Future Water Costs in Houston Metropolitan Region

Houston Land/Water Sustainability Forum

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Forces Affecting National Water Demands

- Macro
  - Economic
  - Climate Change
  - Sustainability Ethic
  - Resource Management/Efficiency
    - Outcome of non-dam water supply concept
Macro Forces

Economic
- Significantly Increasing Commodity Costs (Chemicals, Electricity, Materials)
- Financial (Increasing Cost of Money)

Climate Change
- Proactive National Impacts and Responses (Las Vegas, New York, Seattle)
- Legislative
- Financial

Utilities will be forced to react to above
Macro Forces

Sustainability Ethic
- Green Movement (federal, state, local)
- Education (Water Alliance/State of Texas, local)

Resource Management Efficiency
- Conservation
- Reuse
- Desalination, Conjunctive Supply, etc

Preserve Resource, Protect Environment, Efficiently Serve Public

Utilities will Pro-Actively respond to above
Texas Enabling Processes

Proactively Engaged

- Regional Water Planning
  - Increased Public Visibility
- Permitting Requirements (conservation)
  - Requires Demand Management
- Established Legislative Goals
  - Goals of 140 gpcd

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Planned Conservation Utilization Within Texas

Regional Water Plan Reports that by 2060:

- Conservation accounts for almost 25% (2.0 M acre-feet) of total water supply need
- Municipal Conservation represents 30% of total quantity of state-wide conservation
- Per capita usage declines of over 20 gpcd
- Region H projects an 8% demand reduction due to conservation, equivalent to over 100,000 acre-feet. This represents the same amount of supply as Lake Conroe.

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Long Term Trends

Sustained Long Term Demand Reduction
- Weather and Water Rates (Houston- 118 gpcd)
- Surface Water State (costs more than groundwater)
- Noticeable and Continuous

Significant Increase in Water Education
- Multiple Conservation Message Outlets (Water IQ, etc)
- Museums, Events, etc
- More Visible Subject
Long Term Trends

Relatively Moderate Existing Water Prices
- Mix of groundwater/surface
- Historically moderate cost for bond debt

Conversion to Surface Water will increase per unit water cost throughout region
- Harris, Galveston, Fort Bend, Montgomery counties switching from groundwater (cheap) to surface water
- Surface water requires more infrastructure, chemicals and power
Future of Houston Regional Water Rates

- Water Industry will be forced to Rise to address Pricing Forces and Public Awareness
- Macro economic pressures will drive up water costs at same time that demands will decrease supporting upward per unit gallon price movement
- Public will support price increases due to comparatively cheap current water prices