

ATTACHMENT J4

# Fort Polk Wastewater System

---

TABLE OF CONTENTS

|   |          |
|---|----------|
| <b>FORT POLK WASTEWATER SYSTEM.....</b>                                 | <b>1</b> |
| <b>J4 FORT POLK WASTEWATER COLLECTION SYSTEM .....</b>                  | <b>3</b> |
| J4.1 FORT POLK OVERVIEW .....   | 3        |
| J4.1.1 GENERAL STATISTICS.....  | 3        |
| J4.1.2 HISTORY AND DEVELOPMENT .....                                    | 3        |
| J4.1.3 SATELLITE LOCATIONS .....  | 5        |
| J4.1.4 U. S. FOREST SERVICE LANDS.....                                  | 5        |
| J4.1.5 ARMY FAMILY HOUSING.....   | 5        |
| J4.2 WASTEWATER SYSTEM DESCRIPTION.....                                 | 6        |
| J4.2.1 WASTEWATER SYSTEM FIXED EQUIPMENT INVENTORY .....                | 6        |
| J4.2.1.1 SYSTEM DESCRIPTION .....                                       | 6        |
| J4.2.1.2 POINTS OF DEMARCATION .....                                    | 11       |
| J4.2.1.3 CONDITION ASSESSMENT .....                                     | 12       |
| J4.2.1.4 INVENTORY .....  | 12       |
| J4.2.2 WASTEWATER SYSTEM NON-FIXED EQUIPMENT AND SPECIALIZED TOOLS..... | 15       |
| J4.2.3 WASTEWATER SYSTEM MANUALS, DRAWINGS, AND RECORDS .....           | 15       |
| J4.3 SPECIFIC SERVICE REQUIREMENTS .....                                | 16       |
| J4.3.1 EXCAVATION MARKING/DIGGING PROCESS.....                          | 16       |
| J4.3.1.1 CONTRACTOR PARTICIPATION IN DIGGING PERMIT PROCESS .....       | 16       |
| J4.3.1.2 CONTRACTOR EXCAVATION REQUIREMENTS .....                       | 16       |
| J4.3.2 FIRE CONTROL AND SAFETY .....                                    | 18       |
| J4.3.3 COST OF SUPPORTING UTILITIES .....                               | 18       |
| J4.3.4 CRISIS SITUATIONS.....   | 18       |
| J4.3.5 WASTEWATER SAMPLING/REPORTING .....                              | 18       |
| J4.3.6 PREVENTIVE MAINTENANCE .....                                     | 18       |
| J4.3.7 EMERGENCY RESPONSE .....   | 18       |
| J4.3.8 RESTRICTED ACCESS.....   | 18       |
| J4.3.9 ENERGY SAVING PROJECTS .....                                     | 19       |
| J4.4 CURRENT SERVICE ARRANGEMENT .....                                  | 19       |
| J4.5 SECONDARY METERING.....  | 19       |
| J4.6 MONTHLY SUBMITTALS.....  | 19       |
| J4.7 INFILTRATION AND INFLOW (I&I) PROJECTS.....                        | 20       |
| J4.8 SERVICE AREA .....   | 20       |
| J4.9 OFF-INSTALLATION SITES.....  | 20       |
| J4.10 SPECIFIC TRANSITION REQUIREMENTS .....                            | 20       |
| J4.11 GOVERNMENT RECOGNIZED SYSTEM DEFICIENCIES.....                    | 20       |

**LIST OF TABLES**

|  |    |
|--|----|
| TABLE 1 - POPULATION.....                              | 3  |
| TABLE 2 - LIFT STATIONS – NORTH FORT POLK .....        | 7  |
| TABLE 3 - LIFT STATIONS – SOUTH FORT POLK.....         | 9  |
| TABLE 4 - POINTS OF DEMARCATION.....                   | 12 |
| TABLE 5 - FIXED INVENTORY.....                         | 13 |
| TABLE 6 - SPARE PARTS.....                             | 15 |
| TABLE 7 - SPECIALIZED VEHICLES AND TOOLS.....          | 15 |
| TABLE 8 - MANUALS, DRAWINGS, AND RECORDS.....          | 15 |
| TABLE 9 - SERVICE CONNECTIONS AND DISCONNECTIONS ..... | 20 |
| TABLE 10 - SYSTEM DEFICIENCIES .....                   | 21 |

# J4 Fort Polk Wastewater Collection System

---

## J4.1 Fort Polk Overview

### J4.1.1 General Statistics

The Fort Polk Military Installation is located in Vernon Parish in west-central Louisiana. The Army owns approximately 100,009 acres of land at the Main Post and at the Peason Ridge Training Area, located about 15 miles north of the Main Post. The Installation also maintains a small site on the eastern shore of Toledo Bend Reservoir that is used as a recreation site for military personnel and their families. Additionally, the Army utilizes about 98,125 acres of land owned by the U.S. Forest Service (USFS). The Main Post has two distinct developed areas that contain buildings, motor pools, and other facilities. These areas are known as the North and South Fort Cantonment Areas or North Fort and South Fort.

Real Property records indicate there are 2,384 buildings on Fort Polk (1,679, permanent; 255 semi-permanent; and 450 temporary). These buildings enclose a total of 15,572,096 square feet (SF) of floor space. Included in these totals are 1,163 permanent family housing buildings containing 3,424 family dwelling units encompassing a total of 6,955,318 SF.

According to data published by Fort Polk on World Wide Web, the Installation supports a total population of 139,279 categorized as follows:

**TABLE 1**  
 Population  
*Wastewater Collection System, Fort Polk, Louisiana*

| <b>Fort Polk Population</b>             |                       |
|---|-----------------------|
| Active Military Personnel               | 10,441                |
| Military Family Members                 | 16,912                |
| Army Civilian Employees                 | 5,956                 |
| Retired Military Personnel and Families | 73,573                |
| Reserve Component, ROTC                 | 25,227                |
| JRTC Rotations (Monthly Average)        | 5,170                 |
| <b><i>Total</i></b>                     | <b><i>139,279</i></b> |

Annual total economic impact of Fort Polk is estimated to be approximately \$970 million.

### J4.1.2 History and Development

Fort Polk was established in 1941 and named in honor of the Right Reverend Leonidas Polk, the first Episcopal Bishop of the Diocese of Louisiana and a Confederate general. Since then Fort Polk has adapted to service during every U.S. military crisis.

Fort Polk was first developed as Camp Polk and was used for military training activities associated with World War II. Construction of Camp Polk began in January 1941. Camp Polk was used during the “Louisiana Maneuvers,” a series of large-scale, peacetime armored maneuvers conducted prior to the United States’ entry into World War II.

Following World War II, the Installation went through a series of temporary closings until the early 1960s. In 1960, Fort Polk was designated as an infantry-training center. Due to the dense, jungle-like vegetation that exists on portions of the Post, Fort Polk was used extensively for basic training of soldiers being deployed to Southeast Asia. For the 12 years following 1962, more soldiers shipped out to Vietnam from Fort Polk than any other U.S. Army training installation.

The 5th Infantry Division (Mechanized) was permanently garrisoned at Fort Polk in 1974 as hostilities in Vietnam came to a close. Fort Polk underwent a tremendous amount of renovation and was rapidly transformed into one of the most modern Installations in the U.S. Army. Many of the buildings and other structures currently existing on Fort Polk were built at this time.

After the end of the Cold War in the early 1990s, the 5th Infantry Division (Mechanized) was relocated to Fort Hood, Texas beginning in 1992. This move was completed in early 1994. Following this move, Fort Polk was selected as the location of the Joint Readiness Training Center (JRTC). The basic mission of the JRTC is to train light infantry forces, Special Forces, Army Rangers, and units from other branches of the American Armed Forces.

Several other units were transferred back to the United States from Europe and were stationed at Fort Polk during this time. Most of these units, including the 2nd Armored Cavalry Regiment, the Warrior Brigade, and units affiliated with the XVIII Airborne Corps are currently garrisoned at the Installation and occupy and operate many of its motor pools and maintenance facilities.

Since Fort Polk was first developed by the U.S. Army, its land has been subject to a wide variety of uses including firing ranges, impact zones, industrial operations, military housing, and other operations that were necessary to support the Installation’s ever-changing missions.

The Installation headquarters are located at the South Fort cantonment area. Additionally, most of the motor pools, maintenance facilities, supply areas, and administrative offices operated by both military personnel and civilian employees of the Department of Defense are located on this portion of the Installation. South Fort Polk has relatively modern facilities compared to North Fort. The North Fort cantonment area is used primarily by rotational units training with the JRTC and by Louisiana National Guard and Army Reserve units. Buildings on North Fort Polk are primarily vintage World War II. Military housing areas are located in both cantonment areas and along the west side of Fort Polk.

The area of the Installation east of the cantonment areas is largely undeveloped and has been used for a variety of military training purposes including obstacle courses, firing ranges, impact areas, primitive airfields, drop zones, etc. (U.S. Army, 1995). The potential for the presence of unexploded ordnance exists over most of the Installation east of the cantonment areas. Landfills used for disposal of wastes generated by military activities at Fort Polk were developed on property located between the North and South Fort cantonment areas.

### J4.1.3 Satellite Locations

**Peason Ridge** is a 33,000 acre-plus Army-owned parcel situated approximately 15 miles north-northwest of Fort Polk proper at the extreme north side of Vernon Parish. It consists of live-fire training areas, firing ranges, and impact zones. Additionally, Peason Ridge has a relatively small “operations” area that includes barracks and supply and maintenance buildings.

**Toledo Bend Recreation Facility**, a relatively small Army-owned parcel, is situated on the eastern shore of Toledo Bend Reservoir on the Louisiana-Texas border due west of Fort Polk. It contains boat docks, cabins, and other structures associated with recreational activities.

### J4.1.4 U. S. Forest Service Lands

Fort Polk uses very large tracts of U.S. Forest Service lands for training. Some of this land is classified as Intensive Use Area (IUA) and some as Limited Use Area (LUA). In some areas there are Army-owned utility system components installed on these Forest Service lands. The Forest Service will not sell land, but will consider proposals to exchange land; Fort Polk is currently negotiating a land swap with the Forest Service that would place additional utility components on Forest Service land. A Special Use Permit (SUP) is the mechanism used to formalize an agreement for use of Forest Service land. The Army is currently in the process of finalizing a multi-year, multi-use SUP. For the Army, there are no fees associated with these SUPs. However, a “for-profit” entity should expect to negotiate a SUP fee; the Forest Service waives fees only for “non-profit” entities. This fee is currently projected to be \$43/acre/year for for-profit entities. For linear utility components, acreage requirements are calculated by multiplying linear feet of utility lines by the typical easement width (26 feet). Approximate quantities of Fort Polk utility components on Forest Service lands are as follows:

|                               |            |
|-------------------------------|------------|
| - Electric Distribution Lines | 102,000 LF |
| - Natural Gas Lines           | 674 LF     |
| - Water Lines                 | 2,465 LF   |
| - Sewer Lines                 | 15,391 LF  |
| - Wastewater Dispersion Lines | 7,200 LF   |
| - Oxidation Ponds             | 80 Acres   |

### J4.1.5 Army Family Housing

Fort Polk has recently privatized Army Family Housing. This Residential Community Initiative (RCI) transfers ownership and maintenance responsibility for all housing units to a private contractor. Under this RCI the new owner will also remodel, renovate, demolish some structures and build new units in multiple phases over several years. The net effect will be an increase of dwelling units from the current 3,424 units to a total of 3,821 units. Fort Polk is in the process of transitioning from their existing Housing Maintenance Contract to the new RCI arrangement. It should be pointed out that this RCI initiative does not involve the transfer of land nor does it include the utility mains and service lines. Utility mains and service lines have been retained by the Government and are therefore part of the UP package. It is important to recognize that the RCI

process will result in some reconfiguration of the various neighborhoods with resultant changes in the utility systems serving those neighborhoods and the associated points of demarcation. The utility system owner should expect to be very much involved in these future changes.

## **J4.2 Wastewater System Description**

### **J4.2.1 Wastewater System Fixed Equipment Inventory**

The Fort Polk wastewater system consists of all appurtenances physically connected to the collection system as defined by the points of demarcation beginning at the connection to the treatment provider and ending at each end use facility. The system may include, but is not limited to, pipelines, manholes, lift stations, valves, controls, wastewater treatment plants (WWTPs), and meters (though there are no wastewater meters currently in use). The actual inventory of items sold will be conveyed to the Contractor using the Bill of Sale at the time the system is transferred.

The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the collection and treatment systems. The description and inventory were developed based on best available, yet imperfect, record data. When not specifically identified by system drawings, the type and size of the components were estimated, generally based on the size of the piping the component was fastened to. Additionally, when the year of construction was not known, it was estimated based on the age of adjacent piping or the approximate age of the facility served.

The Offeror shall base its proposal on site inspections, information in the technical library, and other pertinent information, as well as the following description and inventory. As described in Paragraph C11.1, if after award the Offeror identifies additional inventory not listed in Paragraph J4.2.1.4, the Offeror may submit to the Contracting Officer a request for an equitable adjustment. If the Offeror determines that the inventory listed in Paragraph J4.2.1.4 is overstated, the Offeror shall report the extent of the overstatement to the Contracting Officer, who will determine an equitable adjustment. The intent here is not to encourage piecemeal adjustments, but rather address significant adjustments that have significant bearing on capital replacement investment.

#### **J4.2.1.1 System Description**

Fort Polk proper has two independent wastewater systems:

- North Fort Polk wastewater system
- South Fort Polk wastewater system

These systems collect and treat effluent from domestic, industrial and commercial sources on Post.

There are also two remote site wastewater systems:

- Peason Ridge
- Toledo Bend Recreation Facility.

Specifically excluded from privatization of the wastewater collection and treatment system are:

- Storm water systems
- Oil/water separators, except those integral to the lift stations

- Grease traps, except those integral to the wastewater plants
- Septic tank systems
- Two centralized vehicle wash facilities and the associated ponds
- The Chaffee Road Landfarm and its storm water pond

### **NORTH FORT POLK WASTEWATER SYSTEM**

The wastewater collection system at North Fort Polk includes service laterals, manholes, collection mains, lift stations, force mains, and a treatment plant. The North Fort Polk system includes the North Fort Polk area, the Alligator Lake area, and the North Fort Army Family Housing (NFAFH) area. Wastewater from the Alligator Lake area is pumped by three lift stations via a 4-inch force main to a manhole south of H Avenue. This manhole is part of the North Fort Polk collection system. The Wastewater collection system at NFAFH consists of 6-inch, 8-inch, and 10-inch gravity collation mains. The collected wastewater flows to a lift station located on the southwest part of NFAFH. This NFAFH lift station pumps the wastewater via an 8-inch force main to a manhole west of Texas Avenue. From this manhole the wastewater flows by gravity through a 10-inch main and seven more manholes to a North Fort Polk collection system manhole south of Mobile Street near Building 7198.

The collection system within North Fort Polk area is primarily a gravity system. Two large gravity mains, a 15-inch main and a 21-inch main merge to a 24-inch main that enters the North Fort Polk Wastewater Treatment Plant.

The table below summarizes the lift stations in the North Fort Polk system:

**TABLE 2**  
 Lift Stations – North Fort Polk  
*Wastewater Collection System, Fort Polk, Louisiana*

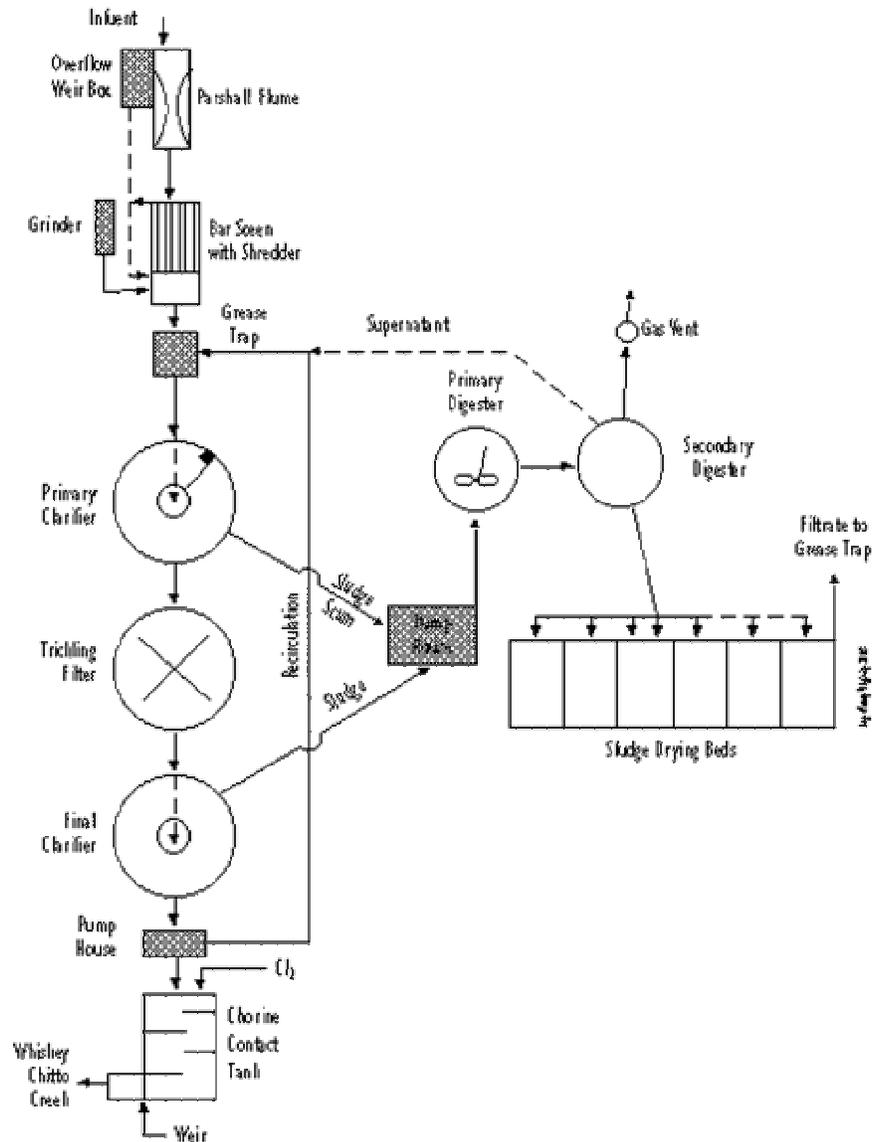
| <b>Station ID</b>  | <b>Pump Type</b>  | <b>Construction / Rebuilt</b> | <b>Number of Pumps</b> | <b>Motor Size (hp)</b> |
|--|-------------------|-------------------------------|------------------------|------------------------|
| <b>Alligator Lake Area</b>                               |                   |                               |                        |                        |
| 8577   | Submersible       | 1999                          | 2                      | 3                      |
| 8578   | Dry well/wet well | 1989                          | 2                      | 15                     |
| 8579   | Submersible       | 1999                          | 2                      | 3                      |
| <b>NFAFH Area</b>  |                   |                               |                        |                        |
| 15054  | Submersible       | 1980                          | 3                      | 60                     |
| Notes:<br>Lift Station 15054 has an emergency generator. |                   |                               |                        |                        |

### **NORTH FORT POLK WASTEWATER TREATMENT PLANT**

North Fort Polk Wastewater Treatment Plant (WWTP) is permitted to discharge 1.4 million gallons per day (MGD), and is the smaller of the two WWTPs. This plant was originally constructed in 1941 as a trickling filter-type plant and is located south of the cantonment area of North Fort Polk on the banks of the Whiskey Chitto Creek. The processes currently used at the

WWTP consist of bar screens, oil/grease separator, grit removal, primary clarification, trickling filter, extended aeration basin, secondary clarification, chlorination/de-chlorination and discharge to the receiving stream. Sludge treatment processes consist of a primary aerobic digester, a secondary digester, and sludge dewatering using sand drying beds. Dried sludge is removed from the drying beds and stored under a weather shelter within the treatment plant complex. Currently the Army removes sludge for use in soil reclamation; the Army mixes contaminated soil with sludge within the treatment plant complex. The sludge mixture is then transported to, and distributed on, the Chaffee Road Land Farm. This arrangement is expected to continue in the post-privatization scenario. In the event that the disposal of dried sludge at this land farm should be terminated, an alternative disposal arrangement would have to be used. The plant is operated 8 hours a day / 7 days a week. The following diagram generally reflects the treatment process at the North Fort Polk WWTP; more detail will be available in the technical library.

**FLOW DIAGRAM OF THE NORTH FORT POLK WWTP**



### SOUTH FORT POLK WASTEWATER SYSTEM

The South Fort Polk Wastewater System includes service laterals, manholes, collection mains, lift stations, force mains, a treatment plant, a sewage lagoon, tertiary treatment ponds, and an overland flow system for treated effluent disposal.

This system serves all facilities in the South Fort Polk area including all the housing on the west side. The pipes vary in size from 4 to 36 inches. Lift stations within the South Fort collection system are listed in the table below:

**TABLE 3**  
 Lift Stations – South Fort Polk  
 Wastewater Collection System, Fort Polk, Louisiana

| Station ID.   | Pump Type   | Construction / Rebuilt | Number of Pumps | Motor Size (hp) |
|---|-------------|------------------------|-----------------|-----------------|
| 6800* (Dogwood Terrace)                                 | Submersible | 1980                   | 2               | 75              |
| 4900 (Camellia Terrace)                                 | Submersible | 1980                   | 2               | 15              |
| 5100* (Camellia Terrace)                                | Submersible | 1980                   | 2               | 30              |
| Airfield  | Submersible | 1980                   | 2               | 40              |
| New ACP 4 LS* (Louisiana Ave and south of Michigan Ave) | Submersible | 2003                   | 2               | 5               |
| Golf Course LS  | Submersible | 1980                   | 2               | 5               |

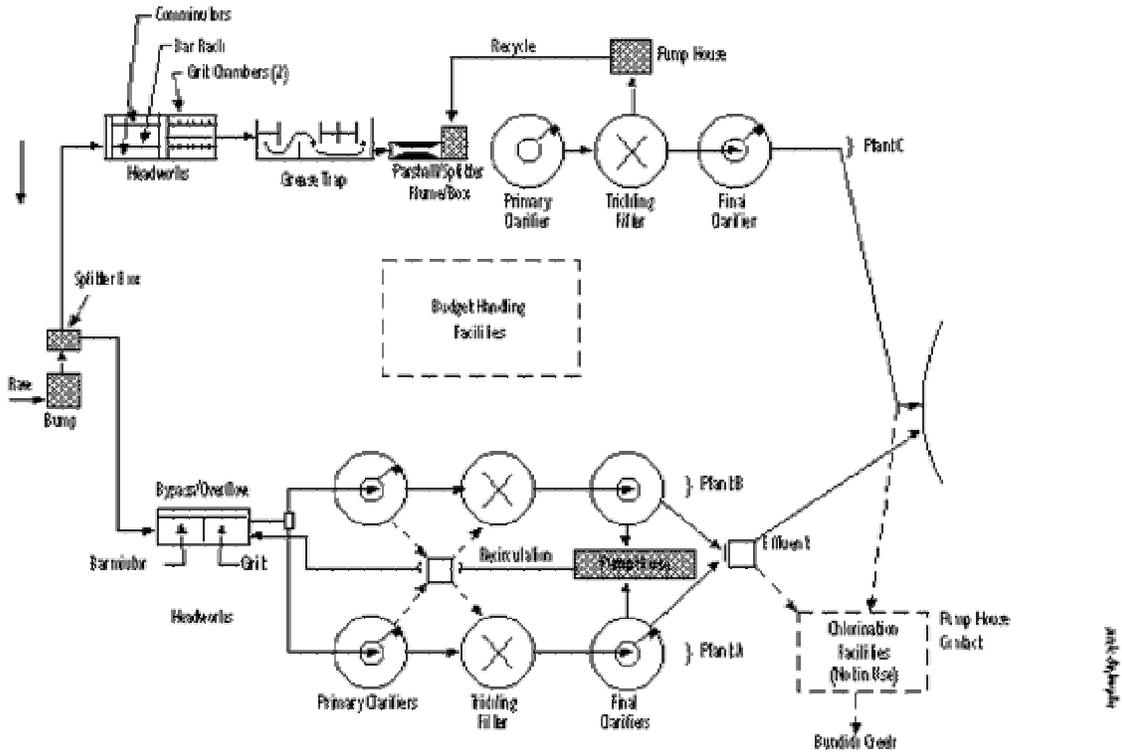
Notes:  
 \*Lift stations 5100, 6800 and the New ACP 4 LS have emergency generators.

### SOUTH FORT POLK WASTEWATER TREATMENT PLANT

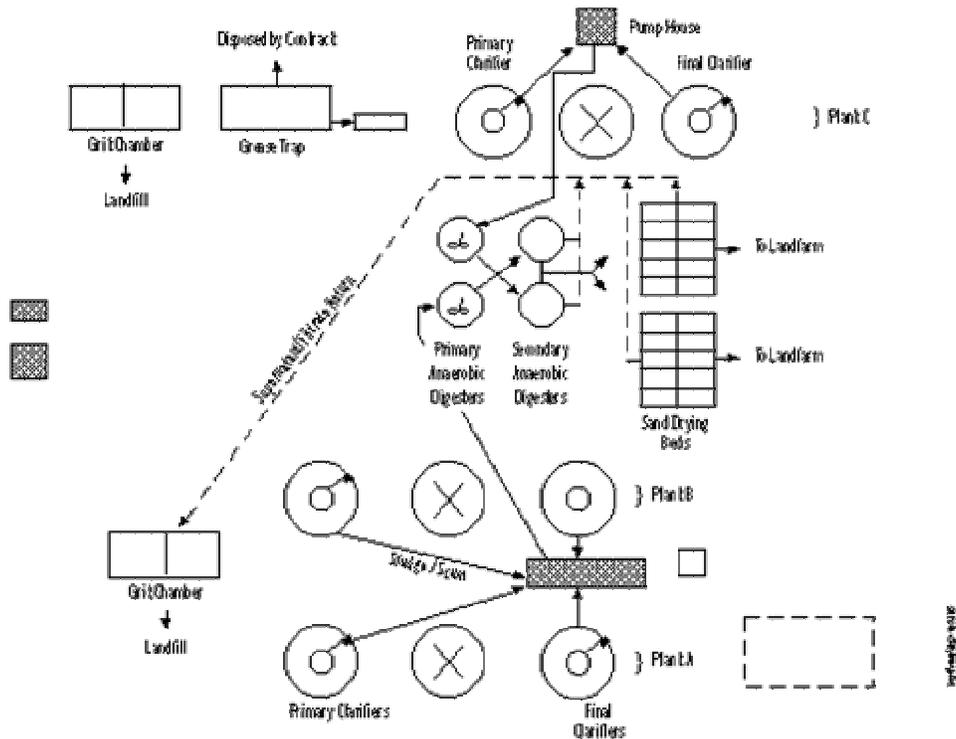
The South Fort Polk WWTP, the larger of the two WWTPs, has a permitted treatment capacity of 3.8 MGD. The plant is located approximately 3,000 feet south of the intersection of Georgia Avenue and Louisiana Highway 10 on the banks of the Hogpen Branch of Bundick Creek. There are three trickling type plants using similar processes named “A”, “B”, and “C” that were constructed at different times. “A” was constructed first, “B” second, and “C” was constructed last in the late 1960s to early 1970s. Sewage enters the plant through the plant pumping station equipped with submersible pumps. Wastewater first travels through preliminary treatment consisting of a grit chamber and grease trap, primary clarifier, trickling filter and secondary clarifier. The treated wastewater then flows into an equalization basin where it is chlorinated and pumped to a series of tertiary treatment ponds that are located to the northeast of the WWTP. These ponds discharge the effluent to an overland flow system for disposal. (Overland flow system is perforated/gated aluminum irrigation pipe located on Forest Service land.) Sludge treatment processes consist of primary and secondary aerobic digestion followed by drying on sand beds. Sludge is periodically removed from the beds and hauled to the Chaffee Road Land Farm for further processing. Dried sludge is removed from the drying beds and stored under a weather shelter within the treatment plant complex. Currently the Army removes sludge for use in soil reclamation; the Army mixes contaminated soil with sludge within the treatment plant complex. The sludge mixture is then transported to, and distributed on, the Chaffee Road Land Farm. This arrangement is expected to continue in the post-privatization scenario. In the event that the disposal

of dried sludge at this land farm should be terminated, an alternative disposal arrangement would have to be used. The plant is operated 8 hours a day / 7 days a week. The following diagrams generally reflect the treatment process at the South Fort Polk WWTP; more detail will be available in the technical library.

**FLOW DIAGRAM OF THE SOUTH FORT POLK WWTP**



## FLOW DIAGRAM OF THE SOUTH FORT POLK WWTP SLUDGE HANDLING



Note: Grease trap is integral to the wastewater treatment plant and the owner of the plant would be responsible for disposal of waste from the grease trap.

### SATELLITE AREA WASTEWATER SYSTEMS

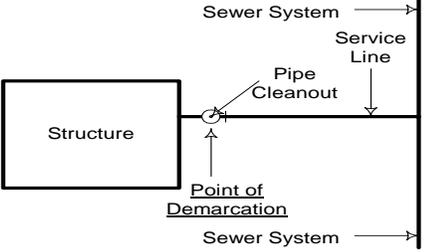
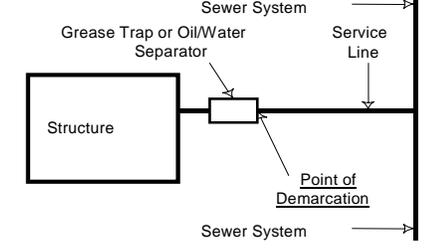
**Peason Ridge** has a small collection system and a three-cell lagoon system for treatment.

**Toledo Bend** has a small collection system, a lift station and a two-cell lagoon system for treatment. The lift station has two 15 hp submersible pumps. Chlorine tablets are added for disinfection.

#### J4.2.1.2 Points of Demarcation

The Fort Polk wastewater collection and treatment system being studied consists of all components from the point where wastewater is collected from individual facilities to the points where the Post discharges wastewater to permitted discharge points. The point of demarcation for each end-user is defined as the point or component on the collection system where ownership changes from building owner to the utility owner. In most cases the point of demarcation for the users is the first upstream component (i.e., cleanout) of the system located outside of the facility footprint. **Table 4** identifies the type of service and general location of the point of demarcation with respect to each building served by the collection system.

**TABLE 4**  
 Points of Demarcation  
 Wastewater Collection System, Fort Polk, Louisiana

| Point of Demarcation   | Applicable Scenario  | Sketch   |
|--|--|--|
| Point of demarcation is the upstream side of the cleanout device.  | Residential and Non-residential service. A wastewater system cleanout is located within 25 feet of the building perimeter on the service line exiting the structure. |  |
| Point of demarcation is the downstream side of grease trap or oil/water separator.<br><i>Note: This point of demarcation does not apply to grease traps or oil/water separators included as a part of the wastewater system inventory (connected to lift/pump stations).</i> | Non-residential service. Grease trap or oil/water separator.   |  |
| Point where the service line exits the structure<br><i>Note: A new cleanout device shall be installed within 5' of building during any stoppage or maintenance action. The upstream side of the cleanout device will then become the new point of demarcation.</i>           | Residential and Non-residential service. No cleanout device exists within 25 feet of the building perimeter on service line.   | None   |

#### J4.2.1.3 Condition Assessment

Several components in the Fort Polk wastewater collection piping have either exceeded or are approaching the end of their useful lives. Deteriorated collection pipe contributes to periodic I&I problems. The lift stations at Fort Polk are in good condition. The treatment plants are generally in good condition.

#### J4.2.1.4 Inventory

Table 5 identifies the inventory of the Fort Polk wastewater collection system. When not specifically identified by system drawings, the size and type of system components were estimated, generally based on the size of the piping the component was connected to. Additionally, when the

year of construction was not known, it was estimated based on the age of the piping or the age of the facility served.

**TABLE 5**  
 Fixed Inventory  
 Wastewater Collection System, Fort Polk, Louisiana

| Component   | Size              | Quantity | Unit  | Approximate Year of Construction/Upgrade |      |
|---|-------------------|----------|-------|--|------|
| <b>SOUTH FORT, NORTH FORT, AND NORTH FORT ARMY FAMILY HOUSING AREAS</b> |                   |          |       |  |      |
| <i>Pipe</i>   | 6"                | 15,360   | LF    | 1940                                     |      |
|   | 6"                | 17,000   | LF    | 1971                                     |      |
|   | 6"                | 33,920   | LF    | 1980                                     |      |
|   | 8"                | 122,640  | LF    | 1940                                     |      |
|   | 8"                | 16,840   | LF    | 1971                                     |      |
|   | 8"                | 76,690   | LF    | 1980                                     |      |
|   | 10"               | 31,720   | LF    | 1940                                     |      |
|   | 10"               | 14,000   | LF    | 1971                                     |      |
|   | 10"               | 12,080   | LF    | 1980                                     |      |
|   | 12"               | 7,480    | LF    | 1940                                     |      |
|   | 12"               | 680      | LF    | 1980                                     |      |
|   | 15"               | 18,800   | LF    | 1940                                     |      |
|   | 18"               | 1,840    | LF    | 1940                                     |      |
|   | 21"               | 6,280    | LF    | 1940                                     |      |
|   | 24"               | 2,640    | LF    | 1940                                     |      |
|   | 24"               | 3,280    | LF    | 1971                                     |      |
|   | 30"               | 8,560    | LF    | 1940                                     |      |
|   | 36"               | 4,880    | LF    | 1940                                     |      |
|   | <i>Force Main</i> | 6"       | 3,280 | LF                                       | 1940 |
|   |                   | 6"       | 6,840 | LF                                       | 1980 |
| 8"  |                   | 3,880    | LF    | 1980                                     |      |
| 12"   |                   | 5,800    | LF    | 1980                                     |      |
| 16"   |                   | 4,640    | LF    | 1980                                     |      |
| 20"   |                   | 16,200   | LF    | 1980                                     |      |
| <i>Aluminum Irrigation Pipe</i>   |                   | 7,200    | LF    | 1990                                     |      |
| <i>Services</i>   |                   | 467      | EA    | 1940                                     |      |
|   |                   | 225      | EA    | 1971                                     |      |
|   |                   | 2,550    | EA    | 1980                                     |      |
| <i>Manholes</i>   |                   | 1,034    | EA    | 1940                                     |      |
|   |                   | 131      | EA    | 1971                                     |      |
|   |                   | 432      | EA    | 1980                                     |      |

| Component                              | Size | Quantity          | Unit | Approximate Year of Construction/Upgrade |
|--|------|-------------------|------|--|
| <b>North Fort Treatment Plant</b>      |      |                   |      |  |
| <i>Emergency Generator</i>             |      | 1                 | EA   | 1941/1970                                |
| <i>South Fort Treatment Plant</i>      |      | 1                 | EA   | 1950/1970                                |
| <i>Emergency Generator</i>             |      | 2                 | EA   | 1970                                     |
| <b>Lift Stations</b>                   |      |                   |      |  |
| 8577 (2 Submersible 3 HP Pumps)        |      | 1                 | EA   | 1999                                     |
| 8578 (2 Dry/Wet Well 15 HP Pumps)      |      | 1                 | EA   | 1989                                     |
| 8579 (2 Submersible 3 HP Pumps)        |      | 1                 | EA   | 1999                                     |
| 15054 (3 Submersible 60 HP Pumps)      |      | 1                 | EA   | 1980                                     |
| 6800 (2 Submersible 75 HP Pumps)       |      | 1                 | EA   | 1980                                     |
| 4900 (2 Submersible 15 HP Pumps)       |      | 1                 | EA   | 1971                                     |
| 5100 (2 Submersible 30 HP Pumps)       |      | 1                 | EA   | 1971                                     |
| New ACP 4 (2 Submersible 5 HP Pumps)   |      | 1                 | EA   | 2003                                     |
| Golf Course (2 Submersible 5 HP Pumps) |      | 1                 | EA   | 2003                                     |
| Airfield (2 Dry/Wet Well 40 HP Pumps)  |      | 1                 | EA   | 1980                                     |
| <b>Emergency Generators</b>            |      |                   |      |  |
| LS 5100                                |      | 1                 | EA   | 1950                                     |
| LS 6800                                |      | 1                 | EA   | 1980                                     |
| LS 15054                               |      | 1                 | EA   | 1980                                     |
| New ACP 4 LS                           |      | 1                 | EA   | 1980                                     |
| <b>TOLEDO BEND</b>                     |      |                   |      |  |
| Pipe                                   | 4"   | 1,160             | LF   | 1996                                     |
| Force Main                             | 4"   | 480               | LF   | 1996                                     |
| Services                               |      | 10                | EA   | 1996                                     |
| Lift Station (2 Submersible 15 HP)     |      | 1                 | EA   | 1996                                     |
| Lagoons                                |      | 2                 | Cell | 1996                                     |
| Chlorine Contact Chamber               |      | 1                 | EA   | 1996                                     |
| <b>PEASON RIDGE</b>                    |      |                   |      |  |
| Pipe                                   | 4"   | 325               | LF   | 1996                                     |
| Services                               |      | 3                 | EA   | 1996                                     |
| Lagoons                                |      | 3                 | Cell | 1978                                     |
| Notes:                                 |      |                   |      |  |
| EA = each                              |      | HP = horsepower   |      |  |
| LF = linear feet                       |      | LS = lift station |      |  |

### J4.2.2 Wastewater System Non-Fixed Equipment and Specialized Tools

**Table 6** lists other ancillary equipment (spare parts), and **Table 7** lists specialized vehicles and tools included in the purchase. Offerors shall field-verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

**TABLE 6**  
 Spare Parts  
*Wastewater Collection System, Fort Polk, Louisiana*

| Quantity  | Item | Make/Model | Description | Remarks |
|---|------|------------|-------------|---------|
| No spare parts are included with the Fort Polk wastewater system. |      |            |             |         |

**TABLE 7**  
 Specialized Vehicles and Tools  
*Wastewater Collection System, Fort Polk, Louisiana*

| Quantity  | Item | Make/Model | Description | Remarks |
|---|------|------------|-------------|---------|
| No specialized tools or vehicles are included with the Fort Polk wastewater system. |      |            |             |         |

### J4.2.3 Wastewater System Manuals, Drawings, and Records

**Table 8** lists the manuals, drawings, and records that will be transferred with the system.

**TABLE 8**  
 Manuals, Drawings, and Records  
*Wastewater Collection System, Fort Polk, Louisiana*

| Quantity | Item                 | Description                                      | Remarks          |
|----------|----------------------|--|------------------|
| 1        | Drawing              | CAD Drawing                                      | Hard Copy        |
| 1        | Electronic           | CAD Drawing                                      | Electronic Copy  |
| 1        | Electronic Database  | GIS Database                                     | Electronic Copy  |
| 2        | O&M Manuals          | Manuals for O&M of system components             | Hard Copy        |
| Multi    | Reports/Studies      | System Analysis/Performance Reports              | Hard Copy        |
| Multi    | Video Tapes          | Collection Pipe TV Camera Surveys                | 20-30% of System |
| 1        | Instruction          | Digging Permit Process                           | Hard Copy        |
| 1        | Exercises Procedures | Requirements of utility support during exercises | Hard Copy        |
| 2        | Reports              | Discharge Reports for NPDES reporting            | Hard Copy        |

Note: Manuals, drawings, records, and reports included with the Fort Polk wastewater system are included in the bidders' Technical Library

## **J4.3 Specific Service Requirements**

The service requirements for the Fort Polk wastewater system are as defined in Paragraph C, *Description/Specifications/Work Statement*. The following requirements are specific to the Fort Polk wastewater system and are in addition to those found in Paragraph C. If there is a conflict between requirements described below and Paragraph C, the requirements listed below take precedence over those found in Paragraph C.

### **J4.3.1 Excavation Marking/Digging Process**

#### **J4.3.1.1 Contractor Participation in Digging Permit Process**

Contractor shall subscribe to the regional process (**Louisiana 1 Call** is the one-call dispatch center) for notification and marking of underground utilities. The Contractor shall mark all utilities in the time windows defined by this process. In some cases, where non-metallic lines do not have tracer wires, it may take longer to locate the lines. In these cases, the Contractor will make necessary notifications about a possible delay in the marking process. Contractor shall be responsible for all repairs, costs, and damages due to excavations by others for which he did not properly mark his utilities as part of the utility marking process. Generally, utility lines will be marked with pin flags or spray paint.

#### **J4.3.1.2 Contractor Excavation Requirements**

Contractor shall notify the regional one-call dispatch center of his digging requirement. The Contractor shall also obtain digging permits from Ft. Polk in accordance with the AECOM process (see the AECOM Form below) before any drilling, digging, or excavation is undertaken. Permits will identify all underground utilities within 5 feet of the designated area. Since utility marking is an inherently imprecise process, excavation within five feet of the marked utilities will be done by hand. Contractor shall be responsible for all repairs, costs, and damages due to his excavations that fail to comply with the DPW digging permit process and the requirements listed herein; this includes excavations extending beyond areas that have been cleared for excavation.

## AECOM Government Services

### FORT POLK UTILITY LOCATION AND DIG PERMIT REQUEST

**Location:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**DIRECTIONS:**

1. Mark area to be excavated in white.
  
2. Louisiana Law requires you to contact **Louisiana 1 Call**, representing all private and public utility companies. Dial 1-800-272-3020 two - seven days in advance and have digging location information available at time of call. Any company with utilities in the area will mark the respective utility. Ticket # \_\_\_\_\_
  
3. For Telephone, Data Lines and Fiber Optic line utility locations on Fort Polk:
  - Contact DOIM/ATS Contractor (GSTek) at 531-4019
  - Request location services seven days prior to digging. Service Order \_\_\_\_\_
  - DOIM/ATS Contractor (GSTek) will issue dig Permit. \_\_\_\_\_
  
4. Sprint/ADSS 537-4711                      Service Order #: \_\_\_\_\_
  
5. For CEG (CE Polk) well locations on Fort Polk, contact DPW Housing at 537-0508 and request a Service Order be generated for locating CEG wells. A two-day notice is required before digging. Co-energy contractor will mark well locations. If this excavation is NOT in Housing, proceed to Para 6.
  
6. **Water, Sewer, Gas and Exterior Electric.** When you have completed I - 5 above, hand carry this form along with a sketch of the area to be excavated to the Utility Office in Building 3304, Room 3. The Utility Office will initiate service orders to locate water, sewer, gas and exterior electric. Allow 48 hours, after which you may pick up the approved dig permit, and proceed to excavate.
  - Natural Gas Service Order #: \_\_\_\_\_
  - Exterior Plumbing Service Order #: \_\_\_\_\_
  - Exterior Electric Service Order # \_\_\_\_\_
  - Thermal Wells: \_\_\_\_\_
  
7. Permit to dig on Fort Polk is approved on \_\_\_\_\_ (date).

\_\_\_\_\_  
Utility Supervisor  
AECOM Public Works

### **J4.3.2 Fire Control and Safety**

The utility system purchased by the Contractor includes facilities and the Contractor may elect to construct additional facilities on Post to support his operation. In all cases, the Contractor shall abide by Fort Polk fire protection requirements. Existing facilities may or may not include fire alarm systems. Where required by federal, state or local regulation, the Contractor shall maintain the fire alarm system for all facilities owned and operated by the Contractor. The Contractor shall permit Fire Department personnel access to their facilities to perform fire inspections and emergency response.

### **J4.3.3 Cost of Supporting Utilities**

The Contractor may consume reasonable quantities of supporting utilities at no charge. However, Contractor shall fully cooperate with the Government with respect to energy/water conservation measures as described in Section C.3.4.

### **J4.3.4 Crisis Situations**

The Contractor shall submit Emergency Response Plans for approval by the Government for all Exercise and Crisis situations IAW C.9.8.

### **J4.3.5 Wastewater Sampling/Reporting**

Contractor will monitor and sample wastewater to comply with wastewater discharge permit parameters. (Permits are available for review in the Bidders' Technical Library.) Copies of the monitoring logs, Discharge Monitoring Reports (DMRs), and all similar reporting documentation will be provided to the Government. Contractor shall continue to use the Installation-developed internal monitoring log format until an alternative format is approved.

### **J4.3.6 Preventive Maintenance**

The Contractor's O&M Plan will include specific tasks and frequencies for recurring inspections and cleaning of wastewater collection lines.

### **J4.3.7 Emergency Response**

Because of the critical nature of many Fort Polk mission requirements, response to utility emergencies must be immediate. The Contractor will respond with a knowledgeable individual to emergency utility problems within 20 minutes of notification during duty hours and within one hour during non-duty hours. Additionally, repair crews must be on scene within one hour during duty hours and within two hours during non-duty hours.

### **J4.3.8 Restricted Access**

The Contractor shall obtain approval from Fort Polk for restricted area access. The ranges on the Installation are in constant use. Currently the Range Control coordinates and schedules the use of these areas. Any utility work that needs to be done on the ranges has to be coordinated and scheduled with the Range Control to avoid conflicts with the Installation's mission.

### **J4.3.9 Energy Saving Projects**

In keeping with Paragraph C.3.4, *Energy and Water Efficiency and Conservation*, any projects that should be implemented or continued would be listed here.

- Though there are no projects identified at this time, the Contractor should generally plan to replace pumps with high efficiency equipment.

## **J4.4 Current Service Arrangement**

Fort Polk's wastewater collection and treatment system consists of two separate systems for the main cantonment areas and the two satellite systems described above in Paragraph J4.2. Permits for discharge from each of the systems will be included in the Technical Library.

## **J4.5 Secondary Metering**

There are currently no secondary meters included with the utility system being privatized and no requirements for secondary metering of wastewater at Fort Polk facilities included in this contract. Any future wastewater secondary metering requested by the Government will be IAW Paragraph C.3.3, *Metering*.

## **J4.6 Monthly Submittals**

The Contractor shall provide the Government monthly submittals for the following:

1. **Invoice.** (IAW Paragraph G.2, *Submission and Payment of Invoices*). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. The Contractor shall provide sufficient supporting documentation with each monthly invoice to substantiate all costs included in the invoice for each CLIN as approved by the Contracting officer. The proposed system of accounts shall be made available in electronic format as directed by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

*Name:* DIRECTORATE OF PUBLIC WORKS  
ATTN (Mr. Roy Bethel)  
*Address:* 2271 Louisiana Ave, Bldg 3304  
Fort Polk, LA 71459-5440  
*Phone number:* (337) 531-4508

2. **Outage Report.** The Contractor's monthly outage report (blockage and overflow information) will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

*Name:* DIRECTORATE OF PUBLIC WORKS  
ATTN (Mr. Roy Bethel)  
*Address:* 2271 Louisiana Ave, Bldg 3304  
Fort Polk, LA 71459-5440  
*Phone number:* (337) 531-4508

## J4.7 Infiltration and Inflow (I&I) Projects

IAW Paragraph C.3.4, *Energy and Water Efficiency and Conservation*, the following projects have been implemented by the Government for managing and monitoring I&I.

- There are no current/active infiltration and inflow projects associated with the utility system being privatized.

## J4.8 Service Area

IAW Paragraph C.4, *Service Area*, the service area is defined as all areas within the Fort Polk boundaries including the North Fort Polk and South Fort Polk areas. Service area also includes off-installation sites in the following paragraph.

## J4.9 Off-Installation Sites

Off-installation sites are included in the privatization of the Fort Polk wastewater collection system are:

- Peason Ridge
- Toledo Bend Recreation Facility.

## J4.10 Specific Transition Requirements

IAW Paragraph C.13, *Operational Transition Plan*, **Table 9** provides a list of service connections and disconnections required upon transfer.

**TABLE 9**  
 Service Connections and Disconnections  
*Wastewater Collection System, Fort Polk, Louisiana*

| Location | Description  |
|----------|--|
|          | There are no known service connections or disconnections required upon transfer of the Fort Polk Wastewater System.  |
|          | <b>A significant transition requirement pertains to obtaining Special Use Permit Agreements (SUPAs) from the U.S. Forrest Service for utility components installed on Forrest Service lands. As suggested in Paragraph J4.1.4 above, the Contractor should expect a recurring fee associated with these SUPAs.</b> |

## J4.11 Government Recognized System Deficiencies

Although the wastewater system has many components that have reached the end of their useful lives, and although there are significant I&I problems, there are no well defined and quantified system deficiencies documented by the Installation. A comprehensive R&R program would eliminate most of these system problems.

If any deficiency remedy requires a capital upgrade project, the capital upgrade project shall be proposed according to the following:

- Capital upgrade projects required to bring the system to standard shall be proposed under Schedule 3 – Initial Capital Upgrade(s)/Connection Charge(s).
- Capital upgrade projects required to replace system components shall be proposed in the first years of Schedule 2 – Renewals and Replacements – 50-Year Schedule, and the cost factored into Schedule 1 – Fixed Monthly Charge, for Renewals and Replacements as part of CLIN AA.
- Transition costs shall be proposed as a one-time cost and shall be treated similar to a capital project and included in Schedule 3 – Initial Capital Upgrade(s)/Connection Charge(s).
- Improvements proposed in the operational component of the work shall be included in Schedule 1 – Fixed Monthly Charge as part of CLIN AA.

**TABLE 10**  
System Deficiencies  
*Wastewater Collection System, Fort Polk, Louisiana*

| <b>System Component</b> | <b>Deficiency Description</b>   |
|-------------------------|---|
|                         | There are no system deficiencies associated with the Fort Polk wastewater system. |