

Preliminary land Use Service (PLUS)

Delaware State Planning Coordination

122 William Penn Street • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-6958

Please complete this "PLUS application in its entirety. **All questions must be answered. If a question is unknown at this time or not applicable, please explain.** Unanswered questions on this form could lead to delays in scheduling your review. This form will enable the state staff to review the project before the scheduled meeting and to have beneficial information available for the applicant and/or developer at the time of review. If you need assistance or clarification, please call the State Planning Office at (302) 739-3090. Possible resources for completing the required information are as follows:

www.state.de.us/planningwww.dnrec.state.de.us/dnrec2000www.dnrec.state.de.us/DNRECeis
datamil.delaware.govwww.state.de.us/deptagri

1 Project Title/Name: **Wandendale Regional Water Recharge Facility**

Location (please be specific):

2. **The Proposed Wandendale Regional Water Recharge Facility is located on both sides of Rt. 24 just south of Love Creek with the bulk of the site on the east side of Rt. 24 and abutting Robinsonville Road**

3 Parcel Identification #: **2-34-11.00-48.00, 2-34-11.00-50.00, 2-34-7.00-127.00, 2-34-7.00-130.00** 4 County or Local Jurisdiction Name: **Sussex County**

5 Owner's Name: **Wandendale Farms, Inc - Russell Marsh**

Address: **821 Savannah Road**

City: **Lewes**

State: **DE**

Zip: **19958**

Phone:

Fax:

Email:

6 Applicant's Name: **Ronald Marsh together with Tidewater Environmental Services, Inc. – Jeremy Kalmbacher**

Address: **1100 South Little Creek Road**

City: **Dover**

State: **DE**

Zip: **19901**

Phone: **302-734-7500**

Fax: **302-734-9295**

Email: **jkalm@TUwater.com**

7 Project Designer/Engineer: **Cabe Associates, Inc – Steven H. Lewandowski, P.E**

Address: **144 S. Governors Avenue**

City: **Dover**

State: **DE**

Zip: **19903**

Phone: **(302) 674-9280**

Fax: **(302) 674-1099**

Email: **shl@cabe.com**

8 Please Designate a Contact Person, including phone number, for this Project: **Dennis Schrader, (302) 856-0015**

Information Regarding Site:

9 Type of Review: Rezoning Comp Plan Amendment (Kent County Only) Site Plan Review
 Subdivision **Conditional Use request - No rezoning requested**

10. Brief Explanation of Project being reviewed:

The purpose of the proposed Facility is the collection, treatment and land-based recharge of treated sewerage effluent from existing neighborhood homes as well as proposed neighborhoods outside of any existing or proposed Sussex County Sanitary Sewer District or Engineering Department Planning Area. The extension of central wastewater systems in this area to serve failing on-site systems and new development will protect the Inland Bays from excessive amounts of nutrients.

11 Area of Project(Acres +/-): **320 21 acres**

12 According to the State Strategies Map, in what Investment Strategy Level is the project located? Investment Level 1
 Investment Level 2 Investment Level 3 Investment Level 4 Environmentally Sensitive Developing (Sussex Only)

13 If this property has been the subject of a previous LUPA or PLUS review, please provide the name(s) and date(s) of those applications

14 Present Zoning: **AR-1**

15 Proposed Zoning: **AR-1**

16 Present Use: **Agricultural and Forested**

17 Proposed Use: **Collection, treatment and land-based recharge of treated sewerage effluent from existing neighborhood homes as well as proposed neighborhoods outside of any existing or proposed Sussex County Sanitary Sewer District or Engineering Department Planning Area.**

18 If known, please list the historical and former uses of the property, and any known use of chemicals or hazardous substances:
Not Known

19. Comprehensive Plan recommendation: **The proposed use is intended in the Comprehensive Plan**

If in the County, which area, according to their comprehensive plan, is the project located in:

New Castle

Kent

Sussex

Suburban

Inside growth zone

Town Center

Low Density

Suburban reserve

Outside growth zone

Developing

Other

Environ Sensitive Dev District

20 Water: Central (Community system) Individual On-Site Public (Utility)
Service Provider Name:

Will a new public well be located on the site? Yes No What is the estimated water demand for this project? **Less than 100 gallons per minute but not known at this time**

How will this demand be met? **Tidewater Utilities**

21 Wastewater: Central (Community system) Individual On-Site Public (Utility)
Service Provider Name: **Tidewater**

22 If a site plan please indicate gross floor area:

23 If a subdivision: Commercial Residential Mixed Use

24 If residential, indicated the number of number of Lots/units: Gross Density of Project: Net Density
Gross density should include wetlands and net density should exclude wetlands, roads, easements, etc

25 If residential, please indicate the following:
Number of renter-occupied units:
Number of owner-occupied units:

Target Population (check all that apply):

Renter-occupied units

Family

Active Adult (check only if entire project is restricted to persons over 55)

Owner-occupied units

First-time homebuyer – if checked, how many units

Move-up buyer – if checked, how many units

Second home buyer – if checked, how many units

Active Adult (Check only if entire project is restricted to persons over 55)

26 Present Use: % of Impervious Surfaces: **None** Proposed Use: % of Impervious Surfaces: **.3%**
Square Feet: Square Feet: **45,400 sf**

27 What are the environmental impacts this project will have? **The positive impacts of preservation of open space, agricultural lands and uses and the recharge of groundwater.**

How much forest land is presently on-site? **108 acres** How much forest land will be removed? **10 4 acres**

Are there known rare, threatened, or endangered species on-site? Yes No

Is the site in a sourcewater (for example, an excellent groundwater recharge) protection area? Yes No

Recharge potential maps are available at

Kent County

<http://www.udel.edu/dgs/Publications/pubsonline/hydromap11.pdf>

Sussex County

<http://www.udel.edu/dgs/Publications/pubsonline/hydromap12.pdf>

New Castle County has a map viewer that shows the Wellhead protection areas and excellent recharge areas under Natural Features – Water Resources

<http://dmz-arcims02.co.new-castle.de.us/website/nccparcelmap2/viewer.htm>

Does it have the potential to impact a sourcewater protection area? Yes No

28. Is any portion of construction located in a Special Flood Hazard Area as defined by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM)? Yes No

Will this project contribute more rainwater runoff to flood hazard areas than prior to development? Yes No If "Yes," please include this information on the site map

29 Are there any wetlands, as defined by the U S Army Corps of Engineers or the Department of Natural Resources and Environmental Control, on the site? Yes No

Are the wetlands: Tidal Acres
 Non-tidal Acres

If "Yes", have the wetlands been delineated? Yes No

Has the Army Corp of Engineers signed off on the delineation? Yes No

Will the wetlands be directly impacted and/or do you anticipate the need for wetland permits? Yes No If "Yes", describe the impacts:

Will there be ground disturbance within 100 feet of wetlands Yes No

30 Are there streams, lakes, or other natural water bodies on the site? Yes No

If the water body is a stream, is it: Perennial (permanent) Intermittent Ephemeral (Seasonal)

If "Yes", have the water bodies been identified? Yes No

Will there be ground disturbance within 100 feet of the water bodies Yes No If "Yes", please describe :

31 Does this activity encroach on or impact any tax ditch, public ditch, or private ditch (ditch that directs water off-site)?
 Yes No

If yes, please list name:

32 List the proposed method(s) of stormwater management for the site: **A combination of biofiltration swales & filter strips**

Define the anticipated outlet location(s) for stormwater generated by the site (for example, perennial stream, tax ditch, roadside swale, storm drain system, infiltration, etc): **Infiltration and/or un-named ephemeral stream.**

Will development of the proposed site create or worsen flooding upstream or downstream of the site? Yes No

33 Is open space proposed? Yes No If "Yes," how much? **131.01 Acres** Square Feet

Open space proposed (not including stormwater management ponds and waste water disposal areas) **131.01 acres/Sq ft**

What is the intended use of the open space (for example, active recreation, passive recreation, stormwater management, wildlife habitat, historical or archeological protection)? **A combination of agriculture and forest preservation**

Where is the open space located? **Various places on the site - see Preliminary Site Plan**

Are you considering dedicating any land for community use (e g , police, fire, school)? Yes No

34 Does it border existing natural habitat or preserved (for example, an agricultural preservation district or protected State Resource Area) land? Yes No If "Yes," what are they? **Existing forest land and tidal wetlands**

35 Is any developer funding for infrastructure improvement anticipated? Yes No If "Yes," what are they? **Extensions of wastewater collection and treatment system by TESI**

36 Are any environmental mitigation measures included or anticipated with this project? Yes No

Acres on-site that will be permanently protected

Acres on-site that will be restored

Acres of required wetland mitigation

Stormwater, erosion and sediment control, and construction best management practices (BMPs) that will be employed **Already answered above**

Buffers from wetlands, streams, lakes, and other natural water bodies **Yes, 100' minimum**

37 Has any consideration been given to nuisance species (for example, mosquitoes or Canada geese)? Yes No

38 Will this project generate additional traffic? Yes No

How many vehicle trips will this project generate on an average weekday? A trip is a vehicle entering or exiting. If traffic is seasonal, assume the peak season. **Minimal increase in trips due to employee operations.**

What percentage of those trips will be trucks, excluding vans and pick-up trucks? **Unknown at this time**

39 If the project will connect to public roads, please specify the number and location of those connections. **Please describe those roads in terms of number of lanes, width (in feet) of the lanes and any shoulders. There are four entrances, one per parcel. Two are on to Rt. 24, one onto Jolyns Way and one on to Camp Arrowhead Road. Two private drives off Rt. 24 are 20' wide with two lanes and the other two private drives are service lanes and are 10' wide.**

40 Will the street rights of way be public, private, or town? **No rights of way proposed for private drives.**

41 Is any of the project's road frontage subject to the Corridor Capacity Preservation Program? Yes No

42 Please list any locations where this project physically could be connected to existing or future development on adjacent lands and indicate your willingness to discuss making these connections. **Not Applicable**

43 Are there existing or proposed sidewalks? Yes No; bike paths Yes No

Is there an opportunity to connect to a larger bike/pedestrian network? Yes No

44 Is this site in the vicinity of any known historic/cultural resources or sites? Yes No

Has this site been evaluated for historic and/or cultural resources? Yes No

Will this project affect, physically or visually, any historic or cultural resources? Yes No
If "Yes," please indicate what will be affected (Check all that apply)

- Buildings/Structures (house, barn, bridge, etc)
- Sites (archaeological)
- Cemetery

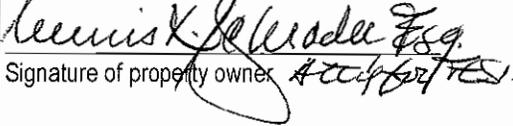
Would you be open to a site evaluation by the State Historic Preservation Office? Yes No

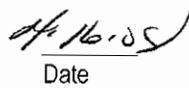
42 Are any federal permits, licensing, or funding anticipated? Yes No

43 Will this project generate any solid waste or require any special permits within State agencies to the best of your knowledge?
 Yes No If yes, please List them: **Biosolids from wastewater treatment will be removed to the landfill.**

45 Please make note of the time-line for this project: **June of 2010 for beginning of construction. Completion is based on future phasing.**

I hereby certify that the information on this application is complete, true and correct, to the best of my knowledge


Signature of property owner


Date

Signature of Person completing form
(If different than property owner)

Date

Signed application must be received before application is scheduled for PLUS review.

This form should be returned to the Office of State Planning **electronically** at Dorothy.morris@state.de.us **along with an electronic copy of any site plans and development plans for this site** Site Plans, drawings, and location maps should be submitted as image files (JPEG, GIF, TIF, etc) or as PDF files. GIS data sets and CAD drawings may also be submitted If electronic copy of the plan is not available, contact Dorothy at (302) 739-3090 for further instructions A signed copy should be forwarded to the Office of State Planning, 122 William Penn Street, Suite 302, Haslet Building, Third Floor, Dover, DE 19901 Thank you for this input Your request will be researched thoroughly **Please be sure to note the contact person** so we may schedule your request in a timely manner.

Wandendale

Regional Water Recharge Facility

April 16, 2008

Executive Summary

Location

The Proposed Wandendale Regional Water Recharge Facility is located on both sides of Rt. 24 just south of Love Creek with the bulk of the site on the east side of Rt. 24 and abutting Robinsonville Road.

Purpose

The purpose of the proposed Facility is the collection, treatment and land-based recharge of treated sewerage effluent from existing neighborhood homes as well as proposed neighborhoods outside of any existing or proposed Sussex County Sanitary Sewer District or Engineering Department Planning Area. The extension of central wastewater systems in this area to serve failing on-site systems and new development will protect the Inland Bays from excessive amounts of nutrients.

Sussex County Zoning

The proposed facility is currently zoned AR-1, Agricultural Residential District with no change of zone proposed. A Conditional Use permit is required pursuant to Section 115-22 of the Zoning Ordinance for "Public Utilities...treatment plants, pumping or regulator stations...etc".

Sussex County Comprehensive Plan Considerations

The proposed Facility is located within the Environmentally Sensitive Developing Area as defined by the Sussex County Comprehensive Plan dated January 1, 2003, currently in effect and is consistent with the Plan as explained by the following excerpts.

- ***“Environmentally Sensitive Developing Area can be defined as a Developing District with special environmental design and protection requirement.” (emphasis added)***
The proposed Facility will serve both existing and future neighborhoods in the area and has been designed in a fashion that is consistent with or surpasses all environmental design and protection regulations.
- ***“Public investment is required in these areas to address ground water pollution from failing septic systems and eutrophication of the Inland Bays from surface water runoff and point source discharges of wastewater.”***
Tidewater Environmental Services, Inc. is a bonified, state regulated water and wastewater utility company licensed to own and operate those public utilities in Delaware and other states. It is a well funded operation owned by Middlesex Utilities, a large publicly traded utility company.

- ***“...DNREC adopted...regulations...for...Total Maximum Daily Loads... These regulations propose significant reductions of nitrogen and phosphorous for the tributaries to the Inland Bays...”***

The proposed Facility has been designed in accordance with the On-site Wastewater Treatment & Disposal System Performance Standards for Nitrogen & Phosphorous in DNREC’s proposed regulations in the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assowoman Bay dated April, 2007.

- **“Extension of the central wastewater systems in this area to serve failing on-site systems and new development will protect the Inland Bays from excessive amounts of nutrients.”**

This point describes the very purpose of the proposed facility in the Sussex County’s own words.

Land Use

The following table describes the proposed uses of land on the site:

Total Site	320.21 ac	
Agricultural Spray Area	97.59 ac	(31%)
Forested Spray Area	55.77 ac	(17%)
Rapid Infiltration Basins	20.23 ac	(6%)
Irrigation Storage Lagoons	12.02 ac	(4%)
Buildings & Facilities	.48 ac	(.2%)
Roadway, Driveway, Parking	3.11 ac	(1%)
Woodland, Wetland, Ag Land Preservation	131.01 ac	(40.8%)

Soils & Hydrogeology

A Preliminary Soils Reconnaissance (PSR) report was completed for parcels 130, 50, and 48 in December 2006. Additional investigation was performed on Parcel 127 subsequent to the report.

Soil borings were completed in the PSR in the 0-60 inch depth zone and permeability rates were estimated based on hand textures and/or structure and consistence of the least permeable soil evident. These permeability rates are identified in "Design Area" descriptions #A, #B and #C in the report.

A Preliminary Hydrogeologic Evaluation (PHE) report was completed in February 2008 for parcels 50, 127, and 130. Parcel 48 is currently being studied.

A number of tests have been performed including double ring infiltrometer testing which has been completed in a 75' grid pattern in the areas of the potential RIB areas A and B. In addition, the soils scientist has completed field visits with a representative of DNREC for these RIB areas. Additional soil borings and test pits are currently being conducted in these RIB areas

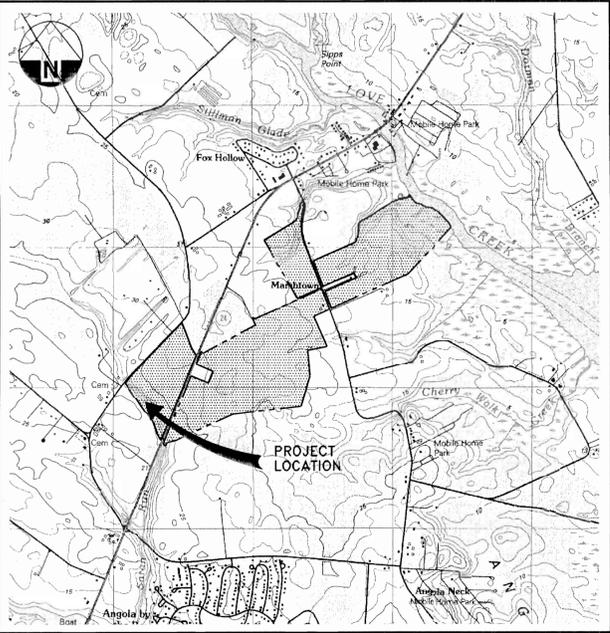
Wet season monitoring is ongoing on parcels 50, 127, and 130 for the 2007-2008 wet season which is December 1, 2007 through May 15, 2008. Wet season monitoring for Parcel 48 will be completed in 2008-2009.

A mounding analysis has been completed.

Other Facts

The following is pertinent general information concerning the proposed Facility:

- State & Federal Jurisdictional Wetlands – No disturbance proposed, no permits required.
- 100 Year Flood Plain – No fill or disturbance proposed.
- Buffers – 50’ minimum buffer maintained around all spray irrigation areas...sometimes 250’ and larger.
- Design Standards – Facilities and infrastructure designed in compliance with Sussex County specifications and Recommended Standards for Wastewater Facilities.
- Water Supply – Available to the site
- The proposed Facility has been designed in accordance with the On-site Wastewater Treatment & Disposal System Performance Standards for Nitrogen & Phosphorous in DNREC’s proposed regulations in the Pollution Control Strategy for the Indian River, Indian River Bay, Rehoboth Bay and Little Assowoman Bay dated April, 2007.



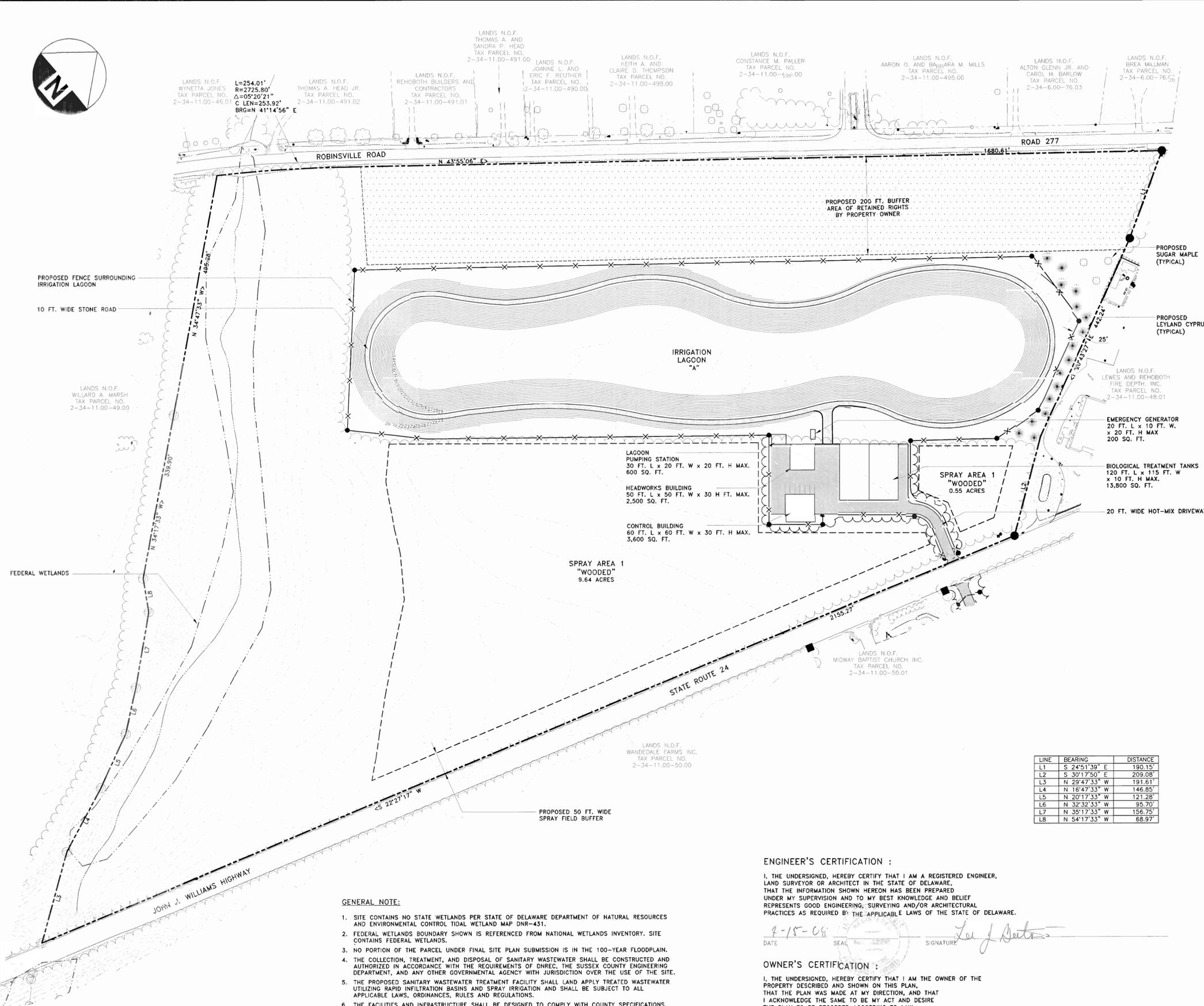
LOCATION MAP SCALE: 1" = 700'±

SITE DATA:
 ZONING CLASSIFICATION - AR-1 AGRICULTURAL RESIDENTIAL DISTRICT
 DATUM: STATE PLANE COORDINATE SYSTEM NAD 83
 SUSSEX COUNTY PROPERTY NUMBER: 2-34-11.00-48.00
 PROPOSED USE: SANITARY WASTEWATER TREATMENT AND RECHARGE
 WATER SUPPLY:
 ON SITE AND SUBJECT TO THE APPROVAL OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND DELAWARE DIVISION OF PUBLIC HEALTH.
 WASTEWATER DISPOSAL:
 ON SITE AND SUBJECT TO THE APPROVAL OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL.
 GROSS ACREAGE = 48.53± ACRES
 IRRIGATION LAAGOON ACREAGE = 7.22 ACRES
 ROAD/PARKING ACREAGE = 0.56 ACRES
 BUILDING ACREAGE = 0.15 ACRES
 TREATMENT TANK ACREAGE = 0.32 ACRES

BUILDING SETBACK REQUIREMENTS: AR-1
 MINIMUM DEPTH OF FRONT YARD (FT.) = 40 (30)*
 MINIMUM WIDTH OF SIDE YARD (FT.) = 15
 DEPTH OF REAR YARD (FT.) = 20
 BUILDING HEIGHT (FT.) = 42
 * ANY LOT FRONTING ON A SUBDIVISION STREET AND NOT FRONTING ON A NUMBERED ROAD SHOWN ON THE 1992 GENERAL HIGHWAY MAP FOR SUSSEX COUNTY (REVISED NOVEMBER 16, 2000) SHALL HAVE A SETBACK OF NOT LESS THAN 30 FEET.

LEGEND

--- RIGHT-OF-WAY LINE / PROPERTY LINE	○ EXISTING MANHOLE
- - - DITCH / SWALE	⊗ POWER POLE
--- EXISTING CONTOUR	⊕ ELECTRIC TRANSFORMER
--- FEDERAL WETLANDS	☎ TELEPHONE BOX
--- STATE WETLANDS	⚡ LIGHT POLE
--- 100-YEAR FLOOD ZONE	Ⓜ ROAD SIGN
--- EXISTING WOODS LINE	✉ MAIL BOX
--- CLEARING AND GRUBBING LINE	⊗ DRILL HOLE FOUND
--- FENCE LINE	⊗ CREOSOTE POST FOUND
--- EXISTING STRUCTURES	■ CONCRETE: MONUMENT FOUND
--- NEW STRUCTURES	● IRON PIPE FOUND
--- SPRAY AREA BOUNDARY	⊗ PK NAIL IN CEDAR POST FOUND
--- RETAINED RIGHTS	○ FIELD STONE FOUND
	⊗ CAPPED REBAR SET



- GENERAL NOTE:**
- SITE CONTAINS NO STATE WETLANDS PER STATE OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL TIDAL WETLAND MAP DNR-431.
 - FEDERAL WETLANDS BOUNDARY SHOWN IS REFERENCED FROM NATIONAL WETLANDS INVENTORY. SITE CONTAINS FEDERAL WETLANDS.
 - NO PORTION OF THE PARCEL UNDER FINAL SITE PLAN SUBMISSION IS IN THE 100-YEAR FLOODPLAIN.
 - THE COLLECTION, TREATMENT, AND DISPOSAL OF SANITARY WASTEWATER SHALL BE CONSTRUCTED AND AUTHORIZED IN ACCORDANCE WITH THE REQUIREMENTS OF DNREC, THE SUSSEX COUNTY ENGINEERING DEPARTMENT, AND ANY OTHER GOVERNMENTAL AGENCY WITH JURISDICTION OVER THE USE OF THE SITE.
 - THE PROPOSED SANITARY WASTEWATER TREATMENT FACILITY SHALL LAND APPLY TREATED WASTEWATER UTILIZING RAPID INFILTRATION BASINS AND SPRAY IRRIGATION AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS.
 - THE FACILITIES AND INFRASTRUCTURE SHALL BE DESIGNED TO COMPLY WITH COUNTY SPECIFICATIONS.
 - THE FINAL SITE PLAN SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE SUSSEX COUNTY PLANNING AND ZONING COMMISSION.
 - THIS PROJECT MEETS THE ON-SITE WASTEWATER TREATMENT AND DISPOSAL SYSTEM PERFORMANCE STANDARDS FOR NITROGEN AND PHOSPHOROUS IN DNREC'S PROPOSED REGULATIONS OF THE POLLUTION CONTROL STRATEGY FOR THE INDIAN RIVER, INDIAN RIVER BAY, REHOBOTH BAY AND LITTLE ASSAWOMAN BAY DATED APRIL, 2007.
 - THE PROPOSED FACILITY ENTRANCE ON ROUTE 24 SHALL BE SUBJECT TO REVIEW AND APPROVAL OF THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION.

LINE	BEARING	DISTANCE
L1	S 24°51'39" E	190.15'
L2	S 30°17'50" E	209.08'
L3	N 29°47'33" W	191.61'
L4	N 16°47'33" W	146.85'
L5	N 20°17'33" W	121.28'
L6	N 32°32'33" W	95.70'
L7	N 35°17'33" W	156.75'
L8	N 54°17'33" W	68.97'

ENGINEER'S CERTIFICATION :
 I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER, LAND SURVEYOR OR ARCHITECT IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING, SURVEYING AND/OR ARCHITECTURAL PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

DATE: 4-15-08
 SIGNATURE: [Signature]

OWNER'S CERTIFICATION :
 I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN TO BE RECORDED ACCORDING TO LAW.

PROPERTY OWNER: WANDENDALE FARMS INC. 821 SAVANNAH ROAD LEWES, DE 19958
 UTILITY OWNER: TIDEWATER ENVIRONMENTAL SERVICES, INC. 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

CABE ASSOCIATES, INC.
 CONSULTING ENGINEERS
 DOVER, DELAWARE

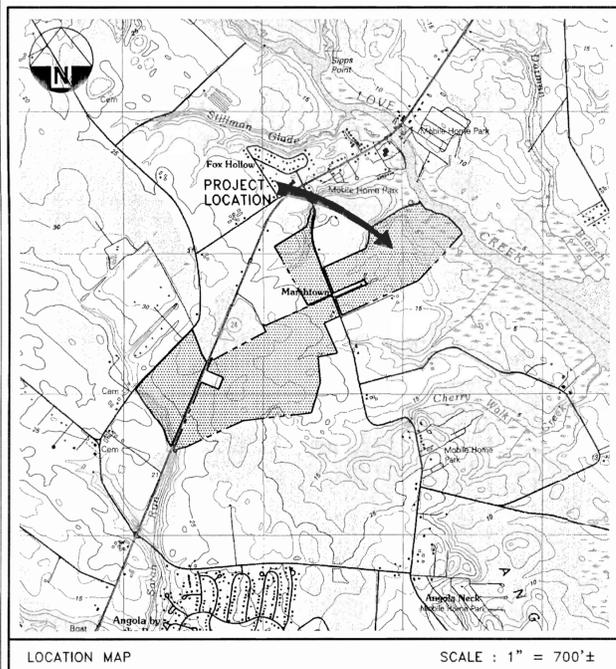
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 CHECKED BY: LIB
 DESIGNED BY: KLD
 FILE NO.: 319F314C
 DATE: 4-15-08
 PROJ.: 319-134
 SHEET 1 OF 4

ANGOLA REGIONAL WATER RECHARGE FACILITY
 SUSSEX COUNTY, DELAWARE
 TIDEWATER ENVIRONMENTAL SERVICES, INC.

PRELIMINARY SITE PLAN
 PARCEL NO. 2-34-11.00-48.00
 CONDITIONAL USE

SHEET NO. 1

FILE NO.: 319F314C



LOCATION MAP SCALE: 1" = 700'±

SITE DATA:

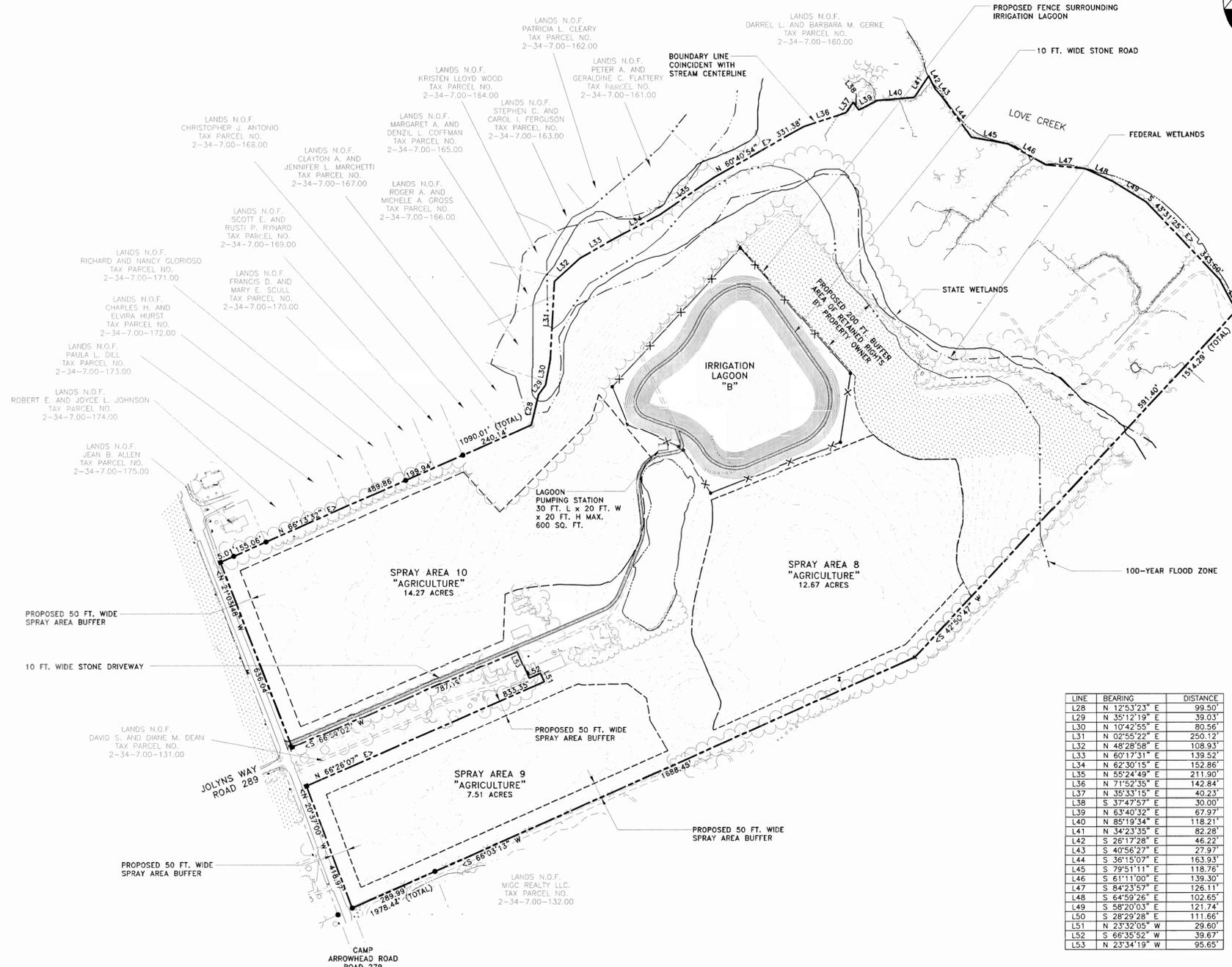
ZONING CLASSIFICATION - AR-1 AGRICULTURAL RESIDENTIAL DISTRICT
 DATUM: STATE PLANE COORDINATE SYSTEM NAD 83
 SUSSEX COUNTY PROPERTY NUMBER: 2-34-7.00-130.00
 PROPOSED USE: SANITARY WASTEWATER TREATMENT
 WATER SUPPLY: ON SITE AND SUBJECT TO THE APPROVAL OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND DELAWARE DIVISION OF PUBLIC HEALTH.
 WASTEWATER DISPOSAL: ON SITE AND SUBJECT TO THE APPROVAL OF DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL.
 GROSS ACREAGE = 94.77± ACRES
 IRRIGATION LAGOON ACREAGE = 4.80 ACRES
 BUILDING ACREAGE = .01 ACRES
 DRIVEWAY/ROAD ACREAGE = 0.83 ACRES

BUILDING SETBACK REQUIREMENTS: AR-1

MINIMUM DEPTH OF FRONT YARD (FT.) = 40 (30)*
 MINIMUM WIDTH OF SIDE YARD (FT.) = 15
 DEPTH OF REAR YARD (FT.) = 20
 BUILDING HEIGHT (FT.) = 42
 * ANY LOT FRONTING ON A SUBDIVISION STREET AND NOT FRONTING ON A NUMBERED ROAD SHOWN ON THE 1992 GENERAL HIGHWAY MAP FOR SUSSEX COUNTY (REVISED NOVEMBER 16, 2000) SHALL HAVE A SETBACK OF NOT LESS THAN 30 FEET.

LEGEND

--- RIGHT-OF-WAY LINE / PROPERTY LINE	⊙ EXISTING MANHOLE
- - - DITCH / SWALE	⊕ POWER POLE
--- EXISTING CONTOUR	⊞ ELECTRIC TRANSFORMER
--- FEDERAL WETLANDS	☑ TELEPHONE BOX
--- STATE WETLANDS	⊕ LIGHT POLE
--- 100-YEAR FLOOD ZONE	⊕ ROAD SIGN
--- EXISTING WOODS LINE	⊕ MAIL BOX
--- CLEARING AND GRUBBING LINE	⊕ DRILL HOLE FOUND
--- FENCE LINE	⊕ CREOSOTE POST FOUND
--- EXISTING STRUCTURES	⊕ CONCRETE MONUMENT FOUND
--- NEW STRUCTURES	⊕ IRON PIPE FOUND
--- SPRAY AREA BOUNDARY	⊕ PK NAIL IN CEDAR POST FOUND
--- RETAINED RIGHTS	⊕ FIELD STONE FOUND
	⊕ CAPPED REBAR SET



LINE	BEARING	DISTANCE
L28	N 12°33'23" E	99.50'
L29	N 35°12'19" E	39.03'
L30	N 10°42'55" E	80.56'
L31	N 02°55'22" E	250.12'
L32	N 48°28'58" E	108.93'
L33	N 60°17'31" E	139.52'
L34	N 62°30'15" E	152.86'
L35	N 55°24'49" E	211.90'
L36	N 71°52'35" E	142.84'
L37	N 35°33'15" E	40.23'
L38	S 37°47'57" E	30.00'
L39	N 63°40'32" E	67.97'
L40	N 85°19'34" E	118.21'
L41	N 34°23'35" E	82.28'
L42	S 26°17'28" E	46.22'
L43	S 40°56'27" E	27.97'
L44	S 36°15'07" E	163.93'
L45	S 79°51'11" E	118.76'
L46	S 61°11'00" E	139.30'
L47	S 84°23'57" E	126.11'
L48	S 64°59'26" E	102.65'
L49	S 58°20'03" E	121.74'
L50	S 28°29'28" E	111.66'
L51	N 23°32'05" W	29.60'
L52	S 66°35'52" W	39.67'
L53	N 23°34'19" W	95.65'

GENERAL NOTE:

- STATE OF DELAWARE WETLANDS BOUNDARY SHOWN IS REFERENCED FROM DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL TIDAL WETLAND MAP DNR-431. SITE CONTAINS STATE WETLANDS.
- FEDERAL WETLANDS BOUNDARY SHOWN IS REFERENCED FROM NATIONAL WETLANDS INVENTORY. SITE CONTAINS FEDERAL WETLANDS.
- A PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOOD PLAIN ACCORDING TO FEMA MAP# 100050335 J DATED JANUARY 6, 2005. THE 100-YEAR FLOOD ELEVATION IS DELINEATED ON THIS PLAN.
- THE COLLECTION, TREATMENT, AND DISPOSAL OF SANITARY WASTEWATER SHALL BE CONSTRUCTED AND AUTHORIZED IN ACCORDANCE WITH THE REQUIREMENTS OF DNREC, THE SUSSEX COUNTY ENGINEERING DEPARTMENT, AND ANY OTHER GOVERNMENTAL AGENCY WITH JURISDICTION OVER THE USE OF THE SITE.
- THE PROPOSED SANITARY WASTEWATER TREATMENT FACILITY SHALL LAND APPLY TREATED WASTEWATER UTILIZING RAPID INFILTRATION BASINS AND SPRAY IRRIGATION AND SHALL BE SUBJECT TO ALL APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS.
- THE FACILITIES AND INFRASTRUCTURE SHALL BE DESIGNED TO COMPLY WITH COUNTY SPECIFICATIONS.
- THE FINAL SITE PLAN SHALL BE SUBJECT TO THE REVIEW AND APPROVAL OF THE SUSSEX COUNTY PLANNING AND ZONING COMMISSION.
- THIS PROJECT MEETS THE ON-SITE WASTEWATER TREATMENT AND DISPOSAL SYSTEM PERFORMANCE STANDARDS FOR NITROGEN AND PHOSPHOROUS IN DNREC'S PROPOSED REGULATIONS OF THE POLLUTION CONTROL STRATEGY FOR THE INDIAN RIVER, INDIAN RIVER BAY, REHOBOTH BAY AND LITTLE ASSAWOMAN BAY DATED APRIL, 2007.
- THE PROPOSED FACILITY ENTRANCE ON CAMP ARROWHEAD ROAD SHALL BE SUBJECT TO REVIEW AND APPROVAL OF THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION.

ENGINEER'S CERTIFICATION :

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER, LAND SURVEYOR OR ARCHITECT IN THE STATE OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING, SURVEYING AND/OR ARCHITECTURAL PRACTICES AS REQUIRED BY THE APPLICABLE LAWS OF THE STATE OF DELAWARE.

DATE: 4-15-08 SEAL: [Signature] SIGNATURE: [Signature]

OWNER'S CERTIFICATION :

I, THE UNDERSIGNED, HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN TO BE RECORDED ACCORDING TO LAW.

PROPERTY OWNER: WANDENDALE FARMS INC. 821 SAVANNAH ROAD LEWES, DE 19958

UTILITY OWNER: TIDWATER ENVIRONMENTAL SERVICES, INC. 1100 SOUTH LITTLE CREEK ROAD DOVER, DELAWARE 19901

CABE ASSOCIATES, INC.
 CONSULTING ENGINEERS
 DOVER, DELAWARE

ANGOLA REGIONAL WASTEWATER SYSTEM
 SUSSEX COUNTY, DELAWARE
 TIDWATER ENVIRONMENTAL SERVICES, INC.

SHEET NO. 4

FILE NO.: 319F317C

DATE	DATE	DATE	DATE
BY	BY	BY	BY
REVISION	REVISION	REVISION	REVISION

SCALE:	1" = 200'
CHECKED BY:	LUB
FILE NO.:	319F317C
PROJ. NO.:	319-134
DATE:	4-15-08
SHEET	4 OF 4

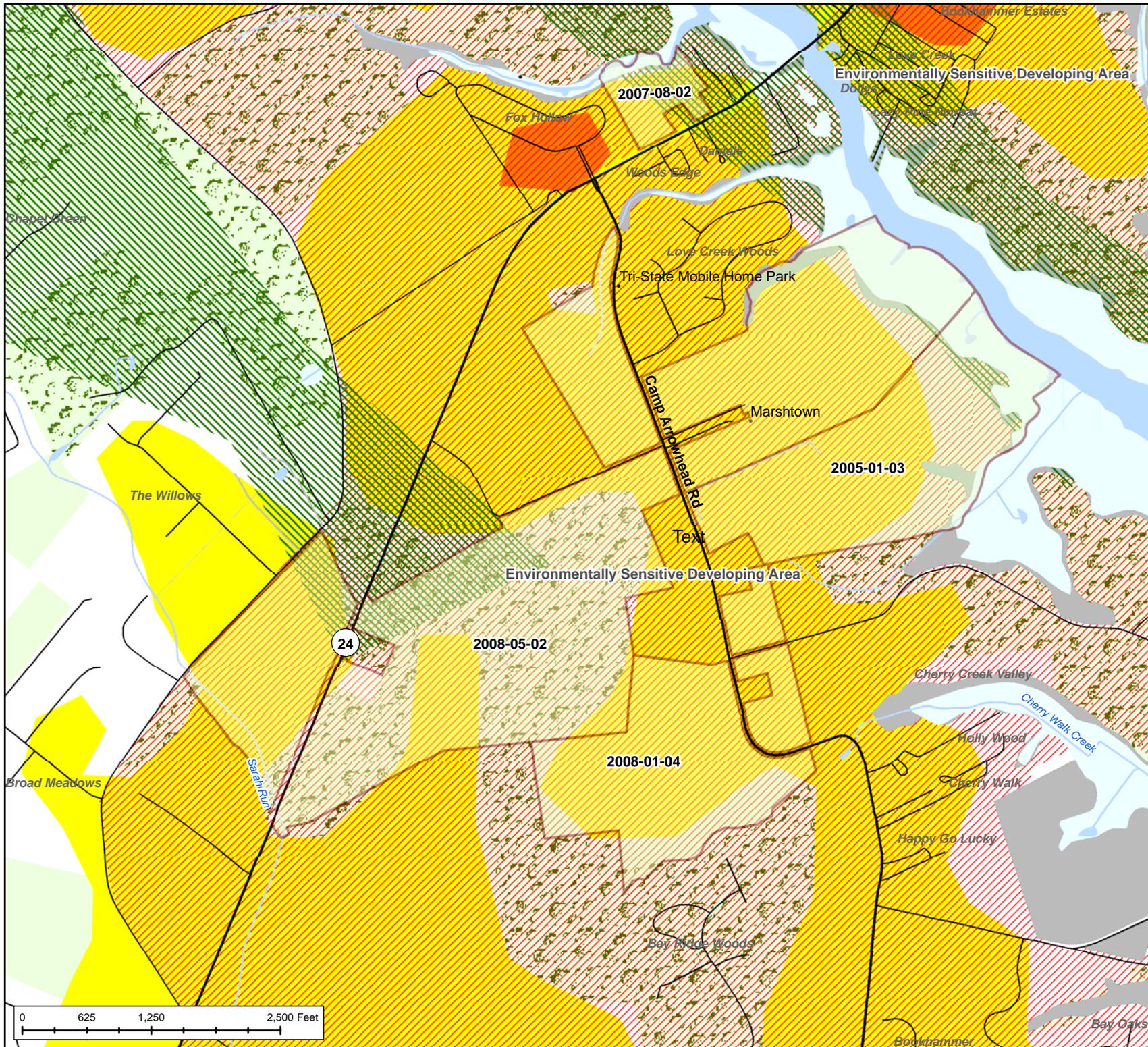


PRELIMINARY SITE PLAN
 PARCEL NO. 2-34-7.00-130.00
 CONDITIONAL USE

Preliminary Land Use Service (PLUS)

Wandendale Regional Water Recharge Facility

2008-05-02

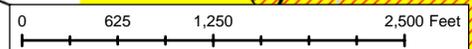


- Project Areas
- Municipalities
- Purchased Dev. Rights
- Ag District
- Public Owned/Protected
- Forestry Easements
- Delaware State Forests
- Working Forests
- Highest Value Agriculture
- State Strategies**
- Level 1
- Level 2
- Level 3
- Level 4
- Nat. Res. & Rec. Priorities
- Out of Play
- Area of Dispute
- Area of Study
- Env. Sens. Dev. (Sussex)

1:15,000



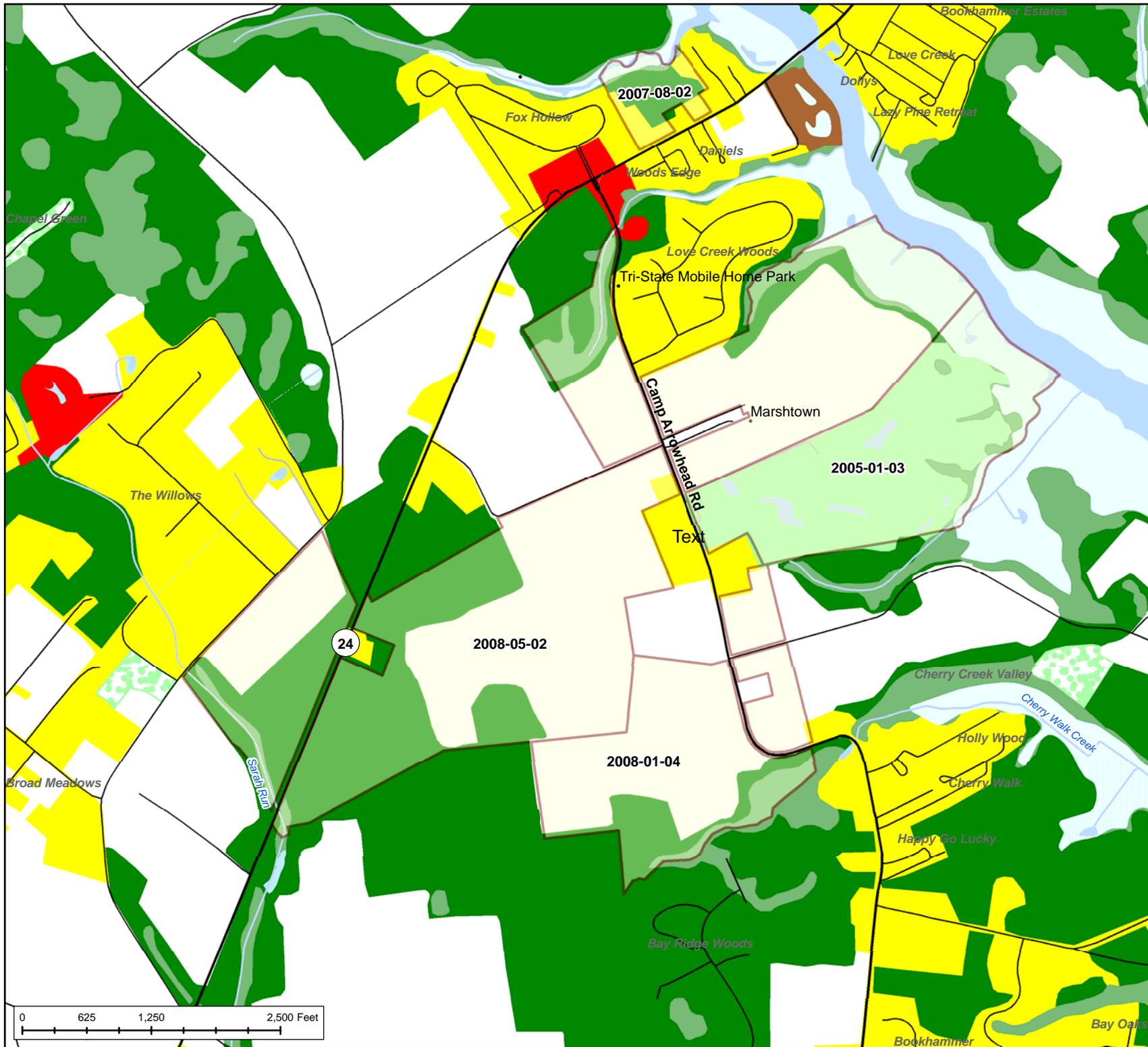
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stateplanning.delaware.gov



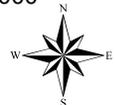
Preliminary Land Use Service (PLUS)

Wandendale Regional Water Recharge Facility 2008-05-02

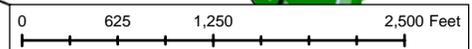
-  Project Areas
-  Municipalities
- 2002 Land Use/Land Cover**
-  Residential
-  Commercial/Urban
-  Industrial
-  Trans./Comm./Utilities
-  Institutional/Governmental
-  Recreational
-  Agriculture
-  Scrub/Clear Cut
-  Forest
-  Water
-  Wetlands/Wet Woods
-  Beach/Sandy Area
-  Extraction/Transition



1:15,000



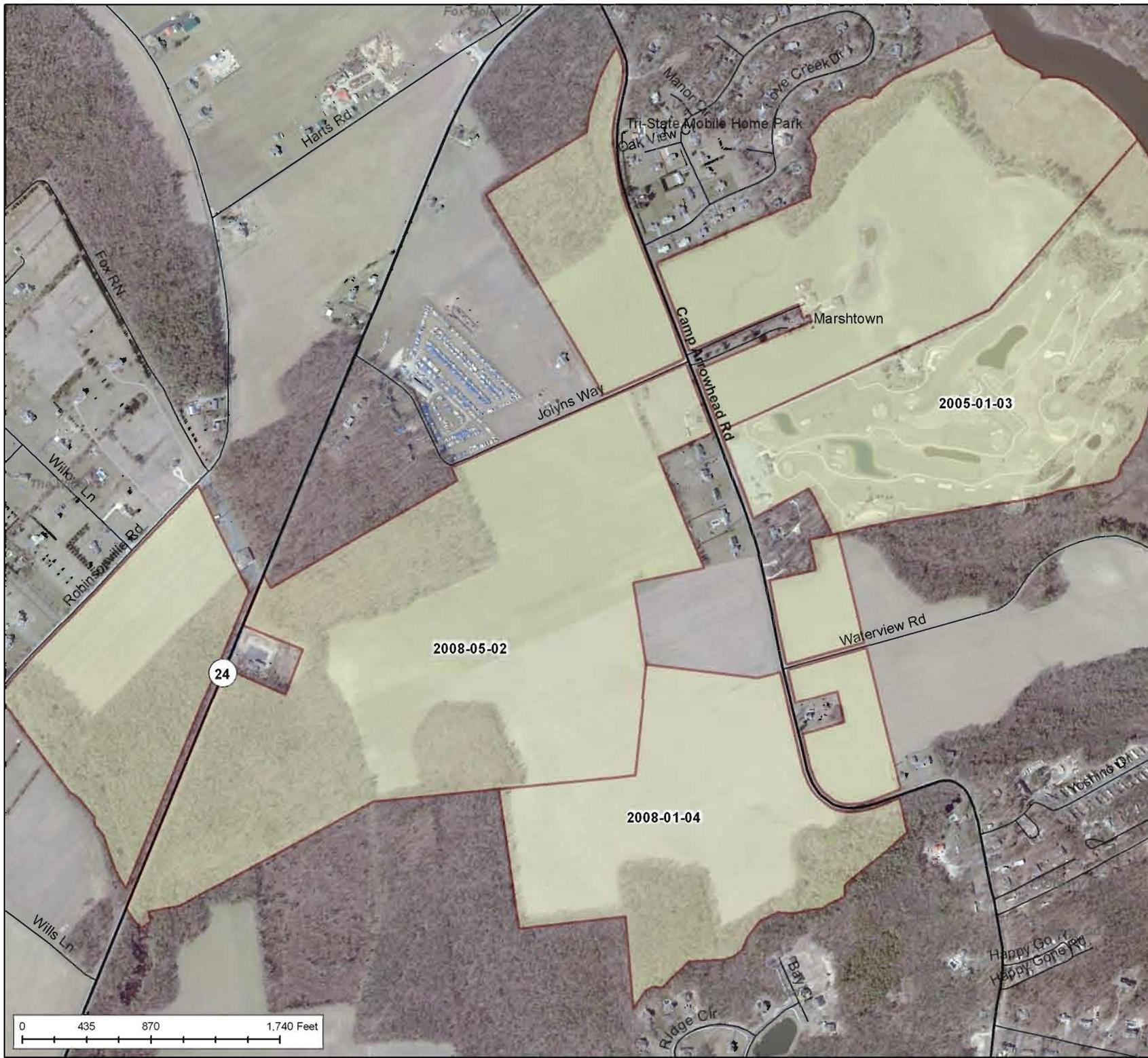
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Preliminary Land Use Service (PLUS)

Wandendale Regional
Water Recharge Facility
2008-05-02

-  Project Areas
-  Municipalities



2007 Aerial Photography:
Provided by State of Delaware

1:10,500



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