

Calculate the Design Flow for the Water Treatment Plant

MAX DAILY DEMAND

$$(2500) \text{ people} (165) \frac{\text{gal}}{\text{day person}} = 412,500 \frac{\text{gal}}{\text{day}} \text{ average}$$

$$(412,500) (1.30) (1.8) = 995,250 \frac{\text{gal}}{\text{day}} \text{ MAX. DAY}$$

\swarrow Summer Mult. \nwarrow MAX DAY MULT

FIRE DEMAND (DEPENDS ON STORAGE)

1587 gpm Requires 2 hrs Duration TABLE 7.13

$$(1587) \frac{\text{gal}}{\text{min}} (60) \frac{\text{min}}{\text{hr}} (2) \text{ hr} = 190,440 \text{ gal}$$

MAYBE 1/2 COMES FROM WATER PLANT AND
1/2 COMES FROM STORAGE

GROWTH (TAKE TOTAL + 50% TOTAL)

$$\begin{array}{r}
 995,250 \\
 95,220 \\
 \hline
 1,090,470
 \end{array}
 \frac{\text{gal}}{\text{day}} + 545,235 = \underline{\underline{1,635,705}} \frac{\text{gal}}{\text{day}}$$

Potable Water 3