

# COST OF SERVICES STUDY UPDATE

January 24, 2011

# PREVIOUS BOARD ACTION

- February 4, 2010 – The Board adopted Resolution 2010-003, to approve increases to water, wastewater, and recycled water service charges; authorize implementation of increases only in 2010, 2011, and 2012 only; make findings; and direct the General Manager regarding additional District cost-cutting, a cost of services study, reconciliation of capital expenditures and funding sources, and other matters.

# PREVIOUS BOARD ACTION

- September 1, 2010 – The Board adopted policies to guide rate-setting, as recommended by the 2010 Cost of Services Study Advisory panel.
- October 12, 2010 – The Board was provided with an update on the progress of the Cost of Services Study.
- November 8, 2010 – The Board was provided with an update on the progress of the Cost of Services Study.

# PREVIOUS BOARD ACTION

- December 13, 2010 – The Board was provided with an update on the progress of the Cost of Services Study.

# JANUARY 14, 2011 AGENDA

- Overhead allocation reconsideration
- Canadian method
- Revenue requirements draft model review
- Debt service coverage goals
- Recycled water
- Next steps

# OVERHEAD ALLOCATION

- Committee member's email was not discussed
- New request by committee member to reconsider overhead and debt service allocations
- Committee agreed to a final review on February 11

# CANADIAN METHOD

- Committee reviewed analysis by HDR
  - Current is 70% variable – 30% fixed
  - Proposed is 50% variable – 50% fixed
  - Committee unanimously agreed to change the method at the next rate adjustment period

# REVENUE REQUIREMENTS DRAFT MODEL

- COS Panel reviewed the following draft information
  - Sewer revenue requirements and cost allocations
  - Water revenue requirements and cost allocations

# DRAFT SEWER MODEL

## SEWER SYSTEM

### EXHIBIT 2

#### Development of Revenue Requirements

	2011	2012	Projected 2013	2014	2015
<b><i>SOURCES OF FUNDS</i></b>					
Operating Revenues					
Wastewater service charges	\$ -	\$ -	\$ -	\$ -	\$ -
Wastewater service	\$ 19,661,456	\$ 20,362,453	\$ 21,380,576	\$ 22,449,604	\$ 23,572,085
Recycled water sales	\$ 754,398	\$ 781,295	\$ 820,360	\$ 861,378	\$ 904,447
<i>Total Revenue at Present Rates</i>	\$ 20,415,854	\$ 21,143,748	\$ 22,200,935	\$ 23,310,982	\$ 24,476,531
Miscellaneous Revenues					
Investment income	\$ 360,880	\$ 350,000	\$ 360,880	\$ 350,000	\$ 360,880
Surcharges	\$ 884,949	\$ 884,949	\$ 884,949	\$ 884,949	\$ 884,949
IPP and cross connection program fees	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000	\$ 425,000
Property Taxes	\$ 4,160,000	\$ 4,180,800	\$ 4,201,704	\$ 4,222,713	\$ 4,243,826
Other income	\$ 816,000	\$ 816,000	\$ 816,000	\$ 816,000	\$ 816,000
<i>Total Miscellaneous Revenues</i>	\$ 6,646,829	\$ 6,656,749	\$ 6,688,533	\$ 6,698,661	\$ 6,730,655
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$ 27,062,683</b>	<b>\$ 27,800,497</b>	<b>\$ 28,889,468</b>	<b>\$ 30,009,644</b>	<b>\$ 31,207,186</b>

# DRAFT SEWER MODEL

	2011	2012	Projected 2013	2014	2015
<b>APPLICATIONS OF FUNDS</b>					
Operation and Maintenance Expense					
<i>Direct Expenses (Operations)</i>					
Administration	\$ 139,459	\$ 143,643	\$ 146,516	\$ 149,446	\$ 152,435
Wastewater Operations	\$ 8,893,052	\$ 9,159,844	\$ 9,343,040	\$ 9,529,901	\$ 9,720,499
Recycled Water Operations	\$ 448,697	\$ 462,158	\$ 471,401	\$ 480,829	\$ 490,446
Anticipated New Staff (Salary and Benefit)	\$ -	\$ -	\$ 80,000	\$ 81,600	\$ 83,232
<b>Total Direct Expenses</b>	<b>\$ 9,481,208</b>	<b>\$ 9,765,644</b>	<b>\$ 10,040,957</b>	<b>\$ 10,241,776</b>	<b>\$ 10,446,612</b>
<i>Indirect Expenses</i>					
Natural Resources: Environmental Engineering	\$ -	\$ -	\$ -	\$ -	\$ -
Management	\$ 91,293	\$ 94,032	\$ 95,912	\$ 97,830	\$ 99,787
Wastewater Development	\$ 232,423	\$ 239,396	\$ 244,184	\$ 249,067	\$ 254,049
Recycled water	\$ -	\$ -	\$ -	\$ -	\$ -
GIS	\$ 7,100	\$ 7,313	\$ 7,459	\$ 7,608	\$ 7,761
Inspection	\$ 117,806	\$ 121,340	\$ 123,767	\$ 126,242	\$ 128,767
Records	\$ 12,080	\$ 12,442	\$ 12,691	\$ 12,945	\$ 13,204
Facilities Management	\$ 191,541	\$ 197,287	\$ 201,233	\$ 205,258	\$ 209,363
Environmental Review	\$ 252,986	\$ 260,575	\$ 265,787	\$ 271,102	\$ 276,524
Environmental Compliance	\$ 155,632	\$ 160,301	\$ 163,507	\$ 166,778	\$ 170,113
Communications	\$ 214,566	\$ 221,003	\$ 225,423	\$ 229,932	\$ 234,530
Office of the General Manager	\$ 1,206,737	\$ 1,242,939	\$ 1,267,798	\$ 1,293,154	\$ 1,319,017
Finance	\$ 2,130,603	\$ 2,194,522	\$ 2,238,412	\$ 2,283,180	\$ 2,328,844
Human Resources	\$ 856,964	\$ 882,673	\$ 900,327	\$ 918,333	\$ 936,700
Information Technology	\$ 870,329	\$ 896,439	\$ 914,368	\$ 932,655	\$ 951,308
Letter of Credit fee-Dexia Bank	\$ 529,498	\$ 529,498	\$ 529,498	\$ 529,498	\$ 529,498
<b>Total Indirect Expenses</b>	<b>\$ 6,869,558</b>	<b>\$ 7,059,760</b>	<b>\$ 7,190,365</b>	<b>\$ 7,323,582</b>	<b>\$ 7,459,464</b>
<b>Total Operating and Maintenance Expenses</b>	<b>\$ 16,350,766</b>	<b>\$ 16,825,404</b>	<b>\$ 17,231,322</b>	<b>\$ 17,565,359</b>	<b>\$ 17,906,076</b>
Debt Service Installments					
<b>Total Wastewater Debt Service</b>	<b>\$ 8,722,675</b>	<b>\$ 9,136,085</b>	<b>\$ 10,079,269</b>	<b>\$ 9,649,942</b>	<b>\$ 10,327,991</b>
Capital Projects					
Rate-Funded CIP	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Revenue Requirements</b>	<b>\$ 25,073,441</b>	<b>\$ 25,961,489</b>	<b>\$ 27,310,591</b>	<b>\$ 27,215,301</b>	<b>\$ 28,234,067</b>

# DRAFT SEWER MODEL

## SEWER SYSTEM

### EXHIBIT 2

#### Development of Revenue Requirements

	2011		2012		Projected		2014		2015	
<b>Total Revenue Requirements</b>	\$	<b>25,073,441</b>	\$	<b>25,961,489</b>	\$	<b>27,310,591</b>	\$	<b>27,215,301</b>	\$	<b>28,234,067</b>
Less: Non-Rate Revenue	\$	6,646,829	\$	6,656,749	\$	6,688,533	\$	6,698,661	\$	6,730,655
<b>NET REVENUE REQUIREMENTS FRC</b>	<b>\$</b>	<b>18,426,613</b>	<b>\$</b>	<b>19,304,740</b>	<b>\$</b>	<b>20,622,059</b>	<b>\$</b>	<b>20,516,639</b>	<b>\$</b>	<b>21,503,412</b>
Less: Revenues at Present Rates	\$	20,415,854	\$	21,143,748	\$	22,200,935	\$	23,310,982	\$	24,476,531
Balance/(Deficiency) of Funds	\$	1,989,241	\$	1,839,008	\$	1,578,877	\$	2,794,343	\$	2,973,119
<b>Balance/(Deficiency) as a % of Rates</b>		<b>9.7%</b>		<b>8.7%</b>		<b>7.1%</b>		<b>12.0%</b>		<b>12.1%</b>
<b>Proposed Rate Adjustment</b>		<b>0%</b>		<b>0%</b>		<b>0%</b>		<b>0%</b>		<b>0%</b>
Additional Rate Revenue From Increase	\$	-	\$	-	\$	-	\$	-	\$	-
<b>Balance/(Deficiency) of Funds, Adjusted</b>	<b>\$</b>	<b>1,989,241</b>	<b>\$</b>	<b>1,839,008</b>	<b>\$</b>	<b>1,578,877</b>	<b>\$</b>	<b>2,794,343</b>	<b>\$</b>	<b>2,973,119</b>
<b>Debt Service Coverage Ratio</b>										
After Rate Adjustment, 1.25 Required		1.35		1.37		1.52		1.67		1.79
After Adjustment, w/o FCCs, 1.0 preferred		1.23		1.20		1.16		1.29		1.29

# DRAFT SEWER MODEL

## SEWER SYSTEM

### EXHIBIT 6

#### Functionalization and Classification of Expenses

Account Type	Total Revenue Requirements 2011	Flow (VOL)	Strength		Customer Actual (CA)	Direct Assignment (DA)	Basis of Classification				
			(BOD)	(TSS)			(VOL)	(BOD)	(TSS)	(CA)	(DA)
<i>Operation and Maintenance Expense</i>											
<i>Direct Expenses (Operations)</i>											
Administration	\$ 139,459	\$ 48,811	\$ 20,919	\$ 20,919	\$ 41,838	\$ 6,973	35%	15%	15%	30%	5%
Wastewater Operations	\$ 8,893,052	\$ 4,446,526	\$ 2,223,263	\$ 2,223,263	\$ -	\$ -	50%	25%	25%	0%	0%
Recycled Water Operations	\$ 448,697	\$ -	\$ -	\$ -	\$ -	\$ 448,697	0%	0%	0%	0%	100%
Anticipated New Staff (Salary and Benefits)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	40%	10%	10%	10%	30%
<b>Total Direct Expenses</b>	<b>\$ 9,481,208</b>	<b>\$ 4,495,337</b>	<b>\$ 2,244,182</b>	<b>\$ 2,244,182</b>	<b>\$ 41,838</b>	<b>\$ 455,670</b>					
<i>Indirect Expenses</i>											
Natural Resources: Environmental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	25%	25%	0%	50%
<i>Engineering</i>											
Management	\$ 91,293	\$ 36,517	\$ 18,259	\$ 18,259	\$ 9,129	\$ 9,129	40%	20%	20%	10%	10%
Wastewater	\$ 232,423	\$ 92,969	\$ 46,485	\$ 46,485	\$ 23,242	\$ 23,242	40%	20%	20%	10%	10%
Development	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	70%	0%	0%	20%	10%
Recycled water	\$ 7,100	\$ -	\$ -	\$ -	\$ -	\$ 7,100	0%	0%	0%	0%	100%
GIS	\$ 117,806	\$ 76,574	\$ -	\$ -	\$ 29,452	\$ 11,781	65%	0%	0%	25%	10%
Inspection	\$ 12,080	\$ 5,436	\$ -	\$ -	\$ 6,040	\$ 604	45%	0%	0%	50%	5%
Records	\$ 191,541	\$ 86,193	\$ -	\$ -	\$ 95,770	\$ 9,577	45%	0%	0%	50%	5%
<i>Facilities Management</i>											
Environmental Review	\$ 252,986	\$ -	\$ 25,299	\$ 25,299	\$ 50,597	\$ 151,791	0%	10%	10%	20%	60%
Environmental Compliance	\$ 155,632	\$ -	\$ 15,563	\$ 15,563	\$ 31,126	\$ 93,379	0%	10%	10%	20%	60%
Communications	\$ 214,566	\$ -	\$ -	\$ -	\$ 203,838	\$ 10,728	0%	0%	0%	95%	5%
Office of the General Manager	\$ 1,206,737	\$ 120,674	\$ 60,337	\$ 60,337	\$ 844,716	\$ 120,674	10%	5%	5%	70%	10%
Finance	\$ 2,130,603	\$ -	\$ -	\$ -	\$ 2,130,603	\$ -	0%	0%	0%	100%	0%
Human Resources	\$ 856,964	\$ 342,786	\$ 128,545	\$ 128,545	\$ 214,241	\$ 42,848	40%	15%	15%	25%	5%
Information Technology	\$ 870,329	\$ 217,582	\$ 174,066	\$ 174,066	\$ 217,582	\$ 87,033	25%	20%	20%	25%	10%
Letter of Credit fee-Dexia Bank	\$ 529,498	\$ 238,274	\$ 132,374	\$ 132,374	\$ -	\$ 26,475	45%	25%	25%	0%	5%
<b>Total Indirect Expenses</b>	<b>\$ 6,869,558</b>	<b>\$ 1,217,005</b>	<b>\$ 600,927</b>	<b>\$ 600,927</b>	<b>\$ 3,856,338</b>	<b>\$ 594,362</b>					
<b>Total Operating and Maintenance Expenses</b>	<b>\$ 16,350,766</b>	<b>\$ 5,712,342</b>	<b>\$ 2,845,108</b>	<b>\$ 2,845,108</b>	<b>\$ 3,898,175</b>	<b>\$ 1,050,032</b>					
<i>Debt Service Installments</i>											
<b>Total Wastewater Debt Service</b>	<b>\$ 8,722,675</b>	<b>\$ 4,361,338</b>	<b>\$ 2,180,669</b>	<b>\$ 2,180,669</b>	<b>\$ -</b>	<b>\$ -</b>	50%	25%	25%	0%	0%
<i>Capital Projects</i>											
<i>Rate-Funded CIP</i>											
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	50%	25%	25%	0%	0%
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 25,073,441</b>	<b>\$ 10,073,680</b>	<b>\$ 5,025,777</b>	<b>\$ 5,025,777</b>	<b>\$ 3,898,175</b>	<b>\$ 1,050,032</b>	<b>40%</b>	<b>20%</b>	<b>20%</b>	<b>16%</b>	<b>4%</b>

# DRAFT SEWER MODEL

## Functionalization and Classification of Expenses

	Total Revenue Requirements 2011	Flow (VOL)	Strength		Customer Actual (CA)	Direct Assignment (DA)
			(BOD)	(TSS)		
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 25,073,441</b>	<b>\$ 10,073,680</b>	<b>\$ 5,025,777</b>	<b>\$ 5,025,777</b>	<b>\$ 3,898,175</b>	<b>\$ 1,050,032</b>
<i>Less: Non-Rate Revenue</i>	\$ 6,646,829	\$ 2,670,476	\$ 1,332,305	\$ 1,332,305	\$ 1,033,384	\$ 278,358
<b>NET REVENUE REQUIREMENTS</b>	<b>\$ 18,426,613</b>	<b>\$ 7,403,204</b>	<b>\$ 3,693,472</b>	<b>\$ 3,693,472</b>	<b>\$ 2,864,791</b>	<b>\$ 771,674</b>
	<i>check</i>					

## EXHIBIT 6b

### Adjustments to Functionalization and Classification of Expenses

#### Revenue to be Collected through fixed and variable charges

Fixed (customer, flow)	\$ 3,685,323	\$ -	\$ -	\$ -	\$ 3,530,988	\$ 154,335
Variable (treatment, flow)	\$ 14,741,290	\$ 7,061,975	\$ 3,530,988	\$ 3,530,988	\$ -	\$ 617,339
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<b>Total</b>	<b>\$ 18,426,613</b>	<b>\$ 7,061,975</b>	<b>\$ 3,530,988</b>	<b>\$ 3,530,988</b>	<b>\$ 3,530,988</b>	<b>\$ 771,674</b>

*check*

#### Adjustment for Current Rate Level:

2011 COS Net Rev. Req't.	\$18,426,613					
2011 Current Rate Revenue	\$20,415,854					<i>DA - Recycled</i>
Adjustment Factor	1.1080					
<b>Adjusted Net Revenue Req'ts</b>	<b>\$ 20,415,854</b>	<b>\$ 7,824,349</b>	<b>\$ 3,912,175</b>	<b>\$ 3,912,175</b>	<b>\$ 3,912,175</b>	<b>\$ 854,980</b>
<i>Sewer Customers</i>	\$ 19,560,874					
<i>Recycled (DA)</i>	\$ 854,980					
	\$ 20,415,854					

# DRAFT SEWER MODEL

## EXHIBIT 7

### Allocation of Revenue Requirements

Customer Class	Cost of Service Allocated Costs - 2011					Total Revenue		
	(CA)	(VOL)	(BOD)	(TSS)	(DA)	COS Req't	at Present Rates	Percent Difference
Single Family Residential	\$ 3,701,947	\$ 5,936,815	\$ 2,593,885	\$ 2,698,967	\$ -	\$ 14,931,613	\$ 15,094,406	-1%
Multi Family Residential	\$ 63,489	\$ 885,962	\$ 387,090	\$ 402,772	\$ -	\$ 1,739,312	\$ 1,773,810	-2%
Commercial - Laundromat	\$ 747	\$ 6,624	\$ 2,894	\$ 3,222	\$ -	\$ 13,488	\$ 10,187	32%
Commercial - Repair Shops/Service	\$ 11,951	\$ 46,499	\$ 20,316	\$ 25,847	\$ -	\$ 104,613	\$ 153,005	-32%
Commercial - Light Industrial	\$ 10,457	\$ 43,920	\$ 56,143	\$ 59,289	\$ -	\$ 169,809	\$ 204,961	-17%
Commercial - Market	\$ 2,988	\$ 93,080	\$ 106,554	\$ 110,870	\$ -	\$ 313,492	\$ 248,208	26%
Commercial - Restaurant	\$ 17,926	\$ 168,271	\$ 288,943	\$ 200,432	\$ -	\$ 675,573	\$ 764,235	-12%
Commercial - Other	\$ 101,955	\$ 518,941	\$ 420,793	\$ 381,178	\$ -	\$ 1,422,868	\$ 1,280,041	11%
Schools2	\$ 716	\$ 124,238	\$ 35,556	\$ 29,597	\$ -	\$ 190,107	\$ 132,603	43%
<b>Total</b>	<b>\$ 3,912,175</b>	<b>\$ 7,824,349</b>	<b>\$ 3,912,175</b>	<b>\$ 3,912,175</b>	<b>\$ -</b>	<b>\$ 19,560,874</b>	<b>\$ 19,661,456</b>	<b>-1%</b>

# DRAFT WATER MODEL

<i>WATER SYSTEM</i>					
<b>EXHIBIT 2</b>					
Development of Revenue Requirements					
	Projected				
	2011	2012	2013	2014	2015
<i>SOURCES OF FUNDS</i>					
Revenue at Present Rates					
Water sales	21,800,108	22,577,355	\$ 23,706,223	\$ 24,891,534	\$ 26,136,111
Water service	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Total Revenue at Present Rates</i>	\$ 21,800,108	\$ 22,577,355	\$ 23,706,223	\$ 24,891,534	\$ 26,136,111
Miscellaneous Revenues					
Hydroelectric revenues	8,000,000	8,000,000	\$ 8,000,000	\$ 8,000,000	\$ 8,000,000
Timber sales	\$ -	\$ -	\$ -	\$ -	\$ -
Investment Income	541,319	500,000	\$ 541,319	\$ 500,000	\$ 541,319
Surcharges	1,094,099	1,094,099	\$ 1,115,981	\$ 1,138,301	\$ 1,161,067
1% property tax revenues	6,240,000	6,271,200	\$ 6,302,556	\$ 6,334,069	\$ 6,365,739
Flood damage reimbursement	170,000	250,000	\$ 250,000	\$ 250,000	\$ 255,000
IPP cross connection fee	\$ -	\$ -	\$ 165,000	\$ 165,000	\$ 165,000
Other income	765,000	765,000	\$ 765,000	\$ 765,000	\$ 765,000
Recreation fees	1,050,000	1,038,735	\$ 1,059,510	\$ 1,080,700	\$ 1,102,314
Wholesale Contract with City of Placerville	423,183	431,647	\$ 440,280	\$ 449,085	\$ 458,067
<i>Total Miscellaneous Revenues</i>	\$ 18,283,602	\$ 18,350,681	\$ 18,639,646	\$ 18,682,155	\$ 18,813,507
<b>TOTAL SOURCES OF FUNDS</b>	<b>\$ 40,083,710</b>	<b>\$ 40,928,036</b>	<b>\$ 42,345,869</b>	<b>\$ 43,573,689</b>	<b>\$ 44,949,617</b>

# DRAFT WATER MODEL

EXHIBIT 2					
Development of Revenue Requirements					
	Projected				
	2011	2012	2013	2014	2015
<b>APPLICATIONS OF FUNDS</b>					
Operation and Maintenance Expense					
<i>Direct Expenses</i>					
Operations:					
Administration	\$ 230,222	\$ 237,129	\$ 241,871	\$ 246,709	\$ 251,643
Water operations	9,927,187	10,225,003	10,429,503	10,638,093	10,850,855
Hydro operations	3,235,452	3,332,516	3,399,166	3,467,149	3,536,492
Environmental (Compliance)	54,682	56,322	57,449	58,598	59,769
Recreation (Previously Natural Resou	1,073,122	1,105,316	1,127,422	1,149,970	1,172,970
Anticipated New Staff (Salary and Be	0	0	0	0	80,000
Total Direct Expenses	\$ 14,520,665	\$ 14,956,285	\$ 15,255,410	\$ 15,560,519	\$ 15,951,729
<i>Indirect Expenses</i>					
Engineering					
Management	\$ 150,708	\$ 155,229	\$ 158,334	\$ 161,501	\$ 164,731
Water	(60,304)	(62,113)	(63,355)	(64,622)	(65,915)
Environmental Review	718,927	740,495	755,305	770,411	785,819
Development Services	0	0	0	0	0
Hydro	146,048	150,429	153,438	156,507	159,637
GIS	194,477	200,311	204,317	208,404	212,572
Inspection	19,942	20,540	20,951	21,370	21,797
Records	316,200	325,686	332,200	338,844	345,621
Communications	354,211	364,837	372,134	379,577	387,168
Office of the General Manager	1,992,108	2,051,872	2,092,909	2,134,767	2,177,463
Finance	4,426,141	4,558,925	4,650,103	4,743,105	4,837,967
Human Resources	1,414,696	1,457,137	1,486,279	1,516,005	1,546,325
Information Technology	1,436,759	1,479,862	1,509,459	1,539,648	1,570,441
Letter of Credit fee-Dexia Bank	798,962	798,962	798,962	798,962	798,962
Total Indirect Expenses	\$ 11,908,875	\$ 12,242,173	\$ 12,471,037	\$ 12,704,478	\$ 12,942,589
<b>Total Operating and Maintenance Expense</b>	<b>\$ 26,429,540</b>	<b>\$ 27,198,457</b>	<b>\$ 27,726,447</b>	<b>\$ 28,264,997</b>	<b>\$ 28,894,318</b>
Debt Service					
<b>Total Water Debt Service</b>	<b>\$ 12,661,647</b>	<b>\$ 13,330,363</b>	<b>\$ 16,993,393</b>	<b>\$ 18,269,870</b>	<b>\$ 19,218,140</b>
Capital Projects					
Capital Funded Through Rates	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 39,091,187</b>	<b>\$ 40,528,820</b>	<b>\$ 44,719,840</b>	<b>\$ 46,534,867</b>	<b>\$ 48,112,457</b>

# DRAFT WATER MODEL

<b>WATER SYSTEM</b>					
<b>EXHIBIT 2</b>					
<b>Development of Revenue Requirements</b>					
	<b>Projected</b>				
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 39,091,187</b>	<b>\$ 40,528,820</b>	<b>\$ 44,719,840</b>	<b>\$ 46,534,867</b>	<b>\$ 48,112,457</b>
Less: Non-Rate Revenue	\$ 18,283,602	\$ 18,350,681	\$ 18,639,646	\$ 18,682,155	\$ 18,813,507
<b>NET REV. REQTS. FROM RATES</b>	<b>\$ 20,807,585</b>	<b>\$ 22,178,139</b>	<b>\$ 26,080,194</b>	<b>\$ 27,852,712</b>	<b>\$ 29,298,950</b>
Less: Forecasted Revenues at Present R	\$ 21,800,108	\$ 22,577,355	\$ 23,706,223	\$ 24,891,534	\$ 26,136,111
Balance/(Deficiency) of Funds	\$ 992,523	\$ 399,216	\$ (2,373,971)	\$ (2,961,178)	\$ (3,162,840)
<b>Balance/(Deficiency) as a % of Rates</b>	<b>4.6%</b>	<b>1.8%</b>	<b>-10.0%</b>	<b>-11.9%</b>	<b>-12.1%</b>
<i>Adopted Rate Increases</i>	<i>15%</i>	<i>5%</i>	<i>5%</i>	<i>5%</i>	
<b>Additional Rate Adjustments*</b>	<b>0%</b>	<b>6%</b>	<b>6%</b>	<b>6%</b>	<b>6%</b>
Additional Rate Revenue From Increase	\$ -	\$ 1,354,641	\$ 2,930,089	\$ 4,754,681	\$ 6,860,127
<b>Balance/(Deficiency) of Funds, Adjuste</b>	<b>\$ 992,523</b>	<b>\$ 1,753,857</b>	<b>\$ 556,118</b>	<b>\$ 1,793,503</b>	<b>\$ 3,697,287</b>
<i>* Additional to adopted 2012 - 2014 increases.</i>					
After Rate Adjustment, 1.25 Required	1.17	1.26	1.25	1.30	1.47
After Adjustment, w/o FCCs, 1.0 preferred	1.09	1.14	1.03	1.10	1.20

# DRAFT WATER MODEL

## WATER SYSTEM

### EXHIBIT 7

#### Functionalization and Classification of 2011 Expenses

Account Type	Total 2011 Revenue Reqts.	Commodity (COM)	Capacity (CAP)	Customer (CA)	Fire Protection (FP)	Direct Assignment (DA)	Basis of Classification				
							(COM)	(CAP)	(CA)	(FP)	(DA)
<i>Operation and Maintenance Expense</i>											
<i>Direct Expenses</i>											
<i>Operations:</i>											
Administration	\$ 230,222	\$ -	\$ 204,667	\$ 11,511	\$ -	\$ 14,044	0.0%	88.9%	5.0%	0.0%	6.1%
Water operations	\$ 9,927,187	\$ 2,978,156	\$ 5,052,938	\$ 496,359	\$ 794,175	\$ 605,558	30.0%	50.9%	5.0%	8.0%	6.1%
Hydro operations	\$ 3,235,452	\$ -	\$ 3,038,089	\$ -	\$ -	\$ 197,363	0.0%	93.9%	0.0%	0.0%	6.1%
Environmental (Compliance)	\$ 54,682	\$ -	\$ 5,468	\$ 32,809	\$ 16,404	\$ -	0.0%	10.0%	60.0%	30.0%	0.0%
Recreation (Previously Natural I	\$ 1,073,122	\$ -	\$ 536,561	\$ 536,561	\$ -	\$ -	0.0%	50.0%	50.0%	0.0%	0.0%
Anticipated New Staff (Salary a	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	30.0%	50.0%	5.0%	15.0%	0.0%
<b>Total Direct Expenses</b>	<b>\$ 14,520,665</b>	<b>\$ 2,978,156</b>	<b>\$ 8,837,724</b>	<b>\$ 1,077,240</b>	<b>\$ 810,579</b>	<b>\$ 816,965</b>					
<i>Indirect Expenses</i>											
<i>Engineering</i>											
Management	\$ 150,708	\$ 22,606	\$ 75,354	\$ 22,606	\$ 20,948	\$ 9,193	15.0%	50.0%	15.0%	13.9%	6.1%
Water	\$ (60,304)	\$ (9,046)	\$ (30,152)	\$ (9,046)	\$ (8,382)	\$ (3,679)	15.0%	50.0%	15.0%	13.9%	6.1%
Environmental Review	\$ 718,927	\$ -	\$ 718,927	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%	0.0%	0.0%
Development Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	15.0%	50.0%	15.0%	20.0%	0.0%
Hydro	\$ 146,048	\$ -	\$ 146,048	\$ -	\$ -	\$ -	0.0%	100.0%	0.0%	0.0%	0.0%
GIS	\$ 194,477	\$ 48,619	\$ 48,619	\$ 48,619	\$ 48,619	\$ -	25.0%	25.0%	25.0%	25.0%	0.0%
Inspection	\$ 19,942	\$ -	\$ 9,971	\$ 4,985	\$ 4,985	\$ -	0.0%	50.0%	25.0%	25.0%	0.0%
Records	\$ 316,200	\$ -	\$ 94,860	\$ 158,100	\$ 43,952	\$ 19,288	0.0%	30.0%	50.0%	13.9%	6.1%
Communications	\$ 354,211	\$ -	\$ -	\$ 332,604	\$ -	\$ 21,607	0.0%	0.0%	93.9%	0.0%	6.1%
Office of the General Manager	\$ 1,992,108	\$ 199,211	\$ 199,211	\$ 1,394,476	\$ 77,692	\$ 121,519	10.0%	10.0%	70.0%	3.9%	6.1%
Finance	\$ 4,426,141	\$ -	\$ -	\$ 4,156,146	\$ -	\$ 269,995	0.0%	0.0%	93.9%	0.0%	6.1%
Human Resources	\$ 1,414,696	\$ 353,674	\$ 353,674	\$ 353,674	\$ 267,378	\$ 86,296	25.0%	25.0%	25.0%	18.9%	6.1%
Information Technology	\$ 1,436,759	\$ 359,190	\$ 359,190	\$ 359,190	\$ 271,547	\$ 87,642	25.0%	25.0%	25.0%	18.9%	6.1%
Letter of Credit fee-Dexia Bank	\$ 798,962	\$ 350,744	\$ 399,481	\$ -	\$ -	\$ 48,737	43.9%	50.0%	0.0%	0.0%	6.1%
<b>Total Indirect Expenses</b>	<b>\$ 11,908,875</b>	<b>\$ 1,324,999</b>	<b>\$ 2,375,183</b>	<b>\$ 6,821,355</b>	<b>\$ 726,740</b>	<b>\$ 660,598</b>					
<b>Total Operating and Maintenance Ex</b>	<b>\$ 26,429,540</b>	<b>\$ 4,303,155</b>	<b>\$ 11,212,908</b>	<b>\$ 7,898,595</b>	<b>\$ 1,537,319</b>	<b>\$ 1,477,563</b>					
<i>Debt Service</i>											
<b>Total Water Debt Service</b>	<b>\$ 12,661,647</b>	<b>\$ 5,944,643</b>	<b>\$ 5,944,643</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 772,360</b>	<b>47.0%</b>	<b>47.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>6.1%</b>
<i>Capital Projects</i>											
<b>Capital Funded Through Rates</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>47.0%</b>	<b>47.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>6.1%</b>
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 39,091,187</b>	<b>\$ 10,247,798</b>	<b>\$ 17,157,551</b>	<b>\$ 7,898,595</b>	<b>\$ 1,537,319</b>	<b>\$ 2,249,923</b>	<b>26.2%</b>	<b>43.9%</b>	<b>20.2%</b>	<b>3.9%</b>	<b>5.8%</b>

# DRAFT WATER MODEL

<i>WATER SYSTEM</i>						
<b>EXHIBIT 7</b>						
Functionalization and Classification of 2011 Expenses						
	Total 2011 Revenue Reqts.	Commodity (COM)	Capacity (CAP)	Customer (CA)	Fire Protection (FP)	Direct Assignment (DA)
<b>NET REVENUE REQUIREMENTS</b>	<b>\$ 20,807,585</b>	<b>\$ 5,454,732</b>	<b>\$ 9,132,677</b>	<b>\$ 4,204,290</b>	<b>\$ 818,289</b>	<b>\$ 1,197,597</b>
	<i>check</i>					
<b>EXHIBIT 7b</b>						
Adjustments to Functionalization and Classification of 2011 Expenses						
Adjustments:						
Fire Protection Allocated to Domestic Irrigation					\$ (27,073)	\$ 27,073
<b>Adjusted Net Revenue Req'ts</b>	<b>\$ 19,582,916</b>	<b>\$ 5,454,732</b>	<b>\$ 9,132,677</b>	<b>\$ 4,204,290</b>	<b>\$ 791,217</b>	<b>\$ 1,224,669</b>
Adjustment for Current Rate Level:						
2011 COS Net Rev. Req't.	\$20,807,585					
2011 Current Rate Revenue	\$21,800,108					
Adjustment Factor	1.0477				\$ (28,364)	\$ 28,364
<b>Adjusted Net Revenue Req'ts</b>	<b>\$ 20,517,022</b>	<b>\$ 5,714,923</b>	<b>\$ 9,568,307</b>	<b>\$ 4,404,835</b>	<b>\$ 828,958</b>	<b>\$ 1,283,086</b>
<b>Canadian Method Adjustment (50/50 Split):</b>						
Rate Revenue (\$)	<b>\$ 20,517,022</b>	<b>\$ 10,258,511</b>	<b>\$ 6,631,261</b>	<b>\$ 3,052,746</b>	<b>\$ 574,505</b>	<b>NA</b>
Rate Revenue (%)		50%	32%	15%	3%	NA

# DRAFT WATER MODEL

## EXHIBIT 8

### Canadian Method Allocation of 2011 Revenue Requirements by Customer Class

(Excludes all Directly Assigned costs)

Classification Components	Net Revenue Requirements (Reflects Revised 50/50 Split)	Customer Classes					Basis of Classification
		Single Family Residential	Multi Family Residential	Commercial and Industrial (includes potable)	Recreational Turf	Fire Hydrant/ Construction	
Commodity	\$ 10,258,511	\$ 8,081,659	\$ 791,160	\$ 901,175	\$ 451,909	\$ 32,607	(COM)
Capacity	\$ 6,631,261	\$ 5,411,234	\$ 407,019	\$ 386,348	\$ 379,058	\$ 47,602	(CAP)
Customer Related	\$ 3,052,746	\$ 2,837,707	\$ 63,797	\$ 138,515	\$ 9,196	\$ 3,531	(CA)
Public Fire Protection	\$ 574,505	\$ 442,594	\$ 45,494	\$ 86,416	\$ -	\$ -	(FP)
<b>Net Revenue Requirement</b>	<b>\$ 20,517,022</b>	<b>\$ 16,773,195</b>	<b>\$ 1,307,470</b>	<b>\$ 1,512,454</b>	<b>\$ 840,163</b>	<b>\$ 83,740</b>	
<i>% of Net Rev. Req'ts.</i>		81.8%	6.4%	7.4%	4.1%	0.4%	
<i>% of 2009 Rate Revenue</i>	\$21,800,108	79.1%	5.5%	6.7%	2.2%	0.4%	
<i>Adjusted % of 2009 Rate Revenue</i>	\$20,469,017	84.2%	5.8%	7.2%	2.4%	0.4%	
Customer Class	Cost of Service Allocated Costs - 2011				Total Revenue		
	(COM)	(CAP)	(CA)	(FP)	COS Req't	at Present Rates	Percent Difference
Single Family Residential	\$ 8,081,659	\$ 5,411,234	\$ 2,837,707	\$ 442,594	\$16,773,195	\$17,243,671	-3%
Multi Family Residential	\$ 791,160	\$ 407,019	\$ 63,797	\$ 45,494	\$ 1,307,470	\$ 1,190,543	10%
Commercial and Industrial (includes potable)	\$ 901,175	\$ 386,348	\$ 138,515	\$ 86,416	\$ 1,512,454	\$ 1,467,442	3%
Recreational Turf	\$ 451,909	\$ 379,058	\$ 9,196	\$ -	\$ 840,163	\$ 483,259	74%
Fire Hydrant/ Construction	\$ 32,607	\$ 47,602	\$ 3,531	\$ -	\$ 83,740	\$ 84,103	0%
<b>Total</b>	<b>\$ 10,258,511</b>	<b>\$ 6,631,261</b>	<b>\$ 3,052,746</b>	<b>\$ 574,505</b>	<b>\$20,517,022</b>	<b>\$20,469,017</b>	<b>0%</b>

# DRAFT WATER MODEL

## EXHIBIT 8b

### Canadian Method Allocation of 2011 Direct Assignment Revenue Requirements

Classification Components	Net Revenue Requirements <sup>1</sup>	Customer Classes (Direct Assignment)					
		Agricultural Irrigation - with residence	Agricultural Irrigation - without residence	Small Farm	Domestic Irrigation	Raw Water - Landscape Irrigation	Raw Water - Continuous Flow/Flat
Commodity	\$ 645,434	\$ 313,944	\$ 11,513	\$ 51,229	\$ 197,232	\$ 1,618	\$ 69,899
Capacity	\$ 417,219	\$ 97,646	\$ 3,581	\$ 15,934	\$ 276,053	\$ 2,264	\$ 21,741
Customer Related	\$ 192,069	\$ 22,419	\$ 862	\$ 22,634	\$ 142,813	\$ 754	\$ 2,587
Public Fire Protection	\$ 28,364	\$ -	\$ -	\$ 3,880	\$ 24,484	\$ -	\$ -
<b>Net Revenue Requirement</b>	<b>\$ 1,283,086</b>	<b>\$ 434,010</b>	<b>\$ 15,956</b>	<b>\$ 93,677</b>	<b>\$ 640,581</b>	<b>\$ 4,636</b>	<b>\$ 94,226</b>

<sup>1</sup> Assumes an allocation to Commodity, Capacity, Customer-Related and Fire Protection and classifications in the same proportion as non-DA costs.

% of Net Rev. Req'ts.	33.8%	1.2%	7.3%	49.9%	0.4%	7.3%
% of 2009 Rate Revenue	25.8%	0.9%	7.5%	0.0%	0.3%	5.1%

Customer Class - Direct Assignment	Cost of Service Allocated Costs - 2011 (Direct Assignment)				Total Revenue		
	(COM)	(CAP)	(CA)	(FP)	COS Req't	at Present Rates	Percent Difference
Agricultural Irrigation - with residence	\$ 313,944	\$ 97,646	\$ 22,419	\$ -	\$ 434,010	\$ 343,314	26%
Agricultural Irrigation - without residence	\$ 11,513	\$ 3,581	\$ 862	\$ -	\$ 15,956	\$ 11,501	39%
Small Farm	\$ 51,229	\$ 15,934	\$ 22,634	\$ 3,880	\$ 93,677	\$ 99,518	-6%
Domestic Irrigation	\$ 197,232	\$ 276,053	\$ 142,813	\$ 24,484	\$ 640,581	\$ 805,183	-20%
Raw Water - Landscape Irrigation	\$ 1,618	\$ 2,264	\$ 754	\$ -	\$ 4,636	\$ 3,625	28%
Raw Water - Continuous Flow/Flat	\$ 69,899	\$ 21,741	\$ 2,587	\$ -	\$ 94,226	\$ 67,950	39%
<b>Total</b>	<b>\$ 645,434</b>	<b>\$ 417,219</b>	<b>\$ 192,069</b>	<b>\$ 28,364</b>	<b>\$ 1,283,086</b>	<b>\$ 1,331,091</b>	<b>-4%</b>

# REVENUE REQUIREMENTS DRAFT MODEL

- Wastewater
  - Wastewater rates appear to be adequate
  - May not need a 5% rate increase
  - Contingent upon proposed state fee increases
  - Contingent upon the implementation of additional toxicity regulations

# REVENUE REQUIREMENTS DRAFT MODEL

- Water
  - Water rates may need small rate increase depending on number of assumptions
    - Customer usage patterns
    - Type of water year
    - Additional financing requirements
    - Master plan update determining capital infrastructure needs
    - Impacts on changing to Canadian method
    - Combining domestic irrigation with small farm customer class for Prop. 218 compliance

# DEBT SERVICE COVERAGE GOALS

- Staff proposed ranges
  - 1.35 to 1.50 with FCC's
  - 1.10 to 1.25 without FCC's
- Provides adequate revenue to meet coverage and fund smaller capital replacement projects
- Committee discussed the need to phase in over time

# RECYCLED WATER

- Staff recommendation to remain in wastewater fund
- Staff recommendation to set recycled water rates as a percentage of potable water rates
- Committee requested additional information
- Committee will review February 11

# NEXT STEPS

- February 11 COS Panel Meeting
  - Review overhead and debt allocation methodologies
  - Review recycled water
    - Proposed revenue vs. actual costs
  - Meet with major recreational turf customers such as schools to discuss potential impacts
  - Review first draft of proposed rates based on Canadian method

# NEXT STEPS

- February 28 Board Meeting
  - Final review of overhead and debt allocation methodologies
  - Recycled water proposal
  - First draft of proposed rates

**QUESTIONS?**

**COMMENTS...**