

A wastewater lift station is a specialized facility designed to move wastewater from one location to another, particularly when the terrain presents challenges such as elevation changes. By utilizing pumps and other equipment, these stations elevate sewage to a higher level, allowing it to flow through the sewer system and ultimately reach treatment facilities. This process is vital in preventing backups and ensuring that wastewater is efficiently transported away from residential and commercial areas.

#### **Components of a lift station:**

- **Pumps:** These are the heart of the lift station. The pumps move the sewage/wastewater from a lower elevations to a higher elevations. There are various types of pumps which can be used, including submersible and dry-pit pumps. **(Sources of gas release)**
- **Wet Well:** This is a storage chamber/vault where the wastewater enters into and collected before being pumped up and out. The wet well is equipped with sensors to monitor water levels and activate pumps as needed. **(Sources of gas release)**
- **Control Panel:** This system manages the operation of the lift station, including pump activation, alarms identifying malfunctions, and monitoring sewage levels within the wet well. levels.
- **Valves:** There are various valves used within a lift station and collection system such as, check valves and isolation valves used to control the flow of wastewater to prevent backflow. In addition, there are force main valves which assist in the transportation of sewage to the lift stations. **(Sources of gas release)**
- **Piping:** The underground collection system consist of many pipes which convey wastewater to and from the lift station, connecting in accessible interceptor vaults connecting sewer lines and ultimately delivering the sewage to the treatment facilities.