

Analytical Laboratory Costs

Type of Sampling Required	Total Avg Cost per Sample	Non-Community Transient Annual Lab Costs	Groundwater Well Annual Lab Costs	Surface Water Annual Lab Costs
Bacteriological - Analysis done by State Public Health Lab (SPHL)	\$ 11.68	\$ 140.20	\$ 280.39	\$ 280.39
Nitrate	\$ 31.77	\$ 31.77	\$ 31.77	\$ 31.77
Inorganic Contaminants (IOC)	\$ 467.75	Testing not required	\$ 155.92	\$ 467.75
Volatile Organic Contaminants (VOC)	\$ 74.53	Testing not required	\$ 24.84	\$ 74.53
Synthetic Organic Contaminants (SOC)	\$ 376.55	Testing not required	\$ 62.76	\$ 376.55
Radionuclides (RAD)	\$ 498.86	Testing not required	\$ 99.77	\$ 55.43
Disinfection Byproducts (DBP)	\$ 161.60	Testing not required	\$ 323.20	\$ 1,292.82
Lead and Copper Rule (LCR)	\$ 48.68	Testing not required	\$ 438.10	\$ 438.10
		\$ 171.97	\$ 1,416.76	\$ 3,017.34

Assumptions below were used for the number of samples and years between samples to arrive at the Annual Lab Costs in the table above. Sample numbers are based on averages and systems without compliance issues. Actual number of samples collected may be higher or lower depending on the population size, source water type and analyte exceedance(s) of regulatory standards.

<i>Bacteriological (SPHL)</i>	<i>12 samples per year</i>	<i>24 samples per year</i>	<i>24 samples per year</i>
<i>Nitrate</i>	<i>1 sample per year</i>	<i>1 sample per year</i>	<i>1 sample per year</i>
<i>Inorganic Contaminants (IOC)</i>	<i>Testing not required</i>	<i>1 sample every 3 years</i>	<i>1 sample per year</i>
<i>Volatile Organic Contaminants (VOC)</i>	<i>Testing not required</i>	<i>1 sample every 3 years</i>	<i>1 sample per year</i>
<i>Synthetic Organic Contaminants (SOC)</i>	<i>Testing not required</i>	<i>1 sample every 6 years</i>	<i>1 sample per year</i>
<i>Radionuclides (RAD)</i>	<i>Testing not required</i>	<i>1 sample every 5 years</i>	<i>1 sample every 9 years</i>
<i>Disinfection Byproducts (DBP)</i>	<i>Testing not required</i>	<i>2 samples per year</i>	<i>8 samples per year</i>
<i>Lead and Copper Rule (LCR)</i>	<i>Testing not required</i>	<i>9 samples per year</i>	<i>9 samples per year</i>

Laboratory Cost Comparisons

Type of Sampling Required ¹	Average Commercial Lab Cost ⁶	Average State Lab (SPHL/ESP) Cost ⁵	Average Number of Samples per Year	Average Annual Commercial Lab Cost	Average Annual State Lab (SPHL/ESP) Cost	Annual State Lab Savings vs. Commercial Lab Cost
Bacteriological (SPHL) ²	\$ 23.33	\$ 11.68	58,662	\$ 1,368,780.00	\$ 685,348.00	\$ 683,432.00
Nitrate	\$ 36.50	\$ 31.77	3,451	\$ 125,961.50	\$ 109,635.89	\$ 16,325.61
Inorganic Contaminants (IOC)	\$ 488.67	\$ 467.75	809	\$ 395,331.33	\$ 378,406.73	\$ 16,924.60
Volatile Organic Contaminants (VOC)	\$ 94.00	\$ 74.53	995	\$ 93,530.00	\$ 74,156.10	\$ 19,373.90
Synthetic Organic Contaminants (SOC) ³	\$ 1,187.25	\$ 376.55	373	Not included ⁴	\$ 140,452.20	Not included ⁴
Disinfection Byproducts (DBP)	\$ 140.00	\$ 161.60	2,275	\$ 318,500.00	\$ 367,645.67	\$ (49,145.67)
Lead and Copper Rule (LCR)	\$ 31.00	\$ 48.68	5,382	\$ 166,842.00	\$ 261,985.60	\$ (95,143.60)
				\$ 2,468,944.83	\$ 2,017,630.20	\$ 591,766.84

¹ Cost not included for lab services contracted out such as Radionuclides (RAD), Cryptosporidium (LT2), or Unregulated Contaminant Monitoring Rule (UCMR).

² SPHL sample cost is based on 58,662 samples (annual average ('16-'19) number of samples), EE cost (\$480,000)+\$205,348 (5-year average) FTE increase estimate.

³ SOC Average Commercial Lab Cost includes some quotes of waiver analytes.

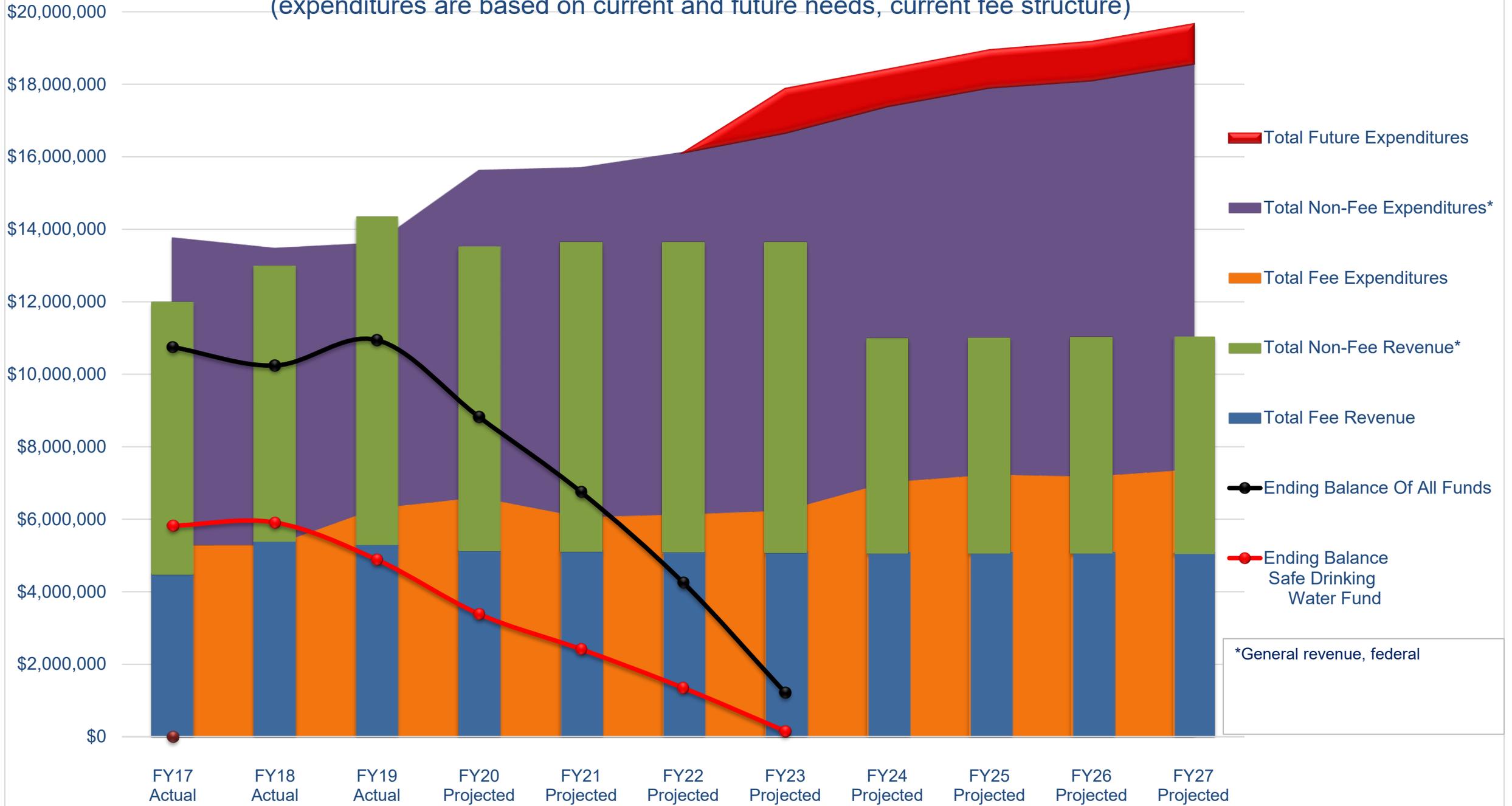
⁴ SOC comparison not included as Commercial Lab Cost may contain additional analytes not required for analysis.

⁵ Return shipping is included in State Lab Cost. SPHL cost per sample includes the use of the Health Department courier.

⁶ Return shipping is not included in Commercial Lab Cost. Water systems would be required to pay \$15-\$30 per sample kit for additional overnight return shipping.

Drinking Water Funding Projected Revenues, Expenditures, & Balances

(expenditures are based on current and future needs, current fee structure)



*General revenue, federal

Drinking Water Funding Balance Tracking (current and future needs, current fee structure)												
		FY17 Actual	FY18 Actual	FY19 Actual	FY20 Projected	FY21 Projected	FY22 Projected	FY23 Projected	FY24 Projected	FY25 Projected	FY26 Projected	FY27 Projected
Safe Drinking Water Fund	Beginning Balance	\$12,539,813	\$10,750,493	\$10,242,779	\$10,943,432	\$8,822,363	\$6,750,618	\$4,254,387	\$1,217,304	(\$5,200,808)	(\$12,110,276)	(\$19,200,415)
	Total Fee Revenues	\$4,491,699	\$5,409,220	\$5,321,568	\$5,149,552	\$5,127,517	\$5,109,345	\$5,089,191	\$5,075,750	\$5,075,750	\$5,075,750	\$5,075,750
	Total Fee Expenditures	\$5,310,242	\$5,320,082	\$6,345,901	\$6,648,744	\$6,098,662	\$6,175,441	\$6,282,644	\$7,072,364	\$7,286,376	\$7,231,108	\$7,430,590
	Fee-Related Excess (Shortfall)	(\$818,543)	\$89,138	(\$1,024,333)	(\$1,499,192)	(\$971,145)	(\$1,066,096)	(\$1,193,453)	(\$1,996,614)	(\$2,210,626)	(\$2,155,358)	(\$2,354,840)
	Ending Balance	\$11,721,270	\$10,839,631	\$9,218,446	\$9,444,240	\$7,851,218	\$5,684,522	\$3,060,934	(\$779,310)	(\$7,411,434)	(\$14,265,634)	(\$21,555,255)
Other (Non-Fee) Revenue and Expenditure (General Revenue, Federal)	Beginning Balance	\$5,899,482	\$4,928,705	\$4,331,853	\$6,056,839	\$5,434,962	\$4,334,362	\$2,904,227	\$1,060,597	(\$3,360,901)	(\$8,059,743)	(\$12,994,524)
	Total Non-Fee Revenue	\$7,491,041	\$7,567,859	\$9,007,200	\$8,353,026	\$8,498,788	\$8,515,800	\$8,533,503	\$5,898,861	\$5,918,028	\$5,934,884	\$5,952,330
	Other (Non-Fee) Expenditures											
	Total Non-Fee Expenditures	\$8,461,818	\$8,164,711	\$7,282,214	\$8,974,903	\$9,599,388	\$9,945,935	\$10,377,133	\$10,320,359	\$10,616,870	\$10,869,665	\$11,133,899
	Other (Non-Fee) Excess (Shortfall)	(\$970,777)	(\$596,852)	\$1,724,986	(\$621,877)	(\$1,100,600)	(\$1,430,135)	(\$1,843,630)	(\$4,421,498)	(\$4,698,842)	(\$4,934,781)	(\$5,181,569)
	Ending Balance - other revenue	\$4,928,705	\$4,331,853	\$6,056,839	\$5,434,962	\$4,334,362	\$2,904,227	\$1,060,597	(\$3,360,901)	(\$8,059,743)	(\$12,994,524)	(\$18,176,093)
Drinking Water Funding Summary (current spending)	Ending Balance Of All Funds	\$10,750,493	\$10,242,779	\$10,943,432	\$8,822,363	\$6,750,618	\$4,254,387	\$1,217,304	(\$5,200,808)	(\$12,110,276)	(\$19,200,415)	(\$26,736,824)
	Total Shortfall	(\$1,789,320)	(\$507,714)	\$700,653	(\$2,121,069)	(\$2,071,745)	(\$2,496,231)	(\$3,074,410)	(\$6,456,695)	(\$6,949,359)	(\$7,131,172)	(\$7,578,625)
								average annual shortfall FY23-FY27	(\$6,238,052)			
Drinking Water Funding Summary (current and future needs)	Total Future Expenditures	\$0	\$0	\$0	\$0	\$0	\$0	\$1,221,564	\$1,017,377	\$1,045,399	\$1,072,649	\$1,099,988
	Total Shortfall - current and future needs	(\$1,789,320)	(\$507,714)	\$700,653	(\$2,121,069)	(\$2,071,745)	(\$2,496,231)	(\$4,295,974)	(\$7,474,072)	(\$7,994,758)	(\$8,203,821)	(\$8,678,613)
									average annual shortfall FY23-FY27	(\$7,329,448)		

FY19 Operating Expenditures

Service Area	FTE	General	Federal	Safe Drinking	Drinking Water	TOTAL
		Revenue		Water Fund	SRF Admin Fees	
Administration	3.44	\$0	\$105,418	\$144,542	\$28,377	\$278,336
Inspections	19.15	\$0	\$624,269	\$889,661	\$0	\$1,513,930
Investigations	2.56	\$0	\$80,454	\$112,248	\$0	\$192,703
Compliance Assistance	21.36	\$0	\$1,282,692	\$459,921	\$60,863	\$1,803,477
Permitting and Certification	11.74	\$302,001	\$341,220	\$288,531	\$48,937	\$980,690
Certification (operator) & Accreditation	7.68	\$0	\$439,948	\$177,477	\$19,589	\$637,014
Enforcement	6.31	\$0	\$30,080	\$718,983	\$2,454	\$751,518
Monitoring	7.21	\$0	\$427,096	\$260,218	\$32,907	\$720,222
Sample Data/Analysis, Recording & Reporting	17.14	\$0	\$171,590	\$1,026,825	\$41,327	\$1,239,742
General Assistance	3.13	\$0	\$187,918	\$93,739	\$33,209	\$314,866
Financial Assistance	2.83	\$0	\$137,272	\$25,646	\$56,228	\$219,145
Conduct Training/Education	0.04	\$0	\$1,188	\$1,925	\$0	\$3,113
Community Relations, Public Meetings & Information	0.13	\$0	\$658	\$11,016	\$0	\$11,674
GIS, GPS and Mapping	0.11	\$0	\$11,313	\$809	\$3,478	\$15,601
Professional Development	2.91	\$3,835	\$98,122	\$126,996	\$6,831	\$235,784
Quality Assurance	0.17	\$0	\$5,301	\$6,790	\$0	\$12,091
WP Project Management/Oversight	5.42	\$0	\$279,933	\$0	\$171,299	\$451,231
Emergency Preparedness & Response	0.38	\$0	\$13,682	\$15,990	\$0	\$29,672
Geologic and Hydrologic Resource	1.88	\$0	\$66,748	\$0	\$76,611	\$143,359
DEPT/DIV/OA Costs		\$6,248	\$1,326,731	\$1,160,810	\$110,585	\$2,604,375
DHSS Sample Data Analysis		\$0	\$0	\$426,459	\$0	\$426,459
PSD*			\$645,802	\$397,313		\$1,043,115
Totals	113.59	\$312,084	\$6,277,435	\$6,345,900	\$692,696	\$13,628,115

* Excludes Drinking Water SRF loan and grant pass-through expenditures