



## El Dorado Irrigation District

### RESIDENTIAL FIRE FLOW DESIGN PRESSURES

Due to varying topography, the El Dorado Irrigation District (EID) potable water system has many different pressure zones and operational pressures. In addition, the static and dynamic pressure in these zones may vary based on seasonal operational changes, and/or future permanent system changes. EID cannot guarantee specific water pressure will remain constant at any given parcel.

EID's system is designed and operated to maintain a minimum operating pressure of 40 pounds per square inch (psi) during normal operations, and a residual pressure of 20 psi during the operation of one or more fire hydrants (fire flow) per the California Code of Regulations Title 22, Section 64602. EID recommends that residential fire sprinklers be designed using these minimum operational pressures. These pressures are at the meter, and do not account for pressure losses through the meter. Actual pressures may be considerably higher. EID recommends the designer measure the static pressure at the meter to ensure the appropriate pipe pressure class is used.

**If you are requesting a water meter upsize from a ¾" meter to a 1" meter for sprinkler system operation, you will be required to submit backup documentation to support the request:**

- The backup documentation shall include, at a minimum, the hydraulic calculations of the proposed system design, and any calculations for design alternatives (reduced head spacing, pipe size changes, looping...etc.) that would allow the use of a ¾" meter for the proposed residential sprinkler system.
- The calculations should be accompanied by a signed letter on company letterhead that provides a detailed explanation of why a ¾" meter is insufficient.

If the replacement of a ¾" meter to a 1" meter is approved by EID, the customer will be responsible for the cost of the new meter and installation labor.

**If your project is not able to be designed using the recommended minimum operating pressure criteria, you will be required to submit the backup documentation reflecting the minimum pressure required from EID's potable water system:**

- The backup documentation shall include, at a minimum, the hydraulic calculations of the proposed system design, and any design alternatives (reduced head spacing, pipe size changes, looping...etc.) that could reduce the required pressure to EID's minimum criteria.
- The calculations should be accompanied by a signed letter on company letterhead that provides a detailed explanation of the scenario. Every effort should be made to minimize the required operating pressure before requesting an individual evaluation.

Please contact Development Services at (530) 642-4028 or [services@eid.org](mailto:services@eid.org) for parcel specific or commercial fire flow data requests and current meter pricing.

<http://eid.org/Home/ShowDocument?id=4850>