

London Area Wastewater Plan - Proposed

Design Requirements

1. Average Daily Wastewater Flow
The service population and wastewater flow generation for the land use identified in this area are as followed:

Land Use	Units/Acre	Persons/Acre	Average Daily Flow	
			(gal/person/day)	(gal/acre/day)
Low Density Residential	4	14	100	1400
Medium Density Residential	10	35	100	3500
Estate Residential	1	3.5	100	350
Commercial	N/A	30	30	900
Park	N/A	10	20	200
Public/Semi-Public	N/A	30	30	900

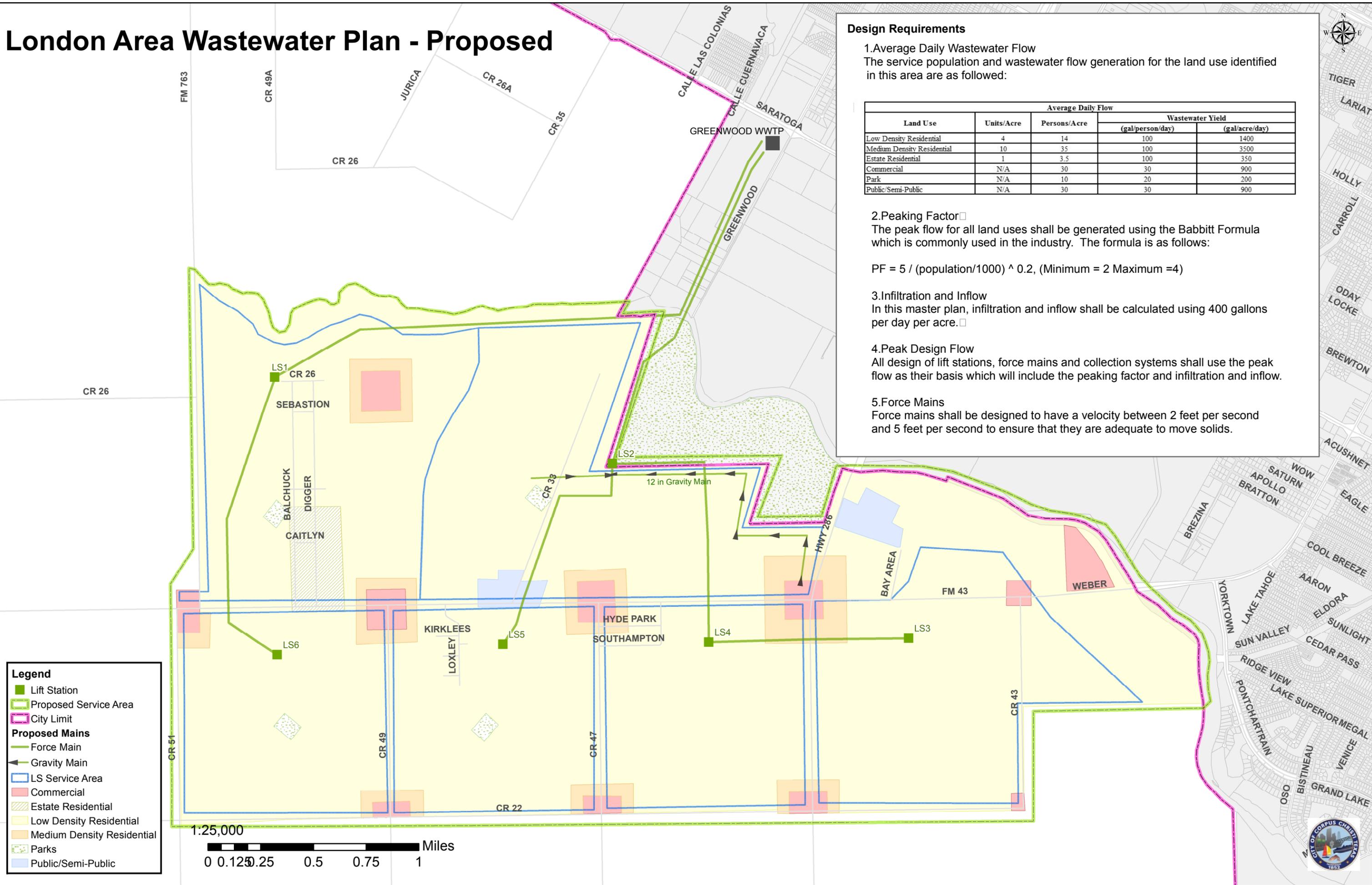
2. Peaking Factor
The peak flow for all land uses shall be generated using the Babbitt Formula which is commonly used in the industry. The formula is as follows:

$$PF = 5 / (\text{population}/1000)^{0.2}, (\text{Minimum} = 2 \text{ Maximum} = 4)$$

3. Infiltration and Inflow
In this master plan, infiltration and inflow shall be calculated using 400 gallons per day per acre.

4. Peak Design Flow
All design of lift stations, force mains and collection systems shall use the peak flow as their basis which will include the peaking factor and infiltration and inflow.

5. Force Mains
Force mains shall be designed to have a velocity between 2 feet per second and 5 feet per second to ensure that they are adequate to move solids.



Legend

- Lift Station
- ▭ Proposed Service Area
- ▭ City Limit
- Proposed Mains**
- Force Main
- ← Gravity Main
- ▭ LS Service Area
- ▭ Commercial
- ▨ Estate Residential
- ▭ Low Density Residential
- ▭ Medium Density Residential
- ▭ Parks
- ▭ Public/Semi-Public

