

Bobbie Walthall

To: Casey Toomay
Subject: RE: Addtnl correspondence with Bobbie Flory re: calculation

From: Casey Toomay
Sent: Monday, August 01, 2011 5:08 PM
To: 'Bobbie Flory'
Cc: David L. Corliss
Subject: RE: calculation

To clarify, the rate model was developed by Black and Veatch but it is now used in house by City staff annually to calculate water and sewer rates, including system development charges.

The model uses a number of assumptions regarding assets, future projects, demand, number of customers, depreciation, etc.. Attached is Table 39 which shows the result of all of those assumptions entered for 2012. There are two versions of Table 39, A and B. The table labeled A shows what the model indicates the system development charges should be over the next 5 years. However, to reduce the amount of increase in the charges, staff modified the inputs. The result, shown on Table B., is a more phased in approach and requires smaller increases over a longer period of time.

Table B. are the SDCs recommended by staff for 2012.

If you are looking for more information on the rate model and the inputs and assumptions used, I would suggest scheduling an appointment with our Finance Director, Ed Mullins. He is responsible for maintaining the rate model and I'm sure he would be happy to go through everything with you.

I hope this answers your questions.

Could you let me know if you got this email okay?

Thanks, Casey



Casey Toomay, Budget Manager – ctoomay@lawrenceks.org
City Manager's Office | [City of Lawrence, KS](http://CityofLawrenceKS.org)
P.O. Box 708, Lawrence, KS 66044
office (785) 832-3409 | fax (785) 830-4834

From: Bobbie Flory [mailto:bobbie@lhba.net]
Sent: Monday, August 01, 2011 1:38 PM
To: Casey Toomay
Subject: calculation

Casey,

I didn't receive your email but saw it on the agenda's update. I am guessing it went into my "spam" file so I will watch it closely. But, thanks for responding.

Could you please forward the B&V reports where the SDC rates are recommended?

Thanks,
Bobbie Flory
bobbie@lhba.net

A.

Table 39
System Development Charges

Equivalent Meter Capacity	Average Use		Existing	2012	2013	2014	2015	2016	1/1/10 Charges
I-4			\$	\$	\$	\$	\$	\$	\$
Water Utility									
Residential									
1.0	650	5/8"	1,560	2,300	2,220	2,130	2,050	1,960	BD-5 1,560
2.5		1"	3,900	5,750	5,540	5,330	5,110	4,900	3,900
5.0		1-1/2"	7,800	11,500	11,080	10,650	10,230	9,800	7,800
8.0		2"	12,480	18,400	17,720	17,040	16,360	15,680	12,480
All Other									
1.0	650	5/8"	1,560	2,300	2,220	2,130	2,050	1,960	1,560
2.5		1"	3,900	5,750	5,540	5,330	5,110	4,900	3,900
5.0		1-1/2"	7,800	11,500	11,080	10,650	10,230	9,800	7,800
8.0		2"	12,480	18,400	17,720	17,040	16,360	15,680	12,480
15.0		3"	23,400	34,500	33,230	31,950	30,680	29,400	23,400
25.0		4"	39,000	57,500	55,380	53,250	51,130	49,000	39,000
50.0		6"	78,000	115,000	110,750	106,500	102,250	98,000	78,000
100.0		8"	156,000	230,000	221,500	213,000	204,500	196,000	156,000
150.0		10"	234,000	345,000	332,250	319,500	306,750	294,000	234,000
220.0		12"	343,200	506,000	487,300	468,600	449,900	431,200	343,200
550.0		16"	858,000	1,265,000	1,218,250	1,171,500	1,124,750	1,078,000	858,000
Wastewater Utility									
Residential									
124		All Meters	1,470	2,070	2,140	2,200	2,270	2,330	BD-5 1,470
All Other									
1.0	270	5/8"	2,970	4,500	4,650	4,790	4,940	5,080	2,970
2.5		1"	7,430	11,250	11,610	11,980	12,340	12,700	7,430
5.0		1-1/2"	14,850	22,500	23,230	23,950	24,680	25,400	14,850
8.0		2"	23,760	36,000	37,160	38,320	39,480	40,640	23,760
15.0		3"	44,550	67,500	69,680	71,850	74,030	76,200	44,550
25.0		4"	74,250	112,500	116,130	119,750	123,380	127,000	74,250
50.0		6"	148,500	225,000	232,250	239,500	246,750	254,000	148,500
100.0		8"	297,000	450,000	464,500	479,000	493,500	508,000	297,000
150.0		10"	445,500	675,000	696,750	718,500	740,250	762,000	445,500
220.0		12"	653,400	990,000	1,021,900	1,053,800	1,085,700	1,117,600	653,400
550.0		16"	1,633,500	2,475,000	2,554,750	2,634,500	2,714,250	2,794,000	1,633,500
Combined Utilities									
Residential									
		5/8"	3,030	4,370	4,360	4,330	4,320	4,290	
		1"	5,370	7,820	7,680	7,530	7,380	7,230	
		1-1/2"	9,270	13,570	13,220	12,850	12,500	12,130	
		2"	13,950	20,470	19,860	19,240	18,630	18,010	
All Other									
		5/8"	4,530	6,800	6,870	6,920	6,990	7,040	
		1"	11,330	17,000	17,150	17,310	17,450	17,600	
		1-1/2"	22,650	34,000	34,310	34,600	34,910	35,200	
		2"	36,240	54,400	54,880	55,360	55,840	56,320	
		3"	(a)	102,000	102,910	103,800	104,710	105,600	
		4"	(a)	170,000	171,510	173,000	174,510	176,000	
		6"	(a)	340,000	343,000	346,000	349,000	352,000	
		8"	(a)	680,000	686,000	692,000	698,000	704,000	
		10"	(a)	1,020,000	1,029,000	1,038,000	1,047,000	1,056,000	
		12"	(a)	1,496,000	1,509,200	1,522,400	1,535,600	1,548,800	
		16"	(a)	3,740,000	3,773,000	3,806,000	3,839,000	3,872,000	

(a) Determined based on analysis of new customer's anticipated use of the system.

B.

Table 39
System Development Charges

Equivalent Meter Capacity	Average Use		Existing	2012	2013	2014	2015	2016	1/1/10 Charges
<u>I-4</u>			\$	\$	\$	\$	\$	\$	\$
Water Utility									
Residential									
1.0	650	5/8"	1,560	1,760	1,810	1,860	1,910	1,960	BD-5 1,560
2.5		1"	3,900	4,400	4,530	4,650	4,780	4,900	3,900
5.0		1-1/2"	7,800	8,800	9,050	9,300	9,550	9,800	7,800
8.0		2"	12,480	14,080	14,480	14,880	15,280	15,680	12,480
All Other									
1.0	650	5/8"	1,560	1,760	1,810	1,860	1,910	1,960	1,560
2.5		1"	3,900	4,400	4,530	4,650	4,780	4,900	3,900
5.0		1-1/2"	7,800	8,800	9,050	9,300	9,550	9,800	7,800
8.0		2"	12,480	14,080	14,480	14,880	15,280	15,680	12,480
15.0		3"	23,400	26,400	27,150	27,900	28,650	29,400	23,400
25.0		4"	39,000	44,000	45,250	46,500	47,750	49,000	39,000
50.0		6"	78,000	88,000	90,500	93,000	95,500	98,000	78,000
100.0		8"	156,000	176,000	181,000	186,000	191,000	196,000	156,000
150.0		10"	234,000	264,000	271,500	279,000	286,500	294,000	234,000
220.0		12"	343,200	387,200	398,200	409,200	420,200	431,200	343,200
550.0		16"	858,000	968,000	995,500	1,023,000	1,050,500	1,078,000	858,000
Wastewater Utility									
Residential									
124	All Meters		1,470	1,610	1,790	1,970	2,150	2,330	BD-5 1,470
All Other									
1.0	270	5/8"	2,970	3,510	3,900	4,300	4,690	5,080	2,970
2.5		1"	7,430	8,780	9,760	10,740	11,720	12,700	7,430
5.0		1-1/2"	14,850	17,550	19,510	21,480	23,440	25,400	14,850
8.0		2"	23,760	28,080	31,220	34,360	37,500	40,640	23,760
15.0		3"	44,550	52,650	58,540	64,430	70,310	76,200	44,550
25.0		4"	74,250	87,750	97,560	107,380	117,190	127,000	74,250
50.0		6"	148,500	175,500	195,130	214,750	234,380	254,000	148,500
100.0		8"	297,000	351,000	390,250	429,500	468,750	508,000	297,000
150.0		10"	445,500	526,500	585,380	644,250	703,130	762,000	445,500
220.0		12"	653,400	772,200	858,550	944,900	1,031,250	1,117,600	653,400
550.0		16"	1,633,500	1,930,500	2,146,380	2,362,250	2,578,130	2,794,000	1,633,500
Combined Utilities									
Residential									
		5/8"	3,030	3,370	3,600	3,830	4,060	4,290	
		1"	5,370	6,010	6,320	6,620	6,930	7,230	
		1-1/2"	9,270	10,410	10,840	11,270	11,700	12,130	
		2"	13,950	15,690	16,270	16,850	17,430	18,010	
All Other									
		5/8"	4,530	5,270	5,710	6,160	6,600	7,040	
		1"	11,330	13,180	14,290	15,390	16,500	17,600	
		1-1/2"	22,650	26,350	28,560	30,780	32,990	35,200	
		2"	36,240	42,160	45,700	49,240	52,780	56,320	
		3"	(a)	79,050	85,690	92,330	98,960	105,600	
		4"	(a)	131,750	142,810	153,880	164,940	176,000	
		6"	(a)	263,500	285,630	307,750	329,880	352,000	
		8"	(a)	527,000	571,250	615,500	659,750	704,000	
		10"	(a)	790,500	856,880	923,250	989,630	1,056,000	
		12"	(a)	1,159,400	1,256,750	1,354,100	1,451,450	1,548,800	
		16"	(a)	2,898,500	3,141,880	3,385,250	3,628,630	3,872,000	

(a) Determined based on analysis of new customer's anticipated use of the system.

Bobbie Walthall

To: Casey Toomay
Subject: RE: follow up to our phone conversation re: SDCs

From: Casey Toomay
Sent: Friday, July 29, 2011 4:17 PM
To: 'bobbie@lhba.net'
Subject: follow up to our phone conversation re: SDCs

Ms. Flory,

In response to your call, below you'll find some information on SDCs. I also wanted to follow-up on the proposed rate increases for water and sewer. The proposed rate increases of 2% for water and sewer will mean a total increase on a typical monthly bill of \$1.30, or 3.5%. Let me know if you need additional information or have more questions. Thanks, Casey

System Development Charges Information

To finance its infrastructure charges, the City of Lawrence cash finances improvements, issues debt, and collects system development charges (SDC) to pay for growth related projects. Growth related projects typically include transmission mains, pumping, treatment facilities, and supply sources. The City of Lawrence first began collecting SDC's in 1997. A report is issued annually detailing how the SDC's for water and sanitary sewer are spent.

The method for calculating the SDC's for Lawrence was developed by Black and Veatch and incorporated in an Excel based rate model that the city uses to determine its water and sewer rates, including SDC's. The model uses a combination of two basic methodologies for calculating SDC's, the equity method and the incremental cost method.

The equity method attempts to appropriately allocate capital charges between existing and new customers. It is also called the system buy in method because new customer's are assessed charges to purchase a share of the capital expenses net of outstanding debt that existing customers have already purchased.

The incremental cost method is based upon the concept of new development paying the cost of the infrastructure needed to serve the new development. This avoids the need for existing customers to pay for the growth related costs of new customers. This method is used primarily in areas experiencing substantial new growth. The cost component is the future capital projects that are related to growth. The fewer growth related projects, the lower the incremental cost.

The City of Lawrence utilizes components of both methodologies to calculate the SDC for the water and sewer systems. Existing assets are classified as rate based or non-rate based to calculate the system buy in component. Future capital projects identified as growth related are used to calculate the incremental cost component.

The proposed amounts for 2012 SDCs are actually below what the rate model indicates. In order to minimize the financial impact, staff is recommending a phased approach.

SDCs were last increased in 2009. A survey done in 2010 however, indicated the amount of the charges for both water and sewer SDCs in Lawrence was below what many, although not all, area utilities were charging.



Casey Toomay, *Budget Manager* – ctoomay@lawrenceks.org
City Manager's Office | [City of Lawrence, KS](#)
P.O. Box 708, Lawrence, KS 66044
office (785) 832-3409 | fax (785) 830-4834