

## Sewer Capacity Fees

---

Providing water and sewer are keys to development. As the City of West Point continues to grow there is a need to generate revenue that will provide additional treatment and handling facilities. Most developers realize that they must contribute, not only to the construction of infrastructure, but also to "capacity" requirements placed on the City by new development. The city currently has in place water and sewer connection or "tap" fees. These fees cover the cost of installing individual connections on existing water or sewer lines. Tap fees do not address the cost of building additional sewer capacity needs. If a developer builds all infrastructures, mains and service lines, at no cost to the city there will be no tap fees, but the developer will be required to pay a sewer capacity fee. If the developer is tying into an existing line the developer will pay the tap fee and the sewer capacity fee.

Residential developments that are over 5 units will be required to purchase sewer capacity. All commercial developments will be required to purchase sewer capacity. Sewer capacity will be paid when applying for a building permit.

Sewer capacity of a particular development will be based on the City of West Point Standard of Design and Construction Specifications. Sewer capacity will be sold in gallons per day required by the development. The sewer capacity per gallon per day cost is currently \$5.00 GPD and will be reviewed from time to time by city staff and the Mayor and Council.

### Example:

A developer wants to build a 200 unit hotel in the city. Each unit requires 60 gallons of capacity per day; therefore, the sewer capacity requirement will be 12,000 gallons per day. Each gallon of sewer capacity cost the developer \$5.00, so the cost to the developer will be \$60,000.00.

### III. DESIGN CAPACITIES AND WATER DEMANDS:

An important factor in the planning and design of a water system is an accurate estimate of the quantities of water, which must be supplied to meet water needs. These estimates are pivotal to the entire design including the production of water, pumping, treatment, storage, and the distribution system. Each water system component is designed to meet certain flow requirements and to insure that water will be available at the various water use points throughout the system in adequate quantities to meet demands.

#### A. Estimating Basic Water Demands:

- (1) The various components of a water system are designed to meet specific water flow criteria which are dependent upon the type of water system and the objectives of the system.
- (2) Average Daily Demand expresses the quantity of water used in a system in an average day. It is based upon experience from water meter readings in similar water systems over an extended period of time and reflects the normal seasonal and daily variations. For design purposes, it is usually determined by estimating the population or units of housing or other units and multiplying by an average per person or per unit water consumption derived from past experience. The average daily demand will be exceeded on many days (during peak demands), so it is not appropriate to design merely for the average. The greatest amount- of water usage in one day or other period of time must be considered.

The following provides a guide for estimating the average daily demand for various types of establishments, in gallons per day per unit. The unit is persons per day unless otherwise indicated. The values are for normal water requirements and do not include special needs or unusual conditions. Additional allowances should be made for fire fighting, lawn watering, swimming pool, industrial or commercial process water and other special uses.

Type of Establishment	Average Daily Use (GPD)
Assisted Living Facilities (per room)	100
Assembly Halls (per seat)	2
Barber Shop (per chair)	20
Beauty Shop (per booth or bowl)	50
Car Wash (per site)	1500
Churches (per member)	1
Convenience Store (per bathroom)	125
Day Care Facilities	10
Factories, sanitary uses, per shift	15-35
Food service—Restaurants (per seat)	20

<u>Type of Establishment cont.</u>	<u>Average Daily Use</u>
The unit is per person unless otherwise stated	(gallons per day)
- With bars (per seat)	25
- Fast food (per seat)	15
Highway Rest Areas	5
Hotels (2 persons per room)	60
Institutions - Hospital (per bed)	150
- Nursing Homes (per bed)	150
- Others	75-125
Office Buildings	15
Laundries, self service (per machine)	250
Motels (2 persons per room)	60
Parks - Day use (with flush toilets)	5
- Mobile Homes (per unit)	200
- Travel trailers (per unit)	90-100
Picnic Areas (with flush toilets)	5-10
Residential Communities	
- Single Family Dwelling	200
- Apartments, townhouses, condo's	180
- Rooming house/tourist home (per bedroom)	150
Resort Motels and Hotels (per room)	75-100
Retail Stores (per toilet room)	200
Schools - Day, no showers or cafeteria	15
- Day, with cafeteria	20
- Day, with showers and cafeteria	25
- Residential types	75-100
Shopping centers, per sq. ft. sales area	0.16
Swimming Pools and Beaches	10
Theaters - Drive-in (per car)	3-5
Others (per seat)	3

3. Maximum Daily Demand expresses the greatest amount of water a system will use in one day. Small residential water systems may experience that their maximum day is 1.5 to 2 times the average day. However, this ratio may not apply to other water systems. In general, the smaller the water system, the greater the variation between the average and the maximum day.

4. Maximum Hourly Demand expresses the greatest amount of water, which will be used in any hour during the day. This is sometimes referred to as the peak hour demand, although there will be short term peak demand rates lasting for several minutes which will exceed the maximum hourly demand rate. Each type of system exhibits its own maximum hourly and short-term peak demands and the hours of peak occurrence will vary.