



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
STATE PLANNING COORDINATION

June 13, 2008

Mr. Dennis Schrader, Esquire  
Wilson, Halbrook & Bayard  
P.O. Box 690  
Georgetown, De 19947

RE: PLUS 2008-05-02; Wandendale Regional Water Recharge Facility

Dear Mr. Schrader:

Thank you for meeting with State agency planners on May 28, 2008 to discuss the proposed plans for the Wandendale Regional Water Recharge Facility project to be located on both sides of Route 24 just south of Love Creek. You noted on your application that the bulk of the site is on the east side of Route 24 abutting Robinsonville Road.

According to the information received, you are seeking site plan approval though Sussex County for a facility for the collection, treatment and land-based recharge of treated sewerage effluent from existing homes as well as proposed neighborhoods outside of any existing or proposed Sussex County Sanitary Sewer District or Engineering Department Planning Area.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

This office has received the following comments from State agencies:

**Office of State Planning Coordination – Contact: Bryan Hall 739-3090**

The State does not support this facility as it will be in conflict with the Strategies for State Policies and Spending and would increase the pressure to build in the Level 4 areas of the County. While we support eliminating existing septic tanks, this facility is inconsistent with the current Sussex County comprehensive plan and as designed it will serve new development within the Low Density Area as defined by the County. Finally at the PLUS meeting the applicant could not produce a finalized document which addresses our concerns or those raised by Sussex County and until such time that a formal agreement has been reached with Sussex County and efforts have been made to address the environmental and land use impacts, this office cannot support this application.

**The comments in this letter are technical, and are not intended to suggest that the State supports this development proposal. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to construct the development you indicate or any subdivision thereof on these lands.**

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

- 1) The proposed facility is being sized to serve new development outside the Sewer District and the presently identified Level 1, 2 and 3 Areas. For this reason, it deserves further discussion.
- 2) The proposed facility has frontage on Delaware Route 24, Robinsonville Road (Sussex Road 277), Jolyn's Way (Sussex Road 289) and Camp Arrowhead Road (Sussex Road 279). Route 24 is classified as a major collector road and the others are classified as local roads. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 40 feet from the centerline on local roads and 30 feet from the centerline on local roads. Therefore DelDOT will require right-of-way dedication along the frontage to provide any additional width needed from this project.

DelDOT has projects under development to improve both Route 24 and Camp Arrowhead Road that may require additional rights-of-way. They ask that the applicant contact the managers of those projects, respectively Mr. Mark Harbeson and Mr. Jeffrey Van Horn, to determine whether any additional rights-of-way will be needed from the proposed facility and to reserve them as necessary. Mr. Harbeson may be reached at (302) 760-2346. Mr. Van Horn may be reached at (302) 760-2748.

- 3) Entrance permits will be needed for the proposed access drives on Route 24, Jolyn's Way (Sussex Road 289) and Camp Arrowhead Road (Sussex Road 279). Because these will be relatively low-volume driveways once the facility is built,

DelDOT anticipates that the entrance permitting can be handled entirely through our South District Office. The applicant should contact our South District Permit Supervisor, Mr. Gemez Norwood in this regard. Mr. Norwood may be reached at (302)853-1342.

**The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071**

### **Green Infrastructure**

Portions or all of the lands associated with this proposal are within the Livable Delaware Green Infrastructure area established under Governor Minner's Executive Order #61 that represents a network of ecologically important natural resource lands of special State conservation interest.

Green infrastructure is defined as Delaware's natural life support system of parks and preserves, woodlands and wildlife areas, wetlands and waterways, productive agricultural and forest land, greenways, cultural, historic and recreational sites and other natural areas all with conservation value. Preserving Delaware's Green Infrastructure network will support and enhance biodiversity and functional ecosystems, protect native plant and animal species, improve air and water quality, prevent flooding, lessen the disruption to natural landscapes, provide opportunities for profitable farming and forestry enterprises, limit invasive species, and foster ecotourism.

Voluntary stewardship by private landowners is essential to green infrastructure conservation in Delaware, since approximately 80 percent of the State's land base is in private hands. It is in that spirit of stewardship that the Department appeals to the landowner and development team to protect sensitive resources through an appropriate site design.

### **Water Quality**

- **The Rapid Infiltration Basin (RIB) proposed on the northern portion on the combined parcel area should not be sited adjacent to the headwater tributary connected to Love Creek, nor should forest cover be removed to accommodate it. Doing so will increase the volume of water discharged to the creek while potentially decreasing water quality. DNREC strongly recommends that the RIB system be relocated to a more suitable location and the forest cover retained.**
- The applicant should maintain a minimum 100-foot buffer width (planted with native vegetation) from all irrigation lagoons, RIBs, and all building structures to all wetlands and water bodies. As mentioned previously, the buffering width from the proposed RIBs system is considerably narrower than recommended. The buffering width proposed from the wetlands, exclusive of the wetlands adjacent to the RIBs system, was unclear and should be clarified.

- Since irrigation lagoons are lined and impervious, they should be included in the finalized calculation for surface imperviousness.

### **Water Supply**

The project information sheets state water will be provided to the project by Tidewater Utilities via a central public water system. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 83-W-15.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

### **Water Resource Protection Areas**

The Ground-Water Protection Branch (GPB) has determined that the project falls within a wellhead protection area for Tidewater Utilities (TWU) Love Woods, PWSID 00A0329 (see following map and attached map). Wellhead protection areas are surface and subsurface areas surrounding a public water supply well where the quantity and quality of ground water moving toward these wells may be adversely affected by land use activities.

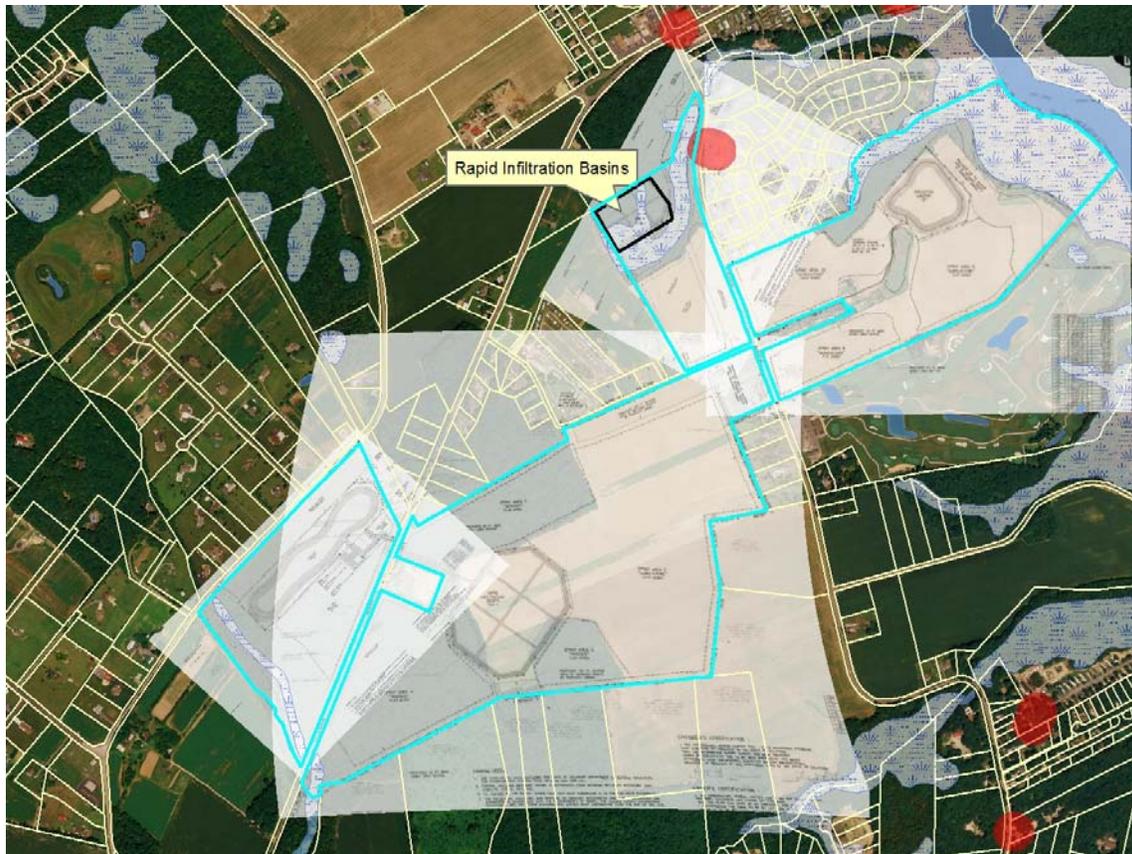
The site plan submitted by the Developer show Rapid Infiltration Basins (RIBs) Area B in the northwest corner of tax map parcel 234-7.00-127.00. According to the Delaware Geological Survey ground water elevation GIS overlays, this RIB system is approximately 360 feet up-gradient of the TWU wells (see map). As cited, this RIB system is a potential source of contamination if there is a failure in the system that may cause the TWU Public Drinking Water System to exceed drinking water standards.

In addition, according to the 2002 Land Use GIS overlay, the RIB system is cited in a wetland. By design, RIB systems infiltrate water into the soil profile at a rapid rate. Wetlands do not allow for the designed purpose.

*Recommendation:*

- 1) Move Rapid Infiltration Basins (RIB) Area B to another location outside the wetland and down or side-gradient of the TWU wells.

**Wandendale Regional Water Recharge Facility (PLUS 2008-05-02)**



**Legend**

-  Wellhead Protection Area
-  Excellent Ground-Water Recharge Potential Area
-  Wetlands



**Sediment and Erosion Control/Stormwater Management**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The

site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

### **Drainage**

- The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of on site water. The Drainage Program requests that the engineer check existing downstream ditches and pipes for function and blockages prior to the construction. Notify downstream landowners of the change in volume of water released on them.

### **Floodplains**

A portion of the parcels on Sheets No. 3 and No. 4 (included with the PLUS Application form) are located in the floodplain. It doesn't appear that there will be any development in the floodplain. It is suggested that adequate measures be taken to allow the 100-year flood event to occur. For example, the Rapid Infiltration Basins (RIBs) should be constructed in a manner that would allow the base flood elevation to infiltrate the site without damaging the infiltration areas and not release wastewater into the flood waters and eventually Love Creek. It is recommended that the applicant check FEMA's Flood Insurance Study for Love Creek and determine an adequate level of protection above the 500-year flood elevation.

### **Rare Species/Site Visit Request**

DNREC program staff have never surveyed the project area; therefore, it is unknown if State-rare or federally listed plants and animals or unique natural communities are present within the project area. In order to provide the applicant with information, the program staff respectfully requests the opportunity to survey the project area. This survey would be conducted at no cost or liability to the landowner/developer. It would allow DNREC to provide more informed comments and add to the State's database. Information gathered would also be used in their effort to map the vegetative communities throughout the State. Please note that our staff has the most experience utilizing rare species survey methods. If the landowner would allow a site visit, please contact Edna Stetzar, Environmental Review Coordinator, at (302) 653-2880, ext. 101.

### **Forested Habitat**

Cumulative forest and wildlife habitat loss throughout the State is of utmost concern to the Division of Fish and Wildlife which is responsible for conserving and managing the State's wildlife (see [www.fw.delaware.gov](http://www.fw.delaware.gov) and the Delaware Code, Title 7). Because of an overall lack of habitat protection, we have to rely on applicants and/or the entity that approves the project (i.e., counties and municipalities) to consider implementing measures that will aide in habitat loss reduction.

#### *Recommendations:*

1. According to the application, 10.4 acres out of 131 acres of trees will be cleared, which will leave most of the forest intact. Maintaining habitat integrity and connections to adjacent forested areas is recommended to minimize impacts to wildlife.
2. If feasible, those features that will require tree clearing should be relocated to a non-forested portion of the site.
3. It is recommended that tree clearing not occur April 1st to July 31st to minimize impacts to birds and other wildlife that utilize forested areas for breeding.

### **Natural Areas**

Parcel 234-7.00-130: This project contains or borders land currently listed on Delaware's Natural Areas Inventory (NAI). Natural Areas contain lands of Statewide significance identified by the Natural Area Advisory Council as the highest quality and most important natural lands remaining in Delaware. Consideration should be given to protecting these resources during design and construction of this project. The developer should investigate dedicating the Natural Area as a Nature Preserve through a conservation easement or donation of land. For more information, please contact the Office of Nature Preserves at 739-9235.

The forested area along the eastern edge of the parcel is on the NAI. The Division of Parks and Recreation greatly appreciates the effort to stay out of the listed natural area.

### **Underground Storage Tanks**

There is one inactive and three active LUST sites located near the proposed project:

Village Mobil Mart (Citgo)  
Facility #: 5-000135  
Project #: S9107133

Shore Stop #25 (Tank Pit)  
Facility #: 5-000709  
Project #: S0409110

Shore Stop #254 (Dispenser)  
Facility #: 5-000709  
Project #: S0409109

King's Citgo, Angola  
Facility #: 5-000709  
Project #: S9110230

No environmental impact is expected from the above inactive/active LUST site(s). However, should any underground storage tanks or petroleum contaminated soil be discovered during construction, the Tank Management Branch must be notified as soon as possible. It is not anticipated that construction specifications would need to be changed due to petroleum contamination. However, should any unanticipated contamination be encountered and PVC pipe is being utilized, it will need to be changed to ductile steel with nitrile rubber gaskets in the contaminated areas.

**State Fire Marshal's Office – Contact: Duane Fox 856-5298**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1500 gpm for 2-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Mercantile)
- Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. **Accessibility**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from the main thoroughfare must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.

- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

c. **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Note indicating if building(s) is/are to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Road Names, even for County Roads

Preliminary meetings with Fire Protection Specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.statefiremarshal.delaware.gov](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Scott Blaier 739-4811**

The Delaware Department of Agriculture does not support this infrastructure project at this time because it has not been coordinated with Sussex County and their future sewer-supported growth areas. The Department is also opposed to providing sewer service to areas currently designated as Investment Level 4 under the *Strategies for State Policies and Spending*.

**Sussex County – Contact: Richard Kautz 855-7878**

The service area is undefined. To the extent the facility is designed to serve new development within the Low Density Area, the request is inconsistent with the existing and proposed Sussex County Comprehensive Plan. Serving already approved projects with their associated treatment facilities and taking existing septic systems off-line would be consistent with the Plan.

The Sussex County Engineer Comments:

The Sussex County Engineering Department is opposed to the proposed wastewater treatment and disposal facility to be located in the County's Angola Neck Sewer Planning

Area, as Sussex County has made significant investments in planning and constructed infrastructure to serve the Angola Sewer Planning Area.

Other objections/concerns arise from: 1-Although the proposed service area for this facility is not clearly defined, it appears that wastewater generated from level 4 areas would be pumped into the Environmentally Sensitive Developing District (ESDD); 2 - The proposal makes reference to replacement of failing onsite systems, but an area of failed systems is not defined nor does TESI have a history of participating in septic elimination programs; 3 - Item 43 of the application states that "biosolids from wastewater treatment will be removed to the landfill." Should this application be considered for approval, that condition should be attached as a requirement; 4 - The Center for the Inland Bays should be contacted for input regarding possible impacts resulting from such a discharge in close proximity to the Inland Bays.

Other comments: Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is required.

A Conditional Use Public Hearing at Sussex County Planning & Zoning may not allow adequate response for the PLUS process. Further, a Conditional Use Public Hearing has been scheduled and advertised for the County Council's meeting.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



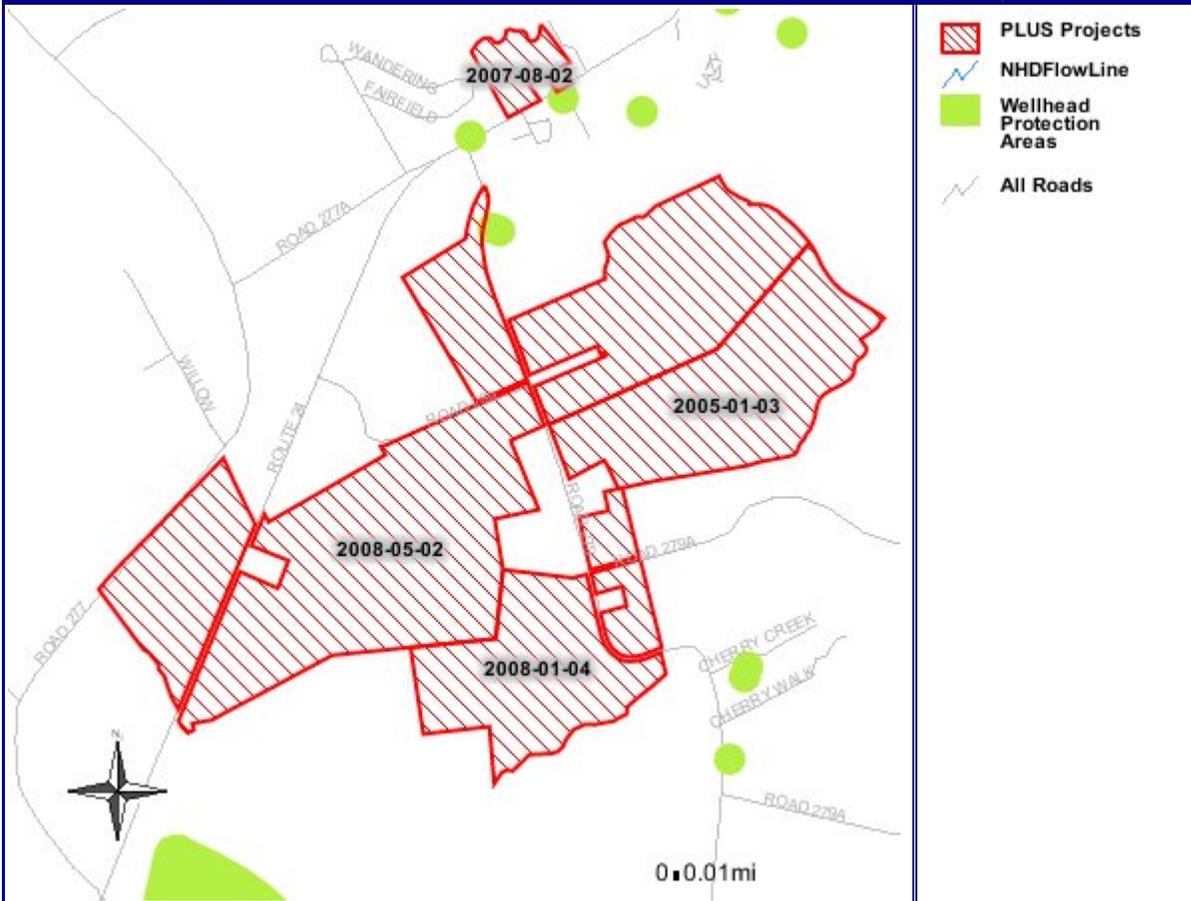
Constance C. Holland, AICP  
Director

CC: Sussex County



# Wandendale Regional Water Recharge Facility

2008-05-02



This map was produced by the Delaware  
Department of Natural Resources and Environmental Control.

