

3.2 Optimum Performance Available with Existing Facilities

As seen in the flow diagram in Section 3.1, the collection system conveys all of the sanitary flow into the Jake Thomas Lift Station or the Main Lift Station. All of the flow south of the West Prong of the Little Pigeon River comes into the Main Lift Station, which has a peak capacity of approximately 8.0 mgd and an average capacity of 6.0 mgd. The drainage basins north of the West Prong of the Little Pigeon River flow into the Jake Thomas Lift Station, which should have a peak capacity of 5.0 mgd, however due to hydraulic limitations in the force main, the station is only capable of pumping 4.0 mgd. Therefore, at peak capacity the Pigeon Forge sanitary sewage collection system can convey approximately 12.0 mgd of flow into the wastewater treatment plant.

The wastewater treatment plant is rated for 4.0 mgd, and has a hydraulic capacity of 8.1 mgd.