

# 2023 Asset Management and Capital Improvement Plan

Liberty Utilities (Missouri Water) LLC d/b/a Liberty

February 28, 2024



# Introduction

This report was prepared in compliance with the commitment in Missouri Public Service Commission ("MPSC") Docket Nos. WO-2022-0253 and SO-2022-0254 as it pertains to providing an Asset Management and Capital Improvement Plan for Liberty Utilities (Missouri Water) LLC d/b/a Liberty ("Company" or "Liberty Water"). This report is a snapshot in time and contains a recap of 2023 activities and current budget plans for the next five years. The report includes the following additional information:

- Discussion on physical inspections of the above ground assets for the purpose of asset management and infrastructure planning.
- Detailed descriptions of projects completed and placed in service during the previous year with actual costs, and planned projects for the next five years with budgeted costs, along with the reasons the projects are necessary.
- ➢ For the reporting period capital expenditures, the difference between dollars budgeted and dollars spent, with a summary of the reason for any significant discrepancies.
- > Date of the last physical inspection and cleaning of sewer collection systems.
- ➢ Inflow and Infiltration ("I&I") reduction efforts.
- > Planned security or employee safety improvements for treatment systems.
- > Plans for upgrades required by the Missouri Department of Natural Resources ("DNR").

Priorities, projects, and plans are prone to shift based on evolving needs, technology, supply chain issues, and the economic landscape that will result in adjustments to the reported budget and spending forecast.

- Liberty Water continuously evaluates and analyzes the needs of its customers and the water production and distribution systems, as well as the costs and accessibility of modern technologies.
- Liberty Water continuously strives to maximize the value of every dollar and every hour of labor spent to provide reliable and affordable water service to our customers.

# Economic Landscape

Global supply chain constraints continue to be impactful to our business. Continuing supply chain disruptions and more recent increases in inflation and interest rates have impacted our costs.

Liberty Water is cognizant and sensitive to the impacts on our customers when the costs of the necessary investments that we make on behalf of our customers increase. Our obligations to manage our systems efficiently, and to spend prudently, are always important, including during an inflationary period. The plan described in this report takes these factors, among others, into careful consideration. Efforts were made to identify operating efficiencies and to reconsider the timing of spending that could be deferred without jeopardizing safety or reliability. We believe the result of these efforts strikes an effective balance between



affordability and the need to deploy the capital required to maintain reliable and safe systems that are essential to our customers.

# Increasing Safety and Reliability

Customers consistently point to safe water and reliable service as their top priorities, and Liberty Water is committed to operating and maintaining our system in a safe and reliable manner. All capital projects are viewed through this lens and are prioritized to maximize increased quality, reliability, and efficiency.

## **Distribution System Improvements**

Improvements to Liberty Water's distribution systems will occur through a recurring process of constructing new and replacing old pipelines and appurtenances to ensure a stronger and more resilient infrastructure. Liberty Water has evaluated and approved numerous projects to improve the resiliency of its distribution system. Notable projects include:

- > Major main and service line replacements in:
  - Holiday Hills and Ozark Mountain (PSC No. 14 Silverleaf Water);
  - Noel (PSC No. 14 Noel Water);
  - Cedar Hill, Catawissa, Pacific, House Springs (PSC No. 14 KMB Water);
  - Midland (PSC No. 21 Hidden Meadows Water);
  - Bilyeu Ridge (PSC No. 21 Bilyeu Ridge Water);
  - Moore Bend (PSC No. 21 Moore Bend Water);
  - Venice on the Lake/Taney County (PSC No. 21 Taney County Water);
  - Valley Woods (PSC No. 21 Valley Woods Water);
  - Franklin County (PSC No. 14 Franklin County Water);
  - Jackson (PSC No. 15 KMB/Savers Sewer);
  - Aurora, Verona, Marionville (PSC No. 16 Empire Water);
  - Lakeland (PSC No. 18 Lakeland Heights Water);
  - Dexter (PSC No. 19 RD Sewer);
  - Whispering Hills (PSC No. 20 Whispering Hills Water);
  - Oakbrier (PSC No. 17 Oakbrier Water); and
  - Bolivar (PSC No. 14 Bolivar Water).
- Replacing legacy piping and fixtures throughout our Missouri Water service territory to improve reliability.
- Improved storage facilities in:
  - Holiday Hills, Timber Creek, Ozark Mountain (PSC No. 14 Silverleaf Water);
  - Noel (PSC No. 14 Noel Water);
  - Cedar Hill, Catawissa, Pacific, House Springs (PSC No. 14 KMB Water);
  - Bilyeu Ridge (PSC No. 21 Bilyeu Ridge Water);
  - Taney County (PSC No. 21 Taney County Water);



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- Lakeland Heights (PSC No. 18 Lakeland Heights Water); and
- o Bolivar (PSC No. 14 Bolivar Water).
- > Replacing manual-read meters with AMR/AMI-capable meters in:
  - Holiday Hills, Timber Creek, Ozark Mountain (PSC No. 14 Silverleaf Water);
  - Noel (PSC No. 14 Noel Water);
  - Cedar Hill, Catawissa, Pacific, House Springs (PSC No. 14 KMB Water);
  - Midland (PSC No. 21 Hidden Meadows Water);
  - o Bilyeu Ridge (PSC No. 21 Bilyeu Ridge Water);
  - Moore Bend (PSC No. 21 Moore Bend Water);
  - Taney County (PSC No. 21 Taney County Water);
  - Valley Woods (PSC No. 21 Valley Woods Water, PSC No. 13 Valley Woods Sewer);
  - Franklin County (PSC No. 14 Franklin County Water);
  - Aurora, Verona, Marionville (PSC No. 16 Empire Water);
  - Lakeland Heights (PSC No. 18 Lakeland Heights Water);
  - Whispering Hills (PSC No. 20 Whispering Hills Water); and
  - o Bolivar (PSC No. 14 Bolivar Water, PSC No. 15 Bolivar Sewer).
- Refurbishing wastewater Lift Stations in:
  - Timber Creek, Ozark Mountain (PSC No. 15 Silverleaf Sewer);
  - Jackson (PSC No. 15 KMB/Savers Sewer);
  - Dexter (PSC No. 19 RD Sewer); and
  - Bolivar (PSC No. 15 Bolivar Sewer).

These capital investments in our distribution system increase the resiliency of our distribution infrastructure and reduce the average age of distribution assets, thereby reducing risk and frequency of failure.

# Production System Improvements

Production facilities, pumping, and disinfection are essential to the reliable delivery of highquality water to our customers.

Notable projects include:

- Upgrading existing wells in:
  - Holiday Hills (PSC No. 14 Silverleaf Water);
  - Noel (PSC No. 14 Noel Water);
  - Bilyeu Ridge (PSC No. 21 Bilyeu Ridge Water);
  - Taney County (PSC No. 21 Taney County Water); and
  - Valley Woods (PSC No. 21 Valley Woods Water).
  - Bolivar (PSC No. 14 Bolivar Water).
- Upgrading water and wastewater plants in:
  - Ozark Mountain (PSC No. 14 Silverleaf Water, PSC No. 15 Silverleaf Sewer);
  - Noel (PSC No. 14 Noel Water);



- Midland (PSC No. 21 Hidden Meadows Water);
- Valley Woods (PSC No. 21 Valley Woods Water, PSC No. 13 Valley Woods Sewer);
- Aurora, Verona, Marionville (PSC No. 16 Empire Water);
- Dexter (PSC No. 19 RD Sewer); and
- o Bolivar (PSC No. 14 Bolivar Water, PSC No. 15 Bolivar Sewer).
- > Deploying portable emergency generators to mitigate the effects of power outages in:
  - Holiday Hills (PSC No. 14 Silverleaf Water);
  - Highridge (PSC No. 14 KMB Water);
  - Riverfork Ranch (PSC No. 21 Riverfork Ranch);
  - Bilyeu Ridge (PSC No. 21 Bilyeu Ridge Water);
  - o Lakeland Heights (PSC No. 18 Lakeland Heights Water);
  - Midland (PSC No. 21 Hidden Meadows Water);
  - Whispering Hills (PSC No. 20 Whispering Hills Water);
  - Valley Woods (PSC No. 21 Valley Woods Water);
  - Bolivar (PSC No. 14 Bolivar Water); and
  - Oakbrier (PSC No. 17 Oakbrier Water).

# Cyber & Technology

Over the coming years, the Company will be upgrading parts of its digital infrastructure, cyber security, data governance, and analytics. This involves investments in computer, server, and network upgrades to support user access and bandwidth. It also includes investments in safe and secure cloud strategies that facilitate collaboration and increase data utilization without exposing sensitive information or critical systems. Cybersecurity services will be expanded to adjust to the changes in the technology landscape and better position Liberty Water to respond to the growing threats targeting utility operations. New digital architectures will be established with accompanying governance strategies and procedural documentation. Customers will benefit from enhanced and secure utilization of operational and customer data to improve operational efficiency of utility employees, proactive identification and resolution of issues before they lead to disruptions, and increased utilization of utility infrastructure.

# **Capital Investments**

# 2023 Actual Capital Expenditures Summary Table

Liberty Water continuously evaluates and analyzes the needs of its customers and of the system infrastructure. In 2023, Liberty Water invested in a variety of projects throughout its service area to address reliability and efficiency. The variances between budgeted capital spend amounts and actual investment placed in-service are discussed below Table 1.



2023 Asset Management and Capital Improvement Plan

Tariff Sheet #M	Operating Area	Investment Placed in Service 2023	Budgeted Capital Spend 2023	Significant Investments Placed in Service during 2023	
PSC No. 13	Valley Woods Subdivision: Sewer	\$0	\$5,000	Upon review, it was determined capital could be more effectively deployed across other systems.	
PSC No. 14	Noel: Water	586,146	432,000	\$186,915 in tank lining; \$136,148 in distribution main upgrades; \$100,294 in well upgrades; \$42,825 in service line replacements; and \$39,526 in well monitoring.	
PSC No. 14	KMB (Cedar Hills Estates, Catawissa, Crestwood Acres, High Ridge Manor, Hillshire Community, Lakewood Hills, Pacific, House Springs, Town of Scottsdale, and Warren Woods Subdivision): Water	316,270	160,001	\$97,210 in service line replacements; \$63,900 in emergency generator; \$55,914 in replacement meters; and \$53,748 in distribution main upgrades.	
PSC No. 14	Holiday Hills: Water	242,419	270,996	\$157,981 for emergency generators; \$27,681 in distribution mains; \$23,230 in well upgrades; and \$13,355 in service line replacements.	
PSC No. 14	Timber Creek: Water	89,524	260,000	\$87,981 in well monitoring equipment.	
PSC No. 14	Ozark Mountain: Water	26,987	276,000	\$23,311 in ground storage updates; \$3,238 in distribution main.	
PSC No. 14	Lake St. Clair/Franklin County: Water	35,072	40,000	\$20,532 in service line replacements; \$7,323 in AMR meter upgrades; and \$6,849 in distribution mains.	
PSC No. 14	City of Bolivar: Water	1,032,171	1,847,000	\$563,536 in meter upgrades, \$135,560 in emergency generators, \$102,235 in trucks; \$96,186 in new mains; \$57,877 in water treatment equipment; \$35,393 in service replacements; and \$31,994 in wel motor and improvements.	
PSC No. 15	Timber Creek: Sewer	20,138	305,000	\$20,138 in electric pumping equipment and plant sewer improvements.	
PSC No. 15	Ozark Mountain: Sewer	39,828	135,000	\$35,665 in lift station upgrade; and \$4,163 in wastewater treatment plant safety upgrades.	
PSC No. 15	KMB (Cape Rock Village): Sewer	13,317	40,000	\$13,317 in electric pumping equipment.	

## TABLE 1



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PSC No. 15	Savers Farm (Jackson): Sewer	68,926	55,000	\$62,474 in treatment and disposal equipment (MBBR system).	
PSC No. 15	City of Bolivar: Sewer	240,324	7,290,000	\$98,228 in treatment and disposal equipment; \$66,170 in pumping plant equipment; and \$56,177 in main upgrades.	
PSC No. 16	Legacy Empire Water (Aurora, Marionville, and Verona): Water	1,713,733	2,486,000	\$1,379,329 in service line replacements; \$132,667 in main replacements; \$87,152 in meter replacements; \$76,718 in vehicles; and 19,308 in leak detection equipment.	
PSC No. 17	Oakbrier Estates: Water	41,996	30,000	\$23,640 in tank replacement; \$6,779 for emergency generator; \$5,478 in main replacement; \$2,947 in meter replacements; and \$2,243 in service line replacements.	
PSC No. 18	Lakeland Heights: Water	43,400	86,000	\$31,023 in main replacements; \$6,959 for emergency generator; and \$4,510 in meter replacements.	
PSC No. 19	R.D. Properties (Western Heights Subdivision, Ecology Acres Subdivision, and Unincorporated Areas Stoddard County): Sewer	292,066	1,000,000	\$247,468 in wastewater treatmer plant rebuild; \$25,403 in electri pumping equipment.	
PSC No. 20	Whispering Hills: Water	14,022	25,000	\$6,779 for emergency generator; \$3,388 in electric pumping equipment; and \$2,947 for meter replacement.	
PSC No. 21	Bilyeu Ridge Subdivision: Water	90,570	144,000	\$82,154 for emergency generator; and \$6,013 in well monitoring equipment.	
PSC No. 21	Moore Bend Subdivision: Water	60,895	45,000	\$18,316 in well upgrades; \$17,761 in main replacements; and \$15,295 in electric pumping equipment.	
PSC No. 21	Riverfork Ranch Subdivision: Water	84,113	16,000	\$75,869 for emergency generator; \$6,013 in well monitoring equipment.	
PSC No. 21	Taney Water/Venice on the Lake/Lakeway Village: Water	214,831	1,740,000	\$92,337 in main upgrades and replacements; \$91,403 in service line replacements; \$17,818 in electric pumping equipment; \$9,031 in well upgrades; and \$1,633 in replacement meters.	
PSC No. 21	Valley Woods Subdivision: Water	128,525	18,000	\$72,494 for emergency generator; \$28,674 in electric pumping equipment; \$21,343 in well upgrades; and \$6,013 in well monitoring equipment.	
PSC No. 21	Midland/Hidden Meadows: Water	266,227	115,000	\$179,895 in pumping house tanks; \$79,243 for emergency generator;	



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			and \$6,013 for well monitoring equipment.
Total:	<u>\$ 5,661,501</u>	<u>\$16,820,997</u>	

# System Details

## Holiday Hills: Water

Liberty Water provides water service to approximately 440 customers in southwest Missouri. Service is provided using two groundwater wells, six pumps, and approximately 38,000 feet of distribution main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$242,418.99 in 2023. Liberty focused its investments on an emergency generator, replacing distribution main, and service line, and tools.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$270,996 compared to actual investment placed in service of \$242,418.99. The difference primarily relates to the deferral of spending on high service pump and meter replacements. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023.

#### Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

#### DNR Required Upgrades

None.

## Timber Creek: Water and Sewer

Through this system, Liberty Water provides water and sewer service to approximately 20 customers in east central Missouri. Water service is provided by two groundwater wells, three pumps, and approximately 23,200 feet of distribution main. Sewer service is provided by an activated sludge treatment plant, a series of eight pumps, and approximately 15,000 feet of collection sewer.



## Projects Completed in 2023

Liberty Water placed in service investments of \$89,524.26 in Timber Creek Water in 2023, which focused on a well-monitoring system. \$20,138.03 was invested in Timber Creek Sewer, replacing a lift station pump and a clarifier shaft.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$260,000 for Timber Creek Water and \$305,000 for Timber Creek Sewer. This compares to investment placed in service of \$89,524.26 and \$20,138.03, respectively. The difference primarily relates to the deferral of spending on emergency generators for both utilities and electric pumping equipment for the sewer. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023.

#### Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

#### Sewer Cleaning Plans

The wastewater system is cleaned on an as needed basis.

## Inflow and Infiltration ("I&I") Study

Inflow and infiltration are minimal; thus, the system currently has no plans to conduct an I&I Study.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## **DNR Required Upgrades**

None.

## Ozark Mountain: Water and Sewer

Liberty Water provides water and sewer service to approximately 160 customers in southwest Missouri. Water service is provided by one groundwater well, a series of two pumps and approximately 8,200 feet of distribution main. Sewer service is provided by a treatment plant, a series of 12 pumps, and approximately 8,500 feet of collection sewer.

## Projects Completed in 2023

Liberty Water placed in service investments of \$26,987.38 for Ozark Mountain Water and \$39,828.27 for Ozark Mountain Sewer in 2023, which primarily went into ground storage and lift station upgrades.



## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend for Ozark Mountain Water was \$276,000 while Ozark Mountain Sewer's was \$135,000, compared to an actual investment being placed in service of \$26,987.38 for Ozark Mountain Water and \$39,828.27 for Ozark Mountain Sewer. The difference primarily focuses on the deferral of capital spend on ground storage updates, meter replacements, wastewater plant and lift station upgrades. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023. However, it should be noted the ground storage tank capital spend is scheduled for 2024.

## **Physical Inspections**

The plant is operationally inspected weekly, and operations are monitored remotely.

## Sewer Cleaning Plans

The sewer system is cleaned on an as needed basis.

## Inflow and Infiltration ("I&I") Study

Inflow and infiltration are minimal; thus, the system currently has no plans to conduct an I&I Study.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## Noel: Water

With this system, Liberty Water provides water service to approximately 640 customers in southwest Missouri. Service is provided by five groundwater wells, a series of seven pumps and approximately 98,500 feet of distribution main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$586,145.58 in Noel Water in 2023. Liberty Water focused its investment on tank lining, service line replacements, main replacements, and well upgrades.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$432,000 compared to an actual investment placed in service of \$586,145.58. The difference was primarily driven by the need to replace more service lines than expected.



## **Physical Inspections**

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## KMB Properties: Water and Sewer

Liberty Water provides water and sewer service to approximately 500 water customers and 200 sewer customers in east-central Missouri. The properties include Hillshire, Warren, Scottsdale, High Ridge, Cedar Hills, Catawissa, Pacific, and House Springs. Water service is provided by 8 total groundwater wells, a series of two pumps, and approximately 79,500 feet of main. Sewer service is provided by Cape Rock treatment plant, a series of two pumps, and approximately 17,400 feet of sewer main.

## Projects Completed in 2023

Liberty Water invested \$316,270.10 in KMB Water and \$13,317.36 in KMB Sewer in 2023. Liberty Water focused its investment on meter replacements, an emergency generator, and main and service line replacements.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$160,001 for KMB Water and \$40,000 for KMB Sewer, compared to actual investment placed in service of \$316,270.10 for KMB Water and \$13,317.36 for KMB Sewer. The differences were primarily driven by the purchase of an emergency generator combined with the replacement of more meters, distribution main, and service lines than expected. The Cape Rock Hills wastewater lagoon improvements projects were deferred based upon management review and a determination that the capital spend was not warranted in 2023.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Sewer Cleaning Plans

The sewer system is cleaned on an as needed basis.

## Inflow and Infiltration ("I&I") Study

Inflow and infiltration are minimal; thus, the system currently has no plans to conduct an I&I Study.



## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## Midland/Hidden Meadows: Water

Liberty Water provides water service to approximately 90 customers in southwest Missouri. Service for this system is provided by one groundwater well, a series of two pumps, and approximately 12,800 feet of main.

## Projects Completed in 2023

Liberty Water invested \$266,227.38 in 2023, on new pumping house tanks, an emergency generator, and well monitoring equipment.

## Budgeted Capital Sped vs. Investment Placed in Service

The 2023 budgeted capital spend was \$115,000 compared to actual investment placed in service of \$266,227.38. The difference was due to the actual cost of the pumping house tanks and an emergency generator.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## Bilyeu Ridge Subdivision: Water

With this system, Liberty Water provides water service to approximately 60 customers in southwest Missouri. Service is provided by one groundwater well, two pumps, and approximately 16,600 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$90,569.60 in 2023 on an emergency generator, well monitoring equipment, and service line replacements.



## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$144,000 compared to actual investment placed in service of \$90,569.60. The budget to actual difference was driven by the deferral of a planned tank upgrade that did not take place during the year. This project was deferred based upon a management review and a determination that the capital spend was not warranted in 2023. The tank upgrade capital project is under review for future investment.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## Moore Bend Subdivision: Water

Liberty Water provides water service to approximately 75 customers in southwest Missouri. Service is provided by two groundwater wells and approximately 15,300 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$60,895.06 in 2023 pertaining to well upgrades, main and service replacements, and electric pumping equipment.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$45,000 compared to actual investment placed in service of \$60,895.06. The difference was due to spending additional capital on well upgrades and pumping equipment due to pump failure.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.



# Riverfork Ranch Subdivision: Water

With this system, Liberty Water provides water service to approximately 170 customers in southwest Missouri. Service is provided by one groundwater well, two pumps, and approximately 26,700 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$84,113.49 in 2023, primarily related to an emergency generator, well monitoring, and service line replacements.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$16,000 compared to actual investment placed in service of \$84,113.49. The difference was primarily driven by the purchase of an unbudgeted emergency generator.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

# Taney County/Venice on the Lake/Lakeway Village: Water

Liberty Water provides water service to approximately 460 customers in southwest Missouri. Service is provided by four groundwater wells, two pumps, and approximately 117,000 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$214,830.70 in 2023, which focused on distribution main replacements, service line replacements, electric pumping equipment, and meter replacements.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$1,740,000 compared to an actual spending of \$214,830.70. The difference is primarily driven by deferral of new well, well house upgrades, and storage tank projects. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023 as the Company is pursuing a Supervised Program with DNR to develop a project implementation strategy.



## **Physical Inspections**

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

The system is currently operating in compliance. However, it should be noted the Company engaged Olsson Engineering to develop a master plan showing proposed waterlines to be installed over at least the next five years, along with hydraulic analyses for sizing and locating new lines to increase reliability and water pressure in the system (see Exhibit A).

## Valley Woods Subdivision: Water and Sewer

Liberty Water provides water and sewer service to approximately 40 customers in southwest Missouri. Water service is provided by one groundwater well, two pumps, and approximately 4,100 feet of main. Sewer service is provided by four pumps and approximately 6,200 feet of collection sewer. The sewer plant uses septic tank, recirculating sand filter, chlorinated disinfection, de-chlorination, and sludge disposal by contract hauler.

## Projects Completed in 2023

Liberty Water placed in service investments of \$128,524.67 in Valley Woods Water and \$0 in Valley Woods Sewer in 2023. Liberty focused its investment into an emergency generator, electric pumping equipment, and well upgrades.

## Budgeted Capital Spend vs. Placed in Service

The 2023 budgeted capital spend was \$18,000 for Valley Woods Water and \$5,000 for Valley Woods Sewer compared to actual investment placed in service of \$128,524.67 for water and \$0 for sewer. The difference is primarily driven by the purchase of the emergency generator and ancillary electrical work.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Sewer Cleaning Plans

The sewer collection system is cleaned on an as needed basis. Company owned septic tanks at customer homes are cleaned every three years with the last cleaning taking place in 2022.

## Inflow and Infiltration ("I&I") Study

Inflow and infiltration are minimal; thus, the system currently has no plans to conduct an I&I Study.



## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## **DNR Required Upgrades**

None.

# Lake Clair/Franklin County: Water

Liberty Water provides water service to approximately 200 customers in east-central Missouri. Service is provided by one groundwater well, one standpipe, zero pumps, and approximately 77,200 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$35,071.57 in 2023. Liberty Water focused its investment on meter replacements, distribution main replacements, as well as service line replacements.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$40,000 compared to actual investment placed in service of \$35,071.57. The difference is primarily due to not replacing as many meters as anticipated during the year.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## Savers Farms: Sewer

Liberty Water provides sewer service to approximately 165 customers in southeast Missouri by a series of eight pumps and approximately 18,600 feet collection sewer along with a treatment plant using a recirculating tank, recirculating sand filter, UV disinfection, and sludge disposal by contract hauler.

## Projects Completed in 2023

Liberty Water placed in service investments of \$68,926.39 in 2023.



## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$55,000 compared to actual investment placed in service of \$68,926.39. The difference is primarily driven by the purchase of an MBBR treatment system, offset by the deferral of an emergency generator that upon management review and determination was not warranted in 2023.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Sewer Cleaning Plans

The sewer system is cleaned on an as needed basis.

## Inflow and Infiltration ("I&I") Study

Inflow and infiltration are minimal; thus, the system currently has no plans to conduct an I&I Study.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

# Legacy Empire (Aurora, Marionville, and Verona): Water

Liberty Water provides water and sewer service to approximately 4,600 customers in southwest Missouri. Water service is provided by seven groundwater wells, two pumps, and approximately 500,000 feet of main. These assets were previously owned by The Empire District Electric Company and were transferred to Liberty Water in 2020 (MPSC Case No. WM-2020-0156).

## Projects Completed in 2023

Liberty Water placed in service investments of \$1,713,732.73 in 2023. The majority of this investment went into service line replacements, main replacements, meter replacements, and vehicles.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$2,486,000 compared to an actual spending of \$1,713,732.73. A significant amount of capital investment was made in service lines in leak troubled areas to reduce lost and unaccounted for water. The difference between budget and actual for the year is primarily driven by the deferral of other system improvements. These other projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023.



## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

# Lakeland Heights: Water

With this system, Liberty Water provides water service to approximately 100 customers in southeast Missouri. Service is provided by one groundwater well and approximately 22,100 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$43,400.17 in 2023, focusing on replacing distribution main, an emergency generator, and meters.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$86,000 compared to actual investment placed in service of \$43,400.17. The difference was primarily driven by the deferral of well upgrades. The well upgrades were deferred based upon a management review and a determination that the capital spend was not warranted in 2023. However, management is anticipating the capital spend will occur in 2024.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company is further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## **DNR Required Upgrades**

None.

# R.D. Properties: Sewer

Liberty Water provides sewer service to approximately 115 customers in southeast Missouri by RD Sewer treatment plant, an activated sludge plant, using six pumps and approximately 17,400 feet of sewer.



## Projects Completed in 2023

Liberty Water placed in service investments of \$292,066.02 in 2023, focusing on upgrading wastewater treatment plant and electric pumping equipment.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$1,000,000 compared to actual investment placed in service of \$292,066.02. The difference is primarily driven by deferral of spending related to plant upgrades, equalization basin, and lift station upgrades. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023. However, these projects and respective capital spend is scheduled to begin in 2024.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Sewer Cleaning Plans

The sewer system is cleaned on an as needed basis.

## Inflow and Infiltration ("I&I") Study

An I&I Study was completed shortly after acquiring the system in 2021.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

Company has hired an engineering firm to design upgrades for the system and has submitted project plans to DNR. Project scheduled to be completed during 2024. Currently On Abatement Order of Consent with DNR (see Exhibit B).

## Oakbrier Estates: Water

Liberty Water provides water service to approximately 50 customers in southeast Missouri. Service is provided by one groundwater well and approximately 18,500 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$41,995.91 in 2023, which focused on pressure tank replacement, meter replacements, service line replacements, and an emergency generator.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$30,000 compared to an actual spending of \$41,995.91. The difference is primarily driven by the unplanned pressure tank replacement that management review deemed critical.



## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## Whispering Hills: Water

With this system, Liberty Water provides water service to approximately 60 customers in southeast Missouri. Service is provided by one groundwater well and approximately 7,200 feet of main.

## Projects Completed in 2023

Liberty Water placed in service investments of \$14,022.45 in 2023, which went towards an emergency generator, electric pumping equipment, and meter replacements.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend was \$25,000 compared to actual investment placed in service of \$14,022.45. The difference is primarily driven by the deferral of main and service line replacement. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023.

## Physical Inspections

The plant is operationally inspected weekly, and operations are monitored remotely.

## Planned Security or Employee Safety Improvements

The Company will be further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## DNR Required Upgrades

None.

## City of Bolivar: Water and Sewer

Liberty Water provides water and sewer service to approximately 4,600 customers in southwest Missouri. Water service is provided by seven total groundwater wells over two systems, a series of six pumps, and approximately 500,000 feet of main. Sewer service is provided through a series of 24 pumps and approximately 400,000 feet of collection sewer.



## Projects Completed in 2023

Liberty Water placed in service water investments of \$1,032,170.89 and sewer investments of \$240,323.50 in 2023. Liberty Water invested this money into meter replacements, distribution main replacements, emergency generators, trucks, well upgrades, treatment and disposal equipment, and lift station upgrades. Full scale hydraulic modeling completed and commissioning plans for the Bolivar Wastewater Treatment Plant. A finalized Facility Plan for the Bolivar Wastewater Treatment Plant is expected mid-2024.

## Budgeted Capital Spend vs. Investment Placed in Service

The 2023 budgeted capital spend for water was \$1,847,000 and \$7,290,000 for sewer, compared to actual investment placed in service of \$1,032,170.89 for water and \$240,323.50 for sewer. The variance primarily focuses on planned wastewater treatment plant upgrades. These projects were deferred based upon a management review and a determination that the capital spend was not warranted in 2023. However, management is currently evaluating the need for additional storage at Southtown, which is budgeted at \$1,000,000. Capital spend for sewer is currently under review to comply with new regulations and permit requirements.

#### Physical Inspections

The Bolivar Wastewater Treatment Plant is inspected daily Monday through Friday.

#### **Sewer Cleaning Plans**

The sewer system is cleaned on an as needed basis.

## Inflow and Infiltration ("I&I") and Hydraulic Study

The system is new to the Liberty Water family and underwent a flow study in 2023 as well as a comprehensive hydraulic study. Both studies were conducted by Burns and McDonnell. (See Exhibit C).

## Planned Security or Employee Safety Improvements

The Company is further investing in cyber security and other upgrades to continue its goal of securing and improving the safety of its resources.

## **DNR Required Upgrades**

The system is currently in the process of working with Missouri DNR toward full compliance and is under an AOC with DNR on the main WWTP. Burns and McDonnell has been engaged to provide recommendations, perform a flow study, and develop plans for remediation.

## Looking Forward:

As depicted in Table 2 below, Liberty Water's budgeted capital spend includes **\*\*** to be invested in 2024. Projects for the years 2025 through 2028 have been identified, and the preliminary cost estimates are **\*\*** and **\*\*** in 2025, **\*\*** and **\*\*** in 2026, **\*\*** in 2027, and **\*\*** in 2028. Moreover, engineering firms have been engaged for water



distribution design for Venice-on-the-Lake, and a flow study in Bolivar has been completed. These investments represent Liberty Water's long-term planning estimates of expected capital investment on the production and distribution infrastructure for Liberty Water. Liberty Water will continue to look for areas to upgrade parts of its digital infrastructure, cyber security, data governance, and analytics. New digital architectures will be established with accompanying governance strategies and procedural documentation.

# Modernizing the Customer Experience

The Customer First Program is a comprehensive digitalization initiative that will provide employees with the tools to deliver the experience our customers deserve and demand. It will create greater consistency around Finance, Customer Service, and Operations, resulting in industry-leading customer experience.

Customer First will consist of modern and connected platforms to meet customer, employee and other stakeholder needs.

The <u>Customer First Foundations</u> project impacts virtually every aspect of Liberty's operations. It will implement modern Enterprise Resource Planning ("ERP") and associated tools. Customer First Foundations is expected to be deployed to Missouri Water mid-2024.

<u>Employee Central</u> will modernize how Liberty manages employee data, recruiting, and onboarding to ensure the ability to build and maintain a strong team to support its operations and its customers.

<u>Procure-to-Pay</u> will upgrade the tools and processes used to procure services and facilities on behalf of Liberty's infrastructure and customers.

<u>Network & Design Operations</u> will implement uniform Geospatial Information System ("GIS") technology across Liberty, for consistency of asset data management and analytics.

<u>eCustomer</u> will upgrade the customer service and customer data systems to improve how Liberty manages, protects, and shares its customer data to provide better customer service, and offer more advanced information and choices to its customers.

The various Customer First systems utilized to run our business are in widespread use throughout utilities in North America. The Customer First platform and our planned deployment are consistent with industry best practices.



# \*\*TABLE 2 – 5 Year Budgeted Capital Spend\*\*

Tariff Sheet #	Operating Area	2024	2025	2026	2027	2028	TOTALS
PSC No.	Valley Woods Subdivision: Sewer						
13 PSC No. 14	Noel: Water						
PSC No. 14	KMB (Cedar Hills Estates, Catawissa, Crestwood Acres, High Ridge Manor, Hillshire Community, Lakewood Hills, Pacific, House Springs, Town of Scottsdale, and Warren Woods Subdivision): Water						
PSC No. 14	Holiday Hills: Water						
PSC No. 14	Timber Creek: Water						
PSC No. 14	Ozark Mountain: Water						
PSC No. 14	Lake St. Clair/Franklin County: Water						
PSC No. 14	City of Bolivar: Water						
PSC No. 15	Timber Creek: Sewer						
PSC No. 15	Ozark Mountain: Sewer						
PSC No. 15	KMB (Cape Rock Village): Sewer						
PSC No. 15	Savers Farm (Jackson): Sewer						
PSC No. 15	City of Bolivar: Sewer						
PSC No. 16	Legacy Empire Water (Aurora, Marionville, and Verona): Water						
PSC No. 17	Oakbrier Estates: Water						
PSC No. 18	Lakeland Heights: Water						
PSC No. 19	R.D. Properties (Western Heights Subdivision, Ecology Acres Subdivision, and Unincorporated Areas Stoddard County): Sewer						



#### 2023 Asset Management and Capital Improvement Plan

PSC No. 20	Whispering Hills: Water	
PSC No. 21	Bilyeu Ridge Subdivision: Water	
PSC No. 21	Moore Bend Subdivision: Water	
PSC No. 21	Riverfork Ranch Subdivision: Water	
PSC No. 21	Taney Water/Venice on the Lake/Lakeway Village: Water	
PSC No. 21	Valley Woods Subdivision: Water	
PSC No. 21	Midland/Hidden Meadows: Water	
	Totals:	

# **Investment Summary and Conclusion**

As detailed above, Liberty Water's 2023 investment plan consists of approximately \$40.3 million over the next five years to address system reliability, compliance, and efficiency. Bringing about improved customer solutions through hardened systems and cost management will enable the Company to better meet customer needs.

This report addresses Liberty Water's current plan and estimates for investment in the identified projects, not including any additional miscellaneous tools and equipment. Each year, Liberty Water will continue to evaluate, adjust, and report on this five-year investment plan.

