

Sandoval County Wholesale Water Supply Utility

Desalination Treatment Facility

Preliminary Engineering Report

Appendix M

Financial Analysis Workbook

Alternative 2 - Middle Rio Grande Water Rights

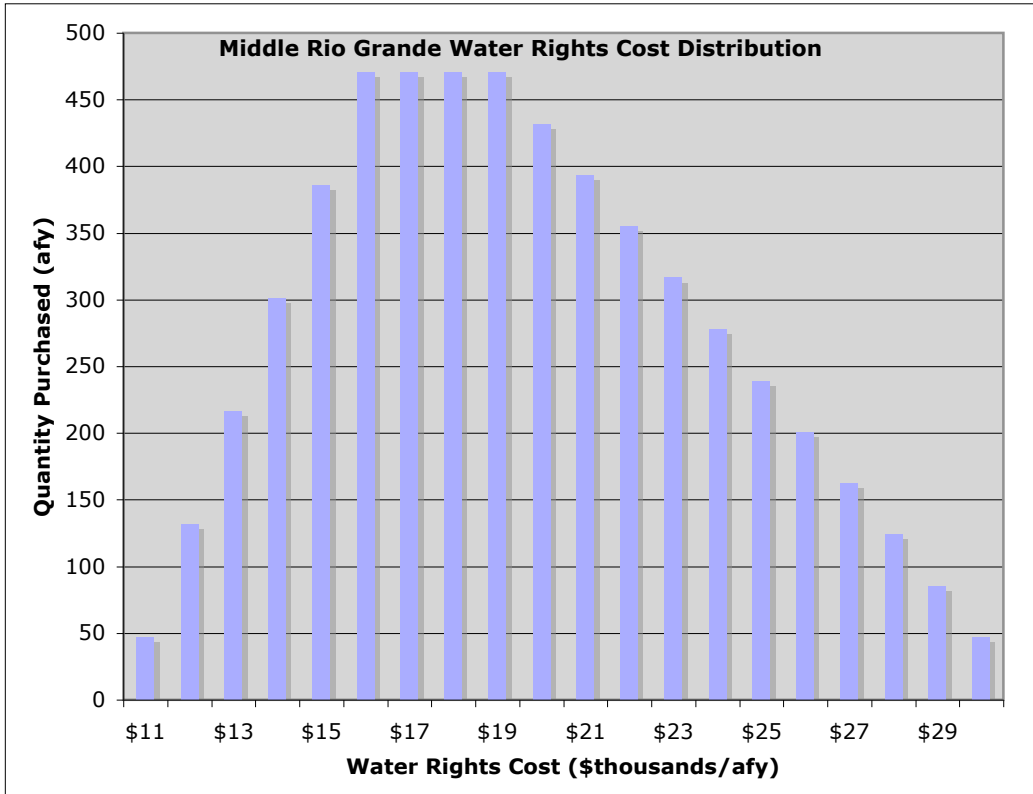
<i>Computed Water Rate (per 1,000 gallons)</i>	<i>\$11.54</i>
<i>Capital Cost (millions)</i>	<i>\$214.3</i>
<i>Net Present Value (millions)</i>	<i>\$78.4</i>
<i>Present Value Whole Life Cost (millions)</i>	<i>\$266.5</i>

**Table M-1
Finance and Operational Variables**

Finance Information		
Project Loan Finance Period	20	Years
Project Loan Finance Rate	4.50%	Per Year
Debt Service Cover Ratio	1.10	
Debt Service Cover Limit	2.00	years
Present Value Discount Rate	2.00%	
Operation Expenses		
Potable Water Supplied	5	MGD
<i>Electricity</i>		
Electricity First Year Price	\$ 0.04	Per KWH
Electricity Price Inflation Rate	3.00%	Per Year
<i>Natural Gas</i>		
Natural Gas First Year Price	\$ 0.049	Per MMBTU
Natural Gas Price Inflation Rate	3.00%	Per Year
<i>Treatment Chemicals</i>		
Treatment Chemicals First Year Price		See Chemicals Tab
Cereal Grains Price Inflation Rate	3.00%	Per Year
<i>Equipment Maintenance Expenses</i>		
Inflation Rate	3.00%	Per Year
<i>Fixed Office and Maintenance Expenses</i>		
Inflation Rate	3.00%	Per Year
<i>Employees Salaries and Benefits</i>		
Salary and Benefit Inflation Rate	3.00%	Per Year
Revenues		
<i>Potable Water</i>		
Potable Water First Year Expected Price	\$ 11.54	Per 1000 Gallons
Depreciation & Taxes		
Straight Line Method		
Salvage Value % at End of 20 Years	0%	
Income Tax Rate	0%	Per Year

**Table M-2
Water Rights Cost**

Increment	Rate (\$k/afy)	relative Value	Share	Rights (afy)	Normalized
1	\$11	1.00	0.84%	47.06	0.09
2	\$12	2.80	2.35%	131.76	0.28
3	\$13	4.60	3.87%	216.47	0.50
4	\$14	6.40	5.38%	301.18	0.75
5	\$15	8.20	6.89%	385.88	1.03
6	\$16	10.00	8.40%	470.59	1.34
7	\$17	10.00	8.40%	470.59	1.43
8	\$18	10.00	8.40%	470.59	1.51
9	\$19	10.00	8.40%	470.59	1.60
10	\$20	9.18	7.72%	432.09	1.54
11	\$21	8.36	7.03%	393.58	1.48
12	\$22	7.55	6.34%	355.08	1.39
13	\$23	6.73	5.65%	316.58	1.30
14	\$24	5.91	4.97%	278.07	1.19
15	\$25	5.09	4.28%	239.57	1.07
16	\$26	4.27	3.59%	201.07	0.93
17	\$27	3.45	2.90%	162.57	0.78
18	\$28	2.64	2.22%	124.06	0.62
19	\$29	1.82	1.53%	85.56	0.44
20	\$30	1.00	0.84%	47.06	0.25
		119.00	100.00%	5600.00	\$19,554.62



**Table M-3
Project Cost Estimate**

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Qty</u>	<u>Unit Cost</u>	<u>Total</u>
I. Middle Rio Grande Water Rights					
1	Water Rights	AF	5600	\$19,554.62	\$109,505,882
	TOTAL Water Rights				\$109,505,882
II. Ranney Well and Intake Structure					
1	Mobilization & Site Preparation	LS	1	\$125,000.00	\$125,000
2	SWPPP	LS	1	\$10,000.00	\$10,000
3	Field Office	LS	1	\$12,500.00	\$12,500
4	Well Head Protection	LS	4	\$87,500.00	\$350,000
5	Ranney Well	LF	250	\$575.00	\$143,750
6	Intake Piping	LF	200	\$125.00	\$25,000
7	Caisson Pump Station	EA	1	\$550,000.00	\$550,000
8	Pumps	EA	3	\$95,000.00	\$285,000
9	Controls	EA	1	\$125,000.00	\$125,000
10	Sitework	EA	1	\$35,000.00	\$35,000
	TOTAL Raw Water Intake				\$1,661,250
III. Raw Water Transmission Pipelines:					
1	18" Suburban Pipeline, installed	LF	110,880	\$200.00	\$22,176,000
2	18" Valves & Appurtenances	LS	21	\$8,000.00	\$168,000
3	Pump Station	EA	2	\$1,500,000.00	\$3,000,000
4	Raw Water Storage Tank	EA	1	\$4,000,000.00	\$4,000,000
	TOTAL Raw Water Transmission Piping				\$29,344,000
IV. Water Treatment Plant					
1	Site Work & Grading				\$250,000
2	Site Yard Piping				\$450,000
3	Chemical Feed- Hypochlorite				\$75,000
4	Hypochlorite tanks				\$37,500
5	Flocculation Facilities				\$281,250
6	Lime Feed System- Dry side				\$450,000
7	Lime Feed System- Wet side				\$75,000
8	Softening Clarifiers				\$3,600,000
9	Softening Clarifiers- Discharge thickener				\$250,000
10	Lime Sludge Dewatering				\$750,000
11	Equalization Tank and wet well				\$400,000
12	Filter and Ion Exchange Supply Pumps				\$150,000
13	Media Filter-				\$2,000,000
14	Media Filter Backwash Facilities				\$93,750
15	Emergency permeate flush water				\$50,000
16	Finished Water Disinfection (Storage and Metering)				\$25,000
17	Finished Water Pump Station				\$375,000
18	Operations Facility				\$350,000
19	Chemical Storage Facility Building				\$240,000
20	Process Equipment Building				\$850,000

21	Facility Electrical				\$850,000
22	Overall Instrumentation and Control System				\$250,000
23	Land Procurement				\$125,000

Total Water Treatment Plant **\$11,977,500**

V. Finished Water Transmission Piping:

1	30" Pipeline, installed	LF	500	\$185.00	\$92,500
2	30" Gate Valve Assembly	LS	1	\$25,000.00	\$25,000
3	Air Release Valve and Vault	LS	2	\$2,500.00	\$5,000
4	Finished Water Storage				\$4,000,000

Total Finished Water Transmission Piping **\$4,122,500**

Construction Total **\$156,611,132**

VI. Other Costs

1	Engineering				\$9,396,668
2	Construction Administration				\$9,396,668
3	Legal				\$3,132,223
4	Bond Counsel				\$783,056
5	Underwriters Fee				\$4,698,334
6	Official Statement				\$1,566,111
7	Contingency				\$11,745,835
8	Environmental Permitting (Pipeline EIS)				\$800,000
9	Interest during Construction				\$10,125,000
10	Recovery of Groundwater Exploration Costs				\$6,000,000
	Total Other Costs				\$57,643,894

VII. Total Project Cost **\$214,255,027**

VIII. Grant Funding Already Received **\$3,500,000**

IX. Project Funding Required **\$210,755,027**

X. Other Startup Cost

Capitalized Interest (1 Year)	\$9,483,976
Cash Reserve For Operations	\$2
Chemicals & Lime (3 Month Supply)	\$58,400
Operating Cash Total	\$9,542,378

X. Long Term Loan Requirements **\$220,297,405**

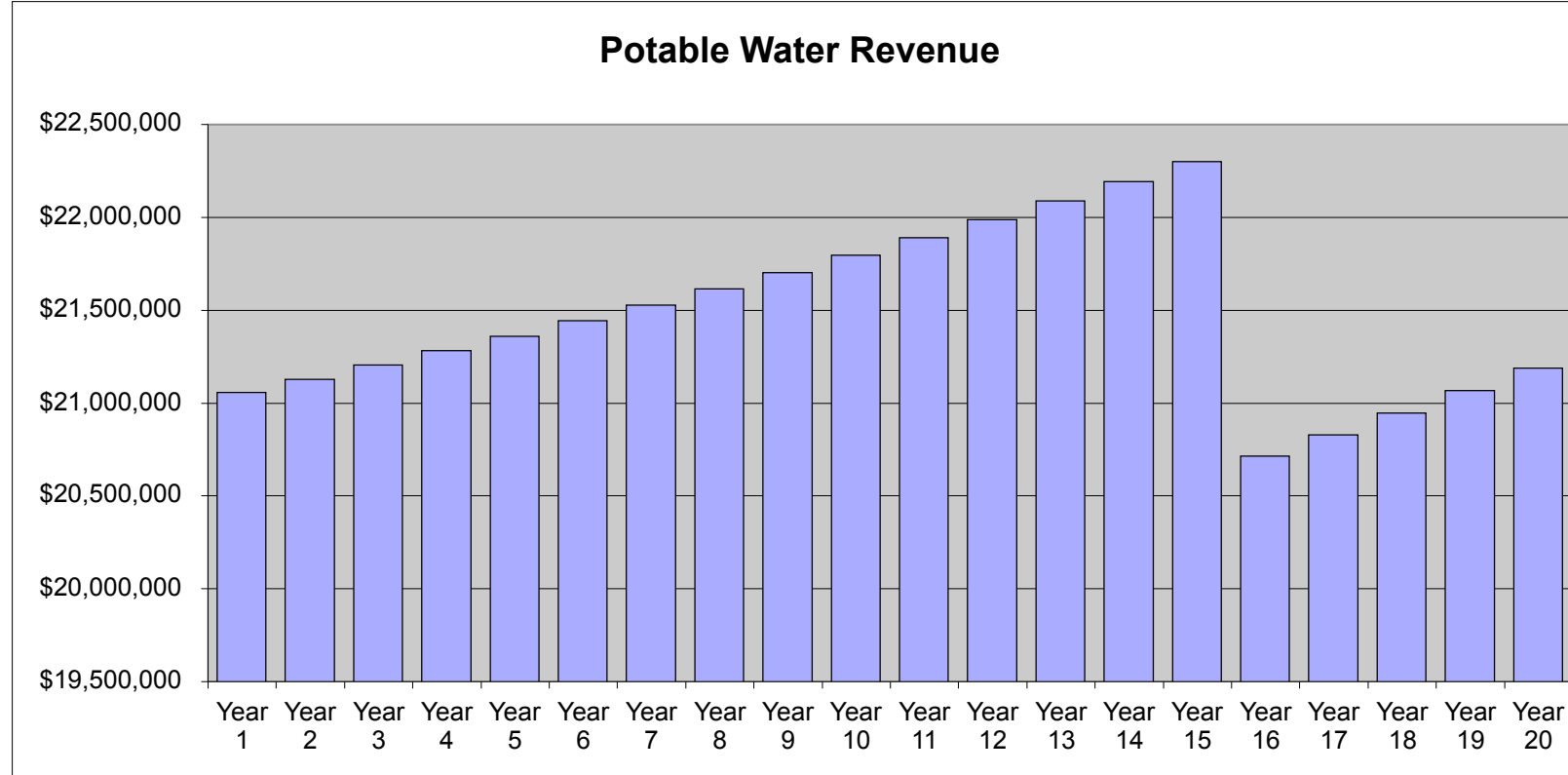
Table M-4
Income Statement

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Gross Revenue	\$ 21,054,159	\$ 21,126,908	\$ 21,201,840	\$ 21,279,020	\$ 21,358,515	\$ 21,440,395	\$ 21,524,732	\$ 21,611,599	\$ 21,701,071	\$ 21,793,228	\$ 21,888,150	\$ 21,985,919	\$ 22,086,621	\$ 22,190,344	\$ 22,297,180	\$ 20,713,658	\$ 20,826,999	\$ 20,943,741	\$ 21,063,985	\$ 21,187,836
Potable Water	\$ 21,054,159	\$ 21,126,908	\$ 21,201,840	\$ 21,279,020	\$ 21,358,515	\$ 21,440,395	\$ 21,524,732	\$ 21,611,599	\$ 21,701,071	\$ 21,793,228	\$ 21,888,150	\$ 21,985,919	\$ 22,086,621	\$ 22,190,344	\$ 22,297,180	\$ 20,713,658	\$ 20,826,999	\$ 20,943,741	\$ 21,063,985	\$ 21,187,836
Cost of Goods Sold	\$ 1,581,538	\$ 1,628,984	\$ 1,677,854	\$ 1,728,190	\$ 1,780,035	\$ 1,833,436	\$ 1,888,439	\$ 1,945,093	\$ 2,003,445	\$ 2,063,549	\$ 2,125,455	\$ 2,189,219	\$ 2,254,895	\$ 2,322,542	\$ 2,392,219	\$ 2,463,985	\$ 2,537,905	\$ 2,614,042	\$ 2,692,463	\$ 2,773,237
Electricity	\$ 405,833	\$ 418,008	\$ 430,549	\$ 443,465	\$ 456,769	\$ 470,472	\$ 484,586	\$ 499,124	\$ 514,097	\$ 529,520	\$ 545,406	\$ 561,768	\$ 578,621	\$ 595,980	\$ 613,859	\$ 632,275	\$ 651,243	\$ 670,781	\$ 690,904	\$ 711,631
Natural Gas	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treatment Chemicals	\$ 233,600	\$ 240,608	\$ 247,826	\$ 255,261	\$ 262,919	\$ 270,806	\$ 278,931	\$ 287,299	\$ 295,917	\$ 304,795	\$ 313,939	\$ 323,357	\$ 333,058	\$ 343,049	\$ 353,341	\$ 363,941	\$ 374,859	\$ 386,105	\$ 397,688	\$ 409,619
Equipment Maintenance & Replacement	\$ 942,105	\$ 970,368	\$ 999,479	\$ 1,029,464	\$ 1,060,347	\$ 1,092,158	\$ 1,124,923	\$ 1,158,670	\$ 1,193,430	\$ 1,229,233	\$ 1,266,110	\$ 1,304,094	\$ 1,343,216	\$ 1,383,513	\$ 1,425,018	\$ 1,467,769	\$ 1,511,802	\$ 1,557,156	\$ 1,603,871	\$ 1,651,987
Operating Expenses	\$ 843,444	\$ 868,747	\$ 894,809	\$ 921,654	\$ 949,303	\$ 977,782	\$ 1,007,116	\$ 1,037,329	\$ 1,068,449	\$ 1,100,503	\$ 1,133,518	\$ 1,167,523	\$ 1,202,549	\$ 1,238,626	\$ 1,275,784	\$ 1,314,058	\$ 1,353,480	\$ 1,394,084	\$ 1,435,907	\$ 1,478,984
Personnel Wages & Benefits	\$ 444,500	\$ 457,835	\$ 471,570	\$ 485,717	\$ 500,289	\$ 515,297	\$ 530,756	\$ 546,679	\$ 563,079	\$ 579,972	\$ 597,371	\$ 615,292	\$ 633,751	\$ 652,763	\$ 672,346	\$ 692,517	\$ 713,292	\$ 734,691	\$ 756,731	\$ 779,433
Fixed Maintenance For Operations	\$ 398,944	\$ 410,912	\$ 423,239	\$ 435,937	\$ 449,015	\$ 462,485	\$ 476,360	\$ 490,650	\$ 505,370	\$ 520,531	\$ 536,147	\$ 552,231	\$ 568,798	\$ 585,862	\$ 603,438	\$ 621,541	\$ 640,188	\$ 659,393	\$ 679,175	\$ 699,550
Operating Earnings	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 18,629,177	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615
Debt Service	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615	\$ 16,935,615
Principal Payment	\$ 7,022,232	\$ 7,338,232	\$ 7,668,453	\$ 8,013,533	\$ 8,374,142	\$ 8,750,979	\$ 9,144,773	\$ 9,556,287	\$ 9,986,320	\$ 10,435,705	\$ 10,905,311	\$ 11,396,050	\$ 11,908,873	\$ 12,444,772	\$ 13,004,787	\$ 13,590,002	\$ 14,201,552	\$ 14,840,622	\$ 15,508,450	\$ 16,206,330
Interest Expense	\$ 9,913,383	\$ 9,597,383	\$ 9,267,162	\$ 8,922,082	\$ 8,561,473	\$ 8,184,637	\$ 7,790,843	\$ 7,379,328	\$ 6,949,295	\$ 6,499,910	\$ 6,030,304	\$ 5,539,565	\$ 5,026,742	\$ 4,490,843	\$ 3,930,828	\$ 3,345,613	\$ 2,734,063	\$ 2,094,993	\$ 1,427,165	\$ 729,285
Excess Revenue	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ 1,693,562	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Account	\$ 9,542,378	\$ 11,235,940	\$ 12,929,501	\$ 14,623,063	\$ 16,316,624	\$ 18,010,186	\$ 19,703,747	\$ 21,397,309	\$ 23,090,870	\$ 24,784,432	\$ 26,477,993	\$ 28,171,555	\$ 29,865,116	\$ 31,558,678	\$ 33,252,239	\$ 34,945,801	\$ 34,945,801	\$ 34,945,801	\$ 34,945,801	\$ 34,945,801
Debt Service Coverage	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.00	1.00	1.00	1.00	1.00

**Table M-5
Project Revenues**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	
Potable Water																					
Gallons/Day	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	
Price (\$/K Gallons)	\$ 11.54	\$ 11.58	\$ 11.62	\$ 11.66	\$ 11.70	\$ 11.75	\$ 11.79	\$ 11.84	\$ 11.89	\$ 11.94	\$ 11.99	\$ 12.05	\$ 12.10	\$ 12.16	\$ 12.22	\$ 11.35	\$ 11.41	\$ 11.48	\$ 11.54	\$ 11.61	
Revenue	\$ 21,054,159	\$ 21,126,908	\$ 21,201,840	\$ 21,279,020	\$ 21,358,515	\$ 21,440,395	\$ 21,524,732	\$ 21,611,599	\$ 21,701,071	\$ 21,793,228	\$ 21,888,150	\$ 21,985,919	\$ 22,086,621	\$ 22,190,344	\$ 22,297,180	\$ 20,713,658	\$ 20,826,999	\$ 20,943,741	\$ 21,063,985	\$ 21,187,836	
Total Revenue	\$ 21,054,159	\$ 21,126,908	\$ 21,201,840	\$ 21,279,020	\$ 21,358,515	\$ 21,440,395	\$ 21,524,732	\$ 21,611,599	\$ 21,701,071	\$ 21,793,228	\$ 21,888,150	\$ 21,985,919	\$ 22,086,621	\$ 22,190,344	\$ 22,297,180	\$ 20,713,658	\$ 20,826,999	\$ 20,943,741	\$ 21,063,985	\$ 21,187,836	

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**Table M-6
Costs of Goods Sold**

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Electricity	KWH Annually	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832	10,145,832
	Price (\$/KWH)	\$ 0.04	\$ 0.0412	\$ 0.042436	\$ 0.04370908	\$ 0.045020352	\$ 0.046370963	\$ 0.047762092	\$ 0.049194955	\$ 0.050670803	\$ 0.052190927	\$ 0.053756655	\$ 0.055369355	\$ 0.057030435	\$ 0.058741349	\$ 0.060503589	\$ 0.062318697	\$ 0.064188258	\$ 0.066113905	\$ 0.068097322	\$ 0.070140242
	Cost	\$ 405,833	\$ 418,008	\$ 430,549	\$ 443,465	\$ 456,769	\$ 470,472	\$ 484,586	\$ 499,124	\$ 514,097	\$ 529,520	\$ 545,406	\$ 561,768	\$ 578,621	\$ 595,980	\$ 613,859	\$ 632,275	\$ 651,243	\$ 670,781	\$ 690,904	\$ 711,631
Natural Gas	MMBTU Annually	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Price (\$/MMBTU)	\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.05	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.07	\$ 0.07	\$ 0.07	\$ 0.07	\$ 0.07	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.08	\$ 0.09
	Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treatment Chemicals	Cost	\$ 233,600	\$ 240,608	\$ 247,826	\$ 255,261	\$ 262,919	\$ 270,806	\$ 278,931	\$ 287,299	\$ 295,917	\$ 304,795	\$ 313,939	\$ 323,357	\$ 333,058	\$ 343,049	\$ 353,341	\$ 363,941	\$ 374,859	\$ 386,105	\$ 397,688	\$ 409,619
Equipment Maintenance & Replacement	Cost	\$ 942,105	\$ 970,368	\$ 999,479	\$ 1,029,464	\$ 1,060,347	\$ 1,092,158	\$ 1,124,923	\$ 1,158,670	\$ 1,193,430	\$ 1,229,233	\$ 1,266,110	\$ 1,304,094	\$ 1,343,216	\$ 1,383,513	\$ 1,425,018	\$ 1,467,769	\$ 1,511,802	\$ 1,557,156	\$ 1,603,871	\$ 1,651,987
Total Cost of Goods Sold		\$ 1,581,538	\$ 1,628,984	\$ 1,677,854	\$ 1,728,190	\$ 1,780,035	\$ 1,833,436	\$ 1,888,439	\$ 1,945,093	\$ 2,003,445	\$ 2,063,549	\$ 2,125,455	\$ 2,189,219	\$ 2,254,895	\$ 2,322,542	\$ 2,392,219	\$ 2,463,985	\$ 2,537,905	\$ 2,614,042	\$ 2,692,463	\$ 2,773,237

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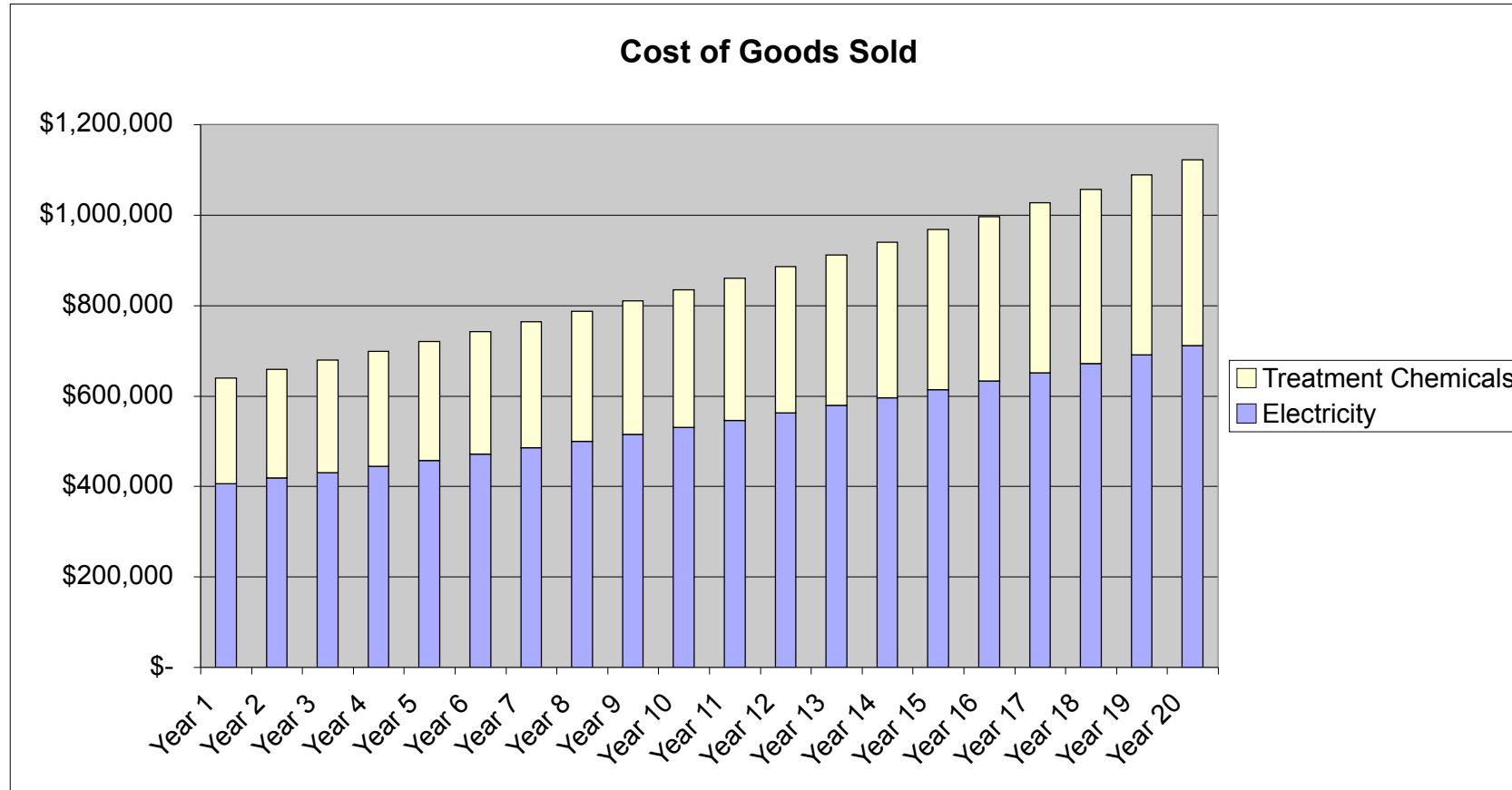
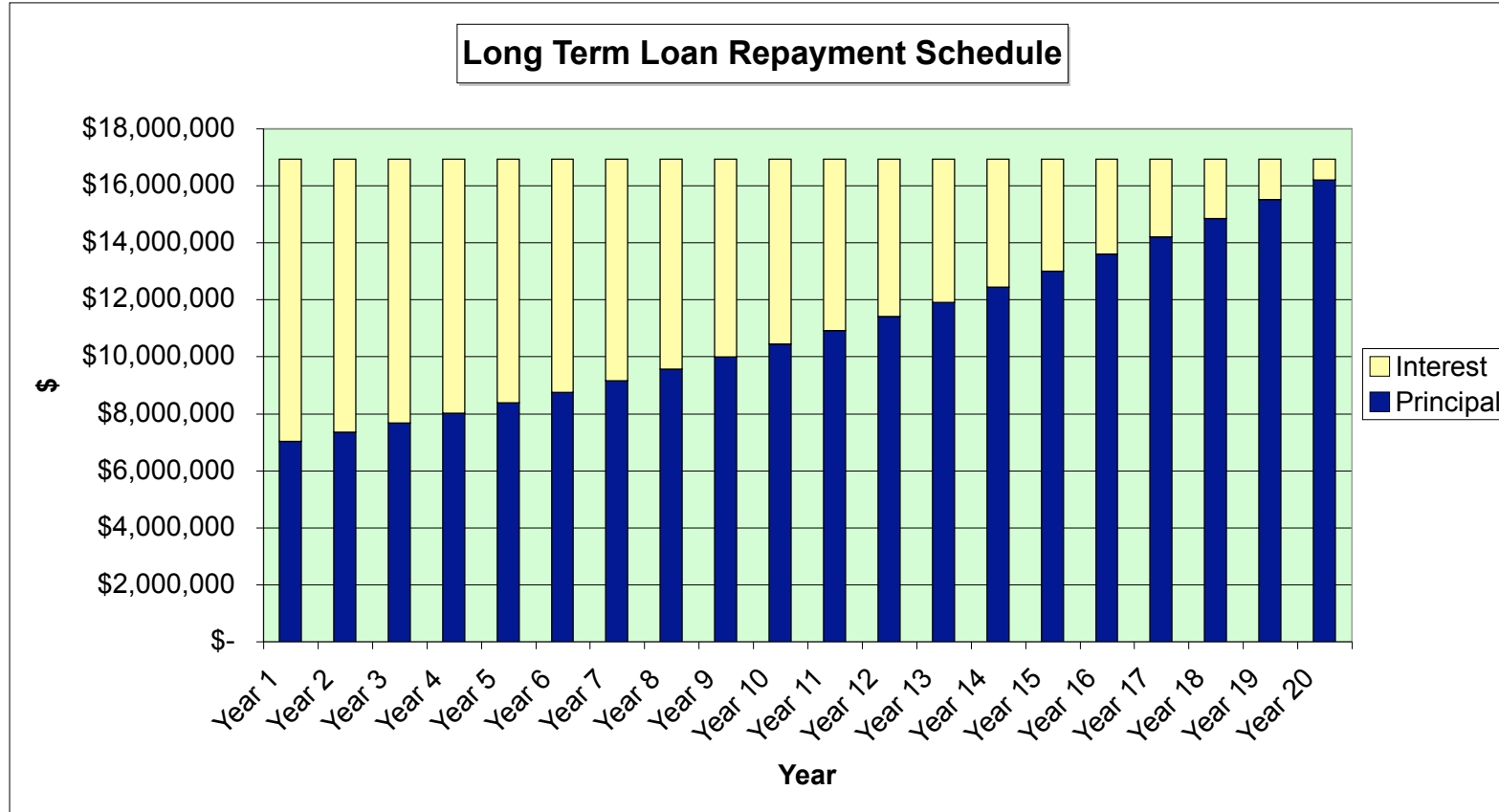


Table M-7
Long Term Loan

	Startup	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Loan Amount Upon Plant Start Up	\$ 220,297,405	Beginning Principal Balance	\$ 220,297,404.97	\$ 213,275,173.09	\$ 205,936,940.78	\$ 198,268,488.02	\$ 190,254,954.88	\$ 181,880,812.75	\$ 173,129,834.23	\$ 163,985,061.67	\$ 154,428,774.35	\$ 144,442,454.10	\$ 134,006,749.43	\$ 123,101,438.06	\$ 111,705,387.67	\$ 99,796,515.02	\$ 87,351,743.09	\$ 74,346,956.44	\$ 60,756,954.38	\$ 46,555,402.22	\$ 31,714,780.23	\$ 16,206,330.24
Annual Payment	(\$16,935,615.10)	Yearly Interest	\$ 9,913,383.22	\$ 9,597,382.79	\$ 9,267,162.34	\$ 8,922,081.96	\$ 8,561,472.97	\$ 8,184,636.57	\$ 7,790,842.54	\$ 7,379,327.78	\$ 6,949,294.85	\$ 6,499,910.43	\$ 6,030,303.72	\$ 5,539,564.71	\$ 5,026,742.45	\$ 4,490,843.18	\$ 3,930,828.44	\$ 3,345,613.04	\$ 2,734,062.95	\$ 2,094,993.10	\$ 1,427,165.11	\$ 729,284.86
		Payment Towards Principal	\$7,022,231.88	\$7,338,232.31	\$7,668,452.76	\$8,013,533.14	\$8,374,142.13	\$8,750,978.52	\$9,144,772.56	\$9,556,287.32	\$9,986,320.25	\$10,435,704.66	\$10,905,311.37	\$11,396,050.39	\$11,908,872.65	\$12,444,771.92	\$13,004,786.66	\$13,590,002.06	\$14,201,552.15	\$14,840,822.00	\$15,508,449.99	\$16,206,330.24
Loan Finance Rate	4.5%	Ending Principal Balance	\$ 213,275,173.09	\$ 205,936,940.78	\$ 198,268,488.02	\$ 190,254,954.88	\$ 181,880,812.75	\$ 173,129,834.23	\$ 163,985,061.67	\$ 154,428,774.35	\$ 144,442,454.10	\$ 134,006,749.43	\$ 123,101,438.06	\$ 111,705,387.67	\$ 99,796,515.02	\$ 87,351,743.09	\$ 74,346,956.44	\$ 60,756,954.38	\$ 46,555,402.22	\$ 31,714,780.23	\$ 16,206,330.24	\$ (0.00)

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**Table M-8
Maintenance & Insurance Expense**

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Auditing	\$ 6,000.00	\$ 6,180.00	\$ 6,365.40	\$ 6,556.36	\$ 6,753.05	\$ 6,955.64	\$ 7,164.31	\$ 7,379.24	\$ 7,600.62	\$ 7,828.64	\$ 8,063.50	\$ 8,305.40	\$ 8,554.57	\$ 8,811.20	\$ 9,075.54	\$ 9,347.80	\$ 9,628.24	\$ 9,917.09	\$ 10,214.60	\$ 10,521.04
Architect & Eng	\$ 35,000.00	\$ 36,050.00	\$ 37,131.50	\$ 38,245.45	\$ 39,392.81	\$ 40,574.59	\$ 41,791.83	\$ 43,045.59	\$ 44,336.95	\$ 45,667.06	\$ 47,037.07	\$ 48,448.19	\$ 49,901.63	\$ 51,398.68	\$ 52,940.64	\$ 54,528.86	\$ 56,164.73	\$ 57,849.67	\$ 59,585.16	\$ 61,372.71
Other Prof	\$ 35,000.00	\$ 36,050.00	\$ 37,131.50	\$ 38,245.45	\$ 39,392.81	\$ 40,574.59	\$ 41,791.83	\$ 43,045.59	\$ 44,336.95	\$ 45,667.06	\$ 47,037.07	\$ 48,448.19	\$ 49,901.63	\$ 51,398.68	\$ 52,940.64	\$ 54,528.86	\$ 56,164.73	\$ 57,849.67	\$ 59,585.16	\$ 61,372.71
Telephone	\$ 3,912.50	\$ 4,029.88	\$ 4,150.77	\$ 4,275.29	\$ 4,403.55	\$ 4,535.66	\$ 4,671.73	\$ 4,811.88	\$ 4,956.24	\$ 5,104.93	\$ 5,258.07	\$ 5,415.82	\$ 5,578.29	\$ 5,745.64	\$ 5,918.01	\$ 6,095.55	\$ 6,278.41	\$ 6,466.77	\$ 6,660.77	\$ 6,860.59
Postage	\$ 6,000.00	\$ 6,180.00	\$ 6,365.40	\$ 6,556.36	\$ 6,753.05	\$ 6,955.64	\$ 7,164.31	\$ 7,379.24	\$ 7,600.62	\$ 7,828.64	\$ 8,063.50	\$ 8,305.40	\$ 8,554.57	\$ 8,811.20	\$ 9,075.54	\$ 9,347.80	\$ 9,628.24	\$ 9,917.09	\$ 10,214.60	\$ 10,521.04
Advertising	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance-LIAB	\$ 45,000.00	\$ 46,350.00	\$ 47,740.50	\$ 49,172.72	\$ 50,647.90	\$ 52,167.33	\$ 53,732.35	\$ 55,344.32	\$ 57,004.65	\$ 58,714.79	\$ 60,476.24	\$ 62,290.52	\$ 64,159.24	\$ 66,084.02	\$ 68,066.54	\$ 70,108.53	\$ 72,211.79	\$ 74,378.14	\$ 76,609.49	\$ 78,907.77
Travel Training & Dues	\$ 981.25	\$ 1,010.69	\$ 1,041.01	\$ 1,072.24	\$ 1,104.41	\$ 1,137.54	\$ 1,171.66	\$ 1,206.81	\$ 1,243.02	\$ 1,280.31	\$ 1,318.72	\$ 1,358.28	\$ 1,399.03	\$ 1,441.00	\$ 1,484.23	\$ 1,528.76	\$ 1,574.62	\$ 1,621.86	\$ 1,670.51	\$ 1,720.63
Printing	\$ 3,000.00	\$ 3,090.00	\$ 3,182.70	\$ 3,278.18	\$ 3,376.53	\$ 3,477.82	\$ 3,582.16	\$ 3,689.62	\$ 3,800.31	\$ 3,914.32	\$ 4,031.75	\$ 4,152.70	\$ 4,277.28	\$ 4,405.60	\$ 4,537.77	\$ 4,673.90	\$ 4,814.12	\$ 4,958.54	\$ 5,107.30	\$ 5,260.52
Building Repairs	\$ 1,500.00	\$ 1,545.00	\$ 1,591.35	\$ 1,639.09	\$ 1,688.26	\$ 1,738.91	\$ 1,791.08	\$ 1,844.81	\$ 1,900.16	\$ 1,957.16	\$ 2,015.87	\$ 2,076.35	\$ 2,138.64	\$ 2,202.80	\$ 2,268.88	\$ 2,336.95	\$ 2,407.06	\$ 2,479.27	\$ 2,553.65	\$ 2,630.26
Lab Fees	\$ 30,000.00	\$ 30,900.00	\$ 31,827.00	\$ 32,781.81	\$ 33,765.26	\$ 34,778.22	\$ 35,821.57	\$ 36,896.22	\$ 38,003.10	\$ 39,143.20	\$ 40,317.49	\$ 41,527.02	\$ 42,772.83	\$ 44,056.01	\$ 45,377.69	\$ 46,739.02	\$ 48,141.19	\$ 49,585.43	\$ 51,072.99	\$ 52,605.18
Shop Allocation	\$ 3,500.00	\$ 3,605.00	\$ 3,713.15	\$ 3,824.54	\$ 3,939.28	\$ 4,057.46	\$ 4,179.18	\$ 4,304.56	\$ 4,433.70	\$ 4,566.71	\$ 4,703.71	\$ 4,844.82	\$ 4,990.16	\$ 5,139.87	\$ 5,294.06	\$ 5,452.89	\$ 5,616.47	\$ 5,784.97	\$ 5,958.52	\$ 6,137.27
Vehicle Repair	\$ 3,000.00	\$ 3,090.00	\$ 3,182.70	\$ 3,278.18	\$ 3,376.53	\$ 3,477.82	\$ 3,582.16	\$ 3,689.62	\$ 3,800.31	\$ 3,914.32	\$ 4,031.75	\$ 4,152.70	\$ 4,277.28	\$ 4,405.60	\$ 4,537.77	\$ 4,673.90	\$ 4,814.12	\$ 4,958.54	\$ 5,107.30	\$ 5,260.52
Communication Equipment Repair	\$ 1,200.00	\$ 1,236.00	\$ 1,273.08	\$ 1,311.27	\$ 1,350.61	\$ 1,391.13	\$ 1,432.86	\$ 1,475.85	\$ 1,520.12	\$ 1,565.73	\$ 1,612.70	\$ 1,661.08	\$ 1,710.91	\$ 1,762.24	\$ 1,815.11	\$ 1,869.56	\$ 1,925.65	\$ 1,983.42	\$ 2,042.92	\$ 2,104.21
Other Repair	\$ 15,000.00	\$ 15,450.00	\$ 15,913.50	\$ 16,390.91	\$ 16,882.63	\$ 17,389.11	\$ 17,910.78	\$ 18,448.11	\$ 19,001.55	\$ 19,571.60	\$ 20,158.75	\$ 20,763.51	\$ 21,386.41	\$ 22,028.01	\$ 22,688.85	\$ 23,369.51	\$ 24,070.60	\$ 24,792.71	\$ 25,536.50	\$ 26,302.59
Other Contractual	\$ 5,000.00	\$ 5,150.00	\$ 5,304.50	\$ 5,463.64	\$ 5,627.54	\$ 5,796.37	\$ 5,970.26	\$ 6,149.37	\$ 6,333.85	\$ 6,523.87	\$ 6,719.58	\$ 6,921.17	\$ 7,128.80	\$ 7,342.67	\$ 7,562.95	\$ 7,789.84	\$ 8,023.53	\$ 8,264.24	\$ 8,512.17	\$ 8,767.53
Office Supply	\$ 2,500.00	\$ 2,575.00	\$ 2,652.25	\$ 2,731.82	\$ 2,813.77	\$ 2,898.19	\$ 2,985.13	\$ 3,074.68	\$ 3,166.93	\$ 3,261.93	\$ 3,359.79	\$ 3,460.58	\$ 3,564.40	\$ 3,671.33	\$ 3,781.47	\$ 3,894.92	\$ 4,011.77	\$ 4,132.12	\$ 4,256.08	\$ 4,383.77
Rock	\$ 5,000.00	\$ 5,150.00	\$ 5,304.50	\$ 5,463.64	\$ 5,627.54	\$ 5,796.37	\$ 5,970.26	\$ 6,149.37	\$ 6,333.85	\$ 6,523.87	\$ 6,719.58	\$ 6,921.17	\$ 7,128.80	\$ 7,342.67	\$ 7,562.95	\$ 7,789.84	\$ 8,023.53	\$ 8,264.24	\$ 8,512.17	\$ 8,767.53
Asphalt	\$ 1,000.00	\$ 1,030.00	\$ 1,060.90	\$ 1,092.73	\$ 1,125.51	\$ 1,159.27	\$ 1,194.05	\$ 1,229.87	\$ 1,266.77	\$ 1,304.77	\$ 1,343.92	\$ 1,384.23	\$ 1,425.76	\$ 1,468.53	\$ 1,512.59	\$ 1,557.97	\$ 1,604.71	\$ 1,652.85	\$ 1,702.43	\$ 1,753.51
Concrete	\$ 3,500.00	\$ 3,605.00	\$ 3,713.15	\$ 3,824.54	\$ 3,939.28	\$ 4,057.46	\$ 4,179.18	\$ 4,304.56	\$ 4,433.70	\$ 4,566.71	\$ 4,703.71	\$ 4,844.82	\$ 4,990.16	\$ 5,139.87	\$ 5,294.06	\$ 5,452.89	\$ 5,616.47	\$ 5,784.97	\$ 5,958.52	\$ 6,137.27
Cleaning & Sanitary	\$ 3,600.00	\$ 3,708.00	\$ 3,819.24	\$ 3,933.82	\$ 4,051.83	\$ 4,173.39	\$ 4,298.59	\$ 4,427.55	\$ 4,560.37	\$ 4,697.18	\$ 4,838.10	\$ 4,983.24	\$ 5,132.74	\$ 5,286.72	\$ 5,445.32	\$ 5,608.68	\$ 5,776.94	\$ 5,950.25	\$ 6,128.76	\$ 6,312.62
Bldg Maint Supplies	\$ 1,500.00	\$ 1,545.00	\$ 1,591.35	\$ 1,639.09	\$ 1,688.26	\$ 1,738.91	\$ 1,791.08	\$ 1,844.81	\$ 1,900.16	\$ 1,957.16	\$ 2,015.87	\$ 2,076.35	\$ 2,138.64	\$ 2,202.80	\$ 2,268.88	\$ 2,336.95	\$ 2,407.06	\$ 2,479.27	\$ 2,553.65	\$ 2,630.26
Photo Supplies	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Uniform/Access	\$ 3,500.00	\$ 3,605.00	\$ 3,713.15	\$ 3,824.54	\$ 3,939.28	\$ 4,057.46	\$ 4,179.18	\$ 4,304.56	\$ 4,433.70	\$ 4,566.71	\$ 4,703.71	\$ 4,844.82	\$ 4,990.16	\$ 5,139.87	\$ 5,294.06	\$ 5,452.89	\$ 5,616.47	\$ 5,784.97	\$ 5,958.52	\$ 6,137.27
Books/Subscriptions	\$ 500.00	\$ 515.00	\$ 530.45	\$ 546.36	\$ 562.75	\$ 579.64	\$ 597.03	\$ 614.94	\$ 633.39	\$ 652.39	\$ 671.96	\$ 692.12	\$ 712.88	\$ 734.27	\$ 756.29	\$ 778.98	\$ 802.35	\$ 826.42	\$ 851.22	\$ 876.75
Motor Fuel	\$ 6,000.00	\$ 6,180.00	\$ 6,365.40	\$ 6,556.36	\$ 6,753.05	\$ 6,955.64	\$ 7,164.31	\$ 7,379.24	\$ 7,600.62	\$ 7,828.64	\$ 8,063.50	\$ 8,305.40	\$ 8,554.57	\$ 8,811.20	\$ 9,075.54	\$ 9,347.80	\$ 9,628.24	\$ 9,917.09	\$ 10,214.60	\$ 10,521.04
Motor Oil	\$ 500.00	\$ 515.00	\$ 530.45	\$ 546.36	\$ 562.75	\$ 579.64	\$ 597.03	\$ 614.94	\$ 633.39	\$ 652.39	\$ 671.96	\$ 692.12	\$ 712.88	\$ 734.27	\$ 756.29	\$ 778.98	\$ 802.35	\$ 826.42	\$ 851.22	\$ 876.75
Lubricants	\$ 1,000.00	\$ 1,030.00	\$ 1,060.90	\$ 1,092.73	\$ 1,125.51	\$ 1,159.27	\$ 1,194.05	\$ 1,229.87	\$ 1,266.77	\$ 1,304.77	\$ 1,343.92	\$ 1,384.23	\$ 1,425.76	\$ 1,468.53	\$ 1,512.59	\$ 1,557.97	\$ 1,604.71	\$ 1,652.85	\$ 1,702.43	\$ 1,753.51
Lumber/Wood Supp	\$ 850.00	\$ 875.50	\$ 901.77	\$ 928.82	\$ 956.68	\$ 985.38	\$ 1,014.94	\$ 1,045.39	\$ 1,076.75	\$ 1,109.06	\$ 1,142.33	\$ 1,176.60	\$ 1,211.90	\$ 1,248.25	\$ 1,285.70	\$ 1,324.27	\$ 1,364.00	\$ 1,404.92	\$ 1,447.07	\$ 1,490.48
Steel/metal Supp	\$ 350.00	\$ 360.50	\$ 371.32	\$ 382.45	\$ 393.93	\$ 405.75	\$ 417.92	\$ 430.46	\$ 443.37	\$ 456.67	\$ 470.37	\$ 484.48	\$ 499.02	\$ 513.99	\$ 529.41	\$ 545.29	\$ 561.65	\$ 578.50	\$ 595.85	\$ 613.73
Laboratory Supplies	\$ 5,500.00	\$ 5,665.00	\$ 5,834.95	\$ 6,010.00	\$ 6,190.30	\$ 6,376.01	\$ 6,567.29	\$ 6,764.31	\$ 6,967.24	\$ 7,176.25	\$ 7,391.54	\$ 7,613.29	\$ 7,841.68	\$ 8,076.94	\$ 8,319.24	\$ 8,568.82	\$ 8,825.89	\$ 9,090.66	\$ 9,363.38	\$ 9,644.28
Welding Supp	\$ 350.00	\$ 360.50	\$ 371.32	\$ 382.45	\$ 393.93	\$ 405.75	\$ 417.92	\$ 430.46	\$ 443.37	\$ 456.67	\$ 470.37	\$ 484.48	\$ 499.02	\$ 513.99	\$ 529.41	\$ 545.29	\$ 561.65	\$ 578.50	\$ 595.85	\$ 613.73
Misc Hardware	\$ 1,500.00	\$ 1,545.00	\$ 1,591.35	\$ 1,639.09	\$ 1,688.26	\$ 1,738.91	\$ 1,791.08	\$ 1,844.81	\$ 1,900.16	\$ 1,957.16	\$ 2,015.87	\$ 2,076.35	\$ 2,138.64	\$ 2,202.80	\$ 2,268.88	\$ 2,336.95	\$ 2,407.06	\$ 2,479.27	\$ 2,553.65	\$ 2,630.26
Other Commodities	\$ 4,000.00	\$ 4,120.00	\$ 4,243.60	\$ 4,370.91	\$ 4,502.04	\$ 4,637.10	\$ 4,776.21	\$ 4,919.50	\$ 5,067.08	\$ 5,219.09	\$ 5,375.67	\$ 5,536.94	\$ 5,703.04	\$ 5,874.13	\$ 6,050.36	\$ 6,231.87	\$ 6,418.83	\$ 6,611.39	\$ 6,809.73	\$ 7,014.02
Agents Fees	\$ 3,500.00	\$ 3,605.00	\$ 3,713.15	\$ 3,824.54	\$ 3,939.28	\$ 4,057.46	\$ 4,179.18	\$ 4,304.56	\$ 4,433.70	\$ 4,566.71	\$ 4,703.71	\$ 4,844.82	\$ 4,990.16	\$ 5,139.87	\$ 5,294.06	\$ 5,452.89	\$ 5,616.47	\$ 5,784.97	\$ 5,958.52	\$ 6,137.27
Bldg & Fixed Equip	\$ 8,000.00	\$ 8,240.00	\$ 8,487.20	\$ 8,741.82	\$ 9,004.07	\$ 9,274.19	\$ 9,552.42	\$ 9,838.99	\$ 10,134.16	\$ 10,438.19	\$ 10,751.33	\$ 11,073.87	\$ 11,406.09	\$ 11,748.27	\$ 12,100.72	\$ 12,463.74	\$ 12,837.65	\$ 13,222.78	\$ 13,619.46	\$ 14,028.05
Vehicles	\$ 2,000.00	\$ 2,060.00	\$ 2,121.80	\$ 2,185.45	\$ 2,251.02	\$ 2,318.55	\$ 2,388.10	\$ 2,459.75	\$ 2,533.54	\$ 2,609.55	\$ 2,687.83	\$ 2,768.47	\$ 2,851.52	\$ 2,937.07	\$ 3,025.18	\$ 3,115.93	\$ 3,209.41	\$ 3,305.70	\$ 3,404.87	\$ 3,507.01
Construction Equip	\$ 3,000.00	\$ 3,090.00	\$ 3,182.70	\$ 3,278.18	\$ 3,376.53	\$ 3,477.82	\$ 3,582.16	\$ 3,689.62	\$ 3,800.31	\$ 3,914.32	\$ 4,031.75	\$ 4,152.70	\$ 4,277.28	\$ 4,405.60	\$ 4,537.77	\$ 4,673.90	\$ 4,814.12	\$ 4,958.54	\$ 5,107.30	\$ 5,260.52
Office Equip	\$ 2,000.00	\$ 2,060.00	\$ 2,121.80	\$ 2,185.45	\$ 2,251.02	\$ 2,318.55	\$ 2,388.10	\$ 2,459.75	\$ 2,533.54	\$ 2,609.55	\$ 2,687.83	\$ 2,768.47	\$ 2,851.52	\$ 2,937.07	\$ 3,025.18	\$ 3,115.93	\$ 3,209.41	\$ 3,305.70	\$ 3,404.87	\$ 3,507.01
Communication Equip	\$ 20																			

Table 7M-9
Plant Personnel Expenses (Salaries and Benefits)

Position Description	# of Employees	Average Starting Salary	Benefit Adjustment Factor	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Plant Manager	1	\$ 90,000.00	40%	\$ 126,000.00	\$ 129,780.00	\$ 133,673.40	\$ 137,683.60	\$ 141,814.11	\$ 146,068.53	\$ 150,450.59	\$ 154,964.11	\$ 159,613.03	\$ 164,401.42	\$ 169,333.46	\$ 174,413.47	\$ 179,645.87	\$ 185,035.25	\$ 190,586.31	\$ 196,303.89	\$ 202,193.01	\$ 208,258.80	\$ 214,506.57	\$ 220,941.76
Operators	4	\$ 40,000.00	40%	\$ 224,000.00	\$ 230,720.00	\$ 237,641.60	\$ 244,770.85	\$ 252,113.97	\$ 259,677.39	\$ 267,467.71	\$ 275,491.75	\$ 283,756.50	\$ 292,269.19	\$ 301,037.27	\$ 310,068.39	\$ 319,370.44	\$ 328,951.55	\$ 338,820.10	\$ 348,984.70	\$ 359,454.24	\$ 370,237.87	\$ 381,345.01	\$ 392,785.36
Maintenance Technicians	1	\$ 55,000.00	40%	\$ 77,000.00	\$ 79,310.00	\$ 81,689.30	\$ 84,139.98	\$ 86,664.18	\$ 89,264.10	\$ 91,942.03	\$ 94,700.29	\$ 97,541.30	\$ 100,467.54	\$ 103,481.56	\$ 106,586.01	\$ 109,783.59	\$ 113,077.10	\$ 116,469.41	\$ 119,963.49	\$ 123,562.40	\$ 127,269.27	\$ 131,087.35	\$ 135,019.97
Accounting	0.25	\$ 50,000.00	40%	\$ 17,500.00	\$ 18,025.00	\$ 18,565.75	\$ 19,122.72	\$ 19,696.40	\$ 20,287.30	\$ 20,895.92	\$ 21,522.79	\$ 22,168.48	\$ 22,833.53	\$ 23,518.54	\$ 24,224.09	\$ 24,950.82	\$ 25,699.34	\$ 26,470.32	\$ 27,264.43	\$ 28,082.36	\$ 28,924.83	\$ 29,792.58	\$ 30,686.36
	6.25			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Totals				\$ 444,500.00	\$ 457,835.00	\$ 471,570.05	\$ 485,717.15	\$ 500,288.67	\$ 515,297.33	\$ 530,756.25	\$ 546,678.93	\$ 563,079.30	\$ 579,971.68	\$ 597,370.83	\$ 615,291.96	\$ 633,750.71	\$ 652,763.24	\$ 672,346.13	\$ 692,516.52	\$ 713,292.01	\$ 734,690.77	\$ 756,731.50	\$ 779,433.44
Annual Inflation Factor		3%																					

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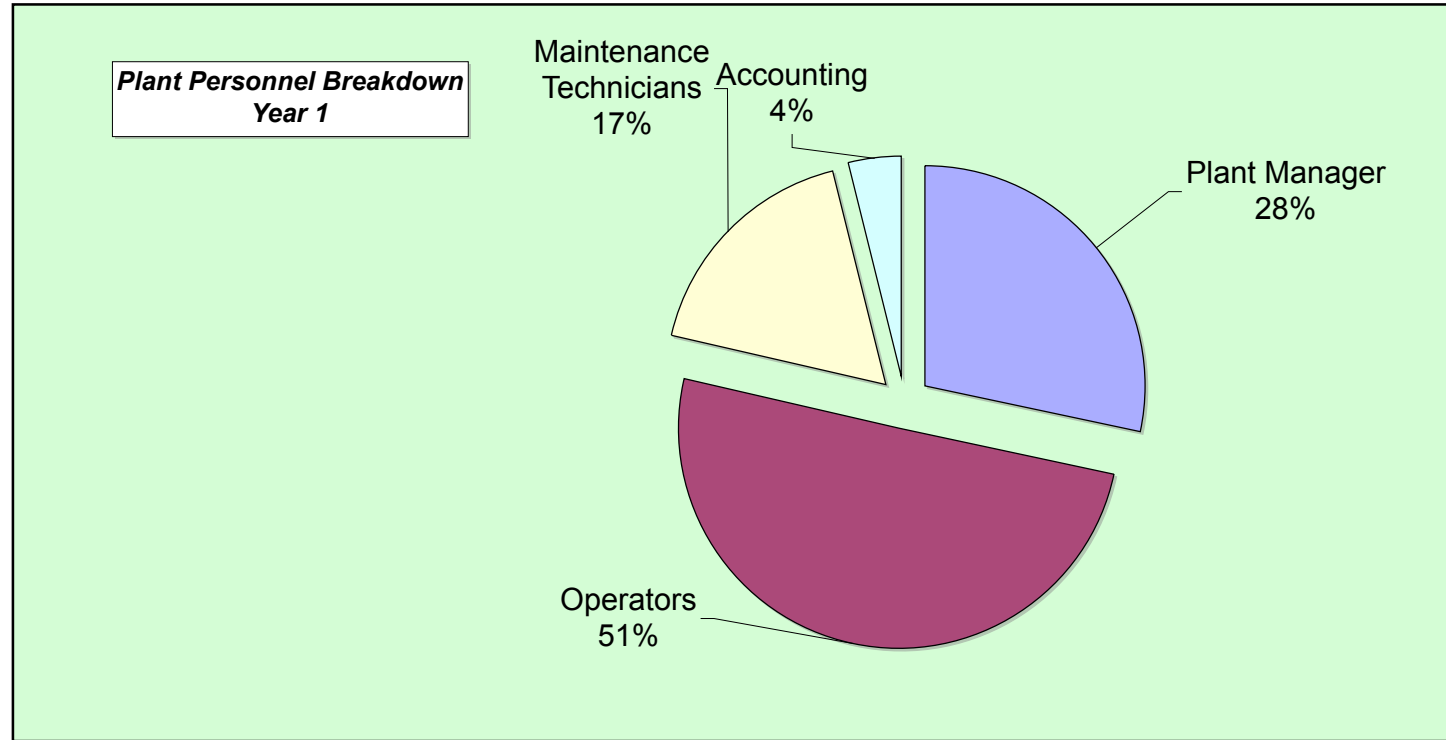


Table M-10
Chemical Consumption and Cost

Treatment Chemical	Dosage(Per Day)	Units	First Year Price (\$/Unit)	Daily Cost	First Year Annual Cost
Polymer	200	lbs (or gal)	\$ 25.00	\$ 5,000.00	\$ 1,825,000.00
Treated Water Sodium Hypochlorite (12% Solution)	80	lbs (or gal)	\$ 8.00	\$ 640.00	\$ 233,600.00
Treated Water Lime	0	lbs	\$ 0.04	\$ -	\$ -
Treated Water CO ₂ ³	0	lbs	\$ 0.02	\$ -	\$ -
Total Chemical Cost					\$ 233,600.00

Table M-11
Electrical Consumption

Process Component	Operating KW	Hours Per Day	Annual KWH
Intake Structure Pumps 3,500 gpm	471.6	24	4,131,216
18" Pipeline Rio Rancho to Plant	471.6	24	4,131,216
Finished Water Pump Station	175	24	1,533,000
Other Misc. Processes and Equipment	40	24	350,400
Electricity Consumed			10,145,832
Equivalent MW			1.16