Municipal Water Use Example

Assume a residential city with a population of 10,000 is supplying a total of 1,500,000 gallons per day. This city launches a major economic development campaign and is able to attract a food process plant with a water demand of 1,200,000 gallons per day. The city decides to launch a water conservation initiative and leak detection program to help defray some of the infrastructure costs. When the nearby community hears that the city is planning to add major water supply and treatment facilities they contact them to see if they will supply water to their community as well and eliminate their need to replace an old water supply system. The city agrees to sell water to the neighboring community estimated to be 600,000 gallons per day.

Once the food processing plant is in operation and water is supplied to the neighboring community, the city's total water supply has reached 3,600,000 gallons per day and their population has increased to 13,500 people. How can the city evaluate the results of their water conservation program? How can the city's water use be benchmarked against other communities?