

What is aggregate water demand (combining all uses and people) for the following group of people? Each of 100 equivalent households have both of the following separate water demands for their rival and nonrival uses of water.

$$mb_r = \left(\frac{1}{w_r} \right)^{\frac{1}{3}} \qquad mb_n = \left(\frac{16}{w_n} \right)^{\frac{1}{4}}$$

Rival demand pertains to in-home uses. Nonrival demand here relates to water diverted to a local lake where people enjoy scenic beauty. Lake water cannot be subsequently used in homes or vice versa.