

Attachment J04

Fort Hunter Liggett Wastewater System

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J04 Fort Hunter Liggett Wastewater System

J04.1 Fort Hunter Liggett Area Overview

Fort Hunter Liggett, California, is the largest Reserve Command post in the Army, occupying over 165,000 acres in the San Antonio River valley next to the Los Padres National Forest. The installation is situated approximately 250 miles north of Los Angeles and 150 miles south of San Francisco in California's Central Coast region. The post was established in 1940 and named after Lieutenant General Hunter Liggett (1857–1935), who commanded the 41st National Guard Division, and later, the First Corps of the American Expeditionary Forces during World War I. He also served as Chief of Staff for General Pershing. Today, Fort Hunter Liggett is operated primarily as the Army Reserve Command Western Reserve Training Center serving Active and Reserve components. Fort Hunter Liggett's mission is to maintain and allocate training areas, airspace, facilities and ranges in order to support reserve and active components' field maneuvers, live fire exercises, testing, and institutional training. Additionally, the installation provides quality of life and logistical support to training units.

The Multi-Purpose Range Complex (MPRC) supports live fire and maneuver training for tanks and Bradley Fighting Vehicles. Aviation training takes place at Tusi Army Heliport and Schoonover Tactical Air Strip, with additional aviation training at MPRC and Stony Valley. Several small arm ranges are also provided, from an M16 Qualification Range to a Hand Grenade Range.

The installation's population today is 250 permanent residents and civil servants, with increases up to 4,000 transient active duty personnel when on training rotation. Housing occupancy is typically 98 percent.

J04.2 Wastewater System Description

The Fort Hunter Liggett wastewater system consists of all appurtenances physically connected to the system from the point where the Government ownership currently starts, to the point of demarcation defined by Section J04.11 of this section or the real estate easements that result from negotiations under this contract. The system may include, but is not limited to treatment facilities, collection piping and appurtenances. The following description and inventory is included to provide the Offeror with a general understanding of the size and configuration of the system. The Offeror shall base the proposal on site inspections, information in the technical library, and other pertinent information, and to a lesser degree on the following description. Under no circumstances shall the successful Contractor be entitled to any rate adjustments based on the accuracy of the following description and inventory.

According to California Regional Water Quality Control Board, Central Coast Region, Standard Provisions and Reporting Requirements for Waste Discharge Requirements, January 1984, C. General Reporting Requirements, "Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Regional Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing discharger and proposed discharger containing specific date for transfer of responsibility, coverage, and liability

between them. Whether an order may be transferred without modification and a public hearing is at the discretion of the Board. If order modification is necessary, transfer may be delayed 120 days after the Regional Boards receipt of a complete Report of Waste Discharge.”

The Contractor shall comply with all applicable federal, state, and local regulations governing the operation of the wastewater system.

J04.2.1 Wastewater System Fixed Equipment Inventory

J04.2.1.1 Description

The wastewater system at Fort Hunter Liggett is concentrated mostly in the cantonment area and consists of collection piping, appurtenances, a treatment facility, and spray fields. The original system was constructed in the 1950's, and improvements have been made as needed since that time. All wastewater, primarily domestic sewage and limited vehicle washwater, produced in the cantonment area is treated at the Fort's 1.0 million gallon per day (mgd) wastewater treatment facility. Average annual flow to the treatment facility is approximately 88,000 gallons per day (gpd). Wastewater is treated in concrete-lined aerated lagoons. The treatment train includes bar screens, a comminutor, a wetwell, and three uncovered aerated lagoons in series. There are three wetwell pumps in the influent pump station that pump wastewater from the wetwell to a diversion box (valve chamber) that is normally set to divert wastewater to Pond #1, the first and primary aerated lagoon of the three in series. Two of these pumps make up the primary and secondary pumps, but there is an additional pump for emergency backup. This pump, in addition to having an electric motor like the other two, has a propane-driven motor so that the pump can still operate during a power outage. These pumps are automatically controlled by the level of wastewater in the wetwell.

Wastewater is continuously treated and flows by gravity through the aerated lagoons. Periodic drying and sludge removal to a landfill is the likely method of ultimate disposal of solids buildup. To date, drying and sludge removal has occurred twice. Sludge disposal is governed in accordance with the plant's National Pollutant Discharge Elimination System Permit. In addition, treated wastewater is discharged to a 105-acre vegetated spray disposal area on post. Discharge to the spray fields occurs as needed to regulate the wastewater levels in the lagoons. Two pumps, separate from the wetwell pumps, in the influent pump station at the wastewater treatment facility pump wastewater from the lagoons to the spray fields. At the spray field, disposal is accomplished primarily by evaporation and transpiration. Little percolation occurs because the soil is highly impervious. The San Antonio River is located approximately 4,000 feet southwest of the disposal field; however, surface runoff to the river does not occur. Normally, the spray field pumps pump directly out of Pond #2, but can be configured to pump from Pond #1. The spray field pumps are operated manually. The spray fields are not used for any purpose other than land application of the wastewater effluent. There is no livestock feeding on the vegetation, nor is there any overland runoff.

The wastewater collection system at Fort Hunter Liggett consists of approximately 27,000 feet of gravity sewers with a small amount of force main between the wastewater treatment facility and the spray fields. There are 208 manholes and no lift stations. The collection system is flushed two times per year.

There is one area separate from the cantonment area on post that has a wastewater system. The Miller Ranch area has a small wastewater system, consisting of collection piping, three septic tanks, a primary earthen lagoon and an overflow earthen lagoon.

Backup emergency generators that serve specific equipment of the wastewater system shall be conveyed as part of that particular system.

Effluent samples are taken by the wastewater system operator and are sent to a private laboratory for analysis for compliance with the system’s NPDES permit, and Monterey County Wastewater Treatment and Reclamation Facility, Permit and Discharge Conditions. Samples are picked up by the laboratory weekly. Analyses include pH and settleable solids weekly, Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) monthly, and sodium, chloride, and Total Dissolved Solids (TDS) quarterly.

J04.2.1.2 Inventory

Table 1 provides a general listing of the major fixed assets for the Fort Hunter Liggett wastewater system. The system will be sold in an “as is, where is” condition without any warrant, representation, or obligation on the part of Government to make any alterations, repairs, or improvements. Ancillary equipment attached to, and necessary for operating the system, though not specifically mentioned herein, is considered part of the purchased utility.

Table 1
Fixed Inventory
Wastewater System – Fort Hunter Liggett

| Item | Size (inches) | Quantity | Unit | Approximate Year of Construction |
|--|------------------|---------------|-------------|----------------------------------|
| Gravity Pipe and Force Mains: | | | | |
| Unknown material | Unknown diameter | 2,085 | Linear Feet | 1941, 1972, 1990 |
| Acrylonitrile-Butadiene-Styrene (ABS) | 4 | 118 | Linear Feet | 1941, 1972, 1990 |
| Bituminous Fiber Sewer Pipe (Orangeburg) | 4 | 47 | Linear Feet | 1950, 1972, 1990 |
| PVC | 4 | 1,566 | Linear Feet | 1950, 1972, 1990 |
| Vitrified Clay (VC) | 4 | 91 | Linear Feet | 1950, 1972, 1990 |
| Unknown | 4 | 497 | Linear Feet | 1950, 1972, 1990 |
| Asbestos Cement (AC) | 6 | 498 | Linear Feet | 1950, 1972, 1990 |
| PVC | 6 | 4,673 | Linear Feet | 1950, 1972, 1990 |
| VC | 6 | 779 | Linear Feet | 1950, 1972, 1990 |
| Unknown | 6 | 3,843 | Linear Feet | 1950, 1972, 1990 |
| AC | 8 | 2,539 | Linear Feet | 1950, 1972, 1990 |
| PVC | 8 | 45 | Linear Feet | 1950, 1972, 1990 |
| VC | 8 | 1,585 | Linear Feet | 1950, 1972, 1990 |
| Unknown | 8 | 5,063 | Linear Feet | 1950, 1972, 1990 |
| Unknown | 10 | 1,701 | Linear Feet | 1950, 1972, 1990 |
| AC | 12 | 45 | Linear Feet | 1950, 1972, 1990 |
| Unknown | 12 | 1,170 | Linear Feet | 1950, 1972, 1990 |
| AC | 18 | 696 | Linear Feet | 1950, 1972, 1990 |
| Piping Total | | 27,172 | Linear Feet | |
| Building Services | | 144 | Each | |
| Manholes | | 208 | Each | |

| Wastewater Treatment Facility | Capacity | Units | Approximate Date of Construction |
|---|--------------------------------------|-------------------------|---|
| Influent Pump Station | 9.7 (capacity of all pumps combined) | Million gallons per day | 1972 |
| Aerated Lagoons | 1.0 | Million gallons per day | 1972 |
| Spray Fields and appurtenant equipment | 105 | Acres | 1972 |
| Miller Ranch Primary and Overflow Lagoons | Unknown | Gallons per day | Unknown |

| Pumps | Operating Point | Horsepower | Speed | Brand | Approximate Date of Construction | Other Information |
|---------------------|------------------------------|-------------------|--------------|-----------------|---|--|
| Wetwell Pump #1 | 1,050 gpm at 24 feet of head | 10 hp | 1165 rpm | Fairbanks Morse | 1972 | 10-inch impeller; single stage; 6 x 8 |
| Wetwell Pump #2 | 1,050 gpm at 24 feet of head | 10 hp | 1165 rpm | Fairbanks Morse | 1972 | 10-inch impeller; single stage; 6 x 8 |
| Wetwell Pump #3 | 2,050 gpm at 28 feet of head | 20 hp | 860 rpm | Fairbanks Morse | 1972 | 14 5/8-inch impeller; single stage; 8 x 10 |
| Spray Field Pump #1 | 1,300 gpm at 275 feet | 125 hp | 1,760 rpm | Peerless | 1972 | |
| Spray Field Pump #2 | 1,300 gpm at 275 feet | 125 hp | 1,760 rpm | Peerless | 1972 | |

| Septic Tank with Drain Field | Size | Units | Approximate Date of Construction |
|---------------------------------------|-------------|--------------|---|
| 2220A | 9,000 | Gallons | 2001 |
| 0644B | 9,000 | Gallons | 1967 |
| Septic Tanks at Miller Ranch (3 each) | Unknown | Gallons | Unknown |

J04.2.2 Wastewater System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

Table 2
Spare Parts
Wastewater System – Fort Hunter Liggett

| Qty | Item | Make/Model | Description | Remarks |
|-------|------|------------|-------------|---------|
| None. | | | | |

Table 3
Specialized Equipment and Vehicles
Wastewater System – Fort Hunter Liggett

| Description | Quantity | Location | Maker |
|-------------|----------|----------|-------|
| None. | | | |

J04.2.3 Wastewater System Manuals, Drawings, and Records Inventory

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

Table 4
Manuals, Drawings, and Records
Wastewater System – Fort Hunter Liggett

| Qty | Item | Description | Remarks |
|---|------|-------------|---------|
| The installation maintains a limited collection of manuals, drawings and records on installed components of the wastewater system. This information or copies thereof will be transferred during the transition period. | | | |

J04.3 Current Service Arrangements

There are no current service arrangements with any organization to provide wastewater collection and treatment at Fort Hunter Liggett.

J04.4 Secondary Metering

The installation may require secondary meters for internal billings of their reimbursable customers, utility usage management, and energy conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW Clause C.3.

J04.4.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW C.3 and J04.5 below.

Table 5
Existing Secondary Meters
Wastewater System – Fort Hunter Liggett

| Meter Location: Building Number | Description |
|---------------------------------|-------------|
| None. | |

J04.4.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Clause C.13, Operational Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Clauses C.3 and J04.5 below. Although at the present time, the installation does not require any new meters to be installed, if meters are required in the future, the Contractor shall comply with Clause C.3.3.

Table 6
New Secondary Meters
Wastewater System – Fort Hunter Liggett

| Meter Location | Meter Description |
|----------------|-------------------|
| None. | |

J04.5 Monthly Submittals

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

Invoice (IAW G.2). The Contractor’s monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to the Contracting Officer’s designee. (This information will be provided upon award.)

Outage Report. The Contractor’s monthly outage report will be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall include the following information for Scheduled and Unscheduled outages:

Scheduled: Requestor, date, time, duration, facilities affected, feedback provided during outage, outage notification form number, and digging clearance number.

Unscheduled: Include date, time and duration, facilities affected, response time after notification, completion times, feedback provided at time of outage, specific item failure, probability of future failure, long term fix, and digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

Meter Reading Report. If required by the Contracting Officer, the monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award.)

J04.6 Energy Savings and Conservation Projects

IAW C.3, Utility Service Requirement. No projects have been implemented by the installation for energy conservation purposes.

J04.7 Infiltration and Inflow (I&I) Projects

There are currently no infiltration and inflow projects in development or execution.

J04.8 Service Area

IAW Clause C.4, Service Area. The service area is defined as the area within the boundaries of Fort Hunter Liggett.

J04.9 Off-Installation Sites

There are no off-installation sites included in this package.

J04.10 Specific Transition Requirements

IAW Clause C.13, Operational Transition Plan. **Table 7** lists service connections and disconnections required upon transfer, and **Table 8** lists the improvement projects required upon transfer of the Fort Hunter Liggett wastewater system.

Table 7
Service Connections and Disconnections
Wastewater System – Fort Hunter Liggett

| Location | Description |
|----------|-------------|
| None. | |

Table 8
System Improvement Projects
Wastewater System – Fort Hunter Liggett

| Location | Description | Year of Completion |
|----------|-------------|--------------------|
| None. | | |

J04.11 Wastewater System Points of Demarcation

The point of demarcation is defined as the point on the wastewater collection pipe where ownership changes from the Contractor to the building owner. The table below identifies the general locations of these points with respect to the building served.

Table 9
Points of Demarcation
Wastewater System – Fort Hunter Liggett

| Point of Demarcation | Applicable Scenario | Sketch |
|---|---|---|
| The point of demarcation is 5 feet away from the exterior of the structure. | All services leading to the wastewater collection system. | <p>The sketch shows a rectangular box labeled 'Structure' on the left. A horizontal line representing the 'Wastewater Collection Pipe' extends to the right. A vertical line labeled 'Service Line' enters the pipe from below. A vertical line marks the 'Point of Demarcation' on the pipe, with a double-headed arrow indicating a distance of 5 feet from the exterior wall of the structure to this point. The pipe continues to the right, ending at a vertical line representing the main collection system.</p> |
| The point of demarcation is 5 feet away from the exterior of the structure. | All services leading to a septic tank. | <p>The sketch shows a rectangular box labeled 'Structure' on the left. A horizontal line representing the 'Service Line' extends to the right, entering a rectangular box labeled 'Septic Tank'. A vertical line marks the 'Point of Demarcation' on the service line, with a double-headed arrow indicating a distance of 5 feet from the exterior wall of the structure to this point. The service line continues from the septic tank to a series of horizontal lines representing a 'Drain Field'.</p> |

J04.11.1 Unique Points of Demarcation

The following table lists anomalous points of demarcation that do not fit any of the above scenarios.

Table 10
Unique Points of Demarcation
Wastewater System – Fort Hunter Liggett

| Building No. | Point of Demarcation Description |
|---------------------|---|
| None. | |

J04.12 Treatment Plants

The following tables list all wastewater treatment plants.

Table 11
Treatment Plants
Wastewater Treatment System – Fort Hunter Liggett

| Description | Facility # | State Coordinates | Other Information |
|-------------------------------|-------------------|-----------------------------|--------------------------|
| Wastewater Treatment Facility | P-318 | N 35E59'26" W 121E13'55" | See Table 1. |