

**City of Kalama
Sewer Rate Study
Summary of the Revenue Requirement
Exhibit 1**

	<i>Budget</i>					<i>Projected</i>						
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Revenues												
Total Rate Revenues	\$1,623,553	\$1,656,024	\$1,689,144	\$1,722,927	\$1,757,386	\$1,792,534	\$1,828,384	\$1,864,952	\$1,902,251	\$1,940,296	\$1,979,102	
Total Other Revenues	179,100	188,811	199,055	209,860	221,259	233,283	248,267	259,324	264,477	269,733	275,094	
Total Source of Funds	\$1,802,653	\$1,844,835	\$1,888,199	\$1,932,788	\$1,978,645	\$2,025,817	\$2,076,652	\$2,124,276	\$2,166,728	\$2,210,029	\$2,254,196	
Expenses												
Total Operations & Maintenance	\$907,800	\$898,950	\$928,079	\$958,158	\$989,220	\$1,022,602	\$1,057,129	\$1,092,842	\$1,129,782	\$1,167,993	\$1,207,518	
Taxes & Transfers	347,000	372,222	387,629	403,749	420,618	438,273	459,088	476,079	487,242	498,680	510,399	
Rate Funded Capital	250,000	315,000	410,000	500,000	600,000	715,000	715,000	800,000	800,000	900,000	950,000	
Net Debt Service	295,496	295,496	295,496	295,496	295,496	295,496	835,127	835,127	539,631	539,631	539,631	
Reserve Funding	2,357	54,248	57,911	75,590	93,018	104,683	(273,127)	(147,061)	130,076	99,703	122,444	
Total Revenue Requirement	\$1,802,653	\$1,935,916	\$2,079,115	\$2,232,993	\$2,398,352	\$2,576,053	\$2,793,218	\$2,971,987	\$3,086,732	\$3,206,007	\$3,329,993	
Balance/(Deficiency) of Funds	\$0	(\$91,081)	(\$190,916)	(\$300,205)	(\$419,707)	(\$550,236)	(\$716,566)	(\$847,711)	(\$920,004)	(\$995,978)	(\$1,075,797)	
Bal as a % of Rate Adj. Required	0.0%	5.5%	11.3%	17.4%	23.9%	30.7%	39.2%	45.5%	48.4%	51.3%	54.4%	
Proposed Rate Adjustment	0.0%	5.5%	5.5%	5.5%	5.5%	5.5%	6.5%	4.5%	2.0%	2.0%	2.0%	
Add'l Revenue with Rate Adj.	\$0	\$91,081	\$190,916	\$300,205	\$419,707	\$550,236	\$716,566	\$847,711	\$920,004	\$995,978	\$1,075,797	
Bal/(Def) After Rate Adj.	\$0	\$0	(\$0)	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Additional Rate Adjustment Required	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Debt Service Coverage Ratio (all debt)												
Before Rate Adjustment	2.42	2.56	2.58	2.59	2.60	2.61	0.92	0.92	1.43	1.43	1.43	
After Proposed Rate Adjustment	2.42	2.87	3.22	3.60	4.02	4.47	1.78	1.94	3.14	3.28	3.42	
Average Residential Customer Bill												
Customer Bill on Proposed Adjustment	\$82.05	\$86.56	\$91.32	\$96.35	\$101.65	\$107.24	\$114.21	\$119.35	\$121.73	\$124.17	\$126.65	
Bill Difference - Monthly	\$0.00	\$4.51	\$4.76	\$5.02	\$5.30	\$5.59	\$6.97	\$5.14	\$2.39	\$2.43	\$2.48	
Cumulative Bill Difference	\$0.00	\$4.51	\$9.27	\$14.30	\$19.60	\$25.19	\$32.16	\$37.30	\$39.68	\$42.12	\$44.60	
Fund 401 - W / S Operating Fund	\$113,469	\$169,123	\$229,015	\$307,273	\$403,830	\$513,074	\$243,713	\$98,354	\$230,064	\$332,566	\$458,948	
Fund 413 - I & I Improvement Reserve	\$368,453	\$417,390	\$466,816	\$446,359	\$425,698	\$404,830	\$383,753	\$362,466	\$340,965	\$319,250	\$297,317	
Fund 415 - Sewer Improvement Reserve	\$1,211,000	\$1,428,130	\$1,226,417	\$516,630	\$380,580	\$391,677	\$621,952	\$859,057	\$1,002,651	\$1,152,392	\$1,131,923	
Fund 412 - Sewer Loan Reserve	\$267,650	\$270,327	\$273,030	\$275,760	\$278,518	\$281,303	\$284,116	\$286,957	\$289,827	\$292,725	\$295,652	
Fund 410 - Public Works Equipment Reserve		\$143,055	\$157,529	\$172,670	\$188,506	\$205,063	\$222,374	\$240,468	\$259,377	\$279,136	\$299,779	
Total Ending Fund Balance	\$1,579,453	\$2,428,024	\$2,352,807	\$1,718,693	\$1,677,131	\$1,795,947	\$1,755,908	\$1,847,302	\$2,122,885	\$2,376,069	\$2,483,621	

City of Kalama
 Sewer Rate Study
 Escalations
 Exhibit 2

	<i>Budget</i>	<i>Projected</i>										<i>Notes</i>
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Revenues												
Res - Cust Growth	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Com - Cust Growth	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
All - Customer Growth	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Misc Revenues	Budget	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Expenses												
Salary	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits	Budget	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Medical Benefits	Budget	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Equipment	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Miscellaneous	Budget	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Utilities	Budget	3.5%	3.5%	3.5%	3.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Flat	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rate Adjustment	0.0%	5.5%	5.5%	5.5%	5.5%	5.5%	6.5%	4.5%	2.0%	2.0%	2.0%	2.0%
Insurance	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Interest		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
New Debt Service												
<i>Low Interest Loans</i>												
Term in Years	20	20	20	20	20	20	20	20	20	20	20	20
Rate	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
<i>Revenue Bond</i>												
Term in Years	20	20	20	20	20	20	20	20	20	20	20	20
Rate	3.5%	3.8%	4.0%	4.2%	4.5%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%

	<i>Budget</i>	<i>Projected</i>										<i>Notes</i>
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Revenues												
Rate Revenues												
Residential	\$841,458	\$858,287	\$875,453	\$892,962	\$910,821	\$929,038	\$947,618	\$966,571	\$985,902	\$1,005,620	\$1,025,733	As Res - Cust Growth
Multi-Family	278,898	284,476	290,166	295,969	301,889	307,926	314,085	320,367	326,774	333,310	339,976	As Res - Cust Growth
Com / Ind	503,196	513,260	523,525	533,996	544,676	555,569	566,681	578,014	589,575	601,366	613,393	As Com - Cust Growth
Total Rate Revenues	\$1,623,553	\$1,656,024	\$1,689,144	\$1,722,927	\$1,757,386	\$1,792,534	\$1,828,384	\$1,864,952	\$1,902,251	\$1,940,296	\$1,979,102	
Other Revenues												
Other Misc. Revenue	\$500	\$505	\$510	\$515	\$520	\$526	\$531	\$536	\$541	\$547	\$552	As Misc Revenues
Engineering Serv - Reimbursement	500	505	510	515	520	526	531	536	541	547	552	As Misc Revenues
Sewer Utility Tax	176,000	185,680	195,892	206,666	218,033	230,025	244,977	256,001	261,121	266,343	271,670	As Rate Adjustment
Sewer - Other Sales Tax Collection	100	101	102	103	104	105	106	107	108	109	110	As Misc Revenues
Sale of Surplus - Scrap Metal	500	505	510	515	520	526	531	536	541	547	552	As Misc Revenues
Sewer - Labor	500	505	510	515	520	526	531	536	541	547	552	As Misc Revenues
Sewer - Parts	1,000	1,010	1,020	1,030	1,041	1,051	1,062	1,072	1,083	1,094	1,105	As Misc Revenues
Total Other Revenues	\$179,100	\$188,811	\$199,055	\$209,860	\$221,259	\$233,283	\$248,267	\$259,324	\$264,477	\$269,733	\$275,094	
Total Revenues	\$1,802,653	\$1,844,835	\$1,888,199	\$1,932,788	\$1,978,645	\$2,025,817	\$2,076,652	\$2,124,276	\$2,166,728	\$2,210,029	\$2,254,196	

	Budget		Projected									Notes
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Expenses												
General Sewer Operations												
Salaries - Sewer/Admin. General	\$60,000	\$61,800	\$63,654	\$65,564	\$67,531	\$69,556	\$71,643	\$73,792	\$76,006	\$78,286	\$80,635	As Salary
Benefits - Admin	25,000	25,875	26,781	27,718	28,688	29,692	30,731	31,807	32,920	34,072	35,265	As Benefits
Office & Oper. Supplies	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	As Materials & Supplies
Travel - Administrative	500	513	525	538	552	566	580	594	609	624	640	As Miscellaneous
Equipment Maintenance - Office	11,000	11,330	11,670	12,020	12,381	12,752	13,135	13,529	13,934	14,353	14,783	As Materials & Supplies
Miscellaneous - Admin	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092	6,244	6,400	As Miscellaneous
Salaries - Sewer/Maintenance	130,000	133,900	137,917	142,055	146,316	150,706	155,227	159,884	164,680	169,621	174,709	As Salary
Overtime Earnings	40,000	41,200	42,436	43,709	45,020	46,371	47,762	49,195	50,671	52,191	53,757	As Salary
Benefits	85,000	87,975	91,054	94,241	97,539	100,953	104,487	108,144	111,929	115,846	119,901	As Benefits
Operating Supplies	14,000	14,420	14,853	15,298	15,757	16,230	16,717	17,218	17,735	18,267	18,815	As Materials & Supplies
Fuel Consumed	6,500	6,728	6,963	7,207	7,459	7,757	8,068	8,390	8,726	9,075	9,438	As Utilities
Inventory Purchase - Pipe/Fittings	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	As Materials & Supplies
Small Tools	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	2,016	As Materials & Supplies
Equipment Rental	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Repairs & Maintenance - Contracted	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159	As Materials & Supplies
Equipment Maintenance	20,000	20,800	21,632	22,497	23,397	24,333	25,306	26,319	27,371	28,466	29,605	As Equipment
Vehicle Maintenance	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Salaries - Sewer/Operations	70,000	86,520	89,116	91,789	94,543	97,379	100,300	103,309	106,409	109,601	112,889	As Salary
Overtime Earnings (2)	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095	26,878	As Salary
Benefits (2)	40,000	41,400	42,849	44,349	45,901	47,507	49,170	50,891	52,672	54,516	56,424	As Benefits
Uniforms	700	725	750	776	803	831	860	891	922	954	987	As Benefits
Operating Supplies - Chemicals	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143	40,317	As Materials & Supplies
Other Professional Services	600	618	637	656	675	696	716	738	760	783	806	As Materials & Supplies
Intergovernmental Fees/Services	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Professional Services	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,063	As Salary
Utilities	105,000	108,675	112,479	116,415	120,490	125,310	130,322	135,535	140,956	146,594	152,458	As Utilities
Repairs & Maintenance	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159	As Materials & Supplies
Contracted Repairs	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	As Materials & Supplies
Contract Services - Disposal	167,000	120,000	124,200	128,547	133,046	138,368	143,903	149,659	155,645	161,871	168,346	As Utilities
ON Call Pay	7,500	7,725	7,957	8,195	8,441	8,695	8,955	9,224	9,501	9,786	10,079	As Salary
Benefits (3)	3,500	3,623	3,749	3,881	4,016	4,157	4,302	4,453	4,609	4,770	4,937	As Benefits
Office Computer Supplies	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Engineering	500	515	530	546	563	580	597	615	633	652	672	As Salary
Communications	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	13,439	As Materials & Supplies
Travel & Training	1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218	1,249	1,280	As Miscellaneous
Facilities Maintenance	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
Miscellaneous	1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218	1,249	1,280	As Miscellaneous
Total General Sewer Operations	\$907,800	\$898,950	\$928,079	\$958,158	\$989,220	\$1,022,602	\$1,057,129	\$1,092,842	\$1,129,782	\$1,167,993	\$1,207,518	
Total Operations & Maintenance	\$907,800	\$898,950	\$928,079	\$958,158	\$989,220	\$1,022,602	\$1,057,129	\$1,092,842	\$1,129,782	\$1,167,993	\$1,207,518	

	Budget	Projected										Notes
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Taxes & Transfers												
Accounting Service Fees	\$80,000	\$82,400	\$84,872	\$87,418	\$90,041	\$92,742	\$95,524	\$98,390	\$101,342	\$104,382	\$107,513	As Salary
Trsf. TO 410 Equip Rsvs PW	12,000	12,480	12,979	13,498	14,038	14,600	15,184	15,791	16,423	17,080	17,763	As Equipment
Transfer - Benefit Reserve 107	3,000	3,105	3,214	3,326	3,443	3,563	3,688	3,817	3,950	4,089	4,232	As Benefits
Transfer TO Audit # 115	2,000	2,050	2,101	2,154	2,208	2,263	2,319	2,377	2,437	2,498	2,560	As Miscellaneous
Transfer Out TO 115-Insurance	46,000	47,150	48,329	49,537	50,775	52,045	53,346	54,680	56,047	57,448	58,884	As Miscellaneous
General Fund Sewer Utility Tax	96,000	101,280	106,850	112,727	118,927	125,468	133,624	139,637	142,429	145,278	148,184	As Rate Adjustment
Sewer Utility Tax - GFCF	80,000	84,400	89,042	93,939	99,106	104,557	111,353	116,364	118,691	121,065	123,486	As Rate Adjustment
Department of Revenue	28,000	39,357	40,242	41,149	42,080	43,035	44,051	45,023	45,923	46,841	47,777	3.852% + 1.5%
Total Taxes & Transfers	\$347,000	\$372,222	\$387,629	\$403,749	\$420,618	\$438,273	\$459,088	\$476,079	\$487,242	\$498,680	\$510,399	
Rate Funded Capital	\$250,000	\$315,000	\$410,000	\$500,000	\$600,000	\$715,000	\$715,000	\$715,000	\$800,000	\$900,000	\$950,000	\$336,000 Estimated Depreciation
Debt Service												
DOE - SRF / WWTP Construction Loan	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$0	\$0	\$0	Debt Schedule
New Revenue bonds	0	0	0	0	0	0	539,631	539,631	539,631	539,631	539,631	Calculated @ 4% for 20 Yrs
New Low interest loans	0	0	0	0	0	0	0	0	0	0	0	Calculated @ 2.3% for 20 Yrs
Total Debt Service	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$835,127	\$835,127	\$539,631	\$539,631	\$539,631	
Less Other Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Net Debt Service	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$295,496	\$835,127	\$835,127	\$539,631	\$539,631	\$539,631	
Reserve Funding												
Fund 401 - W / S Operating Fund	\$2,357	\$54,248	\$57,911	\$75,590	\$93,018	\$104,683	(\$273,127)	(\$147,061)	\$130,076	\$99,703	\$122,444	
Fund 415 - Sewer Improvement Reserve	0	0	0	0	0	0	0	0	0	0	0	
Fund 412 - Sewer Loan Reserve	0	0	0	0	0	0	0	0	0	0	0	
Total Reserve Funding	\$2,357	\$54,248	\$57,911	\$75,590	\$93,018	\$104,683	(\$273,127)	(\$147,061)	\$130,076	\$99,703	\$122,444	
Total Revenue Requirement	\$1,802,653	\$1,935,916	\$2,079,115	\$2,232,993	\$2,398,352	\$2,576,053	\$2,793,218	\$2,971,987	\$3,086,732	\$3,206,007	\$3,329,993	
Balance/(Deficiency) of Funds	\$0	(\$91,081)	(\$190,916)	(\$300,205)	(\$419,707)	(\$550,236)	(\$716,566)	(\$847,711)	(\$920,004)	(\$995,978)	(\$1,075,797)	
Bal as a % of Rate Adj. Required	0.0%	5.5%	11.3%	17.4%	23.9%	30.7%	39.2%	45.5%	48.4%	51.3%	54.4%	
Proposed Rate Adjustment	0.0%	5.5%	5.5%	5.5%	5.5%	5.5%	6.5%	4.5%	2.0%	2.0%	2.0%	
Add'l Revenue with Rate Adj.	\$0	\$91,081	\$190,916	\$300,205	\$419,707	\$550,236	\$716,566	\$847,711	\$920,004	\$995,978	\$1,075,797	
Bal/(Def) After Rate Adj.	\$0	\$0	(\$0)	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Additional Rate Adjustment Required	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Average Residential Customer Bill												
Customer Bill on Proposed Adjustment	\$82.05 (Flat rate + 3 CCF)	\$86.56	\$91.32	\$96.35	\$101.65	\$107.24	\$114.21	\$119.35	\$121.73	\$124.17	\$126.65	
Bill Difference - Monthly		4.51	4.76	5.02	5.30	5.59	6.97	5.14	2.39	2.43	2.48	
Cumulative Bill Difference		4.51	9.27	14.30	19.60	25.19	32.16	37.30	39.68	42.12	44.60	
Debt Service Coverage Ratio (all debt)												
Before Rate Adjustment	2.42	2.56	2.58	2.59	2.60	2.61	0.92	0.92	1.43	1.43	1.43	
After Proposed Rate Adjustment	2.42	2.87	3.22	3.60	4.02	4.47	1.78	1.94	3.14	3.28	3.42	

	Budget	Projected										Notes
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Reserve Funds												
Total Beginning Balance	\$1,811,000	\$2,089,791	\$2,428,024	\$2,352,807	\$1,718,693	\$1,677,131	\$1,795,947	\$1,755,908	\$1,847,302	\$2,122,885	\$2,376,069	
Fund 401 - W / S Operating Fund												
Beginning Balance (50%)	\$110,000	\$113,469	\$169,123	\$229,015	\$307,273	\$403,830	\$513,074	\$243,713	\$98,354	\$230,064	\$332,566	
Plus: Revenue	1,802,653	1,935,916	2,079,115	2,232,993	2,398,352	2,576,053	2,793,218	2,971,987	3,086,732	3,206,007	3,329,993	
Interest	1,112	1,406	1,981	2,668	3,538	4,562	3,765	1,702	1,634	2,799	3,938	
Less: Expenses	(907,800)	(898,950)	(928,079)	(958,158)	(989,220)	(1,022,602)	(1,057,129)	(1,092,842)	(1,129,782)	(1,167,993)	(1,207,518)	
Less: Rate-Funded Capital	(250,000)	(315,000)	(410,000)	(500,000)	(600,000)	(715,000)	(715,000)	(715,000)	(800,000)	(900,000)	(950,000)	
Less: Taxes & Transfers	(347,000)	(372,222)	(387,629)	(403,749)	(420,618)	(438,273)	(459,088)	(476,079)	(487,242)	(498,680)	(510,399)	
Less: Transfer to 415	(295,496)	(295,496)	(295,496)	(295,496)	(295,496)	(295,496)	(835,127)	(835,127)	(539,631)	(539,631)	(539,631)	
Ending Balance	\$113,469	\$169,123	\$229,015	\$307,273	\$403,830	\$513,074	\$243,713	\$98,354	\$230,064	\$332,566	\$458,948	
Target Balance - 90 Days O&M	\$224,000	\$222,000	\$229,000	\$236,000	\$244,000	\$252,000	\$261,000	\$269,000	\$279,000	\$288,000	\$298,000	
Fund 413 - I & I Improvement Reserve												
Beginning Balance	\$320,000	\$368,453	\$417,390	\$466,816	\$446,359	\$425,698	\$404,830	\$383,753	\$362,466	\$340,965	\$319,250	
Plus: Additions	0	0	0	0	0	0	0	0	0	0	0	
Plus: Loan repayment w/interest	70,027	70,027	70,027	0	0	0	0	0	0	0	0	
Interest	3,425	3,910	4,399	4,543	4,339	4,132	3,923	3,713	3,500	3,285	3,067	
Less: Uses of Funds	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)	
Ending Balance	\$368,453	\$417,390	\$466,816	\$446,359	\$425,698	\$404,830	\$383,753	\$362,466	\$340,965	\$319,250	\$297,317	
Fund 415 - Sewer Improvement Reserve												
Beginning Balance ^[1]	\$1,000,000	\$1,211,000	\$1,428,130	\$1,226,417	\$516,630	\$380,580	\$391,677	\$621,952	\$859,057	\$1,002,651	\$1,152,392	
Plus: Hook Up Fees	200,000	204,000	208,080	212,242	216,486	220,816	225,232	229,737	234,332	239,019	243,799	As All - Customer Growth
Plus: Additions	0	0	0	0	0	0	0	0	0	0	0	
Plus: Transfers from 401	295,496	295,496	295,496	295,496	295,496	295,496	835,127	835,127	539,631	539,631	539,631	
Interest	11,000	13,130	13,207	8,672	4,464	3,842	5,043	7,368	9,262	10,722	11,365	
Less: Debt Service	(295,496)	(295,496)	(295,496)	(295,496)	(295,496)	(295,496)	(835,127)	(835,127)	(539,631)	(539,631)	(539,631)	
Less: Capital Project Funding	0	0	(423,000)	(930,700)	(357,000)	(213,562)	0	0	(100,000)	(100,000)	(275,632)	
Ending Balance	\$1,211,000	\$1,428,130	\$1,226,417	\$516,630	\$380,580	\$391,677	\$621,952	\$859,057	\$1,002,651	\$1,152,392	\$1,131,923	
Target Balance - Depreciation Exp.	\$350,000	\$361,000	\$372,000	\$383,000	\$394,000	\$406,000	\$418,000	\$431,000	\$444,000	\$457,000	\$471,000	Escalated 3% per year
Fund 412 - Sewer Loan Reserve												
Beginning Balance	\$265,000	\$267,650	\$270,327	\$273,030	\$275,760	\$278,518	\$281,303	\$284,116	\$286,957	\$289,827	\$292,725	
Plus: Additions	0	0	0	0	0	0	0	0	0	0	0	
Interest	2,650	2,677	2,703	2,730	2,758	2,785	2,813	2,841	2,870	2,898	2,927	
Less: Uses of Funds	0	0	0	0	0	0	0	0	0	0	0	
Ending Balance	\$267,650	\$270,327	\$273,030	\$275,760	\$278,518	\$281,303	\$284,116	\$286,957	\$289,827	\$292,725	\$295,652	
Fund 410 - Public Works Equipment Reserve												
Beginning Balance (50%)	\$116,000	\$129,220	\$143,055	\$157,529	\$172,670	\$188,506	\$205,063	\$222,374	\$240,468	\$259,377	\$279,136	
Plus: Additions	12,000	12,480	12,979	13,498	14,038	14,600	15,184	15,791	16,423	17,080	17,763	
Interest	1,220	1,355	1,495	1,643	1,797	1,958	2,127	2,303	2,487	2,679	2,880	
Less: Uses of Funds	0	0	0	0	0	0	0	0	0	0	0	
Ending Balance	\$129,220	\$143,055	\$157,529	\$172,670	\$188,506	\$205,063	\$222,374	\$240,468	\$259,377	\$279,136	\$299,779	
Total Reserve Funds	\$2,089,791	\$2,428,024	\$2,352,807	\$1,718,693	\$1,677,131	\$1,795,947	\$1,755,908	\$1,847,302	\$2,122,885	\$2,376,069	\$2,483,621	

City of Kalama
 Sewer Rate Study
 Capital Improvement Plan
 Exhibit 4

Inflation 2.7%

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Funded Projects												
Sewer Line Replacement	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$275,000
Blowers	0	0	11,000	0	0	0	0	0	0	0	0	11,000
Dissolved Oxygen Sensors	0	26,000	0	0	0	0	0	0	0	0	0	26,000
Influent / Blower Rockwell Drives	9,000	0	0	0	0	0	0	0	0	0	0	9,000
Secondary Clarifier Mech. Replac.	0	0	310,000	0	0	0	0	0	0	0	0	310,000
Influent, Scum, RAS, WAS, Plant Drain, Effluent Pumps	0	0	0	50,000	0	0	0	0	0	0	0	50,000
Sludge Transfer Pump	0	0	0	15,100	0	0	0	0	0	0	0	15,100
Sludge Wasting Pump	0	0	0	13,600	0	0	0	0	0	0	0	13,600
Grit Pump Replacement	0	12,000	12,000	0	0	0	0	0	0	0	0	24,000
Plant Maintenance Software	0	2,000	0	0	0	0	0	0	0	0	0	2,000
Fine Screen Gearbox	0	12,000	0	0	0	0	0	0	0	0	0	12,000
Unfunded Projects												
Pipe Burst Old AC in Old Town North of Elm	\$0	\$0	\$500,000	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500,000
Columbia Terrace Estates Storm Sanitary Separation	0	0	0	0	0	0	0	0	0	1,000,000	0	1,000,000
Sewer Plant Expansion - Design / Permitting	0	0	0	952,000	0	0	0	0	0	0	0	952,000
Sewer Plant Expansion - Construction	0	0	0	0	0	900,000	3,600,000	0	0	0	0	4,500,000
Sewer Line - Hendrickson to WWTP	0	0	0	0	0	0	3,840,000	0	0	0	0	3,840,000
Old 99 Lift Station Upgrade	0	0	0	0	957,000	0	0	0	0	0	0	957,000
New Sewer Line - Cloverdale to Parkland	0	0	0	0	0	0	0	0	0	0	1,193,000	1,193,000
O&M Budgeted												
Improvement Projects	\$25,000	\$0	\$0	\$0	\$0	\$28,562	\$0	\$0	\$0	\$0	\$32,632	\$86,194
Capital Outlay - Equipment	0	0	0	0	0	0	0	0	0	0	0	0
Total Capital Projects	\$59,000	\$77,000	\$858,000	\$3,055,700	\$982,000	\$953,562	\$7,465,000	\$25,000	\$25,000	\$1,025,000	\$1,250,632	\$15,775,894
Future Unidentified Capital Projects	\$216,000	\$263,000	\$0	\$0	\$0	\$0	\$0	\$715,000	\$900,000	\$0	\$0	\$2,094,000
Transfer to Capital Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Improvement Projects	\$275,000	\$340,000	\$858,000	\$3,055,700	\$982,000	\$953,562	\$7,465,000	\$740,000	\$925,000	\$1,025,000	\$1,250,632	\$17,869,894
Less: Outside Funding Sources												
Fund 413 - I & I Improvement Reserve	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$275,000
Fund 415 - Sewer Improvement Reserve	0	0	423,000	930,700	357,000	213,562	0	0	100,000	100,000	275,632	2,399,894
Fund 410 - Public Works Equipment Reserve	0	0	0	0	0	0	0	0	0	0	0	0
Grant	0	0	0	1,600,000	0	0	0	0	0	0	0	1,600,000
Developer	0	0	0	0	0	0	0	0	0	0	0	0
Low Interest Loans	0	0	0	0	0	0	0	0	0	0	0	0
Revenue Bonds	0	0	0	0	0	0	6,725,000	0	0	0	0	6,725,000
Total Funding Sources	\$25,000	\$25,000	\$448,000	\$2,555,700	\$382,000	\$238,562	\$6,750,000	\$25,000	\$125,000	\$125,000	\$300,632	\$10,999,894
Rate Funded Capital	\$250,000	\$315,000	\$410,000	\$500,000	\$600,000	\$715,000	\$715,000	\$715,000	\$800,000	\$900,000	\$950,000	\$6,870,000

City of Kalama
Sewer Rate Study
Debt Schedule
Exhibit 5

	DOE - SRF / WWTP Construction Loan	Total
2020	\$295,496	\$295,496
2021	295,496	295,496
2022	295,496	295,496
2023	295,496	295,496
2024	295,496	295,496
2025	295,496	295,496
2026	295,496	295,496
2027	295,496	295,496
2028	0	0
2029	0	0
2030	0	0
	<hr/>	<hr/>
	\$2,363,966	\$2,363,966

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City of Kalama
 Sewer Rate Study
 Revenues at Present Rates
 Exhibit 6

		Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total
Residential														
Fixed Charge	\$/ Acct													
Bi - Monthly	\$111.90	914	0	914	0	914	0	914	0	914	0	914	0	914
Monthly	55.95	0	0	0	0	0	0	0	0	0	0	0	0	0
Low Income														
Bi - Monthly	\$85.90	31	0	31	0	31	0	31	0	31	0	31	0	31
Volume Charge	\$/ CCF													
All	\$8.70	4,757	0	4,817		5,269	9,198	0	0	0	5,061	0	4,168	33,270
Total Residential Revenues		\$146,325	\$0	\$146,847	\$0	\$150,781	\$80,018	\$104,940	\$0	\$104,940	\$44,031	\$104,940	\$36,263	\$919,084
Multi-Family														
Fixed Charge	\$/Unit													
Bi - Monthly	\$97.40	62		62		62		62		62		62		62
Monthly	48.70	201	201	201	201	201	201	201	201	201	201	201	201	201
Volume Charge	\$/ CCF													
All	\$8.70	2,000	1,426	1,436	1,576	1,232	1,571	1,642	1,663	1,222	1,195	1,115	1,271	17,348
Total Multi-Family Revenues		\$33,225	\$22,194	\$28,320	\$23,496	\$26,550	\$23,455	\$30,113	\$24,257	\$26,456	\$20,189	\$25,528	\$20,844	\$304,627
Com / Ind														
Fixed Charge	\$/Acct													
3/4"	\$66.00	65	65	65	65	65	65	65	65	65	65	65	65	65
3/4"(Out)	66.00	1	1	1	1	1	1	1	1	1	1	1	1	1
1"	82.00	19	19	19	19	19	19	19	19	19	19	19	19	19
1.5"	186.00	5	5	5	5	5	5	5	5	5	5	5	5	5
2"	270.00	7	7	7	7	7	7	7	7	7	7	7	7	7
3"	495.00	5	5	5	5	5	5	5	5	5	5	5	5	5
4"	750.00	0	0	0	0	0	0	0	0	0	0	0	0	0
6"	1,100.00	0	0	0	0	0	0	0	0	0	0	0	0	0
10"	2,220.00	0	0	0	0	0	0	0	0	0	0	0	0	0
		102	102	102	102	102	102	102	102	102	102	102	102	102
Volume Charge	\$/ CCF													
All	\$8.70	2,683	1,941	2,385	2,576	4,869	7,078	6,265	7,508	4,530	3,297	2,569	2,012	47,714
Total Com / Ind Revenues		\$34,550	\$28,097	\$31,961	\$33,617	\$53,566	\$72,789	\$65,718	\$76,529	\$50,620	\$39,894	\$33,559	\$28,717	\$549,617

City of Kalama
 Sewer Rate Study
 Revenues at Present Rates
 Exhibit 6

	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Total
Summary													
Customers													
Residential	945	0	945	0	945	0	945	0	945	0	945	0	473
Multi-Family	263	201	263	201	263	201	263	201	263	201	263	201	232
Com / Ind	102	102	102	102	102	102	102	102	102	102	102	102	102
Total Customers	1,310	303	1,310	303	1,310	303	1,310	303	1,310	303	1,310	303	807
Volume													
Residential	4,757	0	4,817	0	5,269	9,198	0	0	0	5,061	0	4,168	33,270
Multi-Family	2,000	1,426	1,436	1,576	1,232	1,571	1,642	1,663	1,222	1,195	1,115	1,271	17,348
Com / Ind	2,683	1,941	2,385	2,576	4,869	7,078	6,265	7,508	4,530	3,297	2,569	2,012	47,714
Total Volume	9,440	3,367	8,638	4,151	11,370	17,847	7,907	9,171	5,752	9,554	3,684	7,451	98,332
Revenue													
Residential	\$146,325	\$0	\$146,847	\$0	\$150,781	\$80,018	\$104,940	\$0	\$104,940	\$44,031	\$104,940	\$36,263	\$919,084
Multi-Family	33,225	22,194	28,320	23,496	26,550	23,455	30,113	24,257	26,456	20,189	25,528	20,844	304,627
Com / Ind	34,550	28,097	31,961	33,617	53,566	72,789	65,718	76,529	50,620	39,894	33,559	28,717	549,617
Total Revenue	\$214,100	\$50,291	\$207,128	\$57,113	\$230,896	\$176,263	\$200,771	\$100,786	\$182,016	\$104,114	\$164,026	\$85,824	\$1,773,328

	2019 Actual	2020 Budget
	\$1,623,553	\$1,600,000
<i>Difference</i>	\$149,775	\$173,328
<i>Percent</i>	9.2%	10.8%

City of Kalama
 Sewer Rate Study
 Volume Distribution Factor
 Exhibit 7

	Annual flow in CCF	20.0% Inflow and Infiltration	Total Annual Flow @ Plant CCF	Avg. Daily Flow @ Plant (MGD)	% of Total
Residential	33,270	6,654	39,924	0.082	33.8%
Multi-Family	17,348	3,470	20,818	0.043	17.6%
Com / Ind	47,714	9,543	57,256	0.117	48.5%
	98,332	19,666	117,998	0.242	100.0%
Actual Average Daily Flow ^[1]				0.256	

Notes

[1] - Provided by the City; Jun 2019 - May 2020

Distribution Factor

(VOL)

City of Kalama
 Sewer Rate Study
 Development of the Customer Distribution Factor
 Exhibit 8

	<i>Actual Customer</i>		<i>Customer Service & Accounting</i>			
	Number of Customers	% of Total	Number of Units	Weighting Factor	Weighted Customer	% of Total
Residential	473	78.2%	473	1.00	473	58.6%
Multi-Family	30	5.0%	232	1.00	232	28.8%
Com / Ind	102	16.9%	102	1.00	102	12.6%
	----- 605	----- 100.0%	----- 807		----- 807	----- 100.0%
<i>Distribution Factor</i>		<i>(AC)</i>				<i>(WCA)</i>

City of Kalama
 Sewer Rate Study
 Strength Distribution Factor
 Exhibit 9

	<i>BOD</i>				<i>TSS</i>		
	Annual Flow (MGD)	Avg. Factor (mg/l)	Calculated Pounds	% of Total	Avg. Factor (mg/l)	Calculated Pounds	% of Total
Residential	0.082	55	13,698	33.8%	60	14,943	33.8%
Multi-Family	0.043	55	7,143	17.6%	60	7,792	17.6%
Com / Ind	0.117	55	19,645	48.5%	60	21,431	48.5%
	0.242		40,486	100.0%		44,167	100.0%
	<i>Actual Lbs. Removed</i> ^[1]		<i>41,345</i>			<i>44,489</i>	

Notes

[1] - Based on City data for June 2019 - May 2020

Distribution Factor

(BOD)

(SS)

City of Kalama
 Sewer Rate Study
 Revenue Related Distribution Factor
 Exhibit 10

	Projected Year	% of
	2021	Total
Residential	\$858,287	51.8%
Multi-Family	284,476	17.2%
Com / Ind	513,260	31.0%
	\$1,656,024	100.0%

Distribution Factor (RR)

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City of Kalama
Sewer Rate Study
Functionalization and Allocation of Plant in Service
Exhibit 11.1

	Net Plant as of 6/22/2020	Strength Related			Customer Related			Direct (DA)	Basis of Classification
		Volume (VOL)	Bio-Oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Weighted Customer Acct/Svcs (WCA)	Revenue (RR)		
Collection									
	\$7,943,775	\$0	\$0	\$0	\$5,163,453	\$2,780,321	\$0	\$0	65.0% AC 35% WCA
Total Collection	\$7,943,775	\$0	\$0	\$0	\$5,163,453	\$2,780,321	\$0	\$0	
Lift Station	\$569,240	\$569,240	\$0	\$0	\$0	\$0	\$0	\$0	100.0% VOL
Total Lift Station	\$569,240	\$569,240	\$0	\$0	\$0	\$0	\$0	\$0	
Treatment	\$7,128,940	\$3,564,470	\$1,782,235	\$1,782,235	\$0	\$0	\$0	\$0	50.0% VOL 25.0% BOD 25.0% SS
Total Treatment	\$7,128,940	\$3,564,470	\$1,782,235	\$1,782,235	\$0	\$0	\$0	\$0	
Land & Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% VOL
Total Land & Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Plant Before General Plant	\$15,641,955	\$4,133,710	\$1,782,235	\$1,782,235	\$5,163,453	\$2,780,321	\$0	\$0	
% Plant Before General Plant	100.0%	26.4%	11.4%	11.4%	33.0%	17.8%	0.0%	0.0%	Factor PBGP
General Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	30.0% AC 70.0% PBGP
Total General Plant	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Net Sewer Plant	\$15,641,955	\$4,133,710	\$1,782,235	\$1,782,235	\$5,163,453	\$2,780,321	\$0	\$0	

City of Kalama
 Sewer Rate Study
 Functionalization and Allocation
 of the Revenue Requirement
 Exhibit 12.1

Expenses	2021	Volume (VOL)	Bio-Oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	Basis of Classification
Expenses									
General Sewer Operations									
Salaries - Sewer/Admin. General	\$61,800	\$0	\$0	\$0	\$0	\$61,800	\$0	\$0	100.0% WCA
Benefits - Admin	25,875	0	0	0	0	25,875	0	0	100.0% WCA
Office & Oper. Supplies	2,060	0	0	0	0	2,060	0	0	100.0% WCA
Travel - Administrative	513	0	0	0	0	513	0	0	100.0% WCA
Equipment Maintenance - Office	11,330	0	0	0	0	11,330	0	0	100.0% WCA
Miscellaneous - Admin	5,125	0	0	0	0	5,125	0	0	100.0% WCA
Salaries - Sewer/Maintenance	133,900	35,386	15,256	15,256	44,201	23,800	0	0	As Net Plant In Service
Overtime Earnings	41,200	10,888	4,694	4,694	13,600	7,323	0	0	As Net Plant In Service
Benefits	87,975	23,249	10,024	10,024	29,041	15,637	0	0	As Net Plant In Service
Operating Supplies	14,420	3,811	1,643	1,643	4,760	2,563	0	0	As Net Plant In Service
Fuel Consumed	6,728	1,778	767	767	2,221	1,196	0	0	As Net Plant In Service
Inventory Purchase - Pipe/Fittings	2,060	544	235	235	680	366	0	0	As Net Plant In Service
Small Tools	1,545	408	176	176	510	275	0	0	As Net Plant In Service
Equipment Rental	520	137	59	59	172	92	0	0	As Net Plant In Service
Repairs & Maintenance - Contracted	15,450	4,083	1,760	1,760	5,100	2,746	0	0	As Net Plant In Service
Equipment Maintenance	20,800	5,497	2,370	2,370	6,866	3,697	0	0	As Net Plant In Service
Vehicle Maintenance	1,040	275	118	118	343	185	0	0	As Net Plant In Service
Salaries - Sewer/Operations	86,520	22,865	9,858	9,858	28,560	15,379	0	0	As Net Plant In Service
Overtime Earnings (2)	20,600	5,444	2,347	2,347	6,800	3,662	0	0	As Net Plant In Service
Benefits (2)	41,400	10,941	4,717	4,717	13,666	7,359	0	0	As Net Plant In Service
Uniforms	725	191	83	83	239	129	0	0	As Net Plant In Service
Operating Supplies - Chemicals	30,900	8,166	3,521	3,521	10,200	5,492	0	0	As Net Plant In Service
Other Professional Services	618	309	155	155	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Intergovernmental Fees/Services	5,150	1,361	587	587	1,700	915	0	0	As Net Plant In Service
Professional Services	6,180	1,633	704	704	2,040	1,098	0	0	As Net Plant In Service
Utilities	108,675	54,338	27,169	27,169	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Repairs & Maintenance	15,450	4,083	1,760	1,760	5,100	2,746	0	0	As Net Plant In Service
Contracted Repairs	2,060	544	235	235	680	366	0	0	As Net Plant In Service
Contract Services - Disposal	120,000	0	0	120,000	0	0	0	0	100.0% SS
ON Call Pay	7,725	2,041	880	880	2,550	1,373	0	0	As Net Plant In Service
Benefits (3)	3,623	957	413	413	1,196	644	0	0	As Net Plant In Service
Office Computer Supplies	3,090	817	352	352	1,020	549	0	0	As Net Plant In Service
Engineering	515	136	59	59	170	92	0	0	As Net Plant In Service
Communications	10,300	2,722	1,174	1,174	3,400	1,831	0	0	As Net Plant In Service
Travel & Training	1,025	271	117	117	338	182	0	0	As Net Plant In Service
Facilities Maintenance	1,030	272	117	117	340	183	0	0	As Net Plant In Service
Miscellaneous	1,025	271	117	117	338	182	0	0	As Net Plant In Service
Total General Sewer Operations	\$898,950	\$203,419	\$91,466	\$211,466	\$185,833	\$206,766	\$0	\$0	
Total Operations & Maintenance	\$898,950	\$203,419	\$91,466	\$211,466	\$185,833	\$206,766	\$0	\$0	

City of Kalama
Sewer Rate Study
Functionalization and Allocation
of the Revenue Requirement
Exhibit 12.1

Expenses 2021	Volume (VOL)	Bio-Oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	Basis of Classification
Taxes & Transfers								
Accounting Service Fees	\$82,400	\$0	\$0	\$0	\$82,400	\$0	\$0	100.0% WCA
Trsf. TO 410 Equip Rsve PW	12,480	2,824	1,270	2,936	2,580	2,871	0	As O&M
Transfer - Benefit Reserve 107	3,105	703	316	730	642	714	0	As O&M
Transfer TO Audit # 115	2,050	464	209	482	424	472	0	As O&M
Transfer Out TO 115-Insurance	47,150	10,669	4,797	11,091	9,747	10,845	0	As O&M
General Fund Sewer Utility Tax	101,280	22,918	10,305	23,825	20,937	23,295	0	As O&M
Sewer Utiliy Tax - GFCF	84,400	19,098	8,587	19,854	17,447	19,413	0	As O&M
Department of Revenue	39,357	0	0	0	0	39,357	0	100.0% RR
Total Taxes & Transfers	\$372,222	\$56,676	\$25,484	\$58,919	\$51,777	\$140,009	\$39,357	\$0
Rate Funded Capital	\$315,000	\$83,245	\$35,891	\$35,891	\$103,982	\$55,991	\$0	\$0 As Net Plant In Service
Debt Service								
DOE - SRF / WWTP Construction Loan	\$295,496	\$78,091	\$33,669	\$33,669	\$97,544	\$52,524	\$0	\$0 As Net Plant In Service
New Revenue bonds	0	0	0	0	0	0	0	As O&M
New Low interest loans	0	0	0	0	0	0	0	As O&M
Total Debt Service	\$295,496	\$78,091	\$33,669	\$33,669	\$97,544	\$52,524	\$0	\$0
Less Other Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Debt
Net Debt Service	\$295,496	\$78,091	\$33,669	\$33,669	\$97,544	\$52,524	\$0	\$0 As Debt
Reserve Funding								
Fund 401 - W / S Operating Fund	\$54,248	\$12,276	\$5,520	\$12,761	\$11,214	\$12,478	\$0	\$0 As O&M
Fund 415 - Sewer Improvement Reserve	0	0	0	0	0	0	0	As O&M
Total Reserve Funding	\$54,248	\$12,276	\$5,520	\$12,761	\$11,214	\$12,478	\$0	\$0
Total Revenue Requirement	\$1,935,916	\$433,707	\$192,029	\$352,705	\$450,350	\$467,767	\$39,357	\$0
Less: Other Revenues								
Other Misc. Revenue	\$505	\$113	\$50	\$92	\$117	\$122	\$10	\$0 As Total Rev Req
Engineering Serv - Reimbursement	505	113	50	92	117	122	10	As Total Rev Req
Sewer Utility Tax	185,680	41,598	18,418	33,829	43,195	44,865	3,775	As Total Rev Req
Sewer - Other Sales Tax Collection	101	23	10	18	23	24	2	As Total Rev Req
Sale of Surplus - Scrap Metal	505	113	50	92	117	122	10	As Total Rev Req
Sewer - Labor	505	113	50	92	117	122	10	As Total Rev Req
Sewer - Parts	1,010	226	100	184	235	244	21	As Total Rev Req
Total Other Revenues	\$188,811	\$42,300	\$18,729	\$34,400	\$43,923	\$45,622	\$3,839	\$0
Total Net Revenue Requirement	\$1,747,105	\$391,407	\$173,301	\$318,306	\$406,427	\$422,146	\$35,519	\$0

City of Kalama
 Sewer Rate Study
 Distribution of Revenue Requirement
 Exhibit 13

	Net Revenue Requirement	Residential	Multi-Family	Com / Ind	<i>Basis of Allocation</i>
Volume	\$391,407	\$132,430	\$69,054	\$189,923	(VOL)
Bio-Oxygen Demand	\$173,301	\$58,635	\$30,575	\$84,091	(BOD)
Suspended Solids	\$318,306	\$107,696	\$56,157	\$154,452	(SS)
Actual Customer	\$406,427	\$317,679	\$20,170	\$68,578	(AC)
Customer Acct/Svcs	\$422,146	\$247,320	\$121,436	\$53,390	(WCA)
Revenue	\$35,519	\$18,409	\$6,102	\$11,009	(RR)
Direct	\$0	\$0	\$0	\$0	(DA)
Net Revenue Requirement	\$1,747,105	\$882,169	\$303,494	\$561,443	

City of Kalama
 Sewer Rate Study
 Summary of Cost of Service Analysis
 Exhibit 14

	2021 Expenses	Residential	Multi- Family	Com / Ind	Notes
Revenues at Present Rates	\$1,656,024	\$858,287	\$284,476	\$513,260	
Allocated Revenue Requirement	\$1,747,105	\$882,169	\$303,494	\$561,443	
<i>Balance / (Deficiency)</i>	(\$91,081)	(\$23,881)	(\$19,017)	(\$48,183)	
Required % Change in Rates	5.5%	2.8%	6.7%	9.4%	

City of Kalama
 Sewer Rate Study
 Average Unit Costs
 Exhibit 15

	Total	Residential	Multi-Family	Com / Ind	Notes
Volume \$/CCF	\$3.98	\$3.98	\$3.98	\$3.98	
Bio-Oxygen Demand \$/CCF	\$1.76	\$1.76	\$1.76	\$1.76	
Suspended Solids \$/CCF	\$3.24	\$3.24	\$3.24	\$3.24	
Revenue/Direct \$/CCF	\$0.36	\$0.55	\$0.35	\$0.23	
Total \$/CCF	\$9.34	\$9.53	\$9.33	\$9.21	
Customer \$/Acct./Month	\$114.22	\$99.65	\$393.35	\$99.65	
Basic Data:					
Annual Sewer Flow(/CCF)	98,332	33,270	17,348	47,714	
Number of Accounts	605	473	30	102	

	<i>Present Rates</i>	<i>Proposed</i>				
		2021	2022	2023	2024	2025
Residential						
Fixed Charge	\$/Acct.					
Monthly	\$55.95	\$59.03	\$62.27	\$65.70	\$69.31	\$73.12
Volume Charge	\$/CCF					
Consumption	\$8.70	\$9.18	\$9.68	\$10.21	\$10.77	\$11.36
Multi-Family						
Fixed Charge	\$/Acct.					
Monthly	\$48.70	\$51.38	\$54.21	\$57.19	\$60.33	\$63.65
Volume Charge	\$/CCF					
Consumption	\$8.70	\$9.18	\$9.68	\$10.21	\$10.77	\$11.36
Com / Ind						
Fixed Charge	\$/Acct.					
3/4"	\$66.00	\$69.63	\$73.46	\$77.50	\$81.76	\$86.26
3/4"(Out)	66.00	69.63	73.46	77.50	81.76	86.26
1"	82.00	86.51	91.27	96.29	101.59	107.18
1.5"	186.00	196.23	207.02	218.41	230.42	243.09
2"	270.00	284.85	300.52	317.05	334.49	352.89
3"	495.00	522.23	550.95	581.25	613.22	646.95
4"	750.00	791.25	834.77	880.68	929.12	980.22
10"	1,100.00	1,160.50	1,224.33	1,291.67	1,362.71	1,437.66
Volume Charge	\$/CCF					
Consumption	\$8.70	\$9.18	\$9.68	\$10.21	\$10.77	\$11.36