



Water Demand Review

for residential properties adding dwelling units

such as ADUs and/or SB9 dwelling with Domestic (3" or smaller)

Provide the following information on plans:

- 1. If the New Dwelling Has Fire Sprinklers:** please submit plans for backflow prevention if not using passive purge (<https://www.lbutilities.org/Development-Services/Water-Development-Services/backflow-preventer-plan-check>)

If passive purge system is used, plans must be submitted for a water-demand review. The minimum meter size for fire-sprinklered dwelling units is 1-inch.

- a. Plumbing and/or Fire Sprinkler plans shall show the following:
 - i. Water demand: The design flow rate for the water-service line is determined by either the fire-sprinkler demand (per fire code) or the domestic water demand plumbing-fixture count (per plumbing code), whichever is greater.
 - ii. Show and label on the Site Plan:
 1. Curb face and property line
 2. Street Name and north arrow
 3. All buildings on the property with their addresses
 4. Existing and proposed water meter/services showing which service corresponds to which address and size of each water meter/service.
 - iii. Floor Plans: Show and label fire sprinkler piping is connected to a single toilet located in the remote portion of the system.
- b. Fire sprinkler demand will be reviewed by meter sizing (see additional information)
- c. Domestic Water Demand to be reviewed by both meter sizing and lateral sizing (see additional information)

- 2. If the new dwelling is NOT fire sprinklered:** Water demand review is still required.

Requirements depend on how the new dwelling will be served:

- a. **Condition 1: New meter/service for the new dwelling**

If the existing dwelling keeps its existing meter/service and the new dwelling gets a new meter/service, provide plumbing fixture list for new dwelling showing total water demand (fixture units FU/GPM) so we can confirm new water meter/service size.
- b. **Condition 2: Shared Existing Meter/Service**

If the new dwelling will use the existing meter/service, provide

 - i. Existing dwelling's plumbing fixture water demand
 - ii. New dwelling's plumbing fixture water demand
 - iii. Combined total water demand (FU/GPM)

This information is used to verify whether the existing service can meet the increased demand. If the combined demand exceeds the capacity of the existing meter/service, **an upgrade or separate services will be required.**

Additional Information:

Water services, 2 inches and smaller, shall be sized in accordance with the latest edition of the CPC.

In cases where sizing per the CPC is not applicable, the demand at the water meter (in gallons per minute, GPM) shall not exceed the Meter Size and Lateral Size Criteria listed below.

Meter sizing:

Sizing shall be based on the Safe Maximum Operating Capacity (defined as 10 percent of usage, or 2 hours per day) and the Recommended Maximum Rate for Continuous Operation (per AWWA C700-15, Table 1).

Meter Size:	¾"	1"	1 ½"	2"
Safe Max (GPM):	30	50	100	160
Continuous (GPM):	15	25	50	80

Lateral sizing:

Sizing shall be based on a maximum velocity of 8 feet per second.

Lateral Size:	¾"	1"	1 ½"	2"	3"	4"	6"	8"	10"	12"
Demand (GPM):	11	19	44	78	156	310	700	1250	1950	2800

For Fire Sprinkler demand, Meter Sizing (safe max) will govern.

For Domestic Water demand, lateral sizing will govern.

Refer to WDS-001 for configuration requirements for 3/4-inch, 1-inch, 1-1/2-inch, and 2-inch services.

End of Info