



# Water Conservation in Rapid City

# How Can City Conserve Water?

- Reduce Water Loss in System
- Implementing Effective Water Rates
- Conservation Ordinances
- Low Flow Toilet Rebates
- High Efficiency Washer Rebates
- Water Conservation Kits

# Water Loss in System

- Leaking water lines, line breaks, etc
- National average is 10%
- Rapid City is 6.5% (or 219 MG/year)
- Result of keeping distribution system in good condition
- We can do better

# New Rates in February

- Three tier structure changed to four tier
  - 0-10 units = \$2.13
  - 10-40 units = \$2.30
  - 40-75 units = \$2.68
  - >75 units = \$3.14
- Discourages excessive lawn watering

# Conservation Ordinances

- No watering 9 am – 6 pm
- Odd/even watering restrictions
- Pactola level restrictions
  - Normal status (Pactola > 85%) = restrictions June, July, August
  - Concern Status (Pactola <85%) = restrictions April-Sept
  - Alert Status (Pactola <50%) = restrictions year round
  - Critical Status (Pactola < 25%) = no outside watering plus \$1/100 cubic feet added to bill
  - In January 2008 Pactola was at 45%

# Low Flow Toilet Rebate

- Install low flow toilet get \$75 rebate for 1st, \$60 for second and \$50 for each additional
  - Must be 1.6 gal per flush (pre 1980 = 5-7 g/flush, post 1980 = 3.5 g/flush)
  - Must be purchased locally (receipt required)
  - Inspection required
- Residential only with City account
- Existing homes (not for new construction or additions)
- Can save 11,000 gallons per year per household (family of 4 with 3.5 g/flush toilet) or \$30/yr

# High-Efficiency Clothes Washer Rebate

- Install high-efficiency washer get \$125 rebate
  - Must be high-efficiency (front load)
  - Must be purchased locally (receipt required)
  - Inspection required
- Residential only with City account
- Existing homes (not for new construction or additions)
- Can save 7,000 gallons per year per household or \$20/yr

# Water Conservation Kit

- Toilet leak detection tablets
  - Leaking toilet can waste 10,000 gal/yr
- Garden hose attachment
  - Low flow head, trigger activated
- Low flow shower head
  - Can save 7,000 gal/yr
- Low flow kitchen faucet attachment
  - Can save 1,000 gal/yr
- Total cost = \$7-14 each
- By using all of these could save 18,000 gal/yr  
= \$50/yr
- Free to City account holders

# All These Measures Have Benefits

- Reduces stress on water equipment and infrastructure
- Reduces demand on wastewater treatment plant
- Allows resources to last longer (aquifer and creek)
- Puts less stress on cold water fisheries
- Allows Pactola to maintain good recreational levels
- Saves citizens money

# Conservation Does Work

- Proof
  - 1988 our highest single day usage = 36MGD with 14,500 accounts
  - 2007 highest day usage = just over 26 MGD with 20,000 accounts
  - 10 MGD less with 5,500 more accounts
- But.....We can do much better



Questions?