Water Use Efficiency
Kennewick Water System

- Provides service to 20,663 accounts and a population of 67,900
- Source water consist of 2 ranney wells and a surface water treatment plant with a maximum source capacity of 30.5 MGD
- Service is provided to five pressure zones
- 9 water reservoirs with a total storage capacity of 28.6 million gallons
- 3 emergency water system interties
- Approximately 75% of customers are served by one of two irrigation districts
2007 Monthly Water Production

2007 Monthly Water Pumpages by Source

- Total Monthly Pumpage
- Collector #4
- Collector #5
- Water Plant

Month

Water Pumpage in Mcf

Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec
Water Use Efficiency Program

- Public Education
- Technical Assistance
- System Measures
- Incentives/Other Measures
Efficiency and Conservation Measures

- Have inspected a total of 296 miles of water main as part of a leak detection program that began in 1994.
- Have collected and tracked water efficiency and conservation data since 1997.
- Low flow showerheads, toilet tank displacement bags, and leak detection tables have been offered to customers since 1998.
- Maintain source meters for accuracy
- Reservoir Sealing Projects
- Large Meter Testing Program
- Meter Repair/Replacement Program
- Unmetered Water Policy
- Large Customer Water Audit Program
Distribution System Leakage

Year | Percent Leakage
--- | ---
1996 | 14
1997 | 10
1998 | 6
1999 | 7
2000 | 8
2001 | 10
2002 | 7
2003 | 8
2004 | 10
2005 | 12
2006 | 10
2007 | 8
Program Benefits

- Overall system supply increases can be reduced
- Extend life of existing water supply sources
- Reduces quantity of wastewater
- Reduces distribution system pumping costs
- Promotes good stewardship of state’s water resources
Annual Average Per Capita Demand

The graph shows the annual average per capita demand from 1994 to 2007. The demand fluctuates around the range of 140-200 per capita, with slight increases and decreases across the years.
2007 Per Capita Water Demand (152 gpcd)

- Single-Family: 66.9 gpcd
- Multi-Family: 22.9 gpcd
- Commercial/Industrial: 39.4 gpcd
- Municipal/Government: 13.4 gpcd
- Unmetered Water: 0.6 gpcd
- Water System Leakage: 9.0 gpcd
Annual Average Per Capita Demand

- Has ranged from a high of 186 gpcd in 1994 to a low of 136 gpcd in 1997
- Has averaged 158 gpcd for the period 1994 through 2007
Water Use Efficiency Goal

- Maintain annual average per capita demand below 170 gallons per day.
- This goal will be met by continuing with water conservation efforts that have previously been implemented, conservation efforts required by the Quad-Cities permit, and by expanding measures that have been identified in the water conservation plan.
- Continued growth into areas are not served by an irrigation district will place upward pressure on this goal.
Questions ?