

#### DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

#### **Board of Directors**

DC Retail Water and Sewer Rates Committee

Tuesday March 27, 2012

9:30am

1. Call to Order
<ul> <li>2. Monthly Update (Attachment A)</li> <li>Howard University</li> <li>Soldier's Home</li> </ul> Randy Hayman
3. Armed Forces Retirement Appraisal (Attachment B)
4. Clean Rivers IAC Program Review (Attachment C)
5. CAP Expansion and Methodology Review (Attachment D)
6. Action Items (Attachment E)
7. Retail Rates Committee Workplan
8. Emerging Issues/Other Business
9. Agenda for April 24, 2012 Committee Meeting (Attachment G) Howard Gibbs, Chairman
10. Adjournment

#### FOLLOW-UP ITEMS - Retail Rates Committee Meeting (January 24, 2012)

- 1. Provide an example of the updating required and quality controls available to reconcile non-residential data found in the DCGIS 2005 flyover information and a more recent update to the flyover data. This example should be provided at a future Retail Rates Committee meeting (Mr. Bardin) Status: TBD based upon availability of data
- 2. Review of the Potomac Interceptor contracts to see if there are opportunities to modify contracts to be similar to the IMA contracts (Mr. Bardin) Status: Defer Pending Final IMA

Attachment A

### March 2012 Update on Howard University and Soldiers' Home Delinquent Accounts

#### **Howard University**

Without waiving rights to contest, Howard accepted terms of agreement under which they would begin making payments on current bills on the "Exempt Accounts". A meeting occurred on December 1, 2011, involving CFOs, customer service and legal representatives to resume discussion of payment of arrearages. This was followed by a meeting on December 7, 2011, between legal departments to focus on issues affecting the scope of the collection activity regarding the claimed arrearages which total \$5,447,494.00. Howard tendered a counter-offer, but the amount was not acceptable to resolve the claim and was rejected.

#### **NEXT STEPS**

- 1. DC Water General Counsel Hayman plans to schedule a meeting with Howard University General Counsel Leftwich prior to the end of March 2012 to discuss our counter-offer. Howard has indicated that it had some tests performed on some of the meters servicing its properties. Howard will be advised that customers have no authority to test meters, and such activity must not occur again. Our meters are maintained in accordance with specifications of the American Water Works Association (AWWA).
- Large meters were tested in December 2011 and January 2012. Service orders will be prepared on April 30, 2012, to test remaining meters in Howard II between that date and May 31, 2012. Existing priorities for field operations prevent scheduling and testing prior to the end of April.
- 3. Provided the parties work in good faith to diligently pursue resolution, DC Water will not pursue further enforcement action.
- 4. If Howard fails to perform, DC Water's GM shall send notification of intent to lien to HU president.
- 5. DC Water will place liens on affected HU assets.
- **6.** DC Water will pursue legal remedies to enforce collection against HU.

#### **Soldiers' Home**

The Office of the General Counsel has prepared a draft legal opinion regarding sewer services, which were not referenced in the 1938 agreement providing for perpetual free water service. It has been discussed internally and is being revised.

The Appraisal Report prepared by RCDH & Company of Maryland has been received. The Appraisal suggests that the value of services to Soldiers' home have vastly exceeded the

value received for the use of the land for our underground storage reservoir. This information was conveyed to Mr. Steven McManus, the COO of Soldiers' Home, when Olu Adebo met with him on March 6, 2012 to discuss consumption, future development, and related issues. DC Water will commence issuing billing statements to Soldiers' Home.

#### **NEXT STEPS**

- 1. Finalize legal opinion
  - a. Transmit legal opinion to Soldiers home with letter from DC Water GM
  - b. Identify issues (reference new OGC legal opinion and Board Resolution 96-27)
  - c. Confirm Soldiers' Home's interest to renegotiate agreement equitably
  - d. Discuss next steps
  - e. Confirm identity of person authorized to negotiate on behalf of the Home.
- 2. Commence negotiation discussions with Authorize personnel at Soldiers Home





District of Columbia Water and Sewer Authority
George S. Hawkins, General Manager

## Appraisal of Existing and Proposed Water Reservoir Sites

Armed Forces Retirement Home vs.

Value of Water and Sewer Services

### Presented to DC Retail Water and Sewer Rates Committee

Chairman, Howard Gibbs March 27<sup>th</sup>, 2012



#### Introduction

#### **Armed Forces Retirement Home**

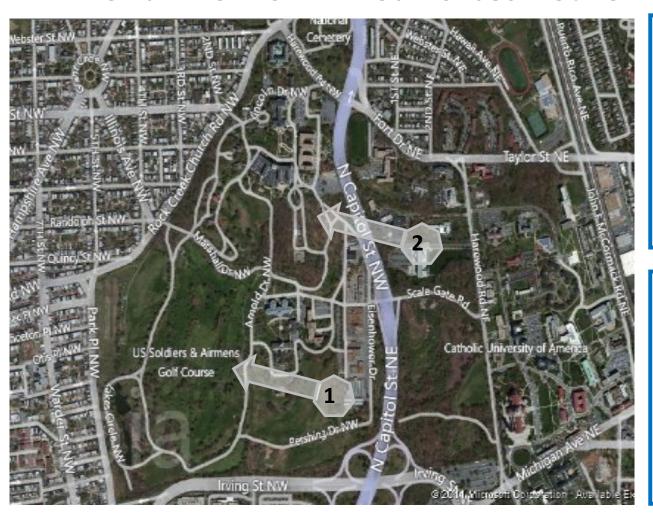
- An agreement was executed on February 1, 1938 that granted perpetual rights to Soldiers' Home to use water from the District's water supply free of charge in exchange for permission to place an underground reservoir on the property of the Home.
- There are currently legal questions regarding what services are actually covered in the agreement
  - Water only
  - Water and sewer
  - What capacity and facilities are subject to free services
- DC Water is seeking to locate an additional above ground reservoir at Soldiers' Home.
- Soldiers Home is looking to expand their footprint.



### Appraisal OI Existing and water is life Proposed Water Reservoir Sites **Appraisal of Existing and**

**Armed Forces Retirement Home** 

#### **Aerial View of Armed Forces Retirement Home**



#### Site #1 – Existing **15MG Buried Concrete** Reservoir

*Lies underneath fairway* of 11th Hole on AFRH Golf Course

#### Site #2 - Proposed **5MG Above-Grade** Tank

Located in wooded area, adjacent to Eisenhower Drive



### **Appraisal of Existing and** water is life Proposed Water Reservoir Sites

**Armed Forces Retirement Home** 

#### Site 1 - Existing 15MG Buried Concrete Reservoir Site



Bird's eye view facing south, towards Irving Street, NW



### water is life Proposed Water Reservoir Sites **Appraisal of Existing and**

**Armed Forces Retirement Home** 

#### Site 2 – Proposed 5MG Above-Grade Tank Site



Bird's eye view facing east, towards North Capitol Street



# Appraisal of Existing and water is life Proposed Water Reservoir Sites

Appraisal conducted by RCDH & Co.

**Armed Forces Retirement Home** 

- Services recommended by legal counsel for the St. Elizabeths
   Water Tower project
- Specialize in real estate valuation and consultation throughout the Mid-Atlantic
- Survey completed by MAI certified appraisers, equivalent to PE accreditation for Engineers
- Local to Washington, DC with offices located at 1317 F St, NW



### Appraisal of Existing and water is life Proposed Water Reservoir Sites **Appraisal of Existing and**

Appraisal conducted by RCDH & Co.

**Armed Forces Retirement Home** 

#### **Summary of Appraisal Findings**

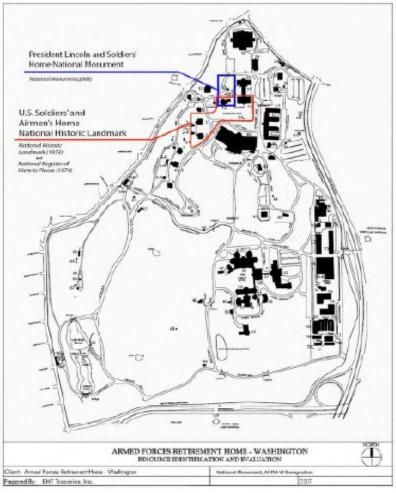
Reservoir Site No.	1 – Existing 15MG Buried Reservoir	2 – Proposed 5MG Above- Grade Tank
Approximate Area Including transmission mains and overflow pipes	2.9 acres / 124,484 sq. ft.	1.25 acres / 54,450 sq. ft.
	1600 If of 48" transmission main 1600 If of 30" overflow pipe	525 If of 36" transmission main 525 If of 36" overflow pipe
Value of Permanent Easement	\$311,000	\$544,500
Fee Simple Market Value	N/A	\$544,500
Cost per Square Foot based on Permanent Easement	\$2.50 per sq. ft.	\$10.00 per sq. ft.
Cost Yearly Ground Rent	\$17,105	\$29,948



#### **Value of Services**

Armed Forces Retirement Home

#### Soldiers' Home has grown exponentially since 1938.



ARMED FORCES RETIREMENT HOME – WASHINGTON MASTER PLAN, *Final Environmental Impact Statement*, November 2007. Figure 3-7: U.S. Soldiers' and Airmen's Home National Historic Landmark and U.S. Soldiers' and Airmen's Home Historic District (blue outline)



#### **Value of Services**

#### **Armed Forces Retirement Home**

#### Soldiers' Home has received \$24 million in free services since 1938

- \* Consumption for years 1938 through 2003 were prepared by independent consulting firm PB Consulting Group. Actual combined water and sewer rates were used for the years 1976 through 2003 to calculate the cost of water and sewer provided to the Soldiers' Home. For the periods between 1938 and 1976, the Consumer Price Index (CPI) for the Washington area was used to discount the rate. Estimates also take into account the "US Public Supply" of water, the US population and the annual number of members living at the Soldiers Home.
- \*\* Consumption for fiscal years 2004 through fiscal year 2012 (January) was prepared from actual consumption data provided by Customer Service Department on 2/3/2012.
- \*\*\* 2012 Cost has been annualized. Actual cost is \$918,643 based on actual ccf consumption of 77,797 through January 31, 2012.

DC Water
The Soldier Home Cost Analysis Summary
From FY 1938 through FY 2012

	Combined	Consumption	Consumption			Metering		Right of	Stormwater		Cumulative	1
Year*	W&S Rate	(CCF)	Cost	ERU's	IAC	Cost	Pilot Fee	Way Fee	Fee	Annual Cost	Cost	
1938 - 2003*											13,300,430	_
2004**	4.370	97,783	427,312	-	-	16.08	22,490	12,712	-	462,530	13,762,960	•
2005**	4.590	80,544	369,697	-	-	16.08	18,525	10,471	-	398,709	14,161,669	
2006**	4.840	77,228	373,784	-	-	16.08	22,396	10,040	-	406,235	14,567,904	
2007**	5.090	108,279	551,140	-	-	16.08	33,566	14,076	-	598,799	15,166,703	
2008**	5.370	291,824	1,567,095	-	-	16.08	99,220	37,937	-	1,704,268	16,870,971	
2009**	5.610	237,804	1,334,080	10,052.40	12,465	16.08	92,744	30,915	25,835	1,496,054	18,367,025	
2010**	6.120	221,617	1,356,296	30,167.30	66,368	16.08	95,295	31,026	77,530	1,626,532	19,993,557	
2011**	6.890	230,495	1,588,111	30,278.40	104,460	30.88	112,943	32,269	80,843	1,918,657	21,912,214	
2012**	7.200	233,391	1,680,415	30,278.40	201,049	30.88	114,362	35,009	80,843	2,111,708	\$ 24,023,922	**
		1,578,965	\$ 9,247,929	100,776.50	\$ 384,342	\$ 174	\$ 611,541	\$ 214,454	\$ 265,051	_		



#### **Value of Services**

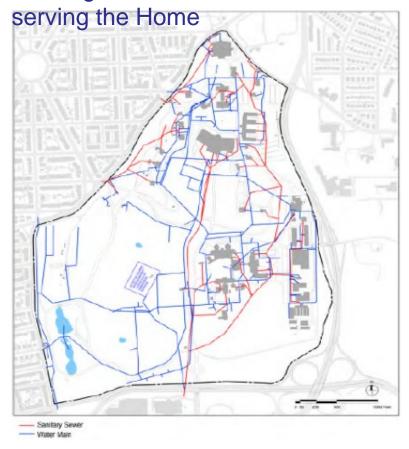
**Armed Forces Retirement Home** 

Soldiers' Home is interested in expanding use of its property to include significant new construction, which would increase its use of water and sewer services. A Final Master Plan was completed in 2008.

Zone A – area of planned



Existing water and sewer lines



ARMED FORCES RETIREMENT HOME – WASHINGTON MASTER PLAN, Final Environmental Impact Statement, November 2007.



#### **Conclusion**

**Armed Forces Retirement Home** 

- The value of the services provided to AFRH greatly outweigh the value of the easement currently enjoyed by DC Water
  - The appraisal of the easement for the existing water tank is \$311,000
  - Over \$24 million in services to AFRH; average annual service currently greater than \$2 million
  - The value of the proposed new use is \$544,500
- Non-AFRH use is currently ongoing with more anticipated under the approved Final Master Plan
- DC Water needs to revaluate and renegotiate the equability of the agreement.



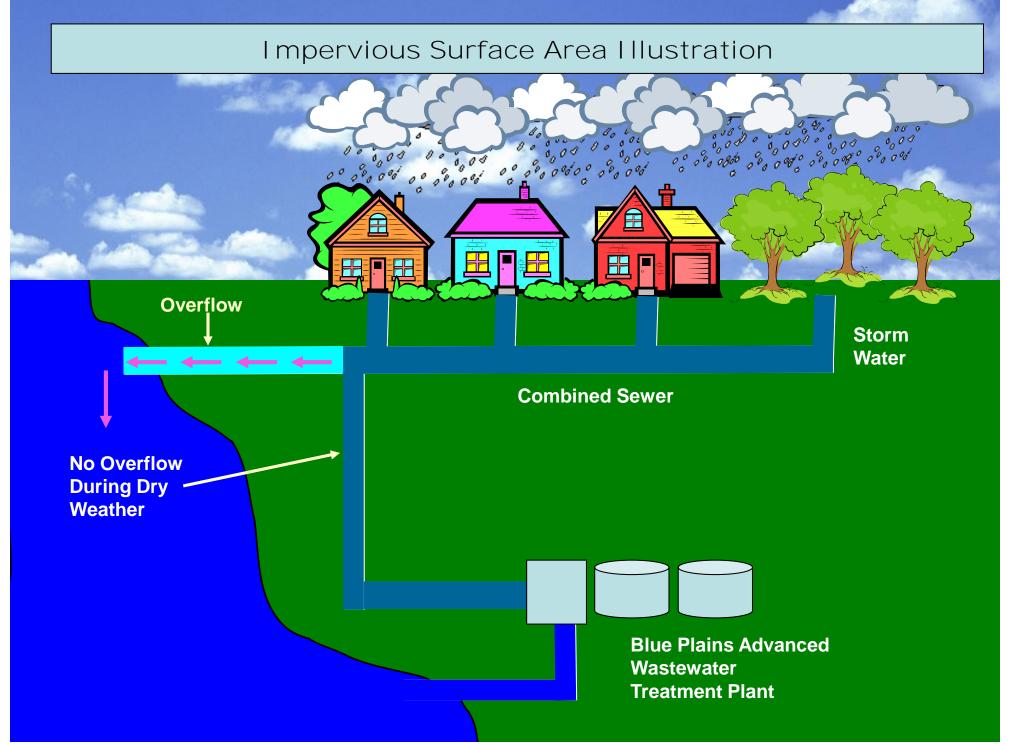
# Presented to the DC Retail Water and Sewer Rates Committee

March 27, 2012

Clean Rivers IAC Program Review



### The Challenge

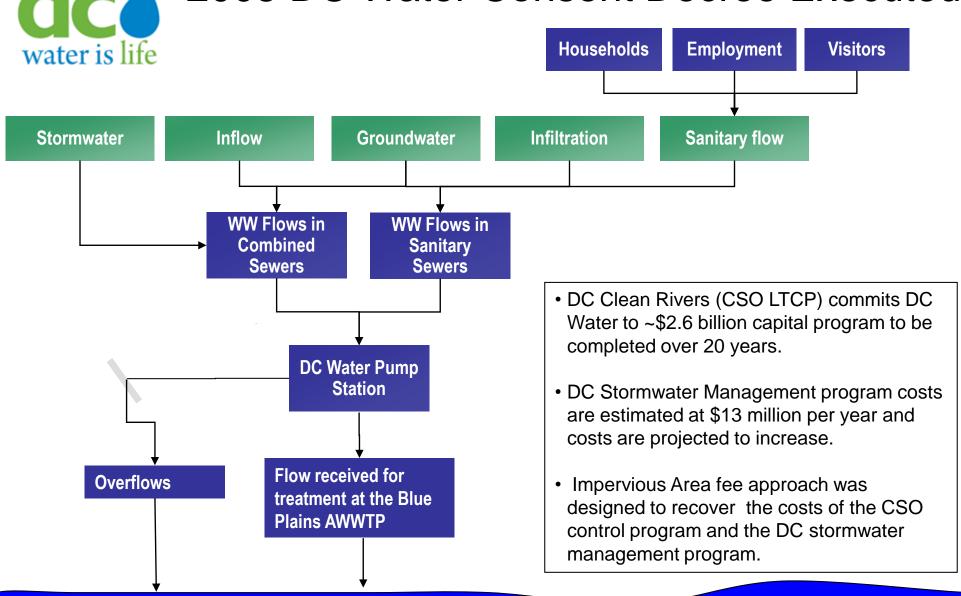




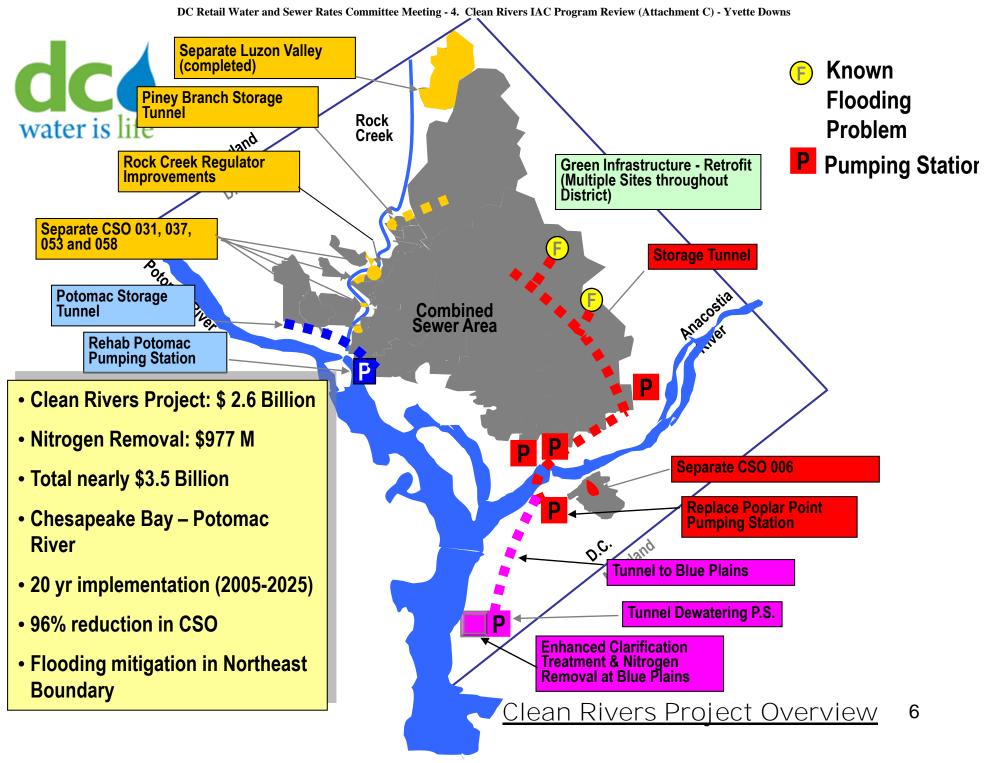
#### 2005 DC Water Consent Decree Executed



#### 2005 DC Water Consent Decree Executed



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### Background/History



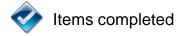
### Background/History

- □Prior to May 2009, DC Water recovered the Combined Sewer Overflow Long Term Control Plan (CSO-LTCP) costs via the volumetric retail sewer charge.
- □Based on research, analysis and case studies, DC Water proposed to recoup the CSO-LTCP cost through a fixed Impervious Area Charge rather than the volumetric method.
- □ In September 2007, the DC Water Board of Directors authorized the General Manager to enter into a contract for the development of a system of impervious surface rates, including a complete database with detailed billing parameters and mailing list, property by property for each of the properties within the District of Columbia
- □ In May 2009, DC Water implemented the Clean Rivers Impervious Area Charge (IAC) to recoup the costs of the federally mandated twenty-year \$2.6 billion Combined Sewer Overflow – Long Term Control Program (CSO-LTCP)



### CCCCCIean Rivers IAC Policy Objectives

- □Between November 2007 and March 2008, DC Water's Board approved three impervious surface resolutions to set forth policy guidelines for development and implementation of the new fee:
  - ■Policy #1 Develop rates and charges based on impervious surface areas
    - City and federally-owned rights of way excluded from fee
    - ■Policy called for recovery of all CSO-LTCP costs through impervious surface area
    - •The current customer billings appeals process was identified for the impervious surface rate 🧇
    - •The Board noted expansion of the CAP program to impervious surface rates would be considered
  - Policy #2 Allocation of all CSO-LTCP costs through an impervious surface area charge (IAC) is a more equitable basis to recover costs than the volumetric charge
    - •Policy defined impervious surface area and stated that surfaces are considered either
    - Policy identified the District of Columbia GIS's planimetric database as the source for determination of impervious surface areas
      - Property data reflects FY 2005 property and premise data.
    - ■The unit of measure was identified as the Equivalent Residential Unit (ERU)
    - •The policy stated that all residential customers shall be assessed (1) ERU, and all nonresidential customers shall be assessed ERU's based upon the total amount of impervious surface on each lot 9





### Clean Rivers IAC Policy Objectives

#### The last policy provides opportunity for program review and update:

- Policy #3 Categorization and billing of all properties based on the total amount of impervious surface on each lot
  - Policy acknowledged future reviews by the Board to:
    - Consider whether there should be gradations or variations of imperviousness
    - Consider multiple tiers for residential customers



- Consider whether a credit and incentive policy should be implemented
- Continue to identify and consider other criteria



# Review of Clean Rivers IAC Program Administration and Performance



### Methodology

#### ☐ Billing Methodology —

- An Equivalent Residential Unit (ERU) was developed to bill single family residential customers.
  - An estimate in square feet of the typical amount of impervious area per single family residential property.
  - 1 ERU =1,000 sq. ft. Based on the median impervious area computed from all single family residential properties = 990 sq. ft.
- Non residential customers are billed the number of ERUs associated with the total impervious surface on their property.
  - Impervious area rounded down to the nearest 100 sq. ft. (rounded impervious area/1,000 sq. ft.) = # ERUs
- All impervious area from buildings, roadways, sidewalks, structures, and recreation facilities was assigned to all properties in District.
  - Gradations were not considered per the policy guidance: GIS identified areas were considered pervious or impervious
- Classification of properties to DC Water class using OTR use code or Office of Planning land use code. Federal and municipal owned properties assigned to those classes.
- A rate model was developed to calculate all costs and develop annual IAC rates to recover those costs based upon the number of ERUs



### Methodology, Cont.

- ☐ In FY 2011 approximately 1.5 million Clean Rivers IAC bills were generated.
  - Clean River IAC Only bills totaled approximately 42,000



### Methodology, Cont.

- DC Water created impervious only accounts for those properties where there was not a customer record. Impervious only customers that had less than 25 ERUS are currently billed on a semi-annual basis.
  - There are 9,045 impervious only accounts
  - Current rate proposal would adjust billing cycle for impervious only accounts with 3 or more ERU's to monthly rather than semi-annually to avoid large "Please Pay" bills
- In line with the third Board policy guidance, a Six tier residential rate structure was implemented to bill the Clean Rivers IAC more equitably amongst the single family residential customers.

Tiers	Size of Impervious Area Equivalent Residential Unit (Square Feet) (ERU)		% of residential customers per tier		
Tier 1	100 - 600	0.6	17.68%		
Tier 2	700 - 2,000	1.0	74.31%		
Tier 3	2,100 - 3,000	2.4	5.47%		
Tier 4	3,100 - 7,000	3.8	2.37%		
Tier 5	7,100 - 11,000	8.6	0.12%		
Tier 6	11,100 and more	13.5	0.05%		



### Database/GIS



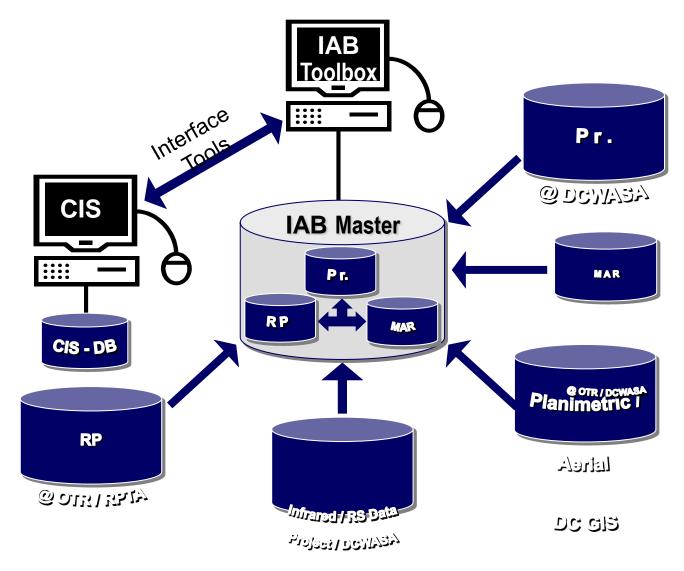
#### Clean Rivers IAC Database

#### ■ Database/GIS –

- The primary source of the impervious area data is the owner polygon layer and the planimetric layers, respectively, provided from the DC GIS (Geographic Information System) through the District of Columbia of Office of the Chief Technology Officer (OCTO)
- Property data reflects FY 2005 property and premise data
- As previously noted, property lines, ownership and classification of properties are based upon the DC Office of Tax and Revenue use code or Office of Planning land use code



### Clean Rivers IAC Database, Cont.





### Clean Rivers IAC Database, Cont.



Service Address: INDE P AVE & S CAPITOL ST SE Washington, DC 20001-1000

Premise Number (Active): 308931 Square/Suffix/Lot: 0636 081 Clean Rivers Impervious Area Charge Determination

Total Impervious Area = 1,055,200 sq. ft Clean Rivers IA Charge: 1,055.2 ERU Effective Date: 5/1/2009

STOISTISW STOISTISM ISSUES IN TRISTING STOISTISM IN TRISTING STOISTING STOIS

0 1,000 Feet Ø

Building =
Road/Drive/Parking Lot
Sidewalk =

188,595 sq. ft 287,600 sq. ft 579,008 sq. ft Stairs =
Swimming Pool =
Outdoor Rec Facility =

Property Boundary
Clean Rivers IAC
Carrying Premise
Other Premise on Lot
exempt of Clean

0 sa. ft

0 sq. ft

0 sq. ft

Other Premises on lot:

1 ERU

Premise	Туре	Service Address	Exempt Reason
3130900	FED	CONSTITUTION AVE BETWEEN DEI	. ಖುದಿದ್ದಾಗಿ
3129251	FED	DELAWARE & CONSTAVE NE	Duplicate
3142544	FED	100 EAST CAPITOL ST NE	Duplicate
3093299	FED	IND AVE & S CAPT ST SW	Duplicate
3015966	FED	CONST & N J AVE SE	Duplicate

- The IA database includes a birds-eye view of each DC Water account, outlining the various impervious and pervious surfaces with the property boundaries
  - The impervious area and number of ERUs are calculated within the database and displayed on charts like this.
  - Number of premises in database in FY 2011 total 128,395
  - Types of premises
    - Commercial
    - DC Housing Agency
    - Federal Government
    - Multi-family
    - DC Government

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Residential



### Staffing/Administration



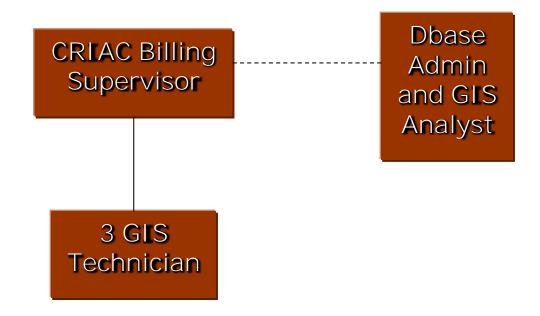
# Clean Rivers IAC Program Administration and Performance

#### Staffing and Administration –

- The incremental cost of the program to DC Water in FY 2012 is \$474,000
  - There are costs imbedded within the customer service function that are necessary to ensure the billing and collection of the DC Clean Rivers IAC, the DC Stormwater fee and all other retail rates and fees
- Within the Department of Customer Service, there were 4 full-time positions added to maintain and update the impervious area database, ensure appropriate billing and respond to customer inquiries
- Database administration and GIS functions exists within the Office of Information Technology to support the technical requirements of the database
- Over 9,000 new accounts were created within the customer billing system for the new impervious only accounts and are billed either monthly or semiannually (depending several factors). There is a cost for the maintenance of each new account within the system and a cost for each bill generated from the system and mailed to a customer
- Any update to the customer billing system required for adjustments to the impervious area database have a one-time cost that will vary by task



### Clean Rivers IAC Program water is life Administration and Performance



•IT Department – GIS Analyst and Database Administrator



### Bill Disputes/Appeals



# Bill Disputes/Appeals

- Most customer inquiries and bill disputes are resolved prior to a formal appeal – many over the phone. Customer Service applies the same approach to resolving Impervious Area charges.
- The initial step is for a customer to call, visit, write or email Customer Service for help. They will investigate the claim including a field visit if necessary and if possible resolve the issue. A fee adjustment will be made if it is determined that the property has been assigned to: the wrong rate class (Single Family Residential or Non SFR), or the impervious area used in the computation is incorrect or if the ownership information is incorrect.
- ☐ If Customer Service does not satisfy the customer's need, the customer is notified in writing of their right to request a formal appeal.
- □ The current process for customer billings appeals also covers appeals from impervious area charge



# Bill Disputes/Appeals – Cont.

- The burden of proof is on the appellant to demonstrate, by clear and convincing evidence the validity of their appeal. The appellant submits a digital drawing of a site survey, prepared and sealed by a registered Professional Land Surveyor or registered Professional Engineer, showing and summarizing impervious surfaces on the site and other information that may be specified by the Authority.
- An appeal must be filed within 10 days of receipt of the bill or appeal notice.
- ☐ All customer appeals are investigated by Customer Service, with support from other department's subject experts as needed.



### Appeals/Bill Dispute - Cont.

### ■ Inquires and Disputes

- Since inception of the Clean Rivers IAC program in FY 2009, DC Water has received numerous calls regarding the Clean Rivers IAC.
- The table below lists contact information in DC Water's customer information system regarding inquiries related to the Clean Rivers IAC. As expected calls were higher in the initial year and half (May 2009 – September 2010) and have tapered off in FY 2012.
- DC Water annually records on average 123,051 contacts from its customers. Relative to DC Water's annual average the Clean Rivers IAC make up approximately 1.3% of contacts.

### **Clean Rivers IAC Utility Contact Calls**

Contact	Contact Description	FY 2009	FY 2010	FY 2011	FY 2012
		May 2009 -	October 2009 -	October 2010 -	October 2011 -
		September 2009	September 2010	September 2011	January 2012
ERUI	Impervious ERU/Property	200	675	129	57
	Inquiry regarding property				
	disputes, ownership				
GREEN	Incentive requests by	8	3	4	3
	customers for adjustments				
	to Impervious Area				
IACI	Impervious General Inquiry	1687	1580	517	123
Total		1895	2258	650	183

The above numbers reflect the call volumes received since the go live date of May 2009. Additional inquiries received via email or by mail are not included. There is an impervious area mailbox where staff members respond to internal and external inquiries. Written challenges are identified below.



### Appeals/Bill Dispute - Cont.

### ☐ Inquires and Disputes (cont.)

- In 2010, some federal agencies disputed paying rates and fees allocated by impervious area initiating an inquiry by GAO as to whether our fee was a fee or a tax.
  - A letter was received from GAO on April 13, 2010 disputing the federal payment of the Clean Rivers IAC
  - The Acting General Manager engaged the legal counsel of GAO, explaining the purpose, methodology and available legislation regarding the DC Water Clean Rivers IAC
  - The DDOE (DC Department of the Environment) participated in similar conversations in order to support their stormwater fee
  - In September 2010, the GAO acknowledged the service provided by DC Water associated with the Clean Rivers Fee and withdrew any objections to federal payment of the DC Water fee (they did not withdraw their objection to the DDOE stormwater fee)
- On January 4, 2011, Congress enacted legislation that requires the federal payment of certain stormwater assessments, whether of not they are deemed to be a tax or fee.
  - This law clarified the result already received by GAO regarding the DC Water fee as well as requiring the payment of the DDOE stormwater fee
  - A residual impact is that the US Treasury could no longer collect the DDOE fee when paying the rest of the DC Water billing
  - Many federal agencies (particularly within the Department of the Defense) have not paid the DDOE stormwater fee since April 2011

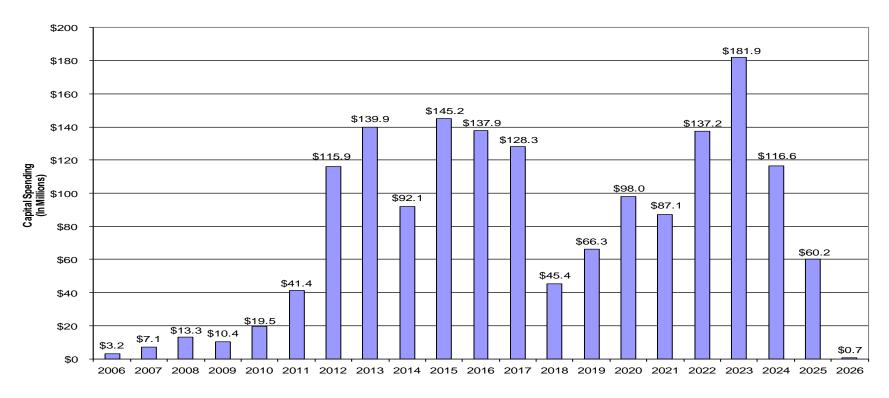


# Financial Results/Impact



## Clean Rivers Spending by Year

**CSO LTCP Spending by Year** 

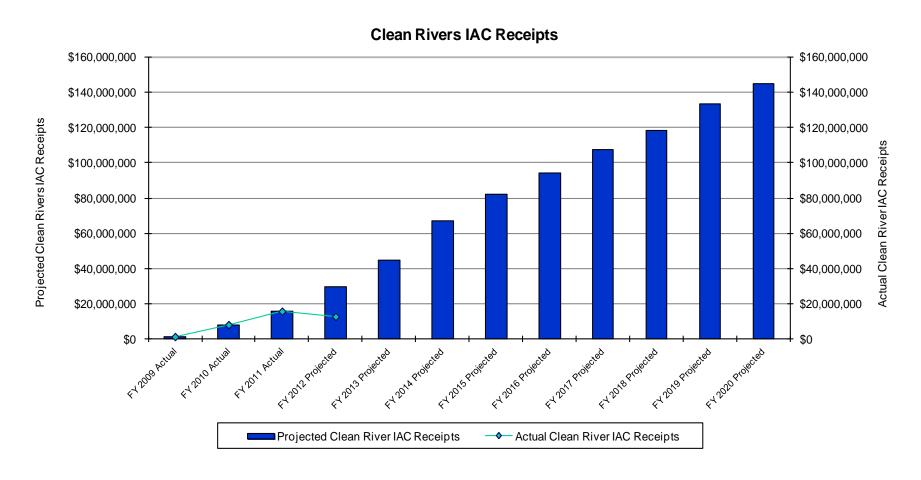


In December 2004, the Board reached agreement with the federal government on the Clean Rivers Project (CSO-LTCP) and entered into a related consent decree. Projected disbursements by fiscal year for the Clean Rivers Project are shown in the chart above and are the drivers for changes in the Clean Rivers IAC over the ten-year plan.



# Clean Rivers IAC Revenue /Receipts

### ☐ Clean River IAC Receipts/Collections



<sup>\*</sup> FY 2012 actual Clean Rivers IAC receipts as of January 2012 are 43% collected with 33% of year complete



### Clean Rivers IAC Collections

- ☐ The general metered customer account delinquencies have decreased since FY 2009 and are 1.8% of total billings.
  - Impervious only delinquent accounts are approximately 2% of the total number of DC Water accounts as of January 31, 2012

### <u>Impervious Only Accounts with 90 days and Greater Delinquent Amount\*</u>

	# of Accounts	Amount (\$)	# of Accounts with a Lien	Amount (\$) % with a Lien	%	# of Accounts on Hold	Amount (\$) % on Hold	%
Commercial	1290	\$270,644.41	264	\$199,318.12		5	\$13,311.01	
Multi Family	243	\$83,331.15	85	\$71,844.94		1	\$0.05	
Residential	1635	\$214,850.30	74	\$50,870.43		2	\$1,129.44	
	3168	\$568,825.86	423	13% \$322,033.49	57%	8	0% \$14,440.50	3%

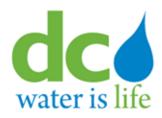
### Note:

There are 3,168 accounts representing \$568,825.86 that are Impervious only accounts with delinquent balance over 90 days. 423 accounts of the 3,168 accounts representing \$322,033.49 (or 57%), are secured with a lien and only 8 accounts representing \$14,440.50 (or 3%), are placed on hold.

<sup>\*</sup> As of January 31, 2012

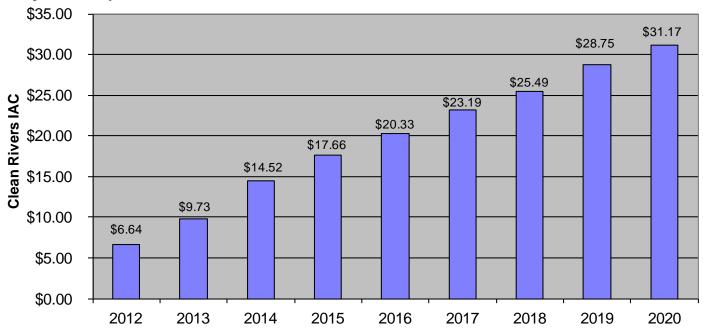


# **Customer Impacts**



### Projected Clean Rivers IAC per ERU

□ The 10-Year Financial Plan approved by the Board on January 5, 2012 assumes the following increases in the Clean Rivers IAC monthly rate per ERU:



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty year \$2.6 billion Clean Rivers Project, which includes the federally mandated CSO-LTCP and the nine-minimum controls program.
- The annual Clean Rivers Project IAC costs for the average Tier 2 residential customer (700 2,000 sq ft of impervious area) is projected to increase from \$116.71 in FY 2013 to \$374.02 in FY 2020.
- FY 2012 is the actual rate; all other rates are projected



### ☐ The Clean Rivers IAC is the fastest growing portion of the average residential bill

_	Units	F۱	/ 2010	F	Y 2011	F	Y 2012	F	Y 2013	F	Y 2014	FY 2015	FY 2016	F	Y 2017	FY	2018	FY	2019	FY 2020
DC Water Retail Rates (1)	Ccf	\$	40.94	\$	46.09	\$	48.17	\$	51.31	\$	53.85	\$ 57.33	\$61.08	\$	65.09	\$ (	68.04	\$ 7	70.71	\$ 73.86
DC Water Clean Rivers IAC	ERU		2.20		3.45		6.64		9.73		14.52	17.66	20.33		23.19	2	25.49	2	28.75	31.17
DC Water Customer Metering Fee			2.01		3.86		3.86		3.86		3.86	3.86	3.86		3.86		3.86		3.86	3.86
Subtotal DC Water Rates & Charges		\$	45.15	\$	53.40	\$	58.67	\$	64.90	\$	72.23	\$ 78.85	\$ 85.27	\$	92.14	\$ 9	97.39	\$10	3.32	\$108.89
Increase / Decrease		\$	4.37	\$	8.25	\$	5.27	\$	6.23	\$	7.33	\$ 6.62	\$ 6.42	\$	6.87	\$	5.25	\$	5.93	\$ 5.57
District of Columbia PILOT (1)	Ccf	\$	2.87	\$	3.28	\$	3.28	\$	3.48	\$	3.68	\$ 3.95	\$ 4.21	\$	4.48	\$	4.68	\$	4.88	\$ 5.08
District of Columbia Right of Way Fee (1)	Ccf		0.94		0.94		1.00		1.07		1.14	1.20	1.27		1.34		1.40		1.47	1.54
District of Columbia PILOT/ROW Fee			3.81		4.22		4.28		4.55		4.82	5.15	5.48		5.82		6.08		6.35	6.62
District of Columbia Stormwater Fee (2)	ERU		2.57		2.67		2.67		2.67		2.67	2.67	2.67		2.67		2.67		2.67	2.67
Subtotal District of Columbia Charges		\$	6.38	\$	6.89	\$	6.95	\$	7.22	\$	7.49	\$ 7.82	\$ 8.15	\$	8.49	\$	8.75	\$	9.02	\$ 9.29
Total Amount Appearing on DC Water Bill		\$	51.53	\$	60.29	\$	65.62	\$	72.12	\$	79.72	\$ 86.67	\$ 93.42	\$	100.63	\$10	06.14	\$11	12.34	\$118.18
Increase / Decrease Over Prior Year		\$	4.70	\$	8.76	\$	5.33	\$	6.50	\$	7.60	\$ 6.95	\$ 6.75	\$	7.21	\$	5.51	\$	6.20	\$ 5.84
Percent Increase in Total Bill			10.0%		17.0%		8.8%		9.9%		10.5%	8.7%	7.8%		7.7%		5.5%		5.8%	5.2%

<sup>(1)</sup> Assumes average monthly consumption of 6.69 Ccf, or (5,004 gallons)



### ☐ ERU distribution: assumed versus FY 2011 actuals

	Single Family Residential	Non-Single Family Residential	Total
ERUs charged per property		# ERUs =	
(1 ERU = 1,000 sq. ft.)		Impervious area of property (sq. ft.) 1,000 sq ft	
Total # of ERUs to be charged (per 2008)	100,829*	329,020	429,849
Percentage of Total ERUs	23%	77%	100%
Total # of ERUS in FY 2011	113,068*	312,721	425,789
Percentage of Total ERUs	26.5%	73.5%	100%

- The allocation of ERUs between Residential and Non-Residential customers has changed since initial program development. In 2009, all residential customers were charged 1 ERU. Beginning FY 2011, a tiered residential rate was implemented, increasing the number of residential ERUs\*
- The total number of billable ERUs is approximately 426k; or less than 1% difference than identified during the development phase.



☐ Comparison of Share of ERUs to Share of Water Consumption by **Customer Group** 

Group	Share of ERUs (% in 2008)	Share of ERUs (% in 2011)	Share of Metered Water Consumption (% in 2011)
Residential	24.4%	26.5%	21.3%
Commercial	33.2%	33.0%	34.6%
Multifamily	10.9%	10.7%	20.2%
Federal	21.0%	19.4%	15.4%
Municipal	6.7%	7.2%	3.4%
DCHA	1.2%	1.2%	2.3%
Other	<u>2.6%</u>	<u>2.1%</u>	<u>2.7%</u>
Totals	100%	100%	100%



- In recognition of the impact of a fixed fee upon low-income customers, the DC Water Board took action to expand the Customer Assistance Program (CAP) just prior to implementation of the Clean Rivers IAC
  - In January 2009, the Board expanded the CAP to provide a discount of 4 Ccf per month of sewer services to eligible customers in addition to the 4 Ccf of water service provided under the previous program in existence since 2000.
  - In FY 2011, the discount was expanded again by the Board to include the first 4 Ccfs associated with the PILOT/ROW fee in addition to the discount provided on water and sewer services.



☐ The availability of the expanded CAP helps to relieve the impact upon low-income customers

Average CAP Customers Monthly Bill

_	Units	F	Y 2010	F	Y 2011	F	Y 2012	F	FY 2013	F	Y 2014	F	Y 2015 F	Y 2016	F	Y 2017	FY	2018	F	Y 2019	F	Y 2020
DC Water Retail Rates (1)	Ccf		40.94		46.09		48.17		51.31		53.85		57.33	61.08		65.09		68.04		70.71		73.86
DC Water Clean Rivers IAC	ERU		2.20		3.45		6.64		9.73		14.52		17.66	20.33		23.19		25.49		28.75		31.17
DC Water Customer Metering Fee			2.01		3.86		3.86		3.86		3.86		3.86	3.86		3.86		3.86		3.86		3.86
Subtotal DC Water Rates & Charges		\$	45.15	\$	53.40	\$	58.67	\$	64.90	\$	72.23	\$	78.85 \$	85.27	\$	92.14	\$	97.39	\$	103.32	\$	108.89
Increase / Decrease		\$	4.37	\$	8.25	\$	5.27	\$	6.23	\$	7.33	\$	6.62 \$	6.42	\$	6.87	\$	5.25	\$	5.93	\$	5.57
District of Columbia PILOT (1)	Ccf	\$	2.87	\$	3.28	\$	3.28	\$	3.48	\$	3.68	\$	3.95 \$	4.21	\$	4.48	\$	4.68	\$	4.88	\$	5.08
District of Columbia Right of Way Fee (1)	Ccf	\$	0.94	\$	0.94	\$	1.00	\$	1.07	\$	1.14	\$	1.20 \$	1.27	\$	1.34	\$	1.40	\$	1.47	\$	1.54
District of Columbia Stormwater Fee (3)	ERU		2.57		2.67		2.67		2.67		2.67		2.67	2.67		2.67		2.67		2.67		2.67
Subtotal District of Columbia Charges		\$	6.38	\$	6.89	\$	6.95	\$	7.22	\$	7.49	\$	7.82 \$	8.15	\$	8.49	\$	8.75	\$	9.02	\$	9.29
Total Amount		\$	51.53	\$	60.29	\$	65.62	\$	72.12	\$	79.72	\$	86.67 \$	93.42	\$	100.63	\$	106.14	\$	112.34	\$	118.18
Less: CAP Discount (4 Ccf per month) (1), (2)			(24.48)		(30.08)		(31.36)		(33.40)		(35.08)		(37.36)	(39.80)		(42.40)		(44.32)		(46.08)		(48.12)
Total Amount Appearing on DC Water Bill		\$	27.05	\$	30.21	\$	34.26	\$	38.72	\$	44.64	\$	49.31 \$	53.62	\$	58.23	\$	61.82	\$	66.26	\$	70.08
Increase / Decrease Over Prior Year		\$	2.66	\$	3.16	\$	4.05	\$	4.46	\$	5.92	\$	4.67 \$	4.31	\$	4.61	\$	3.59	\$	4.44	\$	3.80
CAP Customer Discount as a Percent of Total Bill		<u> </u>	-47.5%		-49.9%		-47.8%		-46.3%		-44.0%		-43.1%	-42.6%		-42.0%		-41.8%		-41.0%		-40.7%
CAP Assistance Prior to Expanded 4 Ccf for Sewer, PIL	OT & ROW		(10.04)		(12.40)		(12.97)		(13.80)		(14.48)		(15.40)	(16.40)		(17.47)		(18.30)		(19.00)		(19.84)

<sup>(1)</sup> Assumes average monthly consumption of 6.69 Ccf, or (5,004 gallons)

<sup>(2)</sup> Extension of CAP program to first 4 Ccf of PILOT and ROW

<sup>(3)</sup> District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010



□ 73% of the approved Customer Assistance Program (CAP) customers are charged 1 ERU a month or less:

Tiers	Size of Impervious Area (Square Feet)	Equivalent Residential Unit (ERU)	# of CAP-eligible customers with this size property
Tier 1	100 - 600	0.6	1,437
Tier 2	700 - 2,000	1.0	4,388
Tier 3	2,100 - 3,000	2.4	181
Tier 4	3,100 - 7,000	3.8	18
Tier 5	7,100 - 11,000	8.6	1
Tier 6	11,100 and more	13.5	-



## Clean Rivers IAC Program Recap



### Clean Rivers IAC Program Recap

Clean Rivers IAC Policies	Implemented Clean Rivers IAC Policies	Clean Rivers IAC Policy Items Currently in Development Stage	Clean Rivers IAC Policy Items Not in Development Stage
Policy #1			
Develop rates and charges based on impervious surface areas	V		
Exclude City and federally-owned rights of way	V		
Recover all CSO-LTCP costs through Clean Rivers IAC	√ Update of cost projections to be included within the 2012 Cost of Service Study		
Customer appeals shall be processed consistent with existing billings process	٧		
Consider expansion of CAP program to include impervious rates		√ CAP expanded 2x for volumetric rates; a review of options & implications scheduled for 2012	
Policy #2			
Define Impervious Surface Area	V		
Use DC GIS as the source for determination of impervious surface	٧		
Use ERU as unit of measure	V		
Initially, assess all residential customers 1 ERU	V		
Policy #3			
Categorize and bill all properties based on the total amount of impervious surface on each lot	<b>√</b>		
Consider whether their should be gradations or variation of imperviousness		DDOE has been tasked with development of a credit program. This would be considered under their eligibility criteria	
Consider multiple tiers for residential customers	V		
Consider whether a credit and incentive policy should be implemented		DDOE has been tasked with development of a credit program and has proposed a Green Credit program that awaits rulemaking activity	
Continue to identify and consider other criteria		Revise billing frequency for I/O Review recent flyovers for updating	



# Next Steps



# Next Steps

- □ DC Water Billing Frequency Change for Impervious Only Accounts proposed for change on October 1, 2012
- Validate Clean Rivers IAC cost recovery assumptions within the DC Water FY 2012 Cost of Service Study
- GIS Updates
  - Evaluate known flyover revisions for potential date updates and implications to current customer data
- Development of incentive program
  - Working with DDOE to identify billing program requirements
  - Board action will be required to implement a DC Water credit program similar to the proposed stormwater program
  - □ DDOE specific eligibility guidance still pending; gradations of imperviousness may be considered within that eligibitly
- □ Impacts of Clean Rivers IAC upon CAP customers to be reviewed in Spring 2012



Attachment - D

# Presented to the DC Retail Water and Sewer Rates Committee

March 27, 2012

CAP Expansion and Methodology Review

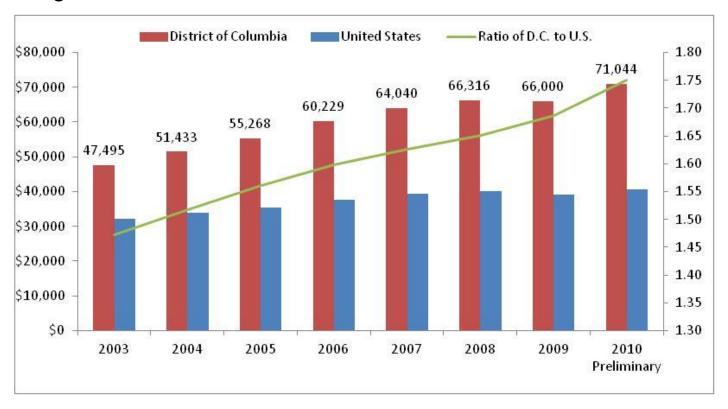


### Program Background



# DC Personal Income Per Capita Is Higher Than the U.S. Average

The Average DC Water bill in FY 2012 is approximately 1.7% of the average household income in the District of Columbia



The scale on the left side of the chart shows personal income per capita which applies to the columns in each year for DC and the U.S. The scale on the right side of the chart shows the ratio of DC income to U.S. income which is reflected by the line in the chart.

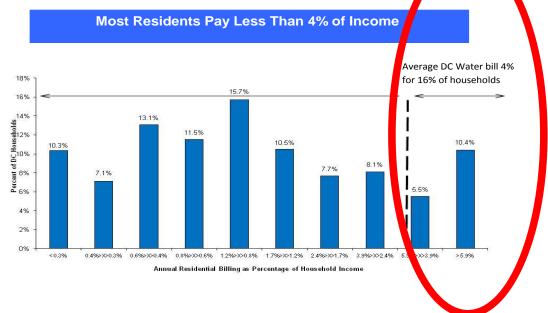
Source: US Census Bureau



# DC Water Charges are Affordable and Competitive With Other Major Cities

- Median household income: The average DC Water charges are less than 4% of income for 84% of the households in the District of Columbia. US EPA guidelines suggest that charges greater than 4% of median household income are typically viewed as a strain on household budgets (2% water + 2% sewer)
- Typical DC Water residential bill as a percentage of income is about average when compared to other utilities of similar size.

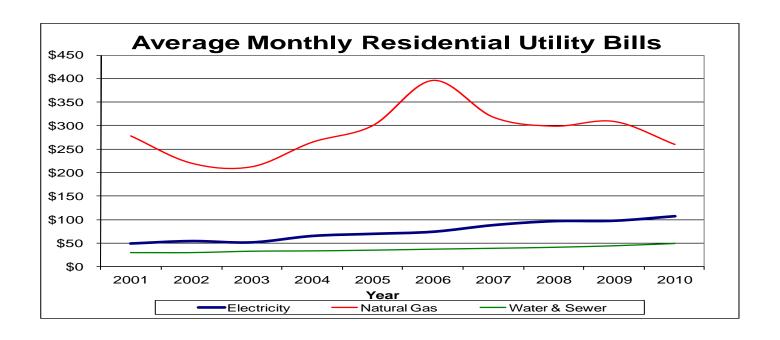
■ In FY 2009, a DC water study estimated that only 25% of eligible love income households are actually DC Water customers with an account.



Most low-income households dwell in multifamily buildings and receive a water bill



# Compared to Other Household Utilities, DC Water Residential Bills are Low



#### Observation:

•Average electricity and natural gas biils are higher than the average water & sewer bills.

### **Assumption:**

•Average DC customer is assumed to use 6.69 Ccf of water, 200 Therms of natural gas and almost 733 kWh of electricity per month.



# DC Water Customer Assistance Programs (CAP)

- ☐ In recognition of the hardship upon low-income residents of any bills and the necessity of water for all while balancing conservation efforts:
  - The Authority implemented the CAP in 2000 providing a discount of 4 Ccf per months of water service for single family residential homeowners that meet income eligibility guidelines.
  - In FY 2004, the Authority expanded the CAP to include tenants who meet the financial eligibility requirements and whose primary residence is separately metered by the Authority.
  - In January 2009, the Authority further expanded the CAP to provide a discount of 4 Ccf per month of sewer services to eligible customers.
  - In FY 2011, the discount was expanded to the first 4 Ccf associated with the PILOT/ROW fee in addition to the current discount provided on water and sewer services.



### Approval and Eligibility

- ☐ The District Department of the Environment (DDOE) certifies CAP eligibility based on federal low-income guidelines:
  - Applicants must provide proof of income
  - Only one application is required to apply for all utility discounts
  - Participants must certify that they are aware of water conservation measures to participate in the program
- ☐ Income eligibility criteria for LIHEAP is established by the federal government
  - Varies from state to state
  - Income eligibility in DC for the LIHEAP is currently set at 60% of median household income



### Approval and Eligibility, Cont.

- ☐ The Utility Discount Programs use 150 percent of the federal poverty level as the maximum income level allowed in determining income eligibility:
  - Eligibility for Utility Discount Programs is established through the Public Service Commission for Gas, Electric, and Telephone, and DC Water Board for Water and Sewer

### Income Guidelines FY 2011

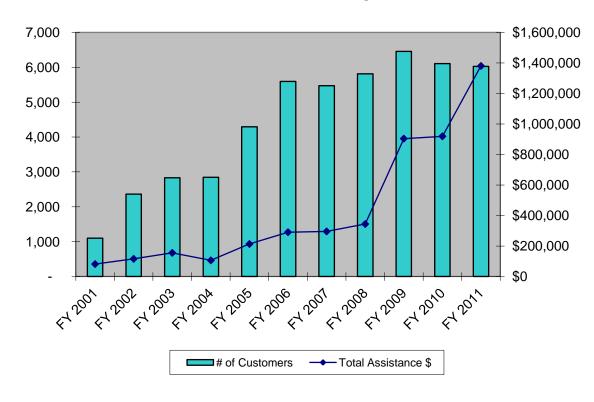
<b>Household Size</b>	<b>Maximum Annual Income</b>
1	\$21,702
2	\$28,380
3	\$35,057
4	\$41,735
5	\$48,412
6	\$55,090
7	\$56,342
8	\$57,594



### **CAP Residential Program**

□ DC Water provides assistance to 5,000 – 6,000 customers every year through the CAP¹

### **Customer Assistance Program**



## Total annual maximum discounts available:

- \$240 Pepco\*
- \$189 Washington Gas\*
- \$376 DC Water

<sup>&</sup>lt;sup>1</sup> 44 accounts billed in FY 2009 for FY 2008 eligibility year not included

<sup>\*</sup> Per DDOE website



### Data Analysis



### Average CAP Customer Bill

- ☐ The availability of the Board expanded CAP helps to relieve the impact upon low-income customers
  - In 2009, CAP customers received credit on 21% of their average residential bill (annual credit of \$110.40)
  - In 2011, CAP customers received credit on 50% of their average residential bill (annual credit of \$360.96)

### Average CAP Customers Monthly Bill

		_	Y 2009	FY 2009				
	Units	as of	10/01/2008	as of 5/01/200	9	FY 2010	F	Y 2011
DC Water Retail Rates (1)	Ccf		38.60	37.5	3	40.94		46.09
DC Water Clean Rivers IAC	ERU		-	1.2	4	2.20		3.45
DC Water Customer Metering Fee			2.01	2.0	1	2.01		3.86
Subtotal DC Water Rates & Charges		\$	40.61	\$ 40.7	3 \$	45.15	\$	53.40
Increase / Decrease		\$	2.84	\$ 2.8	4 \$	4.37	\$	8.25
District of Columbia PILOT (1)	Ccf	\$	2.61	\$ 2.6	1 \$	2.87	\$	3.28
District of Columbia Right of Way Fee (1)	Ccf	\$	0.87	\$ 0.8	7 \$	0.94	\$	0.94
District of Columbia Stormwater Fee (3)	ERU		2.57	2.5	7	2.57		2.67
Subtotal District of Columbia Charges		\$	6.05	\$ 6.0	5 \$	6.38	\$	6.89
Total Amount		\$	46.66	\$ 46.8	3 \$	51.53	\$	60.29
Less: CAP Discount (4 Ccf per month) (1), (2)			(9.20)	(22.4	4)	(24.48)		(30.08)
Total Amount Appearing on DC Water Bill		\$	37.46	\$ 24.3	9 \$	27.05	\$	30.21
Increase / Decrease Over Prior Year		\$	(8.71)	\$ (8.7	1) \$	2.66	\$	3.16
CAP Customer Discount as a Percent of Total Bill			-19.7%	-47.9	%	-47.5%		-49.9%
Additional Cap Assistance due to Expanded 4 Ccf for Se	ewer, PILOT & ROW		-	(13.2	4)	(14.44)		(17.68)

<sup>(1)</sup> Assumes average monthly consumption of 6.69 Ccf, or (5,004 gallons)

<sup>(2)</sup> Extension of CAP program in FY 2011 to first 4 Ccf of PILOT and ROW

<sup>(3)</sup> District Department of the Environment stormw ater fee of \$2.67 effective November 1, 2010

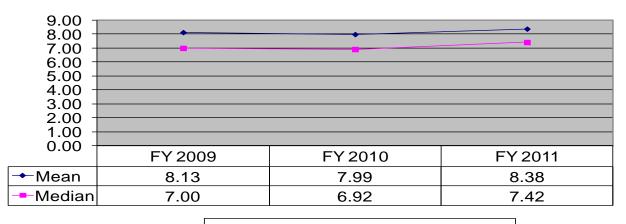


### **CAP Customer Consumption**

Monthly Use	FY	2009	FY 2	010	FY 2011			
	# of % of accounts account		# of accounts	% of accounts	# of accounts	% of accounts		
Less than 4 Ccf	1,443	22.4%	1,444	23.7%	1,180	19.6%		
4-8 Ccf	1,774	27.6%	1,668	27.3%	1,604	26.6%		
Greater than 8 Ccf	3,197	50.0%	2,995	49.0%	3,241	53.8%		
Total CAP Customers	6,414	100.0%	6,107	100.0%	6,025	100.0%		

### **CAP Customer Consumption Per Account**





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# Clean Rivers (IAC) Tier Distribution

□ 73% of the FY 2011 approved Customer Assistance Program (CAP) customers were charged 1 ERU a month or less:

Tiers	Size of Impervious Area (Square Feet)	Equivalent Residential Unit (ERU)	# of CAP-eligible customers with this size property
Tier 1	100 - 600	0.6	1,437
Tier 2	700 - 2,000	1.0	4,388
Tier 3	2,100 - 3,000	2.4	181
Tier 4	3,100 - 7,000	3.8	18
Tier 5	7,100 - 11,000	8.6	1
Tier 6	11,100 and more	13.5	-

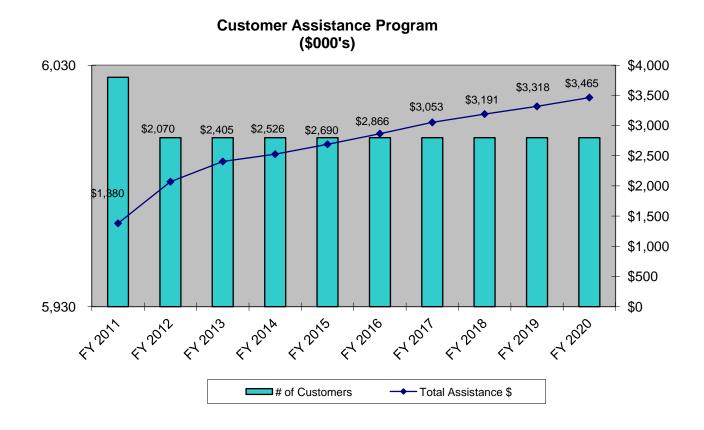


### **Customer Impacts**



### Projected Costs of CAP Impact

☐ The FY 2011 – 2020 Financial Plan includes the costs associated with the existing Customer Assistance Program.



<sup>\*</sup>Assumes 6,000 CAP customers FY 2012 - 2020

<sup>\*</sup> FY 2011 actual



### **Projected Customer Impacts**

□ Eligible DC Water CAP Customers are projected to receive 41 – 48% discount on the average residential customer bill

### Average CAP Customers Monthly Bill

<u></u>	Units	F	Y 2012	F	Y 2013	F	Y 2014	F	Y 2015	ı	FY 2016	F	Y 2017	F	Y 2018	F	Y 2019	F	FY 2020
DC Water Retail Rates (1)	Ccf		48.17		51.31		53.85		57.33		61.08		65.09		68.04		70.71		73.86
DC Water Clean Rivers IAC	ERU		6.64		9.73		14.52		17.66		20.33		23.19		25.49		28.75		31.17
DC Water Customer Metering Fee			3.86		3.86		3.86		3.86		3.86		3.86		3.86		3.86		3.86
Subtotal DC Water Rates & Charges		\$	58.67	\$	64.90	\$	72.23	\$	78.85	\$	85.27	\$	92.14	\$	97.39	\$	103.32	\$	108.89
Increase / Decrease		\$	5.27	\$	6.23	\$	7.33	\$	6.62	\$	6.42	\$	6.87	\$	5.25	\$	5.93	\$	5.57
District of Columbia PILOT (1)	Ccf	\$	3.28	\$	3.48	\$	3.68	\$	3.95	\$	4.21	\$	4.48	\$	4.68	\$	4.88	\$	5.08
District of Columbia Right of Way Fee (1)	Ccf	\$	1.00	\$	1.07	\$	1.14	\$	1.20	\$	1.27	\$	1.34	\$	1.40	\$	1.47	\$	1.54
District of Columbia Stormwater Fee (3)	ERU		2.67		2.67		2.67		2.67		2.67		2.67		2.67		2.67		2.67
Subtotal District of Columbia Charges		\$	6.95	\$	7.22	\$	7.49	\$	7.82	\$	8.15	\$	8.49	\$	8.75	\$	9.02	\$	9.29
Total Amount		\$	65.62	\$	72.12	\$	79.72	\$	86.67	\$	93.42	\$	100.63	\$	106.14	\$	112.34	\$	118.18
Less: CAP Discount (4 Ccf per month) (1), (2)			(31.36)		(33.40)		(35.08)		(37.36)		(39.80)		(42.40)		(44.32)		(46.08)		(48.12)
Total Amount Appearing on DC Water Bill		\$	34.26	\$	38.72	\$	44.64	\$	49.31	\$	53.62	\$	58.23	\$	61.82	\$	66.26	\$	70.08
Increase / Decrease Over Prior Year		\$	4.05	\$	4.46	\$	5.92	\$	4.67	\$	4.31	\$	4.61	\$	3.59	\$	4.44	\$	3.80
CAP Customer Discount as a Percent of Total Bill			-47.8%		-46.3%		-44.0%		-43.1%		-42.6%		-42.0%		-41.8%		-41.0%		-40.7%
Additional Cap Assistance due to Expanded 4 Ccf for Sewer, PILOT & ROW			(18.39)		(19.60)		(20.60)		(21.95)		(23.40)		(24.93)		(26.02)		(27.08)		(28.28)

<sup>(1)</sup> Assumes average monthly consumption of 6.69 Ccf, or (5,004 gallons)

<sup>(2)</sup> Extension of CAP program in FY 2011 to first 4 Ccf of PILOT and ROW

<sup>(3)</sup> District Department of the Environment stormwater fee of \$2.67 effective November 1, 2010



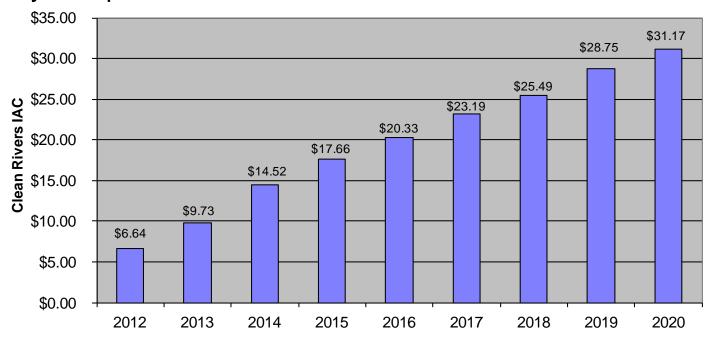
## Net Effect of Various Consumption Usage on Monthly FY 2012 Bill

	<u>0</u> -	- 4 CCF or	r up to 2,992 ga	<u>llons</u>	<u>5 CCF or</u>	up to 3,740 gal	<u>lons</u>	<u>6 CCF or t</u>	up to 4,488 gall	<u>ons</u>	<u>7 CCF or i</u>	up to 5,236 ga	llons	<u>8 CCF or t</u>	ıp to 5,984 gall	<u>ons</u>	<u>9 CCF or i</u>	up to 6,732 gal	<u>lons</u>
			2012 Total	Discount		2012 Total	Discount		2012 Total	Discount		2012 Total	Discount		2012 Total	Discount		2012 Total	Discount
Size of Impervious Area on	2012 To	otal	W/Out	as of %	2012 Total	W/Out	as of %	2012 Total with	W/Out	as of %	2012 Total with	W/Out	as of %	2012 Total with	W/Out	as of %	2012 Total with	W/Out	as of %
Account (ERUs)	with D	iscount	Discount	of Bill	with Discount	Discount	of Bill	Discount	Discount	of Bill	Discount	Discount	of Bill	Discount	Discount	of Bill	Discount	Discount	of Bill
0	\$	3.86	\$ 35.22	89%	\$ 11.70	\$ 43.06	73%	\$ 19.54	\$ 50.90	62%	\$ 27.38	\$ 58.74	4 53%	\$ 35.22	\$ 66.58	47%	\$ 43.06	\$ 74.42	42%
0.6	\$	9.45	\$ 40.81	77%	\$ 17.29	\$ 48.65	64%	\$ 25.13	\$ 56.49	56%	\$ 32.97	\$ 64.33	3 49%	\$ 40.81	\$ 72.17	43%	\$ 48.65	\$ 80.01	39%
1	\$	13.17	\$ 44.53	70%	\$ 21.01	\$ 52.37	60%	\$ 28.85	\$ 60.21	52%	\$ 36.69	\$ 68.0	46%	\$ 44.53	\$ 75.89	41%	\$ 52.37	\$ 83.73	37%
2.4	\$	26.20	\$ 57.56	54%	\$ 34.04	\$ 65.40	48%	\$ 41.88	\$ 73.24	43%	\$ 49.72	\$ 81.0	39%	\$ 57.56	\$ 88.92	35%	\$ 65.40	\$ 96.76	32%
3.8	\$	39.24	\$ 70.60	44%	\$ 47.08	\$ 78.44	40%	\$ 54.92	\$ 86.28	36%	\$ 62.76	\$ 94.12	2 33%	\$ 70.60	\$ 101.96	31%	\$ 78.44	\$ 109.80	29%



## Clean Rivers (IAC) Customer Impacts

☐ The 10-Year Financial Plan approved by the Board on January 5, 2012 assumes the following increases in the Clean Rivers IAC monthly rate per ERU:



- The projected charges displayed in the chart above are primarily driven by anticipated debt service costs necessary to support the twenty year \$2.6 billion Clean Rivers Project, which includes the federally mandated CSO-LTCP and the nine-minimum controls program.
- The annual Clean Rivers Project IAC costs for the average Tier 2 residential customer (700 2,000 sq ft of impervious area) is projected to increase from \$116.71 in FY 2013 to \$374.02 in FY 2020.
- FY 2012 is the actual rate; all other rates are projected



# Customer Assistance Program (CAP) Options

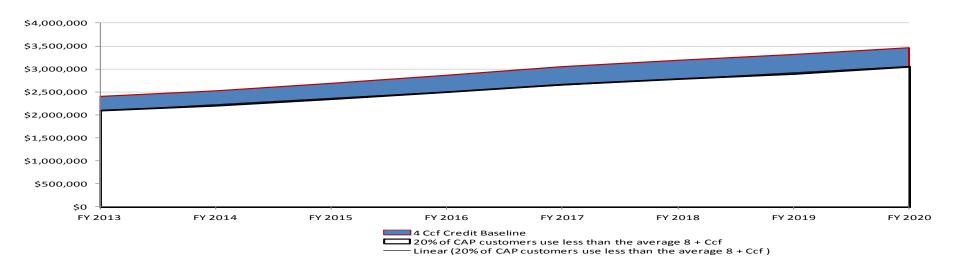


### Residential CAP Options

- □ Conservation:
  - Education conservation:
    - DDOE requires conservation for program eligibility
    - Update outreach material
  - Target mailing to CAP customers
    - New conservation materials
  - Offer home audit
    - > Provide leak detection tablets and instructions for follow up
  - Rebates
- Increase volumetric assistance:
  - In total by household
  - By number of people in household
- ☐ Provide credit on Clean Rivers IAC:
  - Does not reward conservation techniques
  - DDOE incentive program will be available to all residential customers including CAP customers
  - Explore availability of grants or rebates to install DDOE best management practices (look at Riversmart program)
- □ Adjust Eligibility Requirements (higher income limits)



■ Based on actual consumption patterns of CAP customers, some opportunities may exist with the current financial plan to reduce rate burden to other customers or revise the current assistance program.



_	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total
4 Ccf Baseline	\$ 2,404,800	\$ 2,525,760	\$ 2,689,920	\$ 2,865,600	\$ 3,052,800	\$ 3,191,040	\$ 3,317,760	\$ 3,464,640	\$23,512,320
20% of CAP customers									
use less than the									
average 8 + Ccf	\$ 2,104,200	\$ 2,210,040	\$ 2,353,680	\$ 2,507,400	\$ 2,671,200	\$ 2,792,160	\$ 2,903,040	\$ 3,059,280	\$20,601,000
Variance	\$ 300,600	\$ 315,720	\$ 336,240	\$ 358,200	\$ 381,600	\$ 398,880	\$ 414,720	\$ 405,360	\$ 2,911,320



### ☐ Conservation:

- Over 50% of the FY 2011 CAP customers used 8 or more Ccf
  - Target Mailing
    - Identify CAP customers with high monthly usage
    - Send updated conservation materials along with leak detection on tablets and instruments
    - Offer in-home audit program (1 free) to identify potential areas for consumption reduction

#### > Rebates

- Team with DDOE on existing program to support rebate program for installation of some stormwater management best practices
- Investigate existing plumbing improvement program to assist CAP customers with small interior improvements that may be indentified during the in-home audit (showerhead replacement, flappers etc.)



#### □ Volumetric:

- Provide one additional Ccf to eligible CAP customers (cost \$600,000 \$900,000 per year)
- Provide two additional Ccf to eligible CAP customers (cost \$1,200,000 \$1,800,000 per year)
- Cost is above current funding levels and doesn't encourage reduced consumption

#### Option 1 - (5 Ccf per month)

	FY 2013	FY 2014	FY 2015	F	Y 2016	FY 2017	ı	FY 2018	FY 2019	F	Y 2020	Total
Total Amount	\$ 72.12	\$ 79.72	\$ 86.67	\$	93.42	\$ 100.63	\$	106.14	\$ 112.34	\$	118.18	
Less: CAP Discount (5 Ccf per month)*	(41.75)	(43.85)	(46.70)		(49.75)	(53.00)		(55.40)	(57.60)		(60.15)	
Total Amount Appearing on DC Water Bill	\$ 30.37	\$ 35.87	\$ 39.97	\$	43.67	\$ 47.63	\$	50.74	\$ 54.74	\$	58.03	
Increase / Decrease Over Prior Year	\$ (3.89)	\$ 5.50	\$ 4.10	\$	3.70	\$ 3.96	\$	3.11	\$ 4.00	\$	3.29	
CAP Customer Discount as a Percent of Total Bill	-57.9%	-55.0%	-53.9%		-53.3%	-52.7%		-52.2%	-51.3%		-50.9%	
Incremental Increase (5 Ccf per month)*	\$ 601,200	\$ 631,440	\$ 672,480	\$	716,400	\$ 763,200	\$	797,760	\$ 829,440	\$	905,760	\$ 5,917,680

#### Option 2 - (6 Ccf per month)

	 FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Total
Total Amount	\$ 72.12	\$ 79.72	\$ 86.67	\$ 93.42	\$ 100.63	\$ 106.14	\$ 112.34	\$ 118.18	
Less: CAP Discount (6 Ccf per month)*	(50.10)	(52.62)	(56.04)	(59.70)	(63.60)	(66.48)	(69.12)	(72.18)	
Total Amount Appearing on DC Water Bill	\$ 22.02	\$ 27.10	\$ 30.63	\$ 33.72	\$ 37.03	\$ 39.66	\$ 43.22	\$ 46.00	
Increase / Decrease Over Prior Year	\$ (12.24)	\$ 5.08	\$ 3.53	\$ 3.09	\$ 3.31	\$ 2.63	\$ 3.56	\$ 2.78	
CAP Customer Discount as a Percent of Total Bill	-69.5%	-66.0%	-64.7%	-63.9%	-63.2%	-62.6%	-61.5%	-61.1%	
Incremental Increase (6 Ccf per month)*	\$ 1,202,400	\$ 1,262,880	\$ 1,344,960	\$ 1,432,800	\$ 1,526,400	\$ 1,595,520	\$ 1,658,880	\$ 1,779,840	\$ 11,803,680



- □ Provide an income-based credit on the Clean Rivers IAC
  - > Support Board policy on IAC and compliance with DC Legislation
    - " The Board may also consider to expand its Customer Assistance Program (CAP) to impervious surface rates"
    - "The Authority shall offer financial assistance programs to mitigate the impact of any increases in retail water and sewer rates on low-income residents of the District, including a low-impact design incentive program."
  - Does not encourage use of stormwater best management practices

#### Clean Rivers IAC Credit (25%)

	F	Y 2013	FY 2014	FY 2015		FY 2016	FY 2017	F	FY 2018	I	FY 2019	I	FY 2020	1	Total
Total Amount	\$	72.12	\$ 79.72	\$ 86.67	\$	93.42	\$ 100.63	\$	106.14	\$	112.34	\$	118.18		
Less: CAP Discount (4 Ccf per month)		(33.40)	(35.08)	(37.36)		(39.80)	(42.40)		(44.32)		(46.08)		(48.12)		
Less: Clean Rivers IAC (25% Credit per 1 ERU)		(2.43)	(3.63)	(4.42)	,	(5.08)	(5.80)		(6.37)		(7.19)		(7.79)		
Less: CAP Discount (4 Ccf per Month) and (Clean Rivers IAC Credit 25%)*		(35.83)	(38.71)	(41.78)	•	(44.88)	(48.20)		(50.69)		(53.27)		(55.91)		
Total Amount Appearing on DC Water Bill	\$	36.29	\$ 41.01	\$ 44.89	\$	48.54	\$ 52.43	\$	55.45	\$	59.07	\$	62.27		
Increase / Decrease Over Prior Year	\$	2.03	\$ 4.72	\$ 3.88	\$	3.65	\$ 3.89	\$	3.02	\$	3.62	\$	3.20		
CAP Customer Discount as a Percent of Total Bill		-49.7%	-48.6%	-48.2%		-48.0%	-47.9%		-47.8%		-47.4%		-47.3%		
Incremental Increase (4 ccf per month) & (Clean Rivers IAC 25% Credit)	\$	175,140	\$ 261,360	\$ 317,880	\$	365,940	\$ 417,420	\$	458,820	\$	517,500	\$	561,060	\$ 3	3,075,120

- □ Provide Environmental Credit on Clean Rivers IAC:
  - DC Water in coordination with the District Department of Environment ("DDOE") is developing a credit program for IAC customers to provide an incentive for implementation of stormwater management best practices.
  - DC Water credit towards the Clean River IAC may be proposed to support environmental best practices activities identified by DDOE
    - > Implementation of best practices will not eliminate DC Water's LTCP requirements
    - > All costs credited under a future incentive program will be redistributed to other customers



6 Ccf incremental

25% Clean Rivers IAC Credit

Adjust Eligibility Requirements

Conservation Outreach

### Residential CAP Options, Cont.

- □ A Clean Rivers IAC credit may be an affordable
- ☐ Initial conservation outreach can be accommodated within existing budgets
  - Any further recommendations would require additional study and would be reviewed within context of funding limits
- Offering additional Ccf assistance exceeds potential funding availability

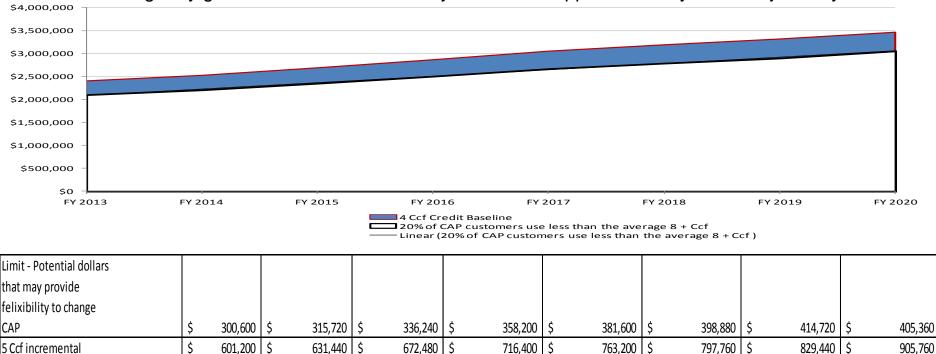
1.262.880 | \$

261,360 \$

1,202,400 \$

175,140 \$

CAP eligibility guidelines are established by DDOE and applied to every other major utility in DC



1,779,840

561,060

1.344.960 | \$

317,880 | \$

1,432,800 \$

365,940 \$

Additional research required

Determined by DDOE

1.526.400 | \$

417,420 \$

1.595.520 \$

458,820 \$

1.658.880

517,500 | \$



## Management Recommendations



# Management Recommendations

- Expand the current CAP assistance to include a credit on the Clean Rivers IAC
  - Support Board policy and intent of DC legislation on IAC
  - 25% or less is within potentially available funding
- Engage in active conservation education with **CAP** customers
  - Targeted mailings
  - Free in-home water audit (upon request)
  - Provide update to Committee



## Next Steps



### Next Steps

- Committee discussion March
- Committee direction and timeline
- Recommendations to Committee



## **Appendix**



# FY 2009 - 2011 Residential CAP Customer Consumption

(in Ccf)

Usage	Number of accounts per Range	FY 2011 Annual Usage	Total Monthly Ccf	Mean Usage	Median Per Percentile
Usage (0 - 4 ccf per Month)	1,180	35,721	2,977	2.52	2.67
Usage (5 - 7 ccf per Month)	1,604	106,716	8,893	5.54	5.58
Usage (8 - 10 ccf per Month)	1,461	147,680	12,307	8.42	8.33
Usage (11 & Above ccf per Month)	1,780	315,553	26,296	14.77	13.17
Total Usage	6,025	605,670	50,473	8.38	7.42
Usage	Number of accounts per Range	FY 2010 Annual Usage	Total Monthly Ccf	Mean Usage	Median per Percentile
Usage (0 - 4 ccf per Month)	1,444	42,240	3,520	2.44	2.58
Usage (5 - 7 ccf per Month)	1,668	110,400	9,200	5.52	5.50
Usage (8 - 10 ccf per Month)	1,393	140,995	11,750	8.43	8.42
Usage (11 & Above ccf per Month)	1,602	291,567	24,297	15.17	13.25
Total	6,107	585,202	48,767	7.99	6.92
Usage	Number of accounts per Range	FY 2009 Annual Usage	Total Monthly Ccf	Mean Usage	Median per Percentile
Usage (0 - 4 ccf per Month)	1,443	41,979	3,498	2.42	2.58
Usage (5 - 7 ccf per Month)	1,774	119,048	9,921	5.59	5.58
Usage (8 - 10 ccf per Month)	1,414	144,044	12,004	8.49	8.50
Usage (11 & Above ccf per Month)	1,783	320,932	26,744	15.00	13.33
Total Usage	6,414	626,003	52,167	8.13	7.00



- Volumetric options : increase the eligible monthly Ccf discounts
  - > 5 Ccf per month
  - > 6 Ccf per month

### Residential CAP Financial Options



<sup>32</sup> 



# CAP Customer Distribution by Quadrant and Ward

#### **CAP Customers Distribution By Quadrant**

FY 2011

	Number of Accounts	% of Distribution By Quadrant
CAP Customer in NE	2441	41%
CAP Customer in NW	1631	27%
CAP Customer in SE	1854	31%
CAP Customer in SW	99	2%
Total FY 2011 CAP Customers	6025	

#### **CAP Customers Distribution By Ward**

FY 2011

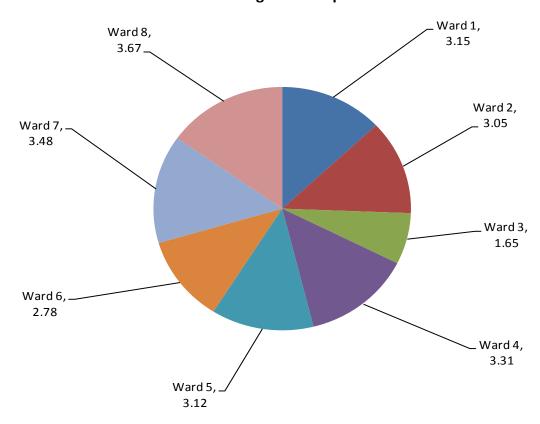
	Number of Accounts	% of Distribution By WARD
CAP Customer in WARD 1	387	6%
CAP Customer in WARD 2	72	1%
CAP Customer in WARD 3	27	0%
CAP Customer in WARD 4	1104	18%
CAP Customer in WARD 5	1331	22%
CAP Customer in WARD 6	529	9%
CAP Customer in WARD 7	1592	26%
CAP Customer in WARD 8	983	16%
Total FY 2011 CAP Customers	6025	



### CAP Residential Program

Average number of households by Ward

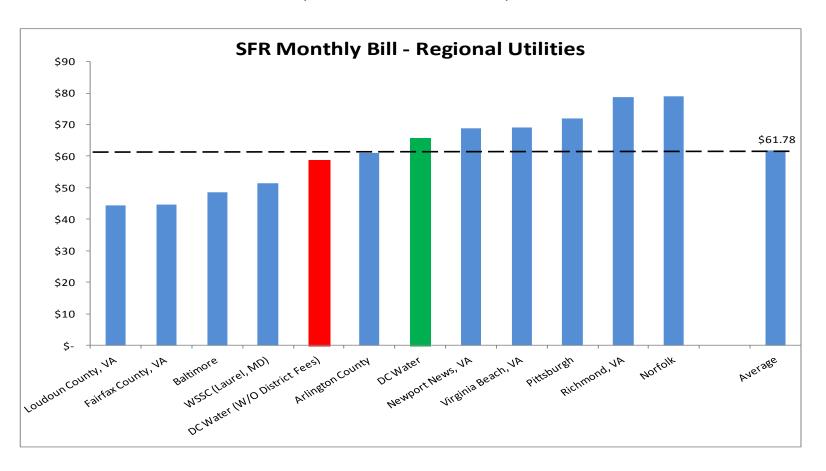
#### District of Columbia Average # of People Per Household Per Ward





### Demographics, Cont.

DC Water Retail Rates Compared to Regional Utilities (Based on Rates in effect Fall 2011)





## DC Water CAP Program

□ DC Water's Customer Assistance Program (CAP) performance since 2001 is summarized below:

Fiscal Year	Approved Participants	Amount of Assistance	DC Water Annual Adm. Cost to DDOE (includes JUDD)
FY 2001	1,101	\$81,700.00	\$41,000.00
FY 2002	2,365	\$115,740.00	\$41,000.00
FY 2003	2,834	\$155,213.00	\$50,878.34
FY 2004	2,844	\$106,035.00	\$48,080.56
FY 2005	4,296	\$213,301.00	\$55,250.00
FY 2006	5,594	\$290,677.00	\$70,523.22
FY 2007	5,470	\$295,696.00	\$66,176.20
FY 2008	5,814	\$344,090.35	\$66,028.25
FY 2009	6,458	\$903,915.46	\$64,716.81
FY 2010	6,107	\$919,155.84	\$77,545.00
FY 2011	6,025	\$1,380,207.00	\$69,621.50
Total	48,908	\$4,805,730.65	\$650,819.88

<sup>&</sup>lt;sup>1</sup> 44 accounts billed in FY 2009 for FY 2008 eligibility year not included



# CAP Customer Aging Delinquencies Balance

### **CAP Customers Aging Delinquency Balance**

As of September 30, 2011

	Number of Accounts	Amount (\$)
Accounts with Current balance	2365	\$97,581.56
Accounts with a Credit balance	986	(\$88,015.65)
30 days delinquent	2663	\$150,198.97
60 days delinquent	1724	\$80,319.41
90 days delinquent	1028	\$87,075.15
180 days delinquent	344	\$49,508.72
360 days delinquent	96	\$19,889.69

# DC Retail Water and Sewer Rates Committee Action Items

- 6A. FY 2013 Fire Protection Fee Proposal
- 6B. Sewer Rate Amendment

#### Action Item 6A

### DC RETAIL WATER AND SEWER RATES COMMITTEE PROPOSED AMENDMENT TO THE FIRE PROTECTION SERVICE FEE

#### ACTION ITEM 6A: AMENDMENT TO THE DISTRICT OF COLUMBIA FIRE PROTECTION FEE

DC Water requests that the DC Retail Water and Sewer Rates Committee recommend to the Board of Directors the publication for rulemaking, an amendment to the fire protection fee, as shown below:

The Charge to the District of Columbia for fire protection service, including, but not limited to the delivery of water flows for firefighting as well as maintaining and upgrading public fire hydrants in the District of Columbia, (plus the cost of fire hydrant inspections performed by the DC Fire and Emergency Medical Services) shall be Seven Hundred and Seventy Dollars (\$770.00) per fire hydrant, per year, effective October 1, 2012. The fee may be examined every three years to determine if the fee is sufficient to recoup the actual costs for providing this service. In the event the costs are not being recouped, the District shall pay the difference and the fee will be appropriately adjusted pursuant to the rulemaking process.

The proposed schedule of rulemaking shall be as follows:

March 27, 2012 Retail Rates Recommendation

April 2012 Board approval to publish Fire Protection Service Fee

Adjustment

June 2012 DC Water Retail Water and Sewer Rates Committee

Meeting & Public Hearing

July 2012 Board Approval of amended yearly fire protection fee

#### Action Item 6B

### DC RETAIL WATER AND SEWER RATES COMMITTEE PROPOSED AMENDMENT TO THE RETAIL SEWER FEES

A recent review of the D.C. Municipal Regulations by the Office of General Counsel has revealed that the groundwater fee charged developers during construction activities was inadvertently removed from the regulations. As a result, DC Water staff has halted charges to contractors until the fee is re-instated.

Action Item 6B: Management recommends that the following amendment to the Sewer fee regulations be posted in the DC Register for rate making:

Section 4101, RATES FOR SEWER SERVICE, of chapter 41, RETAIL WATER AND SEWER RATES, of title 21, WATER AND SANITATION, of the DCMR is amended as follows:

Subsection 4101.1 is amended to by adding a new paragraph 4101.1(c) to read as follows:

#### 4101 RATES FOR SEWER SERVICE

- 4101.1 Effective October 1, 2012, the rates for sanitary sewer service shall be:
  - (c) The retail groundwater sewer charge shall be as follows:
    - (1) Residential Customers: two dollars and thirty-three cents (\$2.33) per CCF (one hundred cubic feet (1 CCF) equals seven hundred forty-eight and five hundredths gallons (748.05 gals.)) of water discharged to the District's waste water sewer system; and
    - (2) Non-Residential Customers: two dollars and thirty-three cents (\$2.33) per CCF of water discharged to the District's waste water sewer system;
  - (d) The retail cooling water sewer charge shall be as follows:
    - (1) Residential Customers: two dollars and thirty-three cents (\$2.33) per CCF (one hundred cubic feet (1 CCF) equals seven hundred forty-eight and five hundredths gallons (748.05 gals.)) of water discharged to the District's waste water sewer system; and

- (2) Non-Residential Customers: two dollars and thirty-three cents (\$2.33) per CCF of water discharged to the District's waste water sewer system;
- (e) The retail non-potable water source sewer charge shall be as follows:
  - (1) Residential Customers: two dollars and thirty-three cents (\$2.33) per CCF (one hundred cubic feet (1 CCF) equals seven hundred forty-eight and five hundredths gallons (748.05 gals.)) of water discharged to the District's waste water sewer system; and
  - (2) Non-Residential Customers: two dollars and thirty-three cents (\$2.33) per CCF of water discharged to the District's waste water sewer system;

#### Chapter 41 is amended by adding a new paragraph section 4199 to read as follows:

#### 4199 **DEFINITIONS**

When used in this chapter, the following words and phrases shall have the meanings ascribed:

**Non-Potable Water Source** – water derived from source or sources other than the District water supply system, groundwater or cooling water, including, but not limited to, surface water, and swimming pool drainage.

#### Attachment-F

#### FY 2012 Retail Rates Committee Proposed Workplan

Committee Activity	Committee Calendar	Completed
FY 2013 Retail Rate Activities     a. Rate Proposal to committee     b. Committee recommendation     c. Public Outreach     d. Public Hearing     e. Committee recommendation on     FY 2013 rates	October 2011 December 2011 March/April 2012 May 2012 June 2012	7
2. Implement LID Incentive Program for customers who utilize Best Management Practice in conjunction with DDOE  a. Legal evaluation of the DDOE proposed program; and b. Evaluate alternatives for the Clean Rivers IAC discounts c. Prepare revenue impact analysis d. Propose IAC Discount Program i. IAC Discount Program Proposal to committee ii. Committee recommendation iii. Public Outreach iv. Public Hearing v. Committee recommendation on FY 2013 IAC Discount Program	Ongoing-Coordinating with DDOE on program planning – On hold pending DDOE publication of revised regulation proposal  TBD  TBD  TBD  TBD  TBD	
<ol> <li>Review and Update Committee on long-range rate issues, including follow-up on FY 2009 Cost of Service Study results, prior to next cost of service study</li> <li>Consider Implementation of Developer/Impact Fees</li> <li>Revisit CAP program and possible modifications (Expansion and or methodology)</li> <li>Update committee on CAP program</li> </ol>	FY 2012  March 2012	
ii. Committee recommendation on CAP program	April 2012	

### Attachment-F

iii. Publish in DC Register	May 2012	
iv. Committee Action on CAP	June 2012	
program	October 2012	
v. CAP program implementation		
c. Miscellaneous Fees and Charge		$\sqrt{}$
i. Update Committee on	December 2011	
Miscellaneous Fees		$\sqrt{}$
ii. Committee Recommendation on	January 2012	
Miscellaneous Fees		
iii. Board Approval on	February 2012	$\sqrt{}$
Miscellaneous Fees		
iv. Publish in DC Register	February 2012	$\sqrt{}$
v. Committee Action on	June 2012	
Miscellaneous Fees		
4. FY 2012 Cost of Service Study		,
i. Notice to Proceed	November 2011	$\sqrt{}$
ii. Receive Draft Report	February 2012	
iii. Present to the Retail Rates	April 2012	
Committee		
iv. Final Report	July 2012	
5. Review of charges/rates for specific		
customers		
a. Howard University, Soldier's Home	Monthly	
Negotiations and Town of Vienna		
Update		
(DY OTT)	TIP D	
6. "PILOT" evaluation – In coordination	TBD	
with District Government Review and		
Propose replacement for assessing		
PILOT and related issues.		
7. IAC Dua annu Essal d'	M1-2012	
7. IAC Program Evaluation	March 2012	
8. Fire Protection Fee Cost of Service		
Study		
a. Present Draft Fire Cost of Service	December 2011	1
Study to Retail Rates	Deteniber 2011	٧
b. Submit copy of report to DCCFO &	December 2011	1
DC City Administrator for review	December 2011	٧
	March 2012	
c. Rate proposal to Committee	IVIAICII ZUIZ	

### Attachment-F

d. Committee Meeting & Public Hearing e. Committee recommendation on revised fee	June 2012 June 2012	
9. Billing Frequency Change for		
Impervious Only Accounts		,
a. DC Retail Water & Sewer Rates	January 2012	$\sqrt{}$
Committee Discussion and		
Recommendation on FY 2013		
Billing Frequency Change for		
Impervious Only Accounts		
b. Board Action on FY 2013 Billing	February 2012	$\sqrt{}$
Frequency Change for Impervious		
Only Accounts		
c. Publish in DC Register	February 2012	$\sqrt{}$
d. Board Approval	July 2012	
e. Go-Live	October 2012	



#### Attachment G

# D.C. WATER AND SEWER AUTHORITY BOARD OF DIRECTORS RETAIL WATER & SEWER RATES COMMITTEE MEETING

TUESDAY, April 24, 2012; 9:30 a.m. AGENDA

Call to Order Committee Chairman

Monthly Updates Chief Financial Officer

Committee Workplan Chief Financial Officer

Emerging Issues/Other Business Chief Financial Officer

Agenda for May 22, 2012 Committee Meeting Chief Financial Officer

Adjournment Committee Chairman

<sup>\*</sup>Detailed agenda can be found on DC Water's website at www.dcwater.com/about/board\_agendas.cfm