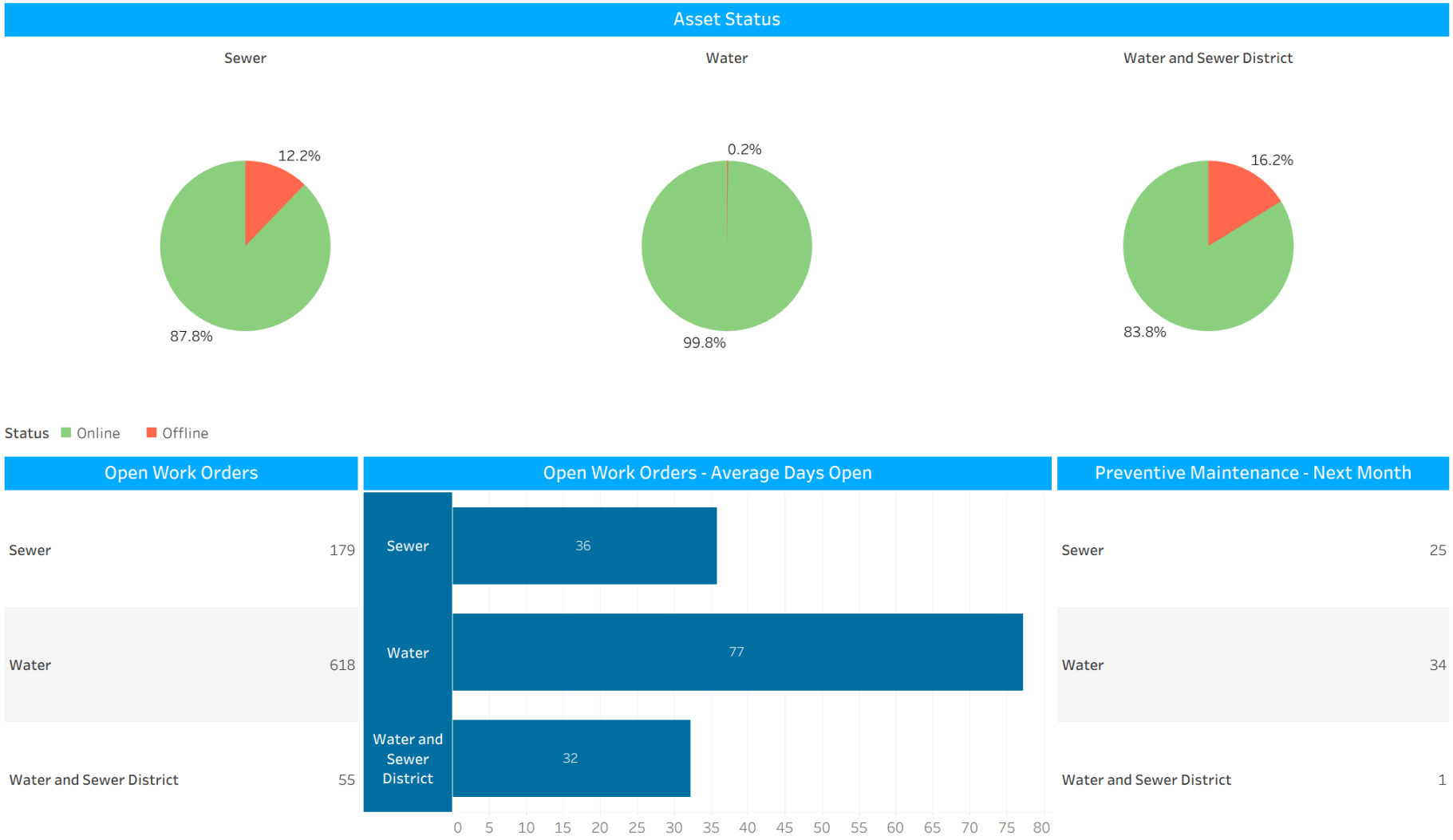
Tableau

Asset Status & Maintenance Dashboard

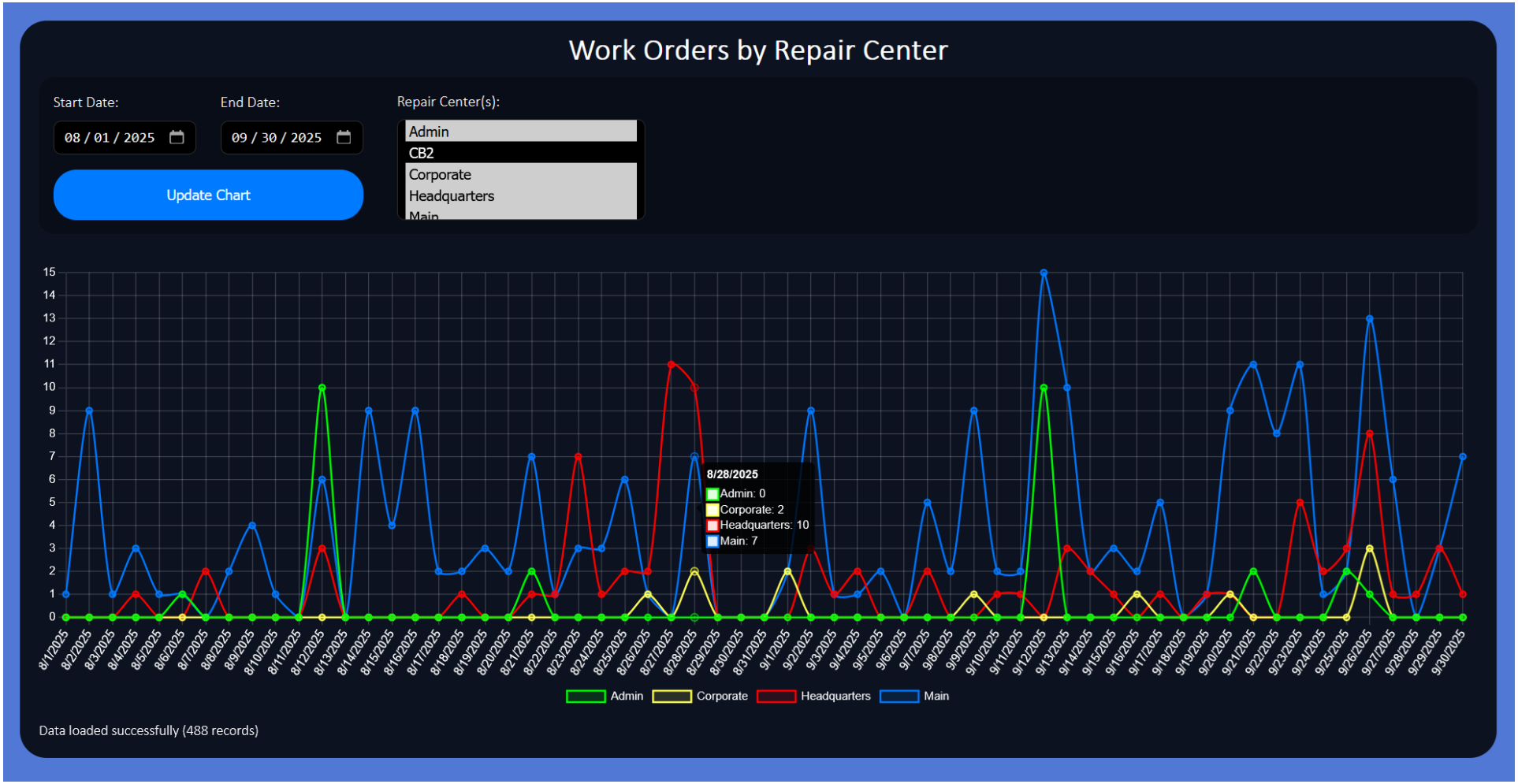
This operational dashboard provides a comprehensive view of asset health and maintenance activity across all locations. Key performance indicators include asset availability rates, outstanding work order volumes, work order aging metrics, and upcoming preventive maintenance schedules. This real-time view enables facility managers to identify locations requiring immediate attention and proactively manage maintenance resources.



JavaScript

Work Order Volume by Repair Center

This interactive visualization tracks work order demand patterns across repair centers over time. By analyzing request volumes by location and date range, stakeholders can identify seasonal trends, allocate staffing appropriately, and benchmark performance across facilities. The dynamic filtering capabilities allow for flexible analysis periods to support both tactical and strategic planning.



Power BI

High-Impact Asset Analysis

This report identifies the most operationally disruptive assets at each location by analyzing downtime patterns throughout their service life. Assets in the top 10th percentile for cumulative downtime are flagged as high impact, enabling maintenance teams to prioritize interventions and evaluate replacement candidates based on reliability metrics rather than age alone.

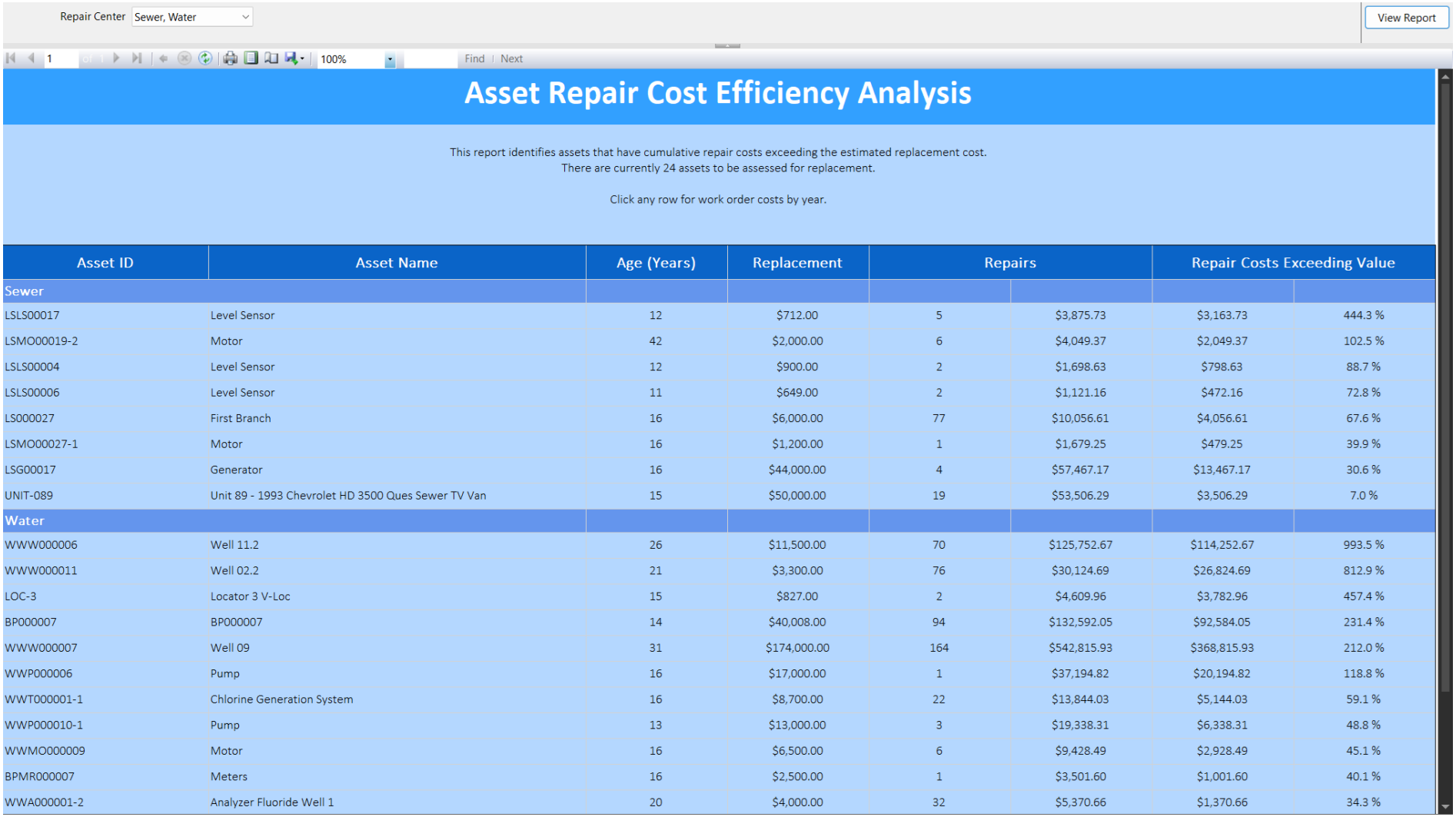
Most Problematic Assets by Location

Location	Asset Name	Work Order Count	Uptime Days	Downtime Days	Average Uptime Between WOs (Days)	Average Downtime Per WO (Days)	Uptime %	Downtime %
⊞ Headquarters		3,051	5,075.78	2,406,729.50	311.33	637.27	26.17%	73.84%
⊞ Admin		17	4,598.00	12,016.50	270.50	706.75	27.65%	72.35%
⊟ Main	21 sets of single fire doors	87	5,719.00	61,768.25	65.75	710.00	8.45%	91.55%
	8 sets of double fire doors	87	5,719.00	61,496.00	65.75	706.75	8.50%	91.50%
	FIRE DOOR	1,030	5,718.58	734,904.00	66.63	713.52	8.54%	91.46%
	24 sets of single fire doors	86	5,721.25	60,518.75	66.50	703.75	8.65%	91.35%
	Hammer	36	4,968.00	20,036.75	138.00	556.50	19.85%	80.15%
	Air Dryer	10	3,993.75	10,137.50	399.25	1013.75	28.25%	71.75%
	Conveyer System	17	3,873.75	9,634.75	227.75	566.75	28.70%	71.30%
	Alarm	13	5,778.50	8,818.50	444.50	678.25	39.60%	60.40%
	AIR COMPRESSOR (CONTROL- LEFT SIDE)	4	4,996.50	4,590.75	1,249.25	1147.75	52.10%	47.90%
	AIR COMPRESSOR (CONTROL-RIGHT SIDE)	4	4,996.50	4,590.75	1,249.25	1147.75	52.10%	47.90%
	AIR COMPRESSOR (LAUNDRY)	4	4,996.50	4,590.75	1,249.25	1147.75	52.10%	47.90%
	AIR COMPRESSOR MEDICAL	4	4,996.50	4,590.75	1,249.25	1147.75	52.10%	47.90%
	AIR CONDITIONER	8	4,996.50	9,181.50	1,249.25	1147.75	52.10%	47.90%
	AIR CONDITIONING	4	4,996.50	4,590.75	1,249.00	1147.75	52.10%	47.90%
	FIRE ALARM	234	4,995.50	270,094.50	1,665.25	1154.25	59.05%	40.95%
	FIRE ALARM CONTROLL BOX	3	4,995.50	3,462.75	1,665.25	1154.25	59.05%	40.95%
	Air Compressor	32	4,222.44	27,584.50	1,173.28	795.72	64.82%	35.18%
	ALARM (H & S)	2	5,080.50	2,102.50	2,540.25	1051.25	70.75%	29.25%
	Air Filter	7	4,616.75	1,899.25	659.50	271.25	70.85%	29.15%
	11 sets of double fire doors	4	5,745.25	1,610.25	1,436.25	402.50	78.10%	21.90%
	Alarm Panel	2	4,893.00	1,144.25	2,446.50	572.25	81.05%	18.95%

SQL Server Reporting Services

Asset Replacement Priority Report

This financial analysis identifies assets where cumulative repair expenditures have exceeded estimated replacement costs, indicating potential candidates for capital investment. Upon clicking any asset row, the drill-through functionality provides year-over-year repair cost trends, allowing users to distinguish between assets requiring immediate replacement and those where recent interventions have improved reliability.



Asset Repair Cost Efficiency Analysis

This report identifies assets that have cumulative repair costs exceeding the estimated replacement cost.
There are currently 24 assets to be assessed for replacement.

Click any row for work order costs by year.

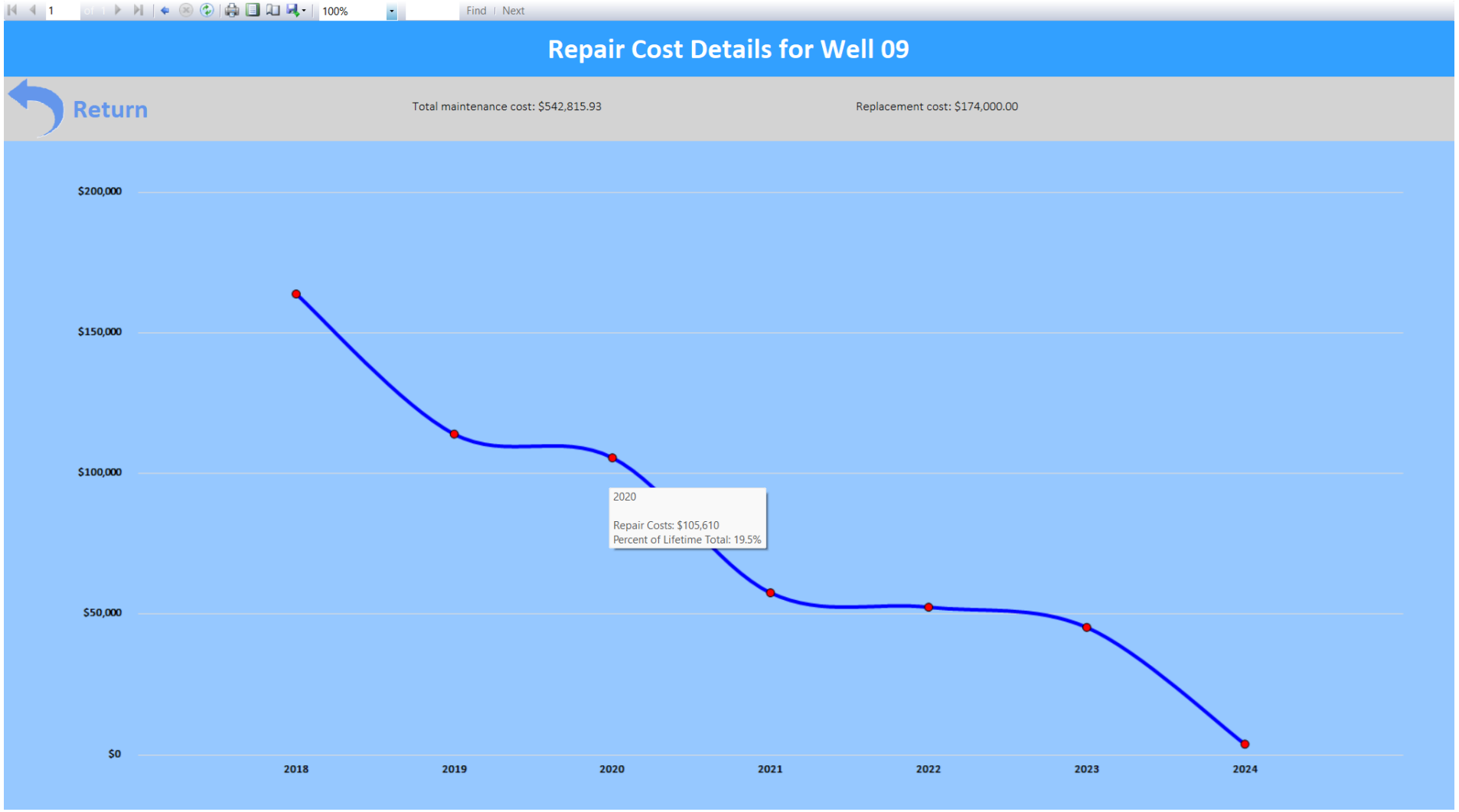
Asset ID	Asset Name	Age (Years)	Replacement	Repairs		Repair Costs Exceeding Value	
Sewer							
LSLS00017	Level Sensor	12	$712.00	5	$3,875.73	$3,163.73	444.3 %
LSMO00019-2	Motor	42	$2,000.00	6	$4,049.37	$2,049.37	102.5 %
LSLS00004	Level Sensor	12	$900.00	2	$1,698.63	$798.63	88.7 %
LSLS00006	Level Sensor	11	$649.00	2	$1,121.16	$472.16	72.8 %
LS000027	First Branch	16	$6,000.00	77	$10,056.61	$4,056.61	67.6 %
LSMO00027-1	Motor	16	$1,200.00	1	$1,679.25	$479.25	39.9 %
LSG00017	Generator	16	$44,000.00	4	$57,467.17	$13,467.17	30.6 %
UNIT-089	Unit 89 - 1993 Chevrolet HD 3500 Ques Sewer TV Van	15	$50,000.00	19	$53,506.29	$3,506.29	7.0 %
Water							
WWW000006	Well 11.2	26	$11,500.00	70	$125,752.67	$114,252.67	993.5 %
WWW000011	Well 02.2	21	$3,300.00	76	$30,124.69	$26,824.69	812.9 %
LOC-3	Locator 3 V-Loc	15	$827.00	2	$4,609.96	$3,782.96	457.4 %
BP000007	BP000007	14	$40,008.00	94	$132,592.05	$92,584.05	231.4 %
WWW000007	Well 09	31	$174,000.00	164	$542,815.93	$368,815.93	212.0 %
WWP000006	Pump	16	$17,000.00	1	$37,194.82	$20,194.82	118.8 %
WWT000001-1	Chlorine Generation System	16	$8,700.00	22	$13,844.03	$5,144.03	59.1 %
WWP000010-1	Pump	13	$13,000.00	3	$19,338.31	$6,338.31	48.8 %
WWMO000009	Motor	16	$6,500.00	6	$9,428.49	$2,928.49	45.1 %
BPMR000007	Meters	16	$2,500.00	1	$3,501.60	$1,001.60	40.1 %
WWA000001-2	Analyzer Fluoride Well 1	20	$4,000.00	32	$5,370.66	$1,370.66	34.3 %

SQL Server Reporting Services

Asset Repair Cost History (Subreport)

This detailed cost trend analysis reveals the repair expenditure pattern for individual assets over their operational lifespan. Declining repair costs may indicate successful maintenance interventions or reduced utilization, while escalating costs support replacement prioritization decisions.

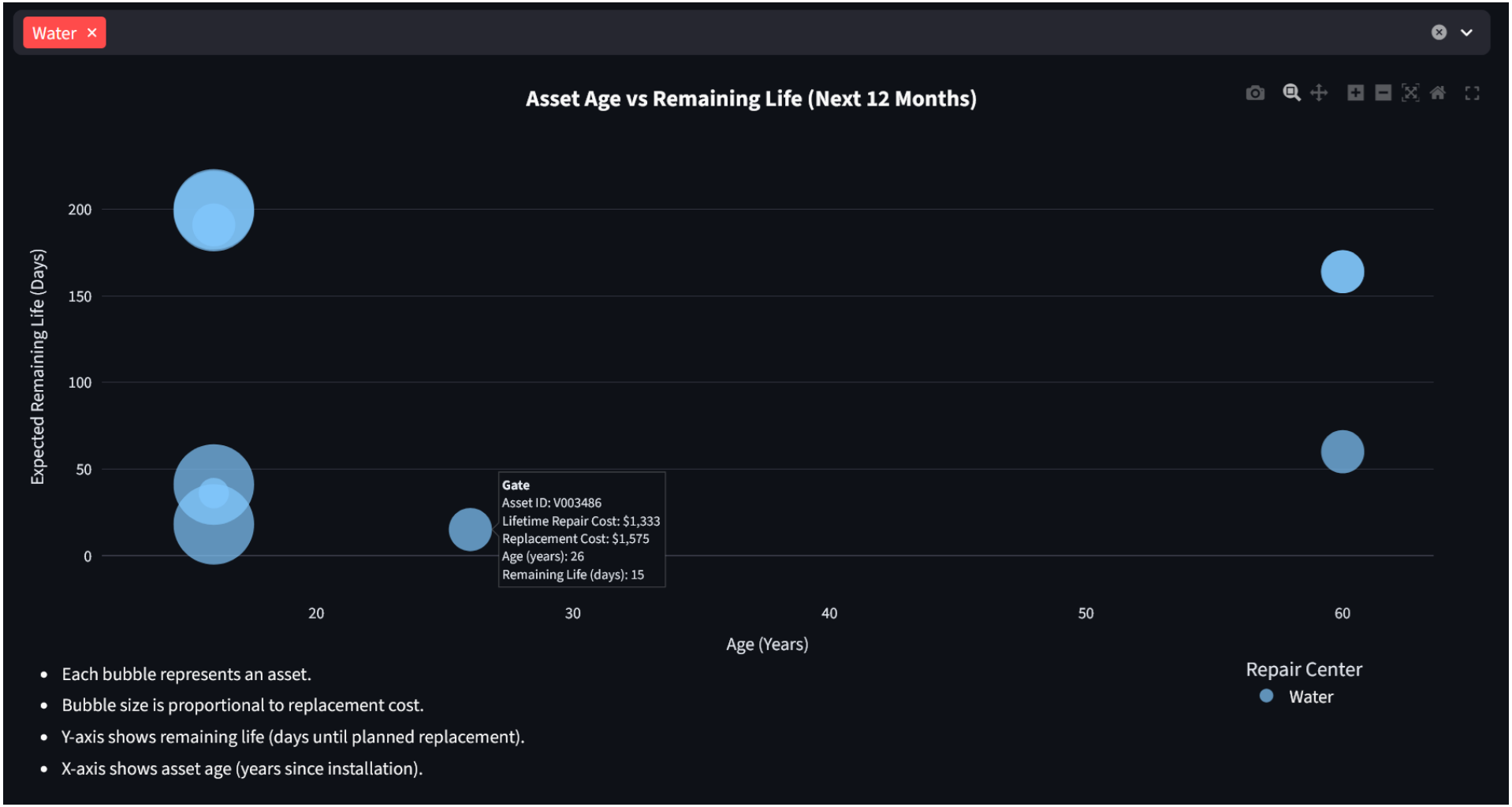
Navigation controls allow seamless return to the parent report with filtering context preserved.



Python

Critical Replacement Timeline

This visualization identifies assets with less than one year of expected remaining useful life, prioritizing replacement planning by combining age-based projections with estimated replacement costs. This forward-looking analysis enables budget forecasting and helps prevent unplanned failures by proactively scheduling capital replacements during optimal windows.



R

End-of-Life Asset Inventory

This report catalogs assets approaching their expected end-of-service date, supporting proactive capital planning and replacement scheduling. By identifying these assets in advance, the organization can evaluate condition assessments, prioritize replacements based on criticality, and optimize budget allocation for infrastructure renewal programs.

Assets Nearing Replacement

Assets with replacement dates within the next 12 months

Repair Center	Asset ID	Asset Name	Installed On	Days Remaining	Planned Replacement	Replacement Cost
Water	FH001729	Hydrant 001729	12/28/1987	66	12/10/2025	$5,500
Water	FH001743	Hydrant 001743	11/09/1990	67	12/11/2025	$5,500
Water	V003486	Gate	12/14/1999	75	12/19/2025	$1,575
Water	FH001040	Hydrant 1040	03/09/2009	77	12/21/2025	$5,500
Water	FH001041	Hydrant 1041	03/09/2009	78	12/22/2025	$5,500
Water	FH001042	Hydrant 1042	03/09/2009	78	12/22/2025	$5,500
Water	FH001746	Hydrant 1746	11/09/1990	78	12/22/2025	$5,500
Water	V008821	Gate	03/09/2009	78	12/22/2025	$1,575
Water	FH001196	Hydrant 1196	03/09/2009	79	12/23/2025	$5,500
Water	FH001747	Hydrant 1747	11/09/1990	80	12/24/2025	$5,500
Water	V000782	Gate	11/14/1988	80	12/24/2025	$1,575
Water	V001812	Gate	12/28/1987	81	12/25/2025	$1,575
Water	V001813	Gate	12/28/1987	81	12/25/2025	$1,575
Water	FH001748	Hydrant 1748	11/09/1990	81	12/25/2025	$5,500
Water	FH000633	Hydrant 0633	11/09/1990	82	12/26/2025	$5,500
Water	V001419	Gate	03/09/2009	82	12/26/2025	$1,575
Water	V001420	Gate	03/09/2009	82	12/26/2025	$1,575
Water	V001421	Gate	03/09/2009	82	12/26/2025	$1,575
Water	V001422	Gate	07/14/1980	82	12/26/2025	$1,575
Water	V002179	Gate	11/19/1990	83	12/27/2025	$1,575
Water	V002498	Butterfly	07/26/1989	85	12/29/2025	$275
Water	V004349	Gate	12/28/1987	86	12/30/2025	$1,575
Water	V004350	Gate	12/28/1987	86	12/30/2025	$1,575
Water	V004363	Gate	11/09/1990	87	12/31/2025	$1,575
Water	FH001728	Hydrant 001728	06/27/1989	87	12/31/2025	$5,500