

CH 9 Water Resources: ADDITIONAL CALCULATIONS

Current daily indoor per capita water use in the United States is approximately 70 gallons. Of this total usage average approximately 30% is used for flushing toilets. By installing more efficient water fixtures and regularly checking for leaks, households can reduce daily per capita water use by about 35% to about 45 gallons per day. Flushing toilets could be lowered to 20%.

1. What would the total economic savings be for a family of 5 in a year? The average cost of water is \$0.05 per gallon.
2. How much water would be used daily for flushing toilets if Rolling Meadows has an approximate population of 25,000?
3. How much water would be saved per day if the people of Rolling Meadows used efficient water fixtures and prevented leaks?
4. Illinois has an approximate population of 12,900,000 people. How much water could be saved per day if all Illinois were to conserve water using efficient water fixtures?
5. The U.S. has an approximate population of 312,000,000 people. How much water could be saved per day if all US citizens were to conserve water with efficient water fixtures?
6. The values you calculated above represent one day's worth of savings. Convert these numbers to yearly savings.
7. Assuming an average cost of water is approximately \$.05 per gallon, what is the economic savings in Rolling Meadows, Illinois and the U.S. represented by the yearly savings in gallons.