



BOARD OF TRUSTEES
Regular Meeting Agenda
205 East State Street
March 21, 2023 12:00 Noon

1. Roll Call
2. Approval of Agenda
3. Public Comment Period
4. Public Hearing on Proposed Plans, Specifications, Form of Contract and Estimated Cost for Procurement of Marshalltown Water Works Membrane Equipment.
5. **Decision:** Review and approval of the Proposed Plans, Specifications, Form of Contract and Estimated Cost for Procurement of Marshalltown Water Works Membrane Equipment.
6. Public Hearing on the authorization of a Loan and Disbursement Agreement not to exceed \$6,278,639 and the issuance of Notes to evidence the obligation of the City thereunder.
7. **Decision:** Review and approve Resolution Instituting Proceedings to Take Additional Action for the Authorization of a Loan and Disbursement Agreement and The Issuance of Not to Exceed \$6,278,639 Water Revenue Capital Loan Notes.
8. **Decision:** Review and approve Resolution approving and authorizing a form of Interim Loan and Disbursement Agreement by and between the City of Marshalltown, Iowa, and the Iowa Finance Authority, and authorizing and providing for the issuance and securing the payment of \$4,288,639 Water Revenue Capital Loan Notes Anticipation Project Note, Series 2023, of the City of Marshalltown, Iowa, under the provisions of the Code of Iowa, and providing for a method of payment of said Notes.
9. **Decision:** Consent Agenda
 - a. Approval of Regular Meeting Minutes of February 21, 2023
 - b. Approval of Bill Schedule #722 Totaling \$ 1,162,953.53
 - c. Departmental Reports
 - d. Approval of accounts with unpaid rates or charges that are eligible to be certified to become a lien upon real estate
10. **Decision:** Review and approval of Monthly Financial Statement, Investment Report and Capital Report

11. Public Hearing at 12:30 pm on Establishing Water User Rates and Setting Effective Date
12. **Decision:** Review and approval of Resolution Establishing Water User Rates and Effective Date
13. **Decision:** Review and approve Proposal from Iowa Geological Survey for Phase I – Delineation of the Buried Valley Aquifer for \$37,818.
14. Set date and time for next regular meeting

MARSHALLTOWN WATER WORKS BOARD OF TRUSTEES
REGULAR BOARD MEETING
FEBRUARY 21, 2023 12:00 Noon
205 East State Street

1. ROLL CALL: PRESENT: Trustees: Mack, Young, Eilers
 ABSENT: None

2. There was a motion by Trustee Mack and a second by Trustee Loney to approve the Agenda.

ROLL CALL VOTE: AYES: Trustees: Mack, Young, Eilers
 NAYS: None

3. Public Comment Period – There were no members of the public present and General Manager Lovell reported that no written comments had been received.

4. Chairperson Eilers announced that this is the time and place for the public hearing on the Proposed 2023-2024 Fiscal Year Budget for the Marshalltown Water Works. Chairperson Eilers then asked if there were any public comments. There were no public comments received at the hearing and the General Manager reported that no oral or written comments have been received at the Water Works office. Chairperson Eilers announced that the Public Hearing was closed.

5. There was a motion by Trustee Loney and a second by Trustee Mack to Approve the Adopted Budget Certificate including a Resolution Adopting the Budget for Fiscal Year Ending June 30, 2024 for the Marshalltown Water Works.

A RESOLUTION ADOPTING THE BUDGET FOR
FISCAL YEAR ENDING JUNE 30, 2023

BE IT RESOLVED by the Marshalltown Water Works Board of Trustees:
The budget for Fiscal year ending June 30, 2024, as set forth in the Adopted Budget Summary and in the detailed budget in support thereof showing the estimated revenues and expenditures for said budget year is adopted, and the Secretary is directed to make the filing required by law and to set up the books in accordance with the summary and detail as adopted.

Passed and approved on February 21, 2023, by the following vote:

ROLL CALL VOTE: AYES: Trustees: Eilers, Mack
 NAYS: None

6. There was a motion by Trustee Mack to approve the Consent Agenda: Approval of Regular Board Meeting Minutes of January 23, 2023; Approval of Bill Schedule #721 totaling \$ 1,340,386.63; Departmental Reports; Approval of accounts with unpaid rates or charges that are eligible to be certified to become a lien upon real estate. There was a second by Trustee Loney.

ROLL CALL VOTE: AYES: Trustees: Mack, Young, Eilers
 NAYS: None

7. The Board reviewed the monthly financial statement, investment report and capital

report. There was a motion by Trustee Mack and a second by Trustee Loney to approve the reports and place them on file.

ROLL CALL VOTE: AYES: Trustees: Mack, Young, Eilers
NAYS: None

8. There was a motion by Trustee Mack and a second by Trustee Loney to approve Resolution setting Public Hearing on Proposed Plans, Specifications, Form of Contract and Estimated Cost and directing publication of Notice to Bidders for Procurement of Marshalltown Water Works Membrane Equipment. The date of the Public Hearing will be March 21, 2023 at noon.

**RESOLUTION SETTING PUBLIC HEARING ON PROPOSED PLANS,
SPECIFICATIONS, FORM OF CONTRACT AND ESTIMATED COST
AND DIRECTING PUBLICATION OF NOTICE TO BIDDERS FOR THE
MARSHALLTOWN WATER WORKS MEMBRANE EQUIPMENT
PROCUREMENT**

WHEREAS, there is now on file in the office of the Secretary of the Board of Trustees of the Marshalltown Water Works of the City of Marshalltown, Iowa, proposed plans, specifications, form of contract, and estimated cost for the equipment procurement of Water Works improvements entitled Membrane Equipment Procurement for the Marshalltown Water Works consisting of Goods and Special Services for the procurement of Reverse Osmosis Membranes and ancillary equipment in the City of Marshalltown, Iowa as is fully set forth in the plans and specifications aforesaid, and

WHEREAS, the cost of the said improvement is in excess of \$139,000.00 and a public hearing on the plans, specifications, form of contract, and the estimated cost of said improvement is required by law and that notice thereof shall be given as required by law, and

WHEREAS, it is intended that the cost of said improvement shall be paid from such funds as the Board of Trustees of the Marshalltown Water Works may legally use for such purposes or from the proceeds from the issuance of such bonds as may be legally used for such purposes or any combination of the above methods of financing.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE MARSHALLTOWN WATER WORKS:

Section 1. The Secretary is hereby directed to publish notice of hearing on plans, specifications, form of contract and estimated cost in the manner provided by law for the public improvement outlined herein and that any person interested therein may appear and make objections thereto, if any he has. This Board will meet in the Water Works Office, 205 East State Street, Marshalltown, Iowa at 12:00 noon local time on the 21st day of March, 2023 for the purpose of hearing all of said objections so made and for taking final action upon the plans, specifications and form of contract now on file.

Section 2. The Secretary is further directed to advertise for bids in the manner provided by law for the procurement of said improvement setting forth in said notice such necessary pertinent information as will advise prospective bidders thereof together with the proposed manner of payment for the work to be constructed and that such bids be filed and received in the office of the Secretary, 205 East State Street, Marshalltown, Iowa, up to 2:00 p.m. local time on March

9, 2023, or as otherwise identified by addendum, at which time, date, and place the Secretary will open such bids. The bids will then be reviewed and referred to the Board of Trustees for their consideration of such bids as shall be filed in connection with the improvement herein ordered and in compliance with the notice of taking bids therein, hereby ordered to be published.

Passed this 21st day of February, 2023 and signed this 21st day of February, 2023.

ROLL CALL VOTE: AYES: Trustees: Mack, Young, Eilers
NAYS: None

9. The Board reviewed Letter of Engagement with Ahlers & Cooney for Bond Counsel services for a flat fee of \$7500. There was a motion by Trustee Mack and a second by Trustee Loney to approve Letter of Engagement with Ahlers & Cooney for Bond Counsel services for a flat fee of \$7500.

ROLL CALL VOTE: AYES: Trustees: Mack, Young, Eilers
NAYS: None

10. There was a motion by Trustee Loney and a second by Trustee Mack to approve Not to exceed \$6,278,639 Water Revenue Capital Loan.

**RESOLUTION FIXING DATE FOR A MEETING ON THE PROPOSITION TO
AUTHORIZE A LOAN AND DISBURSEMENT AGREEMENT AND THE
ISSUANCE OF NOTES TO EVIDENCE THE OBLIGATIONS OF THE CITY
THEREUNDER**

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES
OF THE MARSHALLTOWN WATER WORKS, MARSHALLTOWN, IOWA:

Section 1. That this Board of Trustees meet in the Board Room, Marshalltown Water Works, 205 E. State Street, Marshalltown, Iowa, at 12:00 o'clock P.M., on the 21st day of March, 2023, for the purpose of taking action on the matter of the authorization of a Loan and Disbursement Agreement and the issuance of not to exceed \$6,278,639 Water Revenue Capital Loan Notes to evidence the obligations of the City thereunder, the proceeds of which will be used to provide funds to pay the costs of acquisition, construction, reconstruction, extending, remodeling, improving, repairing and equipping all or part of the Municipal Water System.

Section 2. That the Secretary is hereby directed to cause at least one publication to be made of a notice of said meeting, in a legal newspaper, printed wholly in the English language, published at least once weekly, and having general circulation in said City, said publication to be not less than four clear days nor more than twenty days before the date of said public meeting on the issuance of the Notes.

Section 3. The notice of the proposed action shall be in substantially the following form:

NOTICE OF MEETING OF THE BOARD OF TRUSTEES OF THE MARSHALLTOWN WATER WORKS, MARSHALLTOWN, IOWA, IOWA ON THE MATTER OF THE PROPOSED AUTHORIZATION OF A LOAN AND DISBURSEMENT AGREEMENT AND THE ISSUANCE OF NOT TO EXCEED \$6,278,639 WATER REVENUE CAPITAL LOAN NOTES, AND THE PUBLIC HEARING ON THE AUTHORIZATION AND ISSUANCE THEREOF

PUBLIC NOTICE is hereby given that the Board of Trustees of the Marshalltown Water Works, Marshalltown, Iowa, will hold a public hearing on the 21st day of March, 2023, at 12:00 o'clock P.M., in the Board Room, Marshalltown Water Works, 205 E. State Street, Marshalltown, Iowa, at which meeting the Board of Trustees proposes to take additional action for the authorization of a Loan and Disbursement Agreement by and between the City and the Iowa Finance Authority, and the issuance to the Iowa Finance Authority of Not to exceed \$6,278,639 Water Revenue Capital Loan Notes to evidence the obligations of the City under said Loan and Disbursement Agreement, in order to provide funds to pay the costs of acquisition, construction, reconstruction, extending, remodeling, improving, repairing and equipping all or part of the Municipal Water System. The Notes will not constitute general obligations or be payable in any manner by taxation, but will be payable from and secured by the net revenues of the Municipal Water System.

At the above meeting the Board of Trustees shall receive oral or written objections from any resident or property owner of the City, to the above action. After all objections have been received and considered, the Board of Trustees will at this meeting or at any adjournment thereof, take additional action for the authorization of said Loan and Disbursement Agreement and the issuance of Notes or will abandon the proposal to issue the Notes.

This Notice is given by order of the Board of Trustees of Marshalltown Water Works, Marshalltown, Iowa, as provided by Sections 384.24A and 384.83 of the City Code of Iowa, as amended.

Dated this 21st day of February, 2023.

PASSED AND APPROVED this 21st day of February, 2023.

ROLL CALL VOTE: AYES: Trustees: Mack, Young, Eilers
NAYS: None

11. There was a motion by Trustee Loney and a second by Trustee Mack to approve a Resolution Setting Public Hearing on Water Rates. The date of the Public Hearing will be March 21, 2023 at 12:30 pm.

A RESOLUTION SETTING PUBLIC HEARING ON WATER RATES

WHEREAS, the Board of Trustees of the Marshalltown Water Works has determined that it is necessary and in the public interest to revise the water rates applicable to the sale of water to its customers, and

WHEREAS, before said water rates may be adopted, it is necessary to hold a public hearing,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE MARSHALLTOWN WATER WORKS, AS FOLLOWS:

That the General Manager and Secretary be and is hereby directed to publish

public notice of hearing in a local newspaper, said publication to be not less than four clear days nor more than twenty days hereinafter fixed as the date for a public hearing on the proposed water rate adjustments, said hearing to be at 205 E State St, Marshalltown Iowa on March 21, 2023, beginning at 12:30 pm.

Passed this 21st day of February, 2023 and signed this 21st day of February, 2023.

12. The Board set the date for the next regular Board meeting as March 21, 2023 at noon at the Marshalltown Water Works office at 205 E State St.

The Board adjourned.

Respectfully submitted,

Shelli Lovell
Secretary

**MARSHALLTOWN WATER WORKS
BILL SCHEDULE # 722
BILLS TO BE PAID
FEBRUARY 2023**

American Water Works Association	AWWA - Iowa Section Dues	44.00
API Solutions, LLC	backflow check valve	275.00
Arnold Motor Supply	horn,antifreeze,coolant,oil,silicone, hydraulic hoses,fittings,battery,siphon, filters,brake cleaner,gloves,hand towels, wiring harness,fuel hose	1,235.22
B & G HVAC Inc	boiler repair parts	3,345.06
BrownWinick Law	legal fees	2,265.00
CDW Government Inc	printer	1,647.06
Cessford Construction Company	roadstone	211.12
Column Software PBC	public notifications	397.06
Computer Resource Specialists	install firewall,trouble shoot network issues	382.50
Con-Struct Inc	repair main break - 3rd Ave	860.00
CTI Ready mix	concrete	3,726.00
Delux Business Forms & Supplies	deposit slips	411.93
Electric Supply of Marshalltown	bulbs	135.97
Ethanol Products LLC	CO2	4,250.40
Ferguson Waterworks	meters,battery, charger	1,546.90
Fisher Scientific Company LLC	lab supplies	1,378.00
Hach Company	Booster CLT 10,lab supplies	834.26
Hawkeye Truck Equipment	power cables	117.00
Hawkins Inc	CL2,fluoride	8,541.50
HDR Engineering Inc	engineering services-membrane treatment process	112,524.54
Home Rental Center & Sales Co	kerosene	204.00
Hupp Electric	slaker motors	704.16
Idexx Distribution Corp	lab supplies	1,258.78
John Deere Financial T	hydraulic oil,safety boots,overalls, rope, chainsaw parts	768.97
KB Underground	Union St main break	780.00
Marshall County Landfill	waste disposal	88.75
McAtee Tire Sales	wheel,tire repair	851.75

McClure Engineering Co	technical assistance - E Main St reconstruction	3,525.00
Menards	glade,airwick,cutting wheel, mower rope,tape,loctite,knives, coupling,hose bib,degreaser,gloves, safety glasses, purified water, primer,ice melt,cleaning vinegar,misc PVC parts,expanding foam, batteries,flap disc,washers,nuts, caps,cable ties, grinder,screw, liner,mop, rollers, paint,wood stain	552.66
Minute Man Inc	index cards,stapler,tape dispenser,paper	57.24
Mississippi Lime Company	lime	34,028.76
Municipal Supply Inc	o rings,gaskets,repair clamps,hydrant, pipe lube	990.55
The Optical Center	safety glass dispensing fees	75.00
Pech Optical Corp	safety glasses	417.73
PR Diamond Products Inc	ductile pipe & dry cutting	1,179.00
Rasmusson Service Center	filters,oil,sensor,tie rod end	1,687.15
State Hygienic Laboratory	contract lab services	20.00
Sterling Fire & Safety Inc	fire extinguisher inspection,maint, recharge	530.00
Storey Kenworthy	past due notices,utility bills,checks	5,861.69
Times Republican	public notifications	97.20
Titan Machinery	hoses/joystick	60.05
Ziegler Cat	maintenance contract	9,927.95
Total		207,794.91

**MARSHALLTOWN WATER WORKS
BILL SCHEDULE # 722
BILLS PAID
FEBRUARY 2023**

Aflac	employee deduction	29.30
Alliant Energy	gas & electricity	4,058.28
Alliant Energy	gas & electricity	120.82
Alliant Energy	gas & electricity	32,491.78
American Express	credit card fees	3.00
American Express	credit card fees	111.87
American Water Works Association	membership dues	2,427.00
Cardmember Services	cord adapters,registrations,firewall, rubberbands,marking wand,labels, study pack,batteries,binders,phone cord,reflector tape,flashing beacons, wireless mouse,Go Daddy,folders, printer ribbon,desktop sorter	2,254.31
City of Marshalltown	sewer receipts - Jan 2023	463,368.02
City of Marshalltown	storm sewer receipts - Jan 2023	112,318.81
City of Marshalltown	landfill receipts Jan 2023	13,939.11
Consumers Energy	electricity	228.86
Deborah McElroy	deductibles paid	1,243.82
Delta Dental of Iowa	employee dental insurance	382.70
Edward Phillips	deductibles paid	103.27
GNB Bank	CD	100,000.00
Health Savings Account	employee deductions	195.00
Health Savings Account	employee deductions	195.00
Heart Of Iowa Communications	phone & internet services	523.88
Internal Revenue Service	withholding taxes (January)	14,817.34
Internal Revenue Service	withholding taxes (February)	14,800.58
IPERS	employee pension	11,472.29
Isolved Benefit Services WDM	employee deductions	416.92
Jared Wall	deductibles paid	154.23
Jeffery Mahoney	deductibles paid	499.00
Jeffery Mahoney	deductibles paid	1,968.62
Kim Carter	office cleaning Jan 2023	500.00

Laura Nordstrom	deductibles paid	77.18
Marshall Co Engineers Office	fuel - January 2023	1,935.20
Marshalltown Area United Way	employee contributions	30.00
Marshalltown Water Works	Storm Sewer	172.00
Mike Ellis	deductibles paid	589.89
Mike Ellis	deductibles paid	12.89
Moler Sanitation	garbaage service	104.50
Pat Willey	deductibles paid	154.15
payroll	payroll	42,186.47
payroll	payroll	42,003.85
Pitney Bowes Bank Inc Reserve	postage	3,500.00
Reliance Standard Life Ins Co	employee life insurance	729.04
Staples Credit Plan	toner cartridge	67.99
Staples Credit Plan	calc ribbon,paper,paper clips,ink, highlighter,accent marker,readyseal cat	252.68
Stone Sanitation	garbage service	167.92
Thomas Bowman	deductibles paid	413.15
Treasurer State Of Iowa	Sales Tax Jan 2023	8,670.01
Treasurer State Of Iowa	Water Service Excise Tax Jan 2023	23,072.67
Treasurer State of Iowa	state tax withholding	4,384.00
Tyler Technologies INC	annual maint - online component	4,838.00
Tyler Tech	credit card fees - office	784.02
Tyler Tech	credit card fees - web/phone	2,497.17
United Bank & Trust	pension 3,517.39 + 5,000.00	8,517.39
United Bank & Trust	returned Nacha	94.18
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	110.07
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	201.69
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	140.61
United Bank & Trust	bank fee	6.00
United Bank & Trust	pension 3,185.62 + 5,000.00	8,185.62
United Bank & Trust	returned Nacha	62.01
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	136.38

United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	301.37
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	1,269.73
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	2,947.97
United Bank & Trust	bank fee	6.00
United Bank & Trust	returned Nacha	79.53
United Bank & Trust	bank fee	6.00
UPS	postage	23.36
UPS	postage	12.62
US Cellular	internet	39.23
Wellmark Blue Cross & Blue Shield	employee health insurance	16,657.45
Salustria Ley-Nunez	deposit return	45.77
Marisela RivasVargus	deposit return	49.23
Randy D Jensen	deposit return	506.93
Eh Say	deposit return	20.26
Marca Paul	deposit return	116.72
Cameron A Krumm	deposit return	13.18
Victor M Venegas	deposit return	30.94
Orton Homes	deposit return	50.50
Jim Johnson	overpayment return	129.54
Maria D Garcia	overpayment return	51.95
Clemons Inc	overpayment return	37.80
Total		955,158.62

**CUSTOMER SERVICE
MONTHLY REPORT
FOR THE MONTH OF
February 2023**



ACTIVITY	THIS MONTH	THIS MONTH LAST YEAR	2022-2023 FISCAL YEAR
SERVICE CALLS	445	110	2430
METERS REPAIRED	0	0	0
REPLACED FROZEN METER	4	12	57
DELINQUENT TAGS	223	213	2135
METER SET	0	0	21
TURN OFF FOR NON PAYMENTS	23	36	472
READ AND LEAVE ON - OCCUPANT CHANGE	92	69	902
	787	440	6017

DISTRIBUTION
Marshalltown Water Works
Board Report
March, 21st 2023

PROJECTS

1. Washington Street - Replace 6" water main with 8" from 6th to 9th Street
 - a. Project completed - All services have been installed and old watermain has been killed

2. City Storm Sewer Project- Realign water main as needed
 - a. The last of the water main reroutes have been completed for this project

3. 5th and 6th Avenue – Replacement of water main
 - a. Have begun laying new water main on 5th Ave
 - b. MWW has laid 1000' of new water main
 - c. South side of 5th Ave has passed pressure test

4. W South Street – Project was awarded to Hurst and Sons
 - a. Hurst and Sons began work on July 25th
 - b. All watermain has been installed and all water services have been moved
 - c. All but seeding complete; will complete in spring 2023

5. State Street- Total reconstruction of all utilities and street from 3rd Ave to 3rd Street
 - a. Project has been awarded to Con-Struct
 - b. Expected start date March 27th 2023

6. Edgewood- Realign water main as needed, install more than 2,000 feet of 12" watermain
 - a. Project has been awarded to Con-Struct
 - b. 8" watermain has been lowered, passed tests
 - c. All new 12" watermain has been installed, waiting on test results
 - d. We have changed plans and will not be lowering the 24" water main

7. 7th Ave Extension - Water main being installed to service new apartment buildings
 - a. City partnered project
 - b. Project has been awarded to Con-Struct
 - c. New 8" watermain has been installed, waiting on test results

MAIN BREAKS

1. July 28th 2022, 12th Ave and State St., crack - cause unknown
2. August 9th 2022, Ingledue and 4th street, crack caused by water hammer
3. August 9th 2022, Ingledue and 4th street, sheer break caused by water hammer
4. August 10th 2022, 6th St and High Street, crack caused by water hammer
5. August 31st 2022, E State St and 10th Ave, crack - cause unknown, replaced valve
6. October 18th 2022, E Southridge and Dubois, Sheer break - cause unknown

7. October 26th 2022, N 1st St and W State Street, multiple breaks with multiple cracks - cause unknown
8. November 21st 2022, 8 East Ferner St, Sheer break - cause unknown
9. December 6th 2022, 18th Ave and East Nevada, cause hit by boring company
10. December 7th 2022, 10th Ave and E State St, Crack - cause unknown
11. January 12th 2023, 13th St and West Linn, Sheer break - cause unknown
12. January 18th 2023, 10th Ave, and East Woodbury, Sheer break - cause unknown
13. February 2nd 2023, 8th Ave, and Union St, Sheer break- cause unknown
14. February 9th 2023, High St and Finkle Ave, Sheer break- cause unknown
15. February 19th 2023, 3rd Ave and East Anson St, Sheer break- cause unknown
16. February 23rd 2023, 10th Ave and East Lee St, Sheer break- cause unknown
17. March 15th 2023, 3rd Ave and Ferner St, Sheer break- cause unknown

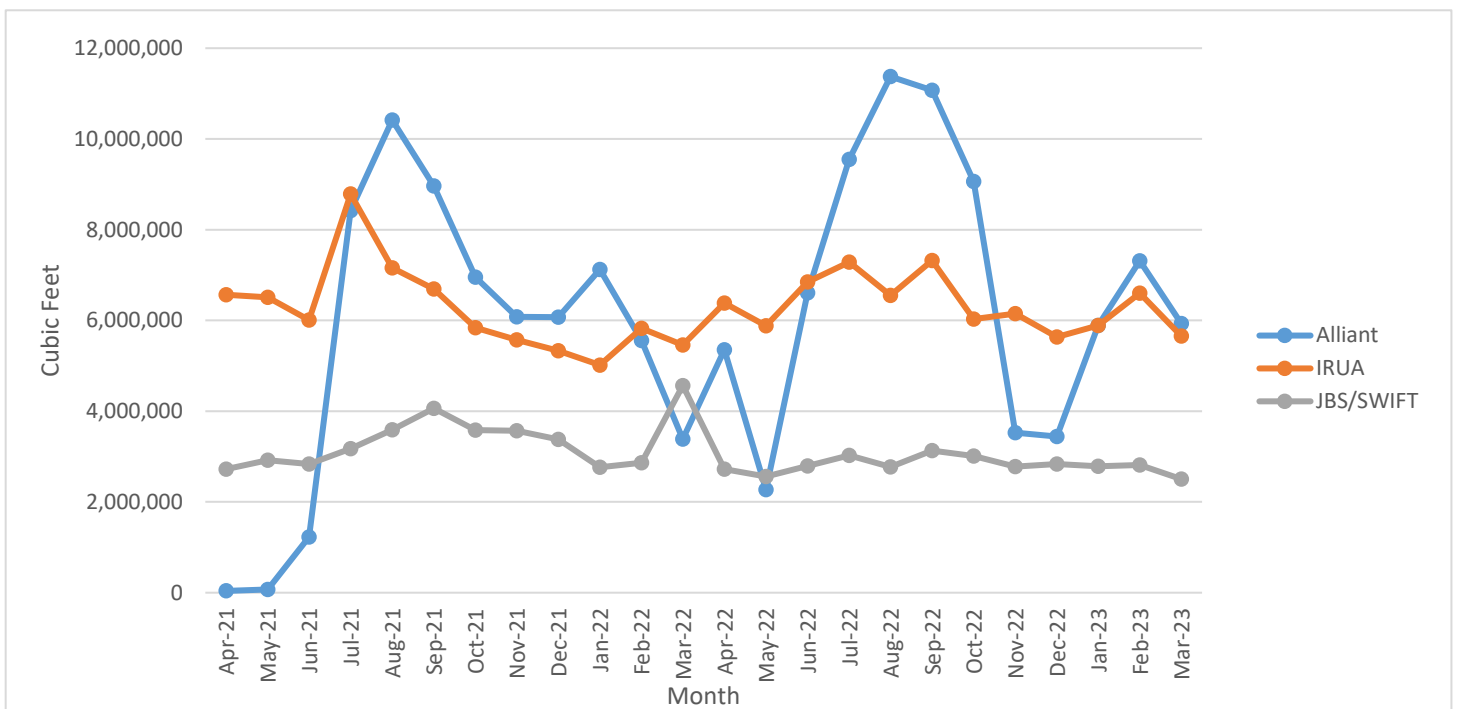
Facilities
Marshalltown Water Works
Board Report
March 21, 2023

1. **Remote PLC Upgrade** has been delayed because of flooding in the well field. Electrical upgrades at Wells 6, 8, and 9 will be completed prior to installation of surge protection. Once that work is completed, Automatic Systems will begin installing new PLC equipment.
2. **CO2 feed line** API has installed a new stainless steel CO2 line to the plant
3. **NAI** has installed the generator for the main office including switch gear and service, 3E did the start-up of the generator and it's ready to go.
4. **Veolia** will be here the week of March 27th to do tank and tower inspections and propose a maintenance schedule. Maguire Iron was also contacted to explore what services they offer.
5. **Plant Roof** – HDR Engineering is reviewing alternate adhesion method for round roof portions.
6. **HVAC system** –API Solutions has replaced the leaking pipes that feed fresh water to the boilers, added testable backflow prevention, and replaced the piping for the water heater for the plant.
7. **Well #16** – Traut Companies drilled a test well the week of 2/27/23; yields were less than anticipated. We will pause to consider next steps.
8. **Plant water backflow preventer** was tested and passed.

MWW Largest Users Monthly Report

February 2023 Board Report

	ALLIANT	IRUA	JBS/SWIFT
Bill Date	Cubic Feet	Cubic Feet	Cubic Feet
Apr-21	39,400	6,564,326	2,725,600
May-21	71,500	6,511,536	2,918,000
Jun-21	1,226,200	6,008,087	2,833,100
Jul-21	8,422,700	8,784,212	3,171,000
Aug-21	10,413,500	7,155,671	3,586,600
Sep-21	8,962,400	6,690,138	4,059,900
Oct-21	6,951,300	5,837,785	3,580,500
Nov-21	6,083,000	5,574,778	3,570,400
Dec-21	6,071,900	5,330,254	3,375,200
Jan-22	7,126,500	5,017,271	2,766,500
Feb-22	5,559,300	5,822,931	2,860,700
Mar-22	3,388,900	5,460,013	4,565,800
Apr-22	5,353,800	6,385,931	2,721,400
May-22	2,267,800	5,878,866	2,561,200
Jun-22	6,609,800	6,845,401	2,790,900
Jul-22	9,552,600	7,284,903	3,028,400
Aug-22	11,374,300	6,555,263	2,774,300
Sep-22	11,072,100	7,319,703	3,133,100
Oct-22	9,063,800	6,031,965	3,008,400
Nov-22	3,524,100	6,148,905	2,781,800
Dec-22	3,444,400	5,632,360	2,838,400
Jan-23	5,889,900	5,885,553	2,784,600
Feb-23	7,313,200	6,602,838	2,816,500
Mar-23	5,929,400	5,656,726	2,504,000



PROPERTY TAX LIENS TO CERTIFY - MARCH 2023

PROPERTY OWNER NAME	ADDRESS TO LIEN	AMOUNT
Brant & Celeste Luense	428 Swayze St	\$369.85
Brant & Celeste Luense	428 Swayze St	\$36.87
Keith & Robin Gruchow	305 N 2nd St	\$92.61
Mad Flipz LLC	311 N 11th Ave	\$18.31
Maria De La Luz Hernandez & Vicente Hernandez	426 Union St	\$247.18
Pamela Retman	105 S 13th St	\$371.52
	TOTAL	\$1,136.34

SEWER DEPOSIT ACCOUNT
Activity for February 28
2023

Balance on February 1	\$157,064.97
Deposits for February	\$8,885.00
Interest paid to the City of Marshalltown Check # 2567	\$69.97
Deposit refund for application to the Marshalltown Water Works Check # 2568	\$2,035.00
Interest for February	\$62.55
Balance on February 28	\$163,907.55

MARSHALLTOWN WATER WORKS

**Compiled Financial Statements
And Supplementary Information**

**For the One Month Ended
February 28, 2023**



INCOME STATEMENT

FEBRUARY 28TH, 2023

	CURRENT PERIOD ACTUAL	Y-T-D ACTUAL	ANNUAL BUDGET	Y-T-D PCT	CURRENT PERIOD PRIOR YEAR	Y-T-D PRIOR YEAR
<u>OPERATIONAL</u>						
RESIDENTIAL	209,327.93	1,607,250.44	2,411,998.69	66.64	187,575.63	1,480,075.43
MULTI-FAMILY	27,418.70	200,414.50	307,795.76	65.11	25,575.54	181,031.09
COMMERCIAL	52,759.16	444,035.72	633,850.65	70.05	47,865.83	411,709.48
IRRIGATION	320.59	101,464.31	112,058.86	90.55	294.12	96,075.27
INDUSTRIAL	226,449.52	1,900,807.73	2,392,285.63	79.46	165,260.06	1,772,396.32
WHOLESALE	97,219.67	856,071.54	1,211,434.86	70.67	86,171.44	737,740.14
NON-METERED	371.45	2,600.64	2,204.09	117.99	92.00	1,707.17
TOTAL OPERATING REVENUE	613,867.02	5,112,644.88	7,071,628.54	72.30	512,834.62	4,680,734.90
<u>NON-OPERATIONAL</u>						
CITY CONTRACT SERVICES	7,048.54	54,820.37	80,000.00	68.53	7,059.99	57,072.12
PENALTIES	348.20	28,938.94	30,000.00	96.46	45.64	26,870.12
CUSTOMER SERVICES	2,924.00	12,954.80	10,000.00	129.55	1,144.00	7,687.00
TESTING LABORATORY	126.00	1,468.65	3,000.00	48.96	188.00	1,905.00
MERCHANDISE SALES	0.00	983.32	300.00	327.77	0.00	607.19
INTEREST	2,861.20	17,836.85	30,000.00	59.46	1,178.04	11,591.47
RENTALS	0.00	5,777.00	4,000.00	144.43	0.00	3,712.00
MISC INCOME	2,667.24	50,204.38	30,000.00	167.35	2,163.27	30,675.48
TIMBER SALES	0.00	0.00	0.00	0.00	31,185.00	31,185.00
CONNECTION FEES	365.00	37,217.00	20,000.00	186.09	0.00	10,280.00
TAPPING FEES	0.00	8,439.00	2,000.00	421.95	113.00	1,347.00
TOTAL NON-OPERATIONAL SALE	16,340.18	218,640.31	209,300.00	104.46	43,076.94	182,932.38
TOTAL REVENUE	630,207.20	5,331,285.19	7,280,928.54	73.22	555,911.56	4,863,667.28
<u>OPERATING EXPENSES</u>						
SALARIES AND WAGES	121,149.80	1,046,887.47	1,587,877.00	65.93	98,456.45	841,057.45
PAYROLL TAXES & BENEFITS	43,466.00	364,109.29	596,172.00	61.07	37,154.07	329,561.17
OPTIONAL BENEFITS	3,846.61	29,446.71	78,299.00	37.61	2,259.88	33,982.62
UTILITIES	37,657.31	359,221.67	603,149.00	59.56	31,709.92	314,109.18
FUELS	3,629.01	29,670.42	34,910.00	84.99	1,419.66	17,676.14
SUPPLIES	13,236.45	152,839.36	289,382.00	52.82	15,010.06	109,844.64
MAINTENANCE	15,036.17	164,961.70	287,332.00	57.41	16,092.01	164,731.46
CHEMICALS	70,172.76	461,195.82	777,890.00	59.29	35,443.61	395,661.71
CONTRACT SERVICES	70,805.05	576,081.18	999,600.00	57.63	79,536.36	571,914.53
OTHER OPERATING EXPENSES	0.00	0.00	0.00	0.00	0.00	0.00
DEPRECIATION	44,522.56	356,180.48	398,528.00	89.37	42,691.55	341,152.24
TOTAL OPERATING EXPENSE	423,521.72	3,540,594.10	5,653,139.00	62.63	359,773.57	3,119,691.14
MISCELLANEOUS EXPENSES	0.00	53,975.00	110,900.00	48.67	0.00	57,245.00
ECONOMIC DEVELOPMENT	0.00	10,184.00	10,000.00	101.84	0.00	0.00
TOTAL NON-OPERATING EXPENSE	0.00	64,159.00	120,900.00	53.07	0.00	57,245.00
TOTAL EXPENSES	423,521.72	3,604,753.10	5,774,039.00	62.43	359,773.57	3,176,936.14
INCR (DECR) RETAINED EARNINGS	206,685.48	1,726,532.09	1,506,889.54	114.58	196,137.99	1,686,731.14

DETAILED WATER WORKS BALANCE SHEET

1 -WATER FUND

ACCOUNT#	TITLE	
ASSETS		
=====		
	CASH ON HAND	1,238.00
	PETTY CASH	300.00
	CASH IN BANK	5,246,591.51
	LESS : SINKING FUNDS	(330,450.03)
	SEWER DEPOSIT FUND	0.00
	SEWER CASH	0.00
	STORM SEWER CASH	0.00
	LANDFILL CASH	0.00
	ACCOUNTS RECEIVABLE	617,813.41
	ACCOUNTS RECEIVABLE-AMP	(751.80)
	UNAPPLIED CREDITS	(48,492.33)
	OTHER A/R	0.00
	NON CURRENT RECEIVABLES	742.20
	MISC AR BILLINGS	132,471.46
	MISC AR UNAPPLIED CREDITS	(95,219.39)
	INTEREST RECEIVABLE	802.05
	CONTRACT RECEIVABLE	0.00
	PREPAID INSURANCE	47,811.95
	UNFINISHED CAP PRO	0.00
	PREPAID BILLING SUPPLIES	5,908.72
	MERCHANDISE FOR RESALE	0.00
	PREPAID LIME SLUDGE	(304,585.34)
	PREPAID COMPUTER MAINT	69,538.42
	PREPAID HEALTH INS	0.00
	DERECHO DAMAGER TRACKING ACCT	(367,722.89)
	SINKING FUND	330,450.03
	TEMP CASH INVESTMENT	300,000.00
	LESS IMPROVEMENT FUND ALLOCATI	0.00
	LESS RESERVE FUND ALLOCATION	0.00
	CAPITAL RESERVE INVESTMEN	500,208.27
	IMPROVEMENT FUND	(100,000.00)
	RESERVE FUND	0.00
	ECONOMIC DEVELOPEMENT FUND	0.00
	INVENTORY	0.00
	LAND	1,115,720.58
	CONSTRUCTION IN PROGRESS	44,197.12
	PLANT & SOURCE OF SUPPLY	20,389,390.60
	ACCUMULATED DEPR - PLANT	(10,933,291.64)
	DISTRIBUTION SYSTEM & PIPE	16,104,232.27
	ACCUM DEPR DISTRIBUTION	(4,488,161.30)
	METERS	1,693,967.53
	ACCUM DEPR - METERS	(1,231,183.73)
	MACHINE & EQUIPMENT	498,409.83
	ACCUM DEPR - MACH & EQUIP	(403,162.58)
	VEHICLES	348,710.29
	ACCUM DEPR - VEHICLES	(245,560.95)
	CAPITAL IMPROVEMENTS	113,916.16
	ACCUM DEPR - CAPITAL IMPROVEME	(93,402.72)
	CAPITAL IMPROV - BUILDINGS	820,479.85
	ACCUM DEPR - BUILDINGS	(480,866.47)

1 -WATER FUND

ACCOUNT#	TITLE		
<hr/>			
	OFFICE EQUIPMENT	450,991.24	
	ACCUM DEPR - OFFICE EQUIPMENT	(411,673.89)	
	BOOSTER STATION	220,652.58	
	ACCUM DEPR - BOOSTER STATION	(99,681.94)	
	BOND ORIGINATION FEE	<u>0.00</u>	
			<u>29,420,337.07</u>
	TOTAL ASSETS		29,420,337.07 =====
LIABILITIES			
=====			
	ACCOUNTS PAYABLE	115,715.29	
	A/P PENDING	0.00	
	PAYABLE TO SEWER FUND	0.00	
	PAYABLE TO STORM SEWER FUND	0.00	
	PAYABLE TO LANDFILL FUND	0.00	
	PAYABLE TO METER DEPOSIT FUND	0.00	
	DEFERRED AMP REVENUE	5,335.06	
	CUSTOMER DEPOSITS - SEWER	0.00	
	CURRENT REFUNDS PAYABLE	7,583.74	
	BOND INTEREST PAYABLE	8,762.00	
	FEDERAL WITHHOLDING	0.00	
	FICA/MED WITHHOLDING	4,084.34	
	STATE WITHHOLDING	0.00	
	UNITED WAY	0.00	
	UNION DUES	0.00	
	INS WITHHELD	(12.42)	
	PRETAX INSURANCE WITHHELD	0.00	
	UNREIMB MEDICAL	0.00	
	DEP CHILD CARE	0.00	
	PENSION	1,916.40	
	IPERS	3,185.10	
	COBRA	0.00	
	WATER WORKS INS PORTION	0.00	
	INS DEDUCTIBLE WITHHELD	(15,924.41)	
	VOLUNTARY LIFE INSURANCE	(336.28)	
	CHILD SUPPORT	0.00	
	AFLAC	0.00	
	DENTAL INSURANCE WITHHELD	12.42	
	VISION INSURANCE WITHHELD	0.00	
	ACCRUED VACATION	117,590.93	
	ACCRUED PAYROLL	55,299.40	
	HSA	0.00	
	ACCRUED SALES TAX	28,410.32	
	AR MISC STATE SALES TAX	(228.26)	
	AR MISC CITY SALES TAX	(38.06)	
	AR MISC SCHOOL SALES TAX	0.00	
	CURRENT PORTION OF LT DEBT	0.00	
	WA REVENUE CAPITAL LOAN NOTE	5,330,000.00	
	LESS : CURRENT PORTION	<u>0.00</u>	
	TOTAL LIABILITIES		<u>5,661,355.57</u>

1 -WATER FUND

ACCOUNT# TITLE

EQUITY

=====

RETAINED EARNINGS 22,033,579.41
TOTAL BEGINNING EQUITY 22,033,579.41

TOTAL REVENUE 5,330,155.19
TOTAL EXPENSES 3,604,753.10
TOTAL REVENUE OVER/(UNDER) EXPENSES 1,725,402.09

TOTAL EQUITY & REV. OVER/(UNDER) EXP. 23,758,981.50

TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP. 29,420,337.07
=====

DETAILED POOLED CASH

9 - POOLED CASH

ACCOUNT#	TITLE		
<hr/>			
ASSETS			
=====			
	POOLED CASH	5,903,384.83	
	POOL CASH - SW DEPOSITS	165,920.00	
	DUE FROM WATER FUND	0.00	
	DUE FROM SEWER FUND	0.00	
	DUE FROM STORM SEWER FUND	0.00	
	DUE FROM LANDFILL FUND	0.00	
	DUE FROM SW MTR DEPOSIT	<u>0.00</u>	
			<u>6,069,304.83</u>
	TOTAL ASSETS		6,069,304.83
			=====
LIABILITIES			
=====			
	ACCOUNT PAYABLE	0.00	
	DUE TO OTHER FUNDS	5,905,349.83	
	DUE TO SW MTR DEPOSITS	163,955.00	
	WAGES PAYABLE	0.00	
	HSA	0.00	
	ACCRUED SALES TAX	<u>0.00</u>	
	TOTAL LIABILITIES		<u>6,069,304.83</u>
EQUITY			
=====			
	RETAINED EARNINGS	<u>0.00</u>	
	TOTAL BEGINNING EQUITY	0.00	
	TOTAL REVENUE	0.00	
	TOTAL EXPENSES	<u>0.00</u>	
	TOTAL REVENUE OVER/ (UNDER) EXPENSES	0.00	
	TOTAL EQUITY & REV. OVER/ (UNDER) EXP.		<u>0.00</u>
	TOTAL LIABILITIES, EQUITY & REV.OVER/ (UNDER) EXP.		6,069,304.83
			=====

MARSHALLTOWN WATER WORKS
INVESTMENT BREAKDOWN
FEBRUARY 28, 2023

ACCOUNT	FUND	FEBRUARY INTEREST RATE	JANUARY INTEREST RATE	DATE ISSUED	DATE MATURED	CURRENT VALUE	PREVIOUS VALUE
UNITED BANK & TRUST		0.50%	0.50%	07/01/07	DAILY	\$ 5,893,180.46	\$ 6,162,045.47
UNITED BANK & TRUST - SWEEP ACCT		0.50%	0.50%	07/03/17	DAILY	\$ 1,000.00	\$ 1,000.00
TRANSFER IN TRANSIT(SWEEP TO OP)						\$ 0.38	\$ 0.44
CD 54486 (Farmers Savings Bank)	General	0.55%	0.55%	02/19/22	02/19/23	\$ 100,000.00	\$ 100,000.00
CD 59763 (GNB Bank)	General	4.85%		02/23/23	02/23/24	\$ 100,000.00	
CD 59255 (GNB Bank)	General	3.03%	3.03%	09/08/22	09/08/23	\$ 100,000.00	\$ 100,000.00
CD 59256 (GNB Bank)	General	3.03%	3.03%	09/08/22	09/08/23	\$ 100,000.00	\$ 100,000.00
CD 59467 (GNB Bank)	Cap Reserve	4.62%	0.00%	12/06/22	12/06/23	\$ 300,000.00	\$ 300,000.00
CD 59315 (GNB Bank)	General	3.90%	3.90%	09/26/22	09/26/23	\$ 100,000.00	\$ 100,000.00
SUB TOTAL						\$ 6,694,180.84	\$ 6,863,045.91

CURRENT TOTAL \$6,694,180.84

Current Average Monthly Yield 0.817%

LAST MONTH TOTAL \$6,863,045.91

Last Month Average Monthly Yield 0.804%

LAST YEAR TOTAL \$7,103,843.69

Last Year Average Monthly Yield 0.269%

MARSHALLTOWN WATER WORKS
CAPITAL IMPROVEMENTS
JULY 1, 2022 - JUNE 30, 2023
AS OF FEBRUARY 28, 2023

	Project		APPROVED BUDGET			EXPENDITURES			REMAINING
	#		2022-2023	PRIOR YEARS	TOTAL	2022-2023	PRIOR YEARS	TOTAL	EXPENDITURES
1172-000-PLANT & SOURCE OF SUPPLY									
Inspect/Rehab 2 Wells	135	21904	\$200,000.00	\$200,000.00	\$400,000.00	\$60,141.20	\$101,260.01	\$161,401.21	\$238,598.79
Chemical Feed System upgrades	143	12005	\$10,000.00		\$10,000.00				\$10,000.00
Valve and actuator replacement			\$50,000.00	\$100,000.00	\$150,000.00	\$44,989.77	\$39,773.27	\$84,763.04	\$65,236.96
CO2 Feed Upgrades			\$200,000.00	\$200,000.00	\$400,000.00	\$11,041.60		\$11,041.60	\$388,958.40
Treatment Expansion	144	12006	\$1,788,686.00	\$196,500.00	\$1,985,186.00	\$906,186.90	\$199,840.77	\$1,106,027.67	\$879,158.33
Copier			\$3,500.00		\$3,500.00	\$3,508.63		\$3,508.63	
Wellfield Expansion	148	22101		\$400,000.00	\$400,000.00	\$30,627.98	\$92,209.35	\$122,837.33	\$277,162.67
PLC Upgrade	136	12002		\$497,271.57	\$497,271.57	\$153,096.37	\$37,344.05	\$190,440.42	\$306,831.15
Plumbing Replacement				\$100,000.00	\$100,000.00	\$10,710.51	\$3,036.82	\$13,747.33	\$86,252.67
Widen Driveway				\$100,000.00	\$100,000.00				\$100,000.00
Roof Replacement	147	12007		\$150,000.00	\$150,000.00	\$127,673.82	\$1,853.40	\$129,527.22	\$20,472.78
1170-000-LAND									
			\$100,000.00		\$100,000.00				\$100,000.00
1174-000-DISTRIBUTION SYSTEM									
Valve and Hydrant Replacement			\$50,000.00		\$50,000.00	\$10,364.00		\$10,364.00	\$39,636.00
Water Mains: Replace, Extend, Relocate, Loop									
- S 5th and S 6th Avenue Replacement	149	32101	\$150,000	\$50,000	\$200,000.00	\$118,304.29	\$27,459.70	\$145,763.99	\$54,236.01
- W South Street main replacement	82	31401	\$870,000	\$5,000	\$875,000.00	\$886,797.24	\$19,073.70	\$905,870.94	(\$30,870.94)
- Washington Street main replacement	83	31402		\$78,149.30	\$78,149.30	\$18,062.16	\$76,927.76	\$94,989.92	
City/MWW Projects									
- State Street			\$250,000		\$250,000.00				\$250,000.00
- Realignment for City Storm Sewer	129	31902		\$350,000	\$350,000.00	\$7,397.25	\$60,591.96	\$67,989.21	\$282,010.79
-Edgewood Extension			\$200,000.00		\$200,000.00	\$770.00		\$770.00	\$199,230.00
D S Hydraulic Model	153	32301	\$93,500.00		\$93,500.00	\$7,550.00		\$7,550.00	\$85,950.00
Paint South Tower Interior	151	42201		\$200,000.00	\$200,000.00	\$135,540.00	\$14,960.00	\$150,500.00	
Storage Building			\$200,000.00		\$200,000.00				\$200,000.00
1176-000 - METERS									
- Routine Meter Program			\$200,000.00	\$200,000.00	\$400,000.00	\$174,392.61	\$58,650.65	\$233,043.26	\$166,956.74
- Meter/Touch Pad Upgrade Program			\$346,900.00		\$346,900.00				\$346,900.00
1178-000 - EQUIPMENT									
Dump Truck				\$175,000.00	\$175,000.00		\$46,645.00	\$46,645.00	\$128,355.00
1180-000-VEHICLES									
			\$60,000.00	\$40,000.00	\$100,000.00	\$27,119.10	\$556.95	\$27,676.05	\$72,323.95
1182-000-GENERAL									
1184-000-BUILDING									
Generator			\$30,000.00	\$30,000	\$60,000.00	\$2,946.19	\$1,618.39	\$4,564.58	\$55,435.42
Furnace			\$4,500.00		\$4,500.00	\$6,250.00		\$6,250.00	
Remaining Office Building Interior Updates	137	52001		\$13,485	\$13,485.44		\$10,701.28	\$10,701.28	\$2,784.16
1186-000-OFFICE EQUIPMENT									
Computer Replacements				\$25,000.00	\$25,000.00	\$365.76	\$19,728.43	\$20,094.19	\$4,905.81
Remaining IT Upgrade				\$53,301.06	\$53,301.06	\$7,193.02	\$37,074.78	\$44,267.80	\$9,033.26
Tyler Programming Upgrade				\$79,000.00	\$79,000.00				\$79,000.00
GPS Field Unit				\$25,000.00	\$25,000.00	\$27,402.30		\$27,402.30	
Postage Machine			\$9,600.00		\$9,600.00				\$9,600.00
1188-000 BOOSTER STATION									
Total FY 22-23									
			\$4,816,686.00	\$3,267,707.37	\$8,084,393.37	\$2,778,430.70	\$849,306.27	\$3,627,736.97	\$4,428,157.95



College of Engineering

Iowa Geological Survey
University of Iowa
300 Trowbridge Hall
Iowa City, Iowa 52242
319-335-1575
iowageologicalsurvey.org

March 1, 2023

Ms. Shelli Lovell
General Manager
Marshalltown Water Works
205 E. State Street
Marshalltown, Iowa 50158

RE: Proposal: Phase I – Delineation of the Buried Valley Aquifer
Marshalltown Water Works

Dear Ms. Lovell,

I appreciate the opportunity last fall to meet with you and Jared Wall, and to introduce State Geologist, Keith Schilling. Based on our discussion, Marshalltown Water Works (MWW) faces challenging source water and treatment capacity issues related to increased demand, along with significant decisions relating to facility maintenance, upgrades, and long-range planning. The Iowa Geological Survey (IGS) can provide MWW with unique insights on the status of source water capacity, herein as related to the suspected buried valley aquifer within the current facilities footprint.

The complex hydrogeologic setting in Marshalltown warrants a critical evaluation. The geology is composed of variable river flood plain and alluvial deposits, buried valley glacial outwash deposits, and loess and glacial till, overlying Mississippian-age limestone, and shale bedrock. IGS staff provide the full breadth of Iowa experience to assess this hydrogeologic setting. Our staff includes hydrogeologists, quaternary geologists (surficial deposits), bedrock geologists, a geophysicist, a certified well driller, and other specialists that support all aspects of aquifer and water supply characterization. IGS methods and equipment are exactly suitable for subsurface characterization, including aquifer delineation, where methods include non-invasive passive seismic, electrical resistivity imaging, electromagnetic surveys, and groundwater pumping tests.

The primary objective is to help MWW anticipate expansion-related groundwater questions, such as:

- 1) Physical limits and configuration of the aquifer
- 2) Characteristics, such as source water capacity, hydrologic properties, yield, and quality
- 3) Well field expansion and management, including well capacity, spacing, discharge, and drawdown

The Phase I Scope of Services is presented below. This scope is focused on delineating the configuration of the suspected buried valley aquifer in the area north-northeast of the water plant. If Phase I results are favorable, a future Phase II scope of services is anticipated which will define the hydrologic properties of the aquifer and well spacing recommendations.

SCOPE OF WORK: PHASE I – DELINEATION OF THE BURIED VALLEY AQUIFER

Typically, the axis of a buried valley is where the most productive aquifer materials are encountered, so it is important to delineate the axis. Existing data suggest production Wells 3, 4, 5, 7, 8, and 9 may be situated near the axis but perhaps shifted above the southern flank (rise) of the valley. The geometry of the valley’s width and depth and the water-bearing character of the infilled sediments are presently unknown. Actual data is scarce, but evidence suggests exploration north of the existing wells is warranted.

The following scope of work is proposed to delineate the buried valley (Figure 1 – Area of Interest).

1. Conduct a site visit by an IGS hydrogeologist. We request that an MWW representative be available for a tour of the well field.
2. Obtain existing data, as available, including well logs, reports, and operations data. Wells of primary interest are nos. 3, 4, 5, 7, 8, and 9, and other deep wells or borings north of the river.
3. Identify private wells north of the water plant to glean available information from public sources, including:
 - a. Query the IGS’s internal databases, including Geosam, PumpTest, IWFoS, and DNR’s PWTS database.
 - b. Contact the Marshall County Sanitarian to obtain information on private wells. Pertinent data may be available under Marshall County Ordinance No. 15: *An ordinance adopting rules for the construction and abandonment of private water wells in Marshall County.*
4. Perform geophysical surveys to delineate the geometry, depth, and deposits of the buried valley.

Measurement locations will be selected along roadway ROW and fields, with access subject to permissions, crops, traffic, and weather. A key to a successful survey is having control points to calibrate the geophysical response. Control points are existing wells that have a driller’s log that describe the observed materials and depth to rock. Two complimentary methods are proposed:

- a. Passive seismic (PS) survey. Anticipate up to three (3) field days to complete the survey. This is a non-invasive instrument that occupies a 2-sqft area and requires 30 minutes per location. The survey will include up to two dozen locations. The PS method measures background seismic vibrations. The observed peak vibration frequency and strength is controlled by the acoustic contrast between the soft buried valley sediments and the underlying hard limestone. The peak response is then used to calculate depth to bedrock at each location.
- b. Electrical resistivity (ER) survey. Anticipate up to three (3) field days to complete the survey. The survey will include up to 7 ER lines. This is essentially a non-invasive instrument that is deployed as an 1,100 feet long cable connected to 8-inch electrodes that are inserted into the ground every 20 feet. The ER method applies an electric current into the subsurface and measures the electrical resistance as a function of depth and lateral position along the ER line. The potential difference patterns are used to infer rock-type, stratigraphy, and depth to bedrock information.

5. Interpret the available geologic data.
 - a. IGS's geophysicist will interpret the buried valley depth, configuration, infilled sediments, and geologic framework.
 - b. IGS's quaternary geologist will interpret the characteristics and geometries of the surficial materials, including river alluvium, buried valley deposits, and glacial materials.
6. Generate a Phase I report summarizing the methods, findings, and recommendations. Supporting documentation will be included as warranted. The report will also include:
 - a. Bedrock topography map, showing the extent of the buried valley within the study area.
 - b. Two geologic cross sections, showing the configuration of the buried valley and its contained deposits, including the anticipated aquifer.
7. Meet with MWW to discuss the findings and recommendations for Phase II testing, as warranted.

MWW RESPONSIBILITIES

MWW will provide the following information, as available:

- Well records, including:
 - Drilling and well construction logs, and elevations.
 - Pumping test results (water levels, pumping rates, and calculations).
 - Reports (recent well inspections, consultants, etc.).
 - Static and pumping water levels and corresponding discharge rates at production wells.
- Access to MWW property, and/or private properties, as needed, for the geophysical surveys.
- Drill and install one 2-inch diameter monitoring well for use in calibrating the geophysics results. This activity should be contracted by MWW direct to a drilling contractor.

SCHEDULE TO COMPLETE

The Phase I project will be completed within 30 weeks of authorization to proceed.

* The actual schedule will be initiated upon full execution of the contract by all parties, or April 1 as the practical date for field work to begin, whichever is later. Delays are not anticipated but the schedule is subject to weather-related or other delays out of the control of IGS.

COMPENSATION

Marshalltown Water Works shall pay IHR—Iowa Geological Survey in the **FIXED AMOUNT: \$37,818**

This entire Scope of Work, Schedule, and Fee is subject to the University of Iowa's Terms & Conditions.

ADDITIONAL SERVICES

Services listed below are not specified above but may be negotiated upon request.

- 1) Perform geophysical surveys in addition to what is scoped above.
- 2) Perform Phase II pumping test(s) at existing or new production wells.
- 3) Drilling and monitoring well installation.
- 4) Assess the hydraulic connection between the buried valley and Mississippian aquifers and the impact on water quality and recharge.
- 5) Regional source water study to identify additional areas of potential source development.
- 6) Groundwater flow and particle tracking modeling to evaluate aquifer sustainability.

Thank you for consideration of this Phase I proposal. Please do not hesitate to modify this preliminary scope of services to better fit your immediate needs. The Iowa Geological Survey looks forward to working with MWW and to demonstrating our capabilities and value on a project.

I may be contacted at (319) 335-4465 with questions.

Sincerely,

Greg Brennan, PG, PHG
Research Hydrogeologist



Figure 1. Site map outlining the general area of interest and the estimated bedrock elevation contours.