



# **SAN DIEGO WATER RATE STUDY**

**Center On Policy Initiatives**

**February 26, 2007**

# 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**



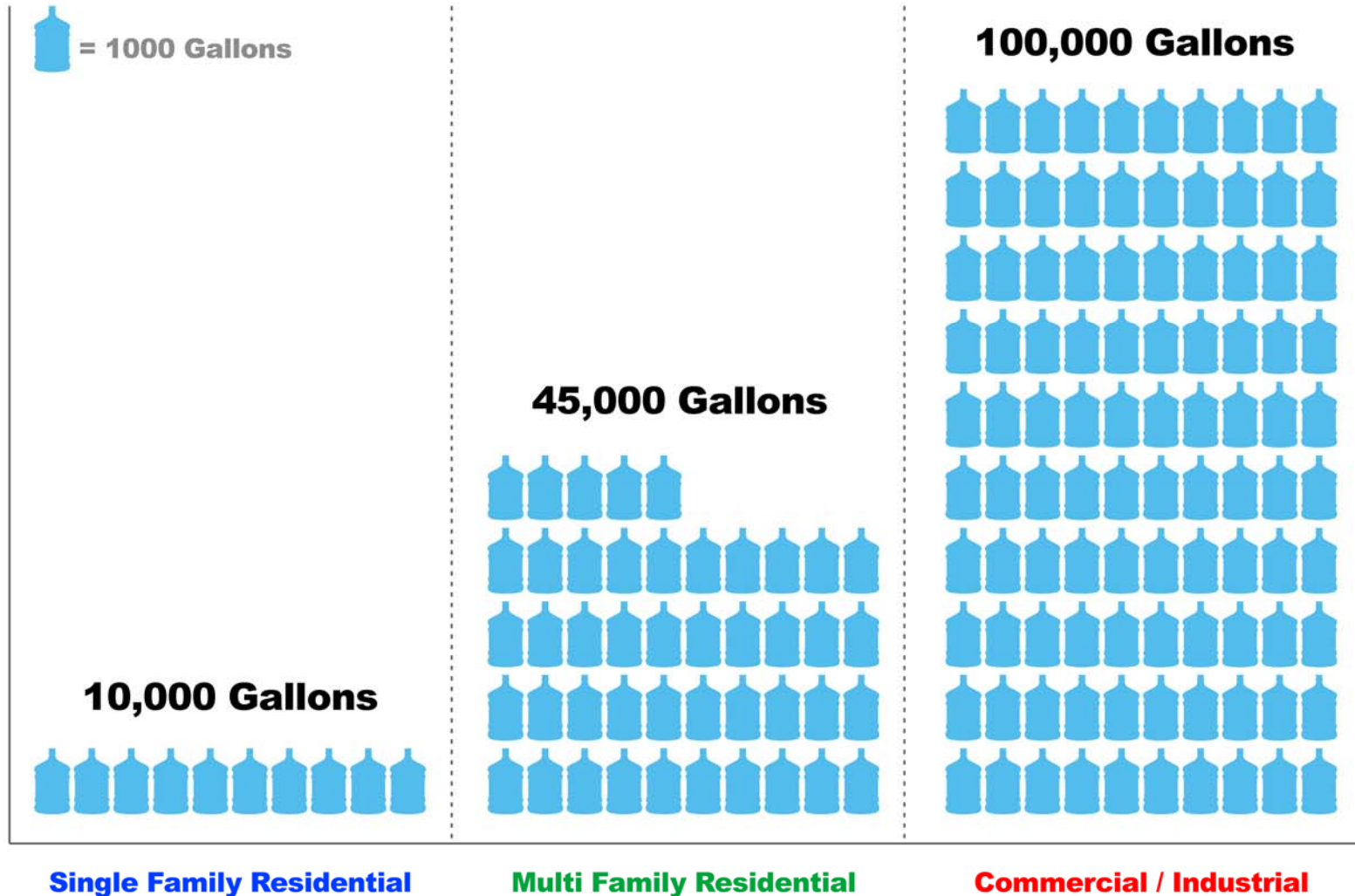
**Multi-Family Residential**



**Commercial / Industrial**

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



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

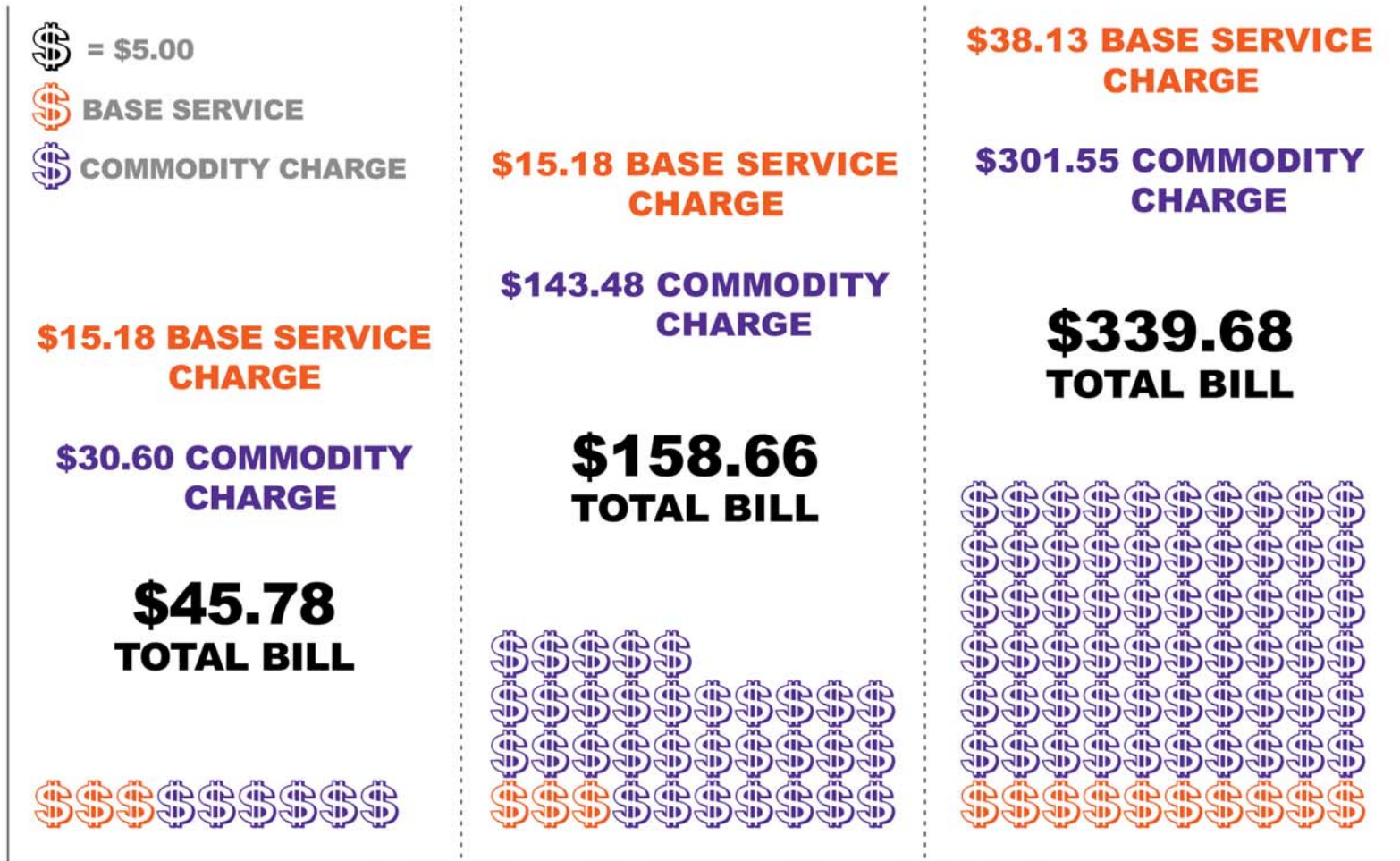
Calculation:

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



**Single Family Residential**

**Multi Family Residential**

**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 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**

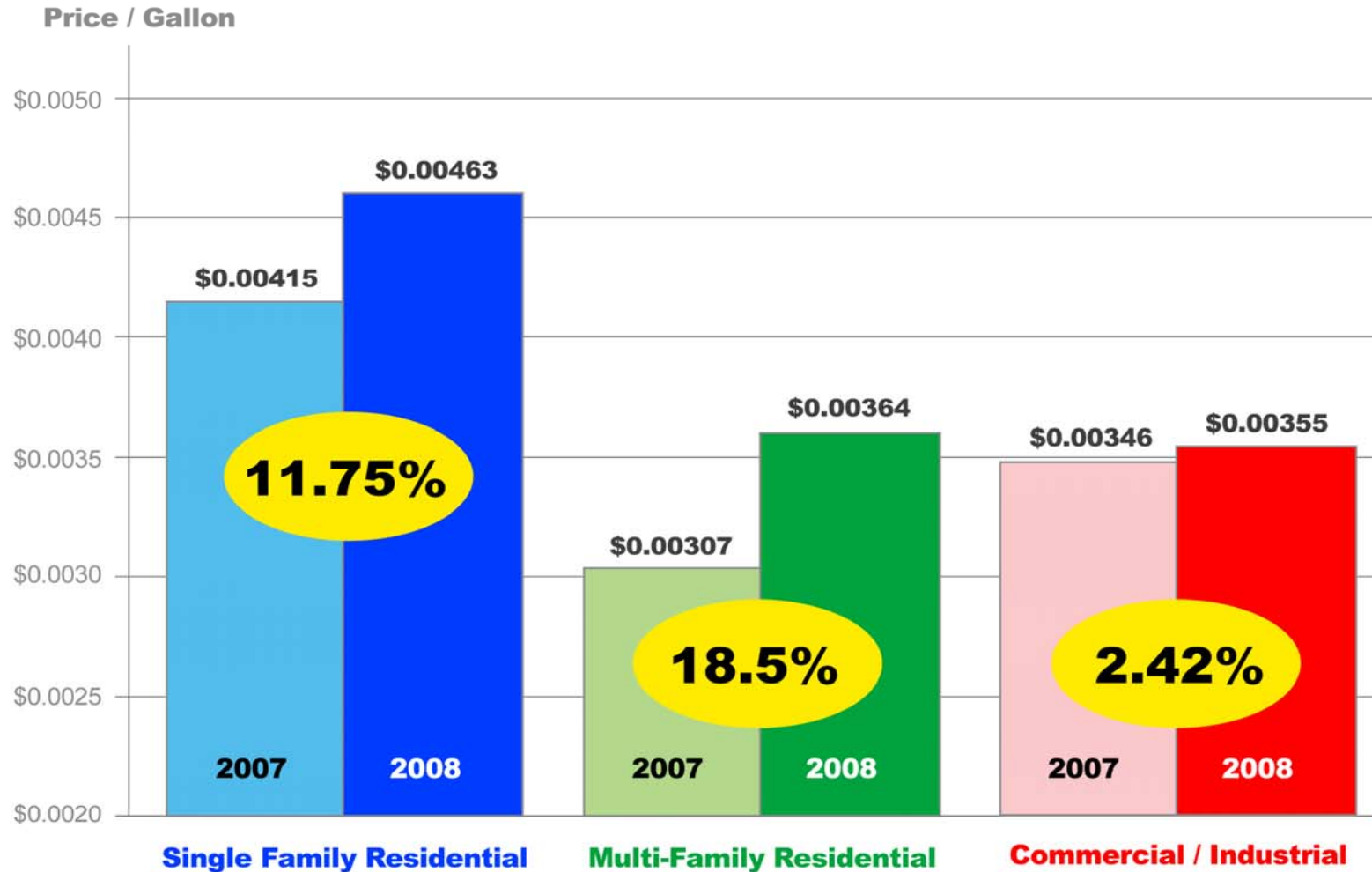
**Multi-Family Residential**

**\$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

# COMPARISON BETWEEN CURRENT & PROPOSED PRICE PER GALLON OF WATER



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/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

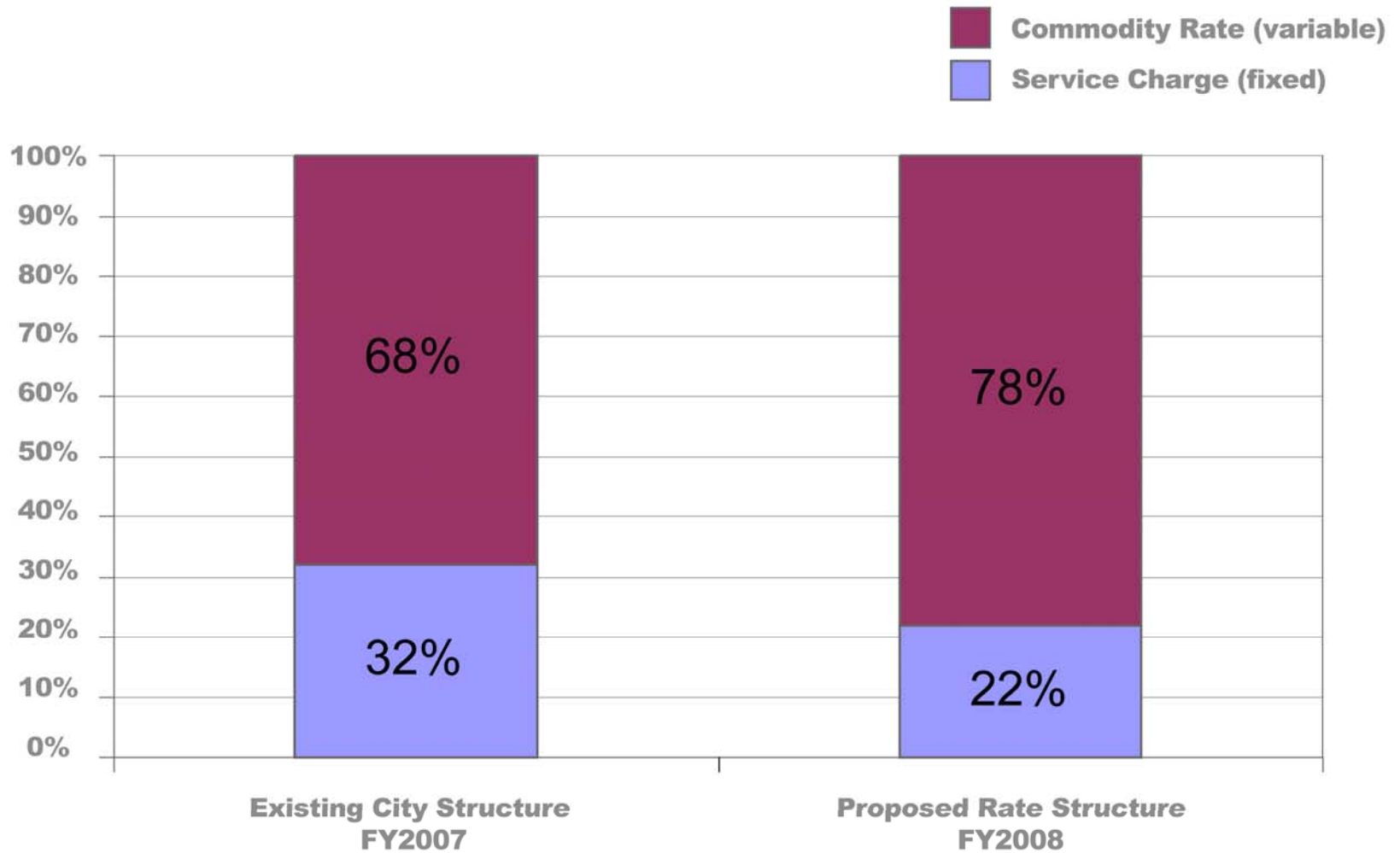
Pipe size	Service Charge		
	2007 Existing	2008 Proposed	Percent Change
<b>3/4"</b>	<b>\$15.87</b>	<b>\$15.18</b>	<b>- 4.3%</b>
<b>1 1/2"</b>	<b>\$75.41</b>	<b>\$38.13</b>	<b>- 49.4%</b>
<b>3"</b>	<b>\$414.73</b>	<b>\$104.98</b>	<b>- 74.7%</b>

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

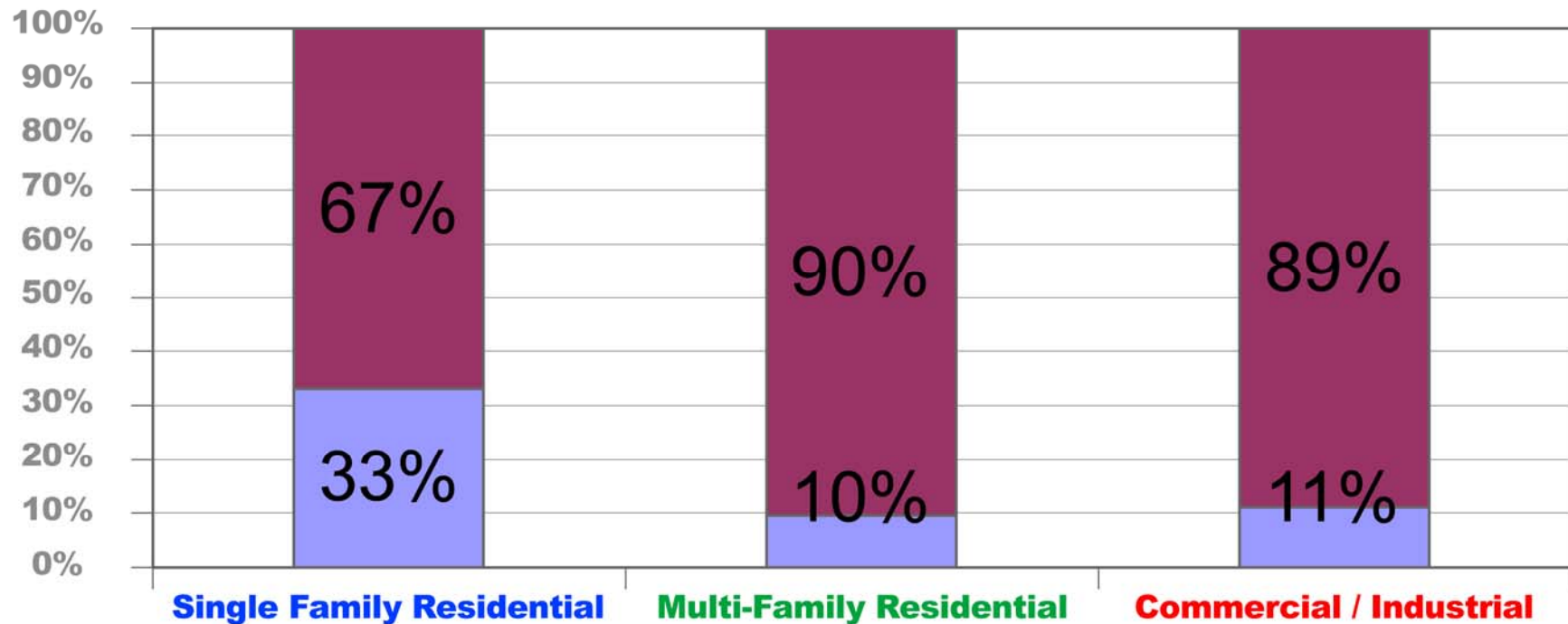
# FIXED vs. VARIABLE SHARE OF WATER REVENUE



Source: Figure ES-2 Rate Revenue Composition FY2008

# FIXED vs. VARIABLE SHARE OF WATER BILL AVERAGE USER BY TYPE FY2008

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



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:

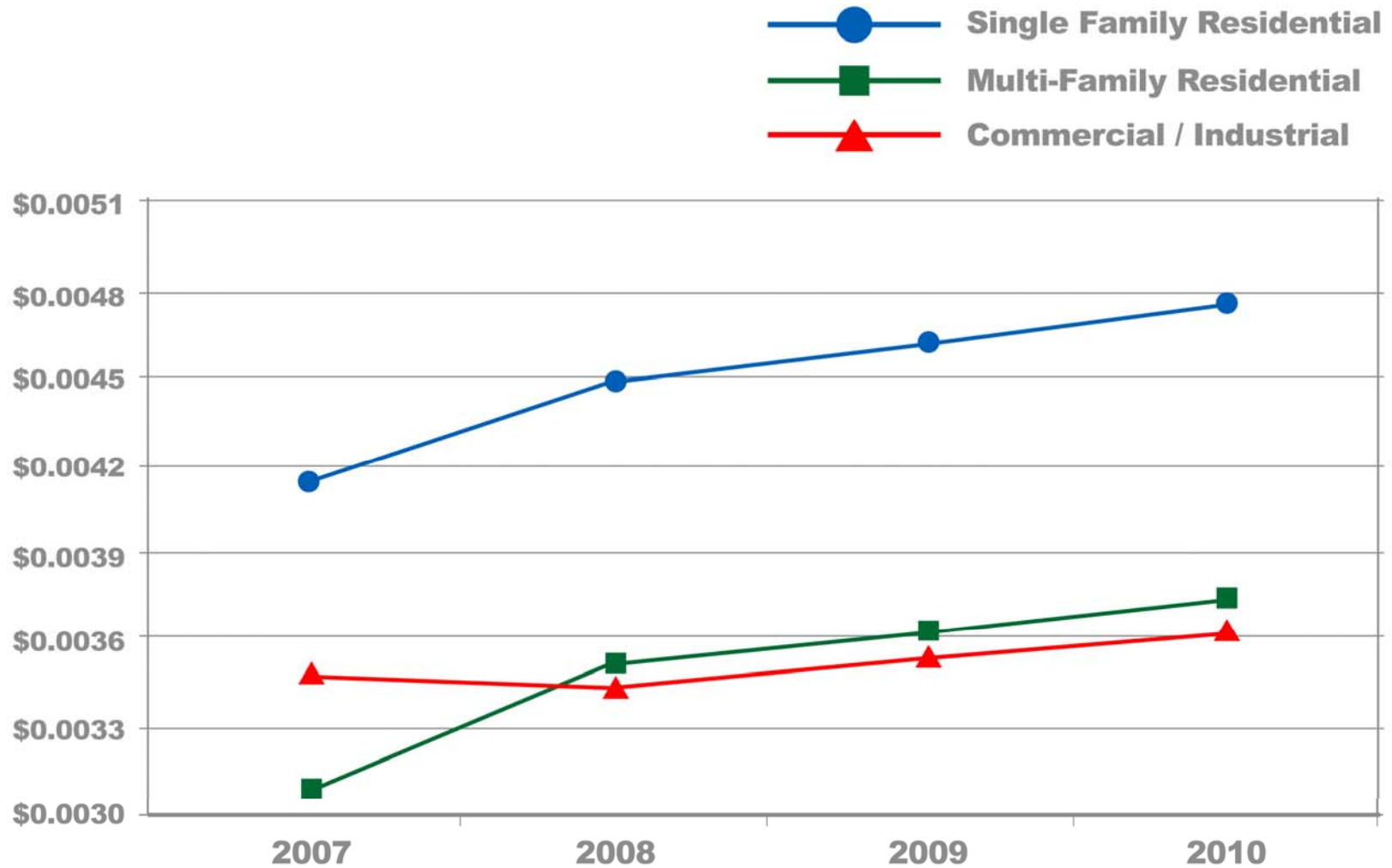
Service Charge = Proposed 2008 Service Charge Rate per Month by Type

Commodity Rate =

Based on average price per gallon by user type, see slide "Comparison Between Current & Proposed Price per Gallon of Water"

(Average HCF per Month by Type \* Commodity Rate) = 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).