallons per day (MGD) of wastewater from Sussex County's wastewater service territories. Treated wastewater (effluent) is stored in one 39 million gallon lagoon and one 32 million gallon lagoon prior to being discharged to 432.5 acres of County-owned agricultural fields via eight center pivot spray irrigation systems. The disposal system's current design capacity is 2.65 MGD. See Maps on Page 3 and 4.

This Permit authorizes the facility's Phase 2 upgrade and expansion project. This includes increasing the facility's treatment capacity from 1.5 MGD to 3.0 MGD on an annual daily average basis and up to 4.0 MGD on a maximum month basis. To achieve this increased flow the following upgrades will be completed.

- New Screening Facility
  - Two new mechanical screens in a new structure
- New Grit Facility
  - Designed for a peak flow of 15 MGD, with the ability to expand to 22.1 MGD
- New Aeration Lagoon Distribution Box
- New Biolac Aeration Lagoon System
  - Two additional aeration lagoons, to mirror existing Biolac aeration lagoons
- New Clarifiers (No. 3 and No. 4)
  - Similar design to existing Clarifiers No.1 and No. 2
- New Pump and Blower Building
- New building to house return and waste sludge pumps as well as space for future blowers
- Effluent Filtration Facility
  - Designed for 18.7 MGD capacity
- Effluent Irrigation Pump Station

In addition, the facility's Phase 2 upgrades will expand the biosolids handling system to allow IBRWTF to receive biosolids from other Sussex County owned wastewater treatment facilities, the Rehoboth Beach wastewater treatment plant (WWTP), the Lewes WWTP, Seaford WWTP, and any other WWTPs authorized by the Department.

The regional biosolids facility construction project includes the following:

- Expand the existing facility to a regional-scale receiving, dewatering, and storage facility
- Construct a drying facility to utilize an indirect paddle-type drying unit
- Construct a truck unloading facility for dewatered sludge cake
- Construct an unloading facility to integrate with existing storage facility and dryer facility
- Construct a regional septage receiving station with dual preliminary treatment units

Phase 2 Reference Drawings - Submitted October 24, 2022.

- Process Flow Schematic Drawing M00.02
- Wastewater Treatment Facility Drawing
- Spray Irrigation Discharge Areas Drawings

Table 1. Upgraded Wastewater Treatment System Design Parameters

Parameter	Effluent
BOD_5	<15 mg/L
Total Suspended Solids	<10 mg/L
Turbidity	<2 NTU
Fecal Coliform	<20 cfu/100mL
Total Nitrogen	<10 mg/L
Ammonia	<1 mg/L
Nitrate+Nitrite	<8 mg/L
Total Phosphorus	< 8 mg/L
Lead	0.002 mg/L
Zinc	0.039 mg/L
Copper	0.013 mg/L
Nickel	0.005 mg/L
Cadmium	0.0005 mg/L
pH	5.5 - 9.0

Disposal System

Currently treated wastewater is discharged to 432.5 acres of County-owned agricultural fields via eight center pivot spray irrigation systems. This Permit authorizes the facility's Phase 2 increase in the disposal capacity from 2.65 MGD to 6.96 MGD on an annual average basis. This includes adding approximately 442.9 acres of total area (347.9 wetted acres) by developing four spray fields: Area A and B (south and north of Lawson Rd), and Area C and D (north and south of Inland Bays Rd). Fixed head spray irrigation systems will be used to discharge treated wastewater (effluent) onto County-owned wooded land. The fixed-head irrigation system consists of 17,900-ft of 16" distribution lines which feed 186,960-ft of 4" lateral lines that connect to the sprinkler heads on three spray fields. The system is fed by a 39,354-ft 24" force main irrigation loop that pulls from the effluent storage lagoons at the IBRWTF. In addition, the IBRWTF will be authorized to distribute treated wastewater (effluent) to other agricultural fields in accordance with Section 6.11 of the Regulations. See Maps on Pages 5, 6, and 7.

Table 2. Phase 2 Spray Fields

WETTED FIELD AREA	WETTED ACRES	Parcel Number	Rate (inches/ week)	Disposal Capacity (MGD)
Field 'A'	117.7	234-21.00-151.00	2.5	1.45
Field 'B'	10.3	234-21.00-151.03	2.5	0.13
Field 'C'	70.7	234-22.00-10.00	2.5	0.87
Field 'D'	149.2	234-22.00-8.00	2.5	1.84

Table 3. Phase 2 Agricultural Fields Receiving Distributed Treated Wastewater

Owner	Farmer	Site/Irrigated Acres	Tax Map Number	Zoning
Hollyville Farms, LLC	Hollyville Farms, LLC, 17420 Minos Conaway Road, Lewes DE 19958	Whittington Estates 65 Acres	234-21.00-171.00	AR-1-Agricultural / Residential
Sussex County	M&M Farms, LLC, 15046 Gravel Hill Road, Milton, DE 19968	14411 Hollyville Rd 210 Acres	234-16.00-28.00	AR-1-Agricultural / Residential
Sussex County	Double H Farm, LLC, 32740 Webbs Landing Road, Lewes, DE 19958	North Townsend Rd 35.5 Acres	234-16.00-23.00	AR-1-Agricultural / Residential
Double H Farm, LLC	Double H Farm, LLC, 32740 Webbs Landing Road, Lewes, DE 19958	24458 Townsend Rd 62.5 Acres	234-16.00-21.01	AR-1-Agricultural / Residential

Constructed Submerged Gravel Wetland System

Also, as part of the Phase 2 upgrade and expansion project, this Permit authorizes the construction of a submerged gravel wetland system as a demonstration and research project. The wetland project is designed to evaluate the effectiveness of constructed wetland systems to serve as an innovative alternative to treated wastewater storage in lagoons, provide an enhanced treated wastewater disposal option, and remediate local groundwater resources. The discharge of treated wastewater (effluent) to the wetland system will only occur after pilot testing utilizing groundwater and Department approval. The approval will detail the specifics of how the County will be allowed to operate the wetland system and the pilot study will inform wether or not the wetland system will be fully permitted in the future for treated wastewater use. The constructed submerged gravel wetland system will be located on North Burton Field, Parcel Number: 234-22.00-10.00.

The submerged gravel wetland system shall consist of one 300' x 900' constructed wetland (approximately 6.24 acres). The constructed wetland system shall be lined on the sides with GS-1 Mirafi 600X or equivalent liner and the bottom shall be lined with 1' of engineered soil liner. The inside of the wetland system shall consist of twenty (20) 37.5' wide and 1' deep biomedia areas. The biomedia sides and bottom are lined with GD-II Mirafi FW402 Geotextile or equivalent. Each biomedia area is separated by 7.5' of clean washed No. 57 stone that widens to 12' wide at the bottom of the wetland system. A 2' permeable media reservoir shall be constructed under each biomedia area.

The constructed wetland system will be connected to the existing IBRWTF spray irrigation system at the North Burton Field Pivot. Approximately 550' of 12" pipe shall connect the North Burton Field Pivot to the proposed wetland system effluent distribution box. The effluent flows from the distribution box into approximately 270' of 12' effluent pipe where it is evenly distributed across one end of the wetland. Once the testing period commences, the North Burton spray field will cease to be used for spray effluent disposal and the center pivot equipment shall be removed.

B. DOCUMENTATION

Construction shall be in accordance with the following documents and as required by this Permit.

1. The State of Delaware *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (the Regulations).

2. February 25, 2017, Soil Investigation Report (SIR) for Spray Expansion Project. Prepared by Accent Environmental, LLC. Revised May 2017.
    a. May 2017, SIR Revisions Appendix B2, C2, and Site Map of Area A1.
    b. May 19, 2017, DNREC SIR Approval.

3. December 6, 2018, DNREC Application Form and Legal Notice Fee.

4. January 11, 2019, Hydrogeologic Report (HSR) for Spray Expansion Project, dated October 26, 2017. Prepared by Whitman, Requardt & Associates, LLP (WRA).

5. January 31, 2019, Surface Water Assessment Report (SWAR) for Inland Bays Regional Wastewater Facilities Sussex County, Delaware, dated January 28, 2019. Prepared by WRA.

6. July 17, 2019, Design Engineering Report (DER) for the Phase 2 Upgrade and Expansion Project for Inland Bays Regional Wastewater Facilities Sussex County, Delaware, dated July 12, 2019. Prepared by WRA.
    a. Drawings titled Inland Bays Regional Wastewater Facility Phase 2 Expansion Contract S19-10 100% Submittal. Signed by the County Engineer on January 7, 2019.
    b. Project Specification Contract S19-10 Inland Bays Regional Wastewater Facility: Phase #2 Expansion, December 2018, Final for Bid, Volume I of II. Signed by the County Engineer on January 7, 2019.
    c. Project Specification Contract S19-10 Inland Bays Regional Wastewater Facility: Phase #2 Expansion, December 2018, Final for Bid, Volume II of II. Signed by the County Engineer on January 7, 2019.

7. March 20, 2020, Two WPCC Applications for Distribution Loop. Prepared by WRA.

8. August 03, 2020, DNREC Letter Requesting Additional Information.

9. October 22, 2020, Revised Design Engineering Report (DER) for the Phase 2 Upgrade and Expansion Project for the Inland Bays Regional Wastewater Facilities in Sussex County, Delaware, dated October 2020. Prepared by WRA.
    a. Nitrogen and Water Balance 2020_09_28A
    b. Nitrogen and Water Balance 2020_09_28B

c. IBRWF Phase 2 Summary of Design Parameters

10. December 11, 2020, Revised Drawings titled Inland Bays Regional Wastewater Facility Phase 2 Expansion Contract S19-10 100% Submittal, dated October 2020. Signed by David Ronald Nixson, P.E. 11/04/2020.

11. December 17, 2020, Effluent Disposal Expansion Construction Plans. Prepared by WRA.

12. February 24, 2021, Design Engineer Report for Distribution of Treated Wastewater for Agricultural Use. Prepared by WRA.

13. January 28, 2022, Hydrogeologic Report for Submerged Gravel Wetland. Prepared by John A. Mayhut, PG with RK&K.
    a. Hydrogeologic Report Appendices

14. April 18, 2022, Submerged Gravel Wetland Construction Plans. Prepared by RK&K.

15. October 21, 2022, Sussex County Council's Response to Department's Request for Additional Information, dated August 24, 2022.

C. FACILITY SPECIFIC CONDITIONS

1. Storage Lagoon Land Reserve Requirements

   As depicted on the October 2020 Drawing C02.01 by Whitman Requardt & Associates, LLP, the Permittee shall maintain a 17.6-acre reserve area for the future storage lagoon if the Department deems its construction and operation is necessary.

2. **Within 30 days of completion (of the construction) of the wastewater treatment system authorized by this Permit**, the Permittee shall submit an Operations and Maintenance Manual for the completed wastewater treatment system approved by this Permit.

3. **Within 30 days of completion (of the construction) of each disposal system authorized by this Permit**, the Permittee shall submit an Operations and Maintenance Manual Amendment for each disposal system approved by this Permit.

4. The permittee shall comply with all applicable Sussex county ordinances and conditional use requirements placed on this facility.

5. The facility shall be constructed to operate in accordance with the design criteria submitted in the DER dated October 22, 2020, this Permit, and the Regulations.

Part II

A. CONSTRUCTION REQUIREMENTS

1. The Permittee shall notify the Department in writing of the intent to initiate construction activities at least fifteen days prior to the commencement of construction. The written notification shall include a proposed construction schedule.

   The Permittee shall provide updated construction schedules if the schedule changes as construction progresses.

2. Prior to initiating construction of a large on-site wastewater treatment and disposal system, the Department may require a pre-construction meeting be held on-site and attended by the following individuals: DNREC Soil Scientist, DNREC Environmental Engineer, DNREC Hydrologist, Class D.3 Soil Scientist, Professional Geologist, Project Design Engineer, General Site Contractor, Class E.4 System Contractor and other necessary parties.

3. The Permittee shall notify the Department of scheduled construction progress report meetings. The Department's staff may attend these meetings.

4. All systems shall be constructed/installed by a Department licensed Class E.4 system contractor. Proper construction/installation of the components of the treatment and disposal system shall be certified in writing by the design engineer and the manufacturer's representative prior to startup of the wastewater treatment and disposal system.

5. The Class E.4 system contractor shall have a copy of all valid, required and approved permits on site during construction.

6. The design engineer or designee shall periodically review the construction of the disposal system to ensure compliance with design specifications.

7. All system components shall be surveyed to a common datum point.

8. Soil disturbance to the disposal areas shall be limited to the minimum required for construction. The soils may be rendered unsuitable should unnecessary soil disturbance occur near or within the disposal area. Particular care should be taken when clearing wooded lots so as not to remove the surface soil material (see Lot Clearing Guidelines, Attachment 2 of the Regulations).

9. If well pointing is required during construction, the wells shall be installed by a licensed well driller, and a permit to construct such wells shall be obtained from the Department.

10. All construction activities shall comply with all other applicable local utility construction specifications and standards; and shall be in accordance with the *Ten States Standards*.

11. Connections and/or additions to the wastewater treatment and disposal system, other than those indicated on the approved plans and specifications, will not be allowed without prior written approval from the Department.

12. Any anticipated facility expansions, production increases, or process modifications that will result in new, different, or increased discharges of pollutants shall be reported in writing to the Department for approval. A new permit may be required.

13. Facility and Construction Changes

    The Permittee shall submit a written report to the Department for review and approval of any changes to the facility or construction of the system within the following time periods.
    a. Thirty (30) days before any planned activity, physical alteration to the permitted facility or addition to the permitted facility if that activity, alteration or addition would result in a change in information that was previously submitted to the Department; or
    b. Thirty (30) days before any anticipated change which would result in noncompliance with any permit condition or the Regulations; or
    c. Immediately after the Permittee becomes aware of relevant facts omitted from, or incorrect information submitted in, a permit application or report to the Department.

14. The Permittee shall supply the Department with testing procedures and results conducted on the force main/collection/distribution system (including any lift stations).

15. A construction permit issued by the Department does not relieve the Permittee from complying with any local, municipal, county, or state requirement.

16. The Class E.4 system contractor shall contact the design Engineer, licensed operator, and the Department to schedule an inspection prior to completion of construction.

17. Upon completion of construction, the Permittee shall provide the Department with an approved engineer inspection report(s) demonstrating that the system has been constructed in accordance with the approved Design Engineer Report, Plans and Technical Specifications.

18. The Permittee is responsible for supplying the Department with a certificate or letter of completion/approval from the wastewater treatment plant manufacturer upon construction completion of the wastewater treatment plant, if applicable.

19. Construction activities within spray fields shall be minimized. Excessive compaction of surface soils by construction equipment shall be avoided. Re-grading of pipeline trenches shall match original contours. Settlement of trench backfill shall be repaired.

20. In forested systems, it is necessary to only grub the pipe centerline. Excessive clearing and grubbing shall be avoided. Clearing for above-ground piping systems shall involve only vegetation that will interfere with operation of the system.

21. All areas disturbed by construction shall be re-vegetated prior to initiation of irrigation activities.

22. Sloped areas require protection from erosion.

23. Pressure testing of the irrigation force mains and laterals shall be conducted during installation to avoid damage to spray fields from re-excavation and repair. Flushing is necessary to clear distribution system pipes of construction debris which will clog sprinkler nozzles. Care should be exercised to prevent erosion or flooding of the spray fields during pipeline flushing. Every effort should be made to keep trash and debris out of the distribution systems. Sprinklers and drain valves shall be checked for proper operation prior to installation.

24. Wastewater irrigation on bare soil is not allowed beyond what is necessary for germination to establish a vegetative cover. Wastewater application, at the design rate, may begin only after a uniform vegetative cover has been established.

25. Spray fields should be constructed early in the project so a vegetative cover can be re-established on disturbed areas before wastewater irrigation begins.

26. Potable, ground or surface water shall be used for distribution system testing unless authorized in writing by the Department.

27. One growing season may be necessary before new spray fields will accept the design wastewater loading. This start-up period shall be considered in the design and operation of these systems.

28. If testing of the system is required prior to construction completion that will require the operation of the system or the discharge of treated wastewater, the Permittee shall request approval in writing from the Department and shall notify the Department of the scheduled testing so that the Department's staff may be present during the testing of the system. Testing shall not commence until written approval is received by the Department.

29. The Permittee shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from construction under this Permit. Such steps shall include, but not be limited to, accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or reasonable mitigation of such impacts.

30. The Permittee shall obtain appropriate state permits for the collection and distribution system if applicable.

B. MONITORING REQUIREMENTS

1. Spray Irrigation Fields A, B, C, and D

    a. Lysimeters: In accordance with Section 6.8.4 of the Regulations, the Permittee shall install and sample four lysimeters to capture and characterize vadose zone percolate: one on each of Fields A, B, C, and D.
        i. Within 30 days of effective date of this Permit, the Permittee shall submit a lysimeter location and construction plan to the Department for review and approval.
        ii. The lysimeters shall be installed in accordance with:
            a) 7301 *Regulations Governing the Construction and Use of Wells*
            b) The General Lysimeter Construction and Sampling Guidelines, attachment to the Regulations

iii. The Permittee shall submit to the Department the lysimeter installation details with the Construction Completion Package required in Part II.C.3 of this Permit. The lysimeter installation details shall include each lysimeter's Local ID, DNREC Well Permit Number; and geographic coordinates as determined in the field using a global positioning system (GPS) and reported in Delaware State Plane, meters, NAD83.

b. Groundwater Background Monitoring: The Permittee shall conduct a background groundwater quality sampling program prior to initiation of disposal activities on Fields A, B, C, and D. The sampling program shall be sufficient to establish representative groundwater quality at each well prior to initiation of disposal activities. A minimum of three samples shall be collected at least one month apart and analyzed prior to the initiation of disposal activities. A summary report with digital data which includes all analyses must be submitted to the Department with the Construction Completion Package required in Part II.C.3 of this Permit. Analyses shall include, the parameters listed below.

Table 4. Background Parameters

Parameter	Unit Measurement	Sample Type
pH	S.U.	Field Test
Temperature	°F	Field Test
Specific Conductance	µS/cm	Field Test
Dissolved Oxygen Or Oxidation Reduction Potential	mg/L or mv	Field Test
Depth to Water Table	Hundredth of a foot	Field Test
Ammonia Nitrogen	mg/L	Grab
Arsenic	mg/L	Grab
Cadmium	mg/L	Grab
Chloride	mg/L	Grab
Chromium	mg/L	Grab
Copper	mg/L	Grab
Fecal Coliform	Col/100 ml	Grab
Hardness	mg/L	Grab
Iron	mg/L	Grab
Lead	mg/L	Grab
Manganese	mg/L	Grab
Mercury	mg/L	Grab
Nickel	mg/L	Grab
Nitrate as Nitrogen	mg/L	Grab
Nitrite as Nitrogen	mg/L	Grab
Organic Nitrogen	mg/L	Grab
Selenium	mg/L	Grab
Sodium	mg/L	Grab

Sulfate	mg/L	Grab
Total Dissolved Solids	mg/L	Grab
Total Nitrogen	mg/L	Grab
Total Coliforms	Col/100 ml	Grab
Total Phosphorus	mg/L	Grab
Total Suspended Solids	mg/L	Grab
Zinc	mg/L	Grab

C. REQUIREMENTS PRIOR TO PLACING SYSTEM INTO OPERATION

1. The Permittee shall notify the Department in writing prior to the completion of construction and request a Construction Completion Inspection to be performed by the Department's staff. The Design Engineer, Class E.4 system contractor, licensed operator and the Permittee shall be present during the inspection. During the inspection, all mechanical parts are to be tested.

2. A classification shall be performed on the facility in accordance with the State of Delaware's *Regulations Licensing Operators of Wastewater Facilities*. The class of operator required for the facility will be determined by the Board of Certification for Licensed Wastewater Operators in accordance with the *Regulations Licensing Operators of Wastewater Facilities*. All large systems shall be under the direction of a licensed operator. The licensed operator shall be available at all times. The licensed operator shall be on-site at the time the system is put into operation and is to receive all training as necessary to properly operate the system.

3. Construction Completion Package: Upon completion of construction, the Permittee shall submit to the Department the following applicable items. The items shall be combined in one package and submitted electronically.
    a. Design Engineer Inspection Report(s) certifying the facility has been constructed in accordance with approved plans and specifications.
    b. Copies of any other applicable State/County inspection reports.
    c. Contractor's Certificate of Completion.
    d. A certificate or letter of completion/approval from the wastewater treatment plant manufacturer.
    e. A set of "as-built" drawings of the facility bearing the seal and signature of a licensed Professional Engineer registered in the State of Delaware. The "as-built" drawings shall include the following information.
        i. Site map showing the location of all structures, piping and appurtenances, disposal areas and buffers.
        ii. A full equipment list and technical specifications for all equipment used, if different than submitted in the permit application.
        iii. The new topography elevations of the system.
        iv. Monitoring/Observation well elevations at the top of the casing (TOC) and at the ground surface, GPS coordinates (State Plane), and local topography tied to a common benchmark.
        v. The location and screen depth, length of stick up, and well ID's shall be provided for each monitor well.
        vi. Surface water monitoring points.
    f. A copy of all Collection System Permit(s).

g. Inspection Reports demonstrating collection system has been installed and inspected by Design Engineer.
h. If the collection system does not require county approval, the Permittee shall supply the Department with all testing procedures conducted on the collection system, force main(s) and lift station(s).
i. An amended Operation and Maintenance (O&M) Plan outlined in accordance with Section 6.7 of the Regulations.
j. Groundwater Monitoring:
    i. Well Info: Spreadsheet summary of groundwater monitoring well information.
        1) Local ID, DNREC Well Permit Number; and geographic coordinates as determined in the field using a global positioning system (GPS) and reported in Delaware State Plane, meters, NAD83.
        2) TOC elevations survey results, using NAVD88, for all monitoring wells to be utilized for groundwater monitoring. Provide the length of the well stickup and the well survey information to the closest 0.01 feet. Provide a permanent mark, etch, or fixture to be used to specify the survey point where the TOC elevations were read.
    ii. Background Monitoring: A summary report detailing the analyses of the background groundwater quality sampling program that was conducted consisting of at least three (3) samples one (1) month apart and analyzed prior to the initiation of disposal activities.
k. Lysimeter Monitoring Installation: Spreadsheet summary of lysimeter monitoring well information including: Local ID, DNREC Well Permit number; and geographic coordinates as determined in the field using a global positioning system (GPS) and reported in Delaware State Plane, meters, NAD83.
l. Biosolids Management Plan. A copy of a biosolids management contract if a third party will be utilized to manage the biosolids. If the permittee is not contracting out sludge management, the permittee shall obtain any necessary permits for land application of biosolids from the Department and include a copy.
m. Legal documents (see Section 6.4 of the Regulations).
n. Material Safety Data Sheets for all chemicals to be used by the facility staff/operator.

Part III

A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

1. Effluent Limitations on Pollutants Attributable to Industrial Users

   The use of the constructed facility is conditioned on meeting all applicable pretreatment standards under 40 CFR, Part 403, or toxic pollutant discharge limitation under Section 307(a) of the Clean Water Act of 1977, PL 95-217.

2. Right of Entry

   The Permittee shall allow the Department entry and access, consistent with 7 Del.C. Ch. 60, to:
   a. enter the permitted facility;
   b. inspect any records that must be kept under the conditions of the permit or Regulations;
   c. inspect any facility, equipment, practice, or operation permitted or required by the permit or Regulations; and
   d. sample or monitor for the purpose of assuring permit compliance of any substance or any analytical or operational parameter at the facility.

3. Permit Transferability

   Permits may be transferred to a new owner or operator. The Permittee shall notify the Department by requesting a change of ownership of the Permit before the date of transfer. The transfer shall be consistent with any notarized legal documents and/or CPCN required by the Regulations. The legal documentation shall be provided with the application. The application shall be received 30 days before the transfer.
   a. No person shall transfer a Permit from one person to another unless 30 days written notice is given to the Department, indicating the transfer is agreeable to both persons, and approval of such transfer is obtained in writing from the Department, and any conditions of the approval of such transfer is obtained in writing from the Department, and any conditions of the transfer approved by the Department are complied with by the transferor and the transferee.
   b. The notice to the Department shall contain a written agreement between the transferor and the transferee, indicating the specific date of proposed transfer of Permit coverage and acknowledging responsibilities of current and new Permittees for compliance with and liability for the terms and conditions of this Permit. The notice shall be signed by both the transferor and the transferee.

4. Availability of Reports

   All reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department of Natural Resources and Environmental Control. Monitoring data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in 7 Del. C., §6013.

5. Non-compliance Notification

The Permittee shall report to the Department's Enforcement Section at (800) 662-8802 any unpermitted release or discharge of any contaminant into the air, or a pollutant, including petroleum substances, into surface waters, groundwater, or onto land as soon as the Permittee has knowledge of, or should have had knowledge of, the release or discharge.

The Permittee shall also report to the Department orally within 24 hours from the time the Permittee became aware of any unpermitted release or discharge of any contaminant into the air, or a pollutant, including petroleum substances, into surface waters, groundwater, or onto land as soon as the Permittee has knowledge of, or should have had knowledge of, the release or discharge or any other action or event that may endanger the public health or the environment by contacting the Department at the telephone numbers cited below. Spill reporting shall follow the requirements of 7 Del. C., 6028.

If for any reason the Permittee does not comply with, or will be unable to comply with, any effluent limitations or other conditions specified in this Permit, the Permittee shall provide the Department with the following information in writing within five days of becoming aware of any actual or potential non-compliance:

a. a description and cause of the non-compliance with any limitation or condition;
b. the period of non-compliance including exact dates and times; or, if not yet corrected, the anticipated time the non-compliance is expected to continue; and
c. the steps being taken or planned to reduce eliminate and/or prevent recurrence of the non-compliant condition.

The notification shall be submitted to the Department at the following address:

Resource Protection Section
Division of Water
Department of Natural Resources and Environmental Control
89 Kings Hwy
Dover, DE 19901
Office Telephone: (302) 739-9945

6. Construction Permit Expiration

If construction has not been initiated prior to the expiration of the Construction Permit, and there are proposed changes to the approved design, the applicant shall submit a new or updated Design Engineer Report and construction plans as outlined in Sections 6.2.3, 6.5.1.4 and 6.5.1.5 for project re-evaluation. This will require public notification.

If construction has been initiated prior to the expiration of the Construction Permit, and construction has not been completed prior to the expiration of the Permit, the Permittee may apply for an extension of the construction permit.

If construction has not been initiated or construction has not been completed prior to the expiration of the one year extension, provided, the SIR is valid, and there are no changes to the approved design prior to the expiration of the Construction Permit, the applicant shall submit a construction permit application along with applicable fees, and a construction schedule.

7. Construction Permit Extension

   The application for extension shall include the following:
   a. A Department extension form.
   b. Applicable Departmental fees.
   c. Construction schedule.

PART IV

A. PROVISIONS

1. Permit Revocation

   The Department may revoke a Permit if, among other things, the Permittee violates any Permit condition, these Regulations, fails to pay applicable Departmental fees, obtains the Permit by misrepresentation or fails to fully disclose all relevant facts.

   Except in cases of emergency, the Department shall issue a written notice of intent to revoke to the Permittee prior to final revocation. Revocation shall become final within 20 days of receipt of the notice by the Permittee, unless within that time the Permittee requests an administrative hearing in writing.

   The Department shall notify the Permittee in writing of any revocation hearing at least 20 days prior to the date set for such hearing.

   If the Department finds the public health, safety or welfare requires emergency action, the Department shall incorporate findings in support of such action in a written notice of emergency revocation issued to the Permittee. Emergency revocation shall be effective upon receipt by the Permittee. Thereafter, if requested by the Permittee in writing, the Department shall provide the Permittee a revocation hearing.

2. Permit Modifications/Amendments

   In consultation with the Permittee, the Department may modify or amend an existing Permit provided that the modifications would not result in an increased impact or risk to the environment or to public health.

3. State Laws

   This Permit shall not be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

4. Property Rights

   The issuance of this Permit does not convey any property rights of either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

5. Severability

   The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit, to any circumstances is held invalid; the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

6. This Permit does not relieve the Permittee of complying with any other applicable Federal, State or local regulations.

7. In the event that the *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* or applicable federal regulations are revised, this Permit may be opened and modified accordingly after notice and opportunity for a public hearing.