



**HALLSDALE-POWELL**  
**UTILITY DISTRICT**



**2022**

**COMMITTED TO EXCELLENCE**





# HALLSDALE-POWELL UTILITY DISTRICT

## COMMITTED TO EXCELLENCE

Hallsdale-Powell Utility District, one of Tennessee's largest public water and wastewater utility districts, was created on September 13, 1954, pursuant to the provisions of the Utility District Act of 1937 (TCA § 7-82-101 et seq) for the purpose of constructing, operating, and maintaining a system for the furnishing of water and sewer services for the public. Today, the District proudly distributes drinking water and collects and treats wastewater for more than 80,000 residents in portions of North Knox County, and portions of Anderson and Union Counties. Last year, we treated over 2.9 billion gallons of high quality, clean drinking water and collected and treated 3.7 billion gallons of wastewater for the growing communities we serve.

The District is governed by a Board of Commissioners composed of three citizens who live or own real estate within the District's certificated boundaries. Board members are appointed by the Knox County Mayor for a term of four years. The District is regulated by the Tennessee Department of Environment and Conservation, the United States Environmental Protection Agency, the Utility Management Review Board, and the Tennessee Comptroller of the Treasury.

Currently, the District is supported by 106 well-qualified, trained and committed employees. The staff of Hallsdale-Powell Utility District are committed to working safely, efficiently, and diligently in their efforts to deliver clean drinking water, properly dispose of our communities' wastewater and provide unmatched service excellence.



# WATER SYSTEM

## BY THE NUMBERS

### SERVICE AREA



**146** square mile  
service area

**689** miles of  
service mains

### FACILITIES & CAPACITY



**2** treatment plants

**14** storage facilities

**19** booster pump  
stations

**16 million** gallons  
rated capacity

**12.37 million** gallons  
reservoir capacity

### TREATMENT



**2.9 billion** gallons  
treated water

**8.25 million** gallons/  
day average flow

### CUSTOMERS



**32,442** customers

**48,000** gallons  
annual per residential  
household

**\$47.63**/month

**\$1.59** /day





# WASTEWATER SYSTEM

## BY THE NUMBERS

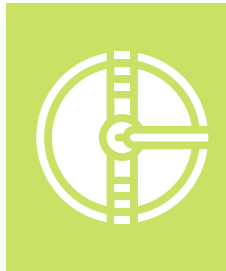
### SERVICE AREA



**146** square mile  
service area

**484** miles of  
service mains

### FACILITIES & CAPACITY



**2** treatment plants

**1** storage facility

**22** lift stations

**23 million** gallons  
of treatment capacity

### TREATMENT



**3.7 billion** gallons  
treated wastewater

**8.7 million** gallons/  
day average flow

### CUSTOMERS



**24,673** customers

**48,000** gallons  
annual per residential  
household

**\$63.59**/month

**\$2.12** /day





# Federal Regulations and the Clean Water Act

The Federal Clean Water Act (CWA) establishes the legal framework for regulating discharges (i.e., flow or emissions of pollutants and setting water quality standards for surface waters). The CWA makes it unlawful to discharge any pollutant from a point source (a discharge pipe in streams, creeks, rivers, or lakes) unless a permit is obtained. The Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) permit program monitors and regulates these discharges under the authority of Federal Law.

Hallsdale-Powell Utility District has EPA issued NPDES permits for both its Beaver Creek and Raccoon Valley Wastewater Treatment Plants, which also includes the wastewater collection system. However, discharges of untreated water, such as that from a sanitary sewer overflow, are illegal and considered a violation of the Clean Water Act. Both State and Federal regulations require cities and utilities with wastewater treatment facilities and collection systems to eliminate sanitary sewer overflows and meet the CWA requirements. Regulation is often accomplished through the issuance of an unfunded federal Consent Decree or state-mandated Consent Order.

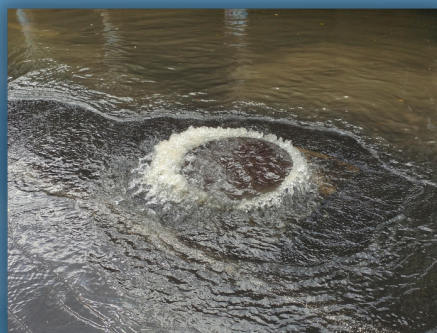
In August of 2004, Hallsdale-Powell Utility District was issued a Consent Order from the Tennessee Department of Environment and Conservation (TDEC). The Consent Order (CO) focused on HPUD plant improvements to avoid continuous violations of the discharge permit along with infrastructure investments to eliminate sanitary sewer overflows (SSO). Federally enforceable by law, the Consent Order requires a long-term financial investment in infrastructure improvements to ensure compliance. The District's response to the 2004 CO resulted in the elimination of plant violations and prepared us to not only meet current Environmental Protection Agency (EPA) standards for treatment discharge but prepared us to meet more stringent standards in the future.

While considerable progress was made, wet weather sewer overflows continued to create significant problems throughout the District resulting in a second CO issued by TDEC in August of 2014. These mandates obligated HPUD to update the Capital Improvement Plan (CIP) and allocate millions of dollars to eliminate sanitary sewer overflows. The second consent order primarily focused on the rehabilitation and replacement of the pipes that collect and carry wastewater from our homes and businesses to the treatment plants. Regulatory drivers force the Utility to make substantial capital financial investments in a less than optimal time frame in order to meet the Federal and State regulations outlined by the CO and the law. HPUD is nearing completion of the CIP plan developed in 2014 to address the second consent order with the end date of 2024.

Hallsdale-Powell Utility District operates as a reasonable, transparent utility that effectively manages the resources entrusted to us. Our Capital Improvement Program is comprised of financial management tools and expert engineering analysis that identifies facility and infrastructure needs and requirements. Raftelis (a financial consulting firm with extensive utility rate modeling experience) assists the District in assessing the CIP and determining the amount of funds needed to ensure the projects are complete and the debt covenant is met. While the financial planning model is built around rate funded capital, HPUD also accesses funds from the American Recovery Plan Act (ARPA), future Revenue Bonds, RUS Bonds, and Knox County Covid-19 funds. While there remains a considerable amount of work to be done, the greatest challenge for the District is always how to meet these stringent regulations while maintaining affordability for our customers.



**Pipe Defects**



**SSO During Heavy Rain**



**Roots in Sewer Line**

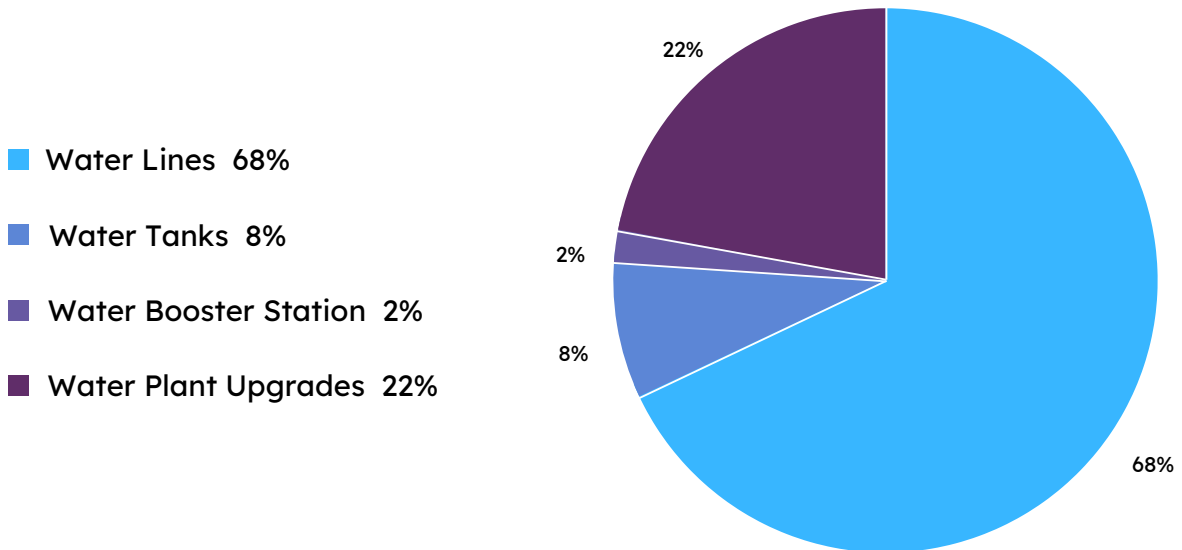


# Capital Improvements

The pie charts below are an overview of the completed capital improvement projects and the District's current financial investment that resulted from the two Consent Orders and rehabilitation and replacement of aging infrastructure throughout the District.

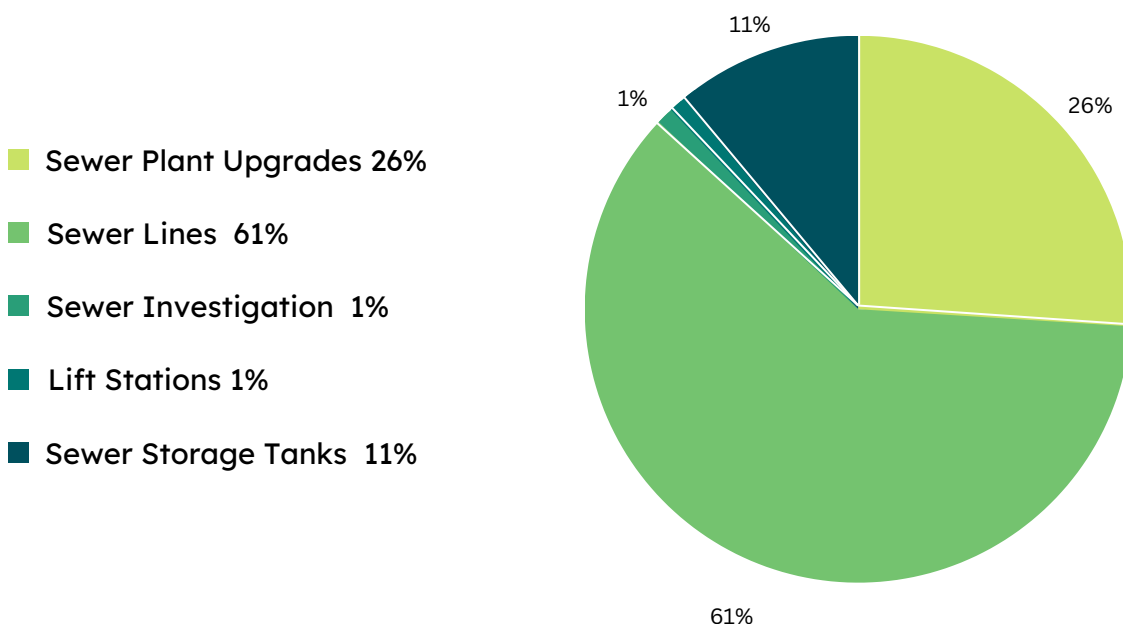
## WATER IMPROVEMENTS

\$33.9 MILLION (FY 2014 - FY 2022)



## WASTEWATER IMPROVEMENTS

\$54.3 MILLION (FY 2014 - FY 2022)



# Relocation of Utilities Driven by TDOT and Knox County Engineering & Public Works

Since 2005, relocation of utilities due to projects accompanied by TDOT and Knox County Engineering & Public Works has financially impacted HPUD by \$17.7 million dollars. These projects are typically not reimbursed and funded primarily by HPUD's ratepayers.

Relocation of Utilities - Road Projects	Cost
Emory Rd (Clinton Hwy to Maynardville Hwy)	\$7,885,870
Maynardville Hwy (Halls High School to Union Co. Line)	\$4,700,000
Maynardville Hwy (Doris Circle to Ledgerwood)	\$1,518,988
Emory Rd at Fairview/Thompson School Rd	\$347,585
Emory Rd at Cate Rd	\$426,424
Clinton Hwy at Raccoon Valley	\$377,137
Emory Rd at Beeler Rd	\$473,488
Emory Rd at Tazewell Pk	\$287,125
Bishop Rd / Taggart Ln	\$877,230
W Beaver Creek Rd / Brickyard Rd	\$774,110
<b>Total</b>	<b>\$17,667,957</b>

*\*Completed projects from 2005-2022*



# Rate Comparisons

Water Charge <i>*no tax included</i>							
	West Knox Utility District	Knoxville Utilities Board	Hallsdale Powell Utility District	First Utility District	Maynardville Utility Department	Knox Chapman Utility District	Northeast Knox Utility District
<i>base water charge</i>	\$ 14.00	\$ 19.40	\$ 9.91	\$ 12.54	\$ 33.79	\$ 20.14	\$ 15.05
1,580	\$ 20.32	\$ 22.82	\$ 24.81	\$ 12.81	\$ 33.79	\$ 30.09	\$ 17.86
2,800	\$ 25.20	\$ 28.85	\$ 36.31	\$ 16.86	\$ 43.65	\$ 37.78	\$ 23.78
3,500	\$ 28.00	\$ 32.32	\$ 42.92	\$ 19.18	\$ 52.27	\$ 42.19	\$ 27.18
4,500	\$ 32.00	\$ 37.26	\$ 52.35	\$ 22.50	\$ 64.59	\$ 48.49	\$ 32.03
5,000	\$ 34.00	\$ 39.74	\$ 57.06	\$ 24.16	\$ 70.75	\$ 51.64	\$ 34.45
6,000	\$ 38.00	\$ 44.68	\$ 66.49	\$ 27.48	\$ 83.07	\$ 57.94	\$ 39.30
7,000	\$ 42.00	\$ 49.63	\$ 75.92	\$ 30.80	\$ 95.39	\$ 64.24	\$ 44.15
8,000	\$ 46.00	\$ 54.58	\$ 85.35	\$ 34.12	\$ 107.71	\$ 70.54	\$ 49.00
9,000	\$ 50.00	\$ 59.52	\$ 94.78	\$ 37.44	\$ 120.03	\$ 76.84	\$ 53.85
10,000	\$ 54.00	\$ 64.47	\$ 104.21	\$ 40.76	\$ 132.35	\$ 83.14	\$ 58.70

Sewer Charge							
	West Knox Utility District	Knoxville Utilities Board	Hallsdale Powell Utility District	First Utility District	Maynardville Utility Department	Knox Chapman Utility District	Northeast Knox Utility District
<i>base sewer charge</i>	\$ 26.77	\$ 39.90	\$ 13.35	\$ 22.86	\$ 37.11	\$ 27.17	\$ 39.90
1,580	\$ 38.84	\$ 45.35	\$ 33.19	\$ 23.28	\$ 37.11	\$ 37.68	\$ 45.35
2,800	\$ 48.16	\$ 61.91	\$ 48.52	\$ 29.66	\$ 47.92	\$ 45.79	\$ 61.91
3,500	\$ 53.51	\$ 71.40	\$ 57.31	\$ 33.32	\$ 57.38	\$ 50.45	\$ 71.40
4,500	\$ 61.15	\$ 84.97	\$ 69.87	\$ 38.55	\$ 70.89	\$ 57.10	\$ 84.97
5,000	\$ 64.97	\$ 91.76	\$ 76.15	\$ 41.17	\$ 77.64	\$ 60.42	\$ 91.76
6,000	\$ 72.61	\$ 105.33	\$ 88.71	\$ 46.40	\$ 91.15	\$ 67.07	\$ 105.33
7,000	\$ 80.25	\$ 118.90	\$ 101.27	\$ 51.63	\$ 104.66	\$ 73.72	\$ 118.90
8,000	\$ 87.89	\$ 132.47	\$ 113.83	\$ 56.86	\$ 118.17	\$ 80.37	\$ 132.47
9,000	\$ 95.53	\$ 146.04	\$ 126.39	\$ 62.09	\$ 131.68	\$ 87.02	\$ 146.04
10,000	\$ 103.17	\$ 159.61	\$ 138.95	\$ 67.32	\$ 145.19	\$ 93.67	\$ 159.61

Water and Sewer Charge <i>*no tax included</i>							
	West Knox Utility District	Knoxville Utilities Board	Hallsdale Powell Utility District	First Utility District	Maynardville Utility Department	Knox Chapman Utility District	Northeast Knox Utility District
<i>base water charge</i>	\$ 14.00	\$ 19.40	\$ 9.91	\$ 12.54	\$ 33.79	\$ 20.14	\$ 15.05
<i>base sewer charge</i>	\$ 26.77	\$ 39.90	\$ 13.35	\$ 22.86	\$ 37.11	\$ 27.17	\$ 39.90
1,580	\$ 59.16	\$ 68.17	\$ 58.00	\$ 36.08	\$ 70.90	\$ 67.77	\$ 63.21
2,800	\$ 73.36	\$ 90.76	\$ 84.83	\$ 46.52	\$ 91.56	\$ 83.57	\$ 85.69
3,500	\$ 81.51	\$ 103.72	\$ 100.23	\$ 52.50	\$ 109.65	\$ 92.64	\$ 98.58
4,500	\$ 93.15	\$ 122.24	\$ 122.22	\$ 61.05	\$ 135.48	\$ 105.59	\$ 117.00
5,000	\$ 98.97	\$ 131.49	\$ 133.21	\$ 65.33	\$ 148.39	\$ 112.06	\$ 126.21
6,000	\$ 110.61	\$ 150.01	\$ 155.20	\$ 73.88	\$ 174.22	\$ 125.01	\$ 144.63
7,000	\$ 122.25	\$ 168.53	\$ 177.19	\$ 82.43	\$ 200.05	\$ 137.96	\$ 163.05
8,000	\$ 133.89	\$ 187.04	\$ 199.18	\$ 90.98	\$ 225.88	\$ 150.91	\$ 181.47
9,000	\$ 145.53	\$ 205.56	\$ 221.17	\$ 99.53	\$ 251.71	\$ 163.86	\$ 199.89
10,000	\$ 157.17	\$ 224.07	\$ 243.16	\$ 108.08	\$ 277.54	\$ 176.81	\$ 218.31

*\*Rates were calculated using the utility rates published on the following websites as of 10-25-2022:*

*West Knox Utility District, Knoxville Utilities Board (outside of city rates), Hallsdale-Powell Utility District, First Utility District, Knox-Chapman Utility District, and Northeast Knox Utility District*

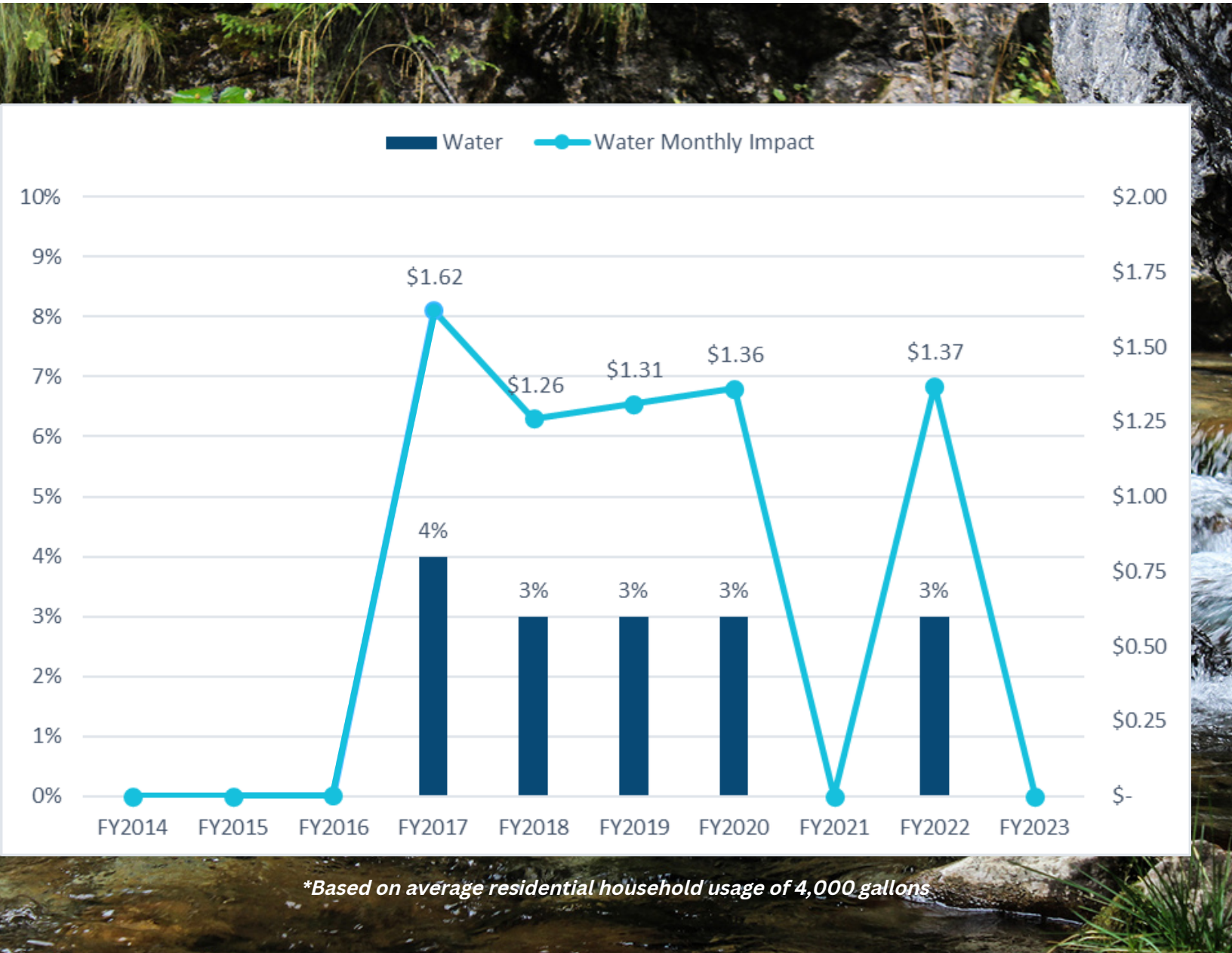
*\*Maynardville Utility Department's rates are public record*



# WATER RATE IMPACTS

FY 2014 - FY 2023

The chart below shows the water rate impact on an average residential user with the dollar amount based on the percentage of each rate increase.





# WASTEWATER RATE IMPACTS

## FY 2014 - FY 2023

The chart below shows the wastewater rate impact on an average residential user with the dollar amount based on the percentage of each rate increase.



*\*Based on average residential household usage of 4,000 gallons*

# HALLSDALE-POWELL UTILITY DISTRICT

## COMMITTED TO EXCELLENCE

### Excellence in Operations

2022 Score of 100 on the Tennessee Department of Environment and Conservation (TDEC) Sanitary Sewer Survey

2022 Award of Excellence in Medium Water Treatment Category - Kentucky/Tennessee Section American Water Works Association

2022 Award of Excellence in Medium Water Distribution Category - Kentucky/Tennessee Section American Water Works Association

2022 Award of Operational Excellence - Kentucky/Tennessee Section American Water Works Association - Beaver Creek Wastewater Treatment Plant

2022 Award of Operational Excellence - Kentucky/Tennessee Section American Water Works Association - Raccoon Valley Wastewater Treatment Plant

Peak Performance Award from the National Association of Clean Water Agencies (NACWA) - Beaver Creek Wastewater Treatment Plant 2007-2021

Peak Performance Award from the National Association of Clean Water Agencies (NACWA) - Raccoon Valley Wastewater Treatment Plant 2006-2021

2021 Beaver Creek Wastewater Treatment Plant employee named TAUD Wastewater Operator of the Year

2020 Water Plant Supervisor awarded the Tennessee Meritorious Service Award by the Kentucky/Tennessee American Water Works Association

2020 HPUD Operator given Tennessee's Golden Manhole Award by the Clean Water Professionals





# HALLSDALE-POWELL UTILITY DISTRICT

## COMMITTED TO EXCELLENCE

### **Excellence in Operations**

Eliminated hundreds of wastewater plant violations.

Reduced chronic Sanitary Sewer Overflows.

Installed a 5 million gallon Equalization Tank to reduce Sanitary Sewer Overflows.

Improved Beaver Creek's Water Quality.

Improved Drinking Water Quality.

Eliminated chlorine gas from the treatment process; reducing safety risks, financial and environmental impacts.

Reduced unaccounted for water loss.

Replaced over a 100 miles of galvanized pipe.

Eliminated chemical cost and safety risks by implementing ultra violet disinfection at the wastewater plant.

### **Excellence in Financial Management**

Extraordinary fiscal stewardship by refinancing debt to save \$26 million over the term of four bond issues.

\$1 million dollar reduction in operating expenses for the 2021-22 fiscal year.

"AA" S&P Global Ratings for FY 2022 indicates the financial strength of HPUD.

### **Excellence in Customer Service**

Implemented a Leak Protection Program that includes an automated system that alerts customers of continuous water usage and insurance benefits that reduces the financial impact of water loss on customers.

Implemented a Customer Assistance Program that lends a helping hand to customer in need of financial assistance.

Implemented advanced metering technology to assist customers in making informed decisions on how to optimize their consumption and reduce their bills.



# HALLSDALE-POWELL UTILITY DISTRICT

## COMMITTED TO EXCELLENCE



## Work Never Stops and Neither Do We!

- 18 Distribution System Operator Certifications
- 19 Wastewater Collection Operator Certifications
- 10 Water Treatment Plant Operator Certifications
- 10 Wastewater Treatment Plant Operator Certifications
- 8,958 calls processed monthly in our Customer Service Department
- 2,211 payments processed monthly at our convenient drive thru window
- 2,119 customer service requests completed monthly by our field technicians
- 1.25 million water quality tests performed yearly
- 689 miles of water pipe maintained daily
- 484 miles of sewer pipe maintained daily
- 2.9 billion gallons of water treated yearly
- 3.7 billion gallons of wastewater treated yearly



**HALLSDALE-POWELL**  
UTILITY DISTRICT

Let's Get  
**Connected**



@hpudknox



# **HALLSDALE-POWELL UTILITY DISTRICT**

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