AGENDA
Sustainable Storm Water Funding Task Force
June 21, 2011
City Hall, Room 209, 12:00 PM – 1:30 PM

1. Introductions of Task Force members and meeting attendees.

2. Review and approval of the SSWFTF minutes from May 17, 2011.

3. Brief summary of material covered in previous meetings.
    a. Introduction to Portland's Storm Water Systems and Performance Obligations.
    b. Storm Water Funding: Current Organizational Structure, Cost of Services, and Sewer Rate Implications.

4. Submission of revised sewer usage figures and clarification of costs related to future storm water program costs.

5. Submission of addition national water and wastewater survey material by Portland Water District.

6. Storm water funding options and combined sewer cost allocations presentation and discussion.

7. Recommended Update to the Energy and Environmental Sustainability Committee.

8. Confirm Date for Next Meeting: The next meeting is currently scheduled for July 19, 2011

9. Adjourn

MINUTES
Sustainable Storm Water Funding Task Force
May 17, 2011
City Hall, Room 209, 12:00 PM – 1:30 PM

The Task Force introduced themselves. All members were present except for Peter Gellerson, Dennis Martin, and John Cannell. Staff in attendance including Houseal, Bobinsky, Earley, Roncarati. Barry Sheff of Woodard and Curran also in attendance.

Suslovic a meeting of interested parties related to snow hauling options. He suggested meeting after this meeting to discuss. Suslovic also mentioned the sea level rise meeting.

1. Review and approval of the SSWFTF minutes from April 19, 2011

Payne made a motion to approve the minutes. Robinson seconded. Unanimously approved.

2. Presentation and discussion of Portland's Waste Water and Storm Water Costs

Suslovic summarized the previous meeting. Bobinsky stated that there would be an informational meeting on the Tier III plan for the business community on Friday.

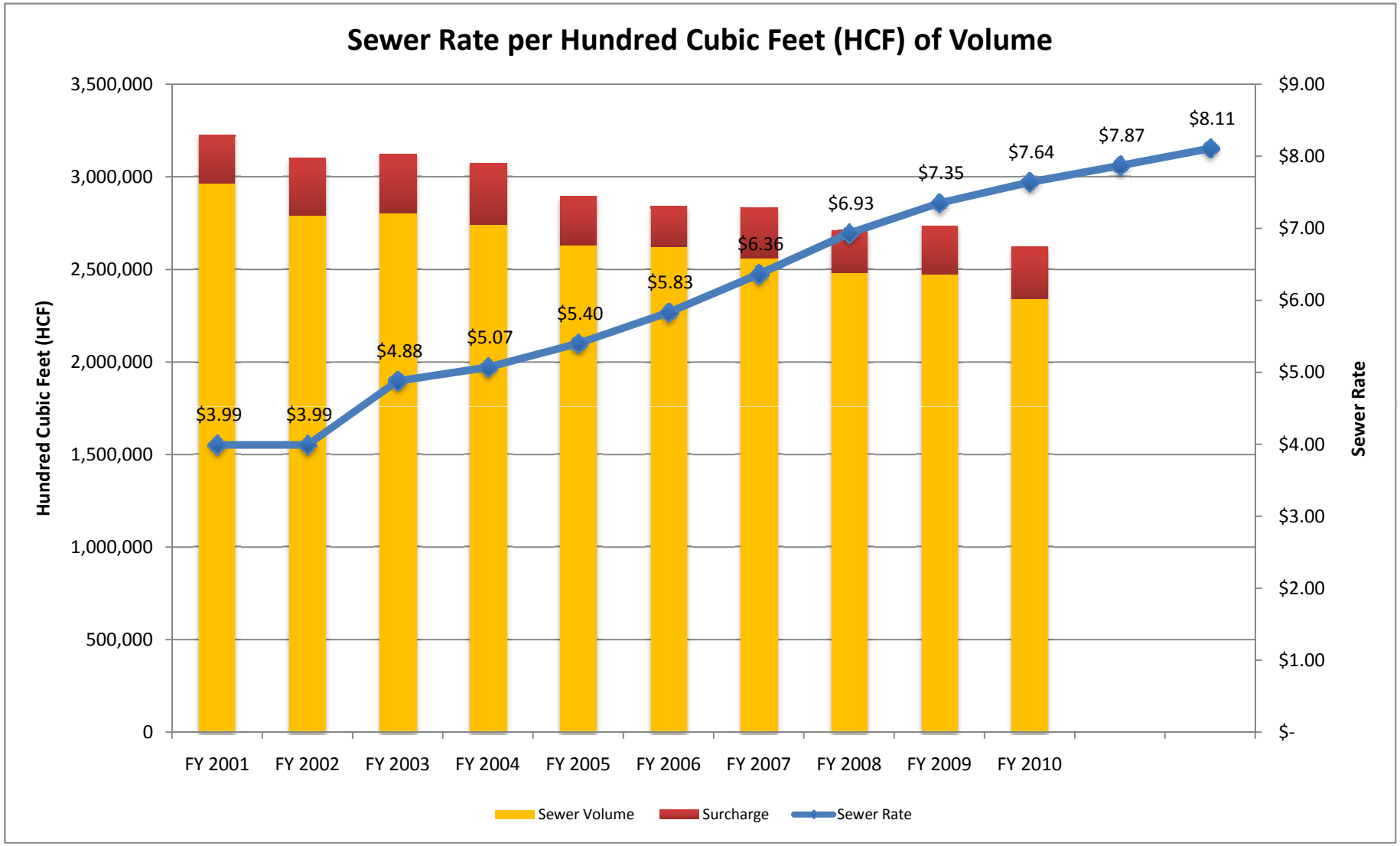
Houseal presented the information on storm water costs to the Task Force. There were questions on the Storm Water Operation Expenses slide. The question was raised whether the column titled "estimated additional storm water expenses needed for a segregated storm water fund" were future storm water operating costs. Houseal stated that the column did not represent future storm water operating costs.

Bohlen requested that the Task Force was shown now much the sewer fund would decrease if the storm water operations were put into a separated storm water fund and how that might effect sewer rate payers.

Payne pointed out that future storm water compliance costs and CSO program costs beyond Tier III are unknown and represent a cost not presented. These costs would impact rates in the future.

3. Confirm Date for Next Meeting: The next meeting is currently scheduled for June 21, 2011

4. Adjourn


Sewer Rate per Hundred Cubic Feet (HCF) of Volume
Hundred Cubic Feet (HCF)
Sewer Rate
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
$9.00
$8.00
$7.00
$6.00
$5.00
$4.00
$3.00
$2.00
$1.00
$-
$3.99
$3.99
$4.88
$5.07
$5.40
$5.83
$6.36
$6.93
$7.35
$7.64
$7.87
$8.11
FY 2001
FY 2002
FY 2003
FY 2004
FY 2005
FY 2006
FY 2007
FY 2008
FY 2009
FY 2010
Sewer Volume
Surcharge
Sewer Rate

Advisory Board Communities:

Arlington
Ashland
Bedford
Belmont
Boston
Braintree
Brookline
Burlington
Cambridge
Canton
Chelsea
Chicopee
Clinton
Dedham
Everett
Framingham
Hingham
Holbrook
Leominster
Lexington
Lynn
Lynnfield
Malden
Marblehead
Marlborough
Medford
Melrose
Milton
Nahant
Natick
Needham
Newton
Northborough
Norwood
Peabody
Quincy
Randolph
Reading
Revere
Saugus
Somerville
South Hadley
Southborough
Stoneham
Stoughton
Swampscott
Wakefield
Walpole
Waltham
Watertown
Wellesley
Weston
Westwood
Weymouth
Wilbraham
Wilmington
Winchester
Winthrop
Woburn
Worcester

MWRA Advisory Board

2009

Annual Water and Sewer Retail Rate Survey

Joseph E. Favaloro
Executive Director

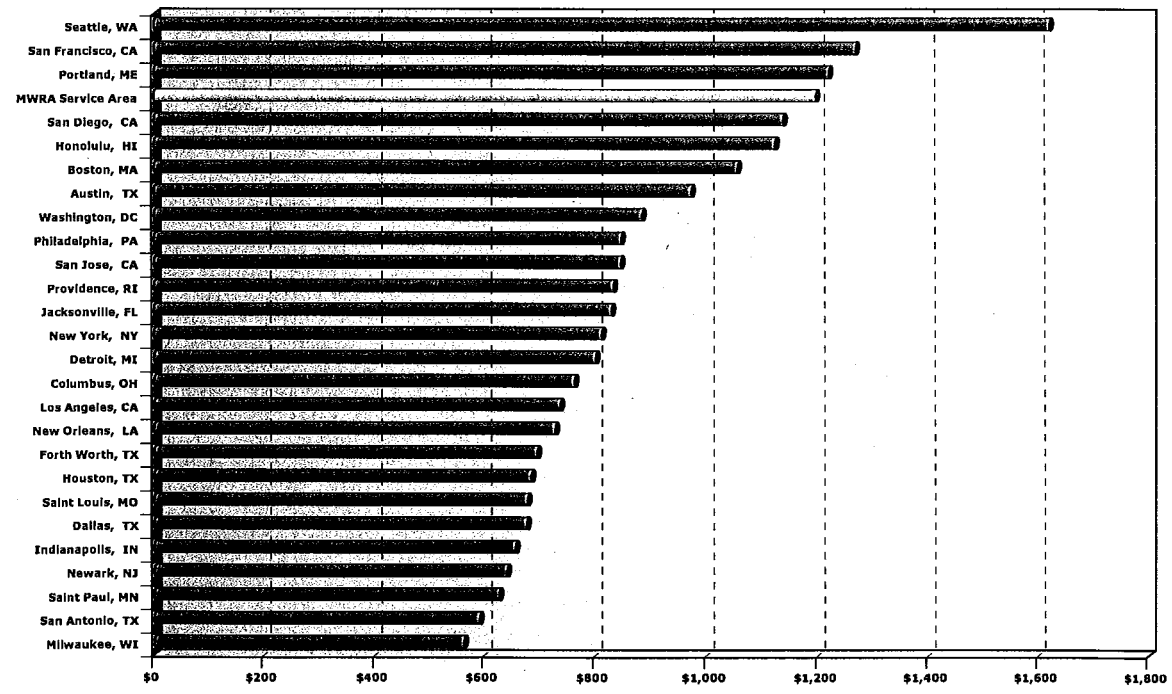
Representing 60 Cities & Towns
MWRA Advisory Board

COMPARATIVE ANNUAL RESIDENTIAL WATER & SEWER CHARGES FOR MAJOR UNITED STATES CITIES 2009

	Water	Sewer	Combined	Percentage Change
Austin, TX	$277.32	$694.50	$971.82	3.9%
Boston, MA	461.11	593.06	1,054.18	3.5%
Columbus, OH	326.54	435.80	762.34	8.3%
Dallas, TX	247.92	428.64	676.56	3.2%
Detroit, MI	230.64	569.88	800.52	19.4%
Fort Worth, TX	324.24	370.80	695.04	2.8%
Honolulu, HI	272.76	849.48	1,122.24	15.5%
Houston, TX	315.48	369.18	684.66	5.1%
Indianapolis, IN	351.24	304.97	656.21	11.1%
Jacksonville, FL	266.28	562.57	828.84	16.5%
Los Angeles, CA	384.50	352.12	736.62	6.9%
Milwaukee, WI	225.48	336.84	562.32	7.1%
MWRA Service Area	468.50	727.70	1,196.20	5.3%
New Orleans, LA	279.15	448.26	727.41	1.9%
New York, NY	313.20	497.99	811.19	13.0%
Newark, NJ	276.02	364.58	640.61	8.3%
Philadelphia, PA	392.64	453.96	846.60	6.7%
Portland, ME	303.60	916.80	1,220.40	4.3%
Providence, RI	364.65	467.49	832.14	6.9%
Saint Louis, MO	274.76	403.20	677.96	6.4%
Saint Paul, MN	250.56	375.60	626.16	8.4%
San Antonio, TX	349.44	241.32	590.77	2.8%
San Diego, CA	577.39	559.19	1,136.58	7.3%
San Francisco, CA	451.08	819.00	1,270.08	7.8%
San Jose, CA	473.70	372.00	845.70	8.1%
Seattle, WA	555.16	1,066.80	1,621.96	17.8%
Washington, DC	339.05	545.11	884.16	12.4%
AVERAGE	$346.39	$523.22	$869.60	8.3%

Water and sewer charges are based on an annual water consumption of 12,000 cubic feet (approximately 90,000 gallons)

COMPARATIVE CHART OF RESIDENTIAL COMBINED WATER AND SEWER CHARGES 2009



Philadelphia, Pennsylvania

Residential Water Rates:		**Residential Sewer Rates:**	
Last adjusted:	July 2009	Last adjusted:	July 2009
Next adjustment scheduled:	July 2010	Next adjustment scheduled:	July 2010
Fund:	Enterprise	Fund:	Enterprise
Base charge (⅝" meter)	$5.53	Base charge (⅝" meter)	$17.32/bill
0 - 20 HCF	$2.719/HCF	All units	$ 2.051/HCF
>20 - 100 HCF	$2.193 "	Based on 100% of water usage	
>100 - 200 HCF	$2.007 "		
>200 HCF	$1.530 "		
Billing Frequency:	Monthly		

Annual Cost
AWWA Standard for Historical Comparison
(120 HCF ≈ 90,000 gals.)

Water	$392.64
Sewer	$453.96
Combined	$846.60
% change from 2008	6.7%

Portland, Maine

Residential Water Rates:		**Residential Sewer Rates:**	
Last adjusted:	January 2009	Last adjusted:	July 2009
Next adjustment scheduled:	No answer	Next adjustment scheduled:	No answer
Fund:	Enterprise	Fund:	Enterprise
Minimum charge (⅝" meter)		Minimum charge (⅝" meter)	
includes 1 HCF	$7.75/bill	includes 1 HCF	$7.64/bill
>1 - 30 HCF	$1.95/HCF	>1	$7.64/HCF
>30 - 100 HCF	$1.53 "	Based on 100% of water usage	
>100 - 500 HCF	$1.34 "		
>500 HCF	$0.77 "		
Billing Frequency:	Monthly		

Annual Cost
AWWA Standard for Historical Comparison
(120 HCF ≈ 90,000 gals.)

Water	$303.60
Sewer	$916.80
Combined	$1,220.40
% change from 2008	4.3%

COMBINED ANNUAL WATER AND SEWER CHARGES IN MWRA COMMUNITIES

2009

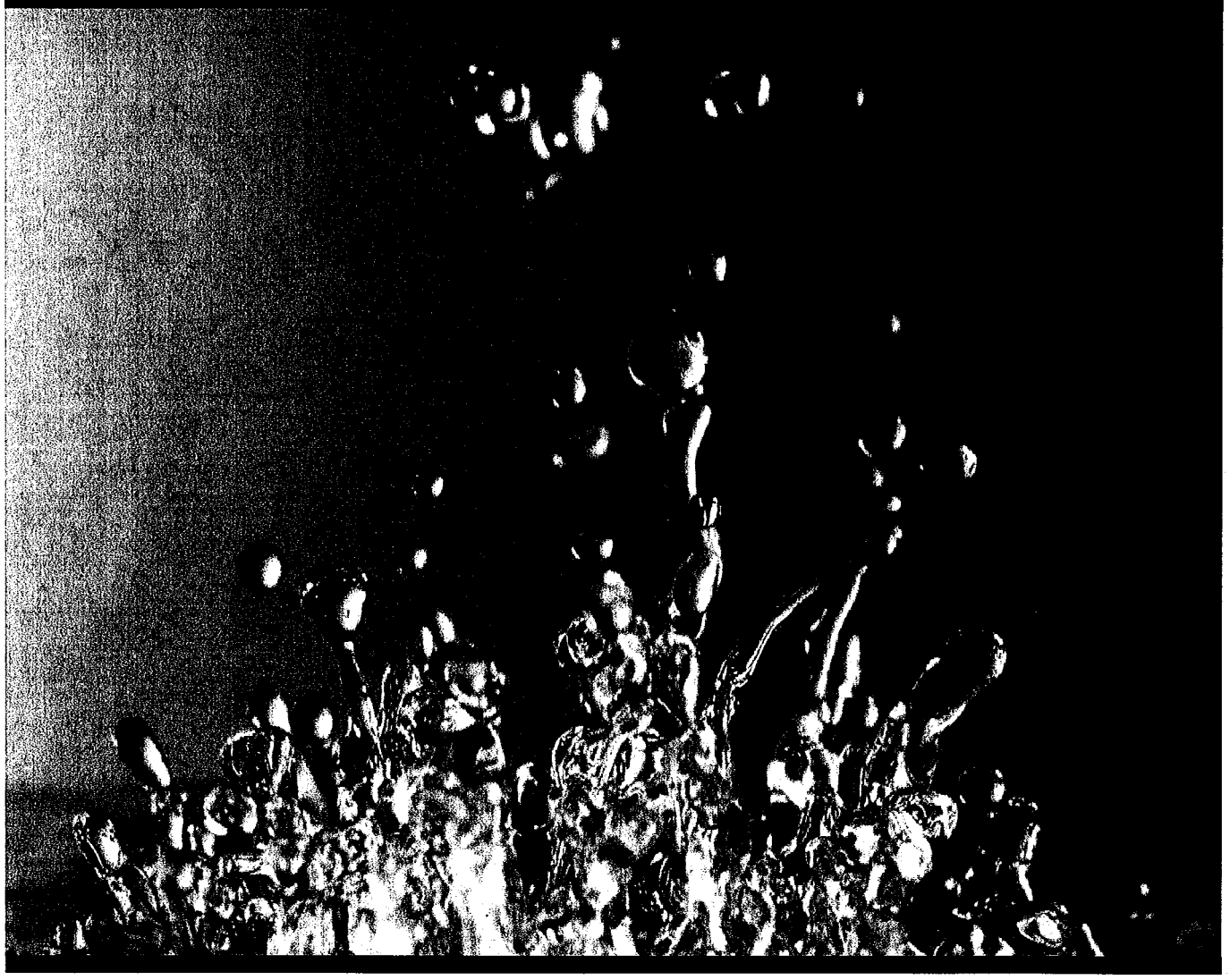
(Charges include MWRA, community and alternatively supplied services;
Rates based on average annual household use of 120 hundred cubic feet (HCF), or approximately 90,000 gallons)

	Water	Sewer	Combined	Change
Arlington (W/S)*	$449.00	$436.80	$885.80	7.3%
Ashland (S)	398.00	1,140.00	1,538.00	6.5%
Bedford (S/partial W)	475.00	893.00	1,368.00	14.0%
Belmont (W/S)	636.96	1,137.00	1,773.96	5.4%
Boston (W/S)	461.11	593.06	1,054.18	3.5%
Braintree (S)	259.00	734.40	993.40	0.0%
Brookline (W/S)	558.00	774.00	1,332.00	5.7%
Burlington (S)	144.50	327.90	472.40	6.2%
Cambridge (S/partial W)	357.60	873.60	1,231.20	6.3%
Canton (S/partial W)	518.40	746.40	1,264.80	3.8%
Chelsea (W/S)	442.80	782.40	1,225.20	6.0%
Chicopee (W)	324.00	540.30	864.30	6.4%
Clinton (W/S)	343.60	257.70	601.30	0.0%
Dedham (S/partial W)	527.44	969.60	1,497.04	0.8%
Everett (W/S)	181.20	493.20	674.40	0.0%
Framingham (W/S)	523.44	484.32	1,007.76	8.2%
Hingham (S)	918.98	1,020.00	1,938.98	15.8%
Holbrook (S)	459.60	774.00	1,233.60	0.0%
Leominster (partial W)	340.80	336.80	677.60	22.4%
Lexington (W/S)	407.60	832.80	1,240.40	-3.8%
Lynn (partial W)	386.40	709.20	1,095.60	2.5%
Malden (W/S)	445.44	540.72	986.16	1.6%
Marblehead (W)	490.00	720.00	1,210.00	3.4%
Marlborough (partial W)	609.60	409.20	1,018.80	0.0%
Medford (W/S)	637.20	892.80	1,530.00	0.0%
Melrose (W/S)	589.20	968.76	1,557.96	6.1%
Milton (W/S)	565.20	1,068.72	1,633.92	2.9%
Nahant (W)*	754.80	901.20	1,656.00	3.8%
Natick (S)	312.40	821.10	1,133.50	6.1%
Needham (S/partial W)	423.00	997.80	1,420.80	0.0%
Newton (W/S)	556.80	871.60	1,428.40	12.0%
Northborough (partial W)	487.64	533.64	1,021.28	7.3%
Norwood (W/S)	482.52	707.11	1,189.63	5.1%
Peabody (partial W)	306.00	409.80	715.80	0.0%
Quincy (W/S)	542.40	897.96	1,440.36	7.7%
Randolph (S)	396.00	704.40	1,100.40	6.8%
Reading (W/S)	927.60	962.40	1,890.00	3.3%
Revere (W/S)	337.20	1,053.60	1,390.80	7.8%
Saugus (W)	431.00	344.00	775.00	0.0%
Somerville (W/S)	500.22	822.00	1,322.22	5.2%
Stoneham (W/S)	516.00	996.00	1,512.00	5.0%
Stoughton (S/partial W)	442.80	895.20	1,338.00	0.0%
Swampscott (W)	766.40	613.40	1,379.80	12.4%
Wakefield (S/partial W)	513.00	996.84	1,509.84	10.3%
Walpole (S)	533.64	721.63	1,255.27	7.0%
Waltham (W/S)	356.64	642.72	999.36	0.0%
Watertown (W/S)	432.68	836.40	1,269.08	6.0%
Wellesley (S/partial W)	403.68	840.00	1,243.68	8.7%
Westwood (S/partial W)	527.44	748.00	1,275.44	-0.8%
Weymouth (S)	590.04	827.60	1,417.64	7.5%
Wilbraham (W)	348.00	492.00	840.00	13.8%
Wilmington (S/partial W)	449.60	576.00	1,025.60	7.5%
Winchester (S/partial W)*	255.60	313.20	568.80	0.0%
Winthrop (W/S)	598.80	998.40	1,597.20	10.3%
Woburn (S/partial W)	235.00	328.00	563.00	9.5%
Worcester (partial W)	358.80	442.56	801.36	6.7%
AVERAGE	$468.50	$727.70	$1,196.20	5.3%

The following communities do not provide municipal sewer services and therefore are not listed: Lynnfield Water District, South Hadley Fire District #1, Southborough and Weston.

(*) Indicates communites that utilize the debt service exclusion as permitted under General Law 59 Section 21C(n).

BUILDING A WORLD OF DIFFERENCE®



2009/2010
50 LARGEST CITIES
WATER/WASTEWATER RATE SURVEY

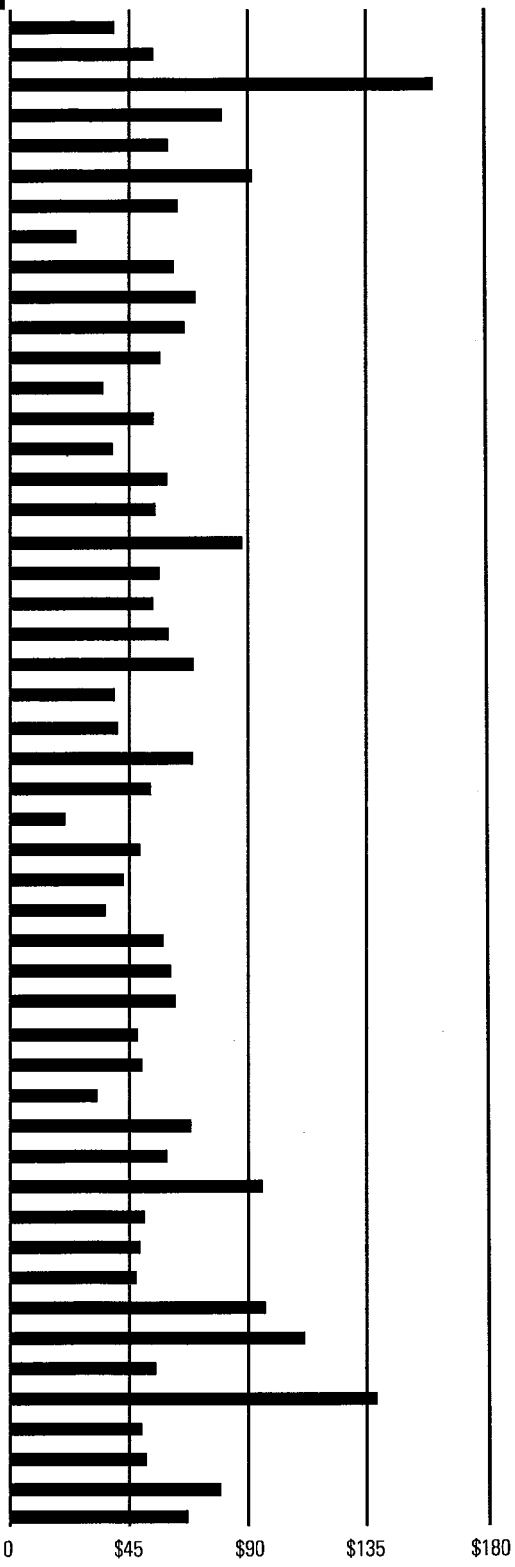
BLACK & VEATCH
Building a world of difference®

Typical Monthly Water and Wastewater Bills

Figure 4: Residential Customers, 7,500 Gallons Billable Water Usage

Ranked from Lowest (1) to Highest (50)

Community	Water ($)	*Rank*	Sewer ($)	*Rank*	Combined ($)	*Rank*
Albuquerque (a)	21.55	*17*	15.71	*6*	37.26	*7*
Arlington	21.81	*18*	29.67	*25*	51.48	*20*
Atlanta (b)	43.61	*48*	110.69	*50*	154.30	*50*
Austin	22.46	*19*	55.50	*45*	77.96	*43*
Baltimore (c)	24.69	*23*	33.19	*30*	57.88	*29*
Boston	38.44	*47*	49.44	*44*	87.88	*45*
Charlotte	19.54	*11*	41.80	*41*	61.34	*35*
Chicago (d)	13.16	*2*	11.19	*3*	24.35	*2*
Cleveland	22.72	*20*	37.15	*35*	59.87	*34*
Colorado Springs	30.56	*39*	37.66	*37*	68.22	*41*
Columbus	26.48	*31*	37.46	*36*	63.94	*36*
Dallas	19.70	*12*	34.92	*32*	54.62	*25*
Denver	18.74	*9*	14.63	*5*	33.36	*4*
Detroit	18.29	*8*	33.89	*31*	52.18	*22*
El Paso (e)	19.40	*10*	17.73	*9*	37.13	*6*
Fort Worth	27.02	*34*	30.90	*27*	57.92	*30*
Fresno (f)	31.99	*42*	21.01	*13*	53.00	*23*
Honolulu (g) (h)	24.83	*24*	59.96	*46*	84.79	*44*
Houston	24.83	*24*	29.93	*26*	54.76	*26*
Indianapolis	26.41	*30*	25.41	*16*	51.82	*21*
Jacksonville	17.05	*5*	41.39	*40*	58.44	*31*
Kansas City	35.29	*46*	31.40	*28*	66.69	*39*
Las Vegas (i)	17.85	*6*	19.67	*10*	37.52	*8*
Long Beach	30.78	*40*	7.85	*2*	38.63	*9*
Los Angeles	34.22	*45*	32.70	*29*	66.92	*40*
Louisville (j)	24.99	*26*	26.06	*17*	51.05	*19*
Memphis	13.10	*1*	7.19	*1*	20.29	*1*
Mesa (j)	27.75	*35*	20.05	*11*	47.80	*15*
Miami	14.44	*4*	27.62	*23*	42.05	*10*
Milwaukee (k)	18.13	*7*	16.90	*8*	35.03	*5*
Minneapolis	29.10	*36*	26.10	*18*	55.20	*27*
Nashville	19.72	*13*	39.39	*39*	59.11	*32*
New York City (l)	23.10	*21*	36.73	*34*	59.83	*33*
Oakland (m) (n)	33.64	*43*	13.15	*4*	46.79	*12*
Oklahoma City	23.15	*22*	24.72	*15*	47.86	*16*
Omaha (o)	14.34	*3*	16.71	*7*	31.05	*3*
Philadelphia (p)	29.64	*37*	36.47	*33*	66.11	*38*
Phoenix (q)	29.94	*38*	26.92	*20*	56.86	*28*
Portland	26.96	*33*	65.00	*47*	91.96	*46*
Raleigh	25.64	*27*	23.20	*14*	48.84	*17*
Sacramento (r)	20.68	*15*	26.32	*19*	47.00	*13*
San Antonio (s) (t)	25.96	*29*	20.11	*12*	46.07	*11*
San Diego	45.18	*49*	47.95	*43*	93.13	*47*
San Francisco	31.77	*41*	76.21	*48*	107.98	*48*
San Jose (u)	26.66	*32*	27.09	*21*	53.75	*24*
Seattle (v) (w)	46.26	*50*	88.90	*49*	135.16	*49*
Tucson	20.42	*14*	27.25	*22*	47.67	*14*
Tulsa	21.41	*16*	28.31	*24*	49.71	*18*
Virginia Beach (x)	33.73	*44*	42.34	*42*	76.07	*42*
Washington (y)	25.96	*28*	38.59	*38*	64.55	*37*
Average	**25.66**		**33.80**		**59.46**	
Median	**24.91**		**29.80**		**54.69**	



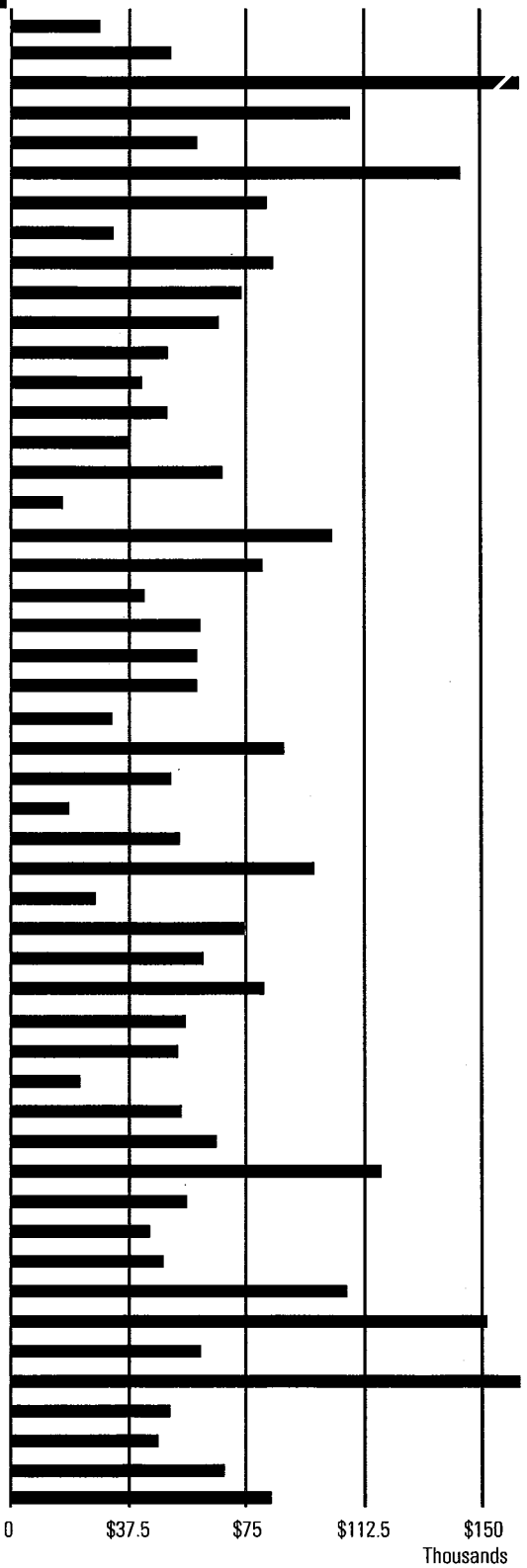
Assumes 7,500 gallons (or 1,000 cubic feet) monthly usage and a 5/8" (or nearest equivalent) meter size. Actual average usage will vary by utility. Rates effective June 30, 2009.

Typical Monthly Water and Wastewater Bills

Figure 7: Industrial Customers, 10,000,000 Gallons Billable Water Usage

Ranked from Lowest (1) to Highest (50)

Community	Water ($)	*Rank*	Sewer ($)	*Rank*	Combined ($)	*Rank*
Albuquerque (b)	14,917.53	*10*	13,225.47	*5*	28,143.00	*5*
Arlington	21,305.44	*15*	29,486.00	*21*	50,791.44	*18*
Atlanta (c)	65,520.71	*50*	166,816.19	*50*	232,336.90	*50*
Austin	40,320.33	*45*	66,408.00	*44*	106,728.33	*45*
Baltimore (d)	14,261.25	*8*	44,474.60	*34*	58,735.85	*26*
Boston	63,142.11	*49*	79,075.96	*46*	142,218.06	*47*
Charlotte	27,337.80	*24*	53,601.80	*42*	80,939.60	*38*
Chicago (e)	17,634.40	*12*	14,989.24	*6*	32,623.64	*7*
Cleveland	33,203.14	*35*	49,781.00	*39*	82,984.14	*40*
Colorado Springs (f)	38,165.81	*39*	34,598.85	*28*	72,764.67	*34*
Columbus	19,865.72	*14*	45,889.51	*35*	65,755.23	*31*
Dallas (g)	24,051.86	*20*	26,339.51	*15*	50,391.37	*17*
Denver (h)	22,204.41	*18*	19,000.00	*10*	41,204.41	*9*
Detroit	16,110.81	*11*	33,191.73	*27*	49,302.54	*14*
El Paso (i)	19,788.98	*13*	17,341.20	*9*	37,130.18	*8*
Fort Worth	24,302.00	*21*	42,348.50	*33*	66,650.50	*32*
Fresno (j) (k)	10,053.53	*3*	7,423.60	*2*	17,477.13	*1*
Honolulu	27,605.15	*25*	73,400.00	*45*	101,005.15	*43*
Houston	29,319.17	*32*	50,803.21	*40*	80,122.38	*36*
Indianapolis	12,970.02	*7*	28,993.22	*20*	41,963.24	*10*
Jacksonville	10,503.55	*4*	49,617.37	*38*	60,120.92	*27*
Kansas City	28,098.94	*29*	30,560.60	*22*	58,659.54	*25*
Las Vegas (l)	32,042.66	*34*	26,220.00	*14*	58,262.66	*24*
Long Beach	28,452.24	*30*	3,458.86	*1*	31,911.10	*6*
Los Angeles (m)	47,194.80	*47*	39,436.20	*32*	86,631.00	*41*
Louisville (n)	21,950.30	*17*	28,281.05	*18*	50,231.35	*16*
Memphis	9,577.50	*2*	9,580.00	*3*	19,157.50	*2*
Mesa (n) (o)	33,513.07	*36*	19,405.84	*11*	52,918.91	*20*
Miami	42,801.38	*46*	53,169.76	*41*	95,971.14	*42*
Milwaukee (p)	10,757.46	*5*	16,523.27	*7*	27,280.73	*4*
Minneapolis	38,994.00	*41*	34,974.00	*29*	73,968.00	*35*
Nashville	22,598.53	*19*	38,858.41	*31*	61,456.94	*29*
New York City (q)	30,954.00	*33*	49,216.86	*37*	80,170.86	*37*
Oakland (r) (s)	38,412.19	*40*	16,898.50	*8*	55,310.69	*23*
Oklahoma City	21,507.02	*16*	30,901.54	*23*	52,408.56	*19*
Omaha	11,531.36	*6*	11,050.07	*4*	22,581.43	*3*
Philadelphia (t)	24,567.72	*22*	28,914.33	*19*	53,482.05	*21*
Phoenix (u)	33,946.38	*38*	31,575.76	*24*	65,522.14	*30*
Portland	27,756.77	*26*	88,882.20	*47*	116,638.97	*46*
Raleigh	28,729.49	*31*	26,535.40	*16*	55,264.89	*22*
Sacramento (v)	8,106.23	*1*	35,790.77	*30*	43,897.00	*11*
San Antonio (w) (x)	27,893.03	*28*	20,574.68	*12*	48,467.71	*13*
San Diego	39,338.22	*43*	66,173.58	*43*	105,511.80	*44*
San Francisco	39,225.60	*42*	110,776.46	*48*	150,002.06	*48*
San Jose (y)	27,767.44	*27*	32,562.00	*26*	60,329.44	*28*
Seattle (z) (aa)	47,793.55	*48*	119,126.00	*49*	166,919.55	*49*
Tucson	24,569.13	*23*	25,374.52	*13*	49,943.65	*15*
Tulsa	14,267.51	*9*	32,319.10	*25*	46,586.61	*12*
Virginia Beach (ab)	39,616.00	*44*	28,099.61	*17*	67,715.61	*33*
Washington (ac)	33,734.06	*37*	48,547.41	*36*	82,281.47	*39*
Average	**27,765.61**		**41,011.83**		**68,777.44**	
Median	**27,680.96**		**32,440.55**		**58,697.70**	



Assumes 10,000,000 gallons (or 1,340,000 cubic feet) monthly usage and a 6" (or nearest equivalent) meter size. Actual average usage will vary by utility. Rates effective June 30, 2009.

Storm Water Cost Allocation Considerations

The purpose of this handout is to briefly describe rate structures, legal notions of fairness in ratemaking applicable to this storm water discussion, and an overview of allocation of combined sewer costs.

Introduction

Portland is facing significant cost increases in its three-prong wastewater program: sanitary sewer, storm water, and combined sewer. Currently all of these costs are charged as part of the sanitary sewer bill – and the basis of the cost is consumptive use of water.

During the June 21, 2011 Task Force meeting we will discuss two topics:

1. **Does the Task Force consider a storm water user fee a potentially viable option that could help pay for increasing wastewater costs, and therefore merits further exploration and study?**
2. **If such a storm water fee was to be established, should some portion of the combined sewer cost burden be allocated to this fee rather than to the sanitary sewer bill?**

1. Does the Task Force consider a storm water user fee a potentially viable option that could be used to pay for the estimated increase in wastewater costs, and therefore merits further exploration and study?

Overview

Municipalities and their subsidiary organizations employ a variety of "funding" methods, including service charges, several types of taxes, franchises and other fees, fines, and penalties. It is important to understand the three main ways of providing support to storm water programs: resources, money and revenue:

- Resources include all the non-cash ways that a local storm water program can be supported including: free resources available from the internet, shared costs with neighbors, transformation of current programs to better support storm water needs, volunteer programs, etc. Resources are ***not*** free in that they often require significant staff time to find, coordinate, and manage.
- Money includes all one-time infusions of funds. This includes Federal and state grants, loans, penalties, bonds, special sales taxes, one-time development related fees and payments, penalties, etc. Money is often targeted to a specific need or program activity. It may, or may not, be sufficient to cover that program but its key characteristic is that it is ***one-time***.

- Revenue includes all ongoing flows of funds. For local governments this includes property and other ad valorem taxes, sales or gasoline taxes, franchise fees, user fees, etc. The key characteristic of this type of support is that it is ***ongoing***.

Each of these basic types of support has advantages and disadvantages and can be targeted toward different aspects of the storm water program. The Storm Water Management Functions Table later in this report depicts the key elements of a typical storm water program. As these elements are considered it is clear that the bulk of the cost of storm water programs must be borne by revenue producing support sources not "resources" or "money". Since storm water cannot compete effectively for general fund tax dollars, most local governments find that only legally dedicated revenue will last the test of time and competing priorities.

The various funding methods also have distinctive characteristics which separate them legally, technically, and in terms of public perceptions. Four major categories of municipal revenue generation methods are taxes, service charges, exactions, and assessments. Two of the four directly concern us: taxes and service charges (either sanitary or storm water).

- Taxes are intended primarily as revenue generators, and with some exceptions (such as special local option sales or earmarked taxes), without any particular association with the activities or improvements that they fund. They can be used for the general purposes of local government. These include property tax, income tax, sales tax, etc.

- Service charges are not established simply to generate revenue, but must be tied to the objectives of a specific program to which they are associated. For example, water and sewer service charges are structured to cover the cost of those programs, not to simply generate revenue which is used for other purposes as well. Thus the total revenue generated must be tied to the cost of providing services and facilities and the amount each rate payer is charged must be related to the impact or "use" of the system (rational nexus).

A major source of funding for storm water management is in the form of a user fee system under the auspices of a storm water utility. This form of funding has several advantages over other competing forms of finance including its equitability, stability and adequacy. The user fee concept of a storm water utility based funding method is fast growing. In the early 1970's there were only one or two true storm water utilities in existence. By 2011 the number has grown to over 1,200. This number is expected to more than triple in the next decade as the financial impacts of storm water quality legislation reach the many small municipalities.

A storm water utility falls primarily under the second of these funding categories: a service charge. It is based on the premise that the urban drainage system is a public system, similar to a wastewater or water supply system. When a demand is placed on either of these two later systems the user pays. In the same way when a forested or grassy area is paved a greater flow of water is placed on the drainage system. This is the demand. The greater the demand (i.e. the more the parcel of land is paved), the greater the user fee should be.

A storm water user fee is fair because the cost is borne by the user on the basis of demand placed on the drainage system. It is a more stable funding source than taxes because it is not as dependent on the vagaries of the annual budgetary process. It is adequate because a typical storm water program can be financed with payments normally below the normal customer willingness to pay.

How do storm water fees work?

The basic rate methodology defines the basis for the rate that users will be paying. The three main impacts on surface water of urban development are increases in peak flow, volume of discharge, and amount of pollution. All impacts can fit into these three basic categories. The variable most positively associated with each of these three major impacts is the conversion of pervious areas (forests and fields) to impervious areas (pavement, roof tops, and other hard surfaces).

Accommodating the runoff that occurs when pervious area that typically absorbs rainwater, is converted to impervious area requires Portland to invest in the public drainage system. Therefore, it is appropriate to use some measurement of impervious area or surrogate of impervious area in the rate methodologies. Most storm water programs in the United States have taken this approach and a 2010 survey found that over 75 percent of all storm water programs responding used impervious area as a factor for rate calculation[1]. While impervious area does not directly account for all of the storm water program costs, urbanization of land as reflected in intensity of development is, by far, the best measure of cost causation and provides a court-tested rational nexus for the fee amount on any property.

There are, many ways to configure the rate methodology to emphasize certain other impacts or recognize the benefits of certain kinds of development practices. Many of these considerations are handled with a storm water crediting or secondary funding system, but some factors can also be handled in the makeup of the basic rate methodology itself. Two factors commonly considered are:

- Some communities charge for gross parcel area in addition to impervious area, reasoning that storm water runs off all parcels and thus, all should pay.
- Some communities want to encourage green space and set up charges based on an intensity of development factor – so that the same amount of imperviousness would be charged less if it were located on a larger lot with more green space.

Pros and Cons for a Storm water User Fee

How do our three revenue producing options compare to each other? Below is a very brief list of pros and cons for each of them from the standpoint of fairness, revenue capacity and ease of implementation. Table 1 lists typical "pros" and "cons" for each of the three alternative approaches for funding the combined sewer system costs and storm water system costs.

As you consider whether a new storm water fee is a fair and smart way to pay for the storm water program, or at least better than either a tax increase or adding it to the sanitary fee, consider the list of typical pros and cons in Table 1. This same table will be used when we consider how to pay for combined sewer costs under question #2.

[1] "Storm water Utility Survey", Black and Veatch, Kansas City, 2010.

Table 1: Pros and Cons for New Storm water Fee

Pros	Cons
Tax Increase	
✓Technically easy and cheap to do ✓ Lots of revenue capacity	✓Politically costly ✓ Taxes are unrelated to the costs ✓ Some do not pay their fair share, or <u>any</u> share ✓"If we coulda done that we already woulda"
Sanitary Fee Increase	
✓Technically easy to do ✓ Storm water is normally small compared to sanitary + combined sewer costs ✓ Its "all water anyway"	✓Sanitary fees are unrelated to "pure" storm water cost causation ✓ You may need the "headroom" for sanitary/combined sewer demands ✓ No way to incentivize good behavior
New Storm water Fee	
✓Individual fee and impact are related ✓Very flexible rate structures ✓ Ability to incentivize good behavior ✓ Fees relatively low for "pure" storm water ✓ Stable and adequate funding source	✓May be considered a new "tax" ✓ More costly to set up initially ✓ Collection rate may be lower

2. Should some portion of the combined sewer cost burden be allocated to a storm water fee rather than the sanitary sewer bill?

Portland Facts

Portland's combine sewer costs are expected to grow. Currently all combined sewer costs are allocated to citizens of Portland on the basis of water consumption. If a storm water fee were put in place, the basis of the cost being some measure of land development (i.e. impervious area), should some of this combined sewer cost be allocated on that same basis? What would be most fair – all things considered?

Fairness Concepts: Taxes and User Fees

We all have concepts of what is "fair," fair to me and fair to others. In ratemaking the idea of fairness is called "equity" and the courts have, over the years, developed some basic tests of equity. The goal is to design a user fee structure that reflects the character and desires of the community and has the following general characteristics:

- Equitable and reasonable – a reasonable person would be able to look at this rate structure and feel a sense of fairness about it.
- Not illegally discriminatory or confiscatory – the rate tracks cost causation; is not unfairly discriminatory; and is not so onerous as to deny reasonable use of the property due to the charge.
- Costs that are substantially related to provision of facilities and services – the total program cost to be paid for is all related to the general purpose for which the fee is charged.
- Rational nexus – a fee is charged that is related to demand/use of the storm water systems and services for each individual property, though engineering exactitude is not required.
- Legal – the rate structure reflects the authority inherent in state law and local authority.

On top of these tests local organizations also prefer a rate structure that has inherent simplicity such that the development and maintenance of the database is not overly expensive, and the rate and charge are relatively easy to explain to a customer.

When we consider whither funding storm water and maybe part of the combined sewer system with a storm water user fee is a good idea our primary consideration has to do with "cost causation". That is: what private activities or property characteristics cause me to spend money in a particular program and how can I best bill that money back to the ones who cause me to spend it?

We are basically pondering at the question: knowing that we need to fund more expenses on the three wastewater-related programs which of these three approaches make the most sense to me in funding the major part of the increase for combined sewer and for storm water?

How Have Others Done It?

As noted above, very few cities that have combined sewer costs allocate any combined sewer costs to their storm water fee. The reasons have as much to do with history than a rational assessment for equity. Most wanted the new storm water fee to be small to assure its passage in council. Historically, meeting the operating, maintenance and capital costs requirements of combined sewer systems was not that onerous and was easily handled under the sanitary program. There was no reason to change that configuration. Philadelphia is the main exception, and considers its combined sewer program an extension of its storm water program rather than an extension of its sanitary program.

Today a number of cities are looking at large and looming combined sewer costs and rethinking the allocation methodology for those combined sewer costs:

- Are combined sewer costs really about wastewater getting into a storm water system, and thus should be borne by wastewater dischargers on the basis of sanitary fee allocation – consumption of water?
- Are combined sewer costs really about storm water getting into a wastewater system, and thus should be borne by storm water dischargers on the basis of storm water fee allocation – parcel impervious area?

Analysis Summary

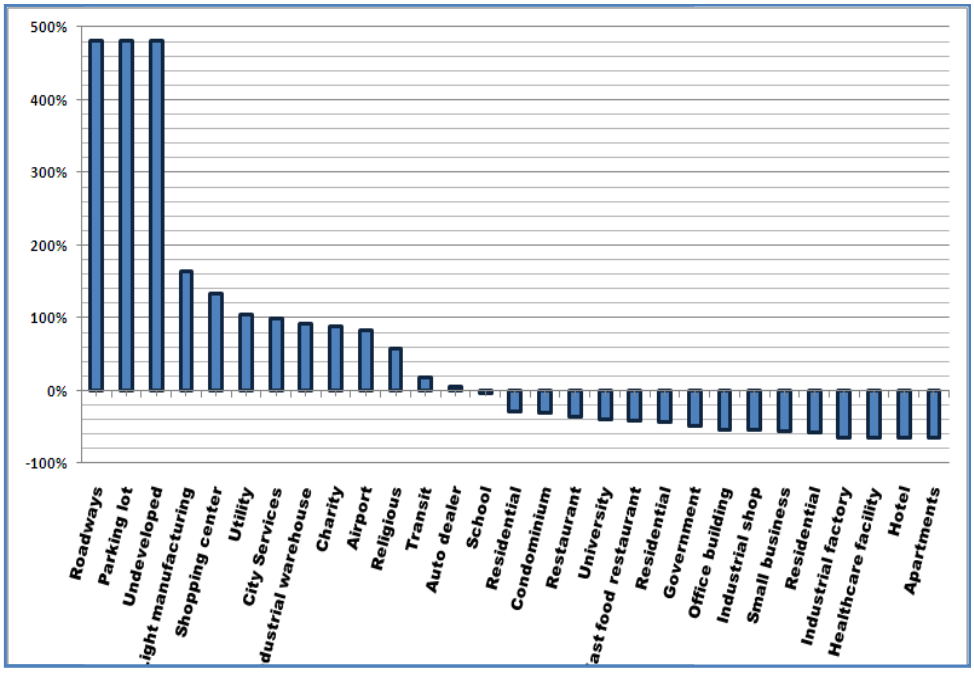
To help you think about these ideas an analysis was performed where combined sewer costs were switched from sanitary fee allocation to storm water fee allocation by looking at a set of individual properties (the "Dow Jones").

Figure 1 shows the changes in example property's individual monthly fee as the allocation shifts from a water consumption basis to an impervious area basis. Make special note of the kinds of properties that show a great increase in their monthly fee as this shift (reallocation) is done, and those that show a decrease. Generally properties with large impervious areas but little water use will show a dramatic fee increase on reallocation.

For example, a parking lot's fee will go up $480% for a 100% reallocation of COMBINED SEWER costs to an impervious area basis. On the other hand, a typical apartment complex will show an 80% decrease in their monthly fee with such a shift.

Intermediate shifts can be calculated for any increment simply by multiplying the number shown in Figure 6 by the chosen percentage. For example, for a 25% shift the parking lot would go up 0.25 * 480% = 120%.

Relief might also be possible in the form of storm water credits, exemptions, incentives, or rate change capping.



STORM WATER:

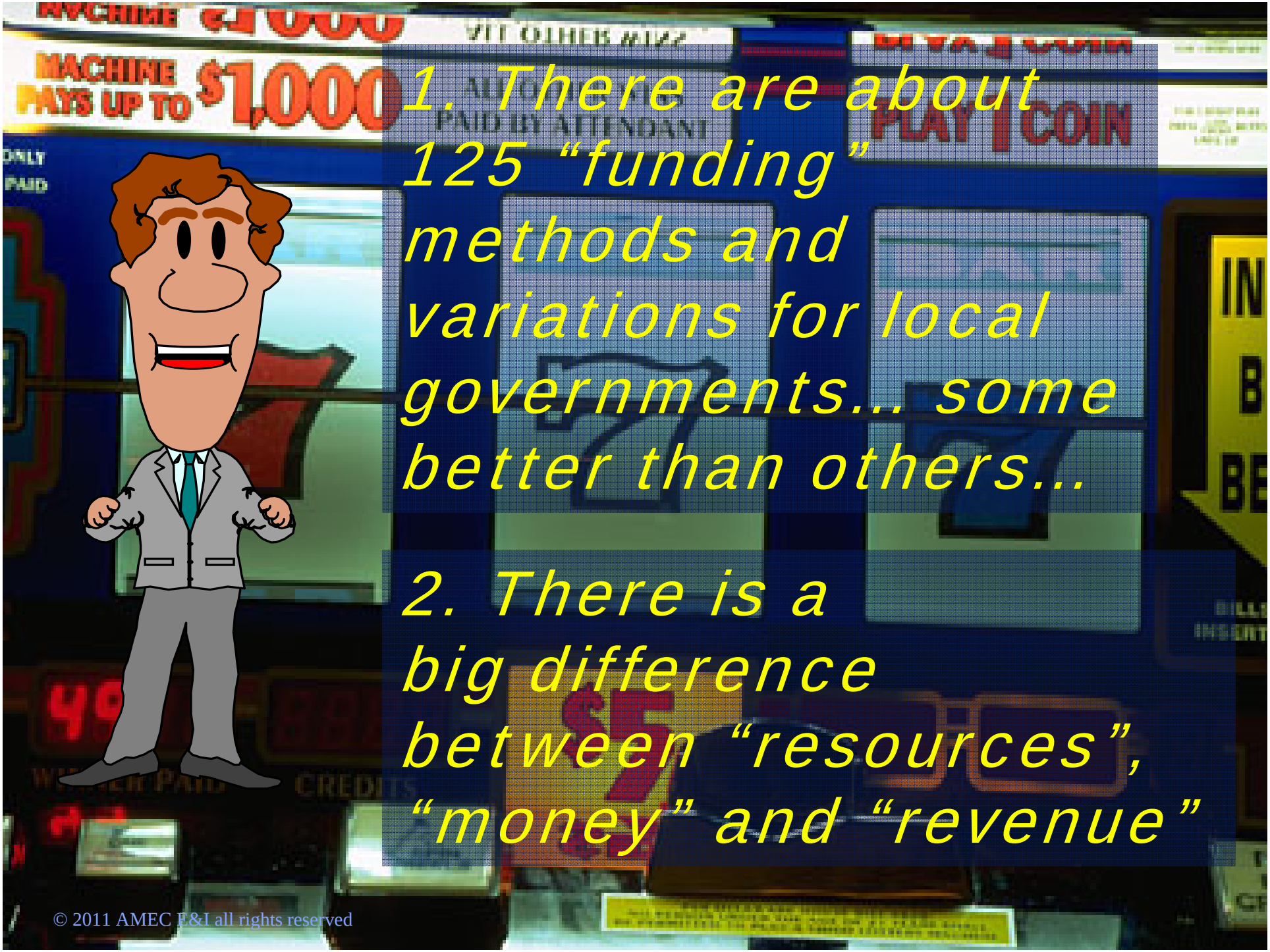
FUNDING OPTIONS

SUSTAINABLE STORM WATER FUNDING TASK FORCE

AMEC Briefing
Andy Reese

Consider two questions:

1. Does the task force consider a storm water user fee a potentially viable option to help pay for the estimated increase in wastewater costs, and therefore merits further consideration?
2. If so, should a portion of the combined sewer cost burden be allocated to the storm water user fee rather than to the sanitary sewer bill?



1. There are about 125 "funding" methods and variations for local governments... some better than others...

2. There is a big difference between "resources", "money" and "revenue"

Resources, Money & Revenue

- Resources – free, non-monetary, donated, volunteer, goods and services
- Money – one-time, unpredictable, undependable, episodic, limited
- Revenue – regular, predictable, money, budgeted, cash flow

You need REVENUE to be successful in stormwater

And revenue for this sort of thing comes in three flavors:

1. Tax Increase
2. Sanitary Fee Increase
3. Stormwater User Fee

Taxes

- Pros
  - ✓ Technically easy and cheap to do
  - ✓ Lots of revenue capacity
- Cons
  - ✓ Politically costly
  - ✓ Taxes are unrelated to the costs
  - ✓ Some do not pay their fair share, or any share
  - ✓ "If we coulda done that we already woulda"

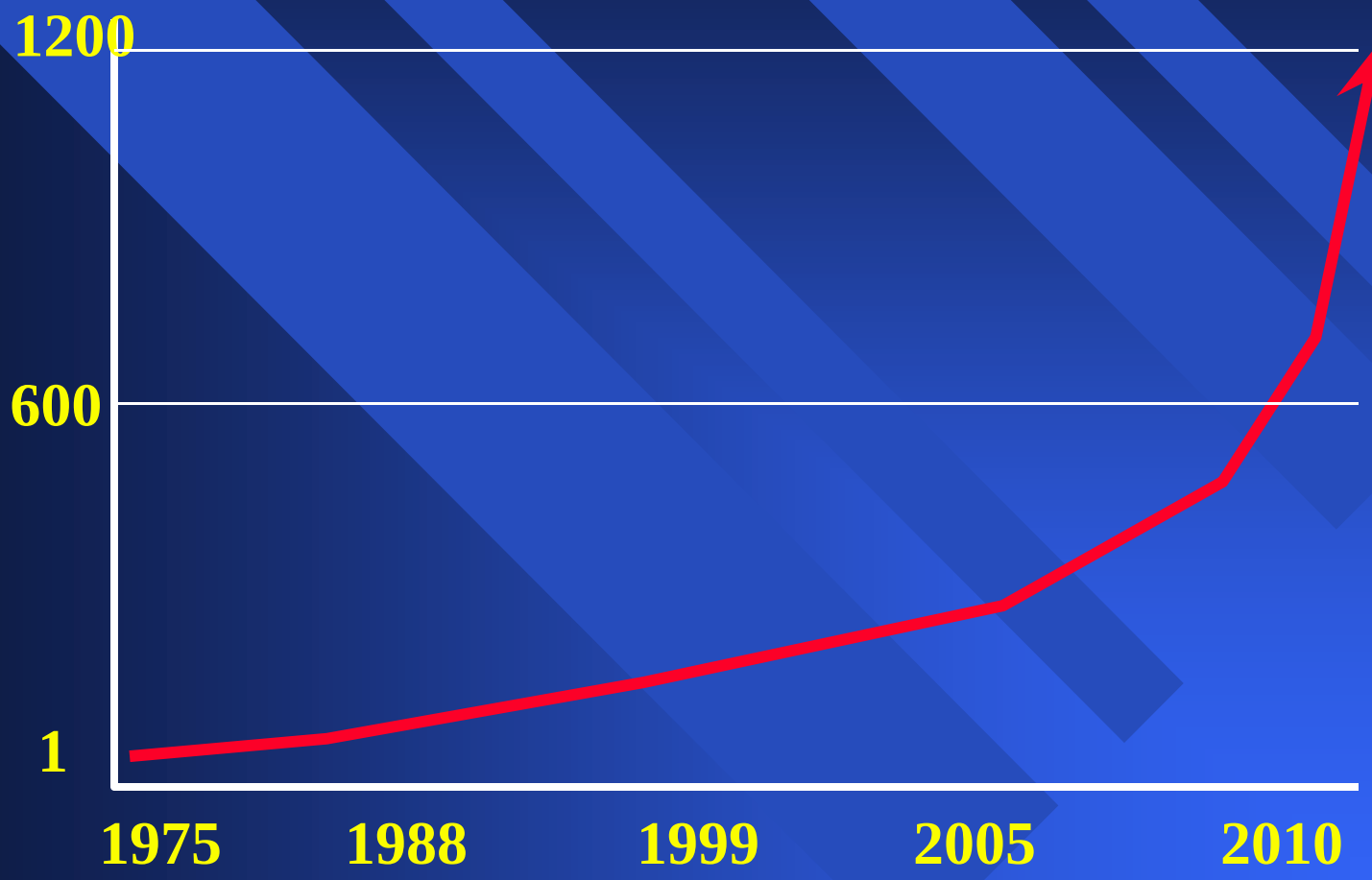
Sanitary Fee

- Pros
  - ✓ Technically easy to do
  - ✓ Stormwater is normally small compared to sanitary + CSO costs
  - ✓ Its “all water anyway”
- Cons
  - ✓ Sanitary fees are unrelated to “pure” stormwater cost causation
  - ✓ You may need the “headroom” for sanitary/CSO demands
  - ✓ No way to incentivize good behavior

Stormwater User Fee

- Pros
  - ✓ Individual fee and impact are related
  - ✓ Very flexible rate structures
  - ✓ Ability to incentivize good behavior
  - ✓ Fees relatively low for “pure” stormwater
  - ✓ Stable and adequate funding source
- Cons
  - ✓ A new “rain tax”
  - ✓ More costly to set up initially
  - ✓ Collection rate may be lower

Growth of Storm Water Utilities

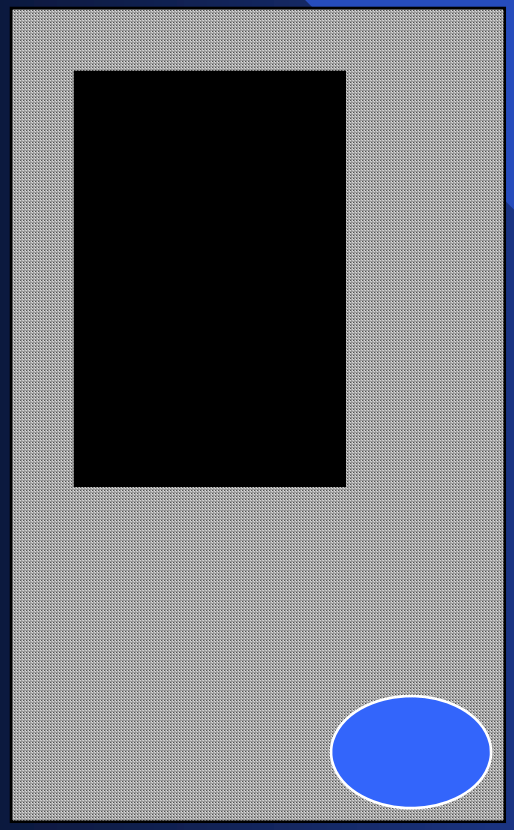


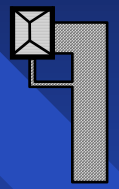
What Led to SW Utility Popularity?

- Expansion of urban city's roles
- Shift away from general taxes to fees and demand-based funding
- Other prevailing priorities - police, schools, solid waste
- Proliferation of other enterprise funds - solid waste, waste water
- Changing stormwater programs
- Superior equity, stability, adequacy
- Failure of other methods

How a Fee can be Calculated

"the more you pave the more you pay"



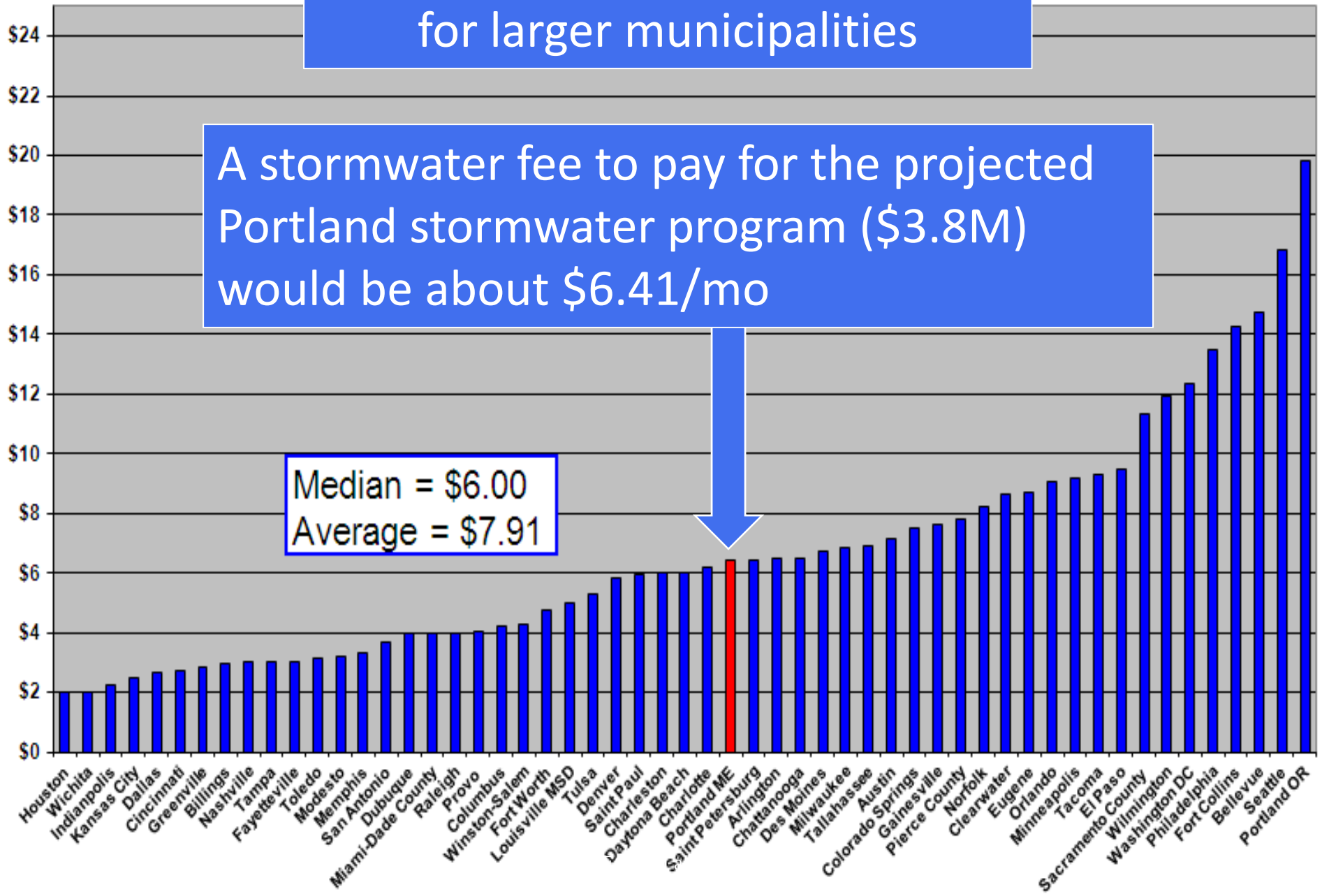


= say a typical house pays $6.00/mo

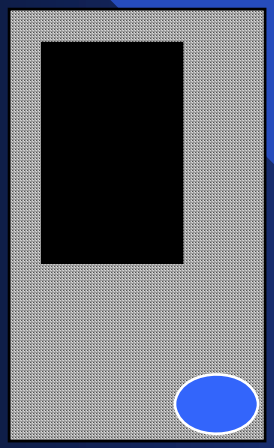
= 30 * $6.00/mo minus credit

Monthly fee for typical residence for larger municipalities

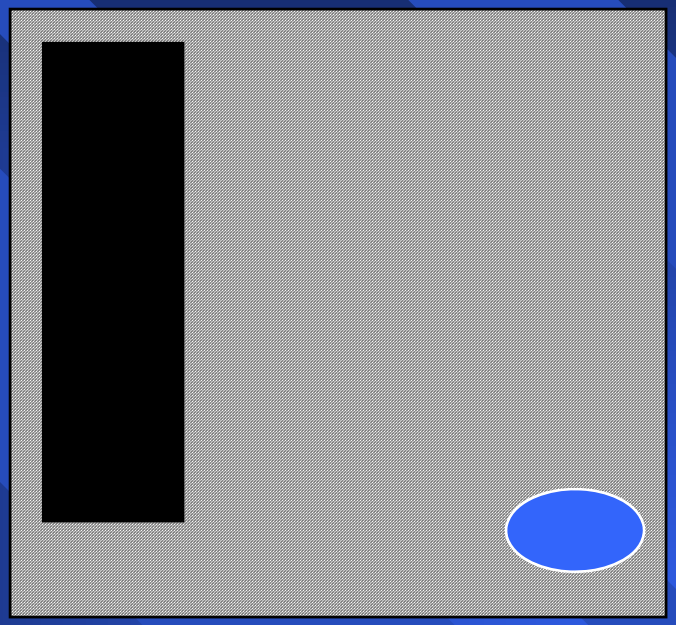
A stormwater fee to pay for the projected Portland stormwater program ($3.8M) would be about $6.41/mo



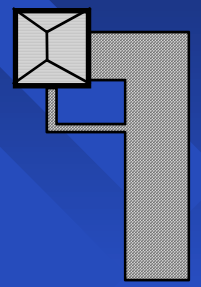
Typical Properties
$6.41/month/unit charge



Steakhouse
17,000 sq ft
$44.87/mo
less credit



210,000 sq ft auto dealer
$544.85/mo
less credit



Residential
$6.41/mo

A question of “due diligence”

Establishing a successful stormwater utility requires that you pay attention to five key areas of due diligence:

1. Governance
2. Program
3. Public and political
4. Financial policies
5. Database & customer service

Bottom Line Summary

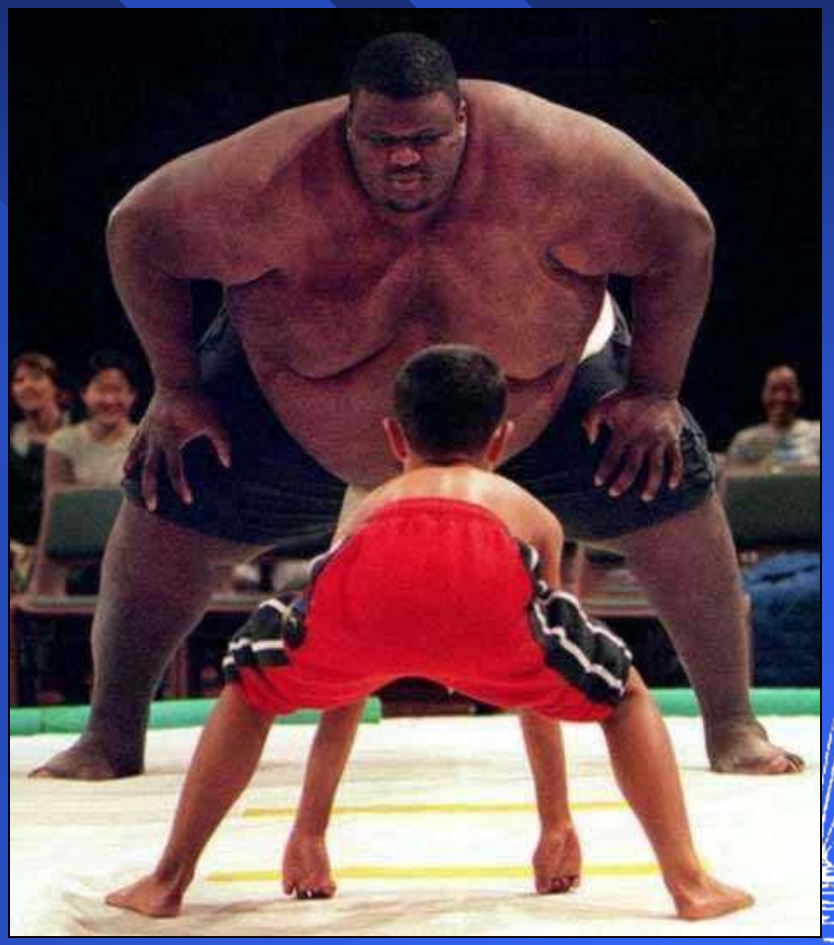
- Question #1 - Fee
  - ✓ Stormwater fees are common, equitable and adequate
  - ✓ The fee estimate for the SW program is within the norms of other places
  - ✓ A new fee must be established carefully for legal and public reasons

Consider two questions:

1. Does the task force consider a storm water user fee a potentially viable option to help pay for the estimated increase in wastewater costs, and therefore merits further consideration?
2. If so, should a portion of the combined sewer cost burden be allocated to the storm water user fee rather than to the sanitary sewer bill?

Combined Sewer Costs have grown since then…

- Future 5-Year Annualized Costs (FY 2013-FY 2018):
  - ✓ $18.5M Combined Sewer
  - ✓ $8.9M sanitary
  - ✓ $3.8M storm
- What is the basis of the allocation?
- What is “fair”



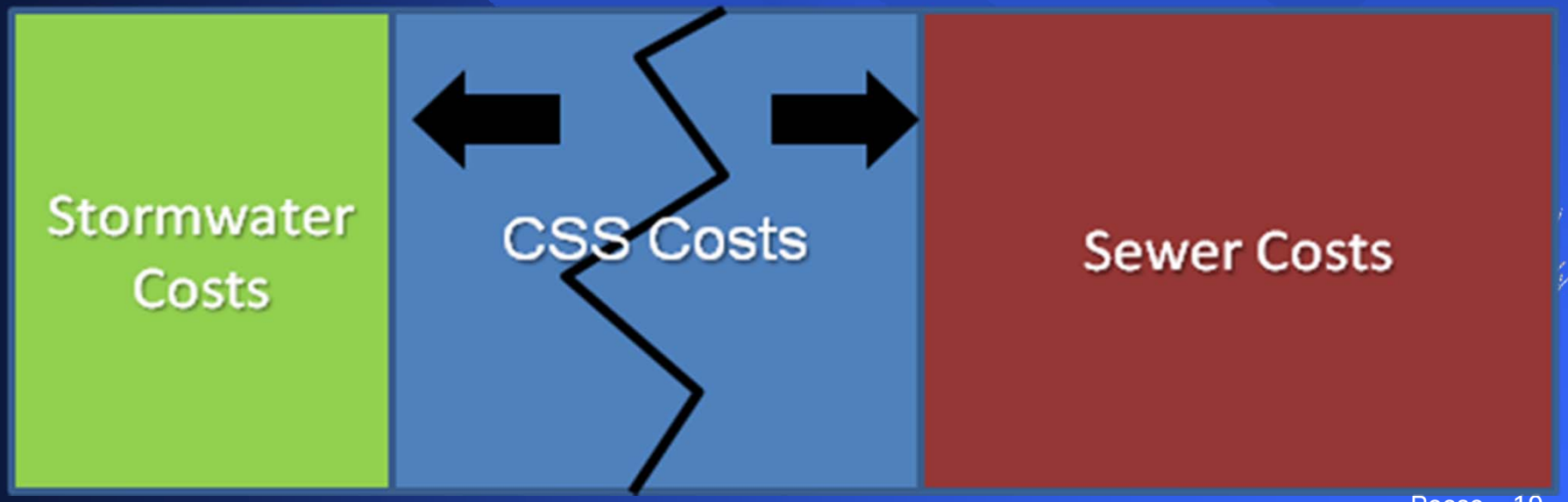
A “user fee” must be…

- Fair and reasonable
- Fee based loosely on demand
- Not illegally discriminatory
- Total costs substantially related to provision of facilities and services
- A reduction provision – i.e. credits

Two thoughts to help with relative perspective…

Allocation Methods Overview

- Combined Sewer costs are a grey zone
- We will have Combined Sewer costs to allocate – what is “fair”, what is smart?



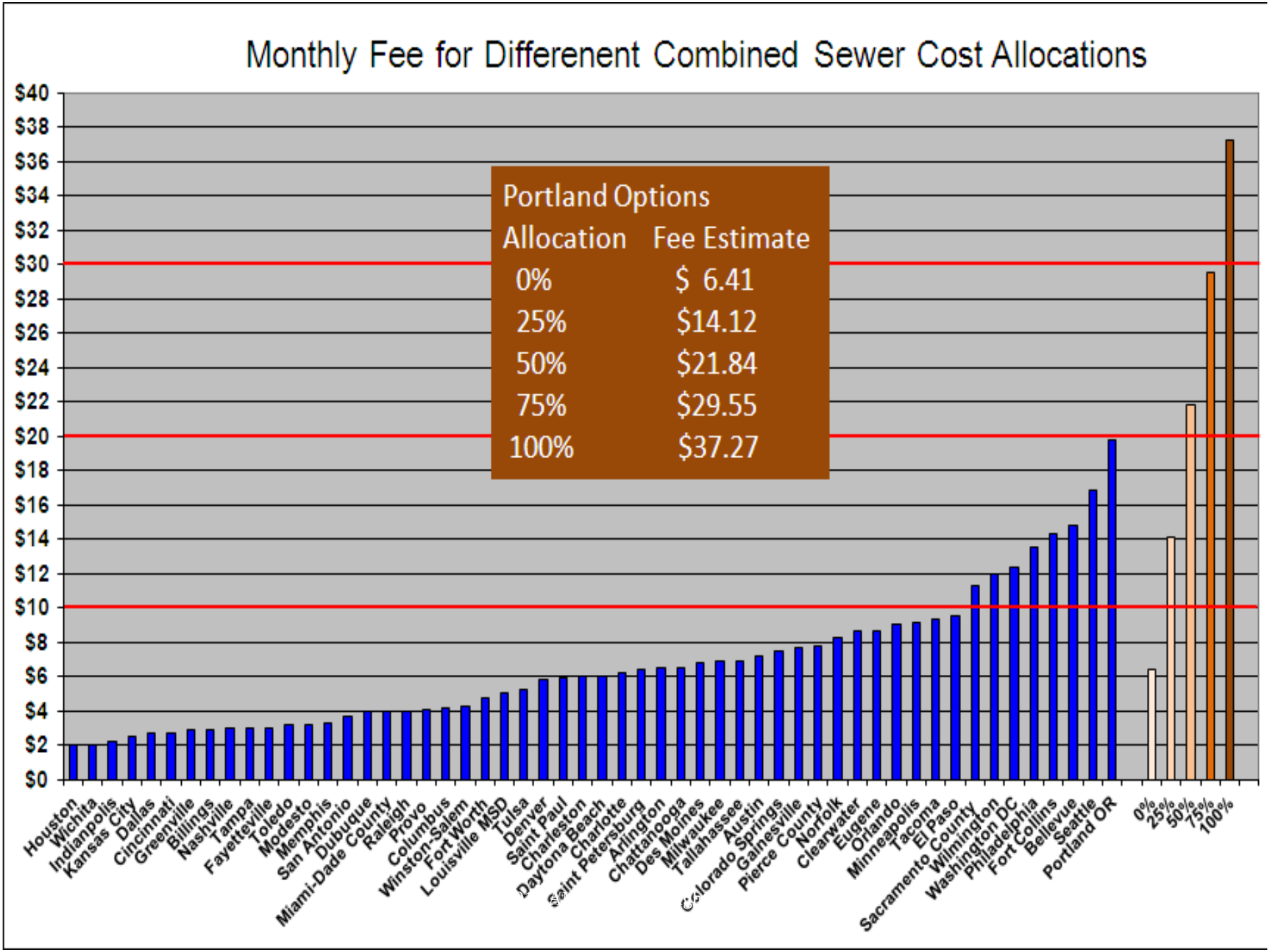
Are Combined Sewer costs…

- Stormwater Related
- "Your stormwater is in my sanitary pipe – get it out"

- Sanitary Related
- "Your sewage is in my stormwater pipe – get it out"

How Most People Do It

- ≈95% allocate 100% of Combined Sewer to the sanitary charge
- They did it that way because:
  - ✓ they wanted new SW fee small to pass council
  - ✓ people were paying all along for Combined Sewer under sanitary charge
  - ✓ the Combined Sewer program was relatively small and not a big deal
- Many will be rethinking this allocation in the next ten years


Monthly Fee for Differenent Combined Sewer Cost Allocations
$40
$38
$36
$34
$32
$30
$28
$26
$24
$22
$20
$18
$16
$14
$12
$10
$8
$6
$4
$2
$0
Portland Options
Allocation Fee Estimate
0% $ 6.41
25% $14.12
50% $21.84
75% $29.55
100% $37.27
Houston
Wichita
Indianpolis
Kansas City
Dallas
Cincinnati
Greenville
Billings
Nashville
Tampa
Fayetteville
Toledo
Modesto
Memphis
San Antonio
Dubuque
Miami-Dade County
Raleigh
Provo
Columbus
Winston-Salem
Fort Worth
Louisville MSD
Tulsa
Denver
Saint Paul
Charleston
Daytona Beach
Charlotte
Saint Petersburg
Arlington
Chattanooga
Des Moines
Milwaukee
Tallahassee
Austin
Colorado Springs
Gainesville
Pierce County
Norfolk
Clearwater
Eugene
Orlando
Minneapolis
Tacoma
El Paso
Sacramento County
Wilmington
Washington DC
Philadelphia
Fort Collins
Bellevue
Seattle
Portland OR
0%
25%
50%
75%
100%

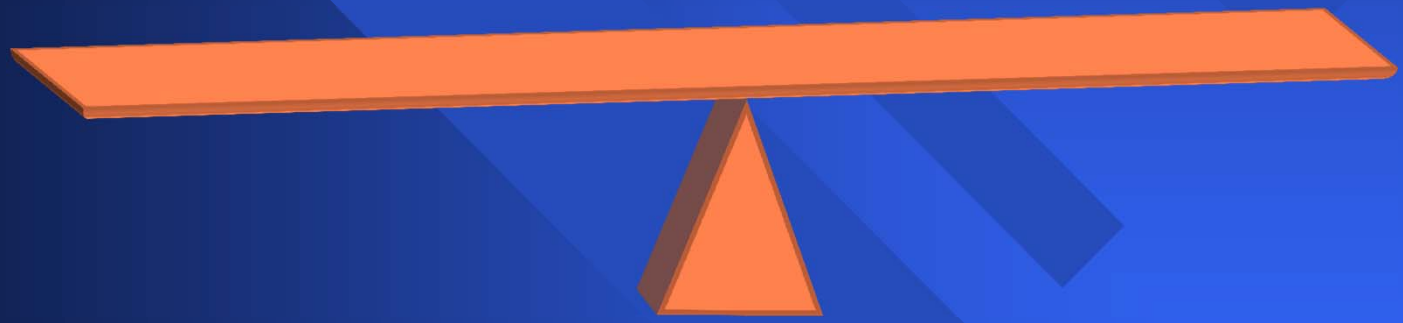
The “Dow Jones”

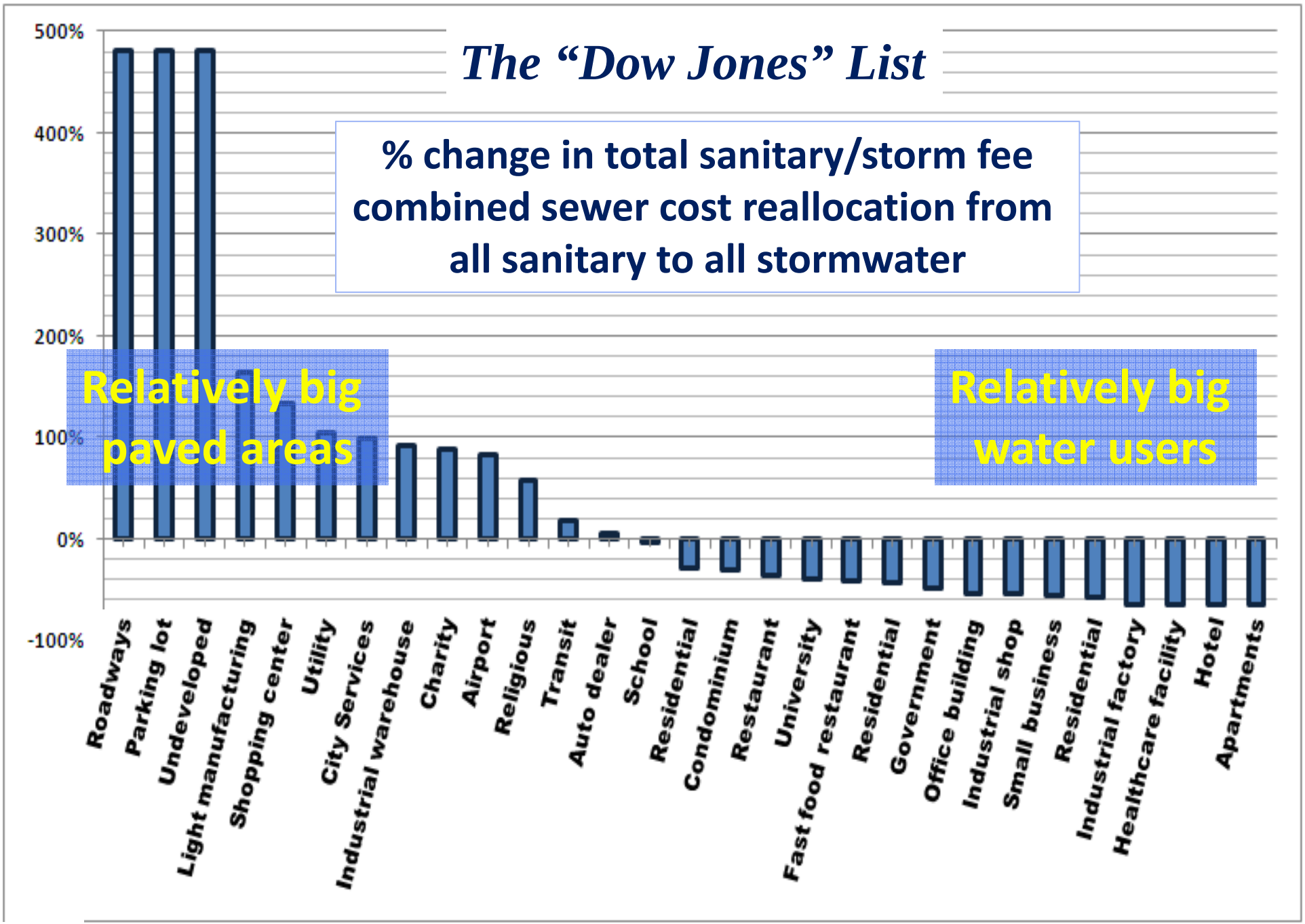
As we reallocate we create large monthly charge changes – what is “fair” ?

High Sanitary Charges

Relatively Neutral

High Stormwater Charges



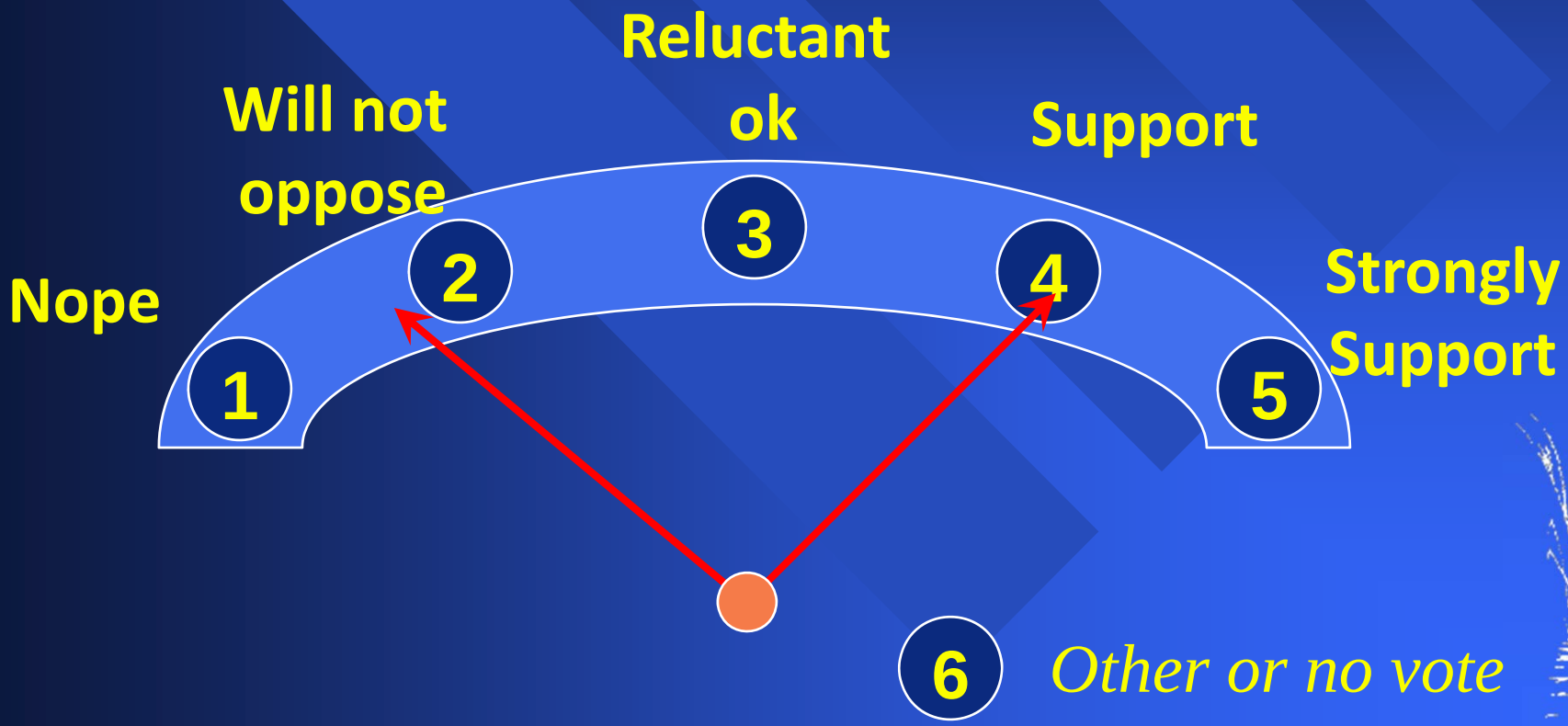

The "Dow Jones" List
% change in total sanitary/storm fee combined sewer cost reallocation from all sanitary to all stormwater
Relatively big paved areas
Relatively big water users
500%
400%
300%
200%
100%
0%
-100%
Roadways
Parking lot
Undeveloped
Light manufacturing
Shopping center
Utility
City Services
Industrial warehouse
Charity
Airport
Religious
Transit
Auto dealer
School
Residential
Condominium
Restaurant
University
Fast food restaurant
Residential
Government
Office building
Industrial shop
Small business
Residential
Industrial factory
Healthcare facility
Hotel
Apartments

Bottom Line

- Question #1 - Fee
  - ✓ Stormwater fees are common, equitable and adequate
  - ✓ The fee estimate is within the norms of other places
  - ✓ A new fee must be established carefully for legal and public reasons
- Question #2 – Allocation
  - ✓ CS costs big, growing, unavoidable
  - ✓ Different opinions on “cost causation” - No “wrong” answers
  - ✓ Sister cities not made reallocation… yet
  - ✓ Are some big individual fee changes if you reallocate current costs
  - ✓ Credits/incentives may help

Ok, its your turn

Question 1: Is a storm water fee a potential viable option that could help pay for increasing storm water costs and therefore merits further exploration and study?



Question 2: Based on your gut feeling how would you vote today on reallocation proportion?