



DNREC Public Hearing  
Inland Bays Regional Wastewater Facility

MAY 10, 2022



# Purpose of Sussex County Presentation

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**Goal 1:** Refer the Public to County website for the August 2020 comprehensive project overview conducted by the Engineering Department during a series of non-regulatory hearings.

<https://sussexcountyde.gov/sites/default/files/PDFs/IBRWF%20Public%20Presentation%2008292020.pdf>

**Goal 2:** Highlight non-regulatory project components benefiting public health and the environment.

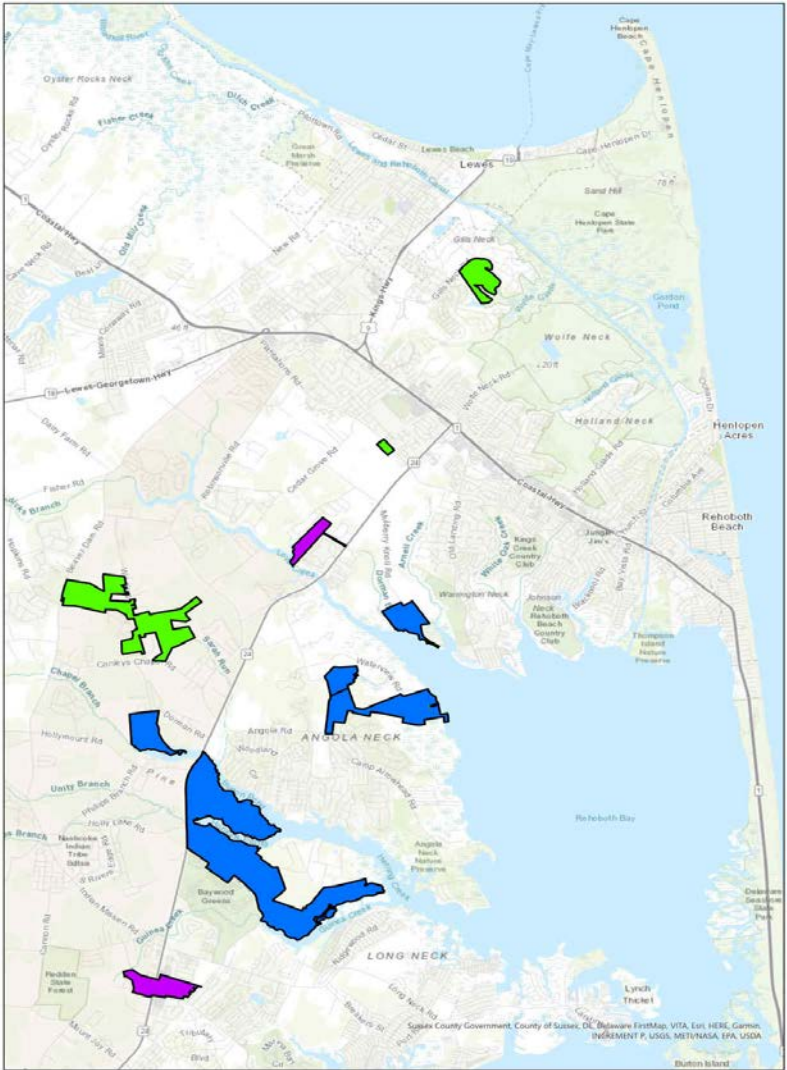
**Goal 3:** Highlight alternative effluent outlets which do not increase permitted facility capacity but promote operational flexibility.

**Goal 4:** Assure the Public of Sussex County's continued commitment to 100% DNREC permit compliance and full transparency.



# Septic Remediation Projects, North Planning Area (in progress)

North Planning Area



- All Projects listed below are in the Rehoboth Bay Watershed
- Projects served by the Inland Bays Regional Wastewater Facility
- Additional County Projects located in the Little Assawoman Bay

- Herring Creek 730 EDUs
- Chapel Branch 435 EDUs
- Joy Beach 119 EDUs
- Mulberry Knoll 77 EDUs
- Wolfe Runne 79 EDUs
- Branch/Autumn/Tucks Rds 244 EDUs
- Briarwood 65 EDUs
- Pintail Pointe 41 EDUs
- Lochwood 222 EDUs

**TN removed >45,000 pounds/year**



# Clean Water Enhancement Program

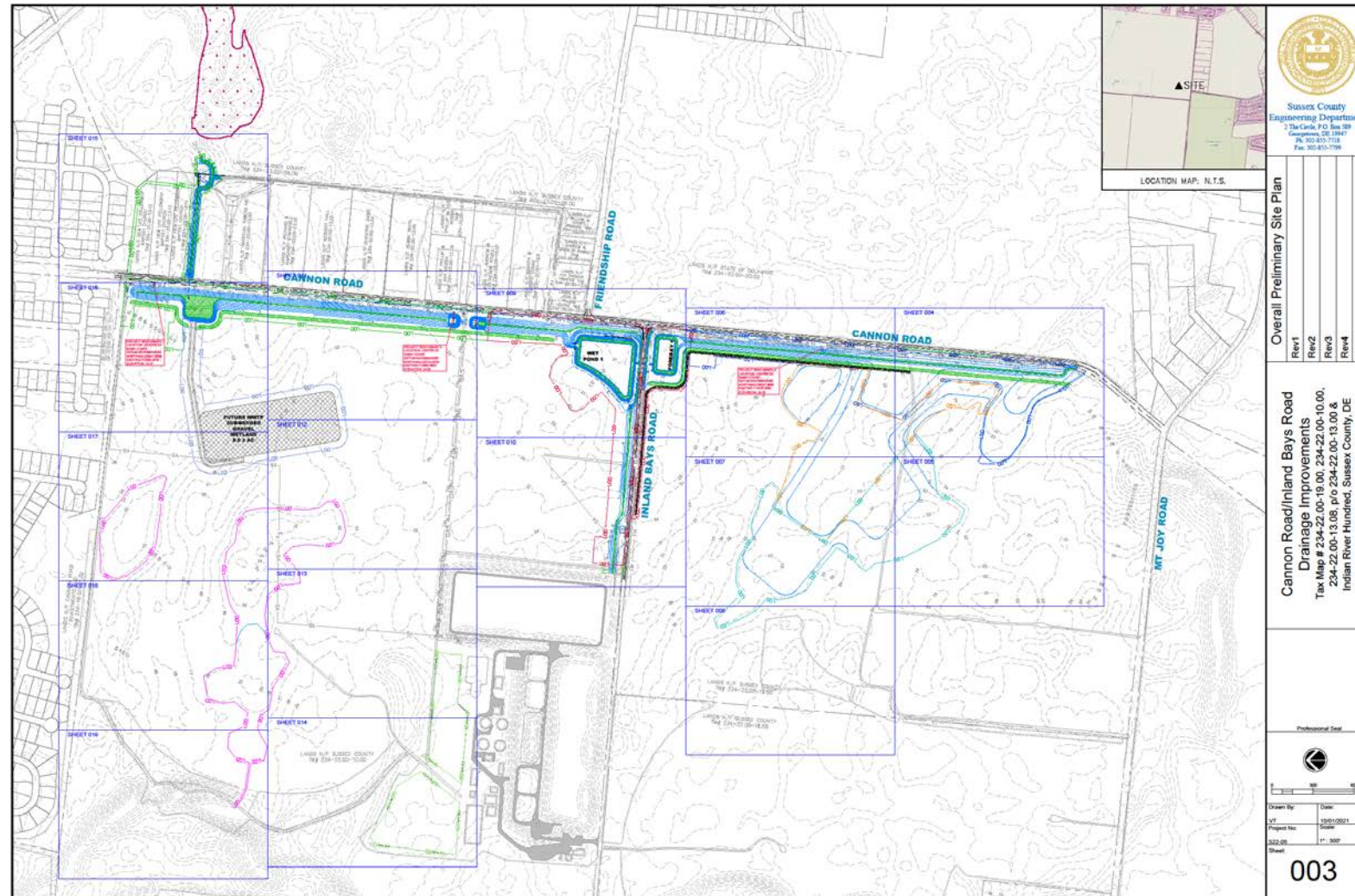
## Burbage Road Project Example

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- County funded initiative creating nutrient reduction projects under the State's Stormwater Management Regulations
- Total Project Cost for Burbage Road was \$250,000 w/ construction by Sussex Conservation District.
- Other projects in the Inland Bays watershed include the Guinea Creek forestry enhancement project as well as the Angola & RT-54 afforestation projects.
- **Budgeted for FY23 = \$350,000**

# Inland Bays RWF Constructed Wetlands & SW Improvements



1. Construct wetland research and demonstration project reducing groundwater nutrient contamination and provide further effluent treatment.

2. Create infiltration practice, bioswales and wetland swales for drainage improvements and water quality enhancement.

3. Establish landscape buffers along Cannon Road & Inland Bays Roads



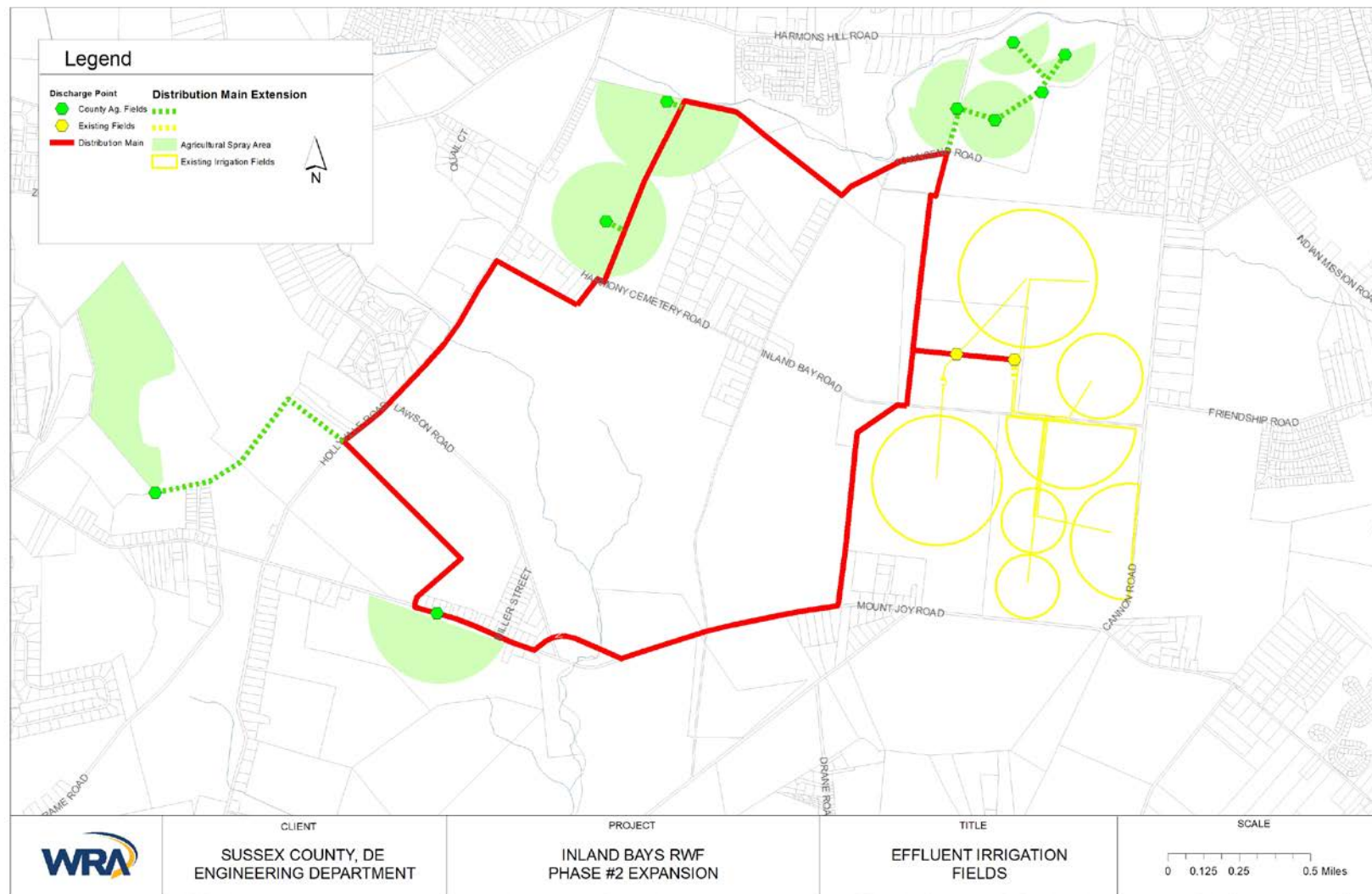
# Inland Bays RWF Stormwater Management Improvements cont.

Summary Table for Site Rpv Compliance <sup>(1)</sup>									
Project:		CANNON RD/IINLAND BAYS RD REV 1			TMDL WS:		INDIAN RIVER BAY		Rel. 1
Ref. #	Sub-Area ID <sup>(2)</sup>	Contributing Area <sup>(3)</sup> (ac)	Runoff <sup>(4)</sup> (in)	Runoff (cf)	RPv Runoff Management (cf)		TN Pollutant Load <sup>(7)</sup> (lb/yr)	TP Pollutant Load <sup>(7)</sup> (lb/yr)	TSS Pollutant Load <sup>(7)</sup> (lb/yr)
					Required <sup>(5)</sup>	Provided <sup>(6)</sup>			
<b>Section I - Complete this section for total site LOD management requirement</b>									
0	Total Site LOD	152.17	0.30	165713.1	3232		233.71	40.90	7512
<b>Section II - Complete this section for BMPs provided for partial LOD management OR sub-area by sub-area management</b>									
1	POND 1	492.78	0.61	1091162.8	0	1083903	1300.93	146.35	23895
2				0.0					
3				0.0					
4				0.0					
5				0.0					
6				0.0					
7				0.0					
8				0.0					
9				0.0					
10				0.0					
11				0.0					
12				0.0					
13				0.0					
14				0.0					
15				0.0					
16				0.0					
17				0.0					
18				0.0					
19				0.0					
20				0.0					
<b>Totals</b>					<b>3232 cf</b>	<b>1083903 cf</b>	<b>777.80 lb/yr</b>	<b>54.81 lb/yr</b>	<b>7080 lb/yr</b>
<b>RPv Runoff Reduction Goal Met?</b>		<b>YES</b>							
<b>Total Credit/Shortfall</b>		<b>1080671 cf</b>		<b>Credit</b>					
Notes:									
1. All subareas must lie within the same HUC 8 watershed.									
2. Only the most downstream sub-area information should be entered for a series of sub-areas that drain to each other or for a treatment train.									
3. From DURMM v2.5 Report, Line 7 OR Approved Hydrologic Software Report									
4. From DURMM v2.5 Report, Line 35 OR Approved Hydrologic Software Report									
5. From DURMM v2.5 Report, Line 39 OR Approved Hydrologic Software Report									
6. From DURMM v2.5 Report, Line 40 OR Approved Hydrologic Software Report									
7. From DURMM v2.5 Report, Lines 44-46 OR Complete Sheet 2									

- Sussex Conservation District Permit has been issued
  - Construction Start Summer 2022
  - TN pollutant load removed = 777.80 lb per year \*
  - TP pollutant load removed = 55.81 lb per year \*
- \* As per DURMM



# Agricultural “Spray on Demand” Partners

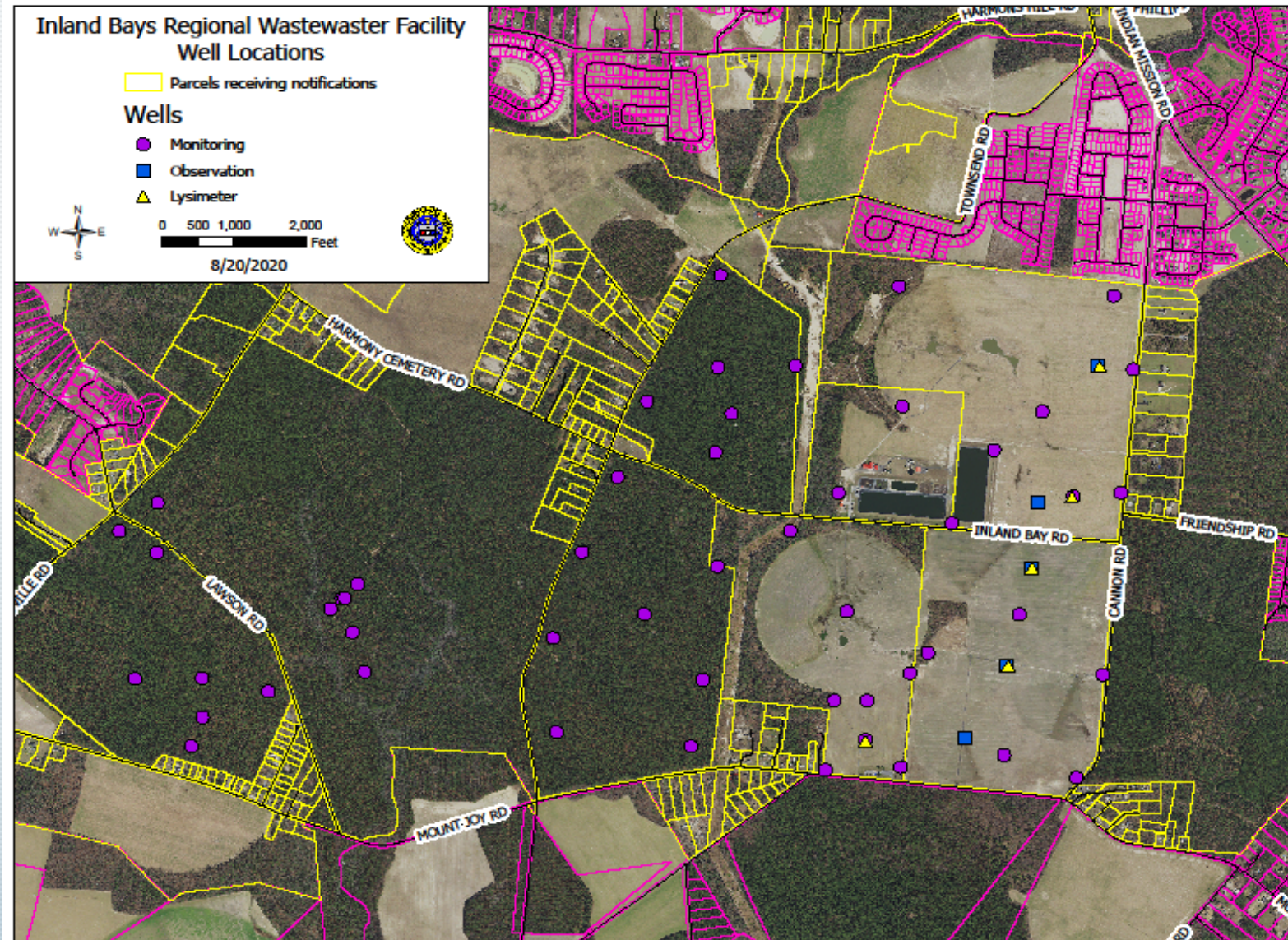


Goal 1: Creation of an effluent distribution loop to connect not only permitted sites but also spray on demand partners in one hydraulic system.

Goal 2: Installation of rig communication allowing agricultural partners full hydraulic control via County’s SCADA center.



# Inland Bays RWF – Groundwater Monitoring



**Purpose:** Assurance of groundwater comprehensive monitoring in the aquifer below the Inland Bays facility.

- Sample over 30 locations under the current Permit and over 60 after permit approval of the disposal expansion.

- Analyze over **7,000** groundwater quality data points per year for consistent permit compliance.

