



Wholesale Customer Rates Meeting  
Sewage Disposal System  
Meeting #2 – Projected FY 2012-13  
Units of Service

November 17, 2011

# Customer Rate Season Schedule

- This is the second of a series of meetings
  - ✓ 10/20 –Capital Improvement Program Presentation
  - ✓ **11/17 – Units of Service**
  - ~~✓ 12/15 – Preliminary SYSTEM Revenue Levels~~
    - ✓ **POSTPONED UNTIL JANUARY**
  - ✓ 1/19/2012 – Preliminary Individual Rate Proposals
  - ✓ 2/22/2012 – BOWC Public Hearing
  - ~~✓ 3/ /2012 – City Council Public Hearing~~
  - ✓ 7/1/2012 – Effective Date for Rates
- Parallel meetings of TAC Work Groups



# Information Portals

- DWSD web site

- ✓ [www.dwsd.org](http://www.dwsd.org)

- ✓ *Customer Information / “Wholesale Customers Season Rate Schedule”*

- DWSD Customer Outreach Portal

- ✓ [www.dwsdoutreach.org](http://www.dwsdoutreach.org)

- ✓ *For information contact Teresa Newman*

- ✓ [teresa@projectinnovations.com](mailto:teresa@projectinnovations.com)



# Today's Agenda

- Rollout Presentation
  - ✓ *Preliminary Units of Service for FY 2012-13 Sewer Rates*
  - ✓ *Preview of Subsequent Meeting Material*
    - Preliminary Revenue Req't Status Report
    - Cost of Service Allocation / Rate Design Issues Status Report
- Sewer Rates Work Group
  - ✓ *Several Issues Related to FY 2012-13 Sewer Rate Development Process*



# There are 3 Fundamental Steps in the Sewer Rate Methodology

- Revenue Requirement Projections
  - ✓ *How Much Money is Needed?*
- Cost of Service Analysis
  - ✓ *From Whom Should the Money be Collected?*
- Design of Recommended Rates
  - ✓ *How Should DWSD Services be Priced?*



# How was the DWSD sewer rate methodology established?

- Current **basic** methodology originally implemented in 1980
  - ✓ *Data from Segmented Facilities Plan*
- Rate Settlement Agreements
  - ✓ *1978, 1980, 1982, 1995, 1999*
  - ✓ *Establish overriding concept of "proportionality"*
    - EPA User Charge Requirements
- Minor modifications through 1998
  - ✓ *Recognize availability of additional data*



# How was the DWSD sewer rate methodology established? (*cont'd*)

- 1999 Rate Settlement Agreement
  - ✓ *Significant Changes in Rate Model*
    - Combined Sewer Overflow Facilities
    - Utilization of New Technical Data
    - Implementation Provisions
- Subsequent Activities – Sewer Rates Work Group
  - ✓ *Refine Estimates and Implementation Provisions*
- 2008 Rate Settlement Agreement
  - ✓ *Resolves Issues Related to*
    - Oakland Macomb Interceptor
    - 800 mhz Radio System



# FY 2011-12 Units of Service – Sewage Disposal System

***NOTE: Data presented today reflects all analysis, correspondence, etc. as of 11/15/2011***



# Forecasting rates starts with the annual flow volumes

- Use in Rate Model
  - ✓ *Project revenue base*
  - ✓ *Forms initial basis for allocating costs to customers*
- Actual figures subject to technical review using protocol set forth by GDRSS Billing Workgroup
  - ✓ *Modifications to Billed Sewer Volumes -*  
***PENDING***



# A specific method is applied to project annual flow volumes

- Review Historical Data
- Project Rate Year Based on Regression Analyses, etc.
- Transmit Projections to Customer Communities
- Utilize Input from Customers



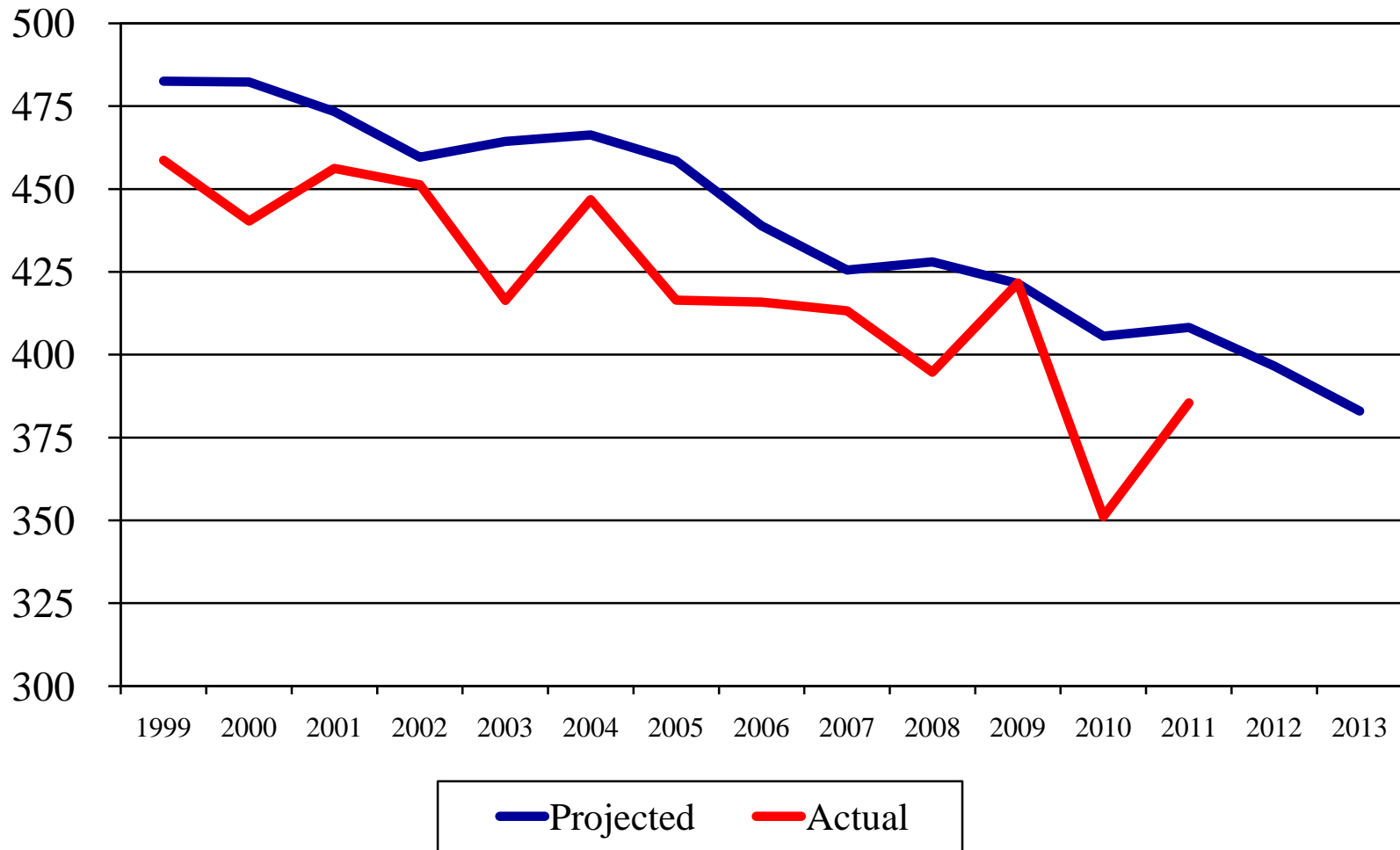
# At the end of the year projected flow volumes are reconciled with BILLED volumes

- Summary of FY 2010-11:
  - ✓ *SYSTEM ~ 5.6% **Below Target***
  - ✓ *Sub Wholesale ~ 4.2.% **Below Target***
  - ✓ *Detroit Retail ~ 5.9% **Below Target***
- Continuation of Conservative Projection Approach Established for FY 2009-10 and FY 2010-11 Rates

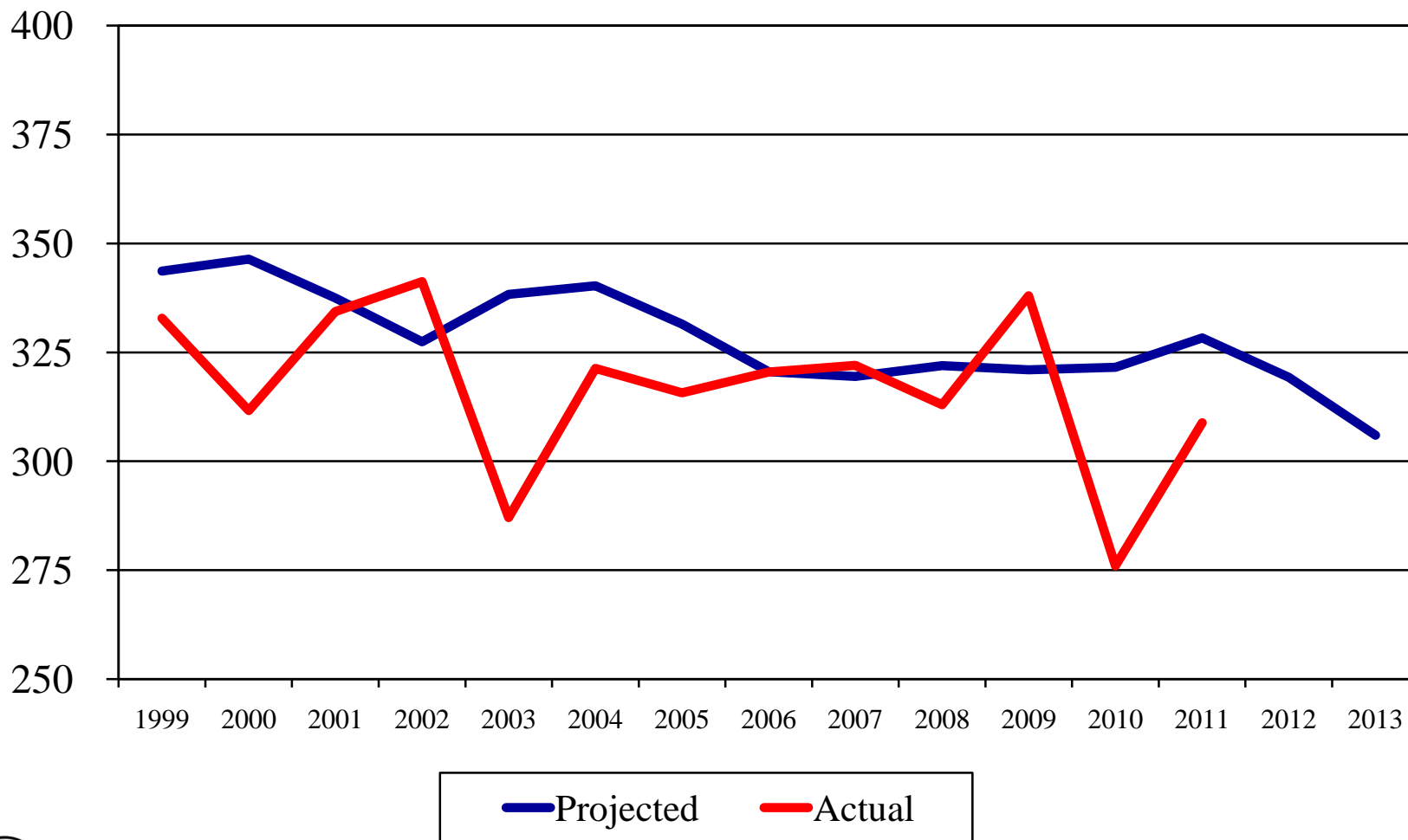


# Annual System Billable Wastewater Volumes

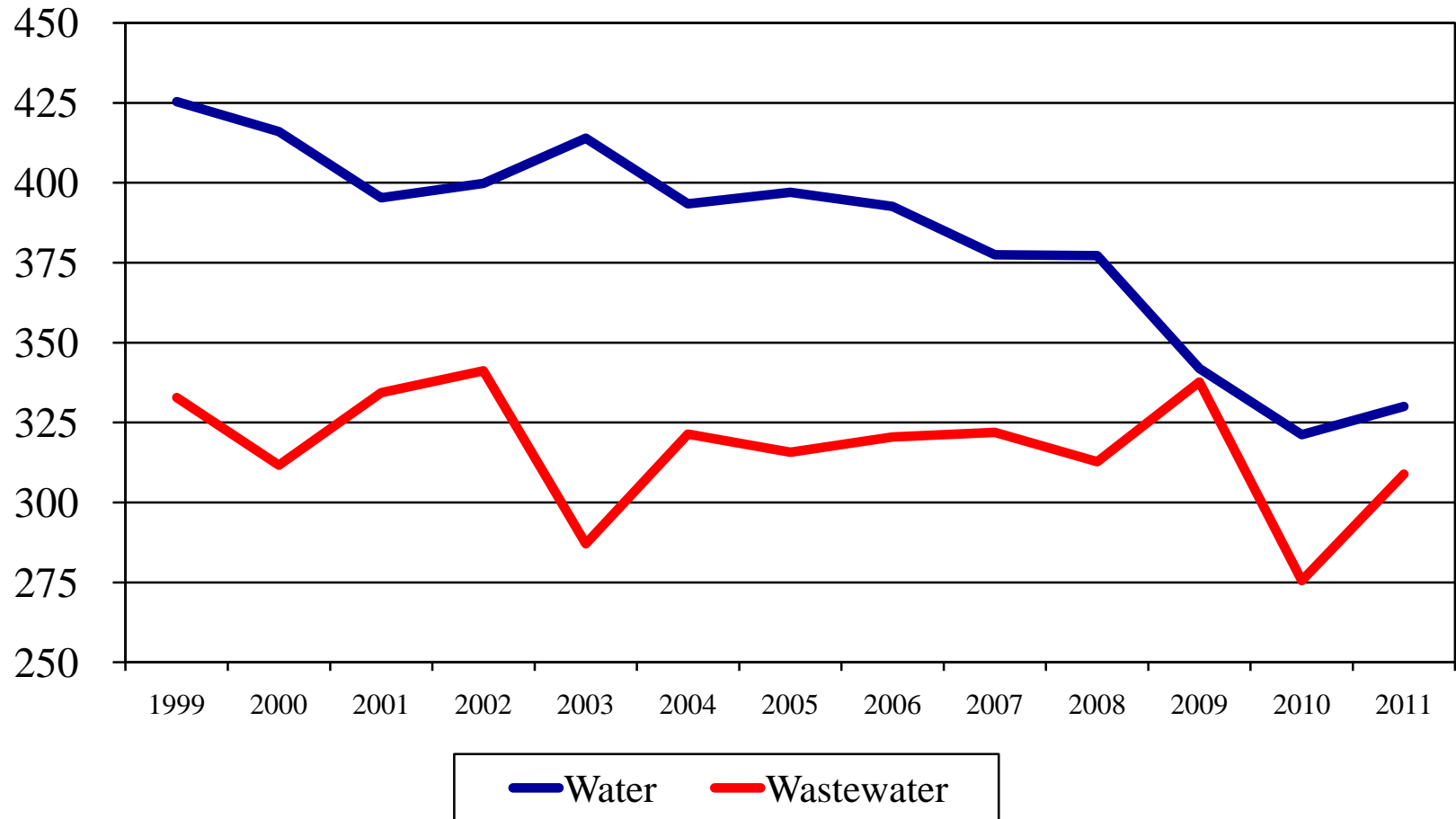
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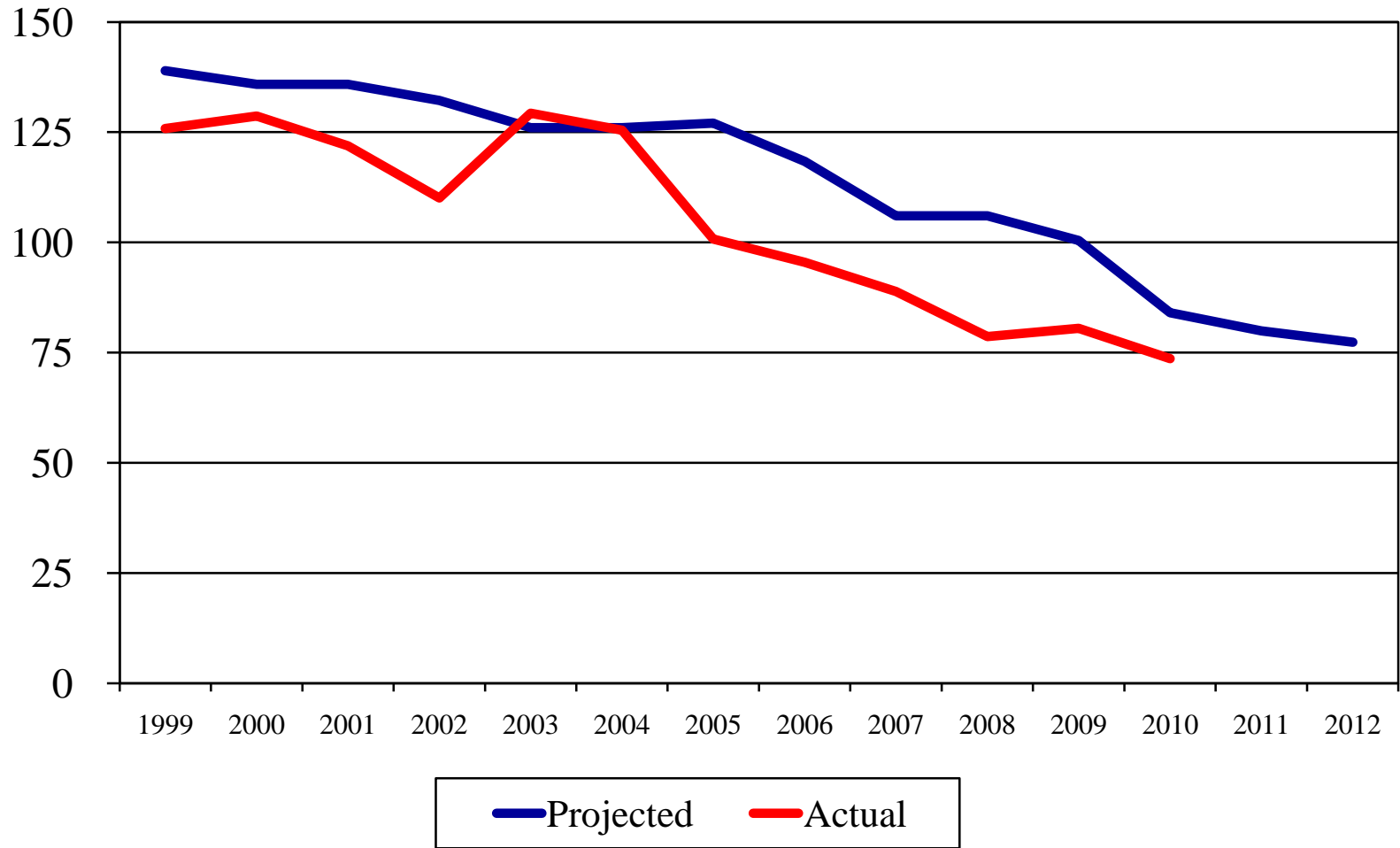
# Annual Suburban Wholesale Billable Wastewater Volumes (mgd)



# Annual Suburban Wholesale Water and Wastewater Billed Volumes – (mgd)



# Annual Detroit Retail Billed Volumes (mgd)



# There are two types of customers in the system, and three types of flow for each customer class

- Two types of customers
  - ✓ *Billing Meter Customers*
  - ✓ *System Meter (Unmetered) Customers*
- Three types of flow are estimated for each customer
  - ✓ *Sanitary*
  - ✓ *Dry Weather Infiltration & Inflow (DWII)*
  - ✓ *Wet Weather Flows*



# Additional to flow volume, DWSD must take into account Dry Weather Infiltration/Inflow when calculating rates

- Based on 5-year average of GDRSS “best available” information
  - ✓ *Annual flow balancing analyses*
- Allocates I/I on common use interceptors, sewers, and customer connections based on protocol established by the Common Use Sewer Workgroup



# This year has seen a reduction in DWI/I in the wholesale customer class

- Overall Dry Weather Flow for FY 2011 down 8 mgd from FY 2010
- Population changes (2010 Census) incorporated into Dry Weather Flow Balance
  - *Results in larger DWI/I figure for City of Detroit for FY 2011 data point*
- 5-Year Average for Rates



# Another factor to account for in rates is the Wet Weather Inflow

- Based on 5-year average of GDRSS “best available” information
- Computes estimated wet weather flows to collection system from each customer
  - ✓ *Applies uniform “overflow credit” to all customers*
- Protocol established by the 1999 Rate Settlement Agreement



# Last year's modified approach to Wet Weather Inflow Calculations is continued

- Deduct Dry Weather Flow from Total Annual Flow
  - ✓ *Compute Inferred "Delivery Coefficient"*
- *Recalculate Overflow Credit Factor*
  - *Uniform 15%*
- *Estimating Techniques for System Meter Customers?*



# Sanitary flow is calculated differently for Billing Meter and System Meter customers

- Billing Meter Customers

- ✓ *Sanitary* =

- Adjusted metered flow
    - Less: DWII estimate
    - Less: Wet weather estimate (before overflow credit)

- System Meter Customers

- ✓ *Sanitary* = 90% of metered or estimated water sales



# Also continuing differential strength characteristics of specific types of flow

- Reflects premise that sanitary flow carries more pollutants than does DWII and wet weather flow
- Initiated for FY 2011-12 Sewer Rates
  - *“Extraneous” flow strength = 45% of Sanitary*
- Studied during past year and reviewed by Wet Weather Work Group
  - ***Subject to final review at Rates WG***

	Sanitary	DWII	Storm	TOTAL
Prior Method	88 / 137	88 / 137	88 / 137	88 / 137
FY 2011-12	176 / 207	79 / 102	79 / 102	132 / 171
<b>FY 2012-13</b>	<b>120 / 187</b>	<b>54 / 84</b>	<b>54 / 84</b>	<b>88 / 137</b>



# Takeaways

- DWSD has provided preliminary data indicating customers' projected use of the System for FY 2012-13
- This data, which is under review and may change, will be utilized to allocate costs to customers
- DWSD is reviewing current budget requests and evaluating the potential impact of Judge Cox's November 4 Order on financial operations for FY 2012-13
- The Revenue Requirement Rate Rollout meeting originally scheduled for December 15 will be postponed until January

