OBJECTIVES

Objectives of this study:

- To identify a common metric for comparison of water rates across user categories.
- To evaluate how the new rate structure will impact the typical user in each category.

Not in this study:

- Comparison of sewer rates.
- Comparison of different users within each category.

Data Source:

- City of San Diego Cost of Service Study, December 2006
KEY QUESTIONS

- What does the average residential customer pay per gallon of water?
- What does the average commercial and industrial customer pay per gallon of water?

Rates are dependent on three factors:

1. Type of User
2. Size of pipe
3. Gallons consumed

The typical customer is defined as the customer in the statistical mean of consumption by category. A statistical though a statistical median would have been a better measure but was not available in the data.
WHO IS THE AVERAGE CUSTOMER?

- Single Family Residential
- Multi-Family Residential
- Commercial / Industrial
WHAT IS THE AVERAGE PIPE SIZE FOR EACH CUSTOMER TYPE?

Single Family Residential: 3/4"
Multi-Family Residential: 3/4"
Commercial / Industrial: 1 1/2"

Source: Table ES-4, Typical Pipe Size by User Type
Table 7-7, Pipe Size for Apartment Complex is 3"
THE AVERAGE CONSUMPTION OF WATER PER MONTH

- **100,000 Gallons**
- **45,000 Gallons**
- **10,000 Gallons**

**Source:** Table ES-1, Projected Annual Water Usage by Class and Section 4.1.1, Number of Meters by User Class

**Calculation:**
Projected Annual Water (HCF) Usage 2008 by Type / Total Meters by Type = Average HCF per Meter by Type

**Conversion:**
1 HCF = 748.5 Gallons

Average HCF per Meter by Type * 748.5 Gallons = Average Gallons per Meter by Type
## THE AVERAGE MONTHLY BILL BY USER TYPE

<table>
<thead>
<tr>
<th>Residential Type</th>
<th>Base Service Charge</th>
<th>Commodity Charge</th>
<th>Total Bill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Residential</td>
<td>$15.18</td>
<td>$30.60</td>
<td>$45.78</td>
</tr>
<tr>
<td>Multi Family Residential</td>
<td>$15.18</td>
<td>$143.48</td>
<td>$158.66</td>
</tr>
<tr>
<td>Commercial / Industrial</td>
<td>$38.13</td>
<td>$301.55</td>
<td>$339.68</td>
</tr>
</tbody>
</table>

Source: Table ES-1, Projected Annual Water Usage by Class, Section 4.1.1, Number of Meters by User Class, Table ES-2 Service Charge & Commodity Rate Calculation:

Step 1: Projected Annual Water (HCF) Usage 2008 by Type / (12 months * Total Meters by Type) = Average HCF per Month by Type
Step 2: Average HCF per Month by Type * 748.5 Gallons = Average Gallons per Month by Type
Step 3: Pipe Size Service Charge + (HCF per Month * Commodity Rate) = Average Monthly Bill by Type
PROPOSED AVERAGE PRICE PER GALLON, FY2008

30% MORE THAN COMMERCIAL/INDUSTRIAL

$0.0046 / Gallon  
Single Family Residential

$0.0036 / Gallon  
Multi-Family Residential

$0.0035 / Gallon  
Commercial / Industrial

Source: Table ES-1, Projected Annual Water Usage by Class, Section 4.1.1, Number of Meters by User Class, Table ES-2 Service Charge & Commodity Rate
Step 1: Projected Annual Water (HCF) Usage 2008 by Type / (12 months * Total Meters by Type) = Average HCF per Month by Type
Step 2: Average HCF per Month by Type * 748.5 Gallons = Average Gallons per Month by Type
Step 3: Pipe Size Service Charge + (HCF per Month * Commodity Rate) = Average Monthly Bill by Type
Average Monthly Bill by Type / Average Gallons per Month by Type = Average Price/Gallon
Step 1: Projected Annual Water (HCF) Usage 2008 by Type / (12 months * Total Meters by Type) = Average HCF per Month by Type
Step 2: Average HCF/Month by Type * 748.5 Gallons = Average Gallons per Month by Type
Step 3: Pipe Size Service Charge + (HCF per Month * Commodity Rate) = Average Monthly Bill by Type
Average Monthly Bill by Type / Average Gallons per Month by Type = Average Price per Gallon
Calculated Price per Gallon for Every Type of User in 2007 and 2008
## MONTHLY SERVICE CHARGE CHANGES

<table>
<thead>
<tr>
<th>Pipe size</th>
<th>Service Charge</th>
<th>2007 Existing</th>
<th>2008 Proposed</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4”</td>
<td></td>
<td>$15.87</td>
<td>$15.18</td>
<td>-4.3%</td>
</tr>
<tr>
<td>1 1/2”</td>
<td></td>
<td>$75.41</td>
<td>$38.13</td>
<td>-49.4%</td>
</tr>
<tr>
<td>3”</td>
<td></td>
<td>$414.73</td>
<td>$104.98</td>
<td>-74.7%</td>
</tr>
</tbody>
</table>

Source: Table ES-1, Projected Annual Water Usage by Class, Section 4.1.1, Number of Meters by User Class, Table ES-2 Service Charge & Commodity Rate Calculation:
Percent Service Charge Change =
(Proposed 2008 Service Charge Rate per Month - Existing 2007 Service Charge Rate per Month) / Existing 2007 Existing Service Charge Rate per Month
FIXED vs. VARIABLE SHARE OF WATER REVENUE

- Commodity Rate (variable)
- Service Charge (fixed)

Existing City Structure FY2007:
- Commodity Rate: 68%
- Service Charge: 32%

Proposed Rate Structure FY2008:
- Commodity Rate: 78%
- Service Charge: 22%

Source: Figure ES-2 Rate Revenue Composition FY2008
**FIXED vs. VARIABLE SHARE OF WATER BILL AVERAGE USER BY TYPE FY2008**

Source: Table ES-1, Projected Annual Water Usage by Class, Section 4.1.1, Number of Meters by User Class, Table ES-2 Service Charge & Commodity Rate Calculation:
- Service Charge = Proposed 2008 Service Charge Rate per Month by Type
- Commodity Rate = Based on average price per gallon by user type, see slide “Comparison Between Current & Proposed Price per Gallon of Water”
  \[(\text{Average HCF per Month by Type} \times \text{Commodity Rate}) = \text{Average Monthly Commodity Bill by Type}\]
Price per Gallon of Water 2007-2010

Source: Table ES-1, Projected Annual Water Usage by Class, Section 4.1.1, Number of Meters by User Class, Table ES-2 Service Charge & Commodity Rate

Based on average price per gallon by user type, see slide "Comparison Between Current & Proposed Price per Gallon of Water" adjusted for Inflation as follows:

- Price per Gallon by User Type for 2007 = Price per Gallon by User Type for 2008 / 1.035
- Price per Gallon by User Type for 2007 = Price per Gallon by User Type for 2009 / 1.071225
- Price per Gallon by User Type for 2007 = Price per Gallon by User Type for 2010 / 1.108718
KEY CONCERNS

• An average single-family residential customer will pay 30% more than a average commercial/industrial customer. This difference will continue through 2010.

• The Mayor proposes to raise water rates per gallon this July by 12% for the average single-family user and less than 3% for the average commercial user.

• The base service charge, a component of water rates, will decrease 4.4% ($0.80) for residential customers. At the same time, base service charge for commercial/industrial customers will decrease 49.4% ($37.28).