

## SEWER RATE STUDY 2023 RATES

The attached Sewer Rate Study dated July 9, 2007 is used as the basis for the 2023 rate increase.

This increase is anticipated to bring \$18,181 in additional revenue to the Sewer Enterprise fund

Over the last seven years the Town of Hayden has subsidized the sewer fund as follows:

2016		\$116,472
2017		\$110,525
2018		\$113,338
2019		\$156,604
2020		\$106,970
2021		\$239,604
2022		\$234,235

Even with the increases that the Town has implemented the enterprise fund is not self sustaining and therefore additional fee increases are necessary. This fee increase is anticipated to bring in \$18,181 in additional revenue to the sewer enterprise fund.

Sewer	Current Rate	New Rate
<b>Residential</b>		
Single Family	\$ 77.65	\$ 85.40
Multi-Family (per unit)	\$ 77.65	\$ 85.40
Mobile Homes	\$ 77.65	\$ 85.40
<b>Non-Residential</b>		
Business/Retail	\$ 84.55	\$93.00
Restaurant	\$102.75	\$113.00
Churches	\$102.75	\$113.00
Sewer Tap Fee (Residential)	\$412.50	\$ 453.75
Sewer Tap Fee (Commercial)	\$ 0.00	\$1,200.00

Using the CPI Inflation Calculator from June of 2007 to September of 2023 the following rates would be appropriate.

Single Family	\$ 107.17
Multi-Family (per unit)	\$ 107.17
Mobile Homes	\$107.17
<b>Non-Residential</b>	
Business/Retail	\$ 104.72
Restaurant	\$125.60
Churches	\$192.26

Town of Winkelman charges \$25.00 per month for sewer fees.

Town of Kearny charges \$27.60 per month for sewer fees.

Town of Mammoth charges \$27.00 per month for sewer fees.

A Presentation To

**Town Council of Hayden Arizona  
July 9, 2007**

**Project Name: Sewer Rate Study**

## Elements of the Hayden Sewer Rate Study

- Current sewer utility budget for collection and discharge
- Existing customer base
- Sewer rates needed to meet current budget
- Financing costs for sewage transfer infrastructure and the WWTP upgrade
- Operation and maintenance costs for new transfer facilities and Hayden's share of the treatment costs
- Reserve fund calculation



# Sewer Utility Projected FY 2006-07 Final Budget

Expenditures	Amount
Salaries & Benefits	\$36,000
Supplies	\$5,000
Maintenance Expense	\$56,000
Depreciation	\$43,000
Miscellaneous expense	\$1,000
Telephone & Utilities	\$11,000
Admin. & Contingency @ 2%	<u>\$3,040</u>
<b>Total Cost of Collection and Discharge:</b>	<b>\$155,040</b>



# Customer Data

Customer Class	Basis of Charge	Number of Units	No. of Connections <sup>1</sup>	Wastewater Characteristics			
				Aver. Daily Flow/Unit (GPD)	BOD mg/l	TSS mg/l	
<u>Residential</u>		(A)		(B)	(C)	(D)	
Single-Family (Includes MH)	per Unit	249	249	225	500	250	
Multi-Family <sup>2</sup>	per Unit	6	2	215	500	250	
Mobile Homes <sup>2</sup>	per Unit	29	19	225	500	250	
RV	per Unit						
<u>Non-Residential</u>							
Business/Retail/Office	per Unit	15	15	300	500	250	
Restaurant/Bar	per Unit	2	2	500	750	350	
Churches	per Unit	1	1	500	500	250	
Totals:		302	288				

<sup>1</sup> Total number of connections from 2006 WIFA Rate Study, connections per class

<sup>2</sup> Multi-family and mobilehome units are based on the 2000 U.S. Census occupied units data





# Sewer Rates for Current Budget

Customer Class	Flow MG/ Yr.	Cost/ MG	Total Variable Costs	Units	Variable Cost/Unit/ Yr	Fixed Cost/Unit /Yr.	Cost/Unit/ Yr	Cost/ Unit /Mon
	A	B	C=AxB	D	E=C/D	F	E+F	(E+F)/12
<u>Residential</u>								
Single-Family	20.45	\$1,638	\$ 33,491	249	\$ 134.50	\$ 375.13	\$ 509.64	\$ 42.47
Multi-Family	0.47	\$1,638	\$ 771	6	\$ 128.53	\$ 375.13	\$ 503.66	\$ 41.97
Mobile Homes	2.38	\$1,638	\$ 3,901	29	\$ 134.50	\$ 375.13	\$ 509.64	\$ 42.47
<u>Non-Residential</u>			\$ -					
Business/retail	1.64	\$1,638	\$ 2,690	15	\$ 179.34	\$ 375.13	\$ 554.47	\$ 46.21
Restaurant/Bar	0.37	\$1,638	\$ 598	2	\$ 298.90	\$ 375.13	\$ 674.03	\$ 56.17
Churches	0.18	\$1,638	\$ 299	1	\$ 298.90	\$ 375.13	\$ 674.03	\$ 56.17
Total:	25.49		\$ 41,750	302				

# Sewer Rates for Current Budget

<u>Customer Class</u>	<u>Monthly Rate</u>
Residential	
Single Family	\$42.47
Multi-Family	\$41.97
Mobile Homes	\$42.47
Non-Residential	
Business/retail	\$46.21
Restaurant	\$56.17
Churches	\$56.17

**Note: these rates do not include charges for new facilities, upgrades or treatment**



## **Financing Costs for New Facilities & WWTP Upgrade**

- Sewer Rate Study based on total project cost of \$1.5 million.
- \$1 million is an outright grant
- \$500,000 is budgeted as a loan from USDA (or other source) which would be repaid by charges collected from Sewer Utility customers.
- This Sewer Rate Study assumes a bond interest rate of 4.75% over a 40-year period, the annual debt service payment would be \$28,150.

## Annual Cost to Treat Hayden Effluent in Upgraded Winkelman WWTP

- Total expense due to increased flow = \$71,500
  - Additional personnel costs
  - Power and water
  - Maintenance
  - Sludge disposal
  - Permit fees and DMA application
- Hayden's share of fixed costs = \$12,300
  - Testing and monitoring
  - Insurance
  - WIFA Grant Match
  - Consultants
- Total Treatment Cost = \$83,800

**Total Annual Budget for Current O&M plus  
Upgrade Debt Service and Treatment Cost**

Collection And Discharge	\$155,000
Debt Service	\$28,150
Treatment	<u>\$83,800</u>
Total	\$266,950



**Sewer Rates for Current O&M plus Upgrade Debt  
Service and Treatment Cost**

<u>Customer Class</u>	<u>Monthly Rate</u>
Residential	
Single Family	\$72.55
Multi-Family	\$70.89
Mobile Homes	\$72.55
Non-Residential	
Business/retail	\$85.02
Restaurant	\$130.15
Churches	\$118.27

# 10 Year Cash Flow

Expenditures	Collection & Discharge	Treatment total	Percent of Initiation	Year									
				1	2	3	4	5	6	7	8	9	10
Salaries & Benefits	\$36,000	\$30,000	26%	\$67,980	\$70,019	\$72,120	\$74,284	\$76,512	\$78,807	\$81,172	\$83,607	\$86,115	\$88,698
Supplies	\$5,000	\$3,500	4%	\$8,925	\$9,371	\$9,840	\$10,332	\$10,848	\$11,391	\$11,960	\$12,558	\$13,186	\$13,846
Services													
Testing	\$0	\$4,798	0%	\$4,884	\$4,981	\$5,081	\$5,183	\$5,286	\$5,392	\$5,500	\$5,610	\$5,722	\$5,837
Monitoring	\$0	\$3,500	0%	\$3,570	\$3,641	\$3,714	\$3,789	\$3,864	\$3,942	\$4,020	\$4,101	\$4,183	\$4,266
Sludge Hauling & Disposal	\$0	\$10,000	0%	\$10,200	\$10,404	\$10,612	\$10,824	\$11,041	\$11,262	\$11,487	\$11,717	\$11,951	\$12,190
Maintenance Expense	\$28,000	\$2,750	20%	\$32,288	\$33,902	\$35,597	\$37,377	\$39,246	\$41,208	\$43,268	\$45,432	\$47,703	\$50,089
Depreciation/annualized capital	\$43,000	\$2,000	31%	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000	\$45,000
Repairs & minor replacements <sup>1</sup>	\$1,000	\$0	1%	\$1,020	\$1,040	\$1,061	\$1,082	\$1,104	\$1,126	\$1,149	\$1,172	\$1,195	\$1,219
Insurance	\$0	\$1,297	0%	\$1,336	\$1,376	\$1,417	\$1,460	\$1,504	\$1,549	\$1,595	\$1,643	\$1,692	\$1,743
Tire/Expense	\$0	\$360	0%	\$354	\$357	\$361	\$364	\$368	\$372	\$375	\$379	\$383	\$387
Welder	\$0	\$650	0%	\$676	\$703	\$731	\$760	\$791	\$822	\$855	\$890	\$925	\$962
Power	\$11,800	\$16,800	8%	\$29,190	\$30,650	\$32,182	\$33,791	\$35,481	\$37,255	\$39,117	\$41,073	\$43,127	\$45,283
Debt service	\$14,074	\$14,074	10%	\$28,148	\$28,148	\$28,148	\$28,148	\$28,148	\$28,148	\$28,148	\$28,148	\$28,148	\$28,148
DMA Application Fee <sup>2</sup>	\$0	\$2,000	0%	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Consultant Fees <sup>2</sup>	\$0	\$1,050	0%	\$1,050	\$1,050	\$1,050	\$1,050	\$1,050	\$1,050	\$1,050	\$1,050	\$1,050	\$1,050
WPA Grant Match <sup>2</sup>	\$0	\$1,330	0%	\$1,330	\$1,330	\$1,330	\$1,330	\$1,330	\$1,330	\$1,330	\$1,330	\$1,330	\$1,330
Annual Permit/ADEQ	\$0	\$1,000	0%	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Registration Fee	\$1,200	\$1,374	1%	\$2,574	\$2,574	\$2,574	\$2,574	\$2,574	\$2,574	\$2,574	\$2,574	\$2,574	\$2,574
Administrative charges	\$139,274	\$96,463		\$241,524	\$247,547	\$253,818	\$260,348	\$267,147	\$274,227	\$281,601	\$289,283	\$297,285	\$305,622
Total Current Cost:													
Annual Revenue		\$267,000		\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000	\$267,000
Operating Surplus (Deficit)		\$15,476		\$9,463	\$3,182	(\$3,348)	(\$10,147)	(\$17,227)	(\$24,601)	(\$32,283)	(\$40,285)	(\$48,622)	(\$56,652)
Interest Income @ 2.5%		\$0		\$397	\$653	\$728	\$663	\$425	\$6	\$0	\$0	\$0	\$0
Cumulative Surplus (Deficit)		\$15,476		\$25,316	\$29,130	\$26,511	\$17,027	\$226	(\$24,370)	(\$56,652)	(\$96,937)	(\$145,559)	(\$202,218)
Reserve percent of Budget		6.41%		10.23%	11.48%	10.18%	8.93%	8.93%	8.93%	8.93%	8.93%	8.93%	8.93%

<sup>1</sup> Minor replacements with less than 5 years useful life  
<sup>2</sup> Fees and grant match amortized over 5-yr. period these costs may be deducted if not applicable

5 Yr Average: 8.93%





**Sewer Rates from Cash Flow Analysis  
w/Reserve Fund**

<u>Customer Class</u>	<u>Monthly Rate</u>
Residential	
Single Family	\$69.84
Multi-Family	\$68.18
Mobile Homes	\$69.86
Non-Residential	
Business/retail	\$81.81
Restaurant	\$125.29
Churches	\$113.51