

## **ANDREWS AFB, MD UTILITY SYSTEM DESCRIPTIONS**

**General:** Andrews AFB is located in Prince George's County, Maryland approximately 5 miles southeast of Washington, D.C. Andrews AFB exists as an active military installation so the 89<sup>th</sup> Airlift Wing (AW) can provide worldwide airlift and logistical support for the President of the United States, and other key members of the government.

Andrews AFB includes the main base that occupies approximately 4,346 acres and 3 remote locations that occupy approximately 2,500 acres. The remote locations include the Brandywine Receiver site, Brandywine Housing area, and the Davidsonville Transmitter site. The Brandywine sites are both located about 5-miles south of the main base and the Davidsonville site is located approximately 20 miles east of Washington D.C. The main base contains a total of 1,342 buildings that include aircraft maintenance, civil engineering, base supply, administration, recreation, family housing, and dormitories.

**System Descriptions:** Only the water and wastewater utility system is being considered. The utility system information below is only an estimate and is subject to change.

### **Potable Water:**

#### **Andrews AFB Main Base Potable Water:**

The main base has no potable water treatment facilities or wells and the entire demand for potable water is supplied by WSSC. Water is currently provided to the main base through a 14-inch main located along the northern boundary near Forestville Road and an 8-inch main located on the eastern boundary near Fechet Avenue. The water distribution system includes more than 2,000 laterals with almost 340,000 feet of pipe ranging in size from 1-inch up to 14-inches in diameter.

The water system at the main base also includes two potable water storage towers of 250,000 and 500,000 gallons. The water storage towers are not required for the adequate supply of water at the main base. The water towers are not flushed and the water in them is stagnant.

Under normal operating conditions the demand for water is met through the single 14-inch main along the northern boundary and little, if any, water flows onto the base from the 8-inch main. Water used by the base is metered at the 14-inch main near where it enters the base along the northern boundary only; no metering is done at the 8-inch main. Water is prevented from leaving the base through the 8-inch main by a back-flow preventer valve. There are a total of 28 meters monitoring the water supply to users at the main base.

The fire-fighting network of hydrants is also supplied water by WSSC. The distribution system of pipes is included in the estimates of supply piping described above. In addition to the network of fire hydrants, there are three separate fire suppression (deluge) networks for the hangers located at the site. One network provides service for the hangers along the eastern side of the flight line, one network services the hangers along the western side of the line, and the third services the Air Force One Hanger.

#### **Brandywine Receiver Site Potable Water:**

A single water well located at the facility provides the potable water supply. An operator licensed in the State of Maryland supervises the treatment of water through an on-site plant. Treated potable water is stored in an elevated 15,000-gallon storage tank. Potable water is fed to the two buildings at the site through a 4-inch main.

**Brandywine Housing Area Potable Water:**

A single water well located at the site provides potable water supply. An operator licensed in the State of Maryland supervises the treatment of water through an on-site plant. Treated potable water is stored in an above ground 35,000-gallon storage tank. Water pressure is provided by a compressed air system. Potable water is fed to the 12 housing units through a 1.5-inch main.

**Davidsonville Transmitter Site Potable Water:**

A single water well located at the facility provides the potable water supply. An operator licensed in the State of Maryland supervises the treatment of water through an on-site plant. Treated potable water is stored in an elevated 15,000-gallon storage tank. Potable water is fed to the two buildings at the site through a 4-inch main.

**Sanitary Wastewater:**

**Andrews AFB Main Base Sanitary Wastewater:**

WSSC provides wastewater treatment for all sanitary wastes generated at Andrews AFB. It has collection lines that run along State Route 4 near the northeast section of the base and also along State Route 337 and 5 near the northwest section of the base. The wastewater from the entire east side of the base is collected through a system of gravity pipe and force mains to a 12-inch gravity main that connects with a 12-inch WSSC line near Dower House Road at State Route 4.

The west side of the base feeds through a collection system of gravity pipe and force mains to a 21-inch gravity main that connects with a 21-inch WSSC line at the west side of the base just south of the hospital. The wastewater collection system includes pipe, lift stations and force mains installed beginning in the 1940's with some new additions installed in the 1990's. The system includes approximately 385,000 linear feet of pipe ranging in size from 3-inch force mains to 21-inch gravity pipes; 94 lift station pumps; and over 2,400 service laterals from facilities and family housing units.

**Brandywine Receiver Site Sanitary Wastewater:**

The wastewater collection, treatment and disposal system consists of approximately 4,700 linear feet of 4-inch and 6-inch pipe, 9 lift station and treatment pumps, and a treatment system with a discharge pipe to a nearby perennial creek. The treatment system is capable of handling up to 9,000 gallons per day and includes aeration and activated sludge.

**Brandywine Housing Area Sanitary Wastewater:**

The wastewater collection, treatment and disposal system consists of approximately 834 linear feet of 6-inch and 8-inch pipe, 2 treatment pumps, a septic tank and sand filtration pit, chlorination treatment system, and discharge pipe to a nearby perennial creek. The treatment system of septic tank, sand filtration pit and chlorination is capable of handling up to 8,000 gallons per day.

**Davidsonville Transmitter Site Sanitary Wastewater:**

The wastewater collection, treatment and disposal system consists of approximately 2,000 linear feet of 4-inch and 6-inch pipe, 10 lift station and treatment pumps, a batch treatment system, and discharge pipe to a nearby perennial creek. The treatment system was constructed in 1996 and includes aeration, mixed media filtration, and chemical treatment. The treatment system is a batch operation designed to treat up to 5,000 gallons per day. The system has not operated properly since it was installed in 1996 because of reported low flows and lack of funding to troubleshoot the problems. The concrete treatment basins currently act as holding basins for the

wastewater. Air Force staff from the main base removes the waste twice per week and trucks the wastewater to the main base for disposal into the WSSC collection system.

The point of contact is Dana Patterson ([dana.patterson@tyndall.af.mil](mailto:dana.patterson@tyndall.af.mil) ),  
FAX (850)283-6336.