City of Fraser

CENTENNIAL COMMUNITY

FRASER CITY COUNCIL – SPECIAL MEETING
TUESDAY – JANUARY 21, 2014 – 7:00 P.M.
CITY HALL
AGENDA

1. CALL TO ORDER
2. PLEDGE OF ALLEGIANCE
3. APPROVAL OF AGENDA
4. CITIZEN PARTICIPATION ON AGENDA ITEMS
5. PRESENTATIONS: There are no presentations
6. PUBLIC HEARINGS: There are no public hearings scheduled
7. CONSENT AGENDA
8. REQUESTS FOR COUNCIL ACTION
   a. Request Council discuss water rate options
9. REPORT OF THE CITY ADMINISTRATION/PENDING ITEMS.
10. REPORT OF MAYOR AND CITY COUNCIL/NEW BUSINESS
11. CITIZEN PARTICIPATION.
12. ADJOURNMENT

(Posted Wednesday, January 15, 2014 4:30p.m.)

THE CITY OF FRASER WILL PROVIDE NECESSARY REASONABLE AUXILIARY AIDS AND SERVICES TO INDIVIDUALS WITH DISABILITIES AT THE MEETING UPON FOUR DAYS NOTICE TO:RANDY WARUNEK, BUILDING DEPARTMENT (586) 293-3100 EXT 154.

IT IS THE POLICY OF THE CITY OF FRASER THAT NO PERSON, ON THE BASIS OF RACE, CREED, COLOR, RELIGION, NATIONAL ORIGIN, OR ANCESTRY, AGE, SEX, MARITAL STATUS, OR DISABILITY SHALL BE DISCRIMINATED AGAINST, EXCLUDED FROM PARTICIPATION, DENIED THE BENEFITS OF, OR OTHERWISE SUBJECTED TO DISCRIMINATION IN ANY PROGRAM OR ACTIVITY FOR WHICH IT IS RESPONSIBLE.

SUMMARY OF WATER RATE ISSUES AND IMPACTS

1. Billing by address: This proposal would add persons not currently being billed, namely residents of multi-family units and many condominium associations all currently billed through a single master meter. It is estimated this would add an additional 1,100 persons to our customer base. Given they are not separately metered it is recommended this bill be for the current minimum fixed cost bill of $20/month as this amount is defensible if challenged. The mechanism for billing would be to add this charge times the number of units to the current master meter bill.

2. Fixed Charge to Irrigation Meters: This proposal would allocate the water system fixed costs over the entire customer base including those 1,100 customers who have the so-called second meters. This means the current $1.7 million of fixed costs would be allocated over 6,300 customers instead of 5,200. The resulting fixed cost per meter would be $22.50/month for all water meters. This formula also reduces the fixed costs for those without the second meter by about $5.00/month.

3. Increase the Meter Charge: Our current meter charge for residential meters is only $0.75/month. This amount is very much lower than our neighboring communities who assess a meter charge. Centerline is the lowest at $7.00/month. We are recommending an increase to $5.00/month. Larger meters, both residential and commercial/industrial will also have a significantly higher charge. A spreadsheet is included for reference.

4. Net Impact:. The net impact of the above changes would be to reduce the Ready to Serve charge from the current rate of $5.35/unit to $3.59/unit, or 33%.

5. Refinance Current Debt: As has been noted our total debt obligation for the Water and Sewer system is $19.836 million. However, the only debt that is "owned" by the City of Fraser is the SRF loan for the Hayes Masonic Interceptor which represents $7.964 million. The remainder of the debt is owed to the Macomb and Oakland County Drain Districts. This is a very important distinction as our Bond Counsel advises that under the current statutes we cannot re-finance debt we do not own.

   The only debt we could refinance would be that for the Hayes Masonic Interceptor that is financed through MDEQ as an State Revolving Fund (SRF) loan. It is my understanding that this is the lowest possible interest rate that can be obtained for this purpose leading me to believe that the likelihood of being able to refinance at a lower rate is not possible.

6. Move Cost of Debt Service to Taxes: Current debt service can be moved over to be paid by use of a tax millage. This is the debt service, not the debt. As explained in my previous report, the voters must approve a millage that provides

sufficient annual revenue to pay the total debt service. Last year that millage was estimated to be 2.34 mils. If this is done then the debt service would be removed from the fixed cost calculation resulting in an average reduction of 24%. I have included a total Water and Sewer Debt listing in the backup for your information and detail. .

SUMMARY OF CURRENT RATE SYSTEM

The current rate system is fully based on consumption. All costs, including our fixed costs are allocated based on the individual customer's consumption. This method has both its strengths and weaknesses.

<u>Strengths:</u>

On the positive side this system would be considered internally equitable. With all costs allocated by consumption each customer is sharing the same unit costs equally with the billing difference depending on the number of units used per customer.
The rate system has been in use for several years and customers and staff are familiar with it. For many customers the system is deemed "fair" and creates little issue as bills are produced each month.

The rate system is fully integrated into our current finance software and handles billing, collection, adjustments and other needs with relative ease.

<u>Weaknesses:</u>

While the system is equitable in the distribution of costs, it is insensitive to changes in the way the City is charged by DWSD and the County Drain Commissions. Their shift has been from a consumption based system to more fixed cost items over the past five years. Our total billings for the last FY were just short of $5.9 million. Of that $4.2 million was in fixed costs or 70% of our costs are fixed.   Distributing 70% of our costs on a consumption based system often results in less revenues than projected leaving a shortfall in our Cash based CIP line item.

The current system punishes conservation. Because a larger portion of the current annual budget is fixed costs, reductions in water purchased by our customers means the fixed cost component unit costs must increase. For example, if our fixed costs were $2 million and our customers bought 1 million gallons of water per year the unit cost would be $2. If our customers reduced their consumption to 800,000 gallons per year that unit cost would have to be increased to $2.50 to ensure adequate revenues to pay those fixed costs. This is counterintuitive to how most of our customers think as they expect their water bill to go down if they decrease their consumption. Based on our current situation this will never happen with this rate system.

Revenues under the current system are difficult to predict. While we can estimate based on past years, weather plays an important role in how much water is consumed, particularly in the Summer. This problem is worsened if there is a significant drop in consumption. Given that 70% of what we pay our suppliers is fixed cost, this often creates shortfalls particularly with respect to cash financed CIP items.

EQUIVALENT METER BASED RATE SYSTEM

This is the most common rate system for all public utilities, including water and sewer systems. Public Utility Finance models and even courses in economics identify the most expensive part of a utility is capital which means higher fixed costs to operate and maintain its capital. The equivalent meter based rate system allocates these fixed costs by a formula based on the size of the meter for each customer.

Strengths:

As the system allocates fixed costs based on the size of the customer meter instead of a variable such as consumption, revenues for fixed costs are predictable and dependable. Variable commodity costs for water and sewer are paid in the same way as our current rate system.

It is the most common rate system and easily understood by Staff and customers.

Conservation efforts by customers will result in a decrease of the bill as the fixed cost component is not changed or affected by this decrease.

Weakness:

Since the system is dependent upon meter size for distribution of fixed cost customers with the larger meters pay a significantly higher amount of the fixed costs compared to our current rate system.

Proponents would argue this is both rational and fair as the water system is designed to meet the peak demands of its largest customers both for water delivery and fire suppression. Residential communities can meet the demands and fire suppression needs for the community with 6" mains and 1" service lines. Significantly larger pipes and meters are needed to meet the higher end industrial and commercial users driving up the cost of the infrastructure. So, having these customers pay a proportionately larger share of the fixed costs is consistent in this regard.

BACKUP DOCUMENTATION

Included in the backup file are the following:

1. A sampling of rate calculations by number of units consumed at current rate

2. The same sampling calculations by number of units consumed at the proposed rate.
3. A detailed list of current rate calculations for number of units consumed from 1 unit to 100 units.
4. A spreadsheet identifying the proposed new Meter Charge for Residential and Business Customers. Compared to current Meter Charge.
5. The detailed list of current debt service issues.
6. A sample rate sheet for fixed cost under an Equivalent Meter Rate system

Current Charges

	Meter Charge	Water	Sewer	Ready To Serve	Rate Total
	1.50	*2.00*	*4.00*	*5.35*	
0	1.50	0.00	0.00	20.00	21.50
1	1.50	2.00	4.00	20.00	27.50
2	1.50	4.00	8.00	20.00	33.50
3	1.50	6.00	12.00	20.00	39.50
4	1.50	8.00	16.00	21.40	46.90
5	1.50	10.00	20.00	26.75	58.25
6	1.50	12.00	24.00	32.10	69.60
7	1.50	14.00	28.00	37.45	80.95
8	1.50	16.00	32.00	42.80	92.30
9	1.50	18.00	36.00	48.15	103.65
10	1.50	20.00	40.00	53.50	115.00
15	1.50	30.00	60.00	80.25	171.75
20	1.50	40.00	80.00	107.00	228.50
25	1.50	50.00	100.00	133.75	285.25
30	1.50	60.00	120.00	160.50	342.00
35	1.50	70.00	140.00	187.25	398.75
40	1.50	80.00	160.00	214.00	455.50
45	1.50	90.00	180.00	240.75	512.25
50	1.50	100.00	200.00	267.50	569.00

Proposed Charges

	Meter Charge	Water	Sewer	Ready To Serve	Rate Total
	5.00	*2.00*	*4.00*	*3.59*	
0	5.00	0.00	0.00	20.00	25.00
1	5.00	2.00	4.00	20.00	31.00
2	5.00	4.00	8.00	20.00	37.00
3	5.00	6.00	12.00	20.00	43.00
4	5.00	8.00	16.00	14.36	43.36
5	5.00	10.00	20.00	17.95	52.95
6	5.00	12.00	24.00	21.54	62.54
7	5.00	14.00	28.00	25.13	72.13
8	5.00	16.00	32.00	28.72	81.72
9	5.00	18.00	36.00	32.31	91.31
10	5.00	20.00	40.00	35.90	100.90
15	5.00	30.00	60.00	53.85	148.85
20	5.00	40.00	80.00	71.80	196.80
25	5.00	50.00	100.00	89.75	244.75
30	5.00	60.00	120.00	107.70	292.70
35	5.00	70.00	140.00	125.65	340.65
40	5.00	80.00	160.00	143.60	388.60
45	5.00	90.00	180.00	161.55	436.55
50	5.00	100.00	200.00	179.50	484.50

CITY OF FRASER
READY TO SERVE REFERENCE CHART
EFFECTIVE: JULY 2013

0	NA	20.00
1	NA	20.00
2	NA	20.00
3	NA	20.00
4	5.35	21.40
5	5.35	26.75
6	5.35	32.10
7	5.35	37.45
8	5.35	42.80
9	5.35	48.15
10	5.35	53.50
11	5.35	58.85
12	5.35	64.20
13	5.35	69.55
14	5.35	74.90
15	5.35	80.25
16	5.35	85.60
17	5.35	90.95
18	5.35	96.30
19	5.35	101.65
20	5.35	107.00
21	5.35	112.35
22	5.35	117.70
23	5.35	123.05
24	5.35	128.40
25	5.35	133.75
26	5.35	139.10
27	5.35	144.45
28	5.35	149.80
29	5.35	155.15
30	5.35	160.50
31	5.35	165.85
32	5.35	171.20
33	5.35	176.55
34	5.35	181.90
35	5.35	187.25
36	5.35	192.60
37	5.35	197.95
38	5.35	203.30
39	5.35	208.65
40	5.35	214.00
41	5.35	219.35
42	5.35	224.70
43	5.35	230.05
44	5.35	235.40
45	5.35	240.75
46	5.35	246.10
47	5.35	251.45
48	5.35	256.80
49	5.35	262.15
50	5.35	267.50

CITY OF FRASER
READY TO SERVE REFERENCE CHART
EFFECTIVE: JULY 2013

51	5.35	272.85
52	5.35	278.20
53	5.35	283.55
54	5.35	288.90
55	5.35	294.25
56	5.35	299.60
57	5.35	304.95
58	5.35	310.30
59	5.35	315.65
60	5.35	321.00
61	5.35	326.35
62	5.35	331.70
63	5.35	337.05
64	5.35	342.40
65	5.35	347.75
66	5.35	353.10
67	5.35	358.45
68	5.35	363.80
69	5.35	369.15
70	5.35	374.50
71	5.35	379.85
72	5.35	385.20
73	5.35	390.55
74	5.35	395.90
75	5.35	401.25
76	5.35	406.60
77	5.35	411.95
78	5.35	417.30
79	5.35	422.65
80	5.35	428.00
81	5.35	433.35
82	5.35	438.70
83	5.35	444.05
84	5.35	449.40
85	5.35	454.75
86	5.35	460.10
87	5.35	465.45
88	5.35	470.80
89	5.35	476.15
90	5.35	481.50
91	5.35	486.85
92	5.35	492.20
93	5.35	497.55
94	5.35	502.90
95	5.35	508.25
96	5.35	513.60
97	5.35	518.95
98	5.35	524.30
99	5.35	529.65
100	5.35	535.00

Meter Charge						
	Old Rate	New Rate	# of Meters	Old Revenue	New Revenue	% Increase
5/8" - Business	9.70	20.00	96	11,174.40	23,040.00	106.19%
1" - Business	15.66	30.00	451	84,751.92	162,360.00	91.57%
1.5" - Business	33.55	65.00	83	33,415.80	64,740.00	93.74%
2" - Business	48.45	95.00	54	31,395.60	61,560.00	96.08%
3" - Business	87.21	172.00	3	3,139.56	6,192.00	97.23%
4" - Business	120.00	230.00	5	7,200.00	13,800.00	91.67%
6" - Business	179.63	340.00	2	4,311.12	8,160.00	89.28%
8" - Business	298.89	550.00	0	0.00	0.00	84.01%
5/8" - Residential	1.50	5.00	3,488	62,784.00	209,280.00	233.33%
1" -Residential	1.99	8.00	879	20,990.52	84,384.00	302.01%
1.5" - Residential	2.89	12.00	97	3,363.96	13,968.00	315.22%
2" - Residential	4.09	20.00	81	3,975.48	19,440.00	389.00%
3" - Residential	5.29	25.00	13	825.24	3,900.00	372.59%
4" - Residential	6.49	30.00	3	233.64	1,080.00	362.25%
6" - Residential	10.20	35.00	0	0.00	0.00	243.14%
8" - Residential	15.25	45.00	0	0.00	0.00	195.08%
Increase:	**0.50**		5,255	267,561.24	671,904.00	

404,342.76

Debt Service Requirements

Local Government Name:	CITY OF FRASER, MICHIGAN
Local Unit Code:	50203
Current Fiscal Year End Date:	6/30/2014

BA Debt #1: CLEAN WATER REVOLVING LOAN FUND
APRIL 17, 2009
$7,398,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	310,000	$	157,570	$	467,570
6/30/2015	$	320,000	$	149,695	$	469,695
6/30/2016	$	325,000	$	141,633	$	466,633
6/30/2017	$	335,000	$	133,383	$	468,383
6/30/2018	$	345,000	$	124,882	$	469,882
6/30/2019	$	355,000	$	116,133	$	471,133
6/30/2020	$	360,000	$	107,195	$	467,195
6/30/2021	$	370,000	$	98,070	$	468,070
6/30/2022	$	380,000	$	88,695	$	468,695
6/30/2023	$	390,000	$	79,070	$	469,070
6/30/2024	$	400,000	$	69,195	$	469,195
6/30/2025	$	410,000	$	59,070	$	469,070
6/30/2026	$	420,000	$	48,695	$	468,695
6/30/2027	$	430,000	$	38,070	$	468,070
6/30/2028	$	440,000	$	27,194	$	467,194
6/30/2029	$	455,000	$	16,008	$	471,008
6/30/2030	$	460,000	$	5,160	$	465,160
Totals	**$**	**6,505,000**	**$**	**1,459,718**	**$**	**7,964,718**

BA Debt #2: LIMITED TAX GO REFUNDING BOND, SERIES 2012B
SEPTEMBER 19, 2012
$1,525,000.00
Repayment Sources: Senior Housing Rental Payments

Fiscal Year Ending		Principal		Interest		Total
6/30/2014	$	225,000	$	20,481	$	245,481
6/30/2015	$	270,000	$	16,893	$	286,893
6/30/2016	$	255,000	$	13,085	$	268,085
6/30/2017	$	250,000	$	9,425	$	259,425
6/30/2018	$	265,000	$	5,692	$	270,692
6/30/2019	$	260,000	$	1,885	$	261,885
Totals	**$**	**1,525,000**	**$**	**67,461**	**$**	**1,592,461**

BA Debt #5: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
DRAIN BONDS SERIES 2010 (LTO) - FRASER'S SHARE
May 11, 2010
$16,965,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	1,113	$	1,001	$	2,114
6/30/2015	$	1,123	$	982	$	2,105
6/30/2016	$	1,144	$	959	$	2,103
6/30/2017	$	1,165	$	934	$	2,099
6/30/2018	$	1,197	$	905	$	2,102
6/30/2019	$	1,228	$	874	$	2,102
6/30/2020	$	1,260	$	840	$	2,100
6/30/2021	$	1,291	$	804	$	2,095
6/30/2022	$	1,333	$	764	$	2,097
6/30/2023	$	1,375	$	723	$	2,098
6/30/2024	$	1,417	$	681	$	2,098
6/30/2025	$	1,459	$	634	$	2,093
6/30/2026	$	1,512	$	587	$	2,099
6/30/2027	$	1,564	$	535	$	2,099
6/30/2028	$	1,617	$	482	$	2,099
6/30/2029	$	1,669	$	426	$	2,095
6/30/2030	$	1,722	$	369	$	2,091
6/30/2031	$	1,785	$	310	$	2,095
6/30/2032	$	1,848	$	246	$	2,094
6/30/2033	$	1,911	$	181	$	2,092
6/30/2034	$	1,974	$	113	$	2,087
6/30/2035	$	2,047	$	44	$	2,091
6/30/2036	$	-	$	(648)	$	(648)
Totals	**$**	**32,754**	**$**	**12,746**	**$**	**45,500**

BA Debt #6: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
DRAIN BONDS SERIES 2008 (LTO) - FRASER'S SHARE
June 1, 2008
$22,340,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	12,860	$	15,678	$	28,538
6/30/2015	$	12,860	$	15,164	$	28,024
6/30/2016	$	12,860	$	14,650	$	27,510
6/30/2017	$	12,860	$	14,008	$	26,868
6/30/2018	$	12,860	$	13,492	$	26,352
6/30/2019	$	17,147	$	12,978	$	30,125
6/30/2020	$	17,147	$	12,270	$	29,417
6/30/2021	$	17,147	$	11,542	$	28,689
6/30/2022	$	17,147	$	10,684	$	27,831
6/30/2023	$	17,147	$	9,828	$	26,975
6/30/2024	$	17,147	$	8,970	$	26,117
6/30/2025	$	17,147	$	8,112	$	25,259
6/30/2026	$	18,862	$	7,342	$	26,204
6/30/2027	$	18,862	$	6,492	$	25,354
6/30/2028	$	18,862	$	5,620	$	24,482
6/30/2029	$	18,862	$	4,724	$	23,586
6/30/2030	$	18,862	$	3,828	$	22,690
6/30/2031	$	20,577	$	2,932	$	23,509
6/30/2032	$	20,577	$	1,954	$	22,531
6/30/2033	$	20,577	$	978	$	21,555
Totals	**$**	**340,370**	**$**	**181,246**	**$**	**521,616**

BA Debt #7: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
CLINTONDALE PUMP STATION IMPROVEMENTS - FRASER'S SHARE
October 18, 2011
$30,800,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	38,356	$	24,770	$	63,126
6/30/2015	$	40,613	$	58,482	$	99,095
6/30/2016	$	45,125	$	56,858	$	101,983
6/30/2017	$	49,638	$	54,602	$	104,240
6/30/2018	$	54,150	$	52,120	$	106,270
6/30/2019	$	58,663	$	49,412	$	108,075
6/30/2020	$	63,175	$	46,478	$	109,653
6/30/2021	$	67,688	$	43,320	$	111,008
6/30/2022	$	72,200	$	39,936	$	112,136
6/30/2023	$	74,456	$	36,326	$	110,782
6/30/2024	$	78,969	$	32,602	$	111,571
6/30/2025	$	83,481	$	28,654	$	112,135
6/30/2026	$	87,994	$	24,480	$	112,474
6/30/2027	$	90,250	$	20,080	$	110,330
6/30/2028	$	97,019	$	16,696	$	113,715
6/30/2029	$	101,531	$	12,816	$	114,347
6/30/2030	$	106,044	$	8,754	$	114,798
6/30/2031	$	112,813	$	4,512	$	117,325
Totals	**$**	**1,322,165**	**$**	**610,898**	**$**	**1,933,063**

BA Debt #8: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
DRAIN BONDS SERIES 2010A (LTO) - FRASER'S SHARE
August 30, 2010
$95,620,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	120,139	$	106,110	$	226,249
6/30/2015	$	121,714	$	104,411	$	226,125
6/30/2016	$	123,684	$	102,583	$	226,267
6/30/2017	$	126,244	$	100,256	$	226,500
6/30/2018	$	129,001	$	97,570	$	226,571
6/30/2019	$	131,956	$	94,595	$	226,551
6/30/2020	$	135,304	$	91,292	$	226,596
6/30/2021	$	139,046	$	87,637	$	226,683
6/30/2022	$	142,985	$	83,720	$	226,705
6/30/2023	$	147,318	$	79,505	$	226,823
6/30/2024	$	151,848	$	75,028	$	226,876
6/30/2025	$	156,771	$	70,263	$	227,034
6/30/2026	$	161,892	$	65,123	$	227,015
6/30/2027	$	167,406	$	59,603	$	227,009
6/30/2028	$	173,315	$	53,949	$	227,264
6/30/2029	$	179,617	$	47,594	$	227,211
6/30/2030	$	186,314	$	41,111	$	227,425
6/30/2031	$	193,010	$	34,387	$	227,397
6/30/2032	$	199,706	$	27,621	$	227,327
6/30/2033	$	206,796	$	20,581	$	227,377
6/30/2034	$	214,280	$	13,289	$	227,569
6/30/2035	$	221,764	$	5,732	$	227,496
6/30/2036	$		$	(2,086)	$	(2,086)
Totals	**$**	**3,530,110**	**$**	**1,459,874**	**$**	**4,989,984**

BA Debt #9: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
DRAIN BONDS SERIES 2010A - FRASER'S SHARE
February 1, 2010
$26,076,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	24,285	$	13,952	$	38,237
6/30/2015	$	24,866	$	13,330	$	38,196
6/30/2016	$	25,447	$	12,694	$	38,141
6/30/2017	$	26,144	$	12,040	$	38,184
6/30/2018	$	26,841	$	11,370	$	38,211
6/30/2019	$	27,422	$	10,684	$	38,106
6/30/2020	$	28,120	$	9,982	$	38,102
6/30/2021	$	28,933	$	9,258	$	38,191
6/30/2022	$	29,630	$	8,518	$	38,148
6/30/2023	$	30,327	$	7,760	$	38,087
6/30/2024	$	31,141	$	6,980	$	38,121
6/30/2025	$	31,954	$	6,182	$	38,136
6/30/2026	$	32,768	$	5,362	$	38,130
6/30/2027	$	33,581	$	4,522	$	38,103
6/30/2028	$	34,394	$	3,664	$	38,058
6/30/2029	$	35,324	$	2,780	$	38,104
6/30/2030	$	36,137	$	1,876	$	38,013
6/30/2031	$	37,067	$	950	$	38,017
6/30/2032	$	37,996	$	-	$	37,996
Totals	**$**	**582,377**	**$**	**141,904**	**$**	**724,281**

BA Debt #10: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
DRAIN BONDS SERIES 2010B - FRASER'S SHARE
April 1, 2010
$155,704 (City of Fraser's Share)
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	5,577	$	2,393	$	7,970
6/30/2015	$	5,810	$	3,869	$	9,679
6/30/2016	$	6,042	$	3,745	$	9,787
6/30/2017	$	6,275	$	3,615	$	9,890
6/30/2018	$	6,507	$	3,477	$	9,984
6/30/2019	$	6,856	$	3,312	$	10,168
6/30/2020	$	7,204	$	3,126	$	10,330
6/30/2021	$	7,553	$	2,924	$	10,477
6/30/2022	$	7,901	$	2,707	$	10,608
6/30/2023	$	8,366	$	2,471	$	10,837
6/30/2024	$	8,831	$	2,210	$	11,041
6/30/2025	$	9,296	$	1,941	$	11,237
6/30/2026	$	9,761	$	1,639	$	11,400
6/30/2027	$	10,342	$	1,027	$	11,369
6/30/2028	$	10,806	$	679	$	11,485
6/30/2029	$	11,503	$	622	$	12,125
6/30/2030	$	12,084	$	239	$	12,323
6/30/2031	$	-	$	(160)	$	(160)
Totals	**$**	**140,714**	**$**	**39,836**	**$**	**180,550**

BA Debt #11: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
SRF 2011 - FRASER'S SHARE
January 1, 2012
$25,530,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	-	$	18,210	$	18,210
6/30/2015	$	28,532	$	17,854	$	46,386
6/30/2016	$	29,245	$	17,132	$	46,377
6/30/2017	$	29,959	$	16,392	$	46,351
6/30/2018	$	30,672	$	15,634	$	46,306
6/30/2019	$	31,528	$	14,856	$	46,384
6/30/2020	$	32,241	$	14,059	$	46,300
6/30/2021	$	33,097	$	13,242	$	46,339
6/30/2022	$	33,953	$	12,404	$	46,357
6/30/2023	$	34,666	$	11,547	$	46,213
6/30/2024	$	35,665	$	10,668	$	46,333
6/30/2025	$	36,521	$	9,765	$	46,286
6/30/2026	$	37,377	$	8,841	$	46,218
6/30/2027	$	38,375	$	7,894	$	46,269
6/30/2028	$	39,374	$	6,922	$	46,296
6/30/2029	$	40,230	$	5,927	$	46,157
6/30/2030	$	41,229	$	4,909	$	46,138
6/30/2031	$	42,370	$	3,864	$	46,234
6/30/2032	$	43,369	$	2,792	$	46,161
6/30/2033	$	44,510	$	1,694	$	46,204
6/30/2034	$	45,508	$	569	$	46,077
Totals	**$**	**728,421**	**$**	**215,175**	**$**	**943,596**

BA Debt #12: OAKLAND-MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT
DRAIN BONDS SERIES 2013A - FRASER'S SHARE
July 1, 2013
$65,140,000.00
Repayment Sources: Ready to Serve Fee

Years Ending		Principal		Interest		Total
6/30/2014	$	-	$	23,843	$	23,843
6/30/2015	$	-	$	31,790	$	31,790
6/30/2016	$	65,396	$	31,136	$	96,532
6/30/2017	$	66,738	$	29,815	$	96,553
6/30/2018	$	68,080	$	28,467	$	96,547
6/30/2019	$	69,422	$	27,092	$	96,514
6/30/2020	$	70,764	$	25,690	$	96,454
6/30/2021	$	72,228	$	24,260	$	96,488
6/30/2022	$	73,693	$	22,801	$	96,494
6/30/2023	$	75,157	$	21,312	$	96,469
6/30/2024	$	76,621	$	19,795	$	96,416
6/30/2025	$	78,207	$	18,246	$	96,453
6/30/2026	$	79,671	$	16,667	$	96,338
6/30/2027	$	81,379	$	15,057	$	96,436
6/30/2028	$	82,965	$	13,414	$	96,379
6/30/2029	$	84,373	$	11,737	$	96,110
6/30/2030	$	86,259	$	10,028	$	96,287
6/30/2031	$	88,089	$	8,284	$	96,373
6/30/2032	$	89,798	$	6,505	$	96,303
6/30/2033	$	91,628	$	4,691	$	96,319
6/30/2034	$	93,458	$	2,840	$	96,298
6/30/2035	$	95,288		954		96,242
Totals	**$**	**1,589,214**	**$**	**394,424**	**$**	**1,983,638**

TABLE 4 CITY OF FRASER ADJUSTED WATER / SEWER METERS				Annual Billing	Annual Revenue	Monthly Billing
Meter Size (Inch)	*Number of Water Meters*	*City of GPW Ratio (Meters)*	*No. of Equivalent Water Meters (EM)*			
5/8	3,598	1.0	3,598.0	-$424.5	-$1,527,362.10	-$35.38
1	1,405	2.5	3,512.5	-$1,061.3	-$1,491,067.08	-$88.44
1.5	202	5.0	1,010.0	-$2,122.52	-$428,748.12	-$176.88
2	151	8.0	1,208.0	-$3,396.02	-$512,799.73	-$283.00
3	22	16.0	352.0	-$6,792.05	-$149,425.09	-$566.00
4	17	25.0	425.0	-$10,612.6	-$180,413.81	-$884.38
6	7	50.0	350.0	-$21,225.15	-$148,576.08	-$1,768.76
8	0	80.0	0.0			
10	0	115.0	0.0	**-$45,634.1**	**-$4,438,392.00**	
TOTAL	***5,402***	**-----**	***10,455.5***			

Total Fixed Cost $4,438,392
Cost per Meter -$424.5 CONTROL NUMBER FOR ALL CALCULATIONS OF BILING AND REVENUE

In order to utilize a subsidized rate, such as a minimum charge for users under a certain amount, simply multiply $20*12*the number of affected customers and deduct it from the total fixed cost in cell b18. that will resent the control number in b19 setting forward the calculation section resulting in the new effective rate for all other