



Bobby Jindal
GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF HEALTH AND HOSPITALS



Alan Levine
SECRETARY

July 1, 2008

Mr. Emmett G. Dammon, Jr., P.E.
1095 Florida Avenue
Slidell, LA 70458

Re: Village Lakes Subdivision Wastewater Pumping Station and Treatment Facility
Extended Aeration Wastewater Treatment Plant Comprised of 1 Aeration Basin with an
Aeration Chamber Volume of Approximately 61,261 Gallons and One 4-hopper Final
Clarifier with a Total Surface Area of Approximately 400 Square Feet and Final Clarifier
Weir Effective Length of 20 Feet to Accept Sewerage Generated **ONLY** from:

➤ **Lots 1-147 Located in Village Lakes Subdivision (Single-family Residences)**

Equalization Basin

Tablet Chlorinator

Chlorine Contact Chamber with an Effective Volume of Approximately 2,693 Gallons

Proposed Discharge Path: Outfall Piping from Chlorine Contact Chamber into 100-foot
Public Drainage Servitude along Draughan Creek

Duplex Wastewater Pumping Station with an Effective Volume of Approximately 282
Gallons with Two (2) 405 Gallons-per-minute Self-priming Suction Lift Pumps, 4-foot
Diameter Wet Well, and Audible and Visual Alarms

Unknown Length of 3-inch Diameter SCH 40 PVC Sewer Force Main

6-Foot Tall Solid Board Fence with Lockable Gate Enclosing Wastewater Pumping Station
and Treatment Facility

Latitude N30.46634'; Longitude W90.98863'

South of and Fronting Magnolia Bridge Road, East of Willow Creek Drive

Central, Louisiana

East Baton Rouge Parish

Dear Mr. Dammon:

Plans and specifications of the above named project have been reviewed. The plans are disapproved pending resolution of the following items which appear to be in conflict with applicable provisions of the Louisiana Administrative Code (LAC), or upon which further information is needed.

1. Based on the proposed wet well dimensions and "pump on" and "pump off" elevations submitted and assuming a design average flow of 40.8 gallons-per-minute (147 single-family residences), the reviewer estimates the average pump cycle time for the wastewater pumping station to be less than 10 minutes (approximately 6.9 minutes). For this application, this office recommends a minimum time between pump starts of 10 minutes, preferably 15 minutes. Please consult the pump manufacturer concerning minimum pump cycling times for this application.
2. Based on a force main diameter of 3 inches and a pumping rate of 405 gallons per minute, the reviewer estimates a sewer force main velocity greater than 10 feet per



second (approximately 18 feet per second). Per the United States Environmental Protection Agency's Sewer Force Main Technology Fact Sheet, the maximum force main velocity is recommended not to exceed 10 feet per second.

3. The required wet well slope is not depicted; according to the Design Summary Package, the proposed wet well floor slope is zero percent. The wet well floor shall have a minimum slope of 30 percent to the hopper bottom (wet well bottom). The horizontal area of the hopper bottom (wet well bottom) shall be no greater than necessary for proper installation and function of the pump inlets (per Recommended Standards for Wastewater Facilities, 1990 Edition, Section 42.63). Please revise and resubmit plans accordingly. Floor slope shall be depicted on the plans.
4. The submittal did not appear to include details of the provisions for air displacement from the proposed wet well. Covered wet wells shall have provisions for air displacement such as an inverted "j" tube or other means which vents to the outside. What type of ventilation and air displacement will be provided for the pump station? Please revise and resubmit pumping station plans accordingly.
5. According to the revised plans included in the resubmittal, the 100-year flood elevation at the pumping station site is 53.51 feet and the elevation of the top of the wet well is 53.4 feet. The top of the wet well is below the 100-year flood elevation. The elevations of the tops of all portions of the lift station and treatment facility shall be above the 100-year flood elevation. Please revise and resubmit plans accordingly.
6. The pumping station plans submitted are not sufficient. The reviewer requests the submittal of more accurately and professionally drawn plans. The pumps, valves, appurtenances, alarms, etc. are not depicted on the same sheet as the wet well. Please revised the pump station plans to depict the pumps, valves, appurtenances, audible and visual alarms, vent, etc. all on a single sheet.
7. The wet well access manhole diameter is not specified on the pump station plans. Please revise and resubmit plans accordingly.
8. The resubmittal proposes installing the valving above the wet well in an enclosure. The pump station equipment compartment shall be effectively isolated from the wet well to prevent the humid and corrosive sewer atmosphere from entering the equipment compartment. Please verify that the atmosphere from the wet well will be prevented from entering the equipment compartment. Please indicate the type of seal to be provided in the wet well cover around the pump discharge piping and electrical wiring to prevent the wet well atmosphere from entering the valving enclosure. Please revise and resubmit plans accordingly.
9. Per Section 43.11 of Recommended Standards for Wastewater Facilities, 1990 Edition, the combined total of dynamic suction lift at the "pump off" elevation and required net positive suction head at design operating conditions shall not exceed 22 feet. Please verify. Please provide supporting calculations.
10. The reviewer estimates a peak hourly flow of 161 gallons per minute (based upon 147 homes at 400 gpd/home and a peaking factor of 3.94). Please explain why a pump with a capacity of 405 gpm is proposed.



Once we receive the information needed to comply with the above comments, our review will continue. If you have any questions or require additional information, please call me at (225) 925-7230.

Respectfully,



Steven L. Davis, P.E.
Engineer 6

cc: Lakeisha Theriot, R.S., East Baton Rouge Parish Sanitarian Manager
Doug Bozeman, Owner, WTSO
Blake Seguin, Titan Development Group, LLC

