FIXTURE COUNT METHOD
For Calculating Peak Demand

Facility Name _____ Date _____

Well Permit # _____ WSSN _____

1. Total Fixtures from below = _____

Toilet	_____	Bathtub/shower	_____
Urinal	_____	Water softener	_____
Lavatory	_____	Wash machine	_____
Kitchen sink	_____	Hose bibb/hydrant	_____
Garbage disposal	_____	Automatic dishwasher	_____
Service/Mop sink	_____	Other_____	_____
Drinking fountain	_____	Other_____	_____
Food equipment	_____	Other_____	_____

2. Peak Demand in Gallons Per Minute (GPM) Per Fixture = _____ GPM

Type of Building	Total Number of Fixtures							
	25 or less	26-50	51-75	76-100	101-200	201-400	401-500	Over 500
Hospitals	1.00	1.00	0.80	0.70	0.60	0.50	0.45	0.40
Churches Halls Theaters	1.50	1.25	1.00	0.80	0.75	0.70	0.60	0.50
Mercantile Buildings	1.30	1.00	0.80	0.75	0.70	0.60	0.055	0.50
Office Buildings	1.20	0.90	0.75	0.70	0.65	0.50	0.40	0.35
Factories Warehouses	1.25	1.00	0.80	0.75	0.70	0.60	0.55	0.50
Schools	1.20	0.85	0.70	0.65	0.60	0.55	0.45	0.45
Motels Hotels	0.80	0.65	0.55	0.50	0.45	0.40	0.35	0.30
Apartment Buildings	0.60	0.55	0.50	0.40	0.35	0.30	0.25	0.20

Note: For buildings with less than 25 fixtures, the pump capacity should be a minimum of 10 gpm. Where laundries or swimming pools are to be supplied, an additional 10% should be added to the pump capacity. Where additional water is required for heating, cooling, or other special processes, the water usage should be added to the pump capacity.

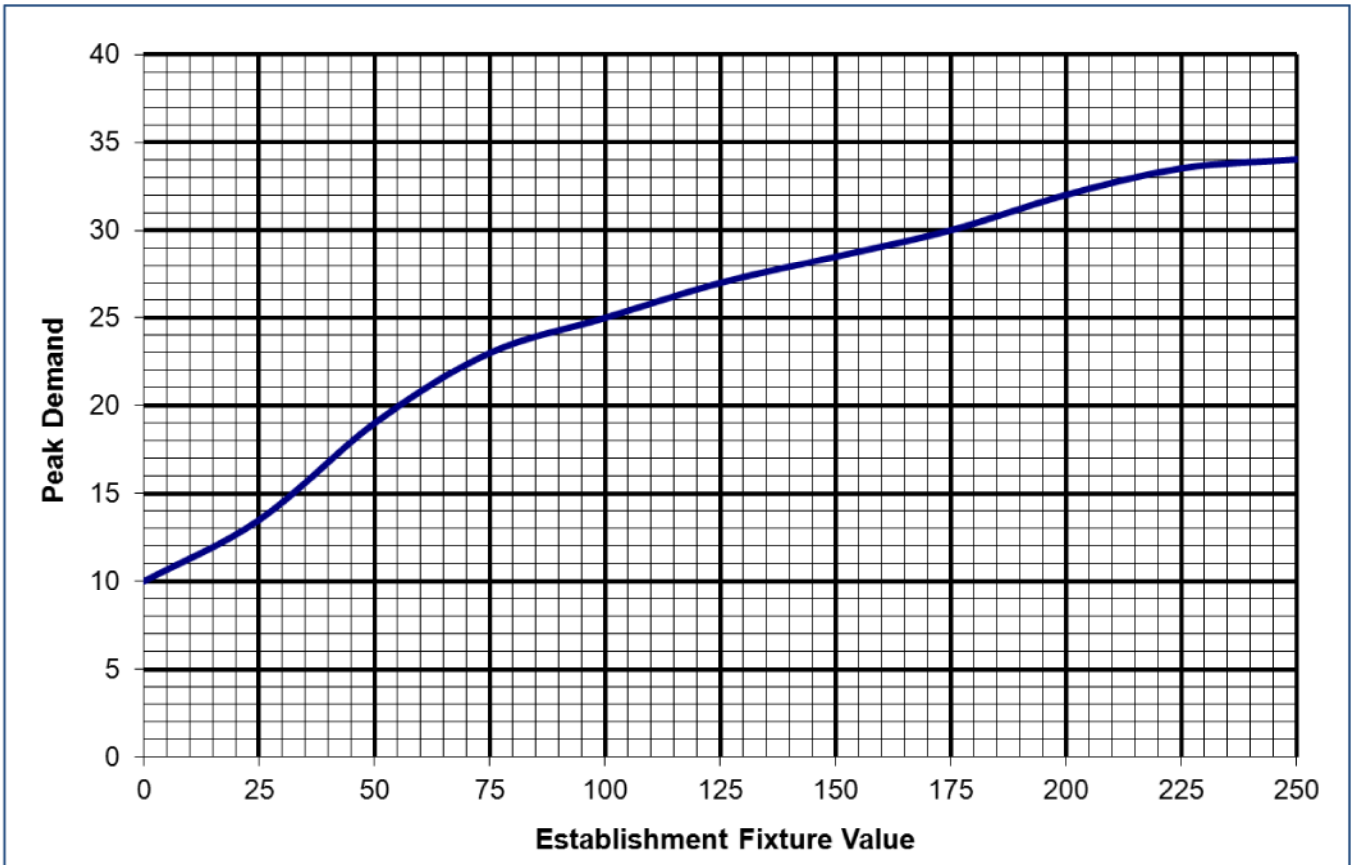
1. **Total fixtures_____ X 2. GPM per fixture_____=_____ GPM Peak Rate**

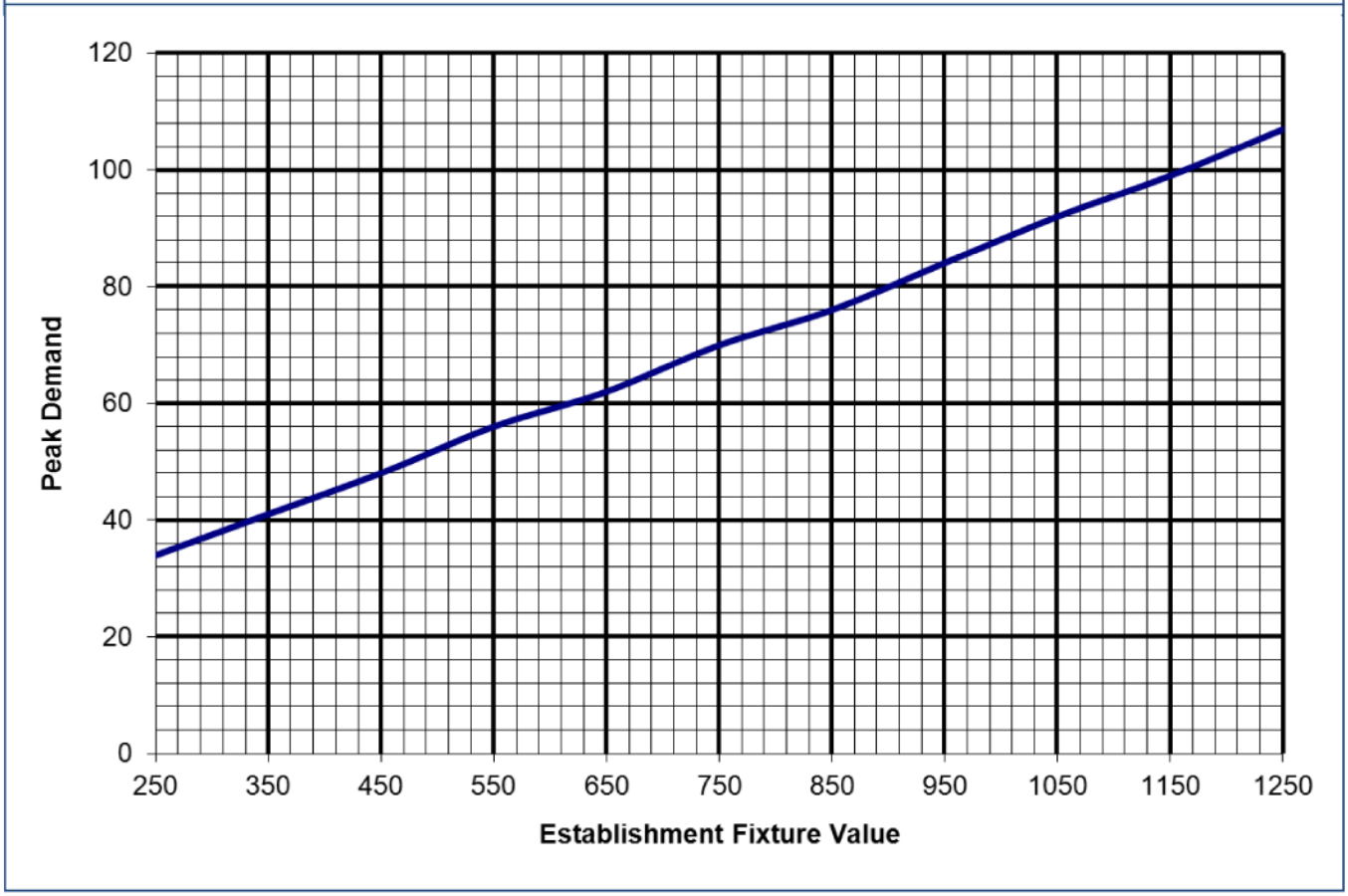
FIXTURE METHOD
For Calculating Peak Demand

Facility Name _____ Date _____

Well Permit # _____ WSSN _____

Fixture Type	Fixture Value		Number of Fixtures	Total
Water Closet, with tank	5	X		
Water Closet, with flush valve	27	X		
Urinal, with tank	4	X		
Urinal, with flush valve	15	X		
Combination fixture	4	X		
Lavatory	2	X		
Bathtub, or tub/shower combination	4	X		
Bidet	2	X		
Shower	3	X		
Drinking fountain	0.75	X		
Hose bibb or yard hydrant, ½"@ connection	3	X		
5/8" connection	5	X		
¾" connection	10	X		
Washing machine, ½" connection	3	X		
5/8" connection	5	X		
¾" connection	10	X		
Laundry tray	4	X		
Lawn sprinkler, per sprinkler head	5	X		
Auto washing, hand spray type	5	X		
Tractor and equipment washing	5	X		
Water softener regeneration	7	X		
Dental unit	1	X		
Dental lavatory	2	X		
Garbage disposal, domestic	3	X		
Commercial	5	X		
Kitchen sink, small	6	X		
Large	8	X		
Spray rinse, hand operated	4	X		
Ice machine	2	X		
Ice cream machine	2	X		
Ice cream dipper well	2	X		
Glass filling unit	2	X		
Hot chocolate unit	0.5	X		
Coffee urn	0.5	X		
Dishwasher, residential	2.75	X		
Other				
			Establishment Fixture Value	





Using establishment fixture value and graph, GPM Peak Rate = _____GPM

Note: Irrigation, process water, and automatic dishwasher needs to be added to the GPM Peak Rate.

RESIDENTIAL UNIT METHOD
For Calculating Peak Demand

Facility Name _____ Date _____

Well Permit # _____ WSSN _____

Type of Establishment	GPD/Person
Airports (per passenger)	5
Bathhouses and swimming pools	10
Camps: Campgrounds	Sized per Campground Rules
Construction camps (semi-permanent)	50
Day camps (no meals served)	16
Resort camps (night and day) with limited plumbing	50
Luxury camps	100
Church (per auditorium seat)	5
Church (with substantial kitchen wastes, per auditorium seat)	7-10
Cottages and small dwellings with seasonal occupancy	50
Country clubs (per resident member)	100
Country clubs (per non-resident member present)	25
Dwellings	
Boarding houses	50
additional for non-resident boarders	10
Luxury residences and estates	150
Multiple family dwellings (apartments)	80
Rooming houses	40
Single family dwellings	75
Factories (gallons per person, per shift, exclusive of industrial wastes)	35
Hospitals (per bed space)	250
Hotels with private baths (2 persons per room)	60
Hotels without private baths	50
Institutions other than hospitals (per bed space)	125
Laundries, self-service (gallons per wash, i.e., per customer)	50
Mobile home parks (per space)	200
Motels with bath, toilet, and kitchen wastes (per bed space)	50
Motels (per bed space)	40
Picnic parks (toilet wastes only) (per picnicker)	5
Picnic parks with bathhouses, showers, and flush toilets	10
Schools	
Boarding	100
Day, without gyms, cafeterias, or showers	15
Day, with gyms, cafeteria, and showers	25
Day, with cafeteria, but without gyms or showers	20
Service stations (per vehicle served)	10
Swimming pools and bathhouses	10
Theaters: Movie (per auditorium seat)	5
Drive-in (per car space)	5
Workers	
Construction (at semi-permanent camps)	50
Day, at schools and offices (per shift)	15

Estimated peak demand flow for schools, motels, office buildings, churches, apartment complexes, and similar type buildings can be determined using data from similar systems of comparable size and usage. Where the total gallons per day (gpd) water usage can be estimated, the peak demand gpm can be determined using a basic formula derived from studies of water use patterns for residential customers. If actual data from similar buildings is not available, an estimate of daily water usage for various establishment types can be obtained from the previous table. A residential unit (N) is equivalent to 350 gpd. The flow rate in gpm is equivalent to 10 times the square root of the number of N units served. If the peak demand is less than 10 gpm, 10 gpm should be used as the minimum pump capacity.

Total Daily Flow:

_____ Workers X _____ GPD X ____ Shift = _____ GPD ÷ 350 GPD = _____ N units

10 X √_____ N units =_____ GPM Peak Rate