Town of Johnstown

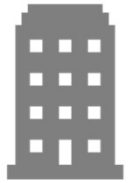
Water and Sewer Rates

What is a Fund?

Funds are defined as a self-balancing set of accounts, recording cash and revenues, together with related liabilities and balances, that are segregated for carrying on specific activities or attaining certain, specific objectives or goals.

General Fund

Water Fund



Streets Fund

How do Funds work?

Revenues
Property Taxes
Sales Taxes

General Fund

Expenditures
Public Safety
Building Inspections

Revenues
Utility Bills
Water Taps

Water Fund

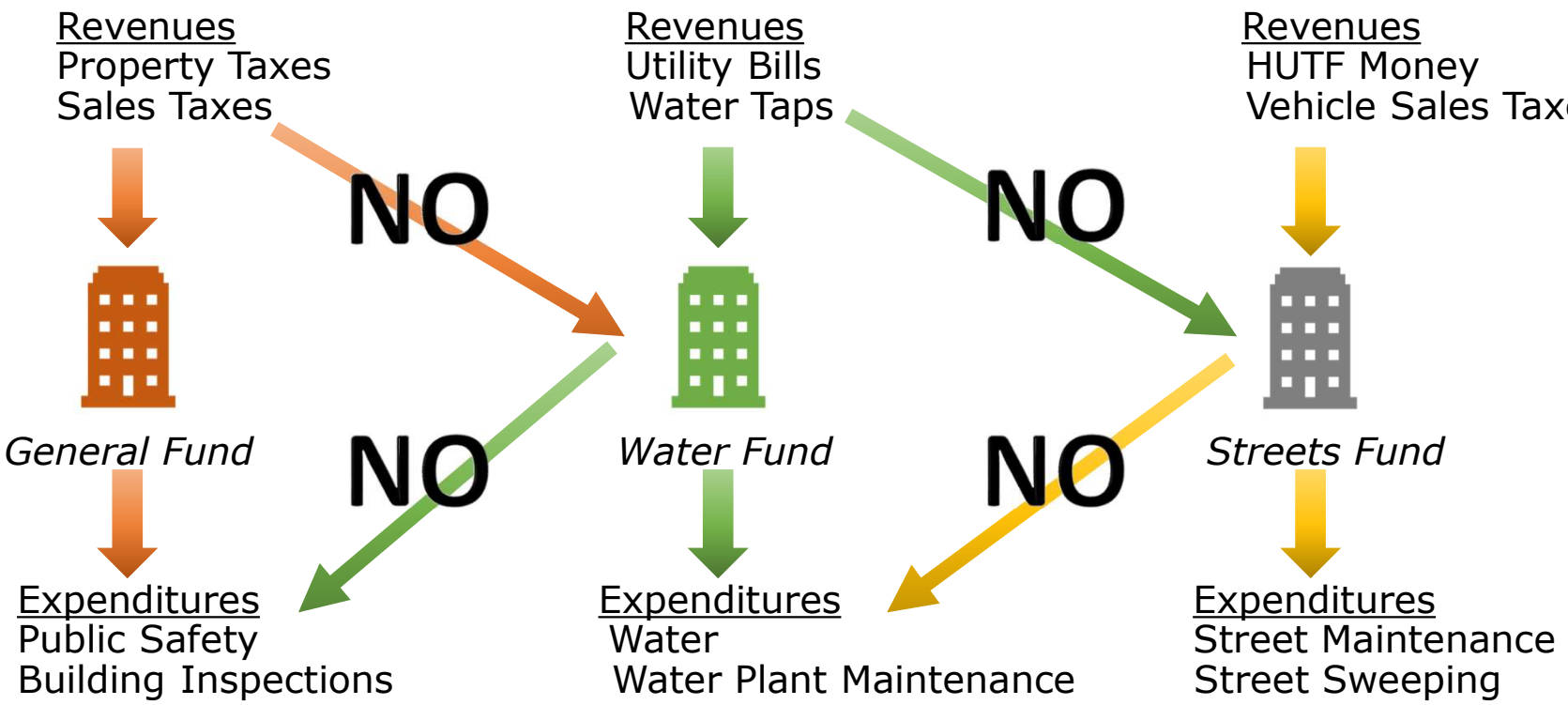
Expenditures
Water
Water Plant Maintenance

Revenues
HUTF Money
Vehicle Sales Taxes

Streets Fund

Expenditures
Street Maintenance
Street Sweeping

Funds Don’t Mix



Enterprise Funds

Water Fund

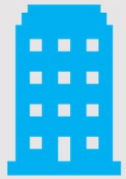
Revenues:
- Water User Charges
- Water Tap Fees
- Water Investment Impact Fee
- Water Leases
- Grants
- Interest

Expenditures:
- Water Treatment Costs
- Water Delivery Costs
- Infrastructure Maintenance
- Infrastructure Expansion
- Administrative/Billing Costs

Sewer Fund

Revenues:
- Sewer User Charges
- Sewer Tap Fees
- Grants
- Interest

Expenditures:
- Waste Water Treatment Costs
- Infrastructure Maintenance
- Infrastructure Expansion
- Administrative/Billing Costs



Drainage Fund

Revenues:
- Drainage User Charges
- Drainage Impact Fee
- Grants
- Interest

Expenditures:
- Infrastructure Maintenance
- Infrastructure Development
- Administrative/Billing Costs

Enterprise Funds

- Enterprise funds are used to account for funds that are operated in a manner similar to a private business.
- Goods or services are provided to the general public on a continuing basis and the costs of those goods or services are recovered primarily through user charges.
- These funds DO NOT receive any revenue from taxes.

Enterprise Funds – Legal Restrictions

Article X, Section 20 of the Colorado Constitution defines an enterprise in the following manner: "Enterprise" means a government owned business authorized to issue its own revenue bonds and receiving under 10% of annual revenue in grants from all Colorado state and local governments combined.

Current Status

Sewer:

- Consent order from State
- 2 plants
  - Central WWTP
    - > 50 years old
    - Lagoon system – no longer meets State compliance
    - Current capacity .999mgd
    - Expanded capacity 2.5mgd
  - Low Point WWTP
    - >20 years old
    - Current capacity .5mgd
    - Expanded capacity 1.5mgd

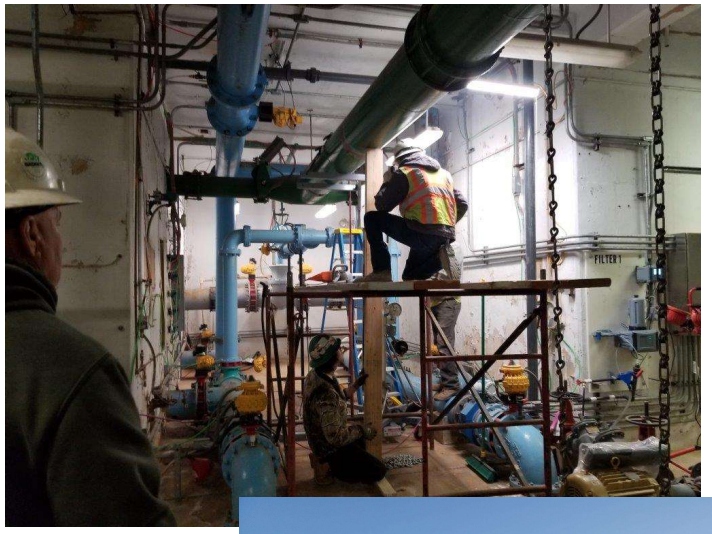
mgd = Million Gallons Day

Current Status

Water:

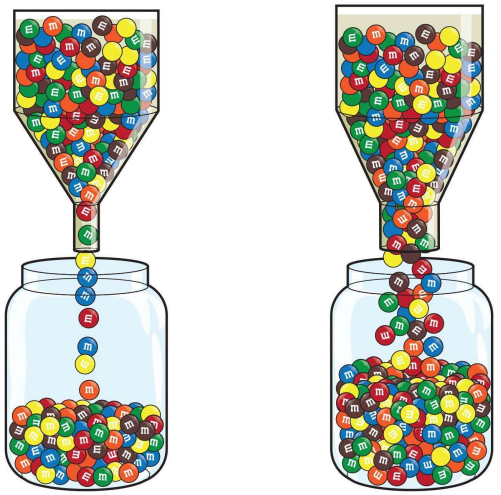
- 1 treatment plant
- 4 storage tanks
- Age of plant >50 years
- Current capacity 6.2mgd
- Current peak demand=7-9 mgd last summer – while under watering restrictions.

mgd = Million Gallons Day



Current Status – Water

We have the water to treat. Our existing plant just cannot treat it fast enough to keep up with current needs.



Capital - Sewer

Year	Capital Costs	Items Included
2023	$35,575,000	Central WWTP, Low Point Retrofit, Sewer inspection, North interceptor, Central Ph 2 interceptor
2024	$43,707,125	Central WWTP, Low Point Retrofit, North Interceptor, Fork-Lift, 2 - Crew vehicles, Shoring, Emergency pump
2025	$13,389,319	Central WWTP, Sewer inspection, 2 – Crew vehicles, Fork-lift, Locator
2026	$2,237,827	Low Pt Admin retrofit, Central Lagoon Decommission, Master Plan and Model, Sewer inspection, Annual rehab, Interceptor oversizing, Crew vehicle
2027	$3,417,758	Central lagoon decommission, Sewer inspection, Annual rehab, Interceptor oversizing, Locator, Crew vehicle, Emergency utility van

Capital - Water

Year	Capital Costs	Items Included
2023	$15,523,280	WTP Pilot Project, Water Plant, Tank Chloring Injection, Generator, TOC Analyzer, CIPP Lake Lining, Transmission Line, Emergency GS Tank Repair, Crew vehicle, South tank construction, SH60 Water line
2024	$47,740,825	Water Plant, Transmission line, SH60 Water line, Annual line replacement, Hydrant gutting tool, Mini vac trailer, Shoring, Crew vehicles
2025	$80,572,881	Water Plant, Transmission line, Crew vehicles, Grounds mower, Master Plan and Model, Interconnect, Locator,
2026	$3,433,198	Water meter replacement, annual water line replacement, WTP R&R, Fork-lift, Crew vehicles, Locator
2027	$4,415,419	Water meter replacement, Annual water line replacement, WTP R&R, Crew vehicles, Locator, Emergency Utility Van

Challenges

- Financial sustainability
- Critical infrastructure needs
- Increasing construction costs
- Labor and material shortages
- Project Timing
- Rate equity
- New development pays for new development

Water & Sewer Rate Study

The Town engaged Raftelis Financial Consultants, Inc. an independent third-party consulting firm to perform a water and sewer rate study for the Town. The study included the following:

- Prepare a financial plan
  - Determine what the financial needs are
- Determine cost of service
  - Ensure everyone is paying for their fair share
- Rate Design
  - Ensure rate equity
- Tap Fee Review
  - Ensure that growth is paying for growth

Rate Study – Task Breakdown

Task 3: Water Development and Tap Fees - Wastewater Tap and Regional Sewer Fees

This task will ensure that new development funds their share of system needs thereby maintaining equity between existing and new customers. We will calculate separate fees for the water and wastewater utilities using the following approach.

- Evaluate the water and wastewater system's existing available capacity to serve growth and the capacity anticipated to be added with the 10-year capital improvement program to determine best methodology for calculating development fees. The basic methodologies include
- ***Buy-in***: Historical perspective. Existing available capacity with nominal future growth
- ***Incremental***: Forward-looking. Little to no capacity available with large expansions projects in the new future
  Hybrid: Combination of buy-in and incremental. Some existing capacity available with future expansion projects anticipated in the near future.
- Calculate the current value of available capacity and planned growth-related costs. We will evaluate the valuation of existing assets:
- Value of existing system facilities at current replacement costs using Engineering News Record Construction Cost Index (ENR-CCI) or other similar construction-related index
- The unit replacement cost of the water system's backbone facilities (treatment plant. Large transmission mains, pump stations, treated storage, etc.).
- For the incremental method, identify growth-related projects with assistance from Town staff. For the water development fee, we will rely on the current market price based on Town estimates or use a weighted average of water resources values based on the Town's water portfolio

Rate Study – Task Breakdown

Task 3: Water Development and Tap Fees - Wastewater Tap and Regional Sewer Fees - Continued

- Estimate the remaining capacity in existing facilities and capacity to be added with future facilities (e.g. growth-related CIP)
- Apply adjustments such as developer contributions and outstanding loans currently paid through rates Determine the remaining existing capacity and future capacity to be added for the water and wastewater system. Establish the average daily demand for a ¾" water meter to serve as the bass for the ¾" water development fee
- Establish peak demand basis for a ¾" water meter. Calculate the tap fees for larger meter sizes based on published meter capacity ratios
- The regional sewer tap fee will be calculated in a similar manner to the wastewater tap fee however, will only include those assets/facilities associated with providing service to those customer benefit. Raftelis will develop a separate flow requirement (gpd) to calculate this fee if needed
- Raftelis will develop an industrial wastewater tap fee considering a new developments specific peak flow, BOD and TSS requirements
- Prepare a tap fee survey of peer communities for use in the final presentation to the Town Council.
- Prepare a water development fee survey from similar communities for use in the final presentation to Town Council.

Rate Study – Task Breakdown

Task 4: Water and Wastewater 10-Year Financial Plan

This task lays the groundwork for creating a long-term financial roadmap to meet financial goals. This will assist the Town with proactive planning of large capital projects, evaluating various funding options, and balancing those to minimize future revenue adjustments.

- Create a financial plan for the study period from 2023 to 2032. Prepare separate cash flows within the water and wastewater financial plans that track annual operating and growth-related activities.
- Operating Fund
- Forecast revenue under existing (2022) rates using the demands projections developed in Task 2, the capital improvement fee, and other miscellaneous revenues.
- Forecast operations and maintenance (O&M), repair and replacement (R&R) capital, and existing and proposed debt service. Incorporate new positions, changes in operating efficiencies, etc.
- Forecast existing and proposed debt service based on identified capital projects available for bond funding
- Capital (Growth-Related Capital Fund)
- Forecast tap fee revenue and water development fee revenue based on projections from community planning or any available planning documents
- Incorporate growth-related projects in the 10-year cash flow
- Identify the projects eligible for bond or state loans based on timing, duration, and the project amount. Raftelis can present financial plan alternatives considering specific projects financed through state loans or grants the City has secured.

Rate Study – Task Breakdown

Task 4: Water and Wastewater 10-Year Financial Plan - Continued

Financial Plan Optimization

- Develop an 'optimal' revenue requirement financial plan balancing a mix of cash funding and debt financing capital projects (if applicable) while meeting reserve targets and debt service coverage requirements while maintaining conservative debt capacity levels and minimizing revenue increases. Calculate annual rate revenue adjustments needed through the study period.
- Review existing reserve and debt capacity levels and recommend changes based on specific financial risks or upcoming large capital expenditures.
- Conduct an on-site meeting to review preliminary results with Town staff.
- Update financial plan scenarios based on feedback from Town staff
- Prepare a rate survey of communities for use in the final presentation to Town staff and the Town Council

Rate Study – Task Breakdown

Task 5: Water and Wastewater Cost of Service

The cost of service analysis will determine each customer class' fair share of cost to provide service. We will use industry standard methodologies and our expertise to develop an equitable distribution of costs.

Water Utility

- Determine the test year revenue requirement
- Assign the net book value or replacement cost of existing utility infrastructure to the correct functional categories for the allocation of annual capital costs. Functional categories include: treatment, transmission and distribution, pumping, storage, fire protection, and non-potable costs.
- Assign test-year capital costs (PAYGO financing and projected debt service), O&M expenses, and non-rate revenue offsets to the correct functional categories
- Allocate test-year capital cost, O&M expenses, and non-rate revenue offsets to the correct demand parameters. Demand parameters include average day demands, peak demands, and customer-related activities such as billing, meters and services, and customer field services.
- Determine customer class units of service. Units of service include class average day demands, peak demands, number of bills and number of ¾" meter equivalents.
- Distribute the allocated test-year capital costs, O&M expenses and non-rate revenue offsets to customer classes based on each of their proportionate share of demands, bills and equivalent meters
- Compare the class cost of service for treated and non-potable customers to the revenue projected under existing rates for the test-year. This comparison will show the percentage change in the classes based on the cost-of service process.

Rate Study – Task Breakdown

Task 5: Water and Wastewater Cost of Service – Continued

Wastewater Utility

- Determine the test year revenue requirement
- Assign the net book value or replacement cost of existing utility infrastructure to the correct functional categories for the allocation of annual capital costs. Functional categories may include: primary treatment, secondary treatment, UV disinfection, headworks, collection system lift stations, etc..
- Assign test-year capital costs (PAYGO financing and projected debt service), O&M expenses, and non-rate revenue offsets to the correct functional categories
- Allocate test-year capital cost, O&M expenses, and non-rate revenue offsets to the correct demand parameters. Demand parameters include contributed flow, infiltration and inflow, strength, and customer-related activities such as billing, meters and services, and customer field services.
- Determine customer class units of service. Units of service include class billable flows, infiltration and inflow
- contributions, strength, and customer.
- Distribute the allocated test-year capital costs, O&M expenses and non-rate revenue offsets to customer classes based on each of their proportionate share of demands, bills and equivalent meters
- Using the unit cost of service, develop extra strength charges for BOD and TSS
- Compare the class cost of service to the revenue projected under existing rates for the test-year. This
- comparison will show the percentage change in the classes based on the cost of service process.

Sewer Rate Recommendations – In Town

Customer Class - In Town:	Sewer Service Charges - Effective Feb 1st of 2024, Then January 1st 2025 - 2028 - In Town				
	2024	2025	2026	2027	2028
Residential - Base	$40.01	$46.01	$52.91	$52.91	$52.91
Residential - Usage	$0.00	$0.00	$0.00	$0.00	$0.00
Multi Family - Base (per unit)	40.01/unit	46.01/unit	52.91/unit	52.91/unit	52.91/unit
Multi Family Usage	$0.00	$0.00	$0.00	$0.00	$0.00
Nonresidential - Base	$40.01	$46.01	$52.91	$52.91	$52.91
Nonresidential Usage*	$4.60/1000g	$5.29/1000g	$6.08/1000g	$6.08/1000g	$6.08/1000g
RV facility with disposal station(s)(per pad)	$15.99	$18.39	$21.15	$21.15	$21.15

Water Rate Recommendations – In Town

Residential

Water Usage Rates:	Water Base and Usage Rates as of February 1st 2024 and January 1st of 2025 - 2028				
Residential - Single Family Equivalent - In Town:	2024	2025	2026	2027	2028
Base	29.69	38.60	50.18	52.68	55.32
Volume charge is per thousand gallons:					
Volume charge - 0 - 5,000 gallons	3.69	4.80	6.24	6.55	6.88
Volume charge - 5,001 - 10,000 gallons	4.24	5.51	7.17	7.52	7.90
Volume charge - 10,001 - 15,000 gallons	5.09	6.62	8.60	9.03	9.48
Volume charge - 15,001 - 20,000 gallons	6.37	8.28	10.77	11.30	11.87
Volume charge - 20,001 - 25,000 gallons	7.96	10.35	13.45	14.13	14.83
Volume charge - >25,000 gallons	9.95	12.94	16.82	17.66	18.54

Water Rate Recommendations – In Town

Multi - Family

Water Base and Usage Rates as of February 1st 2024 and January 1st of 2025 - 2028					
Residential - Multi-Family - In Town:	2024	2025	2026	2027	2028
Base (per dwelling unit)	14.84	19.29	25.08	26.33	27.65
Volume charge is per thousand gallons:					
Volume charge - 0 - 100,000 gallons	4.13	5.37	6.98	7.33	7.70
Volume charge - 100,001 ≤	6.29	8.18	10.63	11.16	11.72

Water Rate Recommendations – In Town

Commercial/ Industrial

Nonresidential/Commercial/Industrial - In Town:

By meter size:

Water Base and Usage Rates as of February 1st 2024 and January 1st 2025 - 2028

	2024	2025	2026	2027	2028
Commercial - 5/8"	29.69	38.60	50.18	52.68	55.32
Commercial - 1"	50.48	65.62	85.31	89.58	94.06
Commercial - 1.5"	98.01	127.41	165.64	173.92	182.61
Commercial - 2"	157.39	204.61	265.99	279.29	293.25
Commercial - 3"	347.44	451.67	587.17	616.53	647.36
Commercial - 4"	623.62	810.71	1,053.92	1106.61	1,161.94
Commercial - 6"	1,285.73	1,671.45	2,172.88	2281.53	2,395.60
Commercial - 8"	2,770.41	3,601.53	4,681.99	4916.09	5,161.89
Commercial - 10"	4,157.09	5,404.22	7,025.49	7376.76	7,745.60
Commercial - 5/8" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 1" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 1.5" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 2" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 3" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 4" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 6" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 8" (Per 1,000 gallons)	6.57	8.54	11.10	11.66	12.24
Commercial - 10"	6.57	8.54	11.10	11.66	12.24

Water Rate Recommendations

Sec. 13-77. Water service charges

Raw water use - per 1000 gallons

Raw Water Usage Rates as of January 1st of each year				
2024	2025	2026	2027	2028
$2.42	$3.15	$4.09	$4.29	$4.51

Sec. 13-78. Bulk potable water for construction

Bulk water - per thousand gallons

Bulk Water Usage Rates as of January 1st of each year				
2024	2025	2026	2027	2028
$15.17	$19.72	$25.64	$26.92	$28.27

Sewer Tap Fee Recommendations – In Town

Sewer tap fees:

	Sewer Tap Fees as of January 1st - In Town
	2024
Single Family, Duplex, Town Homes (pe	
≤ 3/4"	$9,313
1"	$15,832
1.5"	$30,733
2"	$49,357
3"	$108,959
4"	$195,566
6"	$403,240
8"	$868,873
10"	$1,303,776
Multi Family (per Unit)	$4,656

Raw Water Dev. Fee Recommendations – In Town

Raw Water Development Fee:	Raw Water Development Fees effective January 1st - In Town
Water Meter Size - In Town Rates	2024
≤ 3/4"	$6,291
1"	$10,693
1.5"	$20,758
2"	$33,338
3"	$73,596
4"	$132,095
6"	$272,369
8"	$586,882
10"	$880,636

Thank you

Questions?