

ASSET MANAGEMENT INVENTORY

FOR

CITY OF GALESBURG

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Mission Statement for City of Galesburg Water System

We commit to improving and maintaining the public health protection and performance of our drinking water plant and distribution utility assets, while minimizing the long-term cost of operating those assets. We strive to make the most cost-effective renewal and replacement investments and provide the highest-quality customer service possible.



ASSET MANAGEMENT PLAN

FOR

CITY OF GALESBURG

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Asset Management Plan
CITY OF GALESBURG
2024

Current Population	2,049
Number of Water Department Employees	2.0
Number of Wells	2
Number of Water Towers	1
Capacity of Tower Gallons	500,000
Number of Standby Generators	1
Feet of Water Main	74,816
Type of Treatment	Limited
Number of Fire Hydrants	139
Number of Distribution Valves	206

Level of Service

CITY OF GALESBURG

Level of Service Statement

Level of Service (LOS) defines the way in which the utility stakeholders want the utility to perform over the long term. The LOS plan below was completed and should become a fundamental part of how the utility is operated, through the setting of practical goals for the City's water system.

Areas	GOALS / OBJECTIVES	LEVEL OF SERVICE
Safe Drinking Water	All federal and state water quality regulations will be met	Perform all required monitoring
Health, Safety	To provide a safe and injury free work place	Conduct regular safety meetings No MIOSHA safety violations
Security	Secure all water installations from break ins / intrusions'	Make sure all water installations have two barriers of security
Operator certification	Must have operator in charge & backup operator on staff	Have two certified water operators Each must have a S-3 & D-3 State Drinking Water Certifications The City will employ (3) three in the DPW / Water Dept, full time
Customer complaints	To provide excellent customer service	All customer complaints will be investigated within 2 business days of reporting the complaint. Results of complaint will be reported to customer verbally, via the phone, in person, or in writing
Upcoming regulatory changes	Be aware of regulatory changes and comply with changes as they occur	Attend industry conferences and training sessions to stay abreast of changes and requirements Request annual meeting with local EGLE representative to insure compliance

Response time	To provide excellent customer service	Customer emergency response time within 2 hours Customers will receive written notice 24 hours in advance of any planned interruption in service.
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Operating Reserves	Have enough reserves to cover all anticipated major expenses and potential unexpected breakdowns	
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Wells -Supply water	Maintain all well related equipment, focusing on preventative maintenance to prevent unscheduled breakdown	Inspections of wells on bi-annual basis by Well Specialist
		Documentation of all maintenance performed
		Documentation of all scheduled maintenance to be preformed
		List all aspect of wells in equipment maintenance fund that is adequately supported by rates (user fees)
	Source water pumps will be functional 99% of the time. Spare parts will be maintained to the extent possible to repair source water pumps quickly.	
	Maintain all well buildings	Keep building painted, and clean

Alternative Power Source	Goals - all wells have a permanent generator or back up power? - or portable generator - generator service contract	Annual inspections of generators by outside professionals?
	Maintain all well buildings	Keep building painted, and clean

Quality Drinking Water	To provide high quality good tasting drinking water	Comply with EGLE testing requirements Flush water mains (1) once per year
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Distribution System

Maintain system, pipes, valves, hydrants to insure that all are in good working condition, and that money is set aside to replace as needed.

Distribution System Valves

Exercise water valves on rotating 5 year program. To insure all valves are exercised every five years.

Provide adequate manpower to perform valve exercise program

Have written documentation of valve exercising

Insure that %?? of valves function properly

Fire Hydrants

Insure that % ?? Of fire hydrants are in good working order

Water Main Flushing

Flush water mains (1) once per year

Provide adequate manpower to perform water main flushing

Have written documentation of water main / hydrant flushing

Under normal conditions, pressures will be maintained between 30 and 70 psi.

General System Maintenance

Insure water rates and budget are adequate to provide manpower to perform valve exercising, hydrant maintenance, water main flushing and replacement if necessary

Water loss will be maintained below 12%

CITY OF GALESBURG

**SUMMARY RESERVE FUNDING APPLIED TO WATER RATE BUDGET
2016**

THE RUNNING BALANCE GOES TO THE NEGATIVE QUICKLY. FIRST THE RATE STUDY THAT CALCULATED THE RESERVE FUNDING AMOUNTS WAS DONE BEFORE THE MOST RECENT CIP WAS COMPLETED AND ADDED PROJECTS TO THE LIST IN THE RATE STUDY. THE SECOND REASON IS THE UPDATED PRICING IN THE NEW CIP IS HIGHER THAN WHAT THE OLD CIP HAD FOR PRICING. A NEW RATE STUDY WILL BE COMPLETED USING THE NEW CIP AND PRICING WHEN THE 2024/2025 BUDGET IS COMPLETED.


TYPE OF RESERVE FUND	ANNUAL FUNDING	STARTING BALANCE IN SAVINGS
EQUIPMENT REPLACEMENT 1	\$50,000	\$0
TOTAL MAINTENANCE RESERVE	\$50,000	\$0
CAPITAL IMPROVEMENT SUMMARY	\$65,000	\$ -
TOTAL SYSTEM IMPROVEMENT RESERVE	\$65,000	\$0
TOTAL ANNUAL RESERVE	\$115,000	\$0

YEAR	EQUIPMENT REPLACEMENT 1		CAPITAL IMPROVEMENT SUMMARY		SUMMARY ANNUAL RESERVE	SUMMARY ANNUAL EXPENDITURES	RESERVE RUNNING BALANCE
	ANNUAL FUNDING	ANNUAL EXPENDITURES	ANNUAL FUNDING	ANNUAL EXPENDITURES			
2023	\$50,000	\$0	\$65,000	\$0	\$115,000	\$ -	\$180,050
2024	\$50,000	\$28,875	\$65,000	\$0	\$115,000	\$ 28,875.00	(\$51,457)
2025	\$50,000	\$5,500	\$65,000	\$317,682	\$115,000	\$ 323,182.00	(\$78,136)
2026	\$50,000	\$193,200	\$65,000	\$136,250	\$115,000	\$ 329,450.00	(\$156,220)
2027	\$50,000	\$18,000	\$65,000	\$0	\$115,000	\$ 18,000.00	(\$59,247)
2028	\$50,000	\$6,250	\$65,000	\$0	\$115,000	\$ 6,250.00	(\$500,255)
2029	\$50,000	\$9,750	\$65,000	\$549,762	\$115,000	\$ 559,512.00	(\$394,956)
2030	\$50,000	\$57,375	\$65,000	\$0	\$115,000	\$ 57,375.00	(\$337,242)
2031	\$50,000	\$32,200	\$65,000	\$0	\$115,000	\$ 32,200.00	(\$258,044)
2032	\$50,000	\$89,900	\$65,000	\$3,683	\$115,000	\$ 93,583.00	(\$232,845)
2033	\$50,000	\$7,500	\$65,000	\$0	\$115,000	\$ 7,500.00	(\$300,098)
2034	\$50,000	\$42,625	\$65,000	\$174,813	\$115,000	\$ 217,437.67	(\$227,621)
2035	\$50,000	\$74,800	\$65,000	\$0	\$115,000	\$ 74,800.00	(\$187,311)
2036	\$50,000	\$37,950	\$65,000	\$0	\$115,000	\$ 37,950.00	(\$146,068)
2037	\$50,000	\$0	\$65,000	\$35,892	\$115,000	\$ 35,891.64	(\$30,971)
2038	\$50,000	\$0	\$65,000	\$0	\$115,000	\$ -	\$84,176
2039	\$50,000	\$22,500	\$65,000	\$0	\$115,000	\$ 22,500.00	\$79,206
2040	\$50,000	\$16,650	\$65,000	\$97,667	\$115,000	\$ 114,317.25	\$177,781
2041	\$50,000	\$62,700	\$65,000	\$0	\$115,000	\$ 62,700.00	(\$36,249)
2042	\$50,000	\$0	\$65,000	\$266,588	\$115,000	\$ 266,588.36	\$78,998
2043	\$50,000	\$20,000	\$65,000	\$0	\$115,000	\$ 20,000.00	\$326,631
2044	\$50,000	\$25,625	\$65,000	\$0	\$115,000	\$ 25,625.00	\$351,332
2045	\$50,000	\$21,000	\$65,000	\$0	\$115,000	\$ 21,000.00	\$380,684
2046	\$50,000	\$318,200	\$65,000	\$0	\$115,000	\$ 318,200.00	\$112,864
2047	\$50,000	\$147,400	\$65,000	\$0	\$115,000	\$ 147,400.00	\$15,577
2048	\$50,000	\$48,938	\$65,000	\$0	\$115,000	\$ 48,937.50	\$16,655
2049	\$50,000	\$5,750	\$65,000	\$0	\$115,000	\$ 5,750.00	\$60,922
2050	\$50,000	\$0	\$65,000	\$0	\$115,000	\$ -	\$110,983
TOTALS					\$3,220,000	\$2,875,024	

GAIN OF \$344,976
BASED ON CURRENT KNOWN EXPENSES

Water Storage	Maintain water tower for longer life span	<p>Professionally Inspect every five years for integrity</p> <p>Complete all maintenance as suggested in inspection reports</p> <p>Insure Rates and Budget are adequate to support major maintenance actives (painting) as recommended through inspection process</p> <p>All storage requirements will be met as indicated under EGLE Reliability Study Guidelines</p>
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Administrative	<p>Provide excellent customer service</p> <p>Insure customers bills are accurate</p>	<p>Follow up on all complaints to insure a finite outcome</p> <p>Review any discrepancy</p>
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Financial	Be financially solvent & operate water system in the black including reserve funding	<p>Review Water Rates every XX years.</p> <p>Adopt sufficient rates to meet adopted budget</p> <p>Insure adopted annual budget includes results of asset management program</p> <p> Maintain XX dollars in reserve accounts at all times</p>
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Rules and Regulations	Monitor & enforce	<p>Update & review rules annually - Cross connections, Site sampling plan, Required Lab analysis, Consumer confidence report, Safety program,</p>
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Cross Connections	<p>Annually review cross connection program and update as needed</p> <p>Comply with adopted ordinance</p>	<p>Perform inspections as required with in house staff</p> <p>Attend seminars to keep staff up-to-date with any changes in rule.</p>
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Galesburg Water

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS

2023

YOUR ANTICIPATED NORMAL INTENDED USEFUL LIFE OR YEARS BETWEEN REHAB SHOULD BE BASED ON PAST MAINTENANCE HISTORY, WELL MAINTENANCE RECORDS AND WATER TOWER INSPECTION REPORTS. - A COPY OF THESE REPORTS SHOULD BE INCLUDED IN YOUR RATE EVALUATION AS AN ATTACHMENT OR APPENDIX --- ALSO NOTE; IF YOU ARE APPLYING FOR A USDA RURAL DEVELOPMENT GRANT OR HOPE TO GET A USDA GRANT - THE REMAINING YEARS OF LIFE FOR ANY EQUIPMENT CAN NOT EXCEED 15 YEARS. FOR ANYTHING - WATER METERS WATER TOWER PAINTING ETC. ONCE THE USEFUL LIFE OR NEXT ANTICIPATED MAINTENANCE IS LESS THAN 15 YEARS AWAY IT CAN BE LISTED HERE,

SHORT LIVED ASSETS SOMEWHERE BETWEEN 0-15 OR 20 YEARS

FIXED ASSET INVENTORY		ASSET REPLACEMENT SCHEDULE							
EQUIPMENT LIST / MAINTENANCE ACTIVITY	DESCRIPTION / MAINTENANCE HISTORY	ORIGINAL INSTALLATION YEAR OR LAST REHAB YEAR	ESTIMATED NORMAL INTENDED USEFUL LIFE	CURRENT AGE	NEXT ANTICIPATED REPLACEMENT YEAR	REMAINING LIFE - YEARS BEFORE REPLACEMENT	TOTAL REPLACEMENT COST	PERCENT OF ASSET LEFT	REPLACEMENT MONEY RESERVED ANNUALLY
WELL 1	Installed 1948								
WELL 1 PUMP		2015	20	8	2035	12	\$20,000	60%	\$1,000
WELL 1 MOTOR	5 0hp motor	1994	30	29	2024	1	\$20,000	3%	\$667
WELL 1 CONTROL PANEL		2006	30	17	2036	13	\$5,000	43%	\$167
WELL 1 BUILDING - Original building 1948, add it in and edit 2023	Roof, doors, windows, heaters, etc.	2023	20	0	2043	20	\$10,000	100%	\$500
WELL 1 PIPING & VALVES		2006	50	17	2056	33	\$10,000	66%	\$200
WELL 1 MASTER METER		2023	17	0	2040	17	\$9,000	100%	\$529
WELL 1 CLEANING		2017	15	6	2032	9	\$17,000	60%	\$1,133
CHEMICAL FEED SYSTEM		2023	2	0	2025	2	\$5,000	100%	\$2,500
VFD		2017	15	6	2032	9	\$20,000	60%	\$1,333
WELL 2	Installed 1957								
WELL 2 PUMP		2014	20	9	2034	11	\$20,000	55%	\$1,000
WELL 2 MOTOR		2014	30	9	2044	21	\$10,000	70%	\$333
WELL 2 CONTROL PANEL		2006	20	17	2026	3	\$15,000	15%	\$750
WELL 2 BUILDING	Roof, door, window, etc.	2007	20	16	2027	4	\$10,000	20%	\$500
WELL 2 PIPING & VALVES		2007	50	16	2057	34	\$10,000	68%	\$200
WELL 2 MASTER METER		2021	30	2	2051	28	\$9,000	93%	\$300
CHLORINE FEED SYSTEM		2022	2	1	2024	1	\$5,000	5%	\$2,500
WELL 2 CLEANING		2021	5	2	2026	3	\$17,000	60%	\$3,400
VFD		2017	15	6	2032	9	\$20,000	60%	\$1,333
WATER TOWER - BURGESS DR	Installed 2006, cost \$1.6M								
WATER TOWER EXTERIOR PAINTING		2006	20	17	2026	3	\$50,000	1%	\$2,500
WATER TOWER INTERIOR PAINTING	WET	2006	20	17	2026	3	\$50,000	1%	\$2,500
WATER TOWER INSPECTION		2019	5	4	2024	1	\$2,500	20%	\$500
WATER TOWER CONTROLS		2006	20	17	2026	3	\$15,000	1%	\$750
CATHODIC PROTECTION		2019	20	4	2039	16	\$10,000	8%	\$500
PORTABLE GENERATOR	split 75% water and 25% sewer	1995	35	28	2030	7	\$37,500	20%	\$1,071
TAPPING MACHINE		1965	80	58	2045	22	\$10,000	28%	\$125

Galesburg Water

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS

2023

SHORT LIVED ASSETS SOMEWHERE BETWEEN 0-15 OR 20 YEARS

YOUR ANTICIPATED NORMAL INTENDED USEFUL LIFE OR YEARS BETWEEN REHAB SHOULD BE BASED ON PAST MAINTENANCE HISTORY, WELL MAINTENANCE RECORDS AND WATER TOWER INSPECTION REPORTS. - A COPY OF THESE REPORTS SHOULD BE INCLUDED IN YOUR RATE EVALUATION AS AN ATTACHMENT OR APPENDIX --- ALSO NOTE; IF YOU ARE APPLYING FOR A USDA RURAL DEVELOPMENT GRANT OR HOPE TO GET A USDA GRANT - THE REMAINING YEARS OF LIFE FOR ANY EQUIPMENT CAN NOT EXCEED 15 YEARS. FOR ANYTHING - WATER METERS WATER TOWER PAINTING ETC. ONCE THE USEFUL LIFE OR NEXT ANTICIPATED MAINTENANCE IS LESS THAN 15 YEARS AWAY IT CAN BE LISTED HERE,

FIXED ASSET INVENTORY		ASSET REPLACEMENT SCHEDULE							
EQUIPMENT LIST / MAINTENANCE ACTIVITY	DESCRIPTION / MAINTENANCE HISTORY	ORIGINAL INSTALLATION YEAR OR LAST REHAB YEAR	ESTIMATED NORMAL INTENDED USEFUL LIFE	CURRENT AGE	NEXT ANTICIPATED REPLACEMENT YEAR	REMAINING LIFE - YEARS BEFORE REPLACEMENT	TOTAL REPLACEMENT COST	PERCENT OF ASSET LEFT	REPLACEMENT MONEY RESERVED ANNUALLY
WATER METERS - 675 3/4" METERS @ \$200 EACH REPLACEMENT COST Last wholesale meter changout done in 2006. New plan is to replace 10% per year instead of another wholesale meter changeout.	METERS LAST AN AVERAGE OF 20 YEARS - ESTIMATE AVERAGE METER AT 10 YRS OLD - SOME NEWER SOME OLDER								
WATER METERS - LARGER SIZES - 80 LARGER METERS FRM 1" - 4" - = 139 METER EQUIVALENETS @ \$200 PER METER EQUIVALENT	METERS LAST AN AVERAGE OF 20 YEARS - ESTIMATE AVERAGE METER AT 10 YRS OLD - SOME NEWER SOME OLDER								
HAND HELD METER READER and BILLING SOFTWARE		2011	15	12	2026	3	\$15,000	20%	\$1,000
RELIABILITY STUDY / GENERAL PLAN		2021	5	2	2026	3	\$1,000	60%	\$200
SCADA	split 75% to water and 25% to sewer-total cost for SCADA upgrades in 2022 was about \$29000	2022	13	1	2035	12	\$21,750	92%	\$1,673
							\$444,750	51%	\$ 29,166

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS - RUNNING BALANCE SHEET

			COST OF LIVING INCREASE	5.00%
			CURRENT RESERVE BALANCE APPLIED TO THIS ACCOUNT - INCLUDES RRI BALANCE	\$0
			AVG. INTEREST RATE IN SAVINGS	0.10%
ANNUAL COLA ADJUSTMENT AS ADOPTED BY COUNCIL			0.00%	
Annual Funding Applied to Budget / Rates			\$50,000	
YEAR	PURPOSE	ANNUAL REPLACEMENT EXPENDITURES WITH C.O.L.	FUNDING WITH COLA	RUNNING BALANCE
2023	SEE EQUIPMENT LIST FOR DETAILS OF ANTICIPATED PURCHASES	\$0	\$50,000	\$50,050
2024		\$28,875	\$50,000	\$71,225
2025		\$5,500	\$50,000	\$115,796
2026		\$193,200	\$50,000	(\$27,288)
2027		\$18,000	\$50,000	\$4,685
2028		\$6,250	\$50,000	\$48,439
2029		\$9,750	\$50,000	\$88,738
2030		\$57,375	\$50,000	\$81,452
2031		\$32,200	\$50,000	\$99,333
2032		\$89,900	\$50,000	\$59,532
2033		\$7,500	\$50,000	\$102,092
2034		\$42,625	\$50,000	\$109,569
2035		\$74,800	\$50,000	\$84,879
2036		\$37,950	\$50,000	\$97,014
2037		\$0	\$50,000	\$147,111
2038		\$0	\$50,000	\$197,258
2039		\$22,500	\$50,000	\$224,955
2040		\$16,650	\$50,000	\$258,530
2041		\$62,700	\$50,000	\$246,088
2042		\$0	\$50,000	\$296,334
2043		\$20,000	\$50,000	\$326,631

EQUIPMENT REPLACEMENT SHORT LIVED ASSETS - RUNNING BALANCE SHEET

COST OF LIVING INCREASE		5.00%
CURRENT RESERVE BALANCE APPLIED TO THIS ACCOUNT - INCLUDES RRI BALANCE		\$0
AVG. INTEREST RATE IN SAVINGS		0.10%
ANNUAL COLA ADJUSTMENT AS ADOPTED BY COUNCIL	0.00%	
		\$0

Galesburg Water	2023	
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CAPITAL IMPROVEMENT PROJECTS SUMMARY

PERCENT DOWNPAYMENT **10%**

CAPITAL IMPROVEMENT IDEAS WERE GENERATED FROM

PREIN & NEWHOF CIP AND PREVIOUS CIP DONE IN 2017 BY A DIFFERENT ENGINEERING COMPANY. PREIN CIP IS PICTURED BELOW. ALL PROJECTS FROM THE 2017 CIP NOT INCLUDED IN THE NEW CIP HAVE 10 YEARS ADDED TO THE COMPLETION YEAR.

MRWA DOES NOT RECOMMEND OR SUGGEST FINANCING OPTIONS. IT IS UP TO THE COMMUNITY AND THEIR ADVOCATES TO DECIDE WHAT FINANCING OPTIONS WORK BEST FOR THEM AND THEIR FUTURE PROJECTS.

ENTER ITEMS ON THIS PAGE FIRST - THEN SEE INDIVIDUAL PAGES FOR ENTERING DETAILS ON EACH PROJECT -

CAPITAL PROJECTS - FOR DETAILS OF EACH PROJECT SEE INDIVIDUAL PAGES

	ESTIMATED PROJECT COST	CASH CONTRIBUTION FROM RATES	AMOUNT FINANCED	COMPLETE IN YEAR OF	IS THIS YEAR FLEXIBLE?	MONEY NEEDED ANNUALLY
BLAKE MAIN REPLACEMENT	\$489,000	\$48,900	\$440,100	2029		\$8,150
BATTLE CREEK MAIN REPLACEMENT - 35TH TO GROVE	\$2,440,000	\$244,000	\$2,196,000	2029		\$40,667
REPLACE PORTABLE GENERATOR	\$29,000	\$2,900	\$26,100	2032		\$322
5-WAY INTERSECTION MAIN REPLACEMENT	\$796,000	\$79,600	\$716,400	2029		\$13,267
GROVE MAIN REPLACEMENT	\$562,000	\$56,200	\$505,800	2029		\$9,367
M-96 MAIN REPLACEMENT - GRANT TO NORMS PLACE	\$358,390	\$35,839	\$322,551	2034		\$3,258
NORMS PLACE - M-96 TO BECKWITH MAIN REPLACEMENT	\$620,000	\$62,000	\$558,000	2034		\$5,636
NEW AND E. BATTLE CREEK MAIN REPLACEMENT	\$1,270,000	\$127,000	\$1,143,000	2025		\$63,500
M-96 MAIN REPLACEMENT - BURGESS EAST PAST 12" MAIN	\$335,991	\$33,599	\$302,392	2034		\$3,054
CLOSE LOOP AT MOREHOUSE	\$252,758	\$25,276	\$227,482	2037		\$1,805
CLOSE LOOP FROM 35TH TO 36TH STREETS	\$1,540,000	\$154,000	\$1,386,000	2025		\$77,000
CLOSE LOOP FROM 36TH TO 37TH STREETS	\$1,698,015	\$169,802	\$1,528,214	2042		\$8,937
INSTALL PERMANENT NATURAL GAS GENERATOR AT WELLS	\$160,000	\$16,000	\$144,000	2025		\$8,000
ADD NEW WELL	\$646,803	\$64,680	\$582,123	2040		\$3,805
CHURCH ST. MAIN EXTENSION	\$372,000	\$37,200	\$334,800	2029		\$6,200
INSTALL MIXER IN WATER TOWER	\$27,000	\$2,700	\$24,300	2025		\$1,350
			\$0			\$0
REPLACE LEAD SERVICE LINES - amount depends on verification of actual replacements	\$1,250,000	\$125,000	\$1,125,000	2026		\$41,667
			\$0			\$0
			\$0			\$0
			\$0			\$0
			\$0			\$0
	\$12,846,957	\$1,284,696	\$11,562,261			\$295,985

CAPITAL IMPROVEMENT RUNNING BALANCE PROJECTIONS & ANNUAL FUNDING			
ANNUAL COST OF LIVING INCREASE TO PROJECTS		3.00%	
T RESERVE BALANCE APPLIED TO CAPITAL IMPROVEMENTS		\$0	
AVG. INTEREST RATE IN SAVINGS		0.00%	
IF AN ANNUAL COLA RATE ADJUSTMENT PERCENT OF		0.00%	
<p>RUNNING BALANCE COLUMN REFLECTS THIS FUND ONLY. THE AVERAGE ANNUAL FUNDING DOES NOT REFLECT ANY EXTRA REVENUE GENERATED BY FUTURE ANNUAL RATE INCREASES. FOR A TRUE RUNNING BALANCE OF THE OVERALL HEALTH OF THE WATER SYSTEM SEE THE 10 YEAR PROJECTIONS PAGE.</p>			
YEAR	ANNUAL EXPENDITURES	AVERAGE ANNUAL FUNDING AMOUNT IN RATE BUDGET	RUNNING BALANCE
2023	\$0	\$65,000	\$65,000
2024	\$0	\$65,000	\$130,000
2025	\$317,682	\$65,000	(\$122,682)
2026	\$136,250	\$65,000	(\$193,932)
2027	\$0	\$65,000	(\$128,932)
2028	\$0	\$65,000	(\$63,932)
2029	\$549,762	\$65,000	(\$548,694)
2030	\$0	\$65,000	(\$483,694)
2031	\$0	\$65,000	(\$418,694)
2032	\$3,683	\$65,000	(\$357,377)
2033	\$0	\$65,000	(\$292,377)
2034	\$174,813	\$65,000	(\$402,190)
2035	\$0	\$65,000	(\$337,190)
2036	\$0	\$65,000	(\$272,190)
2037	\$35,892	\$65,000	(\$243,081)
2038	\$0	\$65,000	(\$178,081)
2039	\$0	\$65,000	(\$113,081)
2040	\$97,667	\$65,000	(\$145,749)
2041	\$0	\$65,000	(\$80,749)
2042	\$266,588	\$65,000	(\$282,337)
2043	\$0	\$65,000	(\$217,337)

CITY OF GALESBURG
 WATER SYSTEM ASSETS
 2024

WATER SYSTEM ASSETS ESTIMATED VALUE

	REPLACEMENT COST	AVERAGE PERCENT OF LIFE LEFT
WATER DISTRIBUTION MAINS	\$13,418,920	59%
WATER DISTRIBUTION VALVES	\$447,239	50%
FIRE HYDRANTS	\$924,096	48%
WELLS, STORAGE, METERS, CURB STOPS ETC	\$3,277,746	54%
TOTALS	\$18,068,001	53%

This table shows the estimated value of the entire water system, excluding the land / property. This estimated replacement cost is in today's dollars.

CITY OF GALESBURG
 2024
 ASSET TIME LINE

AGE OF PIPE -YEARS	0-10	11-20'	21-30'	31-40'	41-50'	51-60'	61-70'	71-80	TOTALS
FEET OF PIPE	1,898	13,989	21,243	17,100	0	5,346	14,040	1,200	74,816
PERCENT OF PIPE	3%	19%	28%	23%	0%	7%	19%	2%	100%
ESTIMATED REPLACEMENT COST TODAY	\$340,423	\$2,509,053	\$3,810,122	\$3,067,038	\$0	\$958,853	\$2,518,200	\$215,231	13,418,920
# DISTRIBUTION VALVES	0	33	40	13	0	8	51	1	146
PERCENT OF VALVES	0%	23%	27%	9%	0%	5%	35%	1%	100%
# FIRE HYDRANTS	0	26	23	53	0	6	17	13	139
PERCENT OF HYDRANTS	0%	19%	17%	38%	0%	4%	12%	9%	100%
WELLS						1	1		
TOWER	1								

CITY OF GALESBURG WATER SYSTEM SUMMARY OF CRITICAL ASSETS

2024

ASSET NAME	LOCATION	NOTES	BUSINESS RISK EXPOSURE TO	INSTALLATION	USEFUL	REMAINING	REPLACE IN	PERCENT OF
		DESCRIPTION	A COMPONENT OR THE ENTIRE SYSTEM	YEAR	LIFE	LIFE	YEAR OF	ASSET LEFT
WELL 1	130 DIVISION ST	ONE OF TWO WELLS ON SYSTEM - 750 GPM	ENTIRE SYSTEM	1948	75	-1	2023	-1%
WELL 2	130 DIVISION ST	ONE OF TWO WELLS ON SYSTEM - 750 GPM	ENTIRE SYSTEM	1957	75	8	2032	11%
WATER TOWER	BURGESS DR	ONLY WATER TOWER IN TOWN 500,000 GALLONS	ENTIRE SYSTEM	2006	90	72	2096	80%
CONTROL SYSTEM	WELLS & WATER TOWER	CONTROLS WATER TOWER LEVEL AND WHEN PUMPS TURN ON & OFF	ENTIRE SYSTEM	2006	20	2	2026	10%
PORTABLE GENERATOR	KEPT IN DPW GARAGE	ONLY BACKUP SOURCE OF POWER FOR WELLS	ENTIRE SYSTEM	1995	35	6	2030	17%
CRITICAL VALVES		LINE SIZE / VALVE SIZE						
145-005-015-1	35TH IN FRT OF 411	8" line	FEEDS NURSING HOME	1958	80	22	2038	28%
040-1	WELL FEED & OLD WATER TOWER	8	FEEDS FROM WELL	1958	80	22	2038	28%
040-3	WELL FEED & OLD WATER TOWER	10	FEEDS FROM WELL	1958	80	22	2038	28%
040-4	WELL FEED & OLD WATER TOWER	8	FEEDS FROM WELL	1958	80	22	2038	28%
145-5-1	35TH FEEDING NURSING HOME	4	FEEDS NURSING HOME	1973	80	37	2053	46%
145-1-1	35TH ST	10	FEEDS NURSING HOME	1973	80	37	2053	46%
145-2-1	35TH ST	10	FEEDS NURSING HOME	1973	80	37	2053	46%
145-2-2	35TH ST	10	FEEDS NURSING HOME	1973	80	37	2053	46%
145-4-1	35TH ST	10	FEEDS NURSING HOME	1973	80	37	2053	46%
145-3-1	35TH ST APARTMENTS	6	FEEDS APT COMPLEX	1973	80	37	2053	46%
AMBLING AVE 1	AMBLING AVE 1	8	FEEDS SCHOOLS	2003	80	67	2084	84%
LOOP HIGH SCHOOL 1	LOOP HIGH SCHOOL 1	8	FEEDS SCHOOLS	2003	80	67	2084	84%
LOOP HIGH SCHOOL 2	LOOP HIGH SCHOOL 2	8	FEEDS SCHOOLS	2003	80	67	2084	84%
LOOP HIGH SCHOOL 3	LOOP HIGH SCHOOL 3	8	FEEDS SCHOOLS	2003	80	67	2084	84%
LOOP HIGH SCHOOL 4	LOOP HIGH SCHOOL 4	8	FEEDS SCHOOLS	2003	80	67	2084	84%
LOOP HIGH SCHOOL 5	LOOP HIGH SCHOOL 5	8	FEEDS SCHOOLS	2003	80	67	2084	84%
LOOP HIGH SCHOOL 6	LOOP HIGH SCHOOL 6	8	FEEDS SCHOOLS	2003	80	67	2084	84%
BURGESS DR 1	BURGESS DR 1	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 2	BURGESS DR 2	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 3	BURGESS DR 3	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 4	BURGESS DR 4	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 5	BURGESS DR 5	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 6	BURGESS DR 6	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 7	BURGESS DR 7	12	FEEDS WATER TOWER	2006	80	70	2086	88%
BURGESS DR 8	BURGESS DR 8	12	FEEDS WATER TOWER	2006	80	70	2086	88%
CRITICAL WATER MAINS								
35TH ST - FRM W MICHG NORTH TO CITY LIMITS	4250 FT	10	FEEDS NURSING HOME	1973	90	43	2063	52%
BURGESS DR - FRM - BATTLE CREEK TO NORTH CITY LIMITS	3063 FT	12	FEEDS WATER TOWER	2006	90	10	2096	89%
EAST BATTLE CREEK - DRN MCCULLUM TO 37TH ST	700 FT	12	FEEDS SCHOOLS	2003	90	13	2093	86%
SCHOOL - FRONT OF SCHOOL PARKING LOT	200 FT	8	FEEDS SCHOOLS	2003	90	13	2093	86%

CITY OF GALESBURG
2024

WATER DISTRIBUTION PIPE SUMMARY

ESTIMATED REPLACEMENT COST OF PIPE

PIPE SIZE	\$ PER FOOT
2"	\$154
4"	\$154
6"	\$154
8"	\$146
10"	\$350
12"	\$210
16"	\$346

MOST LIKELY EXISTING 2" & 4" PIPE WILL BE REPLACED WITH 6" OR GREATER DIAMETER PIPE

PRICE PER FOOT DOES NOT INCLUDE HYDRANTS OR VALVES

VALVES & HYDRANTS ARE LISTED ON SEPARATE PAGE

PRICES ARE FROM CITY OF REED CITY RELIABILITY STUDY 2014

- WITH COST OF LIVING ADDED IN.

WATER DISTRIBUTION PIPE SUMMARY PERCENT BASED ON SIZE			
PIPE SIZE	FEET OF PIPE	PERCENT OF TOTAL	REPLACEMENT COST
4	1,200	2%	\$184,800
6	14,316	19%	\$2,204,664
8	31,731	42%	\$4,632,726
10	4,250	6%	\$1,487,500
12	23,229	31%	\$4,878,090
16	90	0%	\$31,140
TOTAL	74,816	100%	\$13,418,920
AVERAGE COST PER FOOT			\$179.36

WATER DISTRIBUTION PIPE SUMMARY PERCENT BASED ON TYPE OF PIPE		
TYPE OF PIPE	FEET OF PIPE	PERCENT OF TOTAL
DUCTILE IRON	54,830	73%
CAST IRON	19,986	27%
		0%
TOTAL	74,816	100%

CURRENT YEAR		2024	
WATER DISTRIBUTION PIPE SUMMARY			
<i>PERCENT BASED ON AGE</i>			
DATE OF INSTALLATION	LENGTH	AGE OF PIPE	PERCENT OF TOTAL
1948	1,200	76	2%
1958	14,040	66	19%
1973	5,346	51	7%
1989	9,400	35	13%
1990	7,700	34	10%
1994	500	30	1%
1995	8,963	29	12%
1996	1,280	28	2%
2003	10,500	21	14%
2006	13,389	18	18%
2008	600	16	1%
2023	1,898	1	3%
TOTAL	74,816		100%

Weighted avg. pipeline age 36
Length x age for each year, then divided by total length
 AVERAGE PERCENT OF LIFE LEFT 60%

**CITY OF GALESBURG
2024**

WATER DISTRIBUTION PIPE - TIME LINE SUMMARY

AGE OF PIPE -YEARS	0-10	11-20'	21-30'	31-40'	41-50'	51-60'	61-70'	TOTALS
YEAR INSTALLED	2023	2006	1995'	1989	1973	1958	1948	
FEET OF PIPE	1,898	13,989	28,943	9,400	5,346	14,040	1,200	74,816
PERCENT OF TOTAL	3%	19%	39%	13%	7%	19%	2%	
REPLACEMENT YEARS	2100 - 2091	2090 - 2081	2080 - 2071	2070 - 2061	2051-2060	2041-2050	2031-2040	
ESTIMATED FUTURE REPLACEMENT COST	\$ 1,065,525	\$ 7,100,619	\$ 13,133,702	\$ 3,759,723	\$ 1,850,586	\$ 4,104,666	\$ 286,257	
PIPE LIFE SPAN ESTIMATED AT 90 YEARS								

CITY OF GALESBURG
WATER DISTRIBUTION VALVE SUMMARY

CURRENT YEAR		2024	
DISTRIBUTION VALE AGE SUMMARY			
DATE OF INSTALLATION	NUMBER OF VALVES	AGE OF VALVE	PERCENT OF TOTAL
1948	1	76	1%
1958	50	66	34%
1963	1	61	1%
1973	8	51	5%
1985	1	39	1%
1989	12	35	8%
1995	15	29	10%
1996	5	28	3%
2003	20	21	14%
2006	32	18	22%
2008	1	16	1%
TOTAL	146	40	100%

ESTIMATED REPLACEMENT COST OF VALVES	
VALVE SIZE	\$ PER VALVE
2"	\$2,205
4"	\$2,205
6"	\$2,205
8"	\$2,846
10"	\$4,546
12"	\$4,546
16"	\$13,100

2" & 4" WILL BE REPLACED WITH 6" OR LARGER

MOST LIKELY EXISTING 2" & 4" PIPE WILL BE REPLACED WITH 6" OR GREATER DIAMETER PIPE

VALVE COST FROM MDOT 2023 Weighted Average Item Price Report

CITY OF GALESBURG

FIRE HYDRANT SUMMARY

REPLACEMENT COST PER HYDRANT		\$ 6,668						
AVERAGE YEARS OF LIFE EXPENTANC		65						
CURRENT YEAR		2024						
FIRE HYDRANT AGE SUMMARY								
DATE OF INSTALLATION	# HYDRANTS	AGE OF HYDRANT	PERCENT OF TOTAL	VALUE OF HYDRANTS	AGE OF HYDRANTS	ANTICIPATED YEARS OF LIFE REMAINING	PERCENT OF LIFE REMAINING	
1958	14	66	10%	\$ 93,351	66	-1	-2%	
1973	17	51	12%	\$ 113,168	51	14	22%	
1989	21	35	15%	\$ 136,920	35	30	46%	
1990	14	34	10%	\$ 95,771	34	31	48%	
1994	1	30	1%	\$ 6,219	30	35	54%	
1995	17	29	12%	\$ 111,480	29	36	55%	
1996	3	28	2%	\$ 22,588	28	37	57%	
2003	20	21	14%	\$ 130,597	21	44	68%	
2006	25	18	18%	\$ 166,530	18	47	72%	
2008	1	16	1%	\$ 7,463	16	49	75%	
1979	6	45	4%	\$ 40,008	45	20	31%	
TOTAL	139		100%	\$ 924,096				
					AVERAGE	34	31	48%

CITY OF GALESBURG
2016

NAME OR NUMBER

ITEM DESCRIPTION	WELL 1
LOCATION / ADDRESS	130 DIVISION ST
DATE DRILLED	1948
DATE LAST WELL REHAB	2015
WELL DIAMETER	8
DEPTH	55
GPM	750
REGULAR USE	YES

LIST COMPONENTS	ORIGINAL INSTALLATION YEAR
PUMP	2015
PUMP MOTOR -	1994 - REHABED
CONTROL PANEL	2006
ALARM SYSTEM	2006
SCADA	NONE
VALVES & PIPING	2006
BUILDING / HEAT / VENTILATION ETC	1948
ONSITE GENERATOR ? PORTABLE	1995

IS WELL PROFESSIONALLY SERVICED OR INSPECTED ON A REGULAR BASIC

YES EVERY YEAR

WHAT COMPANY DOES THE INSPECTIONS

NORTHERN PUMP & WELL

WAS A WELL INSPECTION REPORT USED TO COMPLETE THIS EVALUATION?

YES

IS GENERATOR PROFESSIONALLY SERVICED THROUGH SOME TYPE OF SCHEDULED INSPECTION

N/A

CITY OF GALESBURG

2024

NAME OR NUMBER

ITEM DESCRIPTION

WELL 2

LOCATION / ADDRESS	130 DIVISION ST
DATE DRILLED	1957
WELL DIAMETER	8
GPM	750
REGULAR USE	YES

LIST COMPONENTS	ORIGINAL INSTALLATION YEAR
PUMP - REPLACED ?	2014
PUMP MOTOR - REPLACED	2014
CONTROL PANEL	2006
ALARM SYSTEM	2006
BULDING / HEAT / VENTILATION ETC	2014
ONSITE GENERATOR ?	PORTABLE

IS WELL PROFESSIONALLY SERVICED OR INSPECTED ON A REGULAR BASIC

YES

WHAT COMPANY DOES THE INSPECTIONS

NORTHERN WELL

WAS A WELL INSPECTION REPORT USED TO COMPLETE THIS EVALUATION?

YES

IS GENERATOR PROFESSIONALLY SERVICED THROUGH SOME TYPE OF SCHEDULED INSPECTION

N/A

CITY OF GALESBURG

2024

NAME OR NUMBER

ITEM DESCRIPTION

WATER TOWER

1 TOWER

LOCATION / ADDRESS

429 BURGESS DR

LIST COMPONENTS	ORIGINAL INSTALLATION YEAR
DATE ORIGINAL INSTALLATION	2006
LAST INTERIOR PAINT JOB	2006
LAST EXTERIOR PAINT JOB	2006
ALARM SYSTEM	2006
CONTROL PANEL	2006
ON SITE BACKUP GENERATOR	NO
CAPACITY, VOLUME	500,000
LAST INSPECTION DATE	2019
SCADA	NONE

IS TOWER(S) PROFESSIONALLY SERVICED THROUGH SOME TYPE OF SCHEDULED INSPECTION

YES - EVERY 5 YRS

WHAT COMPANY DOES THE INSPECTIONS

NELSON TANK

WAS A TOWER INSPECTION REPORT USED TO COMPLETE THIS EVALUATION?

YES

IS GENERATOR PROFESSIONALLY SERVICED THROUGH SOME TYPE OF SCHEDULED INSPECTION

N/A

WATER DISTRIBUTION LINES / MAINS
CITY OF GALESBURG
 2024

67

STREET	TYPE OF PIPE	PIPE SIZE	FEET OF PIPE	DATE OF INSTALLATION	AGE OF PIPE	USEFUL LIFE	REPLACE IN YEAR	REMAINING LIFE OF	PERCENT OF LIFE LEFT	PERCENT CONSUMED	CONDITION	1-GOOD 2-UNLIKELY 3-INSIGNIFICANT 10-UNUSEABLE 9-LIKELY 5-DISASTER			CRITICAL FACTOR 1-25	COST PER FOOT	REPLACEMENT COST	DEPRECIATED VALUE
												PROBABILITY OF FAILURE 1-5	CONSEQUENCE OF FAILURE 1-5					
WASHINGTON ST FROM GRANT TO HAMILTON	DI	8	949	2023	1	90	89	2113	99%	1%	6	2	2	3	\$ 146	\$ 138,554	\$ 137,015	
WELL HOUSE 1 & 2- TO DIVISION	DI	8	949	2023	1	90	89	2113	99%	1%	6	2	2	3	\$ 146	\$ 138,554	\$ 137,015	
35TH FRM BATTLE CREEK TO SOUTH CITY LIMITS	DI	12	600	2008	16	90	74	2098	82%	18%	2	1	2	2	\$ 210	\$ 126,000	\$ 103,600	
35TH ST - FRM - W MICHIGAN TO BLAKE ST	DI	12	600	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 210	\$ 126,000	\$ 100,800	
BECKWITH - FRM GRANT TO BURGESS DR	DI	12	2,770	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 210	\$ 581,700	\$ 465,360	
BLAKE BLVD - FRM 35TH TO GRANT ST	DI	8	1,300	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 146	\$ 189,800	\$ 151,840	
LIMITS	DI	12	3,063	2006	18	90	72	2096	80%	20%	2	1	4	4	\$ 210	\$ 643,230	\$ 514,584	
DIVISION ST - FRM WELL 1 TO BECKWITH	DI	12	960	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 210	\$ 201,600	\$ 161,280	
FULLERTON ST - FRM MICH TO BLAKE	DI	8	630	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 146	\$ 91,980	\$ 73,584	
GRANT ST UNDERNEATH RR TRACKS	DI	12	106	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 210	\$ 22,260	\$ 22,260	
SHERMAN ST - FRM - MICHIGAN TO BLAKE	DI	8	630	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 146	\$ 91,980	\$ 73,584	
THOMAS ST - FRM MICHIGAN AVE TO BLAKE	DI	8	630	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 146	\$ 91,980	\$ 73,584	
W. MICHIGAN AVE - GRANT TO 35TH	DI	12	1,300	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 210	\$ 273,000	\$ 218,400	
WASHINGTON ST - FRM - DIVISION TO HAMILTON	DI	8	600	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 146	\$ 87,600	\$ 70,080	
WATER TOWER TO BURGESS DR	DI	12	800	2006	18	90	72	2096	80%	20%	2	1	2	2	\$ 210	\$ 168,000	\$ 168,000	
37TH ST - WEST 1000 FEET	DI	12	1,100	2003	21	90	69	2093	77%	23%	3	1	2	3	\$ 210	\$ 231,000	\$ 177,100	
AMBLING AVE	DI	8	1,700	2003	21	90	69	2093	77%	23%	3	1	2	3	\$ 146	\$ 248,200	\$ 190,287	
EAST BATTLE CREEK - DRM MCCULLUM TO 37TH ST	DI	12	700	2003	21	90	69	2093	77%	23%	3	1	4	5	\$ 210	\$ 147,000	\$ 112,700	
GALESBURG HIGH SCHOOL - AROUND BACK OF SCHOOL CREEK	DI	8	1,000	2003	21	90	69	2093	77%	23%	3	1	2	3	\$ 146	\$ 146,000	\$ 111,933	
CREEK	DI	8	1,400	2003	21	90	69	2093	77%	23%	3	1	2	3	\$ 146	\$ 204,400	\$ 156,707	
NORTH 37TH ST - FRM - E BATTLE CREEK NORTH TO DEAD END	DI	12	4,400	2003	21	90	69	2093	77%	23%	3	1	2	3	\$ 210	\$ 924,000	\$ 708,400	
SCHOOL - FRONT OF SCHOOL PARKING LOT	DI	8	200	2003	21	90	69	2093	77%	23%	3	1	4	5	\$ 146	\$ 29,200	\$ 22,387	
MORHOUSE DR - FRM - 35TH GOING EAST	DI	8	1,280	1996	28	90	62	2086	69%	31%	4	2	2	4	\$ 146	\$ 186,880	\$ 128,740	
200 E MICHIGAN AVE - CITY HALL	DI	16	90	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 200	\$ 18,000	\$ 12,200	
BURGESS DR - FRM - MICHIGAN AVE TO BATTLE CREEK	DI	8	792	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 146	\$ 115,632	\$ 78,373	
EAST BATTLE CREEK FROM MCCULLUM ST WEST 1700 FT	DI	12	1,700	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 210	\$ 357,000	\$ 241,967	
ELMWOOD BLVD - FRM GANT TO DEAD END	DI	6	421	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 154	\$ 64,834	\$ 43,943	
GRANT - FRM BLAKE TO MICHIGAN AVE	DI	8	630	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 146	\$ 91,980	\$ 62,342	
MCCULLEM - FRM MICHIGAN AVE TO EAST BATTLE CREEK	DI	12	2,730	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 210	\$ 573,300	\$ 388,570	
MICHIGAN AVE FRM BURGESS DR TO MCCULLUM	DI	12	2,400	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 210	\$ 504,000	\$ 341,600	
MILL ST FRM - 200 FEET S OF BATTLE CREEK ST -	DI	6	200	1995	29	90	61	2085	68%	32%	4	2	2	4	\$ 154	\$ 30,800	\$ 30,800	
COMSTOCK SENIOR HOUSING -	DI	8	500	1994	30	90	60	2084	67%	33%	4	2	2	4	\$ 146	\$ 73,000	\$ 48,667	
BETHANN - FRM - NICHOLE TO ILENE	DI	6	300	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 154	\$ 46,200	\$ 28,747	
BLAKE & NICHOLE CORNER - GOING NORTH	DI	8	200	1990	34	90		2080		100%	4	4	2	7	\$ 146	\$ 29,200	\$ -	
BLAKE BLVD - FRM NICHOLE TO CYNTHIA ST	DI	8	1,100	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 146	\$ 160,600	\$ 99,929	
CORNER BLAKE & NICHOLE TO SOUTH TO DEAD END SARAH	DI	8	1,900	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 146	\$ 277,400	\$ 172,604	
CORTNY ST - FRM BLAKE TO SHADOW LANE	DI	6	1,600	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 154	\$ 246,400	\$ 153,316	

WATER DISTRIBUTION LINES / MAINS
 CITY OF GALESBURG
 2024

67

STREET	TYPE OF PIPE	PIPE SIZE	FEET OF PIPE	DATE OF INSTALLATION	AGE OF PIPE	USEFUL LIFE	REMAINING LIFE OF	REPLACE IN YEAR	PERCENT OF LIFE LEFT	PERCENT CONSUMED	CONDITION	1 - GOOD	3 - UNLIKELY	1 - INSIGNIFICANT	CRITICAL FACTOR	COST PER FOOT	REPLACEMENT COST	DEPRECIATED VALUE
												10 - UNUSABLE	5 - LIKELY	5 - DISASTER				
ILENE - FRM BLAKE TO BETHANN ST	DI	6	500	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 154	\$ 77,000	\$ 47,911	
MIAH FRM - MILDRED TO SARAH	DI	6	300	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 154	\$ 46,200	\$ 28,747	
MILDRED ST - FRM SHADOW TO MIAH	DI	6	700	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 154	\$ 107,800	\$ 67,076	
SHADOW LANE FRM SARAH TO CYNTHIA ST	DI	8	1,100	1990	34	90	56	2080	62%	38%	4	2	2	4	\$ 146	\$ 160,600	\$ 99,929	
BLAKE FROM 35TH TO CYNTHIA	DI	8	1,000	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 146,000	\$ 89,222	
CYNTHIA ST FRM BLAKE TO SHADOW LANE	DI	8	1,600	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 233,600	\$ 142,756	
E. MICH AVE FROM BATTLE CREEK TO BURGESS DR	DI	8	1,000	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 146,000	\$ 89,222	
EAST BATTLE CREEK - FRM BURGESS DR EAST 1200 FT	DI	8	1,200	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 175,200	\$ 107,067	
KIMBERLY ST - FRM BLAKE TO SHADOW LANE	DI	8	1,600	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 233,600	\$ 142,756	
SHADOW LANE FROM 35TH TO CYNTHIA	DI	8	1,000	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 146,000	\$ 89,222	
WOODLARK ST - FRM BLAKE ST TO SOUTH DEAD END	DI	8	2,000	1989	35	90	55	2079	61%	39%	4	2	2	4	\$ 146	\$ 292,000	\$ 178,444	
35TH ST - FRM W MICHG NORTH TO CITY LIMITS	CI	10	4,250	1973	51	90	39	2063	43%	57%	5	3	4	11	\$ 350	\$ 1,487,500	\$ 644,583	
EAGLE DR - FRM MCCULLUM ST GOING EAST TO PARK	DI	6	600	1973	51	90	39	2063	43%	57%	5	3	2	5	\$ 154	\$ 92,400	\$ 40,040	
GALE AVE - FRM BURGESS DR TO EAST	CI	6	496	1973	51	90	39	2063	43%	57%	5	3	2	5	\$ 154	\$ 76,384	\$ 33,100	
35TH FRM MICH TO BATTLE CREEK	CI	8	1,600	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 146	\$ 233,600	\$ 62,293	
BATTLE CREEK - FRM 35 TO MICHIGAN AVE	CI	6	3,680	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 154	\$ 566,720	\$ 151,125	
BATTLE CREEK - FRM MICHIGAN TO BURGESS DR	CI	6	1,200	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 154	\$ 184,800	\$ 49,280	
CENTER ST - FRM BECKWITH TO WASHINGTON	CI	8	417	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 146	\$ 60,882	\$ 16,235	
FULLERTON ST - FRM BATTLE CREEK TO W MICH	CI	6	1,955	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 154	\$ 301,070	\$ 80,285	
GRANT FROM WASHINGTON TO BECKWITH	CI	8	400	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 146	\$ 58,400	\$ 58,400	
GROVE - FRM BATTLE CREEK TO MICHIGAN AVE	CI	6	764	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 154	\$ 117,656	\$ 31,375	
HAMILTON - FROM WASHINGTON - HASTING	CI	8	413	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 146	\$ 60,298	\$ 16,079	
HASTINGS - FRM HAMILTON - DIVISION	CI	8	584	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 146	\$ 85,264	\$ 22,737	
MAPLE - FRM DIVISION - BURGESS	CI	8	1,427	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 146	\$ 208,342	\$ 55,558	
MICHIGAN AVE - FRM GRANT TO BATTLE CREEK	CI	6	1,600	1958	66	90	24	2048	27%	73%	6	3	2	7	\$ 154	\$ 246,400	\$ 65,707	
MILL ST - FRM - BATTLE CREEK GOING SOUTH	CI	4	200	1948	76	90	14	2038	16%	84%	7	4	2	8	\$ 154	\$ 30,800	\$ 4,791	
MILLS ST - GOING WEST TO DEAD END PARKING LOT	CI	4	100	1948	76	90	14	2038	16%	84%	7	4	2	8	\$ 154	\$ 15,400	\$ 2,396	
NEW ST - FRM - BATTLE CREEK WEST TO DEAD END	CI	4	900	1948	76	90	14	2038	16%	84%	7	4	2	8	\$ 154	\$ 138,600	\$ 21,560	
			0											0	\$ -	\$ -	\$ -	
			74,816	1988			54		60%					0	\$ -	\$ 13,405,780	\$ 8,220,191	

5,280
 14 MILES

VALVES FOR WATER DISTRIBUTION SYSTEM
CITY OF GALESBURG
2024

VALVES LOCATED IN TRAILER PARK
NOT COUNTED AS CITY ASSETS -
PRIVATELY OWNED

1-GOOD
2-UNUSABLE

3-UNEVELY
4-LEAKY

5-IRREGULAR
6-ROASTER

VALVE NO.	LOCATION	LINE SIZE	DATE OF INSTALLATION	AGE OF VALVE	USEFUL LIFE YEARS	REPLACE IN YEAR	REMAINING LIFE YEARS	PERCENT OF LIFE LEFT	PERCENT CONSUMED	CONDITION	WATER CONSEQUENCE OF FAILURE	BACKUP PERCENT REDUNDANCY	PROBABILITY OF FAILURE 1-5	CONSEQUENCE OF FAILURE 1-5	CRITICAL FACTOR 1-25	REPLACEMENT COST NEW VALVE	ANNUAL DEPRECIATION	ACQUAINTANCE IMPROVEMENT	DEPRECIATED VALUE
005-075-3	BATTLE CREEK & GROVE	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
005-120-1	BATTLE CREEK & NEW	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
005-120-3	BATTLE CREEK & NEW	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
110-005-2	BATTLE CREEK & PEARL	4	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
005-155-1	BATTLE CREEK & TOLAND	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
010-020-3	BECKWITH & BURGESS	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
010-065-1	BECKWITH & GRANT	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
015-055-3	BLAKE & FULLERTON	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
015-075-1	BLAKE & GROVE	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
015-075-2	BLAKE & GROVE	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
015-145-2	BLAKE & S 35TH	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
015-145-4	BLAKE & S 35TH	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
005-055-155-1	BATTLE CREEK & SCHOOL	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
165-025-1	CENTER & WASHINGTON	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
165-025-2	CENTER & WASHINGTON	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
055-005-015 -1	FULLERTON ST 118 FULLERTON	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
085-080-1	HASTINGS & HAMILTON	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
085-040-2	HASTINGS & DIVISION	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
085-040-3	HASTINGS & DIVISION	10	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 4,546	\$57	\$ 3,750	\$796
085-040-4	HASTINGS & DIVISION	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
095-020-040	MAPLE ST & ILICK CT	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
1151	MILL ST & DEAD END	4	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
040-1	TOWER	8	1958	66	80	2038	14	18%	83%	8.0	FEDS FROM WELL	50	4	3	12	\$ 2,846	\$36	\$ 2,348	\$498
040-3	TOWER	10	1958	66	80	2038	14	18%	83%	8.0	FEDS FROM WELL	50	4	3	12	\$ 4,546	\$57	\$ 3,750	\$796
040-4	TOWER	8	1958	66	80	2038	14	18%	83%	8.0	FEDS FROM WELL	50	4	3	12	\$ 2,846	\$36	\$ 2,348	\$498
130-010-110-1	PEARL ST	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
110-065-1	W MICH & GRANT	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
110-005-035-1	W MICHIGAN AVE BY MARKET	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
165-065-2	WASHINGTON & GRANT	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
165-065-3	WASHINGTON & GRANT	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
165-080-2	WASHINGTON & HAMILTON	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
165-080-4	WASHINGTON & HAMILTON	8	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,846	\$36	\$ 2,348	\$498
105-005-110-1	WEST MICHIGAN & GROVE	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
105-005-110-2	WEST MICHIGAN & GROVE	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
105-005-110-3	WEST MICHIGAN & GROVE	6	1958	66	80	2038	14	18%	83%	8.0	LARGER AREA AFFECTED	50	4	2	8	\$ 2,205	\$28	\$ 1,819	\$386
005-120-2	BATTLE CREEK & NEW	4	1948	76	80	2028	4	5%	95%	8.0	LARGER AREA AFFECTED	50	4	2	9	\$ 2,205	\$28	\$ 2,095	\$110
TOTALS								50%								\$ 447,239	\$ 5,851	\$ 57,179	\$252,476

CITY OF GALESBURG
2016

NUMBER OF CURB STOPS

792

ESTIMATED AVERAGE COST PER STOP

\$1,063

TOTAL ESTIMATED VALUE CURB STOPS

\$841,896



City of Galesburg Michigan

Water System Asset Management Program

Executive Summary

March 2024

This report contains the asset management program for the City of Galesburg's water system.

Conclusion

The City has approximately \$986,838 dollars in the bank that belong to the water system.

The equipment replacement and rehabilitation annual funding levels are based on anticipated expenses for the equipment listed in the program. These anticipated expenses are based on the past maintenance history of this equipment. The better and more accurate the maintenance records are the more accurate and realistic the future anticipated replacement and rehabilitation cost will be. It is therefore recommended that the City continue to track the maintenance of the water system equipment and strive to improve the record keeping procedures. Better records equal a better asset management plan as well as increased reliability of the water system.

One of the purposes of an asset management program is to identify critical assets. One question to ask is "Do we have enough money in the bank to pay for the replacement of our most expensive critical asset if it failed tomorrow?" What if it failed in the same year that the most expensive maintenance project was taking place, (painting of the water storage tank)? While no community can predict tomorrow's unforeseen expenses it is important for a water system to be prepared for a "worst case scenario." It is better to have what might appear to be more money than necessary in the reserve accounts than not having enough money to make an emergency repair.

Notes pertaining to this report.

Replacement money reserved annually for equipment replacement is calculated using the replacement cost divided by the life of the equipment. Not the years of life remaining. The current reserve funds are sufficient to make up the difference between the life of the equipment and the years remaining. The rehab money reserved annually is calculated using the rehab cost divided by the years between rehabilitations. Again, not the years until the next rehab. The current reserve funds are sufficient to make up the difference between "years between rehab" and years to next rehab.

If a piece of equipment is replaced or rehabbed every five years the program automatically calculates this cost into the budget every five years with a five percent annual cost of living added in for each year. This higher annual cost of living is higher than usual due to the unusually high inflation rates in recent years.

The list of assets included in this evaluation are as listed below.

Water mains

Water Storage Tower

Wells that produce the water

Valves located on the water mains

Fire hydrants located within the water distribution system

Maintenance cost of the existing equipment in the system

It includes everything excluding the land, or property in which the assets are located.

For the above listed assets we have assigned the following values

WATER SYSTEM ASSETS ESTIMATED VALUE

	REPLACEMENT COST	AVERAGE PERCENT OF LIFE LEFT
WATER DISTRIBUTION MAINS	\$13,418,920	59%
WATER DISTRIBUTION VALVES	\$447,239	50%
FIRE HYDRANTS	\$924,096	48%
WELLS, STORAGE, METERS, CURB STOPS ETC	\$3,277,746	54%
TOTALS	\$18,068,001	53%

A detailed list of these items is located within this report.

An asset management program also budgets for major maintenance expenses of the existing assets in the water system. Items that fall within this category would be the well pumps that pump water from the wells to the water system. The program budgets the rehabilitation of a well pump and the replacement of this pump with a new pump when the existing pump reaches the point of failure and rehabilitation is not an option.

These items are budgeted based on the past maintenance history of each item. Maintenance history is often supplemented with inspection reports from maintenance contractors.

Painting of the water tower would also fall into this major maintenance category along with items like inspecting the water tower every five years. For example, a water tower is typically inspected every five years. If the cost is \$5,000, then this money is collected over a five-year period, so when the inspection takes place the money is sitting in the bank ready to pay for the inspection. Several other major

maintenance items also fall into this category by the fact that they occur on an irregular basis and not on an annual basis that would be part of an annual budget.

The following table summarizes the annual reserve funding as calculated in the rate analysis program.

TYPE OF RESERVE FUND	ANNUAL FUNDING	STARTING BALANCE IN SAVINGS
EQUIPMENT REPLACEMENT 1	\$50,000	\$0
TOTAL MAINTENANCE RESERVE	\$50,000	\$0
CAPITAL IMPROVEMENT SUMMARY	\$65,000	\$ -
TOTAL SYSTEM IMPROVEMENT RESERVE	\$65,000	\$0
TOTAL ANNUAL RESERVE	\$115,000	\$0

A detailed list of these items is located within this report.

As is indicated in the above table the program calculated that \$115,000 dollars per year could be put into the asset management program.

The capital improvement program was developed by the City's Engineer in 2024, some projects from the 2017 CIP that haven't been completed, as well as system deficiencies noted by City employees with the goal of saving a 5% - 10% down payment for most projects.

Critical Assets

While every water system has critical assets some are more critical than others. The City of Galesburg has identified the following critical assets.

Well 1 - and the related operational components

Well 2 - and the related operational components

Portable Standby Generator

Water Tower

Chlorine system

Various valves and water mains that feed the school, nursing home, water tower and wells.

These are the critical components of the water system. Yet at the same time there is some redundancy that provides a safety net so to speak. Each of the Wells is capable of running the entire water system under normal conditions. Each could supply the community with enough water under normal conditions although not indefinitely. The City has only one water tower. While the SCADA system

operates the entire system each of the pumps can be operated by hand. Each of these major components have many smaller components that are critical to the operation of it. However, for the purposes of this report we did not get into the extreme detail such as listing a fuse which may cost two dollars. Yet without it a well pump could cease to function.

This report contains the five core components in an Asset Management Program:

- 1) Asset Inventory
- 2) Level of Service
- 3) Critical Assets
- 4) Capital Improvement Plan
- 5) Revenue Structure

It is an inventory and assessment of operations-related fixed assets that belong to the water system and the scheduled financial funding to maintain, and replace as needed, including the financial funding of a Capital Improvement Program. Fixed assets are assets that are normally stationary (e.g., pumps, blowers, and buildings). The inventory and assessment shall be based on current conditions.

1) Asset Inventory

The Asset Inventory included in this report contains the following information

- a) Brief description of the asset, its required capacity (e.g. pump: 120 gpm), level of redundancy for the asset.
- b) Location of the asset;
- c) Year the asset was installed;
- d) Present condition of the asset (e.g. excellent, good, fair, poor);
- e) Current asset (replacement) costs;
- f) A "Business Risk Evaluation" that combines the probability of failure of the asset and criticality of the asset, as follows in (1)-(3):

(1) Rate the probability of failure of the asset on a scale of 1-5 (low to high) using criteria such as maintenance history, failure history, and remaining percentage of useful life (or years remaining);

(2) Rate the criticality of the asset on a scale of 1-5 (low to high) based on the consequence of failure versus the desired level of service for the facility; and

(3) Compute the Business Risk factor of the asset by multiplying the failure rating from (1) by the criticality rating from (2) "plus" + $((1 - \% \text{ Percent Redundancy Backup}) \times 10)$

g) CRITICALITY Consequence of Failure

At the current time this is the rating system being used for "Criticality, Consequence of Failure" which comes from the MDEQ NPDES Wastewater Permit Asset Management Requirements.

Rating	Description	% Affected	Level
1	Minor Component Failure	0-25%	Asset
2	Major Component Failure	25-50%	Asset
3	Major Asset	0-25%	Asset
4	Multiple Asset Failure	25-50%	Facility / Sub-System
5	Major Facility Failure	50-100%	Facility

EXAMPLE:

If a "well pump" were to fail, the entire well is out of service, leaving the remaining wells to supply water. This could be listed as a # 3-5 depending on how many wells are needed for system demands.

If a single pump in a two-pump lift station were to fail this would most likely be a 2-3 as there is still one pump left and working.

If the control panel in a two-pump lift station failed and the entire pump station were down this would be a 4-5 rating

h) Probability of Failure (POF): FOR WATER MAINS AND VALVES

For this report Probability of Failure for water mains, and water valves is calculated by taking the average of:

Percent of life consumed (on a 1-5 scale)

Condition of item (on a 1-5 scale)

All items were converted to a 1-5 scale.

For all other items in this report the Probability of Failure is calculated by taking the average of the

Percent of life consumed (on a 1-5 scale)

Percent of life until next rehab (on a 1-5 scale)

Condition of item (on a 1-5 scale)

All items were converted to a 1-5 scale.

The POF can be set using the formula listed above or can be set manually using the guidelines below.

Per EGLE Guidelines - Probability of failure is rated as follows.

Imminent	5	Likely to occur in the life of the item	Continuously experienced
Probable	4	Will occur several times in the life of an item	Will occur frequently
Occasional	3	Likely to occur sometime in the life of an item	Will occur a few times
Remote	2	Unlikely but possible to occur in the life of an item	Unlikely, but can reasonably be expected to occur
Improbable	1	So unlikely, it can be assumed occurrence may not be experienced	Unlikely to occur, but possible

The following is a quote from the EGLE Asset Management Guide.

To determine the probability of failure a utility needs to look at a number of factors: asset age, condition of asset, failure history, historical knowledge, experiences with that type of asset in general, maintenance records, and knowledge regarding how that type of asset is likely to fail. Below is an example of a ranking system for probability of failure

2) Level of Service (LOS)

Level of Service (LOS) defines the way in which the utility stakeholders want the utility to perform over the long term. The LOS plan was completed for the City of Galesburg and should become a fundamental part of how the utility is operated, through the setting of practical goals for the City's water system.

3) Critical Assets

Critical Assets are those items within a community water system in which the water system would be difficult if not sometimes impossible to operate without. Such items could include a well, especially if it is the largest producing well and without it the remaining wells would struggle if not fail to supply enough water during high demand periods. This situation would put the water system in a "critical" situation in not only supplying drinking water but jeopardize the ability to fight a fire with City water. Another Critical Asset item might be a standby generator. Failure of the only alternative power source during a power outage could leave the City with no means of producing additional water. This situation would also put the water system in a "critical" situation for a variety of reasons.

This report identifies those assets that are critical to the operation of the water system, and the ability to provide safe quality drinking water to the residents of the community.

4) Capital Improvement Plan

A long-term Capital Improvement Plan (CIP) should look at the utility's needs for the future. Ideally, a planning period would be at least 20 years, with a minimum of 5 years. It is understood that the specific expenditures and needs of the utility in the latter years, say 15 to 20 years, are more speculative than the needs for the first 5 to 10 years, particularly the first 5 years. However, the inclusion of the needs for this longer time period will provide a better opportunity for the water system to plan for its capital

needs. Capital improvement projects are projects that the utility has an extended period of time to plan for and are projects that usually cover high cost, non-recurring items.

The Capital Improvement Fund is funded on an annual basis and the accumulated Capital Improvement Fund monies can be used to supplement bonding for the particular project, act as a down payment or cover the entire cost of the project as determined by the utility.

5) Revenue Structure

The Revenue Structure of this report contains the following items;

- a) OM&R Budget and Rate Evaluation for the entire water system.
- b) Amount in the replacement fund for current year and anticipated amount for upcoming years.
- c) Replacement fund of all assets with a useful life of 25 years or less.
- d) Expenditures for maintenance, corrective action, and capital improvements.
- e) Rate calculation demonstrating sufficient revenues to cover OM&R expenses.

Replacement money reserved annually is calculated using the replacement cost divided by the life of the equipment. The rehab money reserved annually is calculated using the rehab cost divided by the years between rehabilitations. The current reserve funds are sufficient to make up the difference between life of the equipment and years remaining. The anticipated annual replacement and rehabilitation expenditures have a two percent cost of living added in for each year.