

RESOLUTION NO. 2855

A RESOLUTION by the Council of the Town of Friday Harbor adopting the 2024 Utility Rate Study

WHEREAS, by adoption of Resolution No. 2613 in January 2021 the Town Council contracted with the consulting firm of Financial Consulting Solutions Group, Inc. (FCS Group) to review and update the 2008 Water, Sewer and Stormwater Utility Rate Study; and

WHEREAS, FCS Group has provided several financial models demonstrating updated utility rates and connection fees based on anticipated capital improvements for the Town; and

WHEREAS, the study assesses revenue needs for a multi-year period that includes adequate funding for operations and maintenance, capital projects, debt service, and other program activities; and

WHEREAS, the study further assesses project long-term capital needs and incorporates those needs into a long-term funding forecast that includes rates, debt, connection charges and existing reserves; and

WHEREAS, the study further reviews and updates the water and sewer connection charges; and

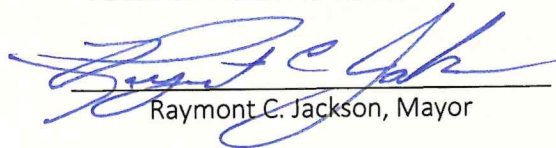
WHEREAS, the Town Council of Friday Harbor finds that the conclusions of the study are consistent with the revenue requirements of the Town's adopted Capital Facilities Plans and other operating budgets;

NOW, THEREFORE, BE IT RESOLVED that the Council of the Town of Friday Harbor hereby adopts certain recommendations as follows:

1. Table 1. Summary of annual percentage rate adjustments for the water utility derived from the Water Rate Study & Connection Study dated May 2024.
2. Table 2. Summary of updated water connection fees derived from the Water Rate Study & Connection Study dated May 2024.
3. Table 3. Summary of annual percentage rate adjustments for the sewer utility derived from the Sewer Rate Study & Connection Study dated May 2024.
4. Table 4. Summary of updated sewer connection fees derived from the Sewer Rate Study & Connection Study dated May 2024.

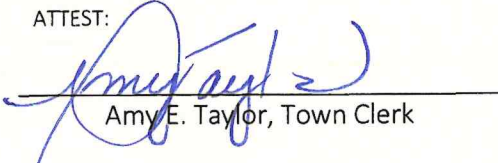
ADOPTED this 6th day of June 2024.

TOWN OF FRIDAY HARBOR

  
Raymont C. Jackson, Mayor

SEAL of the  
Town of Friday Harbor

ATTEST:

  
Amy E. Taylor, Town Clerk

Tables.**Table 1: Summary - Annual Rate Increases for Water Town Rate & Connection Charge Study – May 2024**

Year	Water Rate
2021	0%
2022	0%
2023	13%
2024	13%
2025	13%
2026	13%
2027	7.5%
2028	7.5%
2029	7.5%
2030	7.5%

**Table 2: Summary –Water Connection Increases Town Rate & Connection Charge Study – May 2024**

Meter Size	Current	Recommended
5/8"	\$15,210	\$15,728
1"	\$38,035	\$39,325
1 1/2"	\$76,065	\$78,642
2"	\$121,685	\$125,815
3"	\$243,385	\$251,649
4"	\$380,285	\$393,192

**Table 3: Summary - Annual Rate Increases for Sewer  
Town Rate & Connection Charge Study – May 2024**

Year	Sewer Rate
2021	0%
2022	3%
2023	3%
2024	3%
2025	3%
2026	3%
2027	3%
2028	3%
2029	3%
2030	3%

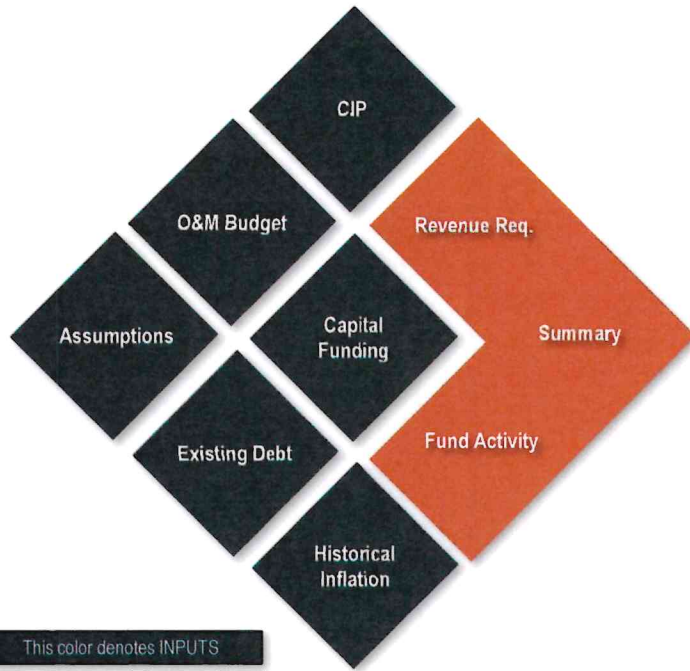
**Table 4: Summary –Sewer Connection Increases  
Town Rate & Connection Charge Study – May 2024**

Meter Size	Current	Recommended
5/8"	\$19,250	\$21,427
1"	\$48,140	\$53,579
1 1/2"	\$96,290	\$107,157
2"	\$154,050	\$171,446
3"	\$308,120	\$342,906
4"	\$481,445	\$535,801
Multi-Family	\$12,840	\$14,290

# Town of Friday Harbor

## Water Rate Study & Connection Charge Study

### REVENUE REQUIREMENT



This color denotes INPUTS

This color denotes RESULTS





Town of Friday Harbor  
Water Rate Study & Connection Charge Study  
Summary

Revenue Requirement	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050		
<b>Revenues</b>																																
Rate Revenues Under Existing Rates	\$ 2,223,588	\$ 2,346,913	\$ 2,470,807	\$ 2,455,182	\$ 2,490,848	\$ 2,525,404	\$ 2,561,205	\$ 2,597,035	\$ 2,634,521	\$ 2,671,932	\$ 2,709,873	\$ 2,748,353	\$ 2,787,340	\$ 2,826,901	\$ 2,867,154	\$ 2,907,816	\$ 2,948,107	\$ 2,989,885	\$ 3,033,457	\$ 3,078,532	\$ 3,124,919	\$ 3,173,626	\$ 3,224,662	\$ 3,278,036	\$ 3,333,756	\$ 3,391,828	\$ 3,452,261	\$ 3,515,064	\$ 3,580,247	\$ 3,647,819		
Non-Rate Revenues	53,925	36,105	44,744	49,189	53,248	56,934	60,390	63,643	66,709	69,600	72,331	74,916	77,361	79,681	81,891	83,997	85,997	87,897	89,697	91,397	92,997	94,497	95,897	97,197	98,397	99,497	100,497	101,397	102,197	102,897		
Connection Charge Revenue Towards Debt																																
<b>Total Revenues</b>	<b>\$ 2,277,513</b>	<b>\$ 2,383,018</b>	<b>\$ 2,515,551</b>	<b>\$ 2,504,371</b>	<b>\$ 2,544,096</b>	<b>\$ 2,582,338</b>	<b>\$ 2,621,838</b>	<b>\$ 2,660,678</b>	<b>\$ 2,699,230</b>	<b>\$ 2,737,531</b>	<b>\$ 2,775,104</b>	<b>\$ 2,812,269</b>	<b>\$ 2,849,031</b>	<b>\$ 2,885,482</b>	<b>\$ 2,921,635</b>	<b>\$ 2,957,503</b>	<b>\$ 2,993,100</b>	<b>\$ 3,028,422</b>	<b>\$ 3,063,457</b>	<b>\$ 3,098,189</b>	<b>\$ 3,132,626</b>	<b>\$ 3,166,773</b>	<b>\$ 3,200,630</b>	<b>\$ 3,234,197</b>	<b>\$ 3,267,474</b>	<b>\$ 3,300,461</b>	<b>\$ 3,333,158</b>	<b>\$ 3,365,565</b>	<b>\$ 3,397,682</b>	<b>\$ 3,429,509</b>		
<b>Expenses</b>																																
Cash Operating Expenses	\$ 1,918,740	\$ 2,099,024	\$ 2,432,320	\$ 2,556,218	\$ 2,648,131	\$ 2,745,841	\$ 2,846,421	\$ 2,951,054	\$ 3,059,453	\$ 3,171,094	\$ 3,285,496	\$ 3,403,160	\$ 3,523,508	\$ 3,646,040	\$ 3,771,274	\$ 3,898,628	\$ 4,028,712	\$ 4,161,951	\$ 4,297,867	\$ 4,436,070	\$ 4,577,051	\$ 4,720,318	\$ 4,866,374	\$ 5,015,720	\$ 5,168,866	\$ 5,325,312	\$ 5,485,558	\$ 5,649,104	\$ 5,816,350	\$ 5,986,796	\$ 6,160,842	
Ending Debt Service	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204	218,204		
New Debt Service	-	-	-	381,365	381,365	648,879	948,879	1,457,312	2,432,888	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346	2,878,346
Rate Funded System Reinvestment	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	
<b>Total Expenses</b>	<b>\$ 2,305,943</b>	<b>\$ 2,485,228</b>	<b>\$ 2,818,244</b>	<b>\$ 3,023,787</b>	<b>\$ 3,194,709</b>	<b>\$ 3,481,924</b>	<b>\$ 3,814,504</b>	<b>\$ 4,274,979</b>	<b>\$ 4,933,949</b>	<b>\$ 5,393,199</b>	<b>\$ 5,811,598</b>	<b>\$ 6,298,110</b>	<b>\$ 6,856,315</b>	<b>\$ 7,494,390</b>	<b>\$ 8,212,184</b>	<b>\$ 9,019,928</b>	<b>\$ 9,917,928</b>	<b>\$ 10,906,948</b>	<b>\$ 11,988,392</b>	<b>\$ 13,163,440</b>	<b>\$ 14,433,444</b>	<b>\$ 15,808,748</b>	<b>\$ 17,289,952</b>	<b>\$ 18,878,776</b>	<b>\$ 20,576,720</b>	<b>\$ 22,386,416</b>	<b>\$ 24,311,504</b>	<b>\$ 26,355,840</b>	<b>\$ 28,523,296</b>	<b>\$ 30,818,704</b>	<b>\$ 33,246,016</b>	
<b>Net Surplus (Deficiency)</b>	<b>\$ (28,430)</b>	<b>\$ (202,210)</b>	<b>\$ (302,690)</b>	<b>\$ (469,416)</b>	<b>\$ (653,613)</b>	<b>\$ (939,586)</b>	<b>\$ (1,242,666)</b>	<b>\$ (1,604,141)</b>	<b>\$ (2,034,719)</b>	<b>\$ (2,565,668)</b>	<b>\$ (3,210,494)</b>	<b>\$ (3,885,841)</b>	<b>\$ (4,603,046)</b>	<b>\$ (5,372,908)</b>	<b>\$ (6,190,910)</b>	<b>\$ (7,069,425)</b>	<b>\$ (8,008,828)</b>	<b>\$ (9,009,040)</b>	<b>\$ (10,070,248)</b>	<b>\$ (11,202,656)</b>	<b>\$ (12,407,824)</b>	<b>\$ (13,687,472)</b>	<b>\$ (15,042,240)</b>	<b>\$ (16,472,608)</b>	<b>\$ (17,979,040)</b>	<b>\$ (19,563,040)</b>	<b>\$ (21,226,240)</b>	<b>\$ (22,970,240)</b>	<b>\$ (24,796,480)</b>	<b>\$ (26,706,720)</b>	<b>\$ (28,703,040)</b>	
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Total Surplus (Deficiency)</b>	<b>\$ (28,430)</b>	<b>\$ (202,210)</b>	<b>\$ (302,690)</b>	<b>\$ (469,416)</b>	<b>\$ (653,613)</b>	<b>\$ (939,586)</b>	<b>\$ (1,242,666)</b>	<b>\$ (1,604,141)</b>	<b>\$ (2,034,719)</b>	<b>\$ (2,565,668)</b>	<b>\$ (3,210,494)</b>	<b>\$ (3,885,841)</b>	<b>\$ (4,603,046)</b>	<b>\$ (5,372,908)</b>	<b>\$ (6,190,910)</b>	<b>\$ (7,069,425)</b>	<b>\$ (8,008,828)</b>	<b>\$ (9,009,040)</b>	<b>\$ (10,070,248)</b>	<b>\$ (11,202,656)</b>	<b>\$ (12,407,824)</b>	<b>\$ (13,687,472)</b>	<b>\$ (15,042,240)</b>	<b>\$ (16,472,608)</b>	<b>\$ (17,979,040)</b>	<b>\$ (19,563,040)</b>	<b>\$ (21,226,240)</b>	<b>\$ (22,970,240)</b>	<b>\$ (24,796,480)</b>	<b>\$ (26,706,720)</b>	<b>\$ (28,703,040)</b>	
<b>% of Rate Revenue</b>	1.6%	16.8%	14.5%	19.1%	25.6%	37.0%	47.0%	58.3%	75.7%	93.5%	116.7%	147.0%	185.0%	231.0%	294.0%	374.0%	474.0%	594.0%	734.0%	894.0%	1,084.0%	1,304.0%	1,554.0%	1,834.0%	2,144.0%	2,494.0%	2,884.0%	3,314.0%	3,784.0%	4,294.0%		
<b>Annual Rate Adjustment</b>	0.00%	0.00%	13.00%	13.00%	13.00%	13.00%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%	
<b>Cumulative Annual Rate Adjustment</b>	0.00%	0.00%	13.00%	27.00%	42.00%	55.00%	62.50%	70.00%	77.50%	85.00%	92.50%	100.00%	107.50%	115.00%	122.50%	130.00%	137.50%	145.00%	152.50%	160.00%	167.50%	175.00%	182.50%	190.00%	197.50%	205.00%	212.50%	220.00%	227.50%	235.00%	242.50%	
<b>Rate Revenues After Rate Increase</b>	\$ 2,223,588	\$ 2,346,913	\$ 2,735,512	\$ 3,135,022	\$ 3,592,879	\$ 4,117,805	\$ 4,688,281	\$ 5,294,566	\$ 5,936,308	\$ 6,613,511	\$ 7,325,176	\$ 8,071,718	\$ 8,851,840	\$ 9,675,040	\$ 10,541,928	\$ 11,452,104	\$ 12,406,272	\$ 13,413,632	\$ 14,474,896	\$ 15,590,672	\$ 16,761,664	\$ 17,988,672	\$ 19,271,408	\$ 20,610,576	\$ 22,006,896	\$ 23,460,176	\$ 24,971,136	\$ 26,539,584	\$ 28,166,320	\$ 29,851,136	\$ 31,594,832	
<b>Net Cash Flow After Rate Increase</b>	<b>\$ (22,425)</b>	<b>\$ (162,211)</b>	<b>\$ (33,178)</b>	<b>\$ (133,395)</b>	<b>\$ (161,830)</b>	<b>\$ (164,119)</b>	<b>\$ (126,243)</b>	<b>\$ (76,393)</b>	<b>\$ (23,641)</b>	<b>\$ 26,812</b>	<b>\$ 74,682</b>	<b>\$ 126,952</b>	<b>\$ 183,661</b>	<b>\$ 244,819</b>	<b>\$ 310,414</b>	<b>\$ 380,479</b>	<b>\$ 455,104</b>	<b>\$ 533,888</b>	<b>\$ 616,832</b>	<b>\$ 703,946</b>	<b>\$ 795,230</b>	<b>\$ 890,694</b>	<b>\$ 990,338</b>	<b>\$ 1,094,162</b>	<b>\$ 1,201,276</b>	<b>\$ 1,311,690</b>	<b>\$ 1,425,414</b>	<b>\$ 1,542,448</b>	<b>\$ 1,662,792</b>	<b>\$ 1,786,446</b>	<b>\$ 1,913,410</b>	
Coverage After Rate Increase (with CCs)	n/a	n/a	n/a	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8	10.8	11.8	12.8	13.8	14.8	15.8	16.8	17.8	18.8	19.8	20.8	21.8	22.8	23.8	24.8	25.8	26.8	27.8	28.8		
Sample Residential Monthly Bill (50' Meter, 4,000 gallons)	\$ 82.75	\$ 86.98	\$ 98.18	\$ 110.55	\$ 125.37	\$ 141.87	\$ 159.29	\$ 187.71	\$ 175.99	\$ 189.19	\$ 203.38	\$ 218.64	\$ 234.21	\$ 249.21	\$ 264.61	\$ 280.39	\$ 296.57	\$ 313.15	\$ 330.13	\$ 347.51	\$ 365.29	\$ 383.47	\$ 402.05	\$ 421.03	\$ 440.41	\$ 460.19	\$ 480.37	\$ 500.95	\$ 521.93	\$ 543.31		
Monthly Average Increase (%)	-	4.14	11.30	12.76	14.42	16.30	10.83	11.42	12.28	13.20	14.19	15.25	7.65	7.92	8.20	8.48	8.76	9.04	9.32	9.60	9.88	10.16	10.44	10.72	11.00	11.28	11.56	11.84	12.12	12.40		



Town of Friday Harbor  
Water Rate Study & Connection Charge Study  
Summary

Fund Balance	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	
<b>OPERATING RESERVE</b>																															
Beginning Balance	\$ 785,268	\$ 784,838	\$ 502,827	\$ 448,815	\$ 275,050	\$ 449,016	\$ 451,371	\$ 729,278	\$ 485,171	\$ 850,846	\$ 592,825	\$ 541,232	\$ 591,492	\$ 582,547	\$ 694,460	\$ 627,325	\$ 651,164	\$ 678,865	\$ 701,868	\$ 728,513	\$ 756,502	\$ 785,615	\$ 815,913	\$ 847,507	\$ 890,368	\$ 914,632	\$ 950,286	\$ 987,440	\$ 1,028,126	\$ 1,068,416	
plus: Net Cash Flow after Rate Increase	(23,430)	(262,211)	(53,813)	(173,769)	173,996	13,343	219,907	55,000	395,476	136,345	115,946	324,233	359,619	588,601	823,208	646,985	916,214	484,138	788,963	688,638	1,011,840	1,125,958	1,622,427	1,738,910	2,420,369	2,540,855	2,659,331	2,778,419	3,873,681		
less: Transfer of Surplus to Capital Fund	(449,283)	-	-	-	-	-	-	-	-	-	(147,838)	(95,716)	(303,138)	(237,877)	(563,758)	(822,225)	(657,283)	(860,512)	(457,281)	(758,995)	(889,724)	(981,524)	(1,094,395)	(1,588,546)	(1,704,396)	(2,387,425)	(2,503,711)	(2,620,845)	(2,738,127)	(3,831,634)	
Ending Balance	\$ 312,575	\$ 377,922	\$ 399,787	\$ 275,050	\$ 449,016	\$ 451,371	\$ 729,278	\$ 485,171	\$ 850,846	\$ 592,825	\$ 541,232	\$ 591,492	\$ 582,547	\$ 694,460	\$ 627,325	\$ 651,164	\$ 678,865	\$ 701,868	\$ 728,513	\$ 756,502	\$ 785,615	\$ 815,913	\$ 847,507	\$ 890,368	\$ 914,632	\$ 950,286	\$ 987,440	\$ 1,028,126	\$ 1,068,416		
O&M Target Balance	\$ 312,575	\$ 377,922	\$ 399,787	\$ 275,050	\$ 449,016	\$ 451,371	\$ 729,278	\$ 485,171	\$ 850,846	\$ 592,825	\$ 541,232	\$ 591,492	\$ 582,547	\$ 694,460	\$ 627,325	\$ 651,164	\$ 678,865	\$ 701,868	\$ 728,513	\$ 756,502	\$ 785,615	\$ 815,913	\$ 847,507	\$ 890,368	\$ 914,632	\$ 950,286	\$ 987,440	\$ 1,028,126	\$ 1,068,416		
Days	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
<b>CAPITAL RESERVE</b>																															
Beginning Balance	\$ 3,832,291	\$ 4,234,891	\$ 4,189,461	\$ 1,029,804	\$ 2,283,593	\$ 370,146	\$ 3,105,899	\$ 345,516	\$ 7,237,793	\$ 494,774	\$ 3,716,887	\$ 1,206,294	\$ 3,883,562	\$ 1,490,274	\$ 3,229,991	\$ 2,932,769	\$ 1,665,232	\$ 5,142,704	\$ 1,887,963	\$ 5,855,864	\$ 1,744,845	\$ 3,534,470	\$ 5,467,895	\$ 7,569,030	\$ 10,224,283	\$ 12,042,277	\$ 16,655,208	\$ 20,447,124	\$ 24,647,124	\$ 28,655,604	
plus: Rate Fund System Reinvestment/Equipment Transfers	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	168,000	
plus: Transfers from Operating Fund	449,283	-	-	-	-	10,968	-	298,717	-	187,938	95,716	303,138	337,877	563,758	789,429	822,225	890,512	457,281	758,995	889,724	981,524	1,094,395	1,588,546	1,704,266	2,387,425	2,503,711	2,620,845	2,738,127	3,831,634		
plus: Grant/Donation/OAC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
plus: Additional Proceeds (Costs)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
plus: Connection Charge Revenue	218,111	158,000	373,478	388,806	400,817	415,227	430,158	445,822	461,644	478,241	495,438	513,248	531,701	550,818	570,822	591,137	612,391	634,409	657,218	680,847	705,328	730,685	756,955	784,170	812,364	841,571	871,829	903,174	935,646	969,286	
less: Connection Charge Revenue Towards Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
plus: Net Debt Proceeds Available for Projects	-	-	-	-	-	4,300,000	-	11,750,000	-	11,750,000	-	5,000,000	-	2,000,000	-	4,800,000	-	8,000,000	-	8,000,000	-	8,000,000	-	8,000,000	-	8,000,000	-	8,000,000	-	8,000,000	
less: Interest Earnings	3,913	3,800	41,885	15,402	34,254	5,592	46,588	5,183	108,567	7,422	55,750	16,094	58,403	49,815	43,992	24,918	75,841	28,020	88,338	26,474	53,017	82,015	113,535	153,364	195,924	249,828	308,729	367,707	429,834		
Total Funding Sources	\$ 4,731,599	\$ 4,584,491	\$ 4,772,865	\$ 5,897,112	\$ 2,886,683	\$ 7,269,913	\$ 3,760,644	\$ 13,013,837	\$ 7,892,827	\$ 12,148,437	\$ 4,932,910	\$ 7,091,353	\$ 4,954,886	\$ 4,569,113	\$ 4,677,183	\$ 4,535,327	\$ 7,892,827	\$ 6,811,266	\$ 11,178,511	\$ 11,178,511	\$ 7,653,044	\$ 3,334,470	\$ 6,467,895	\$ 7,569,030	\$ 10,224,283	\$ 13,062,277	\$ 16,655,208	\$ 20,447,124	\$ 24,647,124	\$ 28,655,604	
less: Upgrade Expansion Projects	-	-	(237,292)	(2,036,299)	(1,314,419)	(919,822)	(513,997)	(1,382,212)	(2,061,201)	(2,145,981)	(788,376)	(819,312)	(892,798)	(2,021,190)	(210,246)	(218,696)	(227,403)	(236,480)	(249,588)	(255,798)	-	-	-	-	-	-	-	-	-	-	-
less: R&D Projects	-	-	(275,000)	(3,418,788)	(1,577,228)	(1,922,258)	(2,444,132)	(2,851,131)	(3,790,033)	(5,419,729)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ending Working Capital Balance	\$ 4,731,599	\$ 4,189,461	\$ 1,946,884	\$ 2,283,593	\$ 370,146	\$ 3,105,899	\$ 345,516	\$ 7,237,793	\$ 485,171	\$ 850,846	\$ 592,825	\$ 541,232	\$ 591,492	\$ 582,547	\$ 694,460	\$ 627,325	\$ 651,164	\$ 678,865	\$ 701,868	\$ 728,513	\$ 756,502	\$ 785,615	\$ 815,913	\$ 847,507	\$ 890,368	\$ 914,632	\$ 950,286	\$ 987,440	\$ 1,028,126	\$ 1,068,416	
Minimum Target Balance	\$ 3,315,76	\$ 342,876	\$ 417,797	\$ 490,967	\$ 560,397	\$ 693,789	\$ 809,285	\$ 958,910	\$ 1,127,545	\$ 1,195,895	\$ 1,358,051	\$ 1,327,342	\$ 1,352,304	\$ 1,387,112	\$ 1,444,514	\$ 1,501,517	\$ 1,600,382	\$ 1,704,835	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	\$ 1,822,597	
<b>CAPITAL OPERATING BEGINNING FUND BALANCE</b>	\$ 4,689,879	\$ 4,989,729	\$ 4,892,118	\$ 1,475,619	\$ 2,584,643	\$ 818,162	\$ 3,557,279	\$ 1,973,794	\$ 7,722,963	\$ 1,345,420	\$ 4,399,512	\$ 1,747,528	\$ 4,455,924	\$ 2,072,821	\$ 3,925,471	\$ 3,566,094	\$ 2,316,336	\$ 5,718,569	\$ 2,569,649	\$ 6,844,278	\$ 2,511,447	\$ 4,320,888	\$ 6,283,828	\$ 8,416,537	\$ 11,104,671	\$ 13,976,969	\$ 17,695,504	\$ 21,426,916	\$ 25,473,249	\$ 29,322,621	
<b>CAPITAL &amp; OPERATING ENDING FUND BALANCE</b>	\$ 5,041,174	\$ 4,892,118	\$ 1,475,619	\$ 2,584,643	\$ 818,162	\$ 3,557,279	\$ 1,973,794	\$ 7,722,963	\$ 1,345,420	\$ 4,399,512	\$ 1,747,528	\$ 4,455,924	\$ 2,072,821	\$ 3,925,471	\$ 3,566,094	\$ 2,316,336	\$ 5,718,569	\$ 2,569,649	\$ 6,844,278	\$ 2,511,447	\$ 4,320,888	\$ 6,283,828	\$ 8,416,537	\$ 11,104,671	\$ 13,976,969	\$ 17,695,504	\$ 21,426,916	\$ 25,473,249	\$ 29,322,621		
Combined Days	900	740	221	368	113	473	108	858	160	249	194	212	390	341	214	509	220	551	297	330	402	596	759	917	1,112	1,303	1,494	1,672	1,803		
Total Combined Ending Fund Balance Target	\$ 650,951	\$ 720,797	\$ 817,584	\$ 910,267	\$ 978,971	\$ 1,077,049	\$ 1,161,718	\$ 1,249,458	\$ 1,461,998	\$ 1,649,216	\$ 1,727,127	\$ 1,819,512	\$ 1,909,088	\$ 1,964,784	\$ 2,014,438	\$ 2,086,619	\$ 2,177,382	\$ 2,202,048	\$ 2,423,249	\$ 2,579,099	\$ 2,608,212	\$ 2,628,531	\$ 2,670,104	\$ 2,702,985	\$ 2,737,229	\$ 2,772,894	\$ 2,810,037	\$ 2,848,723	\$ 2,889,015	\$ 2,930,982	
<b>DEBT RESERVE</b>																															
Beginning Balance	\$ 305,806	\$ 305,848	\$ 305,848	\$ 305,848	\$ 687,214	\$ 687,214	\$ 1,254,827	\$ 1,254,827	\$ 1,254,827	\$ 2,230,413	\$ 2,230,413	\$ 2,873,861	\$ 2,873,861	\$ 2,851,240	\$ 2,851,240	\$ 2,851,240	\$ 3,276,950	\$ 3,276,950	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	
plus: Reserve Funding from New Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
less: Use of Reserves for Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ENDING DEBT RESERVE BALANCE	\$ 305,806	\$ 305,848	\$ 305,848	\$ 305,848	\$ 687,214	\$ 687,214	\$ 1,254,827	\$ 1,254,827	\$ 1,254,827	\$ 2,230,413	\$ 2,230,413	\$ 2,873,861	\$ 2,873,861	\$ 2,851,240	\$ 2,851,240	\$ 2,851,240	\$ 3,276,950	\$ 3,276,950	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	\$ 3,886,467	
<b>MAJOR REPAIRS RESERVE</b>																															
Beginning Balance	\$ 379,203	\$ 389,337	\$ 409,137	\$ 432,728	\$ 456,720	\$ 485,100	\$ 511,877	\$ 539,655	\$ 566,641	\$ 594,640	\$ 623,660	\$ 651,966	\$ 681,168	\$ 710,902	\$ 741,066	\$ 771,682	\$ 802,767	\$ 834,288	\$ 866,313	\$ 898,808	\$ 931,798	\$ 965,286	\$ 999,245	\$ 1,033,734	\$ 1,068,740	\$ 1,104,271	\$ 1,140,325	\$ 1,176,940	\$ 1,214,685	\$ 1,253,661	
plus: Reserve Funding	19,848	19,800	23,591	26,381	29,317	27,178	27,588	28,000	28,420	28,845	29,276	29,718	30,164	30,616	31,075	31,541	32,014	32,495	32,982	33,477	33,979	34,488	35,006	35,531	36,064	36,605	37,154	37,711	38,277		
less: Use of Reserves	(18,500)	-	-	-																											

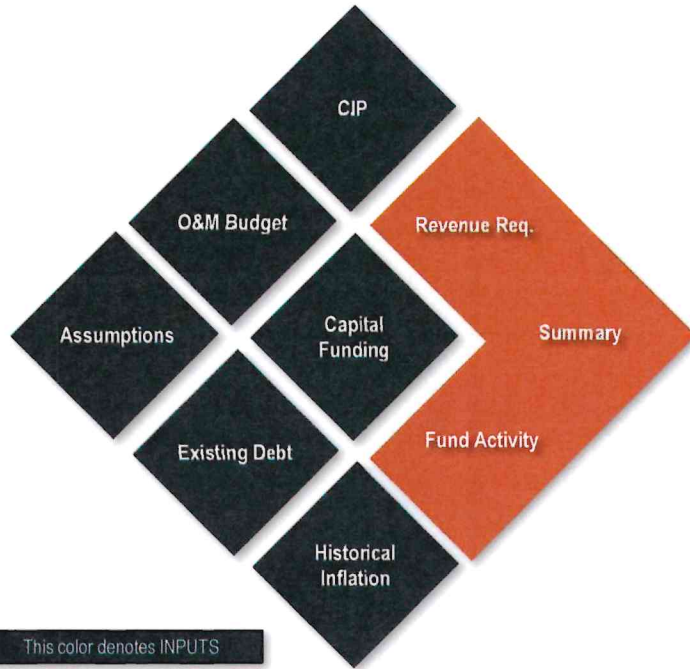




# Town of Friday Harbor

## Sewer Rate & Connection Charge Study

### REVENUE REQUIREMENT



This color denotes INPUTS

This color denotes RESULTS





# Town of Friday Harbor

## Sewer Rate & Connection Charge Study

### Summary

Revenue Requirement	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Revenues</b>										
Rate Revenues Under Existing Rates	\$ 2,567,245	\$ 2,623,606	\$ 2,634,100	\$ 2,644,637	\$ 2,655,215	\$ 2,665,836	\$ 2,676,499	\$ 2,687,205	\$ 2,697,954	\$ 2,708,746
Non-Rate Revenues	168,585	142,400	166,532	183,933	164,295	167,838	171,506	175,265	179,120	183,071
Connection Charge Revenue Towards Debt	-	-	-	-	-	-	-	-	-	-
<b>Total Revenues</b>	<b>\$ 2,735,830</b>	<b>\$ 2,766,006</b>	<b>\$ 2,800,632</b>	<b>\$ 2,828,569</b>	<b>\$ 2,819,510</b>	<b>\$ 2,833,674</b>	<b>\$ 2,848,005</b>	<b>\$ 2,862,471</b>	<b>\$ 2,877,074</b>	<b>\$ 2,891,817</b>
<b>Expenses</b>										
Cash Operating Expenses	\$ 1,347,180	\$ 1,742,166	\$ 1,836,351	\$ 1,872,890	\$ 1,911,336	\$ 1,965,201	\$ 2,020,795	\$ 2,078,179	\$ 2,137,417	\$ 2,198,578
Existing Debt Service	750,786	731,486	567,158	313,428	313,165	312,902	291,588	245,348	187,619	129,892
New Debt Service	-	106,373	326,883	326,883	326,883	326,883	326,883	326,883	326,883	326,883
Rate Funded System Reinvestment	141,000	-	-	-	-	-	-	-	-	-
<b>Total Expenses</b>	<b>\$ 2,238,966</b>	<b>\$ 2,580,024</b>	<b>\$ 2,730,391</b>	<b>\$ 2,513,201</b>	<b>\$ 2,551,384</b>	<b>\$ 2,604,986</b>	<b>\$ 2,639,265</b>	<b>\$ 2,650,409</b>	<b>\$ 2,651,919</b>	<b>\$ 2,655,353</b>
<b>Net Surplus (Deficiency)</b>	<b>\$ 496,864</b>	<b>\$ 185,982</b>	<b>\$ 70,241</b>	<b>\$ 315,368</b>	<b>\$ 268,127</b>	<b>\$ 228,688</b>	<b>\$ 208,740</b>	<b>\$ 212,062</b>	<b>\$ 225,155</b>	<b>\$ 236,465</b>
Additions to Meet Coverage	-	-	-	-	-	-	-	-	-	-
<b>Total Surplus (Deficiency)</b>	<b>\$ 496,864</b>	<b>\$ 185,982</b>	<b>\$ 70,241</b>	<b>\$ 315,368</b>	<b>\$ 268,127</b>	<b>\$ 228,688</b>	<b>\$ 208,740</b>	<b>\$ 212,062</b>	<b>\$ 225,155</b>	<b>\$ 236,465</b>
<b>% of Rate Revenue</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
<b>Annual Rate Adjustment</b>	<b>0.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>	<b>3.00%</b>
<b>Cumulative Annual Rate Adjustment</b>	<b>0.00%</b>	<b>3.00%</b>	<b>6.09%</b>	<b>9.27%</b>	<b>12.55%</b>	<b>15.93%</b>	<b>19.41%</b>	<b>22.99%</b>	<b>26.68%</b>	<b>30.48%</b>
Rate Revenues After Rate Increase	\$ 2,567,245	\$ 2,702,314	\$ 2,794,517	\$ 2,889,866	\$ 2,988,468	\$ 3,090,434	\$ 3,195,880	\$ 3,304,924	\$ 3,417,688	\$ 3,534,299
<b>Net Cash Flow After Rate Increase</b>	<b>\$ 496,864</b>	<b>\$ 262,849</b>	<b>\$ 226,906</b>	<b>\$ 554,863</b>	<b>\$ 593,586</b>	<b>\$ 643,357</b>	<b>\$ 715,975</b>	<b>\$ 815,334</b>	<b>\$ 928,057</b>	<b>\$ 1,042,712</b>
Coverage After Rate Increases (with CCs)	10.56	8.35	8.00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sample Residential Monthly Bill	\$ 124.75	\$ 128.49	\$ 132.35	\$ 136.32	\$ 140.41	\$ 144.62	\$ 148.96	\$ 153.43	\$ 158.03	\$ 162.77
Monthly Average Increase (\$)	\$ -	\$ 3.74	\$ 3.85	\$ 3.97	\$ 4.09	\$ 4.21	\$ 4.34	\$ 4.47	\$ 4.60	\$ 4.74



# Town of Friday Harbor

## Sewer Rate & Connection Charge Study

### Summary

Fund Balance	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>OPERATING RESERVE</b>										
Beginning Balance	\$ 854,735	\$ 1,351,599	\$ 1,614,448	\$ 1,841,354	\$ 307,872	\$ 314,192	\$ 323,047	\$ 332,185	\$ 341,618	\$ 351,356
plus: Net Cash Flow after Rate Increase	496,864	262,849	226,906	554,863	593,586	643,357	715,975	815,334	928,057	1,042,712
less: Transfer of Surplus to Capital Fund	-	-	-	(2,088,344)	(587,266)	(634,503)	(706,836)	(805,901)	(918,319)	(1,032,658)
Ending Balance	\$ 1,351,599	\$ 1,614,448	\$ 1,841,354	\$ 307,872	\$ 314,192	\$ 323,047	\$ 332,185	\$ 341,618	\$ 351,356	\$ 361,410
O&M Target Balance	\$ 221,454	\$ 286,383	\$ 301,866	\$ 307,872	\$ 314,192	\$ 323,047	\$ 332,185	\$ 341,618	\$ 351,356	\$ 361,410
Days	366	338	366	60	60	60	60	60	60	60
<b>CAPITAL RESERVE</b>										
Beginning Balance	\$ 1,381,705	\$ 1,420,205	\$ 1,025,256	\$ 3,401,614	\$ 5,091,589	\$ 4,138,376	\$ 4,589,368	\$ 5,231,146	\$ 5,977,242	\$ 6,842,432
plus: Rate Funded System Reinvestment/ Equipment Transfers	141,000	-	-	-	-	-	-	-	-	-
plus: Transfers from Operating Fund	-	-	-	2,088,344	587,266	634,503	706,836	805,901	918,319	1,032,658
plus: Grants/ Donations/ CIAC	-	-	-	-	-	-	-	-	-	-
plus: Additional Proceeds (Costs)	-	1,565,675	9,807,900	-	-	-	-	-	-	-
plus: Connection Charge Revenue	205,000	171,923	94,458	96,970	99,548	102,195	104,913	107,702	110,566	113,506
less: Connection Charge Revenue Towards Debt	-	-	-	-	-	-	-	-	-	-
plus: Net Debt Proceeds Available for Projects	-	1,773,387	6,907,900	-	-	-	-	-	-	-
plus: Interest Earnings	8,000	7,101	10,253	51,024	76,374	62,076	68,841	78,467	89,659	102,636
Total Funding Sources	\$ 1,735,705	\$ 4,938,290	\$ 17,845,767	\$ 5,637,952	\$ 5,854,777	\$ 4,937,150	\$ 5,469,957	\$ 6,223,217	\$ 7,095,786	\$ 8,091,232
less: Upgrade Expansion Projects	(44,000)	(2,207,398)	(5,609,190)	-	(56,275)	-	-	-	-	-
less: R&R Projects	(271,500)	(1,705,636)	(8,834,963)	(546,364)	(1,660,125)	(347,782)	(238,810)	(245,975)	(253,354)	-
Ending Working Capital Balance	\$ 1,420,205	\$ 1,025,256	\$ 3,401,614	\$ 5,091,589	\$ 4,138,376	\$ 4,589,368	\$ 5,231,146	\$ 5,977,242	\$ 6,842,432	\$ 7,830,278
Minimum Target Balance	\$ 575,857	\$ 654,117	\$ 943,000	\$ 953,928	\$ 988,256	\$ 995,211	\$ 999,988	\$ 1,004,907	\$ 1,009,974	\$ 1,015,193
<b>CAPITAL &amp; OPERATING BEGINNING FUND BALANCE</b>	\$ 2,236,439	\$ 2,771,803	\$ 2,639,704	\$ 5,242,968	\$ 5,399,461	\$ 4,452,568	\$ 4,912,415	\$ 5,563,332	\$ 6,318,861	\$ 7,193,788
<b>CAPITAL &amp; OPERATING ENDING FUND BALANCE</b>	\$ 2,771,803	\$ 2,639,704	\$ 5,242,968	\$ 5,399,461	\$ 4,452,568	\$ 4,912,415	\$ 5,563,332	\$ 6,318,861	\$ 7,193,788	\$ 8,191,688



	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2050
\$	-	-	-	-	-	-	-	-	-	-	-	-	-
\$	253,354	260,955	268,783	276,847	285,152	293,707	302,518	311,593	320,941	330,570	340,487	350,701	-
	126.7%	130.6%	134.4%	138.4%	142.6%	146.9%	151.3%	155.8%	160.5%	165.3%	170.2%	175.4%	235.7%

Provision for Repair and Replacement

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2050	Total
<b>From Capital Facilities Plan</b>																						
Facility																						\$ 215,276
Sewer Plant Outfall Line Replacement (including const administration)	\$ -	\$ 215,276	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,374,535
Sewer Plant SBR Conversion	-	-	1,374,535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sewer Main &amp; Station Replacement, Improvement or Upgrade</b>																						
Pump Station - #4 Decommission	\$ 2,603	\$ 25,973	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 28,576
Main Replacement - Elsworth Avenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32,534
Main Replacement - Spring St from First to Second St	32,534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46,327
Main Replacement - Marguerite from Spring to Park St	-	-	46,327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main Replacement - First Street (North)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pump Station - #3 Upgrade	-	-	-	178,047	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	178,047
Main Replacement - Larson St	-	-	-	-	40,968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40,968
Pump Station - #2 Electrical Upgrades	-	-	-	-	37,529	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37,529
Pump Station - #1 Upgrade	-	34,193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34,193
Main Replacement - Nichols St from Argyle to B St	-	-	-	-	145,662	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	145,662
Inflow & Infiltration (I/I) Projects - Various Locations	-	14,430	15,598	16,627	18,208	19,764	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84,627
CIPP - First Street (North) - Spring St to Court Street	-	-	-	-	34,531	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34,531
Outfall Design & Permitting	6,790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,790
Wastewater Treatment Plant Upgrade Design	-	179,036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	179,036
Advertising	-	-	-	-	69,061	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69,061
Main Replacement - Spring from Price to Lampard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main Replacement - Sunshine Alley - Entire length	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main Replacement - Hillcrest St from "TOTHarbor" to Park St	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Main Replacement - Franck from C St to Maple	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Placeholder	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70,707	\$ 72,535	\$ 74,385	\$ 75,976	\$ 77,900	\$ 79,599	\$ 82,064	\$ 85,778	\$ 89,024	\$ 90,070	\$ 92,556	\$ 95,897	\$ 97,466	\$ 99,756	\$ 102,417	\$ -	\$ 1,286,141
[Extra]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[Extra]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ 41,927	\$ 468,909	\$ 1,436,461	\$ 194,675	\$ 345,959	\$ 90,471	\$ 72,535	\$ 74,385	\$ 75,976	\$ 77,900	\$ 79,599	\$ 82,064	\$ 85,778	\$ 89,024	\$ 90,070	\$ 92,556	\$ 95,897	\$ 97,466	\$ 99,756	\$ 102,417	\$ -	\$ 3,793,834
<b>Treatment</b>	\$ 6,790	\$ 408,742	\$ 1,390,133	\$ 16,627	\$ 18,208	\$ 19,764	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,860,264
<b>Other</b>	35,137	60,167	46,327	178,047	327,751	70,707	72,535	74,385	75,976	77,900	79,599	82,064	85,778	89,024	90,070	92,556	95,897	97,466	99,756	102,417	-	1,933,570