

From where does Huntington  
Beach get its water supply?



# Groundwater

- The majority of the City's water is supplied by 10 groundwater wells located throughout the City.
- The Orange County Water District (OCWD) manages the groundwater basin and sets an allowable basin pumping percentage (BPP).
- Over the course of the last 10 years, the BPP has ranged from a low of 62% to a high of 82%.

and.....



# Imported Water

- The remainder of the City's water supply is "imported" by the Metropolitan Water District of Southern California (MWD).
- The water is a mix of supplies from the State Water Project and the Colorado River.
- The Municipal Water District of Orange County (MWDOC) manages the imported water supply for Orange County.

and.....



# Water Use Efficiency

- Using water wisely is the least expensive way to provide additional supply.
  - Simple changes in daily habits
  - Attentive maintenance of indoor plumbing and irrigation systems
  - Water efficient landscape practices



# Where Huntington Beach Gets its Water



What does water cost the City?



# It varies....

- OCWD charges a basin replenishment assessment (RA) for each acre-foot (325,851 gallons) of water; currently \$249.
- MWDOC's rate effective 9/1/09 is \$707.50/af.
- Based on the established BPP, the average cost fluctuates.
- There are other costs that contribute to the total cost of water:
  - Energy, maintenance and treatment costs at the wells
  - Readiness-to-serve and capacity charges from MWD

What does water cost me?



# Surprisingly little...

- Effective 10/1/09 the City's water rate will be \$1.70 per hundred cubic feet (ccf or 748 gallons).
- That's only 2.3 tenths of a cent per gallon!
- A 16 oz. bottle of water at \$1.00 equates to a cost of \$8.00/gallon.
- For that same dollar you could fill 3,500 bottles from the tap!!

# Huntington Beach Water Facts and Figures



# Water Consumption

- Consumption for water year (7/1 to 6/30) 2008-09 was 31,630 af; the lowest in the last 20 + years.
- Residential (single-family and multi-family dwellings) accounts for 72% of the City's total water consumption.
- On average, 32% of the City's annual consumption occurs in July August and September versus 20% in January, February and March.

# Water Connections

- Single-family – 44,076
- Multi-family – 4,112
- Commercial/Industrial – 2,587
- Dedicated Irrigation – 930
- Municipal:
  - Facilities – 92
  - Dedicated irrigation – 467
- Total = 52,264

# Water System

- 10 groundwater wells – 30,000 gpm capacity
- 3 import connections
- 4 reservoirs – 55 million gallons
- 4 booster stations – 44,365 gpm capacity
- 590 miles of distribution pipeline
- 5,751 fire hydrants
- 16,415 valves





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How is the quality of our water?



# It meets or exceeds all water quality standards

- Your water is tested every week at designated sample points throughout the City.
- The City runs an aggressive cross connection control program, monitoring over 6,900 backflow devices.
- SCADA system monitors all wells and booster stations around the clock

# Water Quality

- Potential contaminants are measured in either:
  - Parts per million (1 inch in 16 miles)
  - Parts per billion (1 inch in 16,000 miles)
- June 2009 EPA report states that public water systems are safer than bottled water

# In the News

- Are we in a drought? Will there be rationing?
  - Desalination
  - GWRS
  - Greywater systems
  - Conservation
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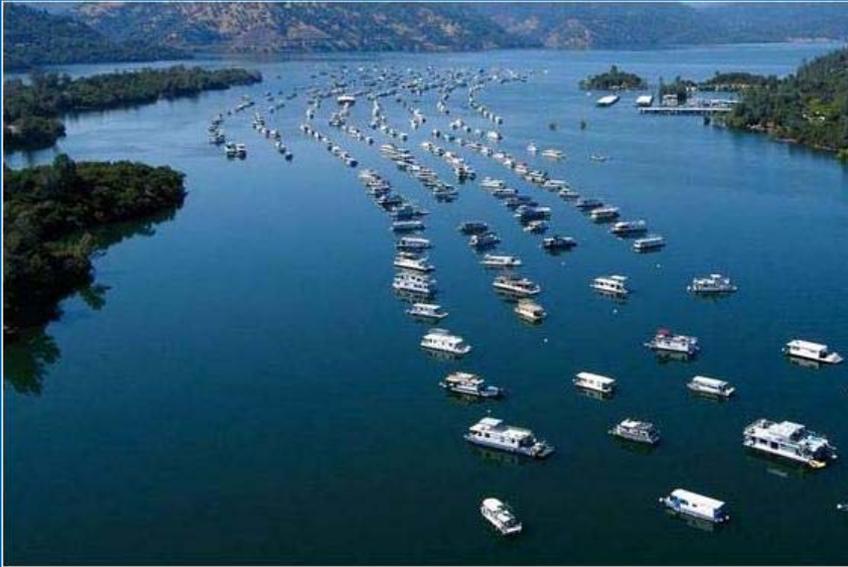
# Is there a drought?

- The governor released a drought proclamation in June 2008.
- In February 2009, the governor declared a state of emergency
- There are conveyance issues with State Project water due to a court ruling to protect the Delta Smelt

# Is there a drought?

- Deliveries of State Project Water to MWD have decreased by 1/3 or 500,000 af per year.
- The region has experienced drought conditions in 8 of the last 9 years.
- Lake Mead and storage reservoirs throughout the State are at levels well below capacity
  - Lake Oroville – 40%
  - Lake Shasta – 45%
  - San Luis – 19%
  - Diamond Valley – 43%

# Lake Oroville – 2005 and 2008



# Diamond Valley Lake – 2006 and 2008



# Lake Mead – “bathtub rings”



# Desalination

- Proposed HB project would provide the region with 50 MGD/day
- The City could take up to 10-12% of our annual demand
- The cost per acre-foot is currently much higher than even import costs
- The process uses a substantial amount of energy

# Groundwater Replenishment System (GWRS)

- Joint project by OCWD and OCSD.
  - GWRS treats wastewater to drinking water standards and transmits it for injection into the groundwater basin
  - Currently can produce 72,000 af/year
  - There are plans for expansion of the plant up to 90,000 af/year
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# Greywater Systems

- California plumbing code was updated August 4 to allow greywater systems.
- Certain household drains are diverted and the “greywater” is used for subsurface irrigation.



# Conservation

- Huntington Beach has drastically increased its water conservation efforts.
  - Public Information
    - US Surf Open
    - Surf City Nights
    - Displays and mailings
    - Upgraded website
  - Water Use Efficiency Master Plan
    - Projects and programs for sustainable water savings