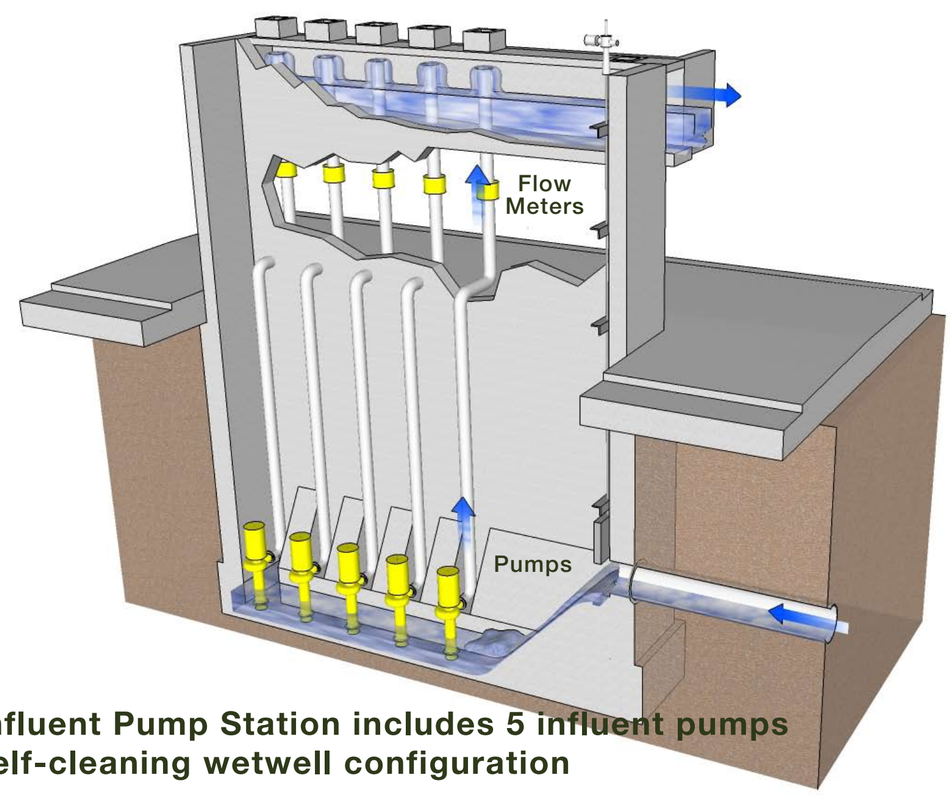
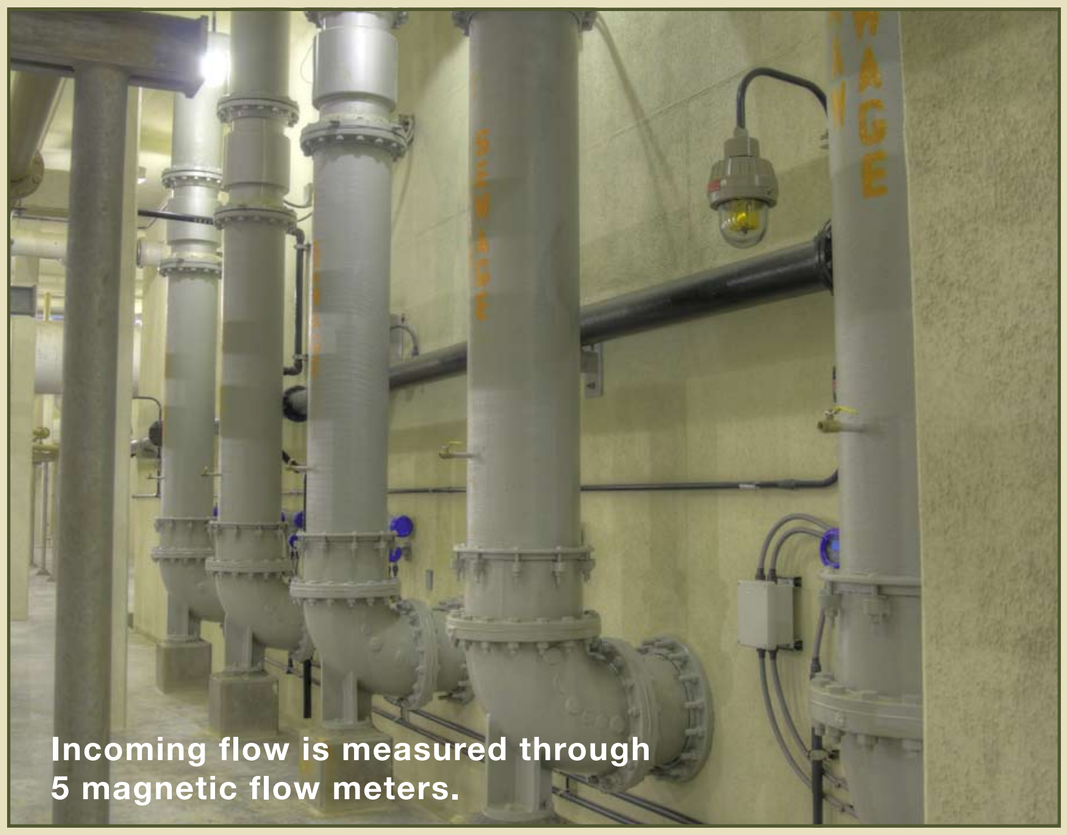
Influent Pumping

Wastewater from the collection system flows by gravity in pipelines that are 60 ft underground into the Influent Pump Station. The Influent Pumps Station is the deepest part of the plant and is located below the Headworks Building. The Influent Pump Station is comprised of five submersible "chopper" pumps that pump the incoming wastewater up into the Johns Creek Environmental Campus. As wastewater flow is drawn into the pump station, influent flow is continuously measured and recorded five influent flow meters.

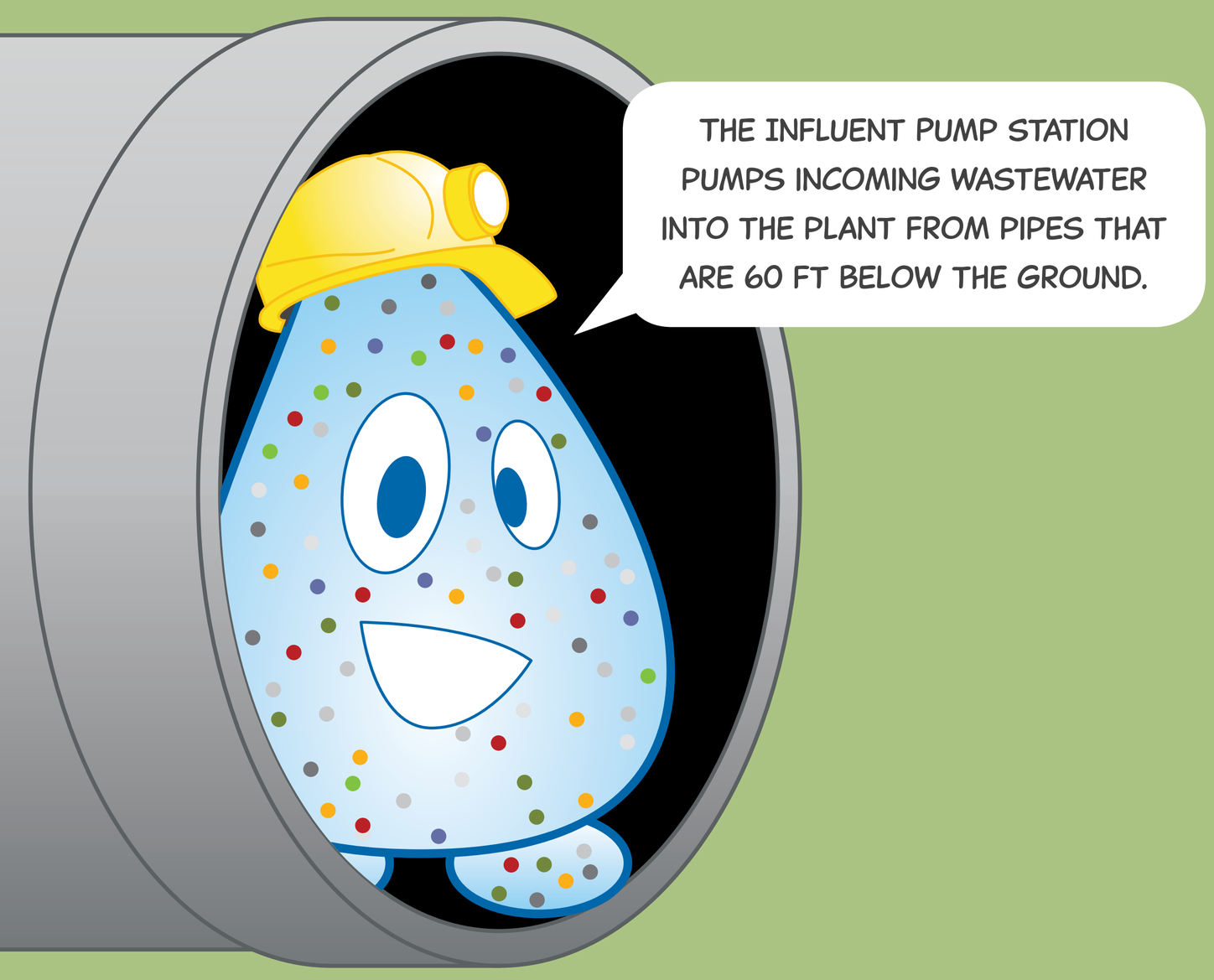
The influent pump station chamber was designed in a special "self-cleaning" trench configuration. Periodically the level is pumped down and a hydraulic "jump" is formed along the length of the wet well. This hydraulic jump acts to scour any settled or floating solids back into the wastewater before the wastewater is pumped into the facility for further treatment. This self cleaning process greatly reduces wet well maintenance and manual cleaning. The pumps used in the wetwell have special chopper bars that cut up any large material and allow even wood, plastic, and debris to be chopped up and pumped into the plant.



The Influent Pump Station includes 5 influent pumps in a self-cleaning wetwell configuration



Incoming flow is measured through 5 magnetic flow meters.



Influent Pumping Process Design Parameters	
Number of Pumps	4 (4 duty /1 standby)
Pump Type	Submersible Chopper Pumps
Pump Capacity	8.4 mgd
Total Pump Station Capacity	33.1 mgd
Wetwell Depth	75 ft
Wetwell Type	Self-CleaningTrench with Ogee Curve Spillway
Influent Pipeline Diameter	48"
Influent Pipeline Depth	60 ft