Booster Stations

Photo 10.2 Interior of a Booster Station

The six booster stations, oftentimes referred to as pump stations, along with the high service pumps at the filter plant create four different pressure zones within the Evansville Water system. Water initially travels through the central pressure zone as it leaves the plant. This zone is many times referred to as "city pressure". As the water moves towards the perimeter of the system it enters one of the seven booster stations. As shown in photo 10.2, a booster station is simply a structure that contains two or more pumps along with the inlet and outlet pipes as well as all of the motor and electrical controls to make the pumps turn on and off as needed. All of the pumps located within a booster station almost never run all at once. They are designed so that the pumps alternate in usage to prolong their life as well as provide redundancy in the event one should fail or have to be taken out of service for maintenance or repairs. There are water quality monitors that sample the water going through a booster station so the filter plant can ensure that the water throughout the system is maintaining the proper levels of disinfectant, pH, and clarity.

First Avenue Booster Station

The 1st Avenue booster station, located in front of the Ivy Tech Campus on First Avenue, increases the pressure from the central zone just enough to pump the water up the higher elevation where the campground reservoir is located. The water leaving the booster station is still considered to be city pressure but it is slightly higher pressure than the water prior to reaching the station. The pump station is located below ground and contains two pumps that are capable of pumping 5,500 gallons per minute each.

Weinbach Booster Station

The Weinbach booster station is located on Weinbach Avenue just south of where it meets Diamond Avenue. Like the First Avenue station, Weinbach takes water from the central pressure zone and increases the pressure just enough to supply water to the campground reservoir. There are two pumps capable of pumping 5,500 gallons per minute each located in the station.

Killian Booster Station

The Killian booster station is located on Harmony Way across the street from Mater Dei High School. The station includes four pumps, three of which are capable of pumping 2,080 gallons per minute and one capable of pumping 700 gallons per minute. This station draws water out of the four million gallon Killian reservoir and pumps it to the western side of the system where the 0.5 million gallon Upper Mt. Vernon Tank and the USI Tank is located. The pressure zone created by the water leaving the Killian station is referred to as the Killian pressure zone.

Ward Road Booster Station

The Ward Road booster station is located at the corner of St. George Road and Ward Road. It receives water from the central pressure zone and increases the pressure to help feed the Northern pressure zone. Constructed similar to the First Avenue station, Ward Road station is located below ground and contains two pumps capable of pumping 700 gallons per minute each.

Campground Booster Station

Campground booster station is located on Campground Road between First Avenue and Old State Road. It pulls water out of the 20 million gallon Campground reservoir located next to the booster station and pumps it into the Northern pressure zone. Campground station contains two pumps capable of pumping 2,800 gallons per minute each.

Stallings Booster Station

Stallings station is located on Highway 41 just north of Highway 57. Like Campground station, it receives water from the central pressure zone and increases the pressure to feed the Northern pressure zone.

Campground, Ward Road, and Stallings booster stations all supply water to the Northern pressure zone which contains the Darmstadt tank and the Volkman tank. Three of our wholesale water customers, German Township Water, Gibson Water, and the Town of Elberfeld, are all fed from the Northern Pressure Zone. Other large users such as Pittsburgh Glass Works, Ameriqual, Azteca Milling, and North High School are located within the Northern pressure zone and are served by these pump stations and water towers.

Lincoln Booster Station

Lincoln booster station is located near the Northeast corner of Lincoln Avenue and Greenriver Road. Just as Killian Station creates the Killian pressure zone on the west side of the system, Lincoln booster station creates the Lincoln pressure zone on the east side of the system. It draws water from the 0.5 million gallon Lincoln water tower and increases the pressure to feed the Lincoln pressure zone which includes the 0.5 million gallon Grimm Road water tower. Lincoln station contains three pumps, two of which are capable of pumping 750 gallons per minute and one capable of pumping 975 gallons per minute.