



**AECOM**



Greater Vernon Water (GVW)

## **Technical Memorandum No. 10**

### **GVW Financial Plan**

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## Revision Log

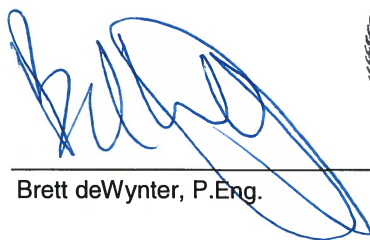
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1	David Main	June 6, 2013	Draft submission for client review.
2	David Main	June 12, 2013	Included revisions from TAC review on June 11, 2013.
3	David Main	June 13, 2013	Final Version

## AECOM Signatures



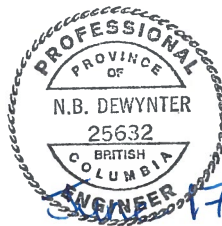
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17, 2013.

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Appendix A Option Revenue Requirement Forecast

# 1. Introduction

The objective of Technical Memorandum 10 is to provide a complete long range forecast of the anticipated revenue requirements for all of the technical options that have been shortlisted by the Greater Vernon Advisory Committee (GVAC) for closer financial evaluation. Based upon a forecast of revenue requirements it is also possible to estimate the impact of each shortlisted technical option on future domestic water rates.

Technical Memorandum (TM) 9 provided technical details on nine options that could address all of the water requirements specified in earlier portions of the Master Water Plan. Each option includes a range of benefits and each has a different cost life cycle. Following consultation with the Technical Advisory Committee (TAC) in May, 2013, the TAC recommended Option 2 and 3 to be examined in closer financial detail. GVAC supported this and added Option 1 to be included with Option 2 and 3 to be examined in closer financial detail. GVAC also supported that Option 2 (Treatment at Duteau and Mission Hill with partial separation) be the recommended Option. Option 3 would be included to provide full financial implications of the system separation of devolution if pursued in the future. The GVAC also recommended to the Board that the Draft Master Water Plan proceed under the general direction provided under Option 2 – Treatment at Duteau and Mission Hill with Partial System Separation under the subject that the trunk irrigation line be sized for Option 3 - Treatment at Duteau and Mission Hill with Complete System Separation.

While some aspects of the financial plan will remain uncertain, such as the amount of grant funding that can be obtained for proposed capital works, the basic financial plan and forecast for Options 1, 2 and 3 can be established for the purposes of making a comparison to identify the difference in cost between each of the options. Specifically, the objectives of this Technical Memorandum are to:

- Provide the total life cycle costs of Options 1, 2 and 3.
- Prepare a long range cash flow forecast of Options 1, 2 and 3.
- Determine the approximate impact on water rates that will be required in order to support the Master Water Plan for Options 1, 2 and 3.
- Identify financial variables that could materially impact the option life cycle costs.
- Identify any outstanding financial matters.

## 2. Financial Implications of Options 1, 2 and 3

The purpose of this financial projection is to identify the technical option (presented in TM 9) that presents GVW customers a water system that meets all of the requirements that have been defined in the previous TMs at the most affordable cost. Since it was agreed by the TAC that the financial comparison should take into account full lifecycle costs, the forecast has been extended to a 50 year horizon. It is important to note that the financial comparison includes only the following:

- Revenue requirements for operating and maintaining all current GVW infrastructure (for both domestic and irrigation customers).
- Revenue requirements of servicing current debt obligations.
- Revenue requirements for operating and maintaining the new infrastructure required under each option.
- Revenue requirements of acquiring the new capital investment under each option (both new debt and/or pay as you go acquisitions through cash or withdrawals from reserves).
- Revenue requirements of administering and managing the GVW under each option.
- An annual revenue requirement allowance of \$2 million per year for unspecified but necessary sustaining capital expenditures has been included in each option.

Investment requirements that are not included in the comparison are:

- Revenue requirements to renew aging infrastructure. TM 8 noted that significant portions of existing GVW infrastructure will require replacement or renewal over the forecast horizon and that the magnitude of this investment will be substantial (TM 8 estimated that a 25 year average annual requirements will be approximately \$3 million per year). The option forecasts in Appendix A presently includes an allowance of \$2 million per year to address unspecified sustaining capital needs. Since the infrastructure renewal program will be identical in all of the options, omitting the financial impact of an incremental renewal program will not limit the ability to make financial observations between the options.
- Future revenue requirements to fund significant capital improvements that have not been identified in this MWP. Since this MWP includes the next 10 year planning horizon for all water quality improvements, it is not possible to plan or estimate capital projects required after 2023 (with the exception of the capacity expansion project that is anticipated in 25 years) even though this forecast extends to 50 years.

### 2.1 Financial Assumptions

This financial forecast was prepared for the purpose of illustrating Technical Options 1, 2 and 3. To enable the process the following assumptions have been incorporated into the model:

- The projections are based on an inflation rate of 2% per year and a discount rate of 5% (which reflects an estimate for the long term cost of capital) and a MFA borrowing rate of 5%.
- Water rates will be determined through a political process that has not been included in this Master Water Plan.
- It is assumed that over the long run, transfers of funds to and from the Capital Reserve will net out to zero and no estimates have been made to compute specific yearly transfers to or from these reserves.
- Some of the forecasted capital projects are at least partially attributable to meet the needs of future growth. The portion that is attributable to meet the needs of growth will be eligible for DCC funding. It is anticipated that DCC revenue in the future will be low what is available can be used in future

years to offset the annual debt payment associated with the DCC eligible facilities. Since GVW will need to incur and carry the debt in advance of DCC revenue collection, the full cost of these facilities has been budgeted through rates.

- The future capital costs for new, local distribution systems have not been included in the revenue requirement projections since these will be 100% funded by developers and assume no impact on water rates.
- In the past, some of the capital projects in each option would have qualified for partial assistance from infrastructures grants from senior levels of government, particularly capital projects associated with enhancing the quality of drinking water. Since this investment needs to occur regardless of the availability of grant funding, the financial comparison assumes no grant funding and that the entire investment will be paid by customers. If grants do become available through the implementation horizon, this will serve to reduce the program cost to rate payers.

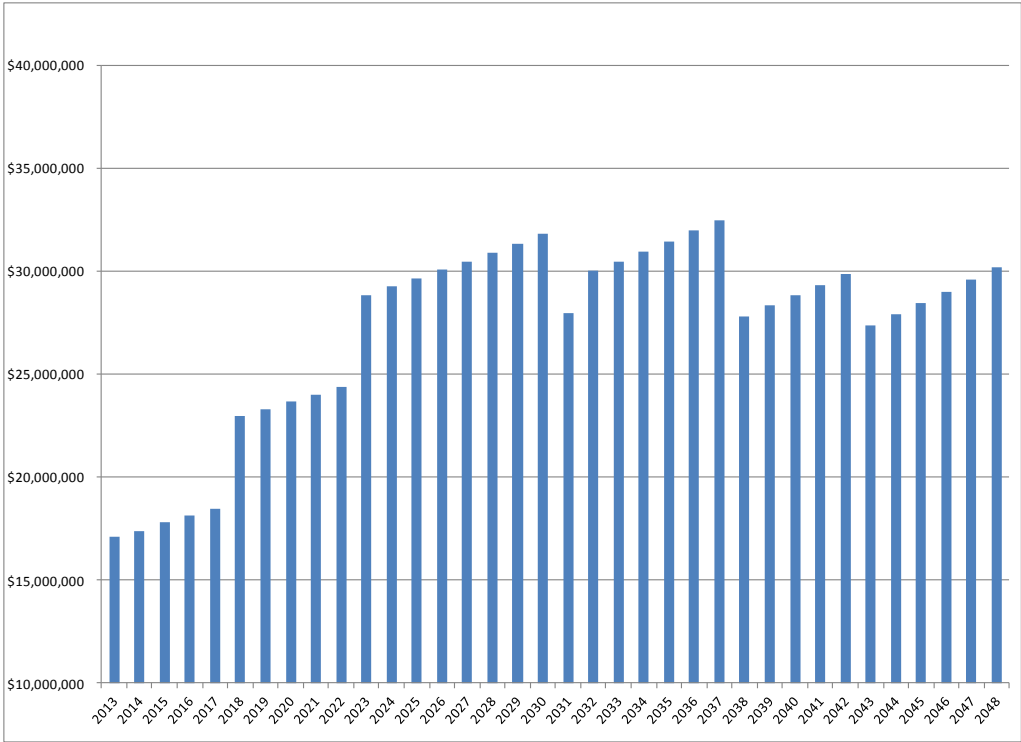
## 2.2 Option Financial Cost Summary

Appendix A presents the detailed annual revenue requirement forecast for each of Options 1, 2 and 3. Each forecast includes:

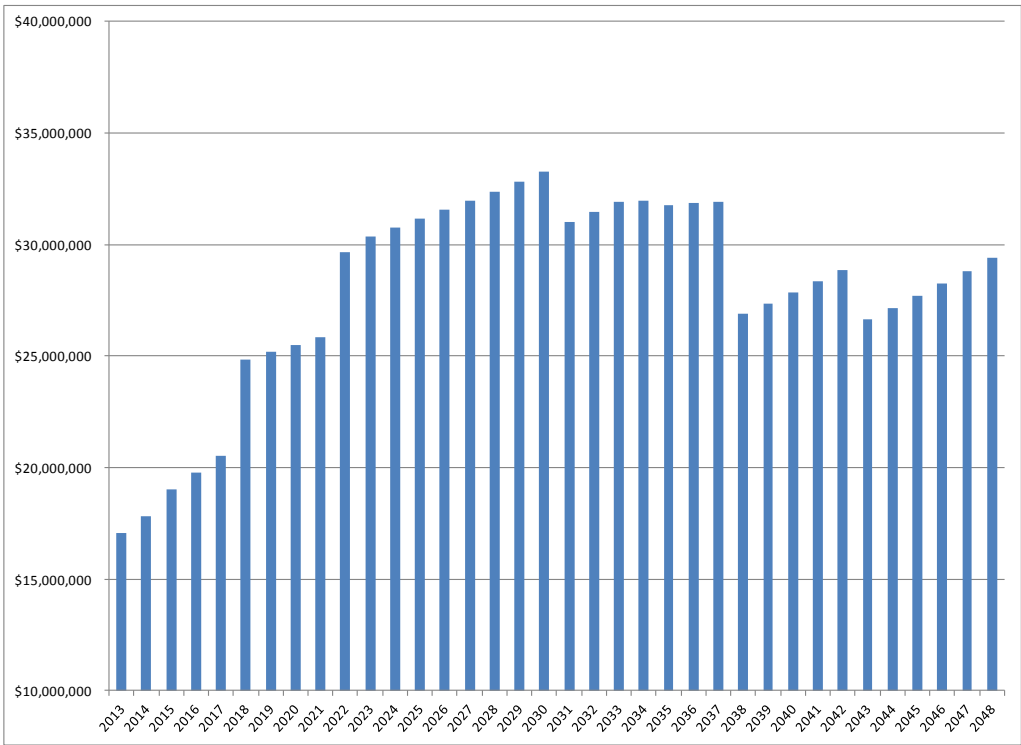
- The specific capital investment program that is anticipated under the option. Major investments are assumed to be debt funded and the resulting bond payment is calculated for the revenue requirements for the term of the debt. Where feasible, smaller capital projects are assumed to be paid in the year of their acquisition either from reserves or directly from rate revenue.
- The O&M cost implications with the new capital investment program under each option. Anticipated O&M expenses for each new facility are estimated individually and are assumed to extend through the remainder of the forecast once the facility is commissioned.
- Existing O&M costs associating with current GVW facilities are assumed to extend through the remainder of the forecast unless the facility is no longer required.
- Sustaining Capital Expenditures include ongoing capital requirements that are not part of the MWP program. These could be capital replacements, renewals or minor betterments to enhance existing GVW facilities. This is estimated as \$2 million per year in future years (and is inflation adjusted).

The year to year revenue requirements of each option are presented in Figures 2.1 to 2.3 on the following pages. To simplify each figure, the forecast is graphed for only 35 years of the 50 year forecast. All debt obligations are fully paid in 2043 and after this time, the revenue requirements increase at the same rate in all three options because of the inflation (2%) factor.

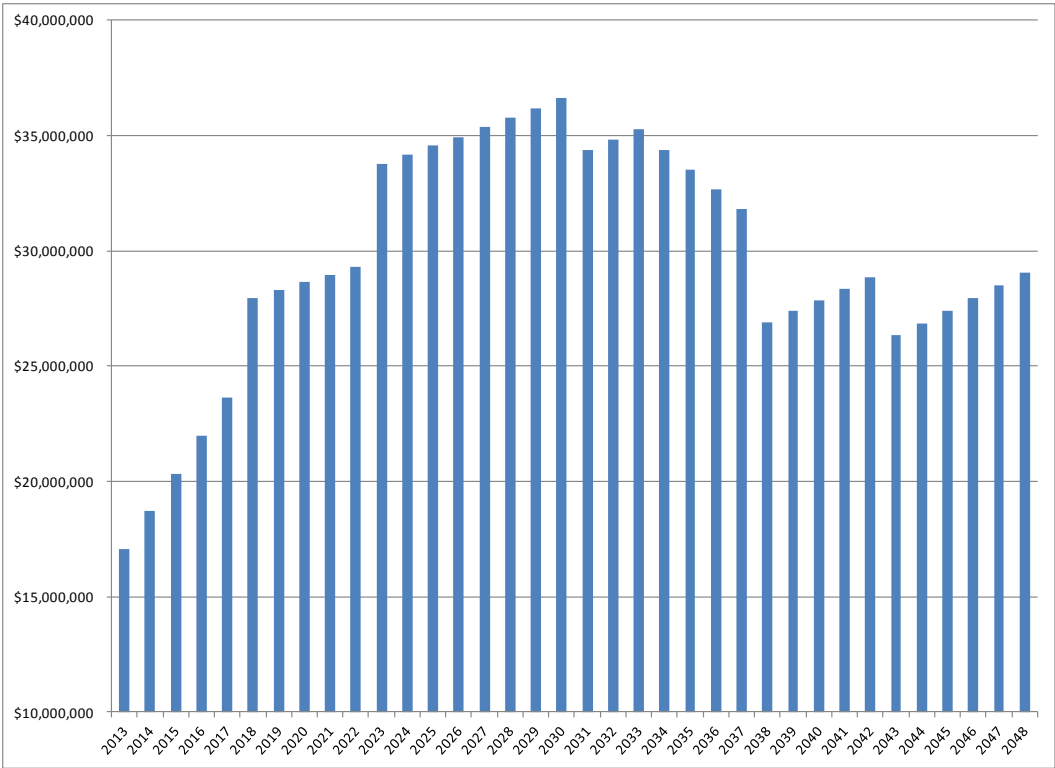
**Figure 2.1: Annual Revenue Requirements for Option 1: Treatment at Duteau and Mission Hill With No Additional Separation**



**Figure 2.2: Annual Revenue Requirements for Option 2: Treatment at Duteau and Mission Hill With Incremental Separation**

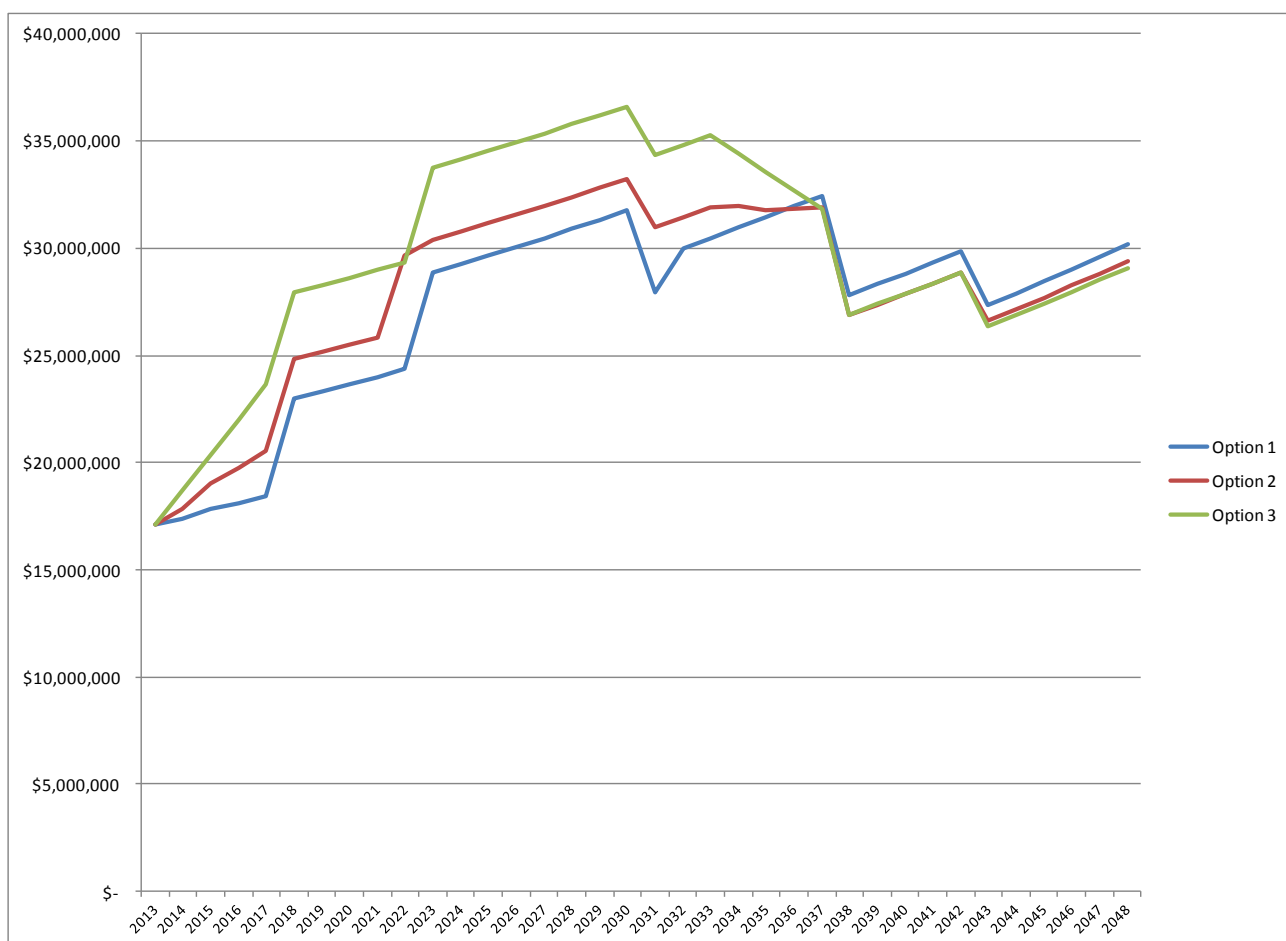


**Figure 2.3: Annual Revenue Requirements for Option 3: Treatment at Duteau and Mission Hill With Full Separation**



To show a year by year comparison of the revenue requirements for each of the options, **Figure 2.4** below summarizes the individual option revenue requirement profiles in a single view. The summary is based on a 2% inflation rate and 5% discount rate.



**Figure 2.4: Option Spending Profiles****Notes and Observations**

1. Option 2 and 3 physically differ in that Option 3 fully separates the domestic and irrigation distribution system between 2013 and 2017. This large scale separation program results in a rapid increase in revenue requirements over this time. The treatment plant capital programs in Option 2 and 3 are essentially the same.
2. Option 3 represents the premium that would be required in order to facilitate a fully separated domestic and agricultural water system. The Net Present Value (NPV) of this premium is about \$32.5M over the 50 year horizon (see Section 2.3)
3. Option 1 and 2 differ in that Option 1 includes no further system separation, however the Duteau Creek WTP must therefore be larger than in Option 2 and 3. This requires the Option 1 Duteau Creek WTP to be more expensive.
4. Once all of the debt is repaid in about 2043, Option 1's annual O&M expense is slightly more than Option 2 and 3 due to the larger Duteau Creek WTP.

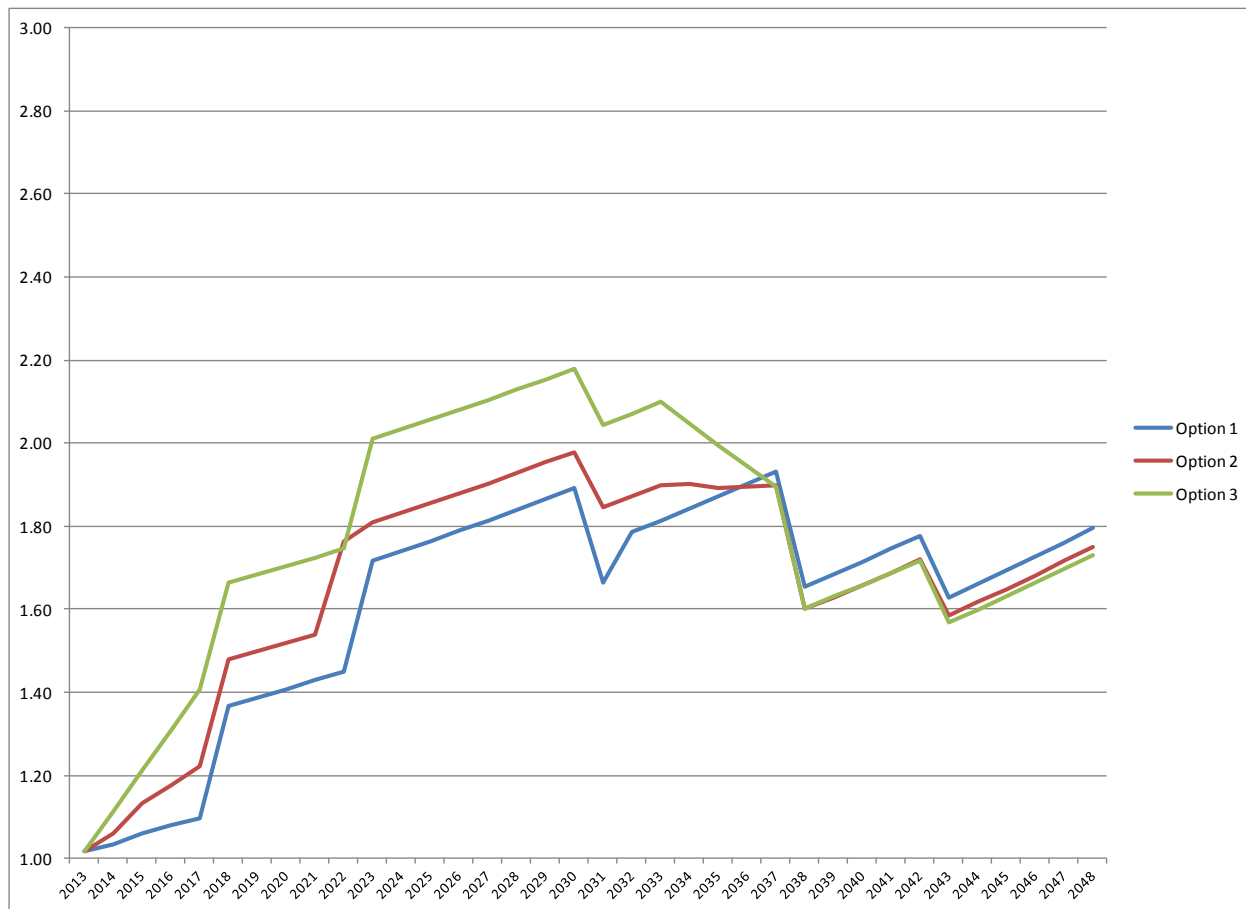
### 3. Impact on Water Rates

It is understood by all GVW stakeholders that the investment required under the Master Water Plan will require drinking water rates to increase regardless of the long term option selected. Once the GVW has agreed to an optimal strategy to address the Master Water Plan demands, the resulting revenue requirements will need to be translated into a rate structure that best meets the needs of the utility and the utility's customers. Since the GVW uses consumption-based water rates, larger users of water will pay a greater amount than users who practice water conservation. Further, GVW domestic water rates presently include an inclining block structure to provide an additional financial incentive for domestic customers to reduce water consumption during the peak summer season. If continued, this will place an even larger portion of charges to high volume water consumers.

Since the water rate setting process is directed by a range of policy objectives (as noted in TM 8), it is not possible to predict precise water rates for the different customer classifications and different consumption behaviors within each customer classification as a result of the required new investment. It is also possible that water rate policy changes may result in alternative approaches to setting water rates in the future. For example, the 2012 water rate bylaw saw an increase to the fixed portion of the water charge to reduce the risk of revenue shortages in wetter than average summers). At the end of the day however, the additional required revenue must be collected and the source of the revenue will be the water customers. It is therefore important that the GVW inform water customers about the impact of the Master Water Plan on the cost of water over the planning horizon.

#### 3.1 Indexed Against 2012 Total Revenue Requirements

To simplify a comparison of current domestic rate water rates and their impact under the different options, the use of an index is presented in **Figure 3.1**. Since the costs of the new capital investments described in each option will be borne by domestic water customers, the revenue requirements in each year are compared to the total revenue requirements of 2012 as the base year. The impact of each option on domestic water customer's annual water bill is shown as an index starting from 1.0 in the base year (2012). Figure 3.1 projects the impact of each of the three options as a year to year change of the index (which essentially mirrors the investment profile of each option).

**Figure 3.1: Index of Water Rates in Options 1, 2 & 3 from 2012 Base****Notes and Observations**

1. In actuality, water rates would attempt to smooth the lines so that year to year downward and upward movements would be minimized.
2. The water rate under each option will rise at different rates during the first few years of the program. While Option 1's rate of increase is based mostly on inflation (factored at 2% per year), Option 2 and 3 will see major investments in separating the domestic water system from the agricultural system.
3. Once the separation work is complete, the lines associated with each option move roughly parallel.
4. Option 3 breaks through the 2.0 Index (indicating a doubling of 2012 costs) in 10 years (2023) and peaks in 2029. Option 1 and 2 do not break the 2.0 index level.
5. Even though the graph shows a decrease in revenue requirements after 2036, it is not realistic to expect rates to drop, as this is beyond the detailed accuracy of the proposed capital programs. It is expected that new future utility requirements will result in new capital requirements.

# Appendix A: Option Revenue Requirement Forecast

Option 1 - Duteau / Mission Hill WTP with No Additional Separation

	2012	NPV	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
MWP Capital Expenditures																					
Duteau WTP Filtration	36,000,000	31,142,743	-	-	-	-	39,746,909	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	2,600,000	2,453,551	-	2,705,040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	7,813,754	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	10,500,000	9,083,300	-	-	-	-	11,592,848	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	89,110,000	71,671,378	-	2,705,040	-	-	51,339,757	-	-	-	-	44,383,587	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts																					
Duteau WTP Filtration	701,301	15,030,445	-	-	-	-	-	789,779	805,574	821,686	838,120	854,882	871,980	889,419	907,208	925,352	943,859	962,736	981,991	1,001,631	1,021,663
Mission Hill WTP Filtration	844,331	14,745,203	-	-	-	-	-	-	-	-	-	-	1,049,819	1,070,816	1,092,232	1,114,077	1,136,358	1,159,086	1,182,267	1,205,913	1,230,031
Okanagan Lake Pump Station	156,462	3,771,445	-	-	166,039	169,360	172,747	176,202	179,726	183,320	186,987	190,726	194,541	198,432	202,400	206,448	210,577	214,789	219,085	223,466	227,936
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	93,861	2,011,652	-	-	-	-	-	105,703	107,817	109,973	112,173	114,416	116,704	119,038	121,419	123,848	126,325	128,851	131,428	134,057	136,738
	1,795,955	35,558,745	-	-	166,039	169,360	172,747	1,071,684	1,093,117	1,114,979	1,137,280	1,160,024	2,233,044	2,277,705	2,323,259	2,369,725	2,417,119	2,465,462	2,514,771	2,565,067	2,616,368
Baseline Operating Costs																					
Baseline	2,725,000	70,903,516	2,779,500	2,835,090	2,891,792	2,949,628	3,008,620	3,068,793	3,130,168	3,192,772	3,256,627	3,321,760	3,388,195	3,455,959	3,525,078	3,595,580	3,667,491	3,740,841	3,815,658	3,891,971	3,969,810
Duteau WTP	1,876,655	48,829,884	1,914,188	1,952,472	1,991,521	2,031,352	2,071,979	2,113,418	2,155,687	2,198,800	2,242,776	2,287,632	2,333,385	2,380,052	2,427,653	2,476,206	2,525,731	2,576,245	2,627,770	2,680,325	2,733,932
Mission Hill WTP	959,639	24,969,460	978,832	998,408	1,018,377	1,038,744	1,059,519	1,080,709	1,102,324	1,124,370	1,146,857	1,169,795	1,193,190	1,217,054	1,241,395	1,266,223	1,291,548	1,317,379	1,343,726	1,370,601	1,398,013
Distribution	5,538,706	144,115,129	5,649,480	5,762,470	5,877,719	5,995,273	6,115,179	6,237,483	6,362,232	6,489,477	6,619,266	6,751,652	6,886,685	7,024,418	7,164,907	7,308,205	7,454,369	7,603,456	7,755,526	7,910,636	8,068,849
	11,100,000	288,817,989	11,322,000	11,548,440	11,779,409	12,014,997	12,255,297	12,500,403	12,750,411	13,005,419	13,265,526	13,530,839	13,801,455	14,077,483	14,359,033	14,646,214	14,939,139	15,237,921	15,542,680	15,853,533	16,170,604
Sustaining Capital Expenditure																					
Baseline	1,900,000	49,437,314	1,938,000	1,976,760	2,016,295	2,056,621	2,097,754	2,139,709	2,182,503	2,226,153	2,270,676	2,316,089	2,362,411	2,409,659	2,457,853	2,507,010	2,557,150	2,608,293	2,660,459	2,713,668	2,767,941
Debt Servicing																					
Baseline	2,700,000	31,561,885	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	-
Duteau WTP	-	32,445,780	-	-	-	-	-	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842
Mission Hill WTP	-	23,390,060	-	-	-	-	-	-	-	-	-	-	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238
Other	-	7,346,786	-	-	-	-	-	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400	752,400
Debt Servicing Costs	2,700,000	87,397,725	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	6,022,842	6,022,842	6,022,842	6,022,842	6,022,842	9,080,080	9,080,080	9,080,080	9,080,080	9,080,080	9,080,080	9,080,080	9,080,080	6,380,080
New Debt																					
Duteau WTP	-	31,142,743	-	-	-	-	39,746,909	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	22,450,705	-	-	-	-	-	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-
Other	-	7,051,735	-	-	-	-	9,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	60,645,184	-	-	-	-	48,746,909	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-
Reserve Fund Operations																					
Contributions	1,100,000	19,746,456	1,122,000	1,144,440	1,167,329	1,190,675	1,214,489	1,238,779	1,263,554	1,288,825	1,314,602	1,340,894	1,367,712	1,395,066	1,422,967	1,451,427	1,480,455	1,510,064	1,540,266	1,571,071	-
Withdrawals	-	11,026,194	-	2,705,040	-	-	2,592,848	-	-	-	-	7,813,754	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	1,122,000	(438,600)	728,729	1,919,404	541,045	1,779,824	3,043,378	4,332,203	5,646,805	(826,055)	541,657	1,936,723	3,359,690	4,811,117	6,291,572	7,801,636	9,341,902	10,912,973	10,912,973
Total Funding Requirements	16,800,000	496,658,229	17,082,000	17,369,640	17,829,072	18,131,653	18,440,287	22,973,417	23,312,427	23,658,218	24,010,926	24,370,688	28,844,702	29,239,993	29,643,192	30,054,456	30,473,943	30,901,820	31,338,256	31,783,419	27,934,993
Cumulative Funding Requirements			17,082,000	34,451,640	52,280,712	70,412,365	88,852,652	111,826,069	135,138,495	158,796,713	182,807,638	207,178,326	236,023,028	265,263,020	294,906,212	324,960,667	355,434,610	386,336,430	417,674,685	449,458,104	477,393,097
Year to Year % Increase			1.68%	1.68%	2.65%	1.70%	1.70%	24.58%	1.48%	1.48%	1.49%	1.50%	18.36%	1.37%	1.38%	1.39%	1.40%	1.40%	1.41%	1.42%	-12.11%
Index based on 2012 Water Bill	1.00		1.02	1.03	1.06	1.08	1.10	1.37	1.39	1.41	1.43	1.45	1.72	1.74	1.76	1.79	1.81	1.84	1.87	1.89	1.66

Option 1 - Duteau / Mission Hill WTP with No Additional Separation

	2012	NPV	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
MWP Capital Expenditures																					
Duteau WTP Filtration	36,000,000	31,142,743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	2,600,000	2,453,551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	10,500,000	9,083,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	89,110,000	71,671,378	-	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts																					
Duteau WTP Filtration	701,301	15,030,445	1,042,096	1,062,938	1,084,197	1,105,881	1,127,999	1,150,559	1,173,570	1,197,041	1,220,982	1,245,402	1,270,310	1,295,716	1,321,630	1,348,063	1,375,024	1,402,525	1,430,575	1,459,187	1,488,370
Mission Hill WTP Filtration	844,331	14,745,203	1,254,631	1,279,724	1,305,319	1,331,425	1,358,053	1,385,214	1,412,919	1,441,177	1,470,001	1,499,401	1,529,389	1,559,977	1,591,176	1,623,000	1,655,460	1,688,569	1,722,340	1,756,787	1,791,923
Okanagan Lake Pump Station	156,462	3,771,445	232,494	237,144	241,887	246,725	251,659	256,692	261,826	267,063	272,404	277,852	283,409	289,077	294,859	300,756	306,771	312,907	319,165	325,548	332,059
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	93,861	2,011,652	139,473	142,262	145,107	148,009	150,970	153,989	157,069	160,210	163,414	166,683	170,016	173,417	176,885	180,423	184,031	187,712	191,466	195,295	199,201
	1,795,955	35,558,745	2,668,694	2,722,068	2,776,510	2,832,040	2,888,681	2,946,454	3,005,384	3,065,491	3,126,801	3,189,338	3,253,124	3,318,187	3,384,550	3,452,242	3,521,286	3,591,713	3,663,546	3,736,817	3,811,553
Baseline Operating Costs																					
Baseline	2,725,000	70,903,516	4,049,207	4,130,191	4,212,795	4,297,050	4,382,992	4,470,651	4,560,064	4,651,266	4,744,291	4,839,177	4,935,960	5,034,680	5,135,373	5,238,081	5,342,842	5,449,699	5,558,693	5,669,867	5,783,264
Duteau WTP	1,876,655	48,829,884	2,788,611	2,844,383	2,901,270	2,959,296	3,018,482	3,078,851	3,140,428	3,203,237	3,267,302	3,332,648	3,399,301	3,467,287	3,536,633	3,607,365	3,679,512	3,753,103	3,828,165	3,904,728	3,982,823
Mission Hill WTP	959,639	24,969,460	1,425,973	1,454,493	1,483,582	1,513,254	1,543,519	1,574,389	1,605,877	1,637,995	1,670,755	1,704,170	1,738,253	1,773,018	1,808,479	1,844,648	1,881,541	1,919,172	1,957,555	1,996,707	2,036,641
Distribution	5,538,706	144,115,129	8,230,226	8,394,830	8,562,727	8,733,981	8,908,661	9,086,834	9,268,571	9,453,942	9,643,021	9,835,882	10,032,599	10,233,251	10,437,916	10,646,675	10,859,608	11,076,800	11,298,336	11,524,303	11,754,789
	11,100,000	288,817,989	16,494,017	16,823,897	17,160,374	17,503,581	17,853,654	18,210,725	18,574,940	18,946,440	19,325,369	19,711,877	20,106,113	20,508,236	20,918,401	21,336,769	21,763,503	22,198,774	22,642,749	23,095,605	23,557,517
Sustaining Capital Expenditure																					
Baseline	1,900,000	49,437,314	2,823,300	2,879,766	2,937,361	2,996,109	3,056,031	3,117,151	3,179,494	3,243,084	3,307,946	3,374,105	3,441,587	3,510,419	3,580,627	3,652,240	3,725,284	3,799,790	3,875,786	3,953,302	4,032,368
Debt Servicing																					
Baseline	2,700,000	31,561,885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duteau WTP	-	32,445,780	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	3,322,842	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	23,390,060	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	-	-	-	-	-	-	-	-
Other	-	7,346,786	752,400	752,400	752,400	752,400	752,400	752,400	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Servicing Costs	2,700,000	87,397,725	6,380,080	6,380,080	6,380,080	6,380,080	6,380,080	6,380,080	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	-	-	-	-	-	-	-	-
New Debt																					
Duteau WTP	-	31,142,743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	7,051,735	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	60,645,184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations																					
Contributions	1,100,000	19,746,456	1,634,542	1,667,233	1,700,578	1,734,589	1,769,281	1,804,667	-	-	-	-	-	-	-	-	-	-	-	-	-
Withdrawals	-	11,026,194	-	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	12,547,515	14,214,748	15,915,326	17,649,915	19,419,196	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681
Total Funding Requirements	16,800,000	496,658,229	30,000,633	30,473,044	30,954,903	31,446,399	31,947,727	32,459,077	27,817,056	28,312,253	28,817,354	29,332,558	29,858,062	27,336,842	27,883,578	28,441,251	29,010,073	29,590,277	30,182,081	30,785,724	31,401,438
Cumulative Funding Requirements			507,393,729	537,866,773	568,821,676	600,268,074	632,215,801	664,674,877	692,491,933	720,804,187	749,621,541	778,954,099	808,812,161	836,149,003	864,032,581	892,473,832	921,483,905	951,074,182	981,256,263	1,012,041,987	1,043,443,425
Year to Year % Increase			7.39%	1.57%	1.58%	1.59%	1.59%	1.60%	-14.30%	1.78%	1.78%	1.79%	1.79%	-8.44%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Index based on 2012 Water Bill	1.00		1.79	1.81	1.84	1.87	1.90	1.93	1.66	1.69	1.72	1.75	1.78	1.63	1.66	1.69	1.73	1.76	1.80	1.83	1.87

Option 1 - Duteau / Mission Hill WTP with No Additional Separation

	2012	NPV	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062
MWP Capital Expenditures														
Duteau WTP Filtration	36,000,000	31,142,743	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	2,600,000	2,453,551	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	10,500,000	9,083,300	-	-	-	-	-	-	-	-	-	-	-	-
	89,110,000	71,671,378	-	-	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts														
Duteau WTP Filtration	701,301	15,030,445	1,518,138	1,548,500	1,579,470	1,611,060	1,643,281	1,676,147	1,709,670	1,743,863	1,778,740	1,814,315	1,850,601	1,887,613
Mission Hill WTP Filtration	844,331	14,745,203	1,827,761	1,864,316	1,901,603	1,939,635	1,978,427	2,017,996	2,058,356	2,099,523	2,141,513	2,184,344	2,228,031	2,272,591
Okanagan Lake Pump Station	156,462	3,771,445	338,700	345,474	352,384	359,431	366,620	373,952	381,432	389,060	396,841	404,778	412,874	421,131
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	93,861	2,011,652	203,185	207,249	211,394	215,622	219,934	224,333	228,819	233,396	238,064	242,825	247,682	252,635
	1,795,955	35,558,745	3,887,784	3,965,539	4,044,851	4,125,748	4,208,262	4,292,428	4,378,277	4,465,842	4,555,158	4,646,262	4,739,188	4,833,970
Baseline Operating Costs														
Baseline	2,725,000	70,903,516	5,898,929	6,016,908	6,137,246	6,259,991	6,385,191	6,512,895	6,643,153	6,776,016	6,911,536	7,049,767	7,190,762	7,334,577
Duteau WTP	1,876,655	48,829,884	4,062,479	4,143,729	4,226,603	4,311,135	4,397,358	4,485,305	4,575,011	4,666,512	4,759,842	4,855,039	4,952,139	5,051,182
Mission Hill WTP	959,639	24,969,460	2,077,374	2,118,921	2,161,299	2,204,525	2,248,616	2,293,588	2,339,460	2,386,249	2,433,974	2,482,654	2,532,307	2,582,953
Distribution	5,538,706	144,115,129	11,989,885	12,229,683	12,474,276	12,723,762	12,978,237	13,237,802	13,502,558	13,772,609	14,048,061	14,329,022	14,615,603	14,907,915
	11,100,000	288,817,989	24,028,667	24,509,241	24,999,424	25,499,413	26,009,402	26,529,590	27,060,182	27,601,386	28,153,413	28,716,482	29,290,811	29,876,627
Sustaining Capital Expenditure														
Baseline	1,900,000	49,437,314	4,113,015	4,195,275	4,279,181	4,364,764	4,452,060	4,541,101	4,631,923	4,724,561	4,819,053	4,915,434	5,013,742	5,114,017
Debt Servicing														
Baseline	2,700,000	31,561,885	-	-	-	-	-	-	-	-	-	-	-	-
Duteau WTP	-	32,445,780	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	23,390,060	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	7,346,786	-	-	-	-	-	-	-	-	-	-	-	-
Debt Servicing Costs	2,700,000	87,397,725	-	-	-	-	-	-	-	-	-	-	-	-
New Debt														
Duteau WTP	-	31,142,743	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	7,051,735	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	60,645,184	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations														
Contributions	1,100,000	19,746,456	-	-	-	-	-	-	-	-	-	-	-	-
Withdrawals	-	11,026,194	-	-	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681	15,317,681
Total Funding Requirements	16,800,000	496,658,229	32,029,466	32,670,055	33,323,456	33,989,925	34,669,724	35,363,119	36,070,382	36,791,789	37,527,624	38,278,178	39,043,741	39,824,614
Cumulative Funding Requirements			1,075,472,891	1,108,142,946	1,141,466,402	1,175,456,327	1,210,126,051	1,245,489,170	1,281,559,552	1,318,351,341	1,355,878,965	1,394,157,143	1,433,200,884	1,473,025,498
Year to Year % Increase			2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Index based on 2012 Water Bill	1.00		1.91	1.94	1.98	2.02	2.06	2.10	2.15	2.19	2.23	2.28	2.32	2.37

Option 2 - Duteau / Mission Hill WTP with Incremental Separation

	2012	NPV	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
MWP Capital Expenditures																					
Duteau WTP Filtration	26,500,000	22,924,519	-	-	-	-	29,258,141	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	2,600,000	2,453,551	-	2,705,040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	7,813,754	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	9,800,000	8,735,288	1,979,600	1,999,396	2,019,390	2,039,584	2,059,980	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lavington Separation	19,500,000	17,381,441	3,939,000	3,978,390	4,018,174	4,058,356	4,098,939	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrigation Transmission Main	9,800,000	8,477,747	-	-	-	-	10,819,992	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	108,210,000	88,964,330	5,918,600	8,682,826	6,037,564	6,097,939	46,237,052	-	-	-	-	44,383,587	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts																					
Duteau WTP Filtration	118,379	2,537,126	-	-	-	-	-	133,314	135,980	138,700	141,474	144,303	147,189	150,133	153,136	156,199	159,323	162,509	165,759	169,074	172,456
Mission Hill WTP Filtration	844,331	14,745,203	-	-	-	-	-	-	-	-	-	-	1,049,819	1,070,816	1,092,232	1,114,077	1,136,358	1,159,086	1,182,267	1,205,913	1,230,031
Okanagan Lake Pump Station	156,462	3,771,445	-	-	166,039	169,360	172,747	176,202	179,726	183,320	186,987	190,726	194,541	198,432	202,400	206,448	210,577	214,789	219,085	223,466	227,936
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	87,604	1,877,549	-	-	-	-	-	98,656	100,629	102,642	104,695	106,789	108,925	111,103	113,325	115,592	117,903	120,262	122,667	125,120	127,622
Separation O&M	207,274	4,804,812	-	44,005	88,010	132,016	176,021	233,424	238,093	242,855	247,712	252,666	257,719	262,874	268,131	273,494	278,964	284,543	290,234	296,038	301,959
	1,414,050	27,736,135	-	44,005	254,049	301,376	348,768	641,596	654,428	667,517	680,868	694,484	1,758,193	1,793,358	1,829,224	1,865,810	1,903,125	1,941,189	1,980,012	2,019,611	2,060,004
Baseline Operating Costs																					
Baseline	2,725,000	70,903,516	2,779,500	2,835,090	2,891,792	2,949,628	3,008,620	3,068,793	3,130,168	3,192,772	3,256,627	3,321,760	3,388,195	3,455,959	3,525,078	3,595,580	3,667,491	3,740,841	3,815,658	3,891,971	3,969,810
Duteau WTP	1,876,655	48,829,884	1,914,188	1,952,472	1,991,521	2,031,352	2,071,979	2,113,418	2,155,687	2,198,800	2,242,776	2,287,632	2,333,385	2,380,052	2,427,653	2,476,206	2,525,731	2,576,245	2,627,770	2,680,325	2,733,932
Mission Hill WTP	959,639	24,969,460	978,832	998,408	1,018,377	1,038,744	1,059,519	1,080,709	1,102,324	1,124,370	1,146,857	1,169,795	1,193,190	1,217,054	1,241,395	1,266,223	1,291,548	1,317,379	1,343,726	1,370,601	1,398,013
Distribution	5,538,706	144,115,129	5,649,480	5,762,470	5,877,719	5,995,273	6,115,179	6,237,483	6,362,232	6,489,477	6,619,266	6,751,652	6,886,685	7,024,418	7,164,907	7,308,205	7,454,369	7,603,456	7,755,526	7,910,636	8,068,849
	11,100,000	288,817,989	11,322,000	11,548,440	11,779,409	12,014,997	12,255,297	12,500,403	12,750,411	13,005,419	13,265,526	13,530,839	13,801,455	14,077,483	14,359,033	14,646,214	14,939,139	15,237,921	15,542,680	15,853,533	16,170,604
Sustaining Capital Expenditure																					
Baseline	1,900,000	49,437,314	1,938,000	1,976,760	2,016,295	2,056,621	2,097,754	2,139,709	2,182,503	2,226,153	2,270,676	2,316,089	2,362,411	2,409,659	2,457,853	2,507,010	2,557,150	2,608,293	2,660,459	2,713,668	2,767,941
Debt Servicing																					
Baseline	2,700,000	31,561,885	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	-
Duteau WTP	-	23,883,699	-	-	-	-	-	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981
Mission Hill WTP	-	21,195,485	-	-	-	-	-	-	-	-	-	-	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392
Separation Projects	-	33,551,163	-	418,000	1,086,800	1,504,800	1,922,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800	3,176,800
Debt Servicing Costs	2,700,000	110,192,232	2,700,000	3,118,000	3,786,800	4,204,800	4,622,800	8,322,781	8,322,781	8,322,781	8,322,781	8,322,781	11,093,173	11,093,173	11,093,173	11,093,173	11,093,173	11,093,173	11,093,173	11,093,173	8,393,173
New Debt																					
Duteau WTP	-	22,924,519	-	-	-	-	29,258,141	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	20,344,265	-	-	-	-	-	-	-	-	-	33,138,664	-	-	-	-	-	-	-	-	-
Separation Projects	-	32,203,733	5,000,000	8,000,000	5,000,000	5,000,000	15,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	75,472,518	5,000,000	8,000,000	5,000,000	5,000,000	44,258,141	-	-	-	-	33,138,664	-	-	-	-	-	-	-	-	-
Reserve Fund Operations																					
Contributions	1,100,000	20,380,617	1,122,000	1,144,440	1,167,329	1,190,675	1,214,489	1,238,779	1,263,554	1,288,825	1,314,602	1,340,894	1,367,712	1,395,066	1,422,967	1,451,427	1,480,455	1,510,064	1,540,266	1,571,071	1,602,492
Withdrawals	-	11,385,372	918,600	682,826	1,037,564	1,097,939	1,978,911	-	-	-	-	7,813,754	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	203,400	665,014	794,779	887,515	123,093	1,361,872	2,625,426	3,914,251	5,228,853	(1,244,007)	123,705	1,518,771	2,941,738	4,393,165	5,873,620	7,383,684	8,923,950	10,495,021	12,097,513
Total Funding Requirements	16,800,000	514,370,727	17,082,000	17,831,645	19,003,882	19,768,469	20,539,108	24,843,268	25,173,677	25,510,695	25,854,453	29,636,256	30,382,944	30,768,739	31,162,250	31,563,634	31,973,042	32,390,640	32,816,590	33,251,056	30,994,214
Cumulative Funding Requirements			17,082,000	34,913,645	53,917,528	73,685,996	94,225,104	119,068,372	144,242,048	169,752,743	195,607,195	225,243,451	255,626,395	286,395,134	317,557,384	349,121,018	381,094,059	413,484,699	446,301,289	479,552,345	510,546,559
Year to Year % Increase			1.68%	4.39%	6.57%	4.02%	3.90%	20.96%	1.33%	1.34%	1.35%	14.63%	2.52%	1.27%	1.28%	1.29%	1.30%	1.31%	1.32%	1.32%	-6.79%
Index based on 2012 Water Bill	1.00		1.02	1.06	1.13	1.18	1.22	1.48	1.50	1.52	1.54	1.76	1.81	1.83	1.85	1.88	1.90	1.93	1.95	1.98	1.84



Option 2 - Duteau / Mission Hill WTP with Incremental Separation

			2012	NPV	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
MWP Capital Expenditures																							
Duteau WTP Filtration			26,500,000	22,924,519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration			30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station			2,600,000	2,453,551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements			6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension			3,600,000	1,744,112	-	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements			9,800,000	8,735,288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lavington Separation			19,500,000	17,381,441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrigation Transmission Main			9,800,000	8,477,747	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			108,210,000	88,964,330	-	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts																							
Duteau WTP Filtration			118,379	2,537,126	175,905	179,423	183,012	186,672	190,405	194,213	198,098	202,060	206,101	210,223	214,427	218,716	223,090	227,552	232,103	236,745	241,480	246,309	251,236
Mission Hill WTP Filtration			844,331	14,745,203	1,254,631	1,279,724	1,305,319	1,331,425	1,358,053	1,385,214	1,412,919	1,441,177	1,470,001	1,499,401	1,529,389	1,559,977	1,591,176	1,623,000	1,655,460	1,688,569	1,722,340	1,756,787	1,791,923
Okanagan Lake Pump Station			156,462	3,771,445	232,494	237,144	241,887	246,725	251,659	256,692	261,826	267,063	272,404	277,852	283,409	289,077	294,859	300,756	306,771	312,907	319,165	325,548	332,059
Aberdeen Dam Improvements			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements			87,604	1,877,549	130,175	132,778	135,434	138,143	140,906	143,724	146,598	149,530	152,521	155,571	158,683	161,856	165,093	168,395	171,763	175,198	178,702	182,276	185,922
Separation O&M			207,274	4,804,812	307,998	314,158	320,441	326,850	333,387	340,055	346,856	353,793	360,869	368,086	375,448	382,957	390,616	398,429	406,397	414,525	422,816	431,272	439,897
			1,414,050	27,736,135	2,101,203	2,143,227	2,186,093	2,229,815	2,274,410	2,319,898	2,366,297	2,413,623	2,461,896	2,511,133	2,561,356	2,612,583	2,664,834	2,718,132	2,772,494	2,827,944	2,884,503	2,942,192	3,001,037
Baseline Operating Costs																							
Baseline			2,725,000	70,903,516	4,049,207	4,130,191	4,212,795	4,297,050	4,382,992	4,470,651	4,560,064	4,651,266	4,744,291	4,839,177	4,935,960	5,034,680	5,135,373	5,238,081	5,342,842	5,449,699	5,558,693	5,669,867	5,783,264
Duteau WTP			1,876,655	48,829,884	2,788,611	2,844,383	2,901,270	2,959,296	3,018,482	3,078,851	3,140,428	3,203,237	3,267,302	3,332,648	3,399,301	3,467,287	3,536,633	3,607,365	3,679,512	3,753,103	3,828,165	3,904,728	3,982,823
Mission Hill WTP			959,639	24,969,460	1,425,973	1,454,493	1,483,582	1,513,254	1,543,519	1,574,389	1,605,877	1,637,995	1,670,755	1,704,170	1,738,253	1,773,018	1,808,479	1,844,648	1,881,541	1,919,172	1,957,555	1,996,707	2,036,641
Distribution			5,538,706	144,115,129	8,230,226	8,394,830	8,562,727	8,733,981	8,908,661	9,086,834	9,268,571	9,453,942	9,643,021	9,835,882	10,032,599	10,233,251	10,437,916	10,646,675	10,859,608	11,076,800	11,298,336	11,524,303	11,754,789
			11,100,000	288,817,989	16,494,017	16,823,897	17,160,374	17,503,581	17,853,654	18,210,725	18,574,940	18,946,440	19,325,369	19,711,877	20,106,113	20,508,236	20,918,401	21,336,769	21,763,503	22,198,774	22,642,749	23,095,605	23,557,517
Sustaining Capital Expenditure																							
Baseline			1,900,000	49,437,314	2,823,300	2,879,766	2,937,361	2,996,109	3,056,031	3,117,151	3,179,494	3,243,084	3,307,946	3,374,105	3,441,587	3,510,419	3,580,627	3,652,240	3,725,284	3,799,790	3,875,786	3,953,302	4,032,368
Debt Servicing																							
Baseline			2,700,000	31,561,885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duteau WTP			-	23,883,699	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	2,445,981	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP			-	21,195,485	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	-	-	-	-	-	-	-	-
Separation Projects			-	33,551,163	3,176,800	3,176,800	2,758,800	2,090,000	1,672,000	1,254,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Servicing Costs			2,700,000	110,192,232	8,393,173	8,393,173	7,975,173	7,306,373	6,888,373	6,470,373	2,770,392	2,770,392	2,770,392	2,770,392	2,770,392	-	-	-	-	-	-	-	-
New Debt																							
Duteau WTP			-	22,924,519	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP			-	20,344,265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Separation Projects			-	32,203,733	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions			-	75,472,518	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations																							
Contributions			1,100,000	20,380,617	1,634,542	1,667,233	1,700,578	1,734,589	1,769,281	1,804,667	-	-	-	-	-	-	-	-	-	-	-	-	-
Withdrawals			-	11,385,372	-	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance			-	-	13,732,055	15,399,288	17,099,866	18,834,455	20,603,736	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221
Total Funding Requirements			16,800,000	514,370,727	31,446,235	31,907,296	31,959,579	31,770,467	31,841,749	31,922,814	26,891,123	27,373,539	27,865,603	28,367,507	28,879,448	26,631,238	27,163,862	27,707,141	28,261,281	28,826,508	29,403,038	29,991,099	30,590,922
Cumulative Funding Requirements					541,992,794	573,900,090	605,859,669	637,630,136	669,471,884	701,394,698	728,285,822	755,659,361	783,524,964	811,892,472	840,771,920	867,403,158	894,567,020	922,274,161	950,535,442	979,361,950	1,008,764,988	1,038,756,087	1,069,347,009
Year to Year % Increase					1.46%	1.47%	0.16%	-0.59%	0.22%	0.25%	-15.76%	1.79%	1.80%	1.80%	1.80%	-7.78%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Index based on 2012 Water Bill			1.00		1.87	1.90	1.90	1.89	1.90	1.90	1.60	1.63	1.66	1.69	1.72	1.59	1.62	1.65	1.68	1.72	1.75	1.79	1.82

Option 2 - Duteau / Mission Hill WTP with Incremental Separation

	2012	NPV	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062
MWP Capital Expenditures														
Duteau WTP Filtration	26,500,000	22,924,519	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	2,600,000	2,453,551	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	9,800,000	8,735,288	-	-	-	-	-	-	-	-	-	-	-	-
Lavington Separation	19,500,000	17,381,441	-	-	-	-	-	-	-	-	-	-	-	-
Irrigation Transmission Main	9,800,000	8,477,747	-	-	-	-	-	-	-	-	-	-	-	-
	108,210,000	88,964,330	-	-	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts														
Duteau WTP Filtration	118,379	2,537,126	256,260	261,386	266,613	271,946	277,384	282,932	288,591	294,363	300,250	306,255	312,380	318,627
Mission Hill WTP Filtration	844,331	14,745,203	1,827,761	1,864,316	1,901,603	1,939,635	1,978,427	2,017,996	2,058,356	2,099,523	2,141,513	2,184,344	2,228,031	2,272,591
Okanagan Lake Pump Station	156,462	3,771,445	338,700	345,474	352,384	359,431	366,620	373,952	381,432	389,060	396,841	404,778	412,874	421,131
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	87,604	1,877,549	189,640	193,433	197,302	201,248	205,273	209,378	213,566	217,837	222,194	226,638	231,170	235,794
Separation O&M	207,274	4,804,812	448,695	457,669	466,823	476,159	485,682	495,396	505,304	515,410	525,718	536,232	546,957	557,896
	1,414,050	27,736,135	3,061,056	3,122,278	3,184,725	3,248,419	3,313,386	3,379,654	3,447,249	3,516,193	3,586,516	3,658,247	3,731,412	3,806,039
Baseline Operating Costs														
Baseline	2,725,000	70,903,516	5,898,929	6,016,908	6,137,246	6,259,991	6,385,191	6,512,895	6,643,153	6,776,016	6,911,536	7,049,767	7,190,762	7,334,577
Duteau WTP	1,876,655	48,829,884	4,062,479	4,143,729	4,226,603	4,311,135	4,397,358	4,485,305	4,575,011	4,666,512	4,759,842	4,855,039	4,952,139	5,051,182
Mission Hill WTP	959,639	24,969,460	2,077,374	2,118,921	2,161,299	2,204,525	2,248,616	2,293,588	2,339,460	2,386,249	2,433,974	2,482,654	2,532,307	2,582,953
Distribution	5,538,706	144,115,129	11,989,885	12,229,683	12,474,276	12,723,762	12,978,237	13,237,802	13,502,558	13,772,609	14,048,061	14,329,022	14,615,603	14,907,915
	11,100,000	288,817,989	24,028,667	24,509,241	24,999,424	25,499,413	26,009,402	26,529,590	27,060,182	27,601,386	28,153,413	28,716,482	29,290,811	29,876,627
Sustaining Capital Expenditure														
Baseline	1,900,000	49,437,314	4,113,015	4,195,275	4,279,181	4,364,764	4,452,060	4,541,101	4,631,923	4,724,561	4,819,053	4,915,434	5,013,742	5,114,017
Debt Servicing														
Baseline	2,700,000	31,561,885	-	-	-	-	-	-	-	-	-	-	-	-
Duteau WTP	-	23,883,699	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	21,195,485	-	-	-	-	-	-	-	-	-	-	-	-
Separation Projects	-	33,551,163	-	-	-	-	-	-	-	-	-	-	-	-
Debt Servicing Costs	2,700,000	110,192,232	-	-	-	-	-	-	-	-	-	-	-	-
New Debt														
Duteau WTP	-	22,924,519	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	20,344,265	-	-	-	-	-	-	-	-	-	-	-	-
Separation Projects	-	32,203,733	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	75,472,518	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations														
Contributions	1,100,000	20,380,617	-	-	-	-	-	-	-	-	-	-	-	-
Withdrawals	-	11,385,372	-	-	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221	16,502,221
Total Funding Requirements	16,800,000	514,370,727	31,202,738	31,826,794	32,463,330	33,112,596	33,774,848	34,450,345	35,139,354	35,842,140	36,558,982	37,290,163	38,035,965	38,796,683
Cumulative Funding Requirements			1,100,549,747	1,132,376,541	1,164,839,871	1,197,952,467	1,231,727,315	1,266,177,660	1,301,317,014	1,337,159,154	1,373,718,136	1,411,008,299	1,449,044,264	1,487,840,947
Year to Year % Increase			2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Index based on 2012 Water Bill	1.00		1.86	1.89	1.93	1.97	2.01	2.05	2.09	2.13	2.18	2.22	2.26	2.31

Option 3 - Duteau / Mission Hill WTP with Complete Separation

	2012	NPV	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
MWP Capital Expenditures																						
Duteau WTP Filtration	18,000,000	15,571,371	-	-	-	-	19,873,454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	7,813,754	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	7,300,000	6,315,056	-	-	-	-	8,059,790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Separation	63,800,000	58,523,300	13,015,200	13,262,228	13,541,014	13,811,834	14,088,071	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrigation Transmission Main	17,100,000	15,688,940	3,488,400	3,558,168	3,629,331	3,701,918	3,775,956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	146,210,000	125,090,452	16,503,600	16,820,396	17,170,345	17,513,752	45,797,271	-	-	-	-	44,383,587	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts																						
Duteau WTP Filtration	(581,504)	(12,462,927)	-	-	-	-	-	(654,868)	(667,965)	(681,325)	(694,951)	(708,850)	(723,027)	(737,488)	(752,237)	(767,282)	(782,628)	(798,280)	(814,246)	(830,531)	(847,142)	(864,084)
Mission Hill WTP Filtration	844,331	14,745,203	-	-	-	-	-	-	-	-	-	-	1,049,819	1,070,816	1,092,232	1,114,077	1,136,358	1,159,086	1,182,267	1,205,913	1,230,031	1,254,631
Okanagan Lake Pump Station	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	65,256	1,398,583	-	-	-	-	-	73,489	74,959	76,458	77,987	79,547	81,138	82,760	84,416	86,104	87,826	89,583	91,374	93,202	95,066	96,967
Ag O&M	922,923	19,780,297	-	-	-	-	-	1,039,361	1,060,148	1,081,351	1,102,978	1,125,038	1,147,539	1,170,490	1,193,899	1,217,777	1,242,133	1,266,976	1,292,315	1,318,161	1,344,525	1,371,415
	1,251,006	23,461,157	-	-	-	-	-	457,982	467,142	476,484	486,014	495,735	1,555,469	1,586,578	1,618,310	1,650,676	1,683,689	1,717,365	1,751,710	1,786,745	1,822,480	1,858,929
Baseline Operating Costs																						
Baseline	2,725,000	70,903,516	2,779,500	2,835,090	2,891,792	2,949,628	3,008,620	3,068,793	3,130,168	3,192,772	3,256,627	3,321,760	3,388,195	3,455,959	3,525,078	3,595,580	3,667,491	3,740,841	3,815,658	3,891,971	3,969,810	4,049,207
Duteau WTP	1,876,655	48,829,884	1,914,188	1,952,472	1,991,521	2,031,352	2,071,979	2,113,418	2,155,687	2,198,800	2,242,776	2,287,632	2,333,385	2,380,052	2,427,653	2,476,206	2,525,731	2,576,245	2,627,770	2,680,325	2,733,932	2,788,611
Mission Hill WTP	959,639	24,969,460	978,832	998,408	1,018,377	1,038,744	1,059,519	1,080,709	1,102,324	1,124,370	1,146,857	1,169,795	1,193,190	1,217,054	1,241,395	1,266,223	1,291,548	1,317,379	1,343,726	1,370,601	1,398,013	1,425,973
Distribution	5,538,706	144,115,129	5,649,480	5,762,470	5,877,719	5,995,273	6,115,179	6,237,483	6,362,232	6,489,477	6,619,266	6,751,652	6,886,685	7,024,418	7,164,907	7,308,205	7,454,369	7,603,456	7,755,526	7,910,636	8,068,849	8,230,226
	11,100,000	288,817,989	11,322,000	11,548,440	11,779,409	12,014,997	12,255,297	12,500,403	12,750,411	13,005,419	13,265,526	13,530,839	13,801,455	14,077,483	14,359,033	14,646,214	14,939,139	15,237,921	15,542,680	15,853,533	16,170,604	16,494,017
Sustaining Capital Expenditure																						
Baseline	1,900,000	49,437,314	1,938,000	1,976,760	2,016,295	2,056,621	2,097,754	2,139,709	2,182,503	2,226,153	2,270,676	2,316,089	2,362,411	2,409,659	2,457,853	2,507,010	2,557,150	2,608,293	2,660,459	2,713,668	2,767,941	2,823,300
Debt Servicing																						
Baseline	2,700,000	31,561,885	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	2,700,000	-	-
Duteau WTP	-	16,222,890	-	-	-	-	-	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421
Mission Hill WTP	-	23,390,060	-	-	-	-	-	-	-	-	-	-	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238
Other	-	77,884,173	-	1,337,600	2,675,200	4,012,800	5,350,400	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200	7,273,200
Debt Servicing Costs	2,700,000	149,059,007	2,700,000	4,037,600	5,375,200	6,712,800	8,050,400	11,634,621	11,634,621	11,634,621	11,634,621	11,634,621	14,691,859	14,691,859	14,691,859	14,691,859	14,691,859	14,691,859	14,691,859	14,691,859	11,991,859	11,991,859
New Debt																						
Duteau WTP	-	15,571,371	-	-	-	-	19,873,454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	22,450,705	-	-	-	-	-	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-	-
Other	-	74,756,310	16,000,000	16,000,000	16,000,000	16,000,000	23,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	112,778,386	16,000,000	16,000,000	16,000,000	16,000,000	42,873,454	-	-	-	-	36,569,833	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations																						
Contributions	1,100,000	20,380,617	1,122,000	1,144,440	1,167,329	1,190,675	1,214,489	1,238,779	1,263,554	1,288,825	1,314,602	1,340,894	1,367,712	1,395,066	1,422,967	1,451,427	1,480,455	1,510,064	1,540,266	1,571,071	1,602,492	1,634,542
Withdrawals	-	12,312,066	503,600	820,396	1,170,345	1,513,752	2,923,817	-	-	-	-	7,813,754	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	618,400	942,444	939,427	616,350	(1,092,979)	145,800	1,409,354	2,698,179	4,012,781	(2,460,079)	(1,092,367)	302,699	1,725,666	3,177,093	4,657,548	6,167,612	7,707,878	9,278,949	10,881,441	12,515,983
Total Funding Requirements	16,800,000	546,856,084	17,082,000	18,707,240	20,338,233	21,975,093	23,617,940	27,971,494	28,298,231	28,631,502	28,971,439	29,318,178	33,778,906	34,160,645	34,550,022	34,947,186	35,352,292	35,765,502	36,186,974	36,616,876	34,355,376	34,802,647
Cumulative Funding Requirements			17,082,000	35,789,240	56,127,473	78,102,566	101,720,506	129,692,000	157,990,231	186,621,732	215,593,171	244,911,349	278,690,255	312,850,899	347,400,921	382,348,107	417,700,399	453,465,901	489,652,874	526,269,750	560,625,126	595,427,773
Year to Year % Increase			1.68%	9.51%	8.72%	8.05%	7.48%	18.43%	1.17%	1.18%	1.19%	1.20%	15.21%	1.13%	1.14%	1.15%	1.16%	1.17%	1.18%	1.19%	-6.18%	1.30%
Index based on 2012 Water Bill	1.00		1.02	1.11	1.21	1.31	1.41	1.66	1.68	1.70	1.72	1.75	2.01	2.03	2.06	2.08	2.10	2.13	2.15	2.18	2.04	2.07

Option 3 - Duteau / Mission Hill WTP with Complete Separation

	2012	NPV	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
MWP Capital Expenditures																						
Duteau WTP Filtration	18,000,000	15,571,371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	7,300,000	6,315,056	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Separation	63,800,000	58,523,300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Irrigation Transmission Main	17,100,000	15,688,940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	146,210,000	125,090,452	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts																						
Duteau WTP Filtration	(581,504)	(12,462,927)	(881,366)	(898,993)	(916,973)	(935,313)	(954,019)	(973,099)	(992,561)	(1,012,413)	(1,032,661)	(1,053,314)	(1,074,380)	(1,095,868)	(1,117,785)	(1,140,141)	(1,162,944)	(1,186,203)	(1,209,927)	(1,234,125)	(1,258,808)	(1,283,984)
Mission Hill WTP Filtration	844,331	14,745,203	1,279,724	1,305,319	1,331,425	1,358,053	1,385,214	1,412,919	1,441,177	1,470,001	1,499,401	1,529,389	1,559,977	1,591,176	1,623,000	1,655,460	1,688,569	1,722,340	1,756,787	1,791,923	1,827,761	1,864,316
Okanagan Lake Pump Station	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	65,256	1,398,583	98,906	100,884	102,902	104,960	107,059	109,201	111,385	113,612	115,885	118,202	120,566	122,978	125,437	127,946	130,505	133,115	135,777	138,493	141,263	144,088
Ag O&M	922,923	19,780,297	1,398,843	1,426,820	1,455,357	1,484,464	1,514,153	1,544,436	1,575,325	1,606,831	1,638,968	1,671,747	1,705,182	1,739,286	1,774,072	1,809,553	1,845,744	1,882,659	1,920,312	1,958,718	1,997,893	2,037,851
	1,251,006	23,461,157	1,896,107	1,934,030	1,972,711	2,012,164	2,052,407	2,093,457	2,135,326	2,178,031	2,221,593	2,266,024	2,311,345	2,357,572	2,404,724	2,452,818	2,501,874	2,551,911	2,602,949	2,655,009	2,708,109	2,762,271
Baseline Operating Costs																						
Baseline	2,725,000	70,903,516	4,130,191	4,212,795	4,297,050	4,382,992	4,470,651	4,560,064	4,651,266	4,744,291	4,839,177	4,935,960	5,034,680	5,135,373	5,238,081	5,342,842	5,449,699	5,558,693	5,669,867	5,783,264	5,898,929	6,016,908
Duteau WTP	1,876,655	48,829,884	2,844,383	2,901,270	2,959,296	3,018,482	3,078,851	3,140,428	3,203,237	3,267,302	3,332,648	3,399,301	3,467,287	3,536,633	3,607,365	3,679,512	3,753,103	3,828,165	3,904,728	3,982,823	4,062,479	4,143,729
Mission Hill WTP	959,639	24,969,460	1,454,493	1,483,582	1,513,254	1,543,519	1,574,389	1,605,877	1,637,995	1,670,755	1,704,170	1,738,253	1,773,018	1,808,479	1,844,648	1,881,541	1,919,172	1,957,555	1,996,707	2,036,641	2,077,374	2,118,921
Distribution	5,538,706	144,115,129	8,394,830	8,562,727	8,733,981	8,908,661	9,086,834	9,268,571	9,453,942	9,643,021	9,835,882	10,032,599	10,233,251	10,437,916	10,646,675	10,859,608	11,076,800	11,298,336	11,524,303	11,754,789	11,989,885	12,229,683
	11,100,000	288,817,989	16,823,897	17,160,374	17,503,581	17,853,654	18,210,725	18,574,940	18,946,440	19,325,369	19,711,877	20,106,113	20,508,236	20,918,401	21,336,769	21,763,503	22,198,774	22,642,749	23,095,605	23,557,517	24,028,667	24,509,241
Sustaining Capital Expenditure																						
Baseline	1,900,000	49,437,314	2,879,766	2,937,361	2,996,109	3,056,031	3,117,151	3,179,494	3,243,084	3,307,946	3,374,105	3,441,587	3,510,419	3,580,627	3,652,240	3,725,284	3,799,790	3,875,786	3,953,302	4,032,368	4,113,015	4,195,275
Debt Servicing																						
Baseline	2,700,000	31,561,885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duteau WTP	-	16,222,890	1,661,421	1,661,421	1,661,421	1,661,421	1,661,421	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	23,390,060	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	-	-	-	-	-	-	-	-	-	-
Other	-	77,884,173	7,273,200	5,935,600	4,598,000	3,260,400	1,922,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Servicing Costs	2,700,000	149,059,007	11,991,859	10,654,259	9,316,659	7,979,059	6,641,459	3,057,238	3,057,238	3,057,238	3,057,238	3,057,238	-	-	-	-	-	-	-	-	-	-
New Debt																						
Duteau WTP	-	15,571,371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	22,450,705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	74,756,310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	112,778,386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations																						
Contributions	1,100,000	20,380,617	1,667,233	1,700,578	1,734,589	1,769,281	1,804,667	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Withdrawals	-	12,312,066	-	-	-	-	5,906,182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	14,183,216	15,883,794	17,618,383	19,387,664	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149
Total Funding Requirements	16,800,000	546,856,084	35,258,862	34,386,602	33,523,649	32,670,189	31,826,409	26,905,129	27,382,088	27,868,584	28,364,813	28,870,962	26,330,000	26,856,600	27,393,733	27,941,605	28,500,438	29,070,446	29,651,856	30,244,894	30,849,791	31,466,787
Cumulative Funding Requirements			630,686,634	665,073,236	698,596,885	731,267,074	763,093,483	789,998,612	817,380,700	845,249,284	873,614,097	902,485,059	928,815,059	955,671,659	983,065,392	1,011,006,997	1,039,507,435	1,068,577,881	1,098,229,737	1,128,474,631	1,159,324,422	1,190,791,209
Year to Year % Increase			1.31%	-2.47%	-2.51%	-2.55%	-2.58%	-15.46%	1.77%	1.78%	1.78%	1.78%	-8.80%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Index based on 2012 Water Bill	1.00		2.10	2.05	2.00	1.94	1.89	1.60	1.63	1.66	1.69	1.72	1.57	1.60	1.63	1.66	1.70	1.73	1.76	1.80	1.84	1.87

Option 3 - Duteau / Mission Hill WTP with Complete Separation

	2012	NPV	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062
MWP Capital Expenditures												
Duteau WTP Filtration	18,000,000	15,571,371	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP Filtration	30,000,000	22,450,705	-	-	-	-	-	-	-	-	-	-
Okanagan Lake Pump Station	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	6,410,000	4,796,967	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	3,600,000	1,744,112	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	7,300,000	6,315,056	-	-	-	-	-	-	-	-	-	-
Separation	63,800,000	58,523,300	-	-	-	-	-	-	-	-	-	-
Irrigation Transmission Main	17,100,000	15,688,940	-	-	-	-	-	-	-	-	-	-
	146,210,000	125,090,452	-	-	-	-	-	-	-	-	-	-
MWP Operating Cost Impacts												
Duteau WTP Filtration	(581,504)	(12,462,927)	(1,309,664)	(1,335,857)	(1,362,574)	(1,389,825)	(1,417,622)	(1,445,974)	(1,474,894)	(1,504,392)	(1,534,480)	(1,565,169)
Mission Hill WTP Filtration	844,331	14,745,203	1,901,603	1,939,635	1,978,427	2,017,996	2,058,356	2,099,523	2,141,513	2,184,344	2,228,031	2,272,591
Okanagan Lake Pump Station	-	-	-	-	-	-	-	-	-	-	-	-
Aberdeen Dam Improvements	-	-	-	-	-	-	-	-	-	-	-	-
Gold-Paradise Extension	-	-	-	-	-	-	-	-	-	-	-	-
Domestic System Improvements	65,256	1,398,583	146,970	149,909	152,907	155,965	159,085	162,266	165,512	168,822	172,198	175,642
Ag O&M	922,923	19,780,297	2,078,608	2,120,180	2,162,583	2,205,835	2,249,952	2,294,951	2,340,850	2,387,667	2,435,420	2,484,128
	1,251,006	23,461,157	2,817,517	2,873,867	2,931,343	2,989,971	3,049,771	3,110,766	3,172,981	3,236,441	3,301,169	3,367,192
Baseline Operating Costs												
Baseline	2,725,000	70,903,516	6,137,246	6,259,991	6,385,191	6,512,895	6,643,153	6,776,016	6,911,536	7,049,767	7,190,762	7,334,577
Duteau WTP	1,876,655	48,829,884	4,226,603	4,311,135	4,397,358	4,485,305	4,575,011	4,666,512	4,759,842	4,855,039	4,952,139	5,051,182
Mission Hill WTP	959,639	24,969,460	2,161,299	2,204,525	2,248,616	2,293,588	2,339,460	2,386,249	2,433,974	2,482,654	2,532,307	2,582,953
Distribution	5,538,706	144,115,129	12,474,276	12,723,762	12,978,237	13,237,802	13,502,558	13,772,609	14,048,061	14,329,022	14,615,603	14,907,915
	11,100,000	288,817,989	24,999,424	25,499,413	26,009,402	26,529,590	27,060,182	27,601,386	28,153,413	28,716,482	29,290,811	29,876,627
Sustaining Capital Expenditure												
Baseline	1,900,000	49,437,314	4,279,181	4,364,764	4,452,060	4,541,101	4,631,923	4,724,561	4,819,053	4,915,434	5,013,742	5,114,017
Debt Servicing												
Baseline	2,700,000	31,561,885	-	-	-	-	-	-	-	-	-	-
Duteau WTP	-	16,222,890	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	23,390,060	-	-	-	-	-	-	-	-	-	-
Other	-	77,884,173	-	-	-	-	-	-	-	-	-	-
Debt Servicing Costs	2,700,000	149,059,007	-	-	-	-	-	-	-	-	-	-
New Debt												
Duteau WTP	-	15,571,371	-	-	-	-	-	-	-	-	-	-
Mission Hill WTP	-	22,450,705	-	-	-	-	-	-	-	-	-	-
Other	-	74,756,310	-	-	-	-	-	-	-	-	-	-
Debt Additions	-	112,778,386	-	-	-	-	-	-	-	-	-	-
Reserve Fund Operations												
Contributions	1,100,000	20,380,617	-	-	-	-	-	-	-	-	-	-
Withdrawals	-	12,312,066	-	-	-	-	-	-	-	-	-	-
MWP Reserve Fund Balance	-	-	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149	15,286,149
Total Funding Requirements	16,800,000	546,856,084	32,096,122	32,738,044	33,392,805	34,060,662	34,741,876	35,436,713	36,145,447	36,868,357	37,605,722	38,357,836
Cumulative Funding Requirements			1,222,887,331	1,255,625,375	1,289,018,180	1,323,078,842	1,357,820,718	1,393,257,431	1,429,402,878	1,466,271,235	1,503,876,957	1,542,234,793
Year to Year % Increase			2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Index based on 2012 Water Bill	1.00		1.91	1.95	1.99	2.03	2.07	2.11	2.15	2.19	2.24	2.28