REDUCING PEAK DAY DEMANDS CAUSED BY LAWN WATERING

Water treatment plants and storage facilities are typically built to supply demands that are two, three and even four times larger than average daily demand on the system. This excess capacity is needed only a few days each year and adds significant costs to the design, construction and operation of a water system. Implementing measures to improve water use efficiencies and reduce peak demands can be a lower cost alternative compared to construction of new wells or treatment facilities. Here are a few examples of methods that can be used to reduce seasonal peak demands caused by lawn watering.

1. **Public Education and Information:** Provide customers with information on how often to water, how much water to apply, the best times to water and other lawn watering tips to improve sprinkling efficiencies. Attached are lists of public education options and lawn watering tips that you may find helpful.

2. **Odd/Even lawn watering ordinances:** Odd/even lawn watering ordinances can help reduce peak demands on a water system, but may actually increase water usage by encouraging customers to water more often than needed. Watering once or twice per week should be adequate for most types of soils. Odd/even lawn watering ordinances should always be done in conjunction with a public education program that includes information on how often to water, how much water to apply and the best times to water (see attached materials). Ordinances that allow lawn watering every 3-5 days could be considered in areas with heavier soils.

3. **Time of day lawn watering ordinances (no lawn watering during midday hours):** Early morning is the best time to water for a healthy lawn. Public information programs and local ordinances that encourage lawn watering before 10:00 a.m. and after 6:00 p.m. can improve lawn watering efficiencies by reducing water lost to evaporation and wind drift. Some communities also limit lawn watering between 4 p.m. and 9 p.m. to reduce peak demands during these hours. Time of day lawn watering ordinances should be done in conjunction with a public education program.
4. **Water Rate Structures:** Increasing block (rates that increase as consumption increases) rate structures and seasonal surcharges (higher rates during months with peak demands) are examples of rate structures that can be used to reduce peak demands and encourage efficient water use. Customers that use more water and contribute to peak demands on the system would pay higher water bills. These rate structures provide incentives to use water efficiently and may be appropriate for generating revenue for funding the construction of new wells or treatment facilities that are required that to supply peak demands.

5. **Billing Frequency:** Monthly billing encourages conservation by providing timely information on water usage which gives customers an opportunity to make modifications in water use practices or identify and repair costly leaks. Water bills can also be used to provide information on how to use water efficiently.

6. **Development Approvals:** Local approvals for new developments often encourage open space that typically includes large turf areas requiring high volumes of water. Encouraging alternative landscapes, reducing turf areas, and the planting of trees can reduce water use.

7. **Sprinkling Systems:** The popularity of automated sprinkling systems have increased water use and peak demands significantly. Communities have adopted ordinances that require automated sprinkling systems to have rain sensors that prevent the operation of systems after an adequate amount of precipitation has accumulated.