

City of Independence
City Council Meeting
May 6, 2024

Projected New Wastewater Treatment Plant Capacity (Max. Day Basis)

	Existing Load Estimates	Projected (2046)	Percentage Increase
Population (See Notes 1 and 2)	6,064	6,695	10%
Residential/Commercial Maximum Day Loads Received			
BOD5 (lbs/day)	3,000	3,300	10%
TKN (lbs/day)	350	380	9%
Industrial Maximum Day Loads Received			
BOD5 (lbs/day)	5,600	9,000	61%
TKN (lbs/day)	560	890	59%
Maximum Day Influent Loads			
BOD5 (lbs/day)	8,600	12,300	43%
TKN (lbs/day)	910	1,270	40%
Permitted Industrial Loadings - Maximum Day			
BOD5 (lbs/day)	6,900	TBD	TBD
TKN (lbs/day)	210	TBD	TBD
Estimated Plant Rated Capacity (See Note 3)			
BOD5 (lbs/day)	10,650	20,000	88%
TKN (lbs/day)	200	1,500	650%
Percent of Design Capacity			
BOD5	81%		
TKN	455%		

Notes:

- 1) Existing population is from 2020 Census Data.
- 2) Projected population growth rate is from Buchanan County and regional planning groups.
- 3) New estimated plant rated capacity requires agency approval. New plant rated capacity in excess of existing plant rated capacity could result in more stringent effluent limits.