MEETING
Board of Water Works Trustees
Des Moines Water Works
October 25, 2022
2201 George Flagg Parkway
3:30 p.m.

Join Zoom Meeting
https://us02web.zoom.us/j/83033610098?pwd=cldQa1RSRGlSTlBTRGxWR09FUzY4UT09

Meeting ID: 830 3361 0098 Passcode: 763322

Decision Agenda

I. Consent Agenda:

A. Minutes, September 27, 2022, Board of Water Works Trustees Meeting
Minutes, October 11, 2022, Finance and Audit Committee Meeting

B. Financial Statements

C. List of Payments for September 2022

D. Summary of CEO-Approved Expenditures in Excess of $20,000

E. Next Meeting Date – November 22, 2022

II. Public Comment Period:

- Regional Governance

III. Action Items:

A. 2023 Corporate Insurance

B. Receive and File Cost of Service Report

C. Approval of Proposed 2023 Water Rates

D. Proposed 2023 Budget – Establish Public Hearing as the Date of the November 2022 Board Meeting

E. Berwick Water Association 28E Total Service Agreement

F. 2023 Water Treatment Chemicals – Lime Contract
1. Analysis of Bids
2. Award of Contract

G. Acceptance of Des Moines River Intake Roof Structure Modifications

H. Request Authorization for CEO and General Manager to Execute Change Orders 4 and 5 to 2021 Well Rehabilitation Contract

I. Resolution of Appreciation for Departing Board of Water Works Trustee Joel Aschbrenner

IV. Information Items:

A. Board Committee Reports
- Planning Committee
- Finance and Audit Committee
- Bill Stowe Memorial Committee
- Greater Des Moines Botanical Garden Board
- Des Moines Water Works Park Foundation Board

OSHA Recordable Injuries YTD: 11

Strain/Sprain:	8
Laceration:	1
Hearing:	1
Burn:	1

B. CEO and General Manager's Comments
- Quarterly Strategic Plan Update

C. Contract Status and Professional Services Agreements

V. Adjournment

Schedule of Board Activities – November & December Time: 3:30 p.m.		
Date	Location	Meeting
November 1	Board Room & Virtual	Planning Committee Meeting
November 8	Board Room & Virtual	Finance & Audit Committee Meeting
November 22	Board Room & Virtual	Board of Water Works Trustees
December 6	Board Room & Virtual	Planning Committee Meeting
December 13	Board Room & Virtual	Finance & Audit Committee Meeting
December 20	Board Room & Virtual	Board of Water Works Trustees

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. Consent
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: Consent Agenda

SUMMARY:

A. Minutes, September 27, 2022, Board of Water Works Trustees Meeting
Request: Approve September 27, 2022, Minutes
Minutes, October 11, 2022, Finance and Audit Committee Meeting
Request: Approve October 11, 2022, Minutes

B. Financial Statements
- At September 2022, total assets of the Des Moines Water Works were $457.2 million, liabilities totaled $29.2 million, deferred outflows totaled $5.1 million, deferred inflows totaled $19.8 million and contributions and retained earnings were $413.2 million.
- Total operating revenue for the month of September was $8.1 million. Expenses (operating and non-operating) for the month were approximately $5.6 million, leaving net earnings of approximately $2.5 million.
- **Request:** Receive and File for Audit the September 2022 Financial Statements.

C. List of Payments for September 2022
Request: Approve September 2022 payments

D. Summary of CEO-approved expenditures in excess of $20,000
Request: Approve the CEO-approved expenditures in excess of $20,000

E. Next Meeting Date – November 22, 2022
Request: Approve November 22, 2022, as the date of the next meeting of the Board of Water Works Trustees.

FISCAL IMPACT:

No impact to budget.

RECOMMENDED ACTION:

Approve Consent Agenda Items A, B, C, D, and E.

BOARD REQUIRED ACTION:

Motion to approve Consent Agenda.

Michelle Holland. CPA / 10/19/22 (date)	Amy Kahler, CPA / 10/20/22 (date)	Ted Corrigan, P.E. / 10/21/22 (date)
Controller	Chief Financial Officer	CEO and General Manager

Attachments: September 27, 2022, Board of Water Works Trustees Meeting Minutes; October 11, 2022, Finance and Audit Committee Meeting Minutes; September 2022 Financial Statements; List of Payments; Summary of CEO-approved expenditures in excess of $20,000

MINUTES OF CALLED MEETING OF THE BOARD OF WATER WORKS TRUSTEES PURSUANT TO NOTICE
Tuesday, September 27, 2022

Present (or Participating by Video or Audio Conference Link):

Board Members:	Chairperson Mr. Graham Gillette, presiding; Mr. Joel Aschbrenner, Ms. Andrea Boulton, Ms. Susan Huppert, and Ms. Diane Munns
Staff members:	Bill Blubaugh, Pat Bruner, Nathan Casey, Ted Corrigan, Kyle Danley, Doug Garnett, Amy Kahler, Mike McCurnin, Laura Sarcone, Jennifer Terry, Lindsey Wanderscheid, and Michelle Watson
Also in attendance:	John Lande (legal counsel) and Melissa Walker (MW Media Consultants)

Mr. Gillette called the meeting to order at 3:30 p.m.

Consent Agenda

A motion was made by Ms. Munns, seconded by Ms. Boulton, to approve Consent Items A, B, C, D, and E, (Approval of Minutes, August 23, 2022, Board of Water Works Trustees Meeting; Minutes, September 6, 2022, Planning Committee Meeting; Minutes; Receipt and filing of the financial statements for audit purposes; Approval of Payments for August 2022; Approval of Summary of CEO-Approved Expenditures in Excess of $20,000; and Approval of October 25, 2022, as the next meeting of the Board of Water Works Trustees). Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Public Comment Period

No comments were received from the public.

Mr. Corrigan provided an update on regionalization.

Receive and File 2022 Voice of the Customer Survey

In January of this year, a Request for Proposals was released for the 2022 Voice of the Customer Survey. Three proposals were received and SPPG + Essman Research (now known as SPPG) was the selected vendor. SPPG conducted the survey in the period of May through July 2022. In prior years, the survey method included written questionnaire or phone survey. This year, the methodology included 2 focus groups and 602 telephone and online surveys.

Customer Service staff and the Communications/PR team are analyzing survey data in finer detail and are evaluating the consultant's recommendations for focused communications on particular issues or themes, including environmental stewardship, financial stewardship, value of tap water compared to bottled water, perception of treated drinking water, and understanding of service charges on DMWW water bill. Changes will be prioritized and implemented as appropriate.

A motion was made by Ms. Boulton, and seconded by Mr. Aschbrenner, to Receive and File the 2022 Voice of the Customer Survey. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Not to Exceed $1,110,000 Water Revenue Capital Loan Notes

DMWW plans to design, construct, and operate a fourth Aquifer Storage and Recover (ASR) well that can recover 3 million gallons per day to the water distribution system for approximately 100 days per year. The ASR will be constructed at the site of the Polk County Pump Station. A multi-year project, this ASR is included in the 2022 budget and the most recent 2023-2027 CIP received and filed by the Board in June 2022.

Planning and Design (P&D) loans are available from the State Revolving Fund (SRF) at 0% interest for three years. At the end of the three-year period, the planning and design costs are typically rolled into an SRF construction loan. DMWW's P&D application for an ASR at the Polk County Pump Station site was approved to be included in the state's Intended Use Plan (IUP) project list on September 20, 2022. In order to execute the Loan and Disbursement Agreement, DMWW must hold a public hearing and pass resolutions authorizing the Board of Trustees to execute the Agreement. At the August Board meeting, the Board of Trustees set the date for the public hearing as the September Board meeting. Notice of this public meeting was published in the Des Moines Register on September 14, 2022, as required by law.

Board Member Diane Munns introduced the following Resolution and moved the same be adopted. Board Member Joel Aschbrenner seconded the motion to adopt the following Resolution:

RESOLUTION INSTITUTING PROCEEDINGS TO TAKE ADDITIONAL ACTION FOR THE AUTHORIZATION OF A LOAN AND DISBURSEMENT AGREEMENT AND THE ISSUANCE OF $1,110,000 WATER REVENUE CAPITAL LOAN NOTES

WHEREAS, pursuant to notice published as required by law, the Board has held a public meeting and hearing upon the proposal to institute proceedings for the authorization of a Loan and Disbursement Agreement by and between the Issuer and the Iowa Finance Authority and the issuance to the Iowa Finance Authority of $1,110,000 Water Revenue Capital Loan Notes, to evidence the obligations under the 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 Water Utility, including those costs associated with the Polk County Pumping Station Site Aquifer Storage and Recovery Project, and has considered the extent of objections received from residents or property owners as to the proposed issuance of Notes; and accordingly the following action is now considered to be in the best interests of the City and residents thereof.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF WATER WORKS TRUSTEES OF THE CITY OF DES MOINES, STATE OF IOWA:

That this Board does hereby institute proceedings and take additional action for the authorization of a Loan and Disbursement Agreement by and between the Issuer and the Iowa Finance Authority and the issuance to the Iowa Finance Authority in the manner required by law of $1,110,000 Water Revenue Capital Loan Notes, for the foregoing purposes.

That this Board does hereby consent to the terms and conditions of the DWSRF Loan Program, which terms and conditions and the disclosures provided with respect thereto are hereby acknowledged, accepted and approved.

This Resolution shall serve as a declaration of official intent under Treasury Regulation 1.150-2 and shall be maintained on file as a public record of such intent. It is reasonably expected that the water fund moneys may be advanced from time to time for capital expenditures which are to be paid from the proceeds of the above Notes. The amounts so advanced shall be reimbursed from the proceeds of the Notes not later than eighteen months after the initial payment of the capital expenditures or eighteen months after the property is placed in service. Such advancements shall not exceed the amount authorized in this Resolution unless the same are for preliminary expenditures or unless another declaration of intention is adopted.

That the Secretary, with the assistance of bond counsel, is hereby authorized and directed to proceed with the preparation of such documents and proceedings as shall be necessary to authorize the Issuer participation in the DWSRF Loan Program, to select a suitable date for final Board authorization of the required Loan and Disbursement Agreement and issuance of the Note to evidence the Issuer's obligations thereunder, and to take such other actions as the Board shall deem necessary to permit the completion of a loan on a basis favorable to the Issuer and acceptable to this Board.

A roll-call vote was taken and the vote was,

AYES: Joel Aschbrenner, Andrea Boulton, Graham Gillette, Susan Huppert, and Diane Munns

NAYS: None

Whereupon, the Chairperson declared the measure duly adopted.

Board Member Andrea Boulton then introduced the following Resolution and moved the same be adopted. Board Member Diane Munns seconded the motion to adopt the following Resolution:

A RESOLUTION APPROVING AND AUTHORIZING A FORM OF INTERIM LOAN AND DISBURSEMENT AGREEMENT, AND AUTHORIZING AND PROVIDING FOR THE ISSUANCE AND SECURING THE PAYMENT OF $1,110,000 WATER REVENUE CAPITAL LOAN NOTES ANTICIPATION PROJECT NOTE, SERIES 2022, UNDER THE PROVISIONS OF THE CODE OF IOWA, AND PROVIDING FOR A METHOD OF PAYMENT OF SAID NOTE

WHEREAS, the City of Des Moines, acting through its Board of Water Works Trustees, (hereafter the "Issuer"), proposes to issue its Water Revenue Capital Loan Notes

Anticipation Project Note, Series 2022, to the extent of $1,110,000, for the purpose of defraying the costs of the Project hereinafter described; and, it is deemed necessary and advisable and in the best interests of the Issuer that a form of Interim Loan and Disbursement Agreement by and between the Issuer and the Iowa Finance Authority be approved and authorized; and

WHEREAS, the notice of intention of Issuer to take action for the issuance of $1,110,000 Water Revenue Capital Loan Notes has heretofore been duly published and no objections to such proposed action have been filed.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF WATER WORKS TRUSTEES OF THE CITY OF DES MOINES, IN THE COUNTY OF POLK, STATE OF IOWA:

Section 1. Definitions. The following terms shall have the following meanings in this Resolution unless the text expressly or by necessary implication requires otherwise:

♦ "Additional Project Notes" shall mean any project notes or other obligations issued on a parity with the Note in accordance with the provisions of Section 11 hereof;

♦ "Agreement" shall mean an Interim Loan and Disbursement Agreement dated as of the Closing between and among the Issuer and the Original Purchaser, relating to the Interim Loan made to the Issuer under the Program;

♦ "Closing" shall mean the date of delivery of the Note to the Original Purchaser and the funding of the Interim Loan;

♦ "Fiscal Year" shall mean the twelve months' period beginning on July 1 of each year and ending on the last day of June of the following year, or any other consecutive twelve-month period adopted by the Governing Body or by law as the official accounting period of the System; provided, that the requirements of a fiscal year as expressed in this Resolution shall exclude any payment of principal or interest falling due on the first day of the fiscal year and include any payment of principal or interest falling due on the first day of the succeeding fiscal year;

♦ "Governing Body" and "Board" shall mean the Board of Water Works Trustees of the City of Des Moines, or its successor in function with respect to the operation and control of the System;

♦ "Interim Loan" shall mean the principal amount allocated by the Original Purchaser and loaned to the Issuer under the Program, equal in amount to the principal amount of the Note;

♦ "Issuer" shall mean the City of Des Moines, Iowa, acting through its Board of Water Works Trustees;

♦ "Note" shall mean $1,110,000 Water Revenue Capital Loan Notes Anticipation Project Note, Series 2022, authorized to be issued by this Resolution;

♦ "Original Purchaser" shall mean the Iowa Finance Authority, as the purchaser of the Note from Issuer at the time of its original issuance;

♦ "Paying Agent" shall be the Secretary, or such successor as may be approved by Issuer as provided herein and who shall carry out the duties prescribed herein as Issuer's agent to provide for the payment of principal of and interest on the Notes as the same shall become due;

♦ "Permitted Investments" shall mean any investments permitted in Iowa Code chapter 12B or section 12C.9. All interim investments must mature before the date on which the moneys are required for payment of principal and interest on the Notes or project costs;

♦ "Program" shall mean the Iowa Drinking Water Facilities Financing Program undertaken by the Original Purchaser;

♦ "Project" shall mean the costs of acquisition, construction, reconstruction, extending, remodeling, improving, repairing and equipping all or part of the Water Utility, including those costs associated with the Polk County Pumping Station Site Aquifer Storage and Recovery Project;

♦ "Project Costs" shall mean all engineering fees, archeological surveys, environmental studies, and fees related to a project plan preparation and submission, and other expenses incidental thereto, and also including the costs of issuance of the Note;

♦ "Project Fund" shall mean the Project Fund established by Section 6 of this Resolution;

♦ "Registrar" shall be the Secretary, or such successor as may be approved by Issuer as provided herein and who shall carry out the duties prescribed herein with respect to maintaining a register of the owners of the Note. Unless otherwise specified, the Registrar shall also act as Transfer Agent for the Note;

♦ "Secretary" shall mean the Secretary of the Board of Water Works Trustees of Des Moines, Iowa or such other officer of the successor Governing Body as shall be charged with substantially the same duties and responsibilities;

♦ "System" shall mean the municipal water utility of the Issuer and all properties of every nature hereinafter owned by the Issuer comprising part of or used as a part of the System, including all water treatment facilities, storage facilities, pumping stations and all related property and improvements and extensions made by Issuer while the Note remains outstanding; all real and personal property; and all appurtenances, contracts, leases, franchises and other intangibles.

Section 2. Authority. The Agreement and the Note authorized by this Resolution shall be issued pursuant to Section 76.13 of the Code of Iowa, and in compliance with all applicable provisions of the Constitution and laws of the State of Iowa. The Agreement

shall be substantially in the form attached to this Resolution and is authorized to be executed and issued on behalf of the Issuer by the Chairperson and attested by the Secretary.

Section 3. Note Details, Execution, Redemption and Registration.

a. Note Details. The Note shall be designated a Water Revenue Capital Loan Notes Anticipation Project Note, be dated the date of delivery, in the denomination of $1,000 or multiples thereof, and shall at the request of the Original Purchaser be initially issued as a single Note in the denomination of $1,110,000 and numbered R-1. The Note shall not bear interest (0%), and shall mature three years from issuance. The Board hereby finds and determines that it is necessary and advisable to issue said Note pursuant to Section 76.13 of the Code of Iowa, as authorized by the Agreement and this Resolution.

b. Execution. The Note shall be executed by the manual or facsimile signature of the Chairperson and attested by the manual or facsimile signature of the Secretary, and impressed or imprinted with the seal of the Issuer and shall be fully registered as to both principal and interest as provided in this Resolution; principal, interest and premium, if any, shall be payable at the office of the Paying Agent by mailing of a check, wire transfer or automated clearing house system transfer to the registered owner of the Note.

c. Redemption. The Note may be called for redemption by the Issuer and paid before maturity on any date, from any funds regardless of source, in whole or from time to time in part, in order of maturity and within an annual maturity by lot.

Notice of redemption shall be given by U.S. mail to the Original Purchaser (or any other registered owner of the Note). The terms of redemption shall be par, plus accrued interest to date of call. Failure to give such notice by mail to any registered owner or any defect therein shall not affect the validity of any proceedings for the redemption of the Note. The Note is also subject to mandatory redemption to the extent not fully drawn upon.

d. Registration. The Note may be registered as to principal and interest on the books of the Registrar in the name of the holder and such registration noted on the Note after which no transfer shall be valid until the making of an entry upon the books kept for the registration and transfer of ownership of the Note, and in no other way. The Secretary is hereby appointed as Registrar under the terms of this Resolution. Registrar shall maintain the books of the Issuer for the registration of ownership of the Note for the payment of principal of and interest on the Note as provided in this Resolution. The Note shall be negotiable as provided in Article 8 of the Uniform Commercial Code subject to the provisions for registration and transfer contained in the Note and in this Resolution.

The ownership of any Note may be transferred only upon the Registration Books kept for the registration and transfer of the Note and only upon surrender thereof at the office of the Registrar together with an assignment duly executed by the holder or his duly authorized attorney in fact in such form as shall be satisfactory to the Registrar, along with the address and social security number or federal employer identification number of such transferee (or, if registration is to be made in the name of multiple individuals, of all such transferees). In the event that the address of the registered owner of a Note (other than a registered owner which is the nominee of the broker or dealer in question) is that of a broker or dealer, there

must be disclosed on the Registration Books the information pertaining to the registered owner required above. Upon the transfer of any such Note, a new fully registered Note, of any denomination or denominations permitted by this Resolution in aggregate principal amount equal to the unmatured and unredeemed principal amount of such transferred fully registered Note, and bearing interest at the same rate and maturing on the same date or dates shall be delivered by the Registrar.

In all cases of the transfer of the Note, the Registrar shall register, at the earliest practicable time, on the Registration Books, the Note, in accordance with the provisions of this Resolution.

As to any Note, the person in whose name the ownership of the same shall be registered on the Registration Books of the Registrar shall be deemed and regarded as the absolute owner thereof for all purposes, and payment of or on account of the principal of any such Note and the premium, if any, and interest thereon shall be made only to or upon the order of the registered owner thereof or his legal representative. All such payments shall be valid and effectual to satisfy and discharge the liability upon such Note, including the interest thereon, to the extent of the sum or sums so paid.

A Note which has been redeemed shall not be reissued but shall be cancelled by the Registrar. A Note which is cancelled by the Registrar shall be destroyed and a Certificate of the destruction thereof shall be furnished promptly to the Issuer; provided that if the Issuer shall so direct, the Registrar shall forward the cancelled Note to the Issuer.

In the event any payment check representing payment of principal of or interest on the Note is returned to the Paying Agent or if any note is not presented for payment of principal at the maturity or redemption date, if funds sufficient to pay such principal of or interest on Note shall have been made available to the Paying Agent for the benefit of the owner thereof, all liability of the Issuer to the owner thereof for such interest or payment of such Note shall forthwith cease, terminate and be completely discharged, and thereupon it shall be the duty of the Paying Agent to hold such funds, without liability for interest thereon, for the benefit of the owner of such Note who shall thereafter be restricted exclusively to such funds for any claim of whatever nature on his part under this Resolution or on, or with respect to, such interest or Note. The Paying Agent's obligation to hold such funds shall continue for a period equal to two years and six months following the date on which such interest or principal became due, whether at maturity, or at the date fixed for redemption thereof, or otherwise, at which time the Paying Agent shall surrender any remaining funds so held to the Issuer, whereupon any claim under this Resolution by the Owners of such interest or Notes of whatever nature shall be made upon the Issuer.

Section 4. Form of Note. The form of Note shall be substantially as follows:

REGISTERED
No. R-1

REGISTERED
$1,110,000

UNITED STATES OF AMERICA
STATE OF IOWA
COUNTY OF POLK
CITY OF DES MOINES, IOWA
WATER REVENUE CAPITAL LOAN NOTES
ANTICIPATION PROJECT NOTE
SERIES 2022

Interest Rate	Maturity Date	Dated Date
0.00%	October 14, 2025	October 14, 2022

The City of Des Moines, Iowa, acting through its Board of Water Works Trustees, a municipal corporation organized and existing under and by virtue of the Constitution and laws of the State of Iowa (the "Issuer"), for value received, promises to pay from the source and as hereinafter provided, to

IOWA FINANCE AUTHORITY

or registered assigns, the principal sum of ONE MILLION ONE HUNDRED TEN THOUSAND DOLLARS in lawful money of the United States of America, at maturity on October 14, 2025, without interest (0%). Payment of this Note shall at all times conform to the rules of the Iowa Drinking Water Facilities Financing Program. Issuer pledges the Project Fund to which there has been appropriated the anticipated receipts of certain funds held or to be received by the Issuer as well as the proceeds of certain Capital Loan Notes to be issued.

This Note is payable solely from said Project Fund.

This Note is issued pursuant to an Interim Loan and Disbursement Agreement and the Resolution, duly adopted and under and in substantial compliance with the Constitution and statutes of the state of Iowa, including specifically Section 76.13 of the Code of Iowa, as amended, for the purpose of defraying part of the cost of acquiring the Project. For a complete statement of the revenues and funds from which, and the conditions, under which this Note is payable, a statement of conditions under which additional notes of equal standing may hereafter be issued, and the general covenants and provisions pursuant to which this Note is issued, reference is made to the above described Resolution and Interim Loan and Disbursement Agreement. This Note is not payable in any manner by taxation and under no circumstances shall the Issuer be in any manner liable by reason of the failure of said Project Fund to be sufficient for the payment hereof.

The Note may be called for redemption by the Issuer and paid before maturity on any date, from any funds regardless of source, in whole or from time to time in part, in order of maturity and within an annual maturity by lot.

Notice of redemption shall be given by ordinary mail to the Original Purchaser (or any other registered owner of the Note). The terms of redemption shall be par, plus accrued interest to date of call. Failure to give such notice by mail to any registered owner or any defect therein shall not affect the validity of any proceedings for the redemption of the Note. The Note is also subject to mandatory redemption to the extent not fully drawn upon.

If selection by lot within a maturity is required, the Registrar shall designate the Notes to be redeemed by random selection of the names of the registered owners of the entire annual maturity until the total amount of Notes to be called has been reached.

The Note may be registered as to principal and interest on the books of the Secretary in the name of the holder after which no transfer shall be valid until the making of an entry upon the books kept for the registration and transfer of ownership of the Note, and in no other way. Registrar shall maintain the books of the Issuer for the registration of ownership of the Note for the payment of principal of and interest on the Note as provided in the Resolution.

Ownership of this Note may be transferred only by transfer upon the books kept for such purpose by the Secretary, the Registrar. Such transfer on the books shall occur only upon presentation and surrender of this Note at the office of the Registrar, together with an assignment duly executed by the owner hereof or his duly authorized attorney in the form as shall be satisfactory to the Registrar. Issuer reserves the right to substitute the Registrar and Paying Agent but shall, however, promptly give notice to registered Noteholders of such change. All Notes shall be negotiable as provided in Article 8 of the Uniform Commercial Code and subject to the provisions for registration and transfer contained in the Resolution.

And it is hereby represented and certified that all acts, conditions and things requisite, according to the laws and Constitution of the State of Iowa, to exist, to be had, to be done, or to be performed precedent to the lawful issue of this Note, have been existent, had, done and performed as required by law.

IN TESTIMONY WHEREOF, said Issuer by its Board of Water Works Trustees has caused this Note to be signed by the manual or facsimile signature of its Chairperson of the Board of Water Works Trustees and attested by the manual or facsimile signature of its Secretary of the Board of Water Works Trustees, with the seal of said City impressed or imprinted hereon, and authenticated by the manual or facsimile signature of an authorized representative of the Registrar, the Secretary of the Board of Water Works Trustee of Des Moines, Iowa, all as of the 14th day of October, 2022.

Date of authentication: October 14, 2022

This is one of the Notes described in the within mentioned Resolution, as registered by the Secretary

BOARD OF WATER WORKS TRUSTEES OF DES MOINES, STATE OF IOWA

By: _____
Chairperson

SECRETARY

By: _____
Registrar

ATTEST:

By: _____
Secretary

(SEAL)

Registrar and Transfer Agent: Secretary
Paying Agent: Secretary

ASSIGNMENT

For value received, the undersigned hereby sells, assigns and transfers unto _____ (Social Security or Tax Identification No. _____) the within Note and does hereby irrevocably constitute and appoint _____ attorney in fact to transfer the said Note on the books kept for registration of the within Note, with full power of substitution in the premises.

Dated: _____

_____

_____
(Person(s) executing this Assignment sign(s) here)

SIGNATURE)
GUARANTEED)_____

IMPORTANT - READ CAREFULLY

The signature(s) to this Power must correspond with the name(s) as written upon the face of the Certificate(s) or Note(s) in every particular without alteration or enlargement or any change whatever. Signature guarantee must be provided in accordance with the prevailing standards and procedures of the Registrar and Transfer Agent. Such standards and procedures may require signature to be guaranteed by certain eligible guarantor institutions that participate in a recognized signature guarantee program.

INFORMATION REQUIRED FOR REGISTRATION OF TRANSFER

Name of Transferee(s) _____

Address of Transferee(s) _____

Social Security or Tax Identification Number of Transferee(s) _____

Transferee is a(n):

Individual* _____ Corporation _____

Partnership _____ Trust _____

*If the Note is to be registered in the names of multiple individual owners, the names of all such owners and one address and social security number must be provided.

The following abbreviations, when used in the inscription on the face of this Note, shall be construed as though written out in full according to applicable laws or regulations:

TEN COM - as tenants in common
TEN ENT - as tenants by the entireties
JT TEN - as joint tenants with rights of survivorship and not as tenants in common
IA UNIF TRANS - ..... Custodian .....
MIN ACT (Cust) (Minor)
Under Iowa Uniform Transfers to Minors Act.....
(State)

(End of Note)

Section 5. Security for Note. The Note shall be payable solely from the Project Fund. To pay the principal on the Note when it becomes due, there is hereby created a pledge of the receipts anticipated in said Project Fund to continue until the payment in full of the principal on the Note.

Section 6. Establishment of Project Fund. The Issuer hereby creates and establishes a Project Fund, into which Project Fund are hereby appropriated the following:

Proceeds of $1,110,000 Water Revenue Capital Loan Notes, additional action on the issuance of which previously has been taken and approved by the Board of Water Works Trustees on September 27, 2022

The funds so appropriated shall include in addition thereto all funds of the Issuer, including proceeds realized on the reinvestment of proceeds of the Note, from which the Issuer is or may become obligated to pay under contracts for the construction of the Project to the extent that proceeds of the Note are applied to the payment thereof.

Section 7. Application of Project Fund. The proceeds of the sale of the Note shall be deposited in the Project Fund for application to payment of Project Costs and the costs of issuance of the Note or to pay the principal of the Note when due and for no other purpose.

Disbursements for the payment of Project Costs shall be made by the Secretary upon receipt of vouchers approved by the Governing Body.

After completion of the Project, any moneys remaining in the Project Fund shall be held for the retirement of Note. When the Note is paid or payment is provided for, remaining moneys in the Project Fund may be withdrawn and used for any lawful purpose.

Section 8. Investments. Moneys in the Project Fund shall at all times be invested, to the extent practicable in Permitted Investments maturing at such times and in such amounts as will make cash available for the purposes of such Project Fund as needed.

Section 9. Covenants with Noteholders. Issuer covenants and agrees, so long as any Notes herein authorized remain unpaid, that it:

a. Will proceed to complete with all practicable dispatch the construction and acquisition of the Project;

b. Will not make or cause or permit to be made any application of the proceeds of the Note or of any moneys held in the Project Fund, except in accordance with the provisions of this Resolution;

c. Will from time to time increase the amount of the appropriations to the Project Fund, to the extent necessary to assure that the expected receipts thereafter forthcoming, together with the funds appropriated and held in trust for the purpose, will be sufficient to pay when due the Note as to both principal and interest.

d. Will obtain the collection of funds and the proceeds of the sale of water revenue capital loan notes anticipated to be received in the Project Fund and, if not paid from other sources, apply the same to the payment of the Note and interest thereon; and

e. For the prompt and full performance of the terms and provisions of this Resolution and contract with the noteholders, the Issuer pledges its full faith and diligence and the exercise of its lawful powers.

Section 10. Contract Between Issuer and Purchaser. This Resolution constitutes a contract between the Issuer and the purchaser of the Note.

Section 11. Additional Notes. The Issuer may issue Additional Project Notes of equal standing and parity of lien with the Note for the purpose of paying Project Costs to the extent that funds appropriated to the Project Fund are adequate to pay all notes so issued and interest thereon.

The holder or holders of the Notes shall have all other rights and remedies given by law for the payment and enforcement of the Notes and the security therefor.

Section 12. Severability Clause. If any section, paragraph, clause or provision of this Resolution be held invalid, such invalidity shall not affect any of the remaining provisions hereof, and this Resolution shall become effective immediately upon its passage and approval.

Section 13. Repeal of Conflicting Resolutions or Ordinances. All ordinances and resolutions and parts of ordinances and resolutions in conflict herewith are hereby repealed.

Section 14. Paragraph Headings. The paragraph headings in this Resolution are furnished for convenience of reference only and shall not be considered to be a part of this Resolution.

Section 15. Rule of Construction. This Resolution and the terms and conditions of the Notes authorized hereby shall be construed whenever possible so as not to conflict with the terms and conditions of the Interim Loan and Disbursement Agreement. In the event such construction is not possible, or in the event of any conflict or inconsistency between the terms hereof and those of the Interim Loan and Disbursement Agreement, the terms of the Interim Loan and Disbursement Agreement shall prevail and be given effect to the extent necessary to resolve any such conflict or inconsistency.

A roll-call vote was taken and the vote was,

AYES: Joel Aschbrenner, Andrea Boulton, Graham Gillette, Susan Huppert, and Diane Munns

NAYS: None

Whereupon, the Chairperson declared the measure duly adopted.

Acceptance of Presedimentation Basins Valve Replacement

Mr. Corrigan reported that all work associated with the Presedimentation Basins Valve Replacement project has been satisfactorily completed.

A motion was made by Ms. Boulton, and seconded by Ms. Huppert, to accept the Presedimentation Basins Valve Replacement Contract, completed by The Waldinger Corporation, in the amount of $686,430.10. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Acceptance of 2021 Des Moines Water Main Replacement Contract 2 – Feeder Main at SE 15th Street and Martin Luther King Jr. Parkway

Mr. Corrigan reported that all work associated with the 2021 Des Moines Water Main Replacement Contract 2 – Feeder Main at SE 15th Street and Martin Luther King Jr. Parkway project has been satisfactorily completed.

A motion was made by Ms. Munns, and seconded by Mr. Aschbrenner, to accept the 2021 Des Moines Water Main Replacement Contract 2 – Feeder Main at SE 15th Street and Martin Luther King Jr. Parkway Contract, completed by Raccoon Valley Contractors, LLC, in the amount of $1,684,279.40. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Acceptance of 2021 Des Moines Water Main Replacement Contract 4 – Indianola Avenue

Mr. Corrigan reported that all work associated with the 2021 Des Moines Water Main Replacement Contract 4 – Indianola Avenue project has been satisfactorily completed.

A motion was made by Mr Aschbrenner, and seconded by Ms. Boulton, to accept the 2021 Des Moines Water Main Replacement Contract 4 – Indianola Avenue Contract, completed by J&K Contracting, LLC, in the amount of $907,384.81. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Rejection of Bid and Cancellation of Public Hearing for 2022 Treatment Basin No. 1 Rechaining

At its July 2022 meeting the Board authorized staff to solicit bids for the 2022 Treatment Basin No. 1 Rechaining project. The Public Hearing was established as the date of the September 2022 Board meeting. The engineer's estimate for the contractor cost portion of this project was $250,000.

Only one bid was submitted for the contractor portion of this project. The Waldinger Corporation submitted this one bid which was opened on September 15, 2022. The Waldinger Corporation's bid was $492,000, which is nearly double the amount of the engineer's estimate. Water Production and Engineering staff have met to discuss completion of this project. Water Production staff believes this project could be deferred for one year but no later than fall/winter of 2023/2024.

A motion was made by Ms. Boulton, and seconded by Ms. Huppert, to reject the bid received for the 2022 Treatment Basin No. 1 Rechaining Contract and to approve cancellation of the Public Hearing. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Authorization to Issue Purchase Order for Replacement RO Membranes for Saylorville Water Treatment Plant

Reverse osmosis membranes were replaced in three of the four skids were in 2019, 2020, and 2021. RO Skid #2 is at the end of its three-year operational life and should be replaced this year. On September 9, 2022, two proposals were received for the purchase of 294 RO membranes. (the number needed for one skid). The quotations included a standard 3-year manufacturer's pro-rated warranty and freight costs. Staff recommended accepting the lowest cost response submitted by Consolidated Water Solutions.

A motion was made by Ms. Munns, and seconded by Ms. Huppert, to authorize staff to issue a Purchase Order in the amount of $158,760 to Consolidated Water Solutions for purchase of replacement reverse osmosis membranes, with a 3-year pro-rated warranty, for the Saylorville Water Treatment Plant. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Authorization to Issue Payment to Evoqua Water Technologies LLC for Additional Repairs to Filter Press 2

It was discovered after rehabilitation work started on Filter Press 2 that several additional components of Filter Press 2 were deteriorated to the degree that replacement was required. This has increased the cost of replacement and repair parts from Evoqua and the costs incurred by Evoqua for providing on-site field service labor to repair Filter Press 2.

DMWW paid Evoqua $171,016 in June 2022 for rehabilitation work on Filter Press 2. A second invoice, in the amount of $165,059.70, has been submitted by Evoqua for the additional parts and labor provided by Evoqua to complete the rehabilitation of Filter Press 2. This rehabilitation work was completed last month. Evoqua estimates an additional $110,000 is needed to provide labor and equipment to complete the rehabilitation of the remaining three filter press units.

A motion was made by Mr. Aschbrenner, and seconded by Ms. Boulton, to authorize staff to issue payment to Evoqua Water Technologies LLC, in the amount of a $275,059.70, for providing staff and repair parts to complete the rehabilitation of Filter Press 2. Upon vote, the motion was adopted, with each member of the Board voting in favor of the motion.

Board Committee Reports

The following reports were provided:

- Planning Committee – A meeting was held on September 6, 2022, as reflected in the minutes thereof. Ms. Boulton gave a brief summary of the meeting.
- Finance and Audit Committee – There was no meeting held in September.
- Bill Stowe Memorial – Mr. Gillette shared that the Lakeside Labs interns will be providing their final report at the end of October. Ms. Boulton has created a committee of partners to engage in the next steps which includes developing a strategic plan for the Education Hub. Creation of an outdoor classroom space continues to be discussed.
- Greater Des Moines Botanical Garden – Mr. Gillette had no new updates.
- Des Moines Water Works Park Foundation Board – Ms. Boulton reported that the Foundation reviewed and returned comments to the City of Des Moines on the repayment proposal for the Ruan Connector construction debt.

CEO and General Manager's Comments

Mr. Corrigan brought attention to the Greater Des Moines Botanical Garden update included in the packet. He also advised that DMWW was featured in an AWWA journal article for our ISO 51000 energy award(s)/designation. Staff is conceptualizing a lead service line replacement pilot program.

Adjournment – Meeting adjourned by unanimous consent.

4:27 p.m. adjourned

MINUTES OF MEETING OF FINANCE AND AUDIT COMMITTEE
OF THE BOARD OF WATER WORKS TRUSTEES
PURSUANT TO NOTICE
Tuesday, October 11, 2022
3:30 p.m.

Present (or Participating by Video or Audio Conference Link):

Board Members:	Mr. Joel Aschbrenner, Ms. Andrea Boulton, Mr. Graham Gillette, Ms. Susan Huppert, Ms. Diane Munns
Staff Members:	Rachel Brown, Pat Bruner, Nathan Casey, Ted Corrigan, Kyle Danley, Doug Garnett, Donna Heckman, Michelle Holland, Amy Kahler, Mike McCurnin, Jenny Puffer, Laura Sarcone, Jennifer Terry, and Michelle Watson
Also in attendance:	Jack Carra (AssuredPartners)

Meeting called to order at 3:30 p.m.

1. Corporate Insurance Renewals
   Ms. Heckman and Mr. Carra discussed the results of Assured Partners' efforts respecting DMWW coverages, including an overview of the expiring coverages and pricing, as well as proposed 2023 coverages and pricing.

2. Cost of Service Study
   DMWW's draft 2023 Cost of Service Study Report was presented and reviewed.

   Ms. Kahler advised that in 2017, DMWW engaged Raftelis to review our cost of service study to ensure the principles and methodologies used are consistent with generally accepted industry standards. At that time, Raftelis recommended several changes, including changing from a historical cost model to a forward-looking revenue requirements model.

   The draft 2023 Cost of Service Study Report summarizes how revenue requirements are allocated not only to various cost functions, but also to various customer classes. The Study assigns costs attributable to peaking based on the demands each customer class places on the system.

3. Proposed 2023 Water Rates
   Proposed 2023 Water Rates were presented and discussed.

   Several years ago, Raftelis' calculations and methodologies showed DMWW is not fully recovering the cost to serve some customer classes, especially the Wholesale Purchased Capacity customer class. Because DMWW recovers 100% of costs from all customers in total, where one customer class is under-recovering costs, another customer class is over-recovering. To achieve full cost recovery in the Purchased Capacity rate, a three-year phase-in approach was recommended and implemented. Rate increases of 15% implemented in each of 2021 and 2022 were established to bring alignment between revenue and costs in the Purchased Capacity customer class. Next year, 2023, will be the third and final year of this phase-in approach.

   Based on COS results, staff recommends a 10% increase for Purchased Capacity customers, and a 0% rate increase for the Wholesale With Storage customer class. All rates are proposed to be effective April 1, 2023.

In recent years, Board and staff have discussed transitioning to a different wholesale rate structure that would distribute costs more equitably to wholesale customers within the Purchased Capacity and With Storage classes based on the demands each customer places on the system. These changes have not been implemented pending the outcome of regionalization discussions. As the Central Iowa Water Works (CIWW) 28E is anticipated to be signed by the effective date of the new rates, staff is not recommending changes to the wholesale water rate structure at this time. If, contrary to expectations, CIWW does not come to fruition, staff will likely recommend reconsidering changes to the wholesale rate structure before next year's rate cycle.

Water affordability and designing retail water rate structures to encourage wise use of water are important conversations in the water industry today. The 2023 Budget includes a study to evaluate water affordability and DMWW's retail rate structure considering modern objectives of a sustainable water system.

4. Proposed 2023 Budget

The Board of Trustees will set the Public Hearing for the 2023 Budget at the October Board meeting. Ms. Holland reviewed projections for 2023 revenue and additional funding, and for expenses.

She also highlighted department statistics. Total revenue for 2023 is proposed to be budgeted at $85.4 million, up $5.8 million compared to the 2022 budget. Water pumpage is proposed to be budgeted at 17.7 billion gallons, an increase of 500 million gallons from the 2022 budget. The 2023 proposed revenue budget reflects recommended rate increases taking effect on April 1, 2023.

Additional funding for 2023 of $35.1 million includes unspent funds that have been carried over from the prior year's budget, development plan review, other projects funded by outside entities including regional participation, and projects funded by State Revolving Fund (SRF) proceeds.

Total operating expenses of $58.1 million are proposed for 2023. This is an increase of $5.1 million, or 9.6%, from the 2022 budget. Total capital expenditures are proposed at $62.5 million. The utility's debt service payments were fairly constant from 2018-2021. The 2012A and 2012B bonds were paid off in 2021. There were minimal debt service payments budgeted in 2022 and as SRF-funded projects will still be under early construction in 2023, no debt service payments are budgeted in 2023.

The 2023 budget does not include funds to increase operating reserves. Generally, the increase to operating reserves is budgeted at $500,000. The increase needed for operating reserves to meet the Board policy of three months' operating expenses in reserves will come from prior year excess revenues rather than 2023 rate revenue.

5. CEO and General Manager's Comments

Mr. Corrigan reminded attendees that the Departmental Budget Overviews will be presented at the November Finance and Audit Committee meeting.

6. Public Comments – There were no comments from the public.

Meeting adjourned at 4:40 p.m.

DES MOINES WATER WORKS
FINANCIAL STATEMENT COMMENTS
FOR THE MONTH ENDED September 30, 2022

STATEMENT OF NET POSITION

Below are summaries of financial position and activity for the month of September 2022:

Summary Net Position (in millions)

	Sep 30, 2022		Dec 31, 2021	
Cash		$31.0		$26.3
Invested Cash		13.0		5.0
Accounts Receivable		11.4		10.4
Operating Reserves		13.3		12.8
Revenue Bond Reserves		0.2		0.2
Other Assets		4.9		5.7
Fixed Assets	591.6		591.6	
Less: Accumulated Depreciation	(225.6)		(215.8)	
Net Fixed Assets		366.0		375.8
Construction in Progress		17.3		7.9
Total Assets		457.2		444.1
Deferred Outflows of Resources		5.1		5.1
Total Assets & Deferred Outflows of Resources		**462.3**		**449.3**
Current Liabilities		8.8		12.2
Long-Term Liabilities		18.3		18.4
Other Liabilities		2.1		2.0
Total Liabilities		29.2		32.5
Deferred Inflows of Resources		19.8		19.8
Net Position		413.2		396.9
Total Liabilities, Deferred Inflows of Resources & Net Position		**462.3**		**449.3**

STATEMENT OF EARNINGS

Summary information from the Statement of Earnings is as follows:

	September 2022	Year to date 2022	Year to date 2021
Operating Revenue	$ 8.1 million	$ 64.4 million	$ 63.0 million
Operating Expenses	$ 5.6 million	$ 48.2 million	$ 45.0 million
Other Income (Expense)	$ 0.0 million	$ 0.1 million	$ 0.0 million
Net Earnings	$ 2.5 million	$ 16.3 million	$ 18.0 million

The table below summarizes expenses for the period-to-date ended September 2022 and 2021:

OPERATING EXPENSES
Year-to-Date Ending September 30, 2022 and 2021

	YTD Sep 2022	% of Total	YTD Sep 2021	% of Total
Labor	$ 12,284,993	32%	$ 12,312,016	35%
Benefits	6,785,142	18%	6,516,714	18%
Purchased Services	6,861,311	18%	5,899,591	17%
Materials and Equipment	2,990,302	8%	2,618,200	7%
Chemicals	5,020,794	13%	3,921,260	11%
Utilities/Telephone	2,557,284	7%	2,442,637	7%
Insurance	1,203,354	3%	1,060,462	3%
Postage	298,937	1%	299,616	1%
Other	377,129	1%	311,154	1%
	$ 38,379,246	100%	$ 35,381,650	100%

CHANGES IN INVESTMENTS

	Change from Prior Month	Average Annual Return
Bond Reserves	$45	
Operating Reserves	$11,681	0.38%
Invested Operating Cash	$3,011,171	1.08%

Comments

Pension fund investments decreased by 3.6 million for the month of September 2022. The pension fund balance as of September 30, 2022, was $48.8 million.

PROJECT EXPENSES

Total expenditures for operating projects through September 2022 were approximately $38.4 million or 72% of the operating budget. Overall expenditures on capital projects were approximately $9.5 million or 16% of the capital budget.

DES MOINES WATER WORKS
Statement of Net Position
For the Period Ending September 30, 2022 and December 31, 2021

	2022	2021	Change
ASSETS			
Cash			
Petty Cash	$ 1,900	$ 1,900	
Interest Bearing Cash	31,023,551	26,324,418	
Total	$ 31,025,451	$ 26,326,318	$ 4,699,133
Invested Cash			
Operating			
Cash on Hand	$ 1,360,486	$ 3,410,425	
U.S. Government Securities	11,679,062	1,590,900	
Total	$ 13,039,548	$ 5,001,325	$ 8,038,223
Accounts Receivable			
Accounts Receivable	$ 8,779,224	$ 7,818,425	
Accounts Receivable Unbilled	2,613,898	2,613,898	
Accrued Interest Receivable	42,582	1,160	
Total	$ 11,435,704	$ 10,433,483	$ 1,002,221
Reserves (Invested)			
Operating			
Cash On Hand	$ 2,726,750	$ 6,301,673	
U.S. Government Securities	10,609,667	6,485,090	
Total	$ 13,336,417	$ 12,786,763	$ 549,654
Revenue Bond Reserves (Invested)			
Cash on Hand	$ 158,902	$ 214,239	
Total	$ 158,902	$ 214,239	$ (55,338)
Other Assets			
Materials in Stock Accounts	$ 4,472,058	$ 4,130,745	
Water Receivable Long-Term	200,453	172,651	
Prepaid Insurance	103,627	1,036,273	
Prepaid Expense	307,681	341,629	
Accum Unrealized Gain/(Loss) Invest	(214,967)	(11,878)	
Total	$ 4,868,854	$ 5,669,420	$ (800,566)

DES MOINES WATER WORKS
Statement of Net Position
For the Period Ending September 30, 2022 and December 31, 2021

	2022	2021	Change
ASSETS-CONTINUED			
Fixed Assets			
Land & Right of Way	$ 8,208,369	$ 8,208,369	
Structures and Machinery	169,105,964	169,105,964	
Water Supply System	60,344,512	60,344,512	
Urbandale Booster System	509,687	509,687	
Pipelines	283,161,165	283,161,165	
Meters	32,629,950	32,629,950	
Laboratory Equipment	805,473	805,473	
Distribution Equipment	1,466,215	1,466,215	
Mobile Equipment	4,046,016	4,046,016	
Vehicles	2,858,318	2,858,318	
Office Equipment	1,341,093	1,341,093	
MIS Equipment	27,096,288	27,096,288	
Total	$ 591,573,051	$ 591,573,051	
Accumulated Depreciation	(225,590,790)	(215,796,170)	
Construction in Progress	$ 17,311,012	7,899,450	
Total Fixed Assets	$ 383,293,272	$ 383,676,331	$ (383,058)
TOTAL ASSETS	**$ 457,158,148**	**$ 444,107,879**	**$ 13,050,269**
DEFERRED OUTFLOWS OF RESOURCES			
Pension Related Amounts	5,147,743	5,147,743	
Total	**$ 5,147,743**	**$ 5,147,743**	$ -
TOTAL ASSETS & DEFERRED OUTFLOWS OF RESOURCES	**$ 462,305,891**	**$ 449,255,622**	**$ 13,050,269**

DES MOINES WATER WORKS
Statement of Net Position
For the Period Ending September 30, 2022 and December 31, 2021

	2022	2021	Change
LIABILITIES			
Current Liabilities			
Accounts Payable	$ 347,621	$ 1,888,374	
Construction Payables	1,960,967	4,253,313	
Salaries and Wages Payable	744,440	1,044,215	
Accrued Leave	3,786,499	3,786,499	
State Tax Payable	412,238	116,056	
Work Comp Reserves	118,803	118,803	
Revenue Bond Interest Payable	1,243	262	
Revenue Bonds Payable Current	157,000	157,000	
Fees Collected for Other Entities	1,254,202	791,484	
Unclaimed Refunds	18,419	10,178	
Total	$ 8,801,433	$ 12,166,184	$ (3,364,751)
Long Term Liabilities			
Pension Liability	(171,117)	(171,117)	
Other Post-Employment Benefit Liability	18,494,555	18,494,555	
Other Non-Current Liabilities	294	32,859	
Total	$ 18,323,732	$ 18,356,297	$ (32,565)
Other Liabilities			
Deposits by Consumers	$ 2,019,198	$ 1,921,275	
Project H2O	53,671	254	
Miscellaneous Liabilities	22,474	44,428	
Total	$ 2,095,343	$ 1,965,957	$ 129,386
TOTAL LIABILITIES	**$ 29,220,509**	**$ 32,488,438**	**$ (3,267,929)**
DEFERRED INFLOWS OF RESOURCES			
Pension Related Amounts	$ 16,277,276	$ 16,277,276	
Other Post-Employment Benefit Amounts	3,569,267	3,569,267	
Total	$ 19,846,543	$ 19,846,543	**$ -**
NET POSITION	**$ 413,238,840**	**$ 396,920,642**	**$ 16,318,198**
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES & NET POSITION	**$ 462,305,891**	**$ 449,255,622**	**$ 13,050,269**

Des Moines Water Works
Statement of Earnings and Retained Earnings
For the Month Ended September 30, 2022, the Nine Months Ending September 30, 2022
and the Nine Months Ending September 30, 2021

	Current Month 2022	Year-To-Date 2022	Yearly Budget 2022	Actual vs. Budget Variance	Year-To-Date 2021	Year-To-Date Current vs. Prior Year
OPERATING REVENUE						
Water Sales	$ 7,566,563	$ 60,290,982	$ 73,094,345	$ (12,803,363)	$ 57,075,972	$ 3,215,010
Sewer Services - Runnells	7,948	68,900	82,412	(13,512)	72,872	(3,972)
Late Fees	42,235	339,946	330,000	9,946	302,661	37,285
Billed Debt Service	-	-	-	-	1,795,957	(1,795,957)
Other Sales and Services	165,442	1,789,750	3,044,112	(1,254,362)	1,315,405	474,345
Billing Services Revenue	186,156	1,376,181	1,954,280	(578,099)	1,315,214	60,967
Land Use Revenue	15,477	162,636	172,800	(10,164)	143,041	19,595
Connection Fees	84,170	342,980	750,000	(407,020)	439,788	(96,808)
Purchase Capacity	-	-	-	-	541,935	(541,935)
Cash Discount and Refunds	515	2,960	-	2,960	2,191	769
Total Operating Revenues	$ 8,068,506	$ 64,374,335	$ 79,427,949	$ (15,053,614)	$ 63,005,036	$ 1,369,299
OPERATING EXPENSES						
Labor	$ 1,267,813	$ 12,284,993	$ 17,064,713	$ 4,779,720	$ 12,312,016	$ 27,023
Benefits	440,768	2,987,387	4,179,900	1,192,513	2,822,912	(164,475)
Retirement Benefits	521,038	3,797,755	5,079,100	1,281,345	3,693,802	(103,953)
Postage	26,258	298,937	490,000	191,063	299,616	679
Telephone	26,711	211,580	307,500	95,920	191,649	(19,931)
Insurance	112,371	1,203,354	1,575,000	371,646	1,060,462	(142,892)
Casualty Loss	620	28,481	100,000	71,519	108,888	80,407
Loss on Bad Accounts	(1,694)	(7,024)	150,000	157,024	(16,509)	(9,485)
Purchased Services	774,083	6,861,311	11,040,604	4,179,293	5,899,591	(961,720)
Training	9,400	102,495	158,860	56,365	42,599	(59,896)
Materials and Equipment	379,263	2,990,302	3,901,960	911,658	2,618,200	(372,102)
Chemicals	424,080	5,020,794	5,769,749	748,955	3,921,260	(1,099,534)
Utilities	499,274	2,345,704	3,000,300	654,596	2,250,988	(94,716)
Gasoline/Fuel	26,069	253,177	228,660	(24,517)	176,176	(77,001)
Total Operating Expense	$ 4,506,054	$ 38,379,246	$ 53,046,346	$ 14,667,100	$ 35,381,650	$ (2,997,596)
Depreciation Expense	$ 1,085,237	9,794,620	13,085,393	3,290,773	9,614,501	(180,119)
Net Income from Operations	2,477,215	16,200,469	13,296,210	2,904,259	18,008,885	(1,808,416)
Other Income (Expense) :						
Capital Contributions	$ -	$ 161,839	$ -	$ 161,839	$ 403,093	$ (241,254)
Contributions From Subdividers	-	-	-	-	-	-
Investment Income	15,943	44,713	177,000	(132,287)	80,315	(35,602)
Net Change - Investment Values	(15,220)	(86,468)	-	(86,468)	(95,240)	8,772
Interest Expense / Amortization	(262)	(2,355)	(2,748)	393	(370,766)	368,411
Gain/Loss on Fixed Assets	-	-	-	-	-	-
Other Income/Expense	-	-	-	-	-	-
Other Income (Expense), net	$ 461	$ 117,729	$ 174,252	$ (56,523)	$ 17,402	$ 100,327
Net Earnings	$ 2,477,676	$ 16,318,198	$ 13,470,463	$ 2,847,736	$ 18,026,287	$ (1,708,089)
Retained Earnings, January 1		$ 396,920,642			$ 355,237,315	
Ending Retained Earnings		$ 413,238,840			$ 373,263,602	

DES MOINES WATER WORKS
STATEMENT OF INVESTMENT CHANGES
FOR THE MONTH ENDED SEPTEMBER 30, 2022

BOND RESERVES

	Balance at 8/31/2022	Additions	Deductions	Balance at 9/30/2022
Cash on Hand	$158,857	45	-	$158,902
U.S. Government Securities	$0	-	-	0
Total Bond Reserves	$158,857	$45	$0	$158,902

INVESTED RESERVES

	Balance at 8/31/2022	Additions	Deductions	Balance at 9/30/2022
Operating				
Cash on Hand	$723,821	2,002,929	-	$2,726,750
U.S. Government Securities	$12,600,914	8,752	2,000,000	10,609,667
Total Invested Reserves	$13,324,736	$2,011,681	$2,000,000	$13,336,417

The average annual interest earned was 0.38%.

INVESTED OPERATING CASH

	Balance at 8/31/2022	Additions	Deductions	Balance at 9/30/2022
Operating				
Cash on Hand	$1,355,874	3,002,599	2,997,987	$1,360,486
U.S. Government Securities	$8,672,503	3,006,559	-	11,679,062
Total Invested Reserves	$10,028,377	$6,009,158	$2,997,987	$13,039,548

The average annual interest earned was 1.08%.

DES MOINES WATER WORKS
STATEMENT OF INVESTMENT CHANGES
YEAR TO DATE 2022

PENSION FUND

	Balance 1/1/2022	Transfers, Expenses & Deposits	Benefit Payments	Investment Return	Balance at 9/30/2022	YTD % Return
Fixed Income						
Mellon Capital Mgmt - Bond Market Index	6,583,916	1,729,106	(2,795,048)	(826,165)	4,691,809	-14.08%
Neuberger Berman / Mellon / DDJ - High Yield I	2,532,418	(111,458)		(351,527)	2,069,433	-14.23%
Principal Global Investors - Income	21,540,862	(816,513)	4,907	(3,028,051)	17,701,206	-14.37%
Large U.S. Equity						
Principal Global Investors - Equity Income	7,381,045	64,356		(1,493,981)	5,951,421	-20.20%
Principal Global Investors - Large Cap S&P 500 Index	4,528,714	(926,659)		(1,019,301)	2,582,755	-25.28%
T. Rowe Price / Brown Advisory - Large Cap Growth	7,222,302	1,667,473		(2,745,131)	6,144,644	-33.87%
Small/Mid U.S. Equity						
Robert Baird / Eagle Asset Mgmt - Mid Cap Growth III	1,052,226	226,429		(322,460)	956,195	-27.57%
DFA / Vaughan Nelson / LA Capital - Small Cap Value II	530,679	7,688		(96,588)	441,779	-18.12%
AB / Brown / Emerald - Small Cap Growth I	506,694	128,488		(167,715)	467,467	-29.23%
LA Capital Mgmt / Victory - Mid Cap Value I	1,067,160	(13,842)		(171,118)	882,200	-16.18%
International Equity						
Causeway / Barrow Hanley - Overseas	2,352,617	(445,243)		(421,545)	1,485,829	-19.91%
Principal Global Investors / DFA - International Small Cap	1,075,686	(48,451)		(328,938)	698,297	-31.41%
Principal Global Investors - Diversified International	5,597,781	(430,434)		(1,566,765)	3,600,582	-29.25%
Origin Asset Management LLP - Origin Emerging Markets	1,891,501	(89,878)		(631,537)	1,170,086	-34.35%
Total Principal Financial	$ 63,863,603	$ 941,063	$ (2,790,140)	$ (13,170,823)	$ 48,843,703	-21.04%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
	Office of the CEO/General Manager	$1,136,512	$1,646,636	$0	$1,646,636	$510,124	69%
	Customer Service	$3,445,896	$4,934,341	$0	$4,934,341	$1,488,445	70%
	Engineering	$1,610,390	$1,658,345	$150,000	$1,808,345	$197,955	89%
	Finance	$3,432,985	$4,484,748	$0	$4,484,748	$1,051,763	77%
	Human Resources	$661,386	$785,367	$0	$785,367	$123,981	84%
	Information Technology	$2,345,747	$3,185,636	$0	$3,185,636	$839,889	74%
	Office of the Chief Operating Officer	$2,534,415	$3,249,238	$0	$3,249,238	$714,823	78%
	Water Distribution	$6,613,193	$9,114,805	$0	$9,114,805	$2,501,612	73%
	Water Production	$16,598,725	$23,987,230	$0	$23,987,230	$7,388,505	69%
	Total Operating	$38,379,246	$53,046,346	$150,000	$53,196,346	$14,817,098	72%
Capital							
	Office of the CEO/General Manager	$0	$0	$0	$0	$0	No Budget
	Customer Service	$658,183	$1,426,682	$0	$1,426,682	$768,499	46%
	Engineering	$7,273,457	$39,830,333	$12,234,830	$52,065,163	$44,791,706	14%
	Finance	$0	$0	$0	$0	$0	No Budget
	Human Resources	$0	$0	$0	$0	$0	No Budget
	Information Technology	$222,323	$1,385,761	$0	$1,385,761	$1,163,438	16%
	Office of the Chief Operating Officer	$13,685	$34,000	$0	$34,000	$20,315	40%
	Water Distribution	$475,898	$1,387,499	$0	$1,387,499	$911,601	34%
	Water Production	$833,038	$1,867,936	$800,000	$2,667,936	$1,834,898	31%
	Total Capital	$9,476,584	$45,932,211	$13,034,830	$58,967,041	$49,490,457	16%
Total Project Costs		$47,855,830	$98,978,557	$13,184,830	$112,163,387	$64,307,555	43%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Office of the CEO/General Manager

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
950-200	New Business, Community & Economic Dev	$64,645	$76,547	$0	$76,547	$11,902	84%
996-001	CEO Department Administration	$421,523	$348,695	$0	$348,695	($72,828)	121%
996-030	Board Activities	$221,405	$706,915	$0	$706,915	$485,510	31%
996-200	Business Strategies	$140,085	$177,925	$0	$177,925	$37,840	79%
996-210	Project Management	$105,533	$36,837	$0	$36,837	($68,696)	286%
995-010	Public Policy - WS Advocate	$183,320	$299,717	$0	$299,717	$116,397	61%
	Total Operating	$1,136,512	$1,646,636	$0	$1,646,636	$510,124	69%
	OCEO Capital						
	Total Capital	$0	$0	$0	$0	$0	$0
Total Office of CEO/General Manager		$1,136,512	$1,646,636	$0	$1,646,636	$510,124	69%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Customer Service

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
950-001	Cust Svc Dept Administration	$1,576,555	$2,096,417	$0	$2,096,417	$519,862	75%
950-100	Contact Center Operations	$783,094	$1,202,073	$0	$1,202,073	$418,979	65%
950-300	Communications/PR	$146,186	$250,876	$0	$250,876	$104,690	58%
950-600	Field Customer Service	$940,060	$1,384,975	$0	$1,384,975	$444,915	68%
	Total Operating	$3,445,896	$4,934,341	$0	$4,934,341	$1,488,445	70%
Capital							
955-060	Field Cust Svc Capital	$661,500	$1,426,682	$0	$1,426,682	$765,182	46%
955-100	Contact Center Capital	$0	$0	$0	$0	$0	No Budget
925-160	Radio Frequency Project	($3,317)	$0	$0	$0	$3,317	No Budget
	Total Capital	$658,183	$1,426,682	$0	$1,426,682	$768,499	46%
Total Customer Service		$4,104,079	$6,361,023	$0	$6,361,023	$2,256,944	65%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Engineering

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
940-001	Engineering Dept Administration	$1,366,196	$1,575,127	$0	$1,575,127	$208,931	87%
940-010	Engineering Studies	$244,194	$83,218	$150,000	$233,218	($10,976)	105%
	Total Operating	$1,610,390	$1,658,345	$150,000	$1,808,345	$197,955	89%
Capital							
945-010	Facility Management	$963,855	$3,270,305	$4,017,392	$7,287,697	$6,323,842	13%
945-012	New ASR Well	$4,387	$5,905,175	$0	$5,905,175	$5,900,788	0%
945-080	WMR - Des Moines	$1,743,966	$7,505,366	$1,550,000	$9,055,366	$7,311,400	19%
945-090	WMR - Polk County	$190,944	$2,814,908	$3,230,000	$6,044,908	$5,853,964	3%
945-095	WMR - Windsor Heights	$6,680	$574,290	$245,000	$819,290	$812,610	1%
945-100	WMR - Pleasant Hill	$15,975	$0	$0	$0	($15,975)	No Budget
945-120	WMR - Cumming	$414	$0	$0	$0	($414)	No Budget
945-200	Development Plan Review & Inspection	$276,310	$280,140	$24,000	$304,140	$27,830	91%
945-210	Core Network Feeder Mains	$49,399	$915,559	$0	$915,559	$866,160	5%
945-220	Fleur Drive Treatment Plant	$2,007,895	$9,309,026	$785,618	$10,094,644	$8,086,749	20%
945-225	McMullen Water Treatment Plant	$47,379	$1,626,863	$1,312,000	$2,938,863	$2,891,484	2%
945-228	Saylorville Water Treatment Plant	$987,573	$6,413,530	$454,820	$6,868,350	$5,880,777	14%
945-230	Remote Facilities - Pumping & Storage	$268,203	$0	$80,000	$80,000	($188,203)	335%
945-235	Joint NW Storage, PS and Feeder Mains	$144,651	$0	$0	$0	($144,651)	No Budget
945-245	Joint SW Storage, PS and Feeder Mains	$483,116	$0	$536,000	$536,000	$52,884	90%
945-250	Waukee-Xenia Feeder Main & Pump Station	$82,536	$0	$0	$0	($82,536)	No Budget
945-255	Bondurant Feeder and Pump Station	$173	$1,215,171	$0	$1,215,171	$1,214,999	0%
	Total Capital	$7,273,457	$39,830,333	$12,234,830	$52,065,163	$44,791,706	14%
Total Engineering		$8,883,846	$41,488,678	$12,384,830	$53,873,508	$44,989,662	16%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Finance

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
930-001	Finance Dept Administration	$729,501	$984,601	$0	$984,601	$255,100	74%
930-010	Financial Services	$1,716,063	$2,172,868	$0	$2,172,868	$456,805	79%
930-086	Other Accounting Expenses	$540	$0	$0	$0	($540)	No Budget
930-090	Purchasing	$84,472	$96,381	$0	$96,381	$11,909	88%
950-410	A/R Management	$625,676	$913,398	$0	$913,398	$287,722	68%
970-010	Central Stores	$76,731	$117,500	$0	$117,500	$40,769	65%
970-500	GDMBG Operations and Maintenance	$200,000	$200,000	$0	$200,000	$0	100%
	Total Operating	$3,432,985	$4,484,748	$0	$4,484,748	$1,051,765	77%
Capital							
955-090	Pmt/Mail Processing Capital	$0	$0	$0	$0	$0	No Budget
	Total Capital	$0	$0	$0	$0	$0	No Budget
Total Finance		$3,432,985	$4,484,748	$0	$4,484,748	$1,051,765	77%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Human Resources

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
910-001	HR Dept Administration	$237,894	$291,281	$0	$291,281	$53,387	82%
910-010	Employee Relations	$237,619	$193,950	$0	$193,950	($43,669)	123%
910-060	Employment	$73,259	$94,309	$0	$94,309	$21,050	78%
910-110	Compensation/Benefits	$102,089	$152,434	$0	$152,434	$50,345	67%
910-150	Employee Learning & Growth	$10,523	$53,393	$0	$53,393	$42,870	20%
	Total Operating	$661,386	$785,367	$0	$785,367	$123,981	84%
Capital							
	Total Capital	$0	$0	$0	$0	$0	No Budget
Total Human Resources		$661,386	$785,367	$0	$785,367	$123,981	84%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Information Technology

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
920-001	IT Dept Administration	$585,109	$755,124	$0	$755,124	$170,015	77%
920-160	Technical Services	$242,758	$290,444	$0	$290,444	$47,686	84%
920-240	IT Development & Application Svcs	$20,323	$68,958	$0	$68,958	$48,635	29%
920-250	IT Services	$855,384	$1,230,840	$0	$1,230,840	$375,456	69%
920-350	System Services	$642,174	$840,270	$0	$840,270	$198,096	76%
	Total Operating	$2,345,747	$3,185,636	$0	$3,185,636	$839,889	74%
Capital							
925-010	Info Systems Capital	$222,323	$1,385,761	$0	$1,385,761	$1,163,438	16%
	Total Capital	$222,323	$1,385,761	$0	$1,385,761	$1,163,438	16%
Total Information Technology		$2,568,071	$4,571,397	$0	$4,571,397	$2,003,326	56%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Office of the Chief Operating Officer

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
993-000	OCOO Dept Administration	$32,381	$69,782	$0	$69,782	$37,401	46%
960-510	Risk & Incident Management	$544,927	$822,188	$0	$822,188	$277,261	66%
910-240	Safety	$138,602	$231,081	$0	$231,081	$92,479	60%
970-060	Grounds Maintenance	$486,260	$796,349	$0	$796,349	$310,089	61%
	Department Operating	$1,202,170	$1,919,400	$0	$1,919,400	$717,230	63%
960-511	Flood Response & Repairs	$2,407	$0	$0	$0	($2,407)	No Budget
970-060	Grounds Maintenance - PILOT	$1,329,838	$1,329,838	$0	$1,329,838	$0	100%
	Total Operating	$2,534,415	$3,249,238	$0	$3,249,238	$714,823	78%
Capital							
975-005	Grounds Maintenance Capital	$13,685	$34,000	$0	$34,000	$20,315	40%
	Total Capital	$13,685	$34,000	$0	$34,000	$20,315	40%
Total Office of the COO		$2,548,100	$3,283,238	$0	$3,283,238	$735,138	78%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Water Distribution

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
960-001	Water Dist Dept Administration	$2,630,657	$3,828,989	$0	$3,828,989	$1,198,332	69%
960-010	Distribution Administration	$141,957	$213,995	$0	$213,995	$72,038	66%
960-100	Dist System Maint/Repairs	$2,214,006	$2,872,733	$0	$2,872,733	$658,727	77%
960-160	Water Distribution Support	$357,340	$576,125	$0	$576,125	$218,785	62%
960-180	Leak Detection	$530,881	$711,738	$0	$711,738	$180,857	75%
960-250	Distribution Billed Services	$625,914	$691,191	$0	$691,191	$65,277	91%
960-500	Distribution Water Quality	$112,437	$220,034	$0	$220,034	$107,597	51%
	Total Operating	$6,613,193	$9,114,805	$0	$9,114,805	$2,501,612	73%
Capital							
965-010	Distribution System Improvements	$457,908	$1,353,499	$0	$1,353,499	$895,591	34%
965-025	Dist Billed Services Capital	$6,450	$20,700	$0	$20,700	$14,250	31%
965-200	Leak Detection Equipment	$11,540	$13,300	$0	$13,300	$1,760	87%
	Total Capital	$475,898	$1,387,499	$0	$1,387,499	$911,601	34%
Total Water Distribution		$7,089,091	$10,502,304	$0	$10,502,304	$3,413,213	68%

DES MOINES WATER WORKS
Project Costs by Department - Summary
Year to Date ended September 30, 2022
75% of Year Completed

Water Production

		YTD Actual	Yearly Budget 2022	Budget Adjustment / Carry Over	Net Yearly 2022 Budget	Variance	% of Budget
Operating							
970-110	Facility Maintenance	$414,384	$578,390	$0	$578,390	$164,006	72%
970-200	Vehicle Maintenance	$845,926	$1,062,519	$0	$1,062,519	$216,593	80%
970-360	Communication Sys Maintenance	$25,917	$49,278	$0	$49,278	$23,361	53%
970-450	HVAC Operations & Maintenance	$109,102	$138,540	$0	$138,540	$29,438	79%
980-001	Water Production Dept Admin	$2,963,669	$3,972,706	$0	$3,972,706	$1,009,037	75%
980-010	Water Production Operations	$887,217	$1,084,457	$0	$1,084,457	$197,240	82%
980-020	Fleur Treatment Chem/Energy	$5,138,845	$6,268,728	$0	$6,268,728	$1,129,883	82%
980-030	McMullen Treatment Chem/Energy	$1,836,531	$4,354,799	$0	$4,354,799	$2,518,268	42%
980-040	Saylorville Treatment Chem/Energy	$812,760	$1,063,537	$0	$1,063,537	$250,777	76%
980-200	Fleur Plant Maintenance	$1,236,221	$1,937,213	$0	$1,937,213	$700,992	64%
980-250	McMullen Plant Maintenance	$343,762	$555,127	$0	$555,127	$211,365	62%
980-300	Saylorville Plant Maintenance	$301,215	$502,896	$0	$502,896	$201,681	60%
980-350	WP Maintenance Oversight	$128,496	$217,924	$0	$217,924	$89,428	59%
980-410	Louise P. Moon Pumping & Maint.	$383,337	$540,754	$0	$540,754	$157,417	71%
980-420	PC PS Maintenance	$115,112	$152,034	$0	$152,034	$36,922	76%
980-430	DM Remote Storage & Pumping	$520,975	$741,686	$0	$741,686	$220,711	70%
980-500	Routine Laboratory Monitoring	$491,870	$615,442	$0	$615,442	$123,572	80%
980-530	Source Water Quality	$43,385	$151,200	$0	$151,200	$107,815	29%
	Total Operating	$16,598,725	$23,987,230	$0	$23,987,230	$7,388,505	69%
Capital							
985-010	Water Production Reinvestment	$600,704	$968,298	$0	$968,298	$367,594	62%
975-010	Vehicle Capital	$232,334	$899,638	$800,000	$1,699,638	$1,467,304	14%
	Total Capital	$833,038	$1,867,936	$800,000	$2,667,936	$1,834,898	31%
Total Water Production		$17,431,762	$25,855,166	$800,000	$26,655,166	$9,223,404	65%

Consent Agenda
Item 1-C

MONTHLY SCHEDULE FOR THE MONTH OF SEPTEMBER 2022

BANKERS TRUST EXCESS OPERATING CASH FUND	Investment Purchased	2,997,987.16
ACCOUNTS PAYABLE MONTHLY SCHEDULE	Weekly Check Runs	7,057,150.93
EMPLOYEE PAYROLL	Bi Weekly Payrolls	1,220,451.38
TOTAL		$8,277,602.31

PAYMENTS FOR SEPTEMBER, 2022

PeopleSoft Financials Report ID: DWAPR002.sqr

Check No.	Paid to:	Description	Amount
90222	Des Moines Metro Credit Union	Credit Union Payable	$26,971.00
91422	IPERS Collections	Pension Plan Contribution	219,857.69
91622	Des Moines Metro Credit Union	Credit Union Payable	26,646.00
93022	Des Moines Metro Credit Union	Credit Union Payable	26,381.00
220902	Principal Life Insurance	Deferred Compensation Payable	60,614.49
220916	Principal Life Insurance	Deferred Compensation Payable	60,732.28
220930	Principal Life Insurance	Deferred Compensation Payable	60,556.80
263521	Master Single Payment Vendor	Refunds	819.86
263522	Master Single Payment Vendor	Refunds	115.07
263523	Master Single Payment Vendor	Refunds	155.81
263524	Master Single Payment Vendor	Refunds	41.62
263525	Master Single Payment Vendor	Refunds	98.86
263526	Master Single Payment Vendor	Refunds	5.17
263527	Master Single Payment Vendor	Refunds	97.28
263528	Master Single Payment Vendor	Refunds	150.96
263529	Master Single Payment Vendor	Refunds	77.18
263530	Master Single Payment Vendor	Refunds	525.79
263531	Master Single Payment Vendor	Refunds	20.70
263532	Master Single Payment Vendor	Refunds	120.56
263533	Master Single Payment Vendor	Refunds	212.77
263534	Master Single Payment Vendor	Refunds	115.43
263535	Master Single Payment Vendor	Refunds	23.49
263536	Master Single Payment Vendor	Refunds	14.53
263537	Master Single Payment Vendor	Refunds	25.50
263538	Master Single Payment Vendor	Refunds	1,110.69
263539	Master Single Payment Vendor	Refunds	252.19
263540	Master Single Payment Vendor	Refunds	11.85
263541	Master Single Payment Vendor	Refunds	87.78
263542	Master Single Payment Vendor	Refunds	43.37
263543	Master Single Payment Vendor	Refunds	152.75
263544	Master Single Payment Vendor	Refunds	48.59
263545	Master Single Payment Vendor	Refunds	154.86
263546	Master Single Payment Vendor	Refunds	71.30
263547	Master Single Payment Vendor	Refunds	156.38
263548	Master Single Payment Vendor	Refunds	213.41
263549	Master Single Payment Vendor	Refunds	26.49
263550	Master Single Payment Vendor	Refunds	124.36
263551	Master Single Payment Vendor	Refunds	1,082.71
263552	Master Single Payment Vendor	Refunds	170.06
263553	Master Single Payment Vendor	Refunds	30.98
263554	Master Single Payment Vendor	Refunds	105.34
263555	Master Single Payment Vendor	Refunds	42.09
263556	Master Single Payment Vendor	Refunds	123.37
263557	Master Single Payment Vendor	Refunds	49.66
263558	Master Single Payment Vendor	Refunds	123.92
263559	Master Single Payment Vendor	Refunds	142.68
263560	Master Single Payment Vendor	Refunds	46.66
263561	Master Single Payment Vendor	Refunds	45.98
263562	Master Single Payment Vendor	Refunds	9.51
263563	Accord Architecture	Contractors	278.40
263564	Acme Tools	Inventory	123.36
263565	Ahlers, Cooney, PC	Legal Fees	1,800.00
263566	Airgas North Central	Inventory	189.32
263567	Amazon Capital Services Inc	Office Supplies	1,927.92
263568	American Water Works Association	Dues and Memberships	259.00
263569	Backflow Prevention Services of Iowa, In	Purchased Services	100.00
263570	Bonnie's Barricades	Contractors	1,548.05

PAYMENTS FOR SEPTEMBER, 2022

PeopleSoft Financials Report ID: DWAPR002.sqr

Check No.	Paid to:	Description	Amount
263571	CDW	Office Supplies	128.02
263572	CTI Ready Mix	Concrete	648.00
263573	Canon Financial Services INC	Printing & Copies	1,297.74
263574	Capital City Equipment Company	Vehicle Maintenance Materials	288.64
263575	Capital Sanitary Supply	Inventory	772.25
263576	Carquest	Vehicle Maintenance Materials	127.18
263577	Central Iowa Ready Mix	Concrete	524.00
263578	City Supply Corporation	Inventory	180.28
263579	City of Des Moines	Contractors	680.00
263580	City of Des Moines	Purchased Services	290.00
263581	Combined Systems Technology, Inc.	Inventory	150.00
263582	Commercial Supply Co	Inventory	39.98
263583	Construction & Aggregate Products, Inc.	Inventory	869.56
263584	DMF Gardens	Materials & Supplies	882.80
263585	DXP	Materials & Supplies	1,307.56
263586	Davis Equipment Corporation	Vehicle Maintenance Materials	183.67
263587	Dentons Davis Brown PC	Legal Fees	1,252.00
263588	Douglas K. Oscarson	Consultants	1,787.10
263589	Electrical Engineering & Equipment Co.	Inventory	958.35
263590	Electronic Engineering Company	Purchased Services	1,374.00
263591	Ferrellgas, Inc.	Materials & Supplies	33.55
263592	Fisher Scientific	Inventory	139.04
263593	Grainger, Inc.	Vehicle Maintenance Materials	1,274.23
263594	Graybar Electric Company	Materials & Supplies	1,450.31
263595	Home City Ice	Park Materials	150.60
263596	IA-AWWA	Training	1,200.00
263597	Indelco Plastics	Inventory	284.67
263598	Industrial Scientific Corporation	Dues and Memberships	2,315.03
263599	International Foundation of Employee	Dues and Memberships	325.00
263600	Iowa Prison Industries	Employee Job Costs	17.00
263601	Jennifer Terry	Dues and Memberships	280.00
263602	Karey Alvarado	Licenses & Certifications	67.00
263603	Larry's Window Service, Inc.	Purchased Services	242.00
263604	MSC Industrial Supply Company	Vehicle Maintenance Materials	102.42
263605	Martin Marietta Aggregates	Materials & Supplies	166.01
263606	Matt Hoffman	Safety Boots	100.56
263607	McMaster-Carr Supply Company	Inventory	811.92
263608	Megan McDowell Photography	Consultants	834.00
263609	Menard's	Materials & Supplies	136.94
263610	Michelle Cole	Materials & Supplies	164.50
263611	Michelle Snell	Consultants	1,000.00
263612	Norwalk Ready-Mixed Concrete, Inc.	Concrete	1,559.50
263613	Novaspect	Materials & Supplies	388.51
263614	One Source	Purchased Services	243.00
263615	Plumb Supply Company	Inventory	731.49
263616	Pollard Company	Inventory	1,522.03
263617	Power Seal	Inventory	1,894.28
263618	Premier Safety	Inventory	599.33
263619	Print Image Solutions, Inc.	Inventory	119.50
263620	Quick Supply Company	Materials & Supplies	1,154.10
263621	Radwell International	Inventory	626.26
263622	Reotemp	Materials & Supplies	634.07
263623	Rinker Materials	Materials & Supplies	595.00
263624	Rosemount Analytical, Inc.	Inventory	1,544.06
263625	Servicemaster Commercial Carpet, Inc.	Purchased Services	880.00
263626	Star Equipment, Ltd.	Inventory	634.78
263627	Stetson Building Products	Inventory	298.30

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263628	Stonkus Hydraulic, Inc.	Inventory	607.13
263629	Storey-Kenworthy Company	Office Supplies	590.77
263630	TPx Communications	Internet Connectivity	723.17
263631	Taylor Gruis	Safety Boots	182.96
263632	Team Services, Inc.	Contractors	204.75
263633	The Shredder	Purchased Services	87.00
263634	Thyssenkrupp Elevator Corporation	Purchased Services	683.29
263635	Total Tool	Inventory	1,078.36
263636	ULINE	Inventory	332.19
263637	USA Safety Supply Corp	Inventory	250.34
263638	VAG USA	Inventory	120.78
263639	VWR International LLC	Inventory	661.56
263640	West Des Moines Water Works	Sewer	69.00
263641	Advanced Utility Systems Div N. Harris C	Training	3,600.00
263642	Air Products	Inventory	8,459.77
263643	Baker Electric, Inc.	Contractors	16,515.76
263644	Bankers Trust Company	Corporate Credit Card	8,388.95
263645	Bolton & Menk, Inc	Contractors	4,069.00
263646	Calgon Carbon Kuraray	Inventory	37,731.60
263647	Cintas	Purchased Services	2,921.00
263648	Core and Main	Inventory	5,230.08
263649	Des Moines Iron Company	Vehicle Maintenance Materials	4,849.08
263650	DuBois Chemicals, INC	Inventory	9,157.39
263651	Hach Chemical Company	Contractors	7,862.00
263652	Hawkins Inc	Inventory	17,046.58
263653	IP Pathways, LLC	Maintenance Contracts	9,600.00
263654	Iowa One Call	Purchased Services	4,792.20
263655	Kemira Water Solutions, Inc	Inventory	30,942.78
263656	MW Media Consultants, LLC	Consultants	5,777.27
263657	Mail Services LLC	Postage	15,615.55
263658	Mississippi Lime Company	Inventory	47,215.40
263659	Municipal Supply, Inc.	Inventory	6,253.16
263660	Murphy Tractor & Equipment	Vehicle Maintenance Materials	4,916.78
263661	Pratum, Inc	Purchased Services	7,800.00
263662	Stanley Consultants	Contractors	5,484.50
263663	Suez Water Technologies	Inventory	17,978.40
263664	Superior Industrial Equipment	Materials & Supplies	11,430.65
263665	Torgerson Excavating	Plumbing	4,069.00
263666	USA Bluebook	Inventory	3,352.99
263667	Univar	Inventory	6,792.85
263668	Van Meter Industrial, Inc.	Inventory	3,247.76
263669	Voya Financial	Insurance Withholding	9,185.48
263670	Master Single Payment Vendor	Refunds	95.87
263671	Master Single Payment Vendor	Refunds	1,534.16
263672	Master Single Payment Vendor	Refunds	72.96
263673	Master Single Payment Vendor	Refunds	13.34
263674	Master Single Payment Vendor	Refunds	164.21
263675	Master Single Payment Vendor	Refunds	92.05
263676	Master Single Payment Vendor	Refunds	16.10
263677	Master Single Payment Vendor	Refunds	52.64
263678	Master Single Payment Vendor	Refunds	115.46
263679	Master Single Payment Vendor	Refunds	142.04
263680	Master Single Payment Vendor	Refunds	123.65
263681	Master Single Payment Vendor	Refunds	97.20
263682	Master Single Payment Vendor	Refunds	50.17
263683	Master Single Payment Vendor	Refunds	69.25
263684	Master Single Payment Vendor	Refunds	82.08

Check No.	Paid to:	Description	Amount
263685	Master Single Payment Vendor	Refunds	224.78
263686	Master Single Payment Vendor	Refunds	101.40
263687	Master Single Payment Vendor	Refunds	1,900.00
263688	Master Single Payment Vendor	Refunds	32.47
263689	Master Single Payment Vendor	Refunds	9.65
263690	Master Single Payment Vendor	Refunds	712.96
263691	Master Single Payment Vendor	Refunds	180.04
263692	Master Single Payment Vendor	Refunds	40.90
263693	Master Single Payment Vendor	Refunds	30.86
263694	Master Single Payment Vendor	Refunds	50.00
263695	Master Single Payment Vendor	Refunds	60.96
263696	Master Single Payment Vendor	Refunds	141.28
263697	Master Single Payment Vendor	Refunds	152.33
263698	Master Single Payment Vendor	Refunds	40.62
263699	Master Single Payment Vendor	Refunds	120.17
263700	Master Single Payment Vendor	Refunds	107.38
263701	Master Single Payment Vendor	Refunds	127.72
263702	Master Single Payment Vendor	Refunds	163.13
263703	Master Single Payment Vendor	Refunds	58.43
263704	Master Single Payment Vendor	Refunds	36.17
263705	Master Single Payment Vendor	Refunds	145.20
263706	Master Single Payment Vendor	Refunds	88.83
263707	Master Single Payment Vendor	Refunds	98.80
263708	Master Single Payment Vendor	Refunds	121.49
263709	Master Single Payment Vendor	Refunds	157.31
263710	Master Single Payment Vendor	Refunds	153.63
263711	Master Single Payment Vendor	Refunds	70.58
263712	Master Single Payment Vendor	Refunds	78.86
263713	Master Single Payment Vendor	Refunds	37.48
263714	Master Single Payment Vendor	Refunds	295.78
263715	Master Single Payment Vendor	Refunds	18.56
263716	ACCO	Materials & Supplies	1,458.40
263717	AT&T Mobility	Cell Phones	101.81
263718	Acme Tools	Inventory	182.96
263719	Air Products	Inventory	1,818.75
263720	Armored Knights., Inc	Purchased Services	554.40
263721	Bavco	Materials & Supplies	162.00
263722	Bob Jolly	Mileage	108.94
263723	Bonnie's Barricades	Contractors	322.00
263724	CARA Enterprises, Inc	Contractors	190.00
263725	Capital City Equipment Company	Vehicle Maintenance Materials	107.33
263726	Capital Sanitary Supply	Inventory	530.03
263727	Carquest	Vehicle Maintenance Materials	499.86
263728	CenturyLink	Telephone Services	237.75
263729	Cintas	Purchased Services	1,938.41
263730	Commercial Supply Co	Inventory	310.00
263731	Corrosion Fluid Products	Inventory	694.11
263732	Daniel Alvarado	Safety Boots	30.97
263733	David Hartnett	Licenses & Certifications	13.50
263734	Dennis Ryan	Licenses & Certifications	74.83
263735	Dex Media	Advertising	68.00
263736	Douglas K. Oscarson	Consultants	1,776.00
263737	Elder Corporation	Contractors	987.50
263738	Endress and Hauser	Inventory	663.45
263739	Environmental Express	Materials & Supplies	160.08
263740	Essman Research	Consultants	850.00
263741	Factory Motor Parts Company	Vehicle Maintenance Materials	309.97

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Check No.	Paid to:	Description	Amount
263742	Fastenal Company	Inventory	690.40
263743	First Choice Coffee	Food & Beverages	631.00
263744	Force Fitters	Inventory	168.00
263745	Garratt-Callahan Company	Purchased Services	500.00
263746	Grainger, Inc.	Inventory	1,342.70
263747	Graybar Electric Company	Inventory	320.60
263748	H & H Plumbing Inc	Casualty Losses	619.73
263749	Hach Chemical Company	Inventory	1,475.07
263750	Hoists Direct	Materials & Supplies	1,874.00
263751	Image Solutions	Office Supplies	499.10
263752	Ingersoll Rand	Inventory	1,652.85
263753	Interstate All Battery	Inventory	56.25
263754	Iowa Public Radio	Advertising	1,181.73
263755	James Murillo	Licenses & Certifications	64.00
263756	Jessica Barnett	Materials & Supplies	63.25
263757	Kustom Concrete Pumping	Contractors	872.45
263758	Lawson Products, Inc.	Vehicle Maintenance Materials	54.70
263759	MSC Industrial Supply Company	Vehicle Maintenance Materials	125.34
263760	Martin Marietta Aggregates	Materials & Supplies	153.89
263761	McMaster-Carr Supply Company	Inventory	2,435.36
263762	Menard's	Inventory	526.13
263763	Michelle Snell	Consultants	1,600.00
263764	Midwest Office Technology, Inc.	Printing & Copies	902.55
263765	Midwest Wheel Companies	Vehicle Maintenance Materials	793.66
263766	O'Reilly Auto Parts	Vehicle Maintenance Materials	93.25
263767	Ottsen Oil Company	Inventory	115.75
263768	Plumb Supply Company	Inventory	826.63
263769	Power Seal	Inventory	714.99
263770	Premier Safety	Inventory	1,524.98
263771	Railroad Management Company IV LLC	Purchased Services	590.10
263772	Ramco Innovations	Inventory	1,020.02
263773	Reppert Rigging & Hauling Co.	Contractors	400.00
263774	SEI Security Equipment, Inc	Purchased Services	299.70
263775	Seton Identification Products	Park Materials	187.87
263776	Snyder & Associates, Inc.	Contractors	700.00
263777	Stetson Building Products	Inventory	69.39
263778	Torgerson Excavating	Plumbing	970.00
263779	Total Tool	Inventory	590.88
263780	UPS	Delivery/Freight	255.60
263781	USA Bluebook	Inventory	898.95
263782	Vessco	Inventory	192.06
263783	Waste Management of Iowa Inc.	Purchased Services	2,129.90
263784	Wex Bank	Gasoline	259.38
263785	Action Electrical	Contractors	8,875.00
263786	B & C Commercial Cleaning L.C.	Purchased Services	6,000.00
263787	Badger Daylighting	Contractors	3,349.48
263788	Baker Electric, Inc.	Purchased Services	11,449.99
263789	CPI International	Inventory	2,672.45
263790	CTI Ready Mix	Concrete	7,632.00
263791	Calgon Carbon Kuraray	Inventory	21,592.60
263792	City Supply Corporation	Materials & Supplies	4,284.12
263793	City of Alleman	Alleman Payable	10,392.43
263794	City of Cumming	Cumming Payable	8,952.41
263795	City of Pleasant Hill	Billing Service Revenue	254,419.96
263796	City of Runnells	Billing Service Revenue	7,600.55
263797	City of Windsor Heights	Billing Service Revenue	66,211.37
263798	Combined Systems Technology, Inc.	Materials & Supplies	3,163.92

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Check No.	Paid to:	Description	Amount
263799	Core and Main	Inventory	7,343.38
263800	Cortrol Process Systems	Inventory	9,246.78
263801	DXP	Inventory	2,934.62
263802	Eurofins Abraxis LLC	Inventory	3,675.25
263803	Evoqua Water Technologies LLC	Inventory	4,730.60
263804	Greenfield Plaza Sanitary Sewer	Billing Service Revenue	31,870.07
263805	Hawkins Inc	Inventory	11,761.64
263806	HomeServe USA	Billing Service Revenue	211,935.86
263807	IDEXX Laboratories, Inc.	Materials & Supplies	4,450.21
263808	Insight Public Sector, Inc	Purchased Services	110,818.41
263809	Jasper Construction Services	Contractors	18,379.50
263810	Kemira Water Solutions, Inc	Inventory	7,795.38
263811	Mid American Energy	Utilities - Electric & Natural Gas	30,167.37
263812	Mississippi Lime Company	Inventory	42,008.82
263813	Municipal Supply, Inc.	Inventory	28,304.15
263814	Phoenix Security Contractors, LLC	Purchased Services	20,561.50
263815	Polk County	Billing Service Revenue	71,395.65
263816	Polk County Treasurer	Billing Service Revenue	37,602.72
263817	Raccoon Valley Contractors LLC	Contracts Payable	51,960.24
263818	ShiveHattery, Inc.	Contractors	46,350.00
263819	Star Equipment, Ltd.	Vehicle Maintenance Materials	3,389.11
263820	Tension Envelope Corporation	Inventory	4,168.35
263821	Urbandale/Windsor Heights Sanitary Dist	Billing Service Revenue	51,915.69
263822	Verizon Wireless Messaging Service	Cell Phones	4,908.86
263823	WRH, Inc.	Contractors	107,721.45
263824	Woodland Lake Estate Association	Woodland Lakes Estates Payable	6,332.62
263825	Master Single Payment Vendor	Refunds	21.46
263826	Master Single Payment Vendor	Refunds	121.59
263827	Master Single Payment Vendor	Refunds	158.38
263828	Master Single Payment Vendor	Refunds	116.05
263829	Master Single Payment Vendor	Refunds	47.95
263830	Master Single Payment Vendor	Refunds	166.91
263831	Voided Check		0.00
263832	Master Single Payment Vendor	Refunds	149.69
263833	Master Single Payment Vendor	Refunds	124.98
263834	Master Single Payment Vendor	Refunds	99.27
263835	Master Single Payment Vendor	Refunds	153.25
263836	Master Single Payment Vendor	Refunds	151.01
263837	Master Single Payment Vendor	Refunds	51.05
263838	Master Single Payment Vendor	Refunds	66.66
263839	Master Single Payment Vendor	Refunds	135.09
263840	Master Single Payment Vendor	Refunds	85.66
263841	Master Single Payment Vendor	Refunds	8.53
263842	Master Single Payment Vendor	Refunds	93.08
263843	Master Single Payment Vendor	Refunds	33.30
263844	Master Single Payment Vendor	Refunds	115.09
263845	Master Single Payment Vendor	Refunds	64.24
263846	Master Single Payment Vendor	Refunds	32.79
263847	Master Single Payment Vendor	Refunds	6.56
263848	Master Single Payment Vendor	Refunds	149.65
263849	Master Single Payment Vendor	Refunds	74.23
263850	Master Single Payment Vendor	Refunds	68.50
263851	Master Single Payment Vendor	Refunds	7.41
263852	Master Single Payment Vendor	Refunds	134.01
263853	Master Single Payment Vendor	Refunds	145.74
263854	Master Single Payment Vendor	Refunds	109.59
263855	Master Single Payment Vendor	Refunds	130.45

Check No.	Paid to:	Description	Amount
263856	Master Single Payment Vendor	Refunds	58.50
263857	Master Single Payment Vendor	Refunds	75.70
263858	Master Single Payment Vendor	Refunds	67.89
263859	Master Single Payment Vendor	Refunds	106.80
263860	Master Single Payment Vendor	Refunds	118.27
263861	Master Single Payment Vendor	Refunds	55.94
263862	Voided Check		0.00
263863	Master Single Payment Vendor	Refunds	136.24
263864	Master Single Payment Vendor	Refunds	198.16
263865	Master Single Payment Vendor	Refunds	121.24
263866	Master Single Payment Vendor	Refunds	31.28
263867	Master Single Payment Vendor	Refunds	96.93
263868	Master Single Payment Vendor	Refunds	166.89
263869	Master Single Payment Vendor	Refunds	46.06
263870	Master Single Payment Vendor	Refunds	76.23
263871	Acme Tools	Inventory	746.13
263872	Air-Mach Air Compressor &	Inventory	79.00
263873	Airgas North Central	Tools	199.02
263874	Allied Electronics	Inventory	105.17
263875	Applied Industrial Technologies	Vehicle Maintenance Materials	1,685.00
263876	BDI Signs Business Designs, Inc	Park Materials	90.00
263877	Barr Engineering Company	Contractors	1,968.00
263878	Bearing Headquarters Company	Materials & Supplies	762.48
263879	CFI Tire Service	Vehicle Maintenance Materials	1,116.00
263880	Capital Sanitary Supply	Inventory	336.46
263881	Carquest	Vehicle Maintenance Materials	256.15
263882	Central Iowa Floral, Inc.	Park Materials	787.00
263883	Cintas	Purchased Services	2,402.43
263884	City Supply Corporation	Materials & Supplies	12.40
263885	City of Des Moines	Contractors	105.00
263886	Commercial Supply Co	Inventory	57.68
263887	Construction & Aggregate Products, Inc.	Vehicle Maintenance Materials	62.34
263888	Copy Systems, Inc.	Printing & Copies	135.69
263889	Corrosion Fluid Products	Inventory	283.14
263890	DXP	Inventory	1,176.32
263891	DeZurik	Materials & Supplies	215.28
263892	Des Moines Fire Department	Purchased Services	1,045.00
263893	Des Moines Iron Company	Vehicle Maintenance Materials	1,112.62
263894	Des Moines Stamp	Materials & Supplies	28.00
263895	Douglas K. Oscarson	Consultants	1,764.90
263896	Endress and Hauser	Inventory	775.76
263897	Factory Motor Parts Company	Vehicle Maintenance Materials	179.64
263898	Fastenal Company	Inventory	21.00
263899	Fisher Scientific	Materials & Supplies	539.93
263900	Flow Line Valve and Controls	Inventory	1,529.66
263901	Force Fitters	Employee Job Costs	198.00
263902	Grainger, Inc.	Inventory	2,136.94
263903	Graybar Electric Company	Inventory	439.02
263904	Home City Ice	Park Materials	413.82
263905	IA-AWWA	Training	900.00
263906	IP Pathways, LLC	Data Processing Equipment	1,959.46
263907	Indelco Plastics	Inventory	186.11
263908	Jennifer Terry	Travel	978.62
263909	Jo Brouwer	Materials & Supplies	70.91
263910	Kinzler Construction Services	Purchased Services	676.50
263911	Laura Sarcone	Advertising	115.13
263912	Logan Contractors Supply, Inc.	Inventory	704.40

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Check No.	Paid to:	Description	Amount
263913	McMaster-Carr Supply Company	Inventory	685.71
263914	Menard's	Vehicle Maintenance Materials	14.50
263915	Menard's	Vehicle Maintenance Materials	42.16
263916	Metro Waste Authority	Purchased Services	222.85
263917	Midwest Wheel Companies	Vehicle Maintenance Materials	194.24
263918	Murphy Tower	Materials & Supplies	2,207.00
263919	Murphy Tractor & Equipment	Vehicle Maintenance Materials	355.21
263920	Napa Auto Parts	Vehicle Maintenance Materials	877.04
263921	O'Halloran International	Vehicle Maintenance Materials	504.23
263922	Ottsen Oil Company	Vehicle Maintenance Materials	431.42
263923	Plumb Supply Company	Inventory	558.32
263924	Premier Safety	Inventory	237.63
263925	Rachel Brown	Mileage and Materials & Supplies	313.94
263926	Revenue Advantage	Purchased Services	950.00
263927	Rosemount Analytical, Inc.	Inventory	372.53
263928	Springer Pest Solutions DSM	Purchased Services	147.40
263929	Stivers	Purchased Services	212.01
263930	Straub Corporation	Inventory	355.60
263931	Superior Industrial Equipment	Inventory	455.63
263932	Team Services, Inc.	Contractors	329.71
263933	Total Tool	Inventory	191.22
263934	Truck Center Companies	Vehicle Maintenance Materials	139.32
263935	U.S. Autoforce	Vehicle Maintenance Materials	945.20
263936	UPHDM Occupational Medicine	Purchased Services	1,429.00
263937	UPS	Delivery/Freight	11.77
263938	USA Bluebook	Inventory	1,587.51
263939	Utility Equipment Company	Inventory	312.28
263940	Van Meter Industrial, Inc.	Inventory	760.71
263941	Van-Wall Group	Vehicle Maintenance Materials	64.25
263942	Waldinger Corporation	Purchased Services	321.50
263943	Wonderware	Materials & Supplies	2,075.00
263944	Air Products	Inventory	9,188.43
263945	CDM Smith, Inc.	Contractors	4,167.84
263946	Combined Systems Technology, Inc.	Materials & Supplies	4,431.00
263947	Core and Main	Inventory	3,979.98
263948	Cortrol Process Systems	Inventory	18,493.00
263949	Hawkins Inc	Inventory	5,785.43
263950	IDEXX Laboratories, Inc.	Materials & Supplies	2,742.65
263951	IXOM Watercare Inc	Maintenance Contracts	8,000.00
263952	Interstate Power Systems, Inc	Purchased Services	16,757.55
263953	Kemira Water Solutions, Inc	Inventory	15,531.94
263954	KnowBe4 LLC	Consultants	4,945.00
263955	Mail Services LLC	Postage	14,416.20
263956	Mid American Energy	Utilities - Electric & Natural Gas	338,594.09
263957	Mississippi Lime Company	Inventory	65,486.46
263958	Municipal Supply, Inc.	Inventory	20,347.40
263959	Nate Todd Construction	Contractors	95,000.00
263960	Neptune Technology Group Inc	Inventory	4,348.54
263961	Power Seal	Inventory	4,271.82
263962	State Hygienic Laboratory	Purchased Services	3,856.50
263963	Synergy Contracting LLC	Contractors	5,364.60
263964	Warren Water District	Purchased Services	3,616.80
263965	Wellmark Blue Cross & Blue Shield of IA	Group Insurance Premiums	24,142.70
263966	Master Single Payment Vendor	Refunds	91.14
263967	Master Single Payment Vendor	Refunds	138.38
263968	Master Single Payment Vendor	Refunds	5.99
263969	Master Single Payment Vendor	Refunds	478.01

Check No.	Paid to:	Description	Amount
263970	Master Single Payment Vendor	Refunds	148.70
263971	Master Single Payment Vendor	Refunds	49.06
263972	Master Single Payment Vendor	Refunds	82.66
263973	Master Single Payment Vendor	Refunds	111.75
263974	Master Single Payment Vendor	Refunds	89.78
263975	Master Single Payment Vendor	Refunds	73.94
263976	Master Single Payment Vendor	Refunds	181.49
263977	Master Single Payment Vendor	Refunds	302.26
263978	Master Single Payment Vendor	Refunds	185.59
263979	Master Single Payment Vendor	Refunds	48.28
263980	Master Single Payment Vendor	Refunds	143.28
263981	Master Single Payment Vendor	Refunds	87.92
263982	Master Single Payment Vendor	Refunds	259.60
263983	Master Single Payment Vendor	Refunds	191.14
263984	Master Single Payment Vendor	Refunds	215.67
263985	Master Single Payment Vendor	Refunds	181.51
263986	Master Single Payment Vendor	Refunds	137.72
263987	Master Single Payment Vendor	Refunds	142.74
263988	Master Single Payment Vendor	Refunds	118.69
263989	Master Single Payment Vendor	Refunds	129.86
263990	Master Single Payment Vendor	Refunds	156.52
263991	Master Single Payment Vendor	Refunds	19.82
263992	Master Single Payment Vendor	Refunds	140.46
263993	Master Single Payment Vendor	Refunds	21.68
263994	Master Single Payment Vendor	Refunds	203.62
263995	Master Single Payment Vendor	Refunds	110.23
263996	Master Single Payment Vendor	Refunds	78.91
263997	Master Single Payment Vendor	Refunds	57.07
263998	Master Single Payment Vendor	Refunds	10,900.00
263999	Acme Tools	Inventory	95.80
264000	Air-Mach Air Compressor &	Inventory	45.00
264001	Airgas North Central	Materials & Supplies	202.12
264002	Applied Industrial Technologies	Vehicle Maintenance Materials	237.20
264003	BDI Signs Business Designs, Inc	Contractors	170.00
264004	Baker Group	Purchased Services	742.50
264005	Bearing Headquarters Company	Materials & Supplies	292.09
264006	Blackburn Manufacturing Company	Inventory	1,028.04
264007	Bob Brown Chevrolet, Inc.	Vehicle Maintenance Materials	234.21
264008	Canon Financial Services INC	Printing & Copies	1,175.70
264009	Capital Sanitary Supply	Inventory	257.86
264010	Carquest	Vehicle Maintenance Materials	18.38
264011	Central Iowa Ready Mix	Concrete	1,035.00
264012	CenturyLink	Telephone Services	102.72
264013	Cintas	Purchased Services	2,055.01
264014	City of Des Moines	Concrete	476.25
264015	Construction & Aggregate Products, Inc.	Inventory	516.00
264016	Consumer Energy	Electrical Power	343.24
264017	DXP	Inventory	959.66
264018	Delta Dental of Iowa	Vision Withholding	1,024.80
264019	Des Moines Stamp	Office Supplies	184.00
264020	Douglas K. Oscarson	Consultants	1,787.10
264021	E.H. Wachs Company	Materials & Supplies	1,760.14
264022	Electrical Engineering & Equipment Co.	Inventory	228.73
264023	Elite Electric & utility Contractors	Contractors	977.50
264024	Environmental Express	Inventory	866.18
264025	Epsilon ETA	Materials & Supplies	1,034.97
264026	Eurofins Abraxis LLC	Inventory	594.81

Check No.	Paid to:	Description	Amount
264027	Fire Hose Direct	Inventory	267.00
264028	Fisher Scientific	Materials & Supplies	274.13
264029	Flow Line Valve and Controls	Inventory	136.13
264030	Grainger, Inc.	Materials & Supplies	1,199.30
264031	Graybar Electric Company	Inventory	196.25
264032	HY-VEE	Food & Beverages	270.13
264033	IA-AWWA	Training	120.00
264034	Image Solutions	Materials & Supplies	144.95
264035	Indelco Plastics	Inventory	1,051.49
264036	Industrial Glassware	Materials & Supplies	1,142.09
264037	Iowa Prison Industries	Materials & Supplies	1,020.00
264038	Jennifer Puffer	Training	134.78
264039	Jo Brouwer	Materials & Supplies	72.54
264040	Kustom Concrete Pumping	Contractors	1,149.64
264041	Lawson Products, Inc.	Inventory	51.24
264042	MSC Industrial Supply Company	Inventory	155.68
264043	Matt Hoffman	Safety Glasses	92.00
264044	McClure Engineering Company	Contractors	1,870.00
264045	McMaster-Carr Supply Company	Inventory	1,950.07
264046	Mediacom Business	Internet Connectivity	396.90
264047	Menard's	Vehicle Maintenance Materials	130.16
264048	Michael Argenta	Safety Glasses & Safety Clothing	114.43
264049	Midwest Office Technology, Inc.	Printing & Copies	758.92
264050	Midwest Wheel Companies	Vehicle Maintenance Materials	1,087.93
264051	Motion Industries	Inventory	183.98
264052	Murphy Tractor & Equipment	Vehicle Maintenance Materials	178.21
264053	Nichols Equipment LLC	Purchased Services	535.50
264054	Northern Tool and Equipment	Tools	789.98
264055	O'Halloran International	Vehicle Maintenance Materials	310.75
264056	Office Installation Services, Inc.	Materials & Supplies	450.00
264057	Plumb Supply Company	Inventory	342.03
264058	Practical Farmers of Iowa	Dues and Memberships	110.00
264059	Premier Safety	Inventory	858.65
264060	RBS Safety Training, LLC	Training	1,500.00
264061	Ramco Innovations	Inventory	296.37
264062	Rinker Materials	Materials & Supplies	2,000.00
264063	Roger Patterson	Safety Boots	245.00
264064	Scott Manning	Safety Boots	216.66
264065	Seton Identification Products	Inventory	642.36
264066	Smokey D's BBQ	Food & Beverages	783.79
264067	Star Equipment, Ltd.	Contractors	1,270.00
264068	Stetson Building Products	Inventory	756.00
264069	Total Tool	Inventory	33.48
264070	Truck Center Companies	Vehicle Maintenance Materials	139.32
264071	True North Controls	Materials & Supplies	2,297.00
264072	USA Safety Supply Corp	Materials & Supplies	2,165.78
264073	United Seeds, inc.	Park Materials	837.50
264074	United States Plastic Corporation	Inventory	300.68
264075	Utility Equipment Company	Inventory	535.60
264076	Watco Industrial Flooring	Materials & Supplies	845.92
264077	Air Products	Inventory	6,439.35
264078	American Fence of Iowa	Materials & Supplies	4,573.00
264079	Aureon Communications	Telephone Services	3,896.70
264080	Bonnie's Barricades	Contractors	3,388.00
264081	C. H. McGuiness Company, Inc.	Purchased Services	3,954.00
264082	CTI Ready Mix	Concrete	3,053.75
264083	Carus Chemical	Inventory	4,198.28

Check No.	Paid to:	Description	Amount
264084	Clear Edge Filtration	Inventory	13,758.00
264085	Combined Systems Technology, Inc.	Materials & Supplies	2,858.00
264086	Consolidated Water Solutions	Inventory	15,493.34
264087	Core and Main	Materials & Supplies	13,097.04
264088	DMACC	Training	3,212.00
264089	Dickinson, Mackaman, Tyler, & Hagen, PC	Legal Fees	8,584.50
264090	DuBois Chemicals, INC	Inventory	7,772.82
264091	Dultmeier Sales LLC	Inventory	2,557.18
264092	Gribble, Boles, Stewart & Witosky Law Fi	Legal Fees	16,666.67
264093	HDR Engineering	Contractors	22,436.67
264094	Hands On Excavating LLC	Plumbing	5,720.00
264095	Hawkins Inc	Inventory	11,905.36
264096	Henkel Construction Company	Contractors	51,326.14
264097	I'll Do It	Contractors	6,182.00
264098	IFS Canada, Inc	Maintenance Contracts	36,946.02
264099	Iowa Department of Natural Resources	Purchased Services	132,928.57
264100	J & K Contracting LLC	Contractors	215,287.40
264101	Kemira Water Solutions, Inc	Inventory	23,126.64
264102	Logan Contractors Supply, Inc.	Inventory	3,402.00
264103	Mail Services LLC	Postage	10,795.42
264104	Mid American Energy	Utilities - Electric & Natural Gas	96,690.70
264105	Mississippi Lime Company	Inventory	46,931.30
264106	Municipal Supply, Inc.	Inventory	27,828.00
264107	Neptune Technology Group Inc	Inventory	18,608.00
264108	Phoenix Security Contractors, LLC	Purchased Services	20,585.99
264109	Pitney Bowes Inc.	Purchased Services	8,911.29
264110	Polk County Public Works Dept	Materials & Supplies	20,000.00
264111	Principal Life Insurance	Pension Plan Contribution	323,337.00
264112	Protectoplas Company	Materials & Supplies	4,826.00
264113	Raccoon Valley Contractors LLC	Contractors	10,270.45
264114	Renewable Energy Group	Inventory	23,628.11
264115	DMWW Employee	Purchased Services	33,333.33
264116	Strahan Construction	Contractors	68,073.00
264117	Superior Industrial Equipment	Materials & Supplies	3,661.48
264118	Synergy Contracting LLC	Contracts Payable	33,375.70
264119	USA Bluebook	Inventory	3,094.35
264120	Univar	Inventory	12,913.85
264121	Valley Plumbing Company, Inc.	Contractors	8,296.95
264122	Verizon Wireless Messaging Service	Cell Phones	6,386.70
264123	Willco, Inc	Materials & Supplies	3,847.09
264124	Polk County Public Works Dept	Purchased Services	229.00
264125	Polk County Public Works Dept	Purchased Services	250.00
264126	Master Single Payment Vendor	Refunds	141.68
264127	Master Single Payment Vendor	Refunds	142.87
264128	Master Single Payment Vendor	Refunds	128.34
264129	Master Single Payment Vendor	Refunds	8.54
264130	Master Single Payment Vendor	Refunds	11.84
264131	Master Single Payment Vendor	Refunds	152.48
264132	Master Single Payment Vendor	Refunds	67.29
264133	Master Single Payment Vendor	Refunds	79.32
264134	Master Single Payment Vendor	Refunds	5.31
264135	Master Single Payment Vendor	Refunds	40.60
264136	Master Single Payment Vendor	Refunds	83.46
264137	Master Single Payment Vendor	Refunds	69.16
264138	Master Single Payment Vendor	Refunds	141.09
264139	Master Single Payment Vendor	Refunds	107.56
264140	Master Single Payment Vendor	Refunds	109.30

PAYMENTS FOR SEPTEMBER, 2022

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Check No.	Paid to:	Description	Amount
264141	Master Single Payment Vendor	Refunds	22.48
264142	Master Single Payment Vendor	Refunds	15.44
264143	Master Single Payment Vendor	Refunds	280.06
264144	Master Single Payment Vendor	Refunds	29.87
264145	Master Single Payment Vendor	Refunds	78.29
264146	Master Single Payment Vendor	Refunds	897.41
264147	Master Single Payment Vendor	Refunds	20.53
264148	Master Single Payment Vendor	Refunds	102.57
264149	Master Single Payment Vendor	Refunds	1,362.28
264150	Master Single Payment Vendor	Refunds	29.02
264151	Master Single Payment Vendor	Refunds	245.85
264152	Master Single Payment Vendor	Refunds	55.60
264153	Master Single Payment Vendor	Refunds	45.37
264154	Master Single Payment Vendor	Refunds	752.13
264155	Master Single Payment Vendor	Refunds	415.70
264156	Acme Tools	Inventory	292.71
264157	Agilent Technologies	Materials & Supplies	282.84
264158	All Makes Office Equip	Office Equipment	916.09
264159	Amazon Capital Services Inc	Office Supplies	1,032.26
264160	American Toppers/Line-X	Vehicle Maintenance Materials	175.00
264161	Bearing Headquarters Company	Inventory	504.39
264162	Blake Wilkerson	Safety Boots	168.25
264163	CPI International	Inventory	608.61
264164	Canon Financial Services INC	Printing & Copies	1,297.74
264165	Capital Sanitary Supply	Inventory	884.91
264166	CenturyLink	Telephone Services	58.88
264167	Cintas	Purchased Services	1,938.41
264168	City of Des Moines	Contractors	205.00
264169	Commercial Supply Co	Inventory	310.00
264170	Construction & Aggregate Products, Inc.	Materials & Supplies	775.00
264171	Contract Specialty, L.C.	Park Materials	2,201.69
264172	Copy Systems, Inc.	Printing & Copies	24.96
264173	Daniel Alvarado	Licenses & Certifications	74.83
264174	Doug Anderson	Safety Glasses	267.00
264175	Dultmeier Sales LLC	Inventory	91.12
264176	Electronic Engineering Company	Purchased Services	1,374.00
264177	Endress and Hauser	Inventory	395.59
264178	First Choice Coffee	Food & Beverages	126.00
264179	Graybar Electric Company	Inventory	1,677.49
264180	Illinois Mutual & Life Casualty Company	Insurance Withholding	17.81
264181	Image Solutions	Employee Job Costs	657.45
264182	Industrial Scientific Corporation	Dues and Memberships	2,315.03
264183	Iowa Department of Agriculture	Purchased Services	168.00
264184	John Lins	AWWA Confereance/IOWARN National Chair Meeting	1,693.77
264185	Jonathan Mouw	Safety Boots	245.00
264186	Kaldenber's PBS Landscaping	Contractors	527.00
264187	Kruger's Training Academy	Training	700.00
264188	Kustom Concrete Pumping	Contractors	1,175.00
264189	LabStrong	Materials & Supplies	134.77
264190	Mail Services LLC	Postage	324.41
264191	McMaster-Carr Supply Company	Vehicle Maintenance Materials	1,914.57
264192	Midwest Wheel Companies	Vehicle Maintenance Materials	145.99
264193	Millennium Filters LLC	Inventory	268.15
264194	Murphy Tractor & Equipment	Vehicle Maintenance Materials	1.40
264195	Nite Owl Printing	Printing & Copies	2,496.00
264196	Novaspect	Materials & Supplies	132.89
264197	P & P Small Engines, Inc.	Materials & Supplies	107.99

PAYMENTS FOR SEPTEMBER, 2022

PeopleSoft Financials Report ID: DWAPR002.sqr

Check No.	Paid to:	Description	Amount
264198	Plumb Supply Company	Inventory	510.00
264199	Pollard Company	Inventory	1,010.29
264200	Postmaster	Postage	275.00
264201	Premier Safety	Inventory	1,113.43
264202	Shattuck Turf Farms	Park Materials	23.10
264203	Shawn M Hodges	Safety Boots	206.70
264204	Star Equipment, Ltd.	Inventory	1,039.30
264205	Stetson Building Products	Inventory	1,087.40
264206	Stivers	Purchased Services	1,199.99
264207	Team Services, Inc.	Contractors	1,178.02
264208	The Pancake Man	Entertainment	1,225.00
264209	The Shredder	Purchased Services	87.00
264210	Tony Moro Power Coat and Blasting	Office Supplies	360.00
264211	Total Tool	Inventory	292.12
264212	Truck Center Companies	Vehicle Maintenance Materials	256.95
264213	UPS	Delivery/Freight	58.75
264214	USA Bluebook	Materials & Supplies	2,023.88
264215	Van-Wall Group	Vehicle Maintenance Materials	269.26
264216	Zenon Environmental Corporation	Inventory	321.94
264217	Ziegler Inc.	Contractors	1,829.45
264218	Advocacy Strategies, LLC	Consultants	21,250.00
264219	Air Products	Inventory	6,358.50
264220	Badger Daylighting	Contractors	3,529.41
264221	Baker Group	Purchased Services	2,585.13
264222	Bankers Trust Company	Corporate Credit Card	4,414.98
264223	Bonnie's Barricades	Contractors	6,047.20
264224	CONVERGEONE, INC	Maintenance Contracts	19,474.80
264225	CTI Ready Mix	Concrete	22,724.00
264226	Central Pump and Motor	Materials & Supplies	25,204.36
264227	Combined Systems Technology, Inc.	Materials & Supplies	2,503.72
264228	Core and Main	Inventory	12,888.55
264229	Crane Sales & Service	Purchased Services	32,430.67
264230	Dentons Davis Brown PC	Legal Fees	2,517.00
264231	Electrical Engineering & Equipment Co.	Purchased Services	17,828.58
264232	For Sure Roofing	Contractors	2,904.10
264233	Grainger, Inc.	Inventory	3,177.90
264234	Hawkins Inc	Inventory	5,619.43
264235	I'll Do It	Contractors	10,045.00
264236	Logan Contractors Supply, Inc.	Inventory	4,359.55
264237	Martin Marietta Aggregates	Inventory	8,352.49
264238	Mellen & Associates	Materials & Supplies	29,946.00
264239	Mid American Energy	Utilities - Electric & Natural Gas	33,478.43
264240	Mississippi Lime Company	Inventory	46,302.15
264241	Municipal Supply, Inc.	Inventory	17,610.40
264242	Neptune Technology Group Inc	Inventory	5,659.40
264243	O'Halloran International	Vehicle Maintenance Materials	5,770.36
264244	Ottsen Oil Company	Inventory	14,755.08
264245	Power Seal	Inventory	5,983.21
264246	Speck USA	Asphalt	9,635.00
264247	Synagro Central, LLC	Contractors	85,372.83
264248	Synergy Contracting LLC	Contractors	583,778.32
264249	Van Meter Industrial, Inc.	Inventory	13,441.17
264250	Veenstra & Kimm, Inc.	Contractors	4,475.43
264251	Vessco	Materials & Supplies	8,554.05
264252	Voya Financial	Insurance Withholding	8,914.77
264253	Waldinger Corporation	Contractors	57,310.54
264254	Woodberry Associates, LLC	Consultants	5,000.00

PAYMENTS FOR SEPTEMBER, 2022

PeopleSoft Financials Report ID: DWAPR002.sqr

Check No.	Paid to:	Description	Amount
433859	ADP, LLC	Purchased Services	7,609.15
778676	Treasurer State of Iowa	Iowa State Sales Tax Payable	168,492.22
792592	Treasurer State of Iowa	Iowa Water Excise Tax Payable	280,979.16
930220	Discovery Benefits	Flex Spending - Reimbursements	1,153.32
090122	EBS	Employee Health Premiums	306,069.14
090222	Collection Services Center	Garnishment of Wages	2,306.36
090222	Treasurer State of Iowa	State Withholding Taxes Payable	27,937.41
090222	Internal Revenue Service	Withholding Taxes Payable	172,596.72
091622	Collection Services Center	Garnishment of Wages	2,208.49
091622	Treasurer State of Iowa	State Withholding Taxes Payable	28,339.26
091622	Internal Revenue Service	Withholding Taxes Payable	174,421.41
093022	Collection Services Center	Garnishment of Wages	1,828.89
093022	Treasurer State of Iowa	State Withholding Taxes Payable	27,548.69
093022	Internal Revenue Service	Withholding Taxes Payable	168,314.78
093022	EBS	Employee Health Premiums	21,232.09
093022	CBCS	Compensation Claims	8,744.15
TOTAL			**$7,057,150.93**

Item I-D

CEO APPROVED EXPENDITURES GREATER THAN $20,000
MONTHLY SCHEDULE FOR THE MONTH OF SEP 2022

Check #	Vendor	Description	Amount	Details
	none			

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-A
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: 2023 Corporate Insurance

SUMMARY:

The renewal date for corporate insurance policies is November 1, 2022. The total premium cost and agency fees for the current and renewal programs are summarized below:

	Current	Renewal
• Property/Boiler & Machinery	$225,356	$241,679
• Equipment	15,472	15,472
• Inland Marine	20,607	21,523
• General Liability	272,961	271,305
• Auto Liability	62,497	66,514
• Packaged Terrorism Premium	7,740	8,137
• Umbrella Liability	390,562	337,985
• Crime	3,200	3,200
• D & O/Employment Practices Liability	51,683	57,702
• Fiduciary Liability	5,723	5,976
• Cyber Liability	69,500	91,997
• Flood	13,813	4,395
• Workers Compensation	98,311	121,960
• Broker Service Fee	15,000	20,000
• Less Commission Received	(18,035)	(22,169)
Total Cost	$1,234,391	$1,245,676

FISCAL IMPACT:

$1,386,500 has been budgeted for insurance premiums in the Financial Services work plan of the 2023 budget.

RECOMMENDED ACTION:

Accept insurance program renewal submitted by Assured Partners.

BOARD REQUIRED ACTION:

Motion to accept insurance program renewal submitted by Assured Partners.

Donna Heckman 10/18/22	Amy Kahler, CPA 10/18/22	Ted Corrigan 10/21/22
Donna Heckman (date)	Amy Kahler, CPA (date)	Ted Corrigan (date)
Sr. Financial Analyst	Chief Financial Officer	CEO and General Manager

Attachments: Memo from Donna Heckman, Sr. Financial Analyst; spreadsheet showing recommendation from Assure Partners.

DES MOINES WATER WORKS
Board of Water Works Trustees

Des Moines Water Works
Water You Can Trust for Life

2201 George Flagg Parkway | Des Moines, Iowa 50321-1190 | (515) 283-8700 | www.dmww.com

MEMORANDUM

DATE: October 18, 2022

TO: Ted Corrigan, CEO & General Manager
Amy Kahler, Chief Financial Officer

FROM: Donna Heckman, Senior Financial Analyst

SUBJECT: 2023 Corporate Insurance Renewals

Earlier this year, our corporate insurance broker, Assured Partners (formerly LMC) began requesting quotes for our November 1, 2022 renewals. Attached is the current premium summary comparing expiring and renewal rates. Lines with significant differences are discussed below.

Property & Casualty: The change for the Property & Casualty (P&C) renewal is an increase of approximately 3%. These policies are bundled with Cincinnati as the carrier; the chart below represents the total expiring and renewing premiums.

	Expiring	Renewal
Property	$240,828	$241,679
Equipment	$15,472	$15,472
Inland Marine	20,607	21,523
General Liability	272,961	271,305
Automobile	62,497	66,514
Terrorism Premium	7,740	8,137
	$604,633	$624,630

There are two major changes that are being implemented by our P&C carrier Cincinnati. Historically, Assured Partners has requested the Equipment limit be the same as our property limit (currently 419M); however, Cincinnati has lowered this limit to $100M. The value of our equipment is less than $100M, so this drop in limit will not impact our coverage.

The other major change to our coverage comes with the General Liability policy. In 2022, DMWW hit our per claim limit on this policy for a claim in downtown Des Moines. This claim is still open and is now being paid under our 1st layer of Umbrella Liability coverage. While the premium for our General Liability policy is remaining flat, Cincinnati is increasing our deductible from $25K to $100K per occurrence.

Assured Partners waiting on a final quote from ICAP for P & C coverage; consequently, there may be changes to the P&C coverage prior to final approval at the October Board meeting.

Umbrella Liability: The above-mentioned open claim is also impacting pricing on our Umbrella Liability policies. Historically, DMWW has carried $50M in coverage across three layers. This coverage is layered above our standard General Liability policy. From 2017 to 2021, the cost of carrying $50M in Umbrella coverage increased over 104% from $191K to $391K.

Assured Partners utilized casualty insurance market data experts, Advisen, to benchmark this coverage to help us determine the appropriate level of coverage. The following chart shows the range of coverage that 16 peer programs utilize. About 56% of programs have between $5M and $10M in Umbrella Liability coverage. No peer carries our coverage amount of $50M.

Advisen Limit Distribution

Program Count: 16

Coverage Range	% Of Count
$20M - $30M	12.50%
$10M - $20M	6.20%
$5M - $10M	56.20%
$1M - $2M	6.20%
$750K - $1M	6.20%
$500K - $750K	12.50%

Assured Partners also utilized their partner, Jester Insurance, to evaluate public entities in the State of Iowa and learned the largest of public utilities carry between $12M - $25M in coverage.

Considering the benchmarking data above and with costs on the rise, we are proposing that DMWW lower our Umbrella Liability limits to $15M. The estimated costs and coverages below are assuming renewal coverage of $15M.

	Expiring		Renewal	
1st Layer	$10,000,000	$178,562	$10,000,000	$257,985
2nd Layer	15,000,000	100,000	5,000,000	80,000
3rd Layer	25,000,000	112,000		
	$50,000,000	$390,562	$15,000,000	$337,985

Cyber Liability: We were able to secure a renewal with our current Cyber Liability carrier; however, based on the market, the premium went up 32% from $69,500 to $91,997. With the increase in cybersecurity claims, insurance carriers are scrutinizing cybersecurity controls and are being cautious in underwriting policies.

Workers Compensation: Since 2014, DMWW has been self-insured for Workers Compensation. Midwest Employers Casualty Corp (MECC) has again agreed to a two-year term for our excess Workers Compensation Liability Policy. This policy protects DMWW against catastrophic losses. This policy will increase 16% from $88,811 to $102,985. Loss history and salary increases play a major role in this increase.

Another component of Workers Compensation is the amount paid to a third-party administrator (TPA) for management of our claims. We have spent the last couple of months working with Assured Partners in evaluating responses to an RFP for a new TPA. We have chosen to move forward with EMC Risk Services as our new TPA. The annual cost for TPA services is expected to be less than $20K per year.

Summary: The cost of renewing our coverage will increase from $1,234,391 to $1,245,676 from 2022 to 2023. The 2023 Budget includes estimated corporate insurance costs of $1,386,500.

Board of Water Works Trustees of the City of Des Moines
Market Premium Summary
Policy Period: 11/1/2022 - 2023

Coverage	Current 2021-2022	Renewal 2022-2023
Property	**Cincinnati**	**Cincinnati**
Blanket Property Limit	$419,359,117	$433,518,837
Blanket Business Income	$15,000,000	$15,000,000
Flood Limit	$1M/$5M/$10M (Varies)	$1M/$5M/$10M (Varies)
Earthquake Limit	$15,000,000	$15,000,000
Flood Deductible	$250,000	$250,000
Earthquake Deductible	$250,000	$250,000
Deductible-All Other	$100,000	$100,000
Terrorism	Included	Included
Average Rate	0.051900	0.053900
Total Premium	**$225,356**	**241,679**
Commission	**($2,254)**	**(2,417)**
Equipment	**Cincinnati**	**Cincinnati**
Equipment Limit	$419,359,117	$100,000,000
Spoilage limit	$100,000	$100,000
Ammonia Contamination Limit	$100,000	$100,000
Hazardous Substance Limit	$100,000	$100,000
Business Income Limit	$15,000,000	$15,000,000
Deductible-All Other	$100,000	$100,000
Total Premium	**$15,472**	**15,472**
Inland Marine	**Cincinnati**	**Cincinnati**
Scheduled Equipment	$1,934,196	$1,907,654
Leased or Rented Items	$250,000	$250,000
Deductible	$5,000	$5,000
EDP Floater:		
Equipment Limit	$2,900,000	$2,900,000
Data/Media Limit	N/A	N/A
Deductible	$5,000	$5,000
Total Premium	**$20,607**	**21,523**
Commission	**($206)**	**(215)**
General Liability	**Cincinnati**	**Cincinnati**
General Aggregate	$2,000,000	$2,000,000
Products CoOps Limit Aggregate	$2,000,000	$2,000,000
Occurrence Limit	$1,000,000	$1,000,000
Personal & Advertising Injury	$1,000,000	$1,000,000
Damage to Premises Rented to You	$500,000	$500,000
Medical Expense (Any one Person)	$10,000	$10,000
Deductible - Bl & PD	$25,000 each occurrence	$100,000 each occurrence
Employee Benefit Occurrence	$1,000,000	$1,000,000
Employee Benefit Aggregate	$3,000,000	$3,000,000
Employee Benefit Deductible	$1,000	$1,000
Total Premium	**$272,961**	**271,305**
Commission	**($2,730)**	**(2,713)**
Automobile	**Cincinnati**	**Cincinnati**
Automobile Limit	$2,000,000	$2,000,000
Retained Limit/ Deductible	N/A	N/A
Total # of units	100	101
Total Premium	**$62,497**	**66,514**
Commission	**($625)**	**($665)**
Package Terrorism Premium	**$7,740**	**8,137**
Cincinnati Package Total	**$589,161**	**$624,630**

Board of Water Works Trustees of the City of Des Moines
Market Premium Summary
Policy Period: 11/1/2022 - 2023

Coverage	Current 2021-2022	Renewal 2022-2023
Umbrella	**Allied Public Risk**	**Allied Public Risk**
Limits of Liability	$10,000,000	$10,000,000
Retention Limit	$10,000	$10,000
Total Premium	**$178,562**	**$257,985**
2nd Layer Umbrella Liability	**Great American**	**Great American**
Limit of Liability	$15,000,000	$5,000,000
Retention	$10,000,000	$10,000,000
Total Premium	**$100,000**	**$80,000**
3rd Layer Umbrella Liability	**Westchester Fire**	**HDI Global**
Limit of Liability	$25,000,000	
Retention	$25,000,000	
Total Premium	**$112,000**	
Crime	**Travelers**	**Travelers**
Employee Dishonesty	$1,000,000	$1,000,000
Deductible	$5,000	$5,000
Annual Premium (3 year term - 2020-2023)	**$3,200**	**$3,200**
D&O/Employment Practices Liability	**Chubb**	**Chubb**
Directors & Officers Liability	$5,000,000	$5,000,000
Deductible	$50,000	$50,000
Employment Practices Liability	$5,000,000	$5,000,000
Deductible	$100,000	$100,000
Aggregate Limit	$5,000,000	$5,000,000
Total Premium	**$31,183**	**$34,852**
Excess D&O/Employment Practices Liability	**RSUI**	**RSUI**
Directors & Officers Liability	$5,000,000	$5,000,000
Deductible		
Total Premium	**$20,500**	**$22,850**
Fiduciary Liability	**Travelers**	**Travelers**
Fiduciary Liability Limit of Liability	$3,000,000	$3,000,000
Settlement Program Limit of Liability	$250,000	$250,000
HIPAA Limit of Liability	$1,000,000	$1,000,000
Deductible	$0	$0
Total Premium	**$5,723**	**$5,976**
Commission	**($57)**	**($60)**
Cyber Liability	**Travelers**	**Travelers**
Limit of Liability	Confidential Information related to CyberSecurity	Confidential Information related to CyberSecurity
Total Premium	**$69,500**	**$91,997**
Commission	**($12,163)**	**($16,099)**
Flood - 2201 George Flagg Pkwy - Maintenance	**Selective**	**Selective**
Building Limit	$100,000	$100,000
Contents Limit	$20,000	$20,000
Retention	$1,500	$1,500
Total Premium	**$5,527**	**$1,308**
Flood - 2201 George Flagg Pkwy	**Selective**	**Selective**
Building Limit	$500,000	$500,000
Contents Limit	$500,000	$500,000
Retention	$1,250	$1,250
Total Premium	**$8,286**	**$3,087**

Board of Water Works Trustees of the City of Des Moines
Market Premium Summary
Policy Period: 11/1/2022 - 2023

Coverage	Current 2021-2022	Renewal 2022-2023
Workers Compensation	**Various**	**Various**
Excess Liability Policy - MECC	$88,811	$102,985
Third Party Administrator - TBD	$9,500	$18,975
Total Premium/Expense (1st year of 2 year contract)	**$98,311**	**$121,960**
COMBINED PREMIUMS	$1,237,425	$1,247,845
BROKER SERVICE FEE	$15,000	$20,000
Less Commission Paid to Broker	($18,035)	($22,169)
Total Insurance Premiums & Fees	$1,234,391	$1,245,676
Total Corporate Insurance Budgeted	$1,286,500	$1,386,500

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-B
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: Receive and File Cost of Service Report

SUMMARY:

At the recommendation of Raftelis, DMWW has been using a forward-looking revenue requirements Cost of Service model. Staff has input the proposed 2023 budget into the Raftelis Cost of Service model. The result of that analysis is the basis for the 2023 rate setting discussions and was the basis for rates presented at the October 2022 Finance & Audit Committee Meeting.

Staff has prepared an executive summary report of the cost of service results using the 2023 budget numbers. Figure 14 summarizes the cost of service (budget) and anticipated revenues (rates) by service area. The Raftelis model assigns the costs attributable to peaking based on the demands each customer places on the system and calculates costs for wholesale customers as a class, as well as by individual wholesale customer. While we use actual peaking data for each wholesale customer, the model uses a calculated peak day to allocate costs to the retail and full service customer classes.

Staff will distribute the cost of service report to wholesale and Total Service customers once accepted by the Board of Trustees.

FISCAL IMPACT:

None.

RECOMMENDED ACTION:

Receive and file the Cost of Service Study.

BOARD REQUIRED ACTION:

Motion to receive and file the Cost of Service Study.

Donna Heckman 10/18/22 (date) Senior Financial Analyst	Amy Kahler 10/18/22 (date) Chief Financial Officer	10/21/22 (date) Ted Corrigan, P.E. CEO and General Manager

Attachments: 2023 Water Cost of Service Study

Des Moines Water Works

2022 Water Cost of Service Study

Based upon proposed 2023 Budget

Draft Report / October 4, 2022

RAFTELIS

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INTRODUCTION

A Cost of Service Study (Study) is used to develop a sustainable and solvent financial plan for the water utility and to establish water costs based on allocation methodologies that follow generally accepted industry standards. In the water industry, there are two generally accepted approaches to projecting revenue requirements: 1) cash-needs approach and 2) utility approach. With assistance from Raftelis, this study identifies revenue requirements using the utility approach and the 2023 budget as a "test year" (i.e., the annualized period for which costs are analyzed and rates established). This study allocates costs based on a widely adopted approach described in the American Water Works Association (AWWA) publication, "Manual of Water Supply Practices M1, Principles of Water Rates, Fees and Charges" (AWWA M1).

Cost of Service

REVENUE REQUIREMENTS

Water utilities must receive sufficient total revenue to properly operate, maintain, develop, improve, and replace the water system.

This study uses the FY 2023 budget prepared by DMWW as a test year. **Figure 1** presents a summary of DMWW's FY 2023 budget. The adopted rates, set by DMWW to recover all forecasted expenses, will recover approximately $79,100,000 from ratepaying customers.

Rate revenues include all rate revenue from retail, full service, and wholesale customers, including availability fees and capital improvement fees. Other Revenues include contracted billing fees, late fees, connection fees, other sales and services, and interest income. Capital expenses include projects and debt service funded by DMWW directly. Projects funded by other entities are not included in this table.

Figure 1: FY 2023 Budget

	2023 Budget
Revenues	
Rate Revenues	$ 79,059,794
Other Revenues	6,507,600
Total: Revenues	$ 85,567,394
Expenses	
O&M Expense	$ 55,117,710
DMWW Debt Service	0
DMWW Capital	30,449,684
Total: Expenses	$ 85,567,394
Surplus/(Deficit)	$ -

This study follows the *utility basis* to measure revenue requirements. Under the utility basis approach, the components of revenue requirements include:

1. *Operations & Maintenance (O&M) expense*
   O&M expenses include costs necessary to operate and maintain water-related facilities, including treatment plants, pumping, storage, transmission and distribution mains, customer service, and general and administrative aspects of the utility
2. *Depreciation expense*
   Depreciation is the loss in value of capital assets as a result of normal wear and aging. This component allows for cost recovery of capital investments over the useful life of the assets.

3. *Return on rate base*
   The term "rate base" is the net book value or undepreciated value of capital assets. A return on the rate base provides a fair rate of return to equity owners providing capital.

The three component revenue requirements are allocated proportionately to each customer class so the proper level of revenues are recovered from each customer class based on the operational demands each class places on the water system. Operational demands placed on the system are generally measured by average and maximum day (also called peak) requirements, and customer related costs associated with meters, services, and accounts.

The fundamental goal of the cost of service process is to determine DMWW's cost to serve each customer class. This study allocates costs on a widely accepted and practiced method, known as the Base-Extra Capacity method.

The Base-Extra Capacity method generally assigns costs to three primary cost components:

1. Base costs – O&M and capital costs incurred to meet average day demand
2. Extra capacity costs – O&M and capital costs to meet maximum day and hour demand
3. Customer costs – costs attributed to serving customers, regardless of amount of water used (e.g., meter reading, billing, collections, etc.)

Cost of service allocations are performed using the following steps:

Table A - Summary of Cost of Service Steps

Step	Title	Explanation	Figure
1	Determine Units of Service	Units of service are summarized (i.e., base day, max day, max hour, customer, pipe). Maximum day and maximum hour peaking factors are identified, or estimates are calculated.	Figures 2, 3
2	Allocate Costs to Functions	Operating and capital budgets are allocated to cost functions.	Figures 4, 5
3	Allocate Functionalized Costs to Cost Components	Functionalized costs, such as number of accounts, equivalent meters, water consumption, peaking factors, and inch-miles of water main, are further allocated to cost components.	Figures 6, 7, 8, 9
4	Determine Unit Cost of Service	Cost by unit of service is calculated.	Figure 10
5	Determine Revenue Requirements by Customer Class	Costs are allocated to customers based on the unit rate and each customer's units of service. The resulting cost of service is then compared to the amounts actually paid by each customer using projected rates.	Figures 11, 12, 13, 14

STEP 1: DETERMINE UNITS OF SERVICE

The first step in the cost allocation process is to determine the units of service, which are the basis for the allocation of the total revenue requirement to each customer class. Units of service are shown in **Figure 3** and include:

Table B - Summary of Units of Service - General

Units of Service	Costs	Examples of Costs Allocated
Base Units	Average day	Power, chemicals
Maximum Day Units	Peak day	Treatment and transmission to serve distribution mains and storage on a peak day.
Maximum Hour Units	Peak Hour	Distribution mains and storage for peak hour
Customer Units	Equivalent meters and monthly bills	Billing, meter reading, customer service, leak detection and field service.
Pipe Units	Inch-mile of distribution mains	Operation and maintenance of distribution system

Base Units

Base units are the total annual consumption for each customer class. These units are used to allocate costs that vary directly with the amount of water produced, such as chemicals and power. This represents the cost of providing water at an average day demand.

Maximum Day Extra Capacity Units

Maximum Day Extra Capacity units represent the water demand in excess of that which is used on an average day. The rate of use on maximum day requires larger pumps, pipes, and other infrastructure to meet the peak demand, in comparison to an equal volume of water taken at a lower but steady rate. Maximum day facilities also sit idle during periods of time when demand is less than maximum day, making them less efficient and more costly to operate per unit relative to assets consistently used to meet average day demand. These maximum day units are used to allocate costs related to operation of the treatment plant at levels above average day demand as well as costs related to transmission mains which supply water to distribution mains and storage.

In general, the guidelines for determining maximum day peaking factors outlined in AWWA M1 were the basis for this component of the analysis.

Maximum Day Extra Capacity Calculation

The Wholesale Master Water Service Agreement requires that maximum day demand is identified on an annual basis for each individual Purchased Capacity customer. Each Purchased Capacity customer's maximum day is compared to their average day usage to determine a peaking factor; this peaking factor is used to allocate maximum day extra capacity costs. Historical peaking factors and the five-year average are shown in **Figure 2.** The cost of service uses the five-year average to allocate costs.

Figure 2: Wholesale Peaking Factor

	2017	2018	2019	2020	2021	Average
Wholesale - Purchased Capacity						
City Of Ankeny	1.431	1.553	1.481	1.364	1.378	1.441
City Of Bondurant	1.585	1.545	1.609	1.677	1.590	1.601
City Of Clive	2.155	2.236	2.061	2.025	2.070	2.109
City Of Norwalk	2.046	2.228	2.024	1.932	2.346	2.115
City Of Polk City	2.773	3.317	2.470	2.196	2.204	2.592
Urbandale Water Utility	2.227	2.385	2.123	2.216	2.083	2.207
Warren Rural Water	1.886	1.619	1.506	1.433	1.647	1.618
City Of Waukee	2.208	2.223	2.136	1.888	1.954	2.082
West Dm Water Works	2.725	2.800	2.213	2.685	2.605	2.606
Xenia Rural Water	1.552	1.446	1.458	1.450	1.497	1.481
Wholesale - With Storage						
City of Johnston	2.334	2.622	2.380	2.171	2.111	2.324

Actual maximum day for all other customer classes cannot be easily identified; therefore, the maximum day demand for all other customer classes is estimated as shown below:

- System Max Day to Average Day in Max Month = System Max Day Demand / System Max Month / 30

- Class Maximum Day = Class Max Month / 30
  (Class Annual Total / 365) * (System Max Day / Average Day in Max Month)

The weighting occurs because the exact maximum day by customer class is not known but is assumed to have the same relationship to the average day in the maximum month as the entire system.

Maximum Hour Extra Capacity Units

Maximum Hour Total Capacity units is the consumption forecast in the highest hour of FY 2023, extrapolated over a day assuming all 24 hours are at that peak hourly demand; and, maximum hour

extra capacity units is the maximum hour total capacity less the maximum day demand. These units are used to allocate costs related to distribution mains and storage related to peak hour consumption.

In general, the guidelines for determining maximum hour peaking factors outlined in AWWA M1 were the basis for this component of the analysis.

Maximum Hour

As the exact customer class maximum hour cannot be identified, a similar weighting process occurs to determine the customer class maximum hour demands:

- System Max Hour to Average Day in Max Month = $\frac{\text{System Max Hour}}{\text{System Max Month} / 30}$

- Class Maximum Hour = Class Max Day * (System Max Hour /Average Day in Max Month)

Customer Units

Customer Units are equivalent meters and customer monthly bills. The number of bills for each customer class is ascertained through an examination of the billing data. The equivalent meters are the number of customer meters at each meter size weighted by the potential water demand each meter can place on the water system. For DMWW, a 5/8" meter is the current standard for residential services. The number of equivalent meters for sizes larger than 5/8" is determined by multiplying the nominal number of meters (the number at each connection size) by a meter factor, which represents the ratio of the flow rate of the larger meter, to that of the standard 5/8" meter. Once the number of equivalent meters larger than 5/8" is determined, this total is added to the number of 5/8" meters to arrive at the total number of equivalent meters. Customer units are used to allocate the costs of providing services associated with individual accounts, such as billing, meter reading, customer service, leak detection and field service.

Pipe Units

Pipe units are measured in "inch-miles" of distribution mains within each service area, based on an inventory of lengths of pipes and their diameters (*diameter of pipe in inches* x *length of pipe in miles* = *inch-mile of pipe*) as of the end of September 2022 (the latest data available). These units are used to allocate operations and maintenance expenses for water distribution functions.

Results

These calculations are illustrated in **Figure 3** for all customer classes.

Using the Inside City Des Moines customer class as an example, approximately 6.0 million kgal (or 6.0 billion gallons) are projected to be used by customers annually in FY 2023. This equates to approximately 16,400 kgal per day on an average day (annual forecast / 365 days). Based on the calculation described above, residential customers, on their highest consumption day of the year, are

projected to use 1.56 times their average day consumption, or around 25,700 kgal. The difference between the maximum day and average day, around 9,300 kgal, represents that class's Maximum Day Extra Capacity units.

A similar calculation is used to determine the Maximum Hour Extra Capacity Units, which are simply the consumption forecast in the highest hour of FY 2023, less the maximum day demand (56,757 kgal – 25,673 kgal = 31,084 kgal max hour extra capacity units)

Data from DMWW's billing system shows 830,388 customer bills were generated for Inside City Des Moines customers, and this same class of customers has 107,439 equivalent 5/8" meters.

Inside City Des Moines has over 6,281 inch-miles of distribution pipe to allocate pipe units costs.

Figure 3: Units of Service

	Base		Max Day			Max Hour			Customer			Pipe
	Water Sales	Average Day	Peaking Factor	Total Capacity	Extra Capacity	Peaking Factor	Total Capacity	Extra Capacity	Count	Bills	Meters	Inch-Miles
	kgal	*kgal*		*kgal*	*kgal*		*kgal*	*kgal*			*5/8" Eq.*	
Retail												
Des Moines Inside City	5,991,683	16,416	1.56	25,673	9,258	3.46	56,757	31,084	69,199	830,388	107,439	6,281.28
Des Moines Outside City	245,822	673	3.25	2,188	1,514	7.18	4,838	2,651	1,173	14,076	1,513	258
DM Zoo Water Rate	23,790	65	2.40	157	92	5.26	343	186	2	24	2	-
Subtotal: Retail	6,261,295	17,154	1.62	27,861	10,863	3.61	61,938	33,921	70,374	844,488	108,954	6,539
Full Service												
Polk County	632,790	1,734	1.99	3,451	1,717	4.39	7,608	4,157	7,571	90,852	9,923	2,271
Runnells	7,928	22	1.54	33	12	3.40	74	40	211	2,532	228	23
Cumming	11,102	30	2.80	85	55	6.19	188	103	150	1,800	175	53
Alleman	9,516	26	1.61	42	16	3.56	93	51	177	2,124	320	53
Pleasant Hill Inside City	255,131	699	1.82	1,273	574	4.03	2,816	1,543	4,743	56,916	6,723	439
Pleasant Hill Outside City	704	2	2.42	5	3	5.36	10	6	5	60	5	1
PCRWD #1	23,788	65	1.79	117	52	3.96	258	141	468	5,616	488	52
Berwick Water	34,890	96	1.62	155	59	3.57	342	187	226	2,712	316	107
Windsor Heights	114,188	313	1.56	487	174	3.44	1,075	588	2,179	26,148	2,502	155
Subtotal: Full Service	1,090,037	2,986	1.89	5,648	2,661	4.17	12,464	6,816	15,730	188,760	20,680	3,153
Subtotal: Full Service and Retail	7,351,332	20,141	1.66	33,509	13,525	3.69	74,402	40,737	86,104	1,033,248	129,634	9,692
Wholesale												
Altoona	9,516	26	5.84	152	126	20.95	546	394	1	24		
Ankeny	2,034,761	5,575	1.44	8,033	2,458	3.61	20,106	12,073	1	72		
Bondurant	182,382	500	1.60	800	300	3.52	1,760	960	1	36		
Clive	667,681	1,829	2.11	3,858	2,029	4.72	8,633	4,775	1	108		
Norwalk	325,118	891	2.12	1,884	993	4.37	3,896	2,012	1	36		
Waukee	613,758	1,682	2.08	3,501	1,819	4.64	7,803	4,302	1	24		
Urbandale	1,590,698	4,358	2.21	9,618	5,260	4.78	20,848	11,229	1	60		
Warren Rural Water	601,071	1,647	1.62	2,664	1,018	3.46	5,705	3,040	1	36		
West Des Moines	896,056	2,455	2.61	6,398	3,943	5.29	12,982	6,584	1	108		
Xenia	688,299	1,886	1.48	2,793	907	3.52	6,645	3,852	1	48		
Polk City	106,259	291	2.59	755	463	4.91	1,431	676	1	12		
West Des Moines - Storage	9,516	26	9.46	247	221	20.89	545	298	1	24		
Johnston	767,596	2,103	2.32	4,887	2,784	4.81	10,106	5,218	1	36		
Water Development Co	15,861	43	1.77	77	33	3.90	169	93	1	24		
Subtotal: Wholesale	8,508,572	23,311	1.96	45,667	22,356	4.34	101,174	55,507	14	648	-	-
Subtotal: Outside City	9,868,221	26,971	1.98	53,502	26,531	4.39	118,475	64,973	16,917	203,484	22,193	3,411
Total: Utility	15,859,904	43,387	1.82	79,175	35,789	4.04	175,232	96,057	86,116	1,033,872	129,632	9,692

STEP 2: ALLOCATE COSTS TO FUNCTIONS

The second step in determining revenue requirements by customer class involves the allocation of water utility operating and maintenance (O&M) costs and capital costs to standard functional categories. These categories relate to various functions performed by the water utility system and staff in order to provide service to DMWW customers. For this study, the standard functions are:

- Source of Supply
- Transmission
- Distribution
- Treatment
- Storage/Pumping
- Meters
- Customer Service
- Administration

Allocation of O&M to Functional Categories

Figure 4 summarizes the functional allocation of the water utility's FY 2023 O&M revenue requirements. These allocations relate to the proportion of expenditures in each cost center (i.e., utility department) that is associated with performing each function. The Customer Service department budget, for example, is associated with the cost of billing DMWW's customers, conducting public relations and customer outreach, and maintaining meters. Consequently, all O&M expenses for this cost center, or Customer Service department, have been allocated to the customer service and meters functions based on DMWW's detailed project costing budget data. All allocations are based on a review of activity-based departmental budgets and an understanding of utility processes and are generally consistent with typical and customary allocations seen in the water industry.

Most of DMWW's cost centers (i.e., departments) are fully allocated to a standard function. Exceptions include Engineering expenses, which are allocated in the same proportion as assets in service, and Water Production Administration, which is allocated in proportion to Source, Treatment, and Storage, and Pumping activities. Transmission and Distribution costs are allocated on the basis of inch-miles of transmission and distribution mains DMMW maintains for all customers.

Revenues other than rate revenue are subtracted from the O&M value to provide a net rate revenue requirement. The totals for each function flow through to the following step, Step 3, which is allocation to cost components.

Allocation of Capital Asset Costs to Functional Categories

Figure 5 summarizes the functional allocation of the water utility's FY 2023 capital revenue requirement. Capital costs, including depreciation expense and return on rate base, are allocated using fixed asset records as of the end of FY 2021. Net book value (also called Original Cost Less Depreciation, or OCLD) and annual book depreciation for each category of assets are allocated to the same standard functions used to allocate O&M. In addition to shared assets in **Figure 5**, DMWW also maintains assets that directly serve Full Service customers, such as meters and pipelines. These assets are allocated directly to the customer they serve. Most asset categories are fully allocable to standard functions; however, Pipelines in Des Moines are allocated proportionately between Transmission and Distribution based on inch-miles of pipe in Des Moines.

Figure 4: O&M Functionalization

Cost Center	O&M	Source of Supply	Treatment	Transmission	Distribution	Storage/ Pumping	Meters	Customer Service	Fire Protection	Admin
Finance	$ 5,956,050									100.0%
Customer Service	4,415,288						34.0%	66.0%		
IT	3,393,740									100.0%
HR	914,660									100.0%
Engineering	1,776,484	7.9%	17.5%	27.7%	35.0%	7.7%	2.2%	0.0%	0.0%	2.1%
Transmission and Distribution	10,268,742			27.8%	72.2%					
OCEO	2,391,254									100.0%
Treatment	15,471,370		100.0%							
Source	621,515	100.0%								
Storage/Pumping	2,209,649					100.0%				
Production Administration	7,698,957	3.4%	84.5%			12.1%				
Subtotal: O&M Expenses	$ 55,117,710	$ 1,023,112	$ 22,289,455	$ 3,349,928	$ 8,031,472	$ 3,276,283	$ 1,540,640	$ 2,914,090	$ -	$ 12,692,730
Other Items	**Other Revenue Items**									
Misc Revenue	(6,507,600)									100.0%
Contribution to Reserves	-									-
Subtotal: Other Items	$ (6,507,600)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (6,507,600)
Total: Net O&M	$ 48,610,110	$ 1,023,112	$ 22,289,455	$ 3,349,928	$ 8,031,472	$ 3,276,283	$ 1,540,640	$ 2,914,090	$ -	$ 6,185,130

Figure 5: Capital Asset Functionalization

Category	Rate Base	Annual Depreciation	Source of Supply	Treatment	Transmission	Distribution	Storage/ Pumping	Admin
Structures and Machinery								
Airport Booster Station	$ 846,695	$ 13,440					100.00%	
Alleman Tower	5,236	159					100.00%	
Allen Hazen Tower	615,040	33,314					100.00%	
ASR Wells	7,482,318	115,658					100.00%	
Fiber Optics	-	-		100.00%				
FWTP	24,284,287	900,250		100.00%				
General Office Facility	2,820,410	83,476						100.00%
Grounds	2,483,908	75,222						100.00%
JES Booster Station	1,207,527	18,023					100.00%	
Jes Tower	4,076,434	79,012					100.00%	
LP Moon Storage Tank	4,105,207	87,408					100.00%	
MWTP	16,010,877	553,190		100.00%				
Nollen, Wilchinski & Tenny S	2,035,318	52,675					100.00%	
Remote Pumping/Storage	790,950	36,144					100.00%	
Roosevelt Booster Station	28,485	3,294					100.00%	
Service Dept	1,750,133	84,831						100.00%
SW Pump Station	1,897,947	59,311					100.00%	
SW Storage	129,969	2,499					100.00%	
SWTP	19,100,987	1,247,021		100.00%				
SWTP Pumping Station	618,369	22,096					100.00%	
Water Supply System	26,860,000	586,075	100.00%					
Pipelines - Feeder	51,729,767	792,344			100.00%			
Pipelines - DM	116,696,958	2,228,415			36.47%	63.53%		
Total: Rate Base	$ 285,740,494		$ 26,860,000	$ 59,508,110	$ 94,288,128	$ 74,138,597	$ 23,839,496	$ 7,106,163
Total: Depreciation		7,239,103	586,075	2,736,562	1,605,027	1,415,731	523,033	372,675

STEP 3: ALLOCATE FUNCTIONALIZED COSTS TO COST COMPONENTS

This study utilizes the "Base Extra Capacity" method described in the AWWA M1. The Base Extra Capacity method involves allocating each of the functionalized O&M costs to cost components in accordance with the operational need that function was designed to satisfy. This process ensures that customers are only allocated costs associated with services they receive. For example, wholesale customers do not share in the cost of maintaining Windsor Heights distribution system; those costs are the responsibility of Windsor Heights customers.

Costs are segmented to customers based on the service or benefit received by customers. Customer segments include:

- Common to All - all customer classes benefit from the service
- Full Service & Retail - only Full Service customers under contract and Des Moines customers benefit from the service
- Retail Only - only Des Moines retail customers benefit from the service

Within these segments, costs are further generalized as pertaining to either the volumetric or customer service demands of water utility customers. The volumetric cost components are:

- Base demand (also known as average day demand), which relates to the water demand of DMWW customers on an average day;
- Maximum day extra capacity, or the level of demand in excess of base demand, demonstrated by DMWW customers on the highest consumption day of the year; and
- Maximum hour extra capacity, the theoretical demand, in excess of maximum day demand, demonstrated by DMWW customers in the highest consumption hour.

Treatment, transmission, and storage costs are allocated between the base and maximum day cost components based on historical system peaking data. Over the five-year period, maximum day production is an average of 1.70 times higher than on an average day. Since 100% of average day costs are incurred on the maximum day, 1/1.70, or about 60%, of those costs are allocated to base and the remaining 40% of costs are allocated to maximum day.

Figure 6: System Peaking (MGD)

	Annual Production	Average Day	Max Month Production	Max Day Production	Max Day / Annual Avg Day
2017	18,070	49.51	2,202	81.73	1.65
2018	17,536	48.04	2,043	85.43	1.78
2019	17,350	47.53	2,026	81.04	1.70
2020	18,496	50.68	2,153	85.24	1.68
2021	19,126	52.40	2,125	88.58	1.69
Average:	18,116	49.63	2,110	84.40	1.70

The customer service-related cost components are 1) customer bills and 2) customer meters. These components relate to—at a minimum—the cost of processing customer bills and maintaining customer meters. Additionally, customer meter costs may also relate to the fixed investment in water utility assets associated with providing water service which is available (virtually at all times) regardless of how much water is consumed by DMWW customers (i.e., "readiness to serve").

Distribution costs are allocated based on inch-miles of main within each service area.

Administration costs are allocated based on the results of the pro rata allocations of all the other functions to components.

Figure 7 shows the allocation of functionalized "Total: Net O&M" illustrated in Figure 4 to more detailed cost components.
Figure 8 shows the allocation of functionalized capital asset costs (rate base) illustrated in Figure 5, as well as construction work in progress expected to come into service in FY 2023, to cost components.
Figure 9 shows the allocation of functionalized capital asset costs (annual depreciation) illustrated in Figure 5, as well as construction work in progress expected to come into service in FY 2023, to cost components.

It should be noted that because Figures 8 & 9 include assets currently held, as well as construction work in progress expected to come into service in FY 2022 and 2023, totals in these Figures are slightly higher than and do not tie to functionalized totals in Figure 5.

Figure 7: Allocation of O&M to Cost Components

		Common to All				Full Service and Retail					Retail Only		
Function	**O&M**	**Base**	**Max Day**	**Max Hour**	**Bills**	**Base**	**Max Day**	**Max Hour**	**Meters**	**Inch Miles**	**Base**	**Max Day**	**Max Hour**
Source of Supply	$ 1,023,112	$ 1,023,112	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Treatment	22,289,455	13,101,526	9,187,929	-	-	-	-	-	-	-	-	-	-
Transmission	3,349,928	1,969,056	1,380,873	-	-	-	-	-	-	-	-	-	-
Distribution	8,031,472	-	-	-	-	-	-	-	-	8,031,472	-	-	-
Storage / Pumping	3,276,283	1,925,767	1,350,516	-	-	-	-	-	-	-	-	-	-
Meters	1,540,640	-	-	-	-	-	-	-	1,540,640	-	-	-	-
Customer Service	2,914,090	-	-	-	2,914,090	-	-	-	-	-	-	-	-
Administration	6,185,130	2,627,054	1,737,715	-	424,845	-	-	-	224,610	1,170,907	-	-	-
Total:	$ 48,610,110	$ 20,646,516	$13,657,032	$ -	$ 3,338,935	$ -	$ -	$ -	$ 1,765,249	$ 9,202,378	$ -	$ -	$ -

Figure 8: Allocation of Rate Base to Cost Components *

		Common to All				Full Service and Retail					Retail Only		
Function	**Rate Base**	**Base**	**Max Day**	**Max Hour**	**Bills**	**Base**	**Max Day**	**Max Hour**	**Meters**	**Inch Miles**	**Base**	**Max Day**	**Max Hour**
Source of Supply	$ 56,958,150	$ 56,958,150	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Treatment	100,461,305	59,050,184	41,411,121	-	-	-	-	-	-	-	-	-	-
Transmission	100,768,212	59,230,581	41,537,631	-	-	-	-	-	-	-	-	-	-
Distribution	128,247,542	-	-	-	-	-	-	-	-	-	42,381,115	29,721,321	56,145,107
Storage / Pumping	25,097,305	14,751,954	10,345,352	-	-	-	-	-	-	-	-	-	-
Meters	6,187,964	-	-	-	-	-	-	-	6,187,964	-	-	-	-
Customer Service	-	-	-	-	-	-	-	-	-	-	-	-	-
Administration	7,135,223	3,245,298	1,593,588	-	-	-	-	-	105,699	-	723,926	507,680	959,033
Total:	$ 424,855,702	$ 193,236,167	$94,887,691	$ -	$ -	$ -	$ -	$ -	$ 6,293,663	$ -	$43,105,041	$30,229,001	$57,104,140

Figure 9: Allocation of Depreciation to Cost Components *

		Common to All				Full Service and Retail					Retail Only		
Function	**Depreciation**	**Base**	**Max Day**	**Max Hour**	**Bills**	**Base**	**Max Day**	**Max Hour**	**Meters**	**Inch Miles**	**Base**	**Max Day**	**Max Hour**
Source of Supply	$ 1,236,474	$ 1,236,474	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Treatment	3,643,789	2,141,784	1,502,005	-	-	-	-	-	-	-	-	-	-
Transmission	1,745,403	1,025,931	719,472	-	-	-	-	-	-	-	-	-	-
Distribution	2,699,125	-	-	-	-	-	-	-	-	-	891,962	625,521	1,181,642
Storage / Pumping	567,544	333,597	233,947	-	-	-	-	-	-	-	-	-	-
Meters	151,681	-	-	-	-	-	-	-	151,681	-	-	-	-
Customer Service	-	-	-	-	-	-	-	-	-	-	-	-	-
Administration	404,697	190,896	98,935	-	-	-	-	-	6,112	-	35,939	25,204	47,611
Total:	$ 10,448,713	$ 4,928,683	$ 2,554,359	$ -	$ -	$ -	$ -	$ -	$ 157,792	$ -	$ 927,901	$ 650,725	$ 1,229,253

*Cost associated with Assets directly assigned to a Full Service or Retail customer are shown under the "Direct" column in Figures 14 thru 24.

STEP 4: DETERMINE UNIT COST OF SERVICE

Once each component of the FY 2023 revenue requirement (i.e., O&M, rate base, depreciation) has been allocated to each of the cost components (i.e., base, max day etc.), the unit cost of service can be determined. The unit cost of service is the basis by which costs are allocated to each customer class. **Figure 10** shows the calculated unit costs.

The total system units are the sum of all units from **Figure 3**.

For distributing O&M costs, *base units represent all retail and wholesale customer use on an annual basis, or Total Water Sales*. Max day units represent the daily use in excess of that which is used on an average day for all customer classes, and similarly, max hour use is that which is used in excess of max day consumption. *Because max day and max hour represent excess usage, O&M costs for these components are allocated over extra capacity units.*

Depreciation and rate base costs for max day are distributed over total capacity units. Max day total capacity units most closely represent customers' impact on the capacity of the capital assets maintained for their use.

Depreciation and rate base costs for max hour are distributed over extra capacity units. Max hour units represent demand in a day if all 24 hours had usage rates equal to peak hour.

Base, max day and max hour units are summarized in the table below for each revenue requirement:

Revenue Requirement	Base Units	Max Day Units	Max Hour Units
O&M	Total Water Sales	Extra Capacity	Extra Capacity
Depreciation	Total Water Sales	Total Capacity	Extra Capacity
Rate Base	Total Water Sales	Total Capacity	Extra Capacity

Also shown is each of the revenue requirements, as they have been allocated to the cost components, and the unit cost for each component. As an example, the total O&M costs allocated to the "base" cost component is approximately $20.6 million. Since there are 15.9 million base units, the cost per unit is $1.30. This calculation is repeated for each of the cost components and revenue requirements to arrive at a total system unit cost for each cost component. These unit rates are the basis by which costs are allocated to customer classes.

Although the total cost of service for each customer is different, it is important to note that all customers--whether retail, full service, or wholesale-- pay the same operating unit rate. For example,

1,000 gallons of water costs the same for Des Moines Inside City retail customers, wholesale, and Full Service customers. The difference is that each customer has different units of service.

While the operating unit cost is the same for all customers, capital unit rates vary. Specifically, purchased capacity customers pay a lower capital unit rate because these customers invested capital to construct two of the utility's treatment plants. This up-front investment is recognized when allocating depreciation and rate base. Wholesale customers who have purchased capacity receive a credit against the amount of Shared Depreciation and Rate Base. The depreciation credit is equal to the amount of annual depreciation on the original sale price of the purchased capacity, which calculates to approximately $1.9 million. The rate base credit is equal to the net book value of the sale price of purchased capacity, which is approximately $43.9 million.

It is important to note that **Figure 10** displays the development of unit costs for each group of customers, but because Purchased Capacity and other outside city customers pay different unit rates, this table does not indicate the total cost recovered. **Figure 11** displays the total revenue recovered by component, developed by multiplying the unit rates by the appropriate units from **Figure 3**.

Example – Figure 11

Des Moines Inside City - Common To All- Base Costs- O&M= $7,830,978[1]

Figure 10: $1.3018 operating cost
Figure 3: DM Inside + DM Zoo =
5,991,683 + 23,790 = 6,015,473 kgal FY 2023 projected annual consumption
Figure 11: 6,015,473 units * $1.3018/unit = $7,830,978[1]

Figure 11 includes a section for Direct Assets, which are assets in DMWW's records related to Full Service customers that are allocated directly to the respective Full Service customer rather than allocated among customer classes. These costs are added back to costs at the end of the allocation process and are shown in the two farthest right columns in **Figure 13**.

Figure 12 shows the reconciliation of utility basis costs in **Figure 11** to the cash basis costs shown in **Figure 1.**

[1] Rounding of unit costs in this report may cause immaterial discrepancies between the results shown in Figure 10 and results estimated by manually calculating costs.

Figure 10: Unit Cost of Service

		Total	Common to All				Full Service and Retail						Retail Only		
			Base	Max Day	Max Hour	Bills	Base	Max Day	Max Hour	Meters	Fire	Inch Miles	Base	Max Day	Max Hour
Operating Expenses															
Total Expense		$ 48,610,110	$ 20,646,516	$ 13,657,032	$ -	$ 3,338,935	$ -	$ -	$ -	$ 1,765,249	$ -	$ 9,202,378	$ -	$ -	$ -
Units			15,859,904	35,880	96,243	1,033,896	7,351,332	13,525	40,737	129,634	9,924	9,692	6,261,295	10,863	33,921
Unit Cost			1.3018	380.6287	-	3.2295	-	-	-	13.6172	-	949.4449	-	-	-
Depreciation															
Shared Depreciation															
Total Expense		10,290,921	4,928,683	2,554,359	-	-	-	-	-		-	-	927,901	650,725	1,229,253
Units			15,859,904	79,332	96,243	1,033,896	7,351,332	33,665	40,737	108,954	9,924	9,692	6,261,295	28,018	33,921
Unit Cost			0.3108	32.1984	-	-	-	-	-	-	-	-	0.1482	23.2256	36.2389
PC Depreciation															
PC Depreciation Credit		*(1,993,300)*	*(1,312,881)*	*(680,419)*	-	-	-	-	-	-	-	-	-	-	-
Wholesale PC Depreciation		8,297,621	3,615,802	1,873,940	-	-	-	-	-	-	-	-	927,901	650,725	1,229,253
Units			15,859,904	79,332	96,243	1,033,896	7,351,332	33,665	40,737	108,954	9,924	9,692	6,261,295	28,018	33,921
Unit Cost			0.2280	23.6215	-	-	-	-	-	-	-	-	0.1482	23.2256	36.2389
Rate Base															
Shared Rate Base															
Total Shared Rate Base		424,855,702	193,236,167	94,887,691	-	-	-	-	-	6,293,663	-	-	43,105,041	30,229,001	57,104,140
Units			15,859,904	79,332	96,243	1,033,896	7,351,332	33,665	40,737	108,954	9,924	9,692	6,261,295	28,018	33,921
Unit Cost			12.1839	1,196.0836	-	-	-	-	-	57.7646	-	-	6.8844	1,078.9320	1,683.4550
Inside City Rate Base															
Rate Base (1)		232,707,869	73,292,181	30,894,735	-	-	-	-	-	6,597,694	-	-	41,412,713	27,868,718	52,641,829
Return on Rate Base	**4.21%**	$ 9,802,353	3,087,286	1,301,379	-	-	-	-	-	277,915	-	-	1,744,428	1,173,914	2,217,432
Units			6,015,473	25,830	31,270	830,412	6,015,473	25,830	31,270	107,441	7,960	6,281	6,015,473	25,830	31,270
Unit Cost			0.5132	50.3826	-	-	-	-	-	2.5867	-	-	0.2900	45.4478	70.9122
Outside City Rate Base															
Rate Base		192,451,864	119,943,985	63,992,956	-	-	-	-	-		-	-	1,692,328	2,360,282	4,462,311
Return on Rate Base	**6.00%**	11,547,112	7,196,639	3,839,577	-	-	-	-	-	-	-	-	101,540	141,617	267,739
Units			9,844,431	53,502	64,973	203,484	1,335,859	7,835	9,466	1,513	1,964	3,411	245,822	2,188	2,651
Unit Cost			0.7310	71.7650	-	-	-	-	-	-	-	-	0.4131	64.7359	101.0073
PC Rate Base															
PC Rate Base Credit		*(43,852,606)*	*(29,410,648)*	*(14,441,957)*											
PC Rate Base		148,599,258	90,533,337	49,550,999	-	-	-	-	-	-	-	-	1,692,328	2,360,282	4,462,311
PC Return on Rate Base	**6.00%**	8,915,955	5,432,000	2,973,060	-	-	-	-	-	-	-	-	101,540	141,617	267,739
Units			9,844,431	53,502	64,973	203,484	1,335,859	7,835	9,466	1,513	1,964	3,411	245,822	2,188	2,651
Unit Cost			0.5518	55.5691	-	-	-	-	-	-	-	-	0.4131	64.7359	101.0073

(1) Includes addition of $5.3 million Direct Asset - Des Moines Inside City Meters.

Figure 11: Cost of Service by Component

		Common to All				Full Service and Retail						Retail Only		
	Total	Base	Max Day	Max Hour	Bills	Base	Max Day	Max Hour	Meters	Fire	Inch Miles	Base	Max Day	Max Hour
Des Moines Inside City														
O&M	$ 21,498,098	$ 7,830,978	$ 3,558,560	$ -	$ 2,681,790	$ -	$ -	$ -	$ 1,463,043	-	$ 5,963,728	$ -	$ -	$ -
Depreciation	5,318,906	1,869,391	831,681	-	-	-	-	-	-	-	-	891,471	599,916	1,126,447
Return on Rate Base	9,802,353	3,087,286	1,301,379	-	-	-	-	-	277,915	-	-	1,744,428	1,173,914	2,217,432
Subtotal: DMIC	$ 36,619,357	$ 12,787,655	$ 5,691,620	$ -	$ 2,681,790	$ -	$ -	$ -	$ 1,740,958	$ -	$ 5,963,728	$ 2,635,899	$ 1,773,830	$ 3,343,878
Outside City Customers														
O&M	$ 27,112,012	$ 12,815,538	$ 10,098,472	$ -	$ 657,145	$ -	$ -	$ -	$ 302,206	$ -	$ 3,238,651	$ -	$ -	$ -
PC Depreciation	2,714,659	1,759,032	955,628	-	-	-	-	-	-	-	-	-	-	-
PC Return on Rate Base	6,505,438	4,257,345	2,248,093	-	-	-	-	-	-	-	-	-	-	-
Other Outside Depreciation	1,264,927	661,564	420,067	-	-	-	-	-	-	-	-	36,430	50,809	96,058
Other Outside Return on Rate Base	3,003,412	1,556,254	936,263	-	-	-	-	-	-	-	-	101,540	141,617	267,739
Subtotal: Outside City	$ 40,600,449	$ 21,049,732	$ 14,658,523	$ -	$ 657,145	$ -	$ -	$ -	$ 302,206	$ -	$ 3,238,651	$ 137,970	$ 192,426	$ 363,797
Direct Assets														
Depreciation	$ 1,839,989													
Subtotal: Direct Assets	$ 1,839,989													
Total: Revenue Recovered	$ 79,059,795													

Figure 12: Reconciliation to Cash Basis

	Operating	Capital	Total
Cash Basis Revenue Requirements			
Operation and Maintenance Expense	$ 55,117,710		$ 55,117,710
Debt Service		-	-
Cash Financed Capital		30,449,684	30,449,684
Contribution to Operating Reserve	-		-
Subtotal: Revenue Requirement	$ 55,117,710	$ 30,449,684	$ 85,567,394
Requirements Met from Other Sources			
Misc Revenues	6,507,600		6,507,600
Subtotal: Other Revenues	$ 6,507,600	$ -	$ 6,507,600
Total: Revenue Required	$ 48,610,110	$ 30,449,684	$ 79,059,794
Utility Basis Revenue Requirements			
Operation and Maintenance Expense	$ 48,610,110		$ 48,610,110
Depreciation		11,138,481	11,138,481
Return on Rate Base		19,311,203	19,311,203
Total: Revenue Requirement	$ 48,610,110	$ 30,449,684	$ 79,059,794

STEP 5: DETERMINE REVENUE REQUIREMENTS BY CUSTOMER CLASS

To determine the allocation of the FY 2023 revenue requirements to each of the customer classes, the total unit cost of service (as illustrated in Figure 10) is multiplied by the units of service for that class (as illustrated in Figure 2)[2]. **Figure 13** indicates the cost of service by customer class.

Example – Figure 13

Des Moines Inside City- Common To All- Base Costs (DM Inside City + DM Zoo)
$12,737,082 + $50,573 = $12,787,655[2]

Figure 10: $1.3018 operating cost + $0.3108 shared depreciation + $0.5132 Inside City rate base
= $2.1258/unit

Figure 3: DM Inside + DM Zoo projected annual consumption
DM Inside – 5,991,683
DM Zoo – 23,790

Figure 13: DM Inside + DM Zoo
DM Inside – 5,991,683 * $2.1258/unit = $12,737,082[2]
DM Zoo – 23,790 * $2.1258/unit = $50,573

Each customer class utilizes varying levels of service. For example, wholesale customers are primarily responsible only for base and maximum day costs, in addition to costs related to issuing bills. Full service and retail customers receive a higher level of service and hence pay additional costs related to maintaining meters, providing customer service, and operating and maintaining distribution systems.

Figure 13 further details costs for each customer within the purchased capacity wholesale class.

COST OF SERVICE RESULTS

Figure 14 presents a summary of each customers Cost of Service compared to projected FY 2023 revenues under proposed rates. A few observations in reviewing these results:

- The Des Moines Inside City customer class is slightly under-recovering costs, by approximately 2%. The Des Moines Outside City customer class is significantly under-recovering costs, although the customer class is relatively small which minimizes the overall impact to the retail customer class.
- Full Service customers are recovering costs at varying percentages, some below costs and others above costs. In situations where the results show costs are over-recovered, this has occurred intentionally to build up a capital fund for small communities who face significant needed capital improvements in their system. We have added future capital costs to the Cost of Service

[2] Rounding of unit costs in this report may cause immaterial discrepancies between the results shown in Figure and results estimated by manually calculating costs.

numbers for areas where we either 1) have future CIP projects or 2) where we already collect a capital improvement fee. This number is then subtracted as it is not a current year expense.

- Overall, the Wholesale – Purchased capacity class pays approximately 96% of their cost of service. It should be noted the findings in **Figure 14** illustrate the wholesale customers are not homogenous as a class. The purchased capacity wholesale customers have varying attributes, such as max day consumption, that results in varying cost of service recovery for each specific customer.
- The Wholesale – With Storage class is slightly over-recovering by about 2%. For the 2023 Budget year, revenue collected from this class is forecasted to remain flat.

Appendix A provides more calculation detail for the cost of service for each retail customer class, wholesale customer and Full Service customer.

Figure 13: Class Cost of Service

		Common to All				Full Service and Retail					Retail Only			Direct	
	Total	Base	Max Day	Max Hour	Bills	Base	Max Day	Max Hour	Meters	Inch Miles	Base	Max Day	Max Hour	Return	Depreciation
Retail															
Total: Des Moines Inside City	$ 37,375,936	$ 12,737,082	$ 5,586,639	$ -	$ 2,681,712	$ -	$ -	$ -	$ 1,740,925	$ 5,963,728	$ 2,625,474	$ 1,763,066	$ 3,330,674		$ 946,636
Total: Des Moines, Outside City	2,398,116	576,110	803,751	-	45,458	-	-	-	20,601	244,675	137,970	192,426	363,797		13,330
DM Zoo Water Rate	139,620	50,573	47,796	-	78	-	-	-	32	-	10,424	10,764	19,953		
Subtotal: Retail	$ 39,913,672	$ 13,363,765	$ 6,438,186	$ -	$ 2,727,248	$ -	$ -	$ -	$ 1,761,558	$ 6,208,403	$ 2,773,868	$ 1,966,256	$ 3,714,423	$ -	$ 959,965
Full Service															
Polk County	5,704,275	1,483,011	1,012,476	-	293,404	-	-	-	135,130	2,156,173					624,082
Runnells	114,993	69,017	7,923	-	8,177	-	-	-	3,107	21,777					4,992
Cumming Water	127,141	26,019	29,756	-	5,813	-	-	-	2,381	50,071					13,102
Alleman	102,580	22,302	10,476	-	6,859	-	-	-	4,355	50,177					8,411
Pleasant Hill Inside City	1,818,471	597,927	350,825	-	183,808	-	-	-	91,546	416,862					177,505
Pleasant Hill Outside City	5,084	1,649	1,528	-	194	-	-	-	74	1,150					490
PCRWD #1	172,691	55,750	31,820	-	18,137	-	-	-	6,639	49,158					11,187
Berwick Water	242,944	81,768	38,549	-	8,758	-	-	-	4,299	101,830					7,739
Windsor Heights	682,246	267,612	116,821	-	84,444	-	-	-	34,074	146,779					32,516
Subtotal: Full Service	8,970,425	2,605,054	1,600,172	-	609,595	-	-	-	281,606	2,993,976	-	-	-	-	880,024
Wholesale															
Altoona	79,973	19,808	60,087	-	78										
Ankeny	5,807,637	4,235,505	1,571,899	-	233										
Bondurant	557,414	379,642	177,656	-	116										
Clive	2,467,850	1,389,827	1,077,674	-	349										
Norwalk	1,204,089	676,757	527,216	-	116										
Waukee	2,247,423	1,277,583	969,763	-	78										
Urbandale	6,075,208	3,311,155	2,763,859	-	194										
Warren Rural Water	1,849,658	1,251,174	598,368	-	116										
West Des Moines	3,872,869	1,865,207	2,007,313	-	349										
Xenia	1,999,311	1,432,745	566,411	-	155										
Polk City	457,388	221,186	236,164	-	39										
Subtotal: Wholesale PC	26,618,820	16,060,589	10,556,410	-	1,821										
Wholesale with Storage															
West Des Moines - Storage	131,984	22,302	109,605	-	78										
Johnston	3,366,981	1,798,943	1,567,922	-	116										
Water Development Co	57,913	37,172	20,664	-	78										
Subtotal: Wholesale - Storage	3,556,878	1,858,416	1,698,191	-	271										
Total: Utility	$ 79,059,795	$ 33,837,387	$ 20,343,394	$ -	$ 3,338,935	$ -	$ -	$ -	$ 2,043,164	$ 9,202,378	$ 2,773,868	$ 1,966,256	$ 3,714,423	$ -	$ 1,839,989

Figure 14: Cost of Service Results

Customer	Cost of Service	4/1 Proposed Rate Increase	2023 Projected Revenue	COS Recovery
Retail				
Des Moines Inside City	$ 37,515,556	5.50%	$ 36,647,682	98%
Des Moines Outside City	2,398,116	10.00%	1,182,233	49%
Total: Retail	$ 39,913,672		$ 37,829,915	95%
Full Service				
Polk County	$ 6,513,209	5.50%	$ 7,151,909	110%
Runnells	164,993	5.50%	167,950	102%
Cumming	127,141	5.50%	122,016	96%
Alleman	102,580	5.50%	120,461	117%
Pleasant Hill Inside City	2,818,471	5.50%	3,045,282	108%
Pleasant Hill Outside City	5,084	5.50%	4,768	94%
PCRWD	172,691	5.50%	149,947	87%
Berwick	242,944	8.00%	169,461	70%
Windsor Heights	910,672	5.50%	1,038,304	114%
Less: Future FS Capital Costs	(2,087,360.00)			
Total: Full Service	$ 8,970,425		$ 11,970,098	133%
Wholesale - PC				
Altoona	$ 79,973	10.00%	$ 31,618	40%
Ankeny	5,807,637	10.00%	6,760,709	116%
Bondurant	557,414	10.00%	605,983	109%
Clive	2,467,850	10.00%	2,218,441	90%
Norwalk	1,204,089	10.00%	1,080,239	90%
Waukee	2,247,423	10.00%	2,039,276	91%
Urbandale	6,075,208	10.00%	5,285,263	87%
Warren Rural Water	1,849,658	10.00%	1,997,122	108%
West Des Moines	3,872,869	10.00%	2,977,241	77%
Xenia	1,999,311	10.00%	2,286,946	114%
Polk City	457,388	10.00%	353,057	77%
Total: Wholesale - PC	$ 26,618,820		$ 25,635,895	96%
Wholesale with Storage				
West Des Moines - Storage	$ 131,984	0.00%	$ 43,488	33%
Johnston	3,366,981	0.00%	3,507,914	104%
Water Development Co	57,913	0.00%	72,485	125%
Total: Wholesale with Storage	$ 3,556,878		$ 3,623,887	102%
Total: Utility	$ 79,059,795		$ 79,059,795	100%

Appendix A: Individual Cost of Service

The following tables show a detailed calculation of the cost of service for each wholesale customer. The units of service can be traced to **Figure 3** and the unit costs can be found on **Figure 10**.

(1) Capital unit costs consist of depreciation and return on rate base.

Figure 15: Des Moines Inside City

	Common to All			Full Service and Retail		Retail Only				
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Base**	**Max Day**	**Max Hour**	**Direct**	**Total**
Units of Service	6,015,473	9,349	830,412	107,441	6,281	6,015,473	9,349	31,270		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449	-	-	-		
	$ 7,830,978	$3,501,375	$2,681,790	$1,463,043	$5,963,728	$ -	$ -	$ -		$21,440,914
Capital Expense										
Units of Service	6,015,473	25,830	830,412	107,441	6,281	6,015,473	25,830	31,270		
Unit Cost (1)	0.8240	82.5810	-	2.5867	-	0.4382	68.6735	107.1511		
	$ 4,956,677	$2,133,059	$ -	$ 277,915	$ -	$2,635,899	$1,773,830	$3,350,626	$946,636	$16,074,642
Total: Cost of Service	$12,787,655	$5,634,435	$2,681,790	$1,740,958	$5,963,728	$2,635,899	$1,773,830	$3,350,626	$946,636	$37,515,556

Figure 16: Des Moines Outside City

	Common to All			Full Service and Retail		Retail Only				
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Base**	**Max Day**	**Max Hour**	**Direct**	**Total**
Units of Service	245,822	1,514	14,076	1,513	258	245,822	1,514	2,651		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449	-	-	-		
	$ 320,013	$ 576,319	$ 45,458	$ 20,601	$ 244,675	$ -	$ -	$ -	$ -	$ 1,207,066
Capital Expense										
Units of Service	245,822	2,188	14,076	1,513	258	245,822	2,188	2,651		
Unit Cost (1)	1.0418	103.9634	0.0000	-	-	0.5613	87.9616	137.2462		
	$ 256,097	$ 227,431	$ -	$ -	$ -	$ 137,970	$ 192,426	$ 363,797	$ 13,330	$ 1,191,050
Total: Cost of Service	$ 576,110	$ 803,751	$ 45,458	$ 20,601	$ 244,675	$ 137,970	$ 192,426	$ 363,797	$ 13,330	$ 2,398,116

Figure 17: Polk County

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	632,790	1,717	90,852	9,923	2,271		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 823,770	$ 653,691	$ 293,404	$ 135,130	$ 2,156,173	$ -	$ 4,062,168
Capital Expense							
Units of Service	632,790	3,451	90,852	9,923	2,271		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 659,241	$ 358,785	$ -	$ -	$ -	$ 1,433,016	$ 2,451,041
Total: Cost of Service	$ 1,483,011	$ 1,012,476	$ 293,404	$ 135,130	$ 2,156,173	$ 1,433,016	$ 6,513,209

Figure 18: Runnells

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	7,928	12	2,532	228	23		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 10,321	$ 4,449	$ 8,177	$ 3,107	$ 21,777	$ 50,437	$ 98,268
Capital Expense							
Units of Service	7,928	33	2,532	228	23		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 8,259	$ 3,473	$ -	$ -	$ -	$ 54,992	$ 66,725
Total: Cost of Service	$ 18,580	$ 7,923	$ 8,177	$ 3,107	$ 21,777	$ 105,429	$ 164,993

Figure 19: Cumming

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	11,102	55	1,800	175	53		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 14,453	$ 20,888	$ 5,813	$ 2,381	$ 50,071	$ -	$ 93,605
Capital Expense							
Units of Service	11,102	85	1,800	175	53		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 11,566	$ 8,867	$ -	$ -	$ -	$ 13,102	$ 33,535
Total: Cost of Service	$ 26,019	$ 29,756	$ 5,813	$ 2,381	$ 50,071	$ 13,102	$ 127,141

Figure 20: Alleman

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	9,516	16	2,124	320	53		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 12,388	$ 6,099	$ 6,859	$ 4,355	$ 50,177	$ -	$ 79,879
Capital Expense							
Units of Service	9,516	42	2,124	320	53		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 9,914	$ 4,376	$ -	$ -	$ -	$ 8,411	$ 22,702
Total: Cost of Service	$ 22,302	$ 10,476	$ 6,859	$ 4,355	$ 50,177	$ 8,411	$ 102,580

Figure 21: Pleasant Hill Inside City

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	255,131	574	56,916	6,723	439		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 332,131	$ 218,480	$ 183,808	$ 91,546	$ 416,862	$ -	$ 1,242,827
Capital Expense							
Units of Service	255,131	1,273	56,916	6,723	439		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 265,796	$ 132,344	$ -	$ -	$ -	$ 1,177,505	$ 1,575,644
Total: Cost of Service	$ 597,927	$ 350,825	$ 183,808	$ 91,546	$ 416,862	$ 1,177,505	$ 2,818,471

Figure 22: Pleasant Hill Outside City

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	704	3	60	5	1		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 916	$ 1,042	$ 194	$ 74	$ 1,150	$ -	$ 3,376
Capital Expense							
Units of Service	704	5	60	5	1		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 733	$ 485	$ -	$ -	$ -	$ 490	$ 1,708
Total: Cost of Service	$ 1,649	$ 1,528	$ 194	$ 74	$ 1,150	$ 490	$ 5,084

Figure 23: PCRWD#1

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	23,788	52	5,616	488	52		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 30,967	$ 19,672	$ 18,137	$ 6,639	$ 49,158	$ -	$ 124,573
Capital Expense							
Units of Service	23,788	117	5,616	488	52		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 24,782	$ 12,149	$ -	$ -	$ -	$ 11,187	$ 48,118
Total: Cost of Service	$ 55,750	$ 31,820	$ 18,137	$ 6,639	$ 49,158	$ 11,187	$ 172,691

Figure 24: Berwick

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	34,890	59	2,712	316	107		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 45,420	$ 22,473	$ 8,758	$ 4,299	$ 101,830	$ -	$ 182,780
Capital Expense							
Units of Service	34,890	155	2,712	316	107		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 36,348	$ 16,076	$ -	$ -	$ -	$ 7,739	$ 60,164
Total: Cost of Service	$ 81,768	$ 38,549	$ 8,758	$ 4,299	$ 101,830	$ 7,739	$ 242,944

Figure 25: Windsor Heights

	Common to All			Full Service and Retail			
Operating Expense	**Base**	**Max Day**	**Bills**	**Meters**	**Inch Miles**	**Direct**	**Total**
Units of Service	114,188	174	26,148	2,502	155		
Unit Cost	1.3018	380.6287	3.2295	13.6172	949.4449		
	$ 148,651	$ 66,212	$ 84,444	$ 34,074	$ 146,779	$ -	$ 480,159
Capital Expense							
Units of Service	114,188	487	26,148	2,502	155		
Unit Cost (1)	1.0418	103.9634	0.0000				
	$ 118,961	$ 50,609	$ -	$ -	$ -	$ 260,942	$ 430,513
Total: Cost of Service	$ 267,612	$ 116,821	$ 84,444	$ 34,074	$ 146,779	$ 260,942	$ 910,672

Figure 26: Altoona

Operating Expense	Base	Max Day	Bills	Total
Units of Service	9,516	126	24	
Unit Cost	1.3018	380.6287	3.2295	
	$ 12,388	$ 48,030	$ 78	$ 60,495
Capital Expense				
Units of Service	9,516	152	24	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 7,420	$ 12,057	$ -	$ 19,478
Total: Cost of Service	$ 19,808	$ 60,087	$ 78	$ 79,973

Figure 27: Ankeny

Operating Expense	Base	Max Day	Bills	Total
Units of Service	2,034,761	2,458	72	
Unit Cost	1.3018	380.6287	3.2295	
	$ 2,648,864	$ 935,752	$ 233	$ 3,584,848
Capital Expense				
Units of Service	2,034,761	8,033	72	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 1,586,641	$ 636,148	$ -	$ 2,222,789
Total: Cost of Service	$ 4,235,505	$ 1,571,899	$ 233	$ 5,807,637

Figure 28: Bondurant

Operating Expense	Base	Max Day	Bills	Total
Units of Service	182,382	300	36	
Unit Cost	1.3018	380.6287	3.2295	
	$ 237,426	$ 114,305	$ 116	$ 351,847
Capital Expense				
Units of Service	182,382	800	36	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 142,216	$ 63,351	$ -	$ 205,567
Total: Cost of Service	$ 379,642	$ 177,656	$ 116	$ 557,414

Figure 29: Clive

Operating Expense	Base	Max Day	Bills	Total
Units of Service	667,681	2,029	108	
Unit Cost	1.3018	380.6287	3.2295	
	$ 869,191	$ 772,163	$ 349	$ 1,641,703
Capital Expense				
Units of Service	667,681	3,858	108	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 520,636	$ 305,510	$ -	$ 826,147
Total: Cost of Service	$ 1,389,827	$ 1,077,674	$ 349	$ 2,467,850

Figure 30: Norwalk

Operating Expense	Base	Max Day	Bills	Total
Units of Service	325,118	993	36	
Unit Cost	1.3018	380.6287	3.2295	
	$ 423,241	$ 378,028	$ 116	$ 801,385
Capital Expense				
Units of Service	325,118	1,884	36	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 253,517	$ 149,187	$ -	$ 402,704
Total: Cost of Service	$ 676,757	$ 527,216	$ 116	$ 1,204,089

Figure 31: Waukee

Operating Expense	Base	Max Day	Bills	Total
Units of Service	613,758	1,819	24	
Unit Cost	1.3018	380.6287	3.2295	
	$ 798,994	$ 692,521	$ 78	$ 1,491,592
Capital Expense				
Units of Service	613,758	3,501	24	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 478,589	$ 277,242	$ -	$ 755,830
Total: Cost of Service	$ 1,277,583	$ 969,763	$ 78	$ 2,247,423

Figure 32: Urbandale

Operating Expense	Base	Max Day	Bills	Total
Units of Service	1,590,698	5,260	60	
Unit Cost	1.3018	380.6287	3.2295	
	$ 2,070,780	$ 2,002,182	$ 194	$ 4,073,156
Capital Expense				
Units of Service	1,590,698	9,618	60	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 1,240,375	$ 761,677	$ -	$ 2,002,052
Total: Cost of Service	$ 3,311,155	$ 2,763,859	$ 194	$ 6,075,208

Figure 33: Warren Rural Water

Operating Expense	Base	Max Day	Bills	Total
Units of Service	601,071	1,018	36	
Unit Cost	1.3018	380.6287	3.2295	
	$ 782,478	$ 387,367	$ 116	$ 1,169,961
Capital Expense				
Units of Service	601,071	2,664	36	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 468,696	$ 211,001	$ -	$ 679,697
Total: Cost of Service	$ 1,251,174	$ 598,368	$ 116	$ 1,849,658

Figure 34: West Des Moines Water Works

Operating Expense	Base	Max Day	Bills	Total
Units of Service	896,056	3,943	108	
Unit Cost	1.3018	380.6287	3.2295	
	$ 1,166,491	$ 1,500,684	$ 349	$ 2,667,524
Capital Expense				
Units of Service	896,056	6,398	108	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 698,716	$ 506,629	$ -	$ 1,205,345
Total: Cost of Service	$ 1,865,207	$ 2,007,313	$ 349	$ 3,872,869

Figure 35: Xenia Rural Water District

Operating Expense	Base	Max Day	Bills	Total
Units of Service	688,299	907	48	
Unit Cost	1.3018	380.6287	3.2295	
	$ 896,032	$ 345,248	$ 155	$ 1,241,434
Capital Expense				
Units of Service	688,299	2,793	48	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 536,713	$ 221,163	$ -	$ 757,877
Total: Cost of Service	$ 1,432,745	$ 566,411	$ 155	$ 1,999,311

Figure 36: Polk City

Operating Expense	Base	Max Day	Bills	Total
Units of Service	106,259	463	12	
Unit Cost	1.3018	380.6287	3.2295	
	$ 138,329	$ 176,408	$ 39	$ 314,775
Capital Expense				
Units of Service	106,259	755	12	
Unit Cost (1)	0.7798	79.1906	0.0000	
	$ 82,857	$ 59,756	$ -	$ 142,613
Total: Cost of Service	$ 221,186	$ 236,164	$ 39	$ 457,388

Figure 37: West Des Moines Water Works – w/ Storage

Operating Expense	Base	Max Day	Bills	Total
Units of Service	9,516	221	24	
Unit Cost	1.3018	380.6287	3.2295	
	$ 12,388	$ 83,962	$ 78	$ 96,427
Capital Expense				
Units of Service	9,516	247	24	
Unit Cost (1)	1.0418	103.9634	0.0000	
	$ 9,914	$ 25,643	$ -	$ 35,557
Total: Cost of Service	$ 22,302	$ 109,605	$ 78	$ 131,984

Figure 38: Johnston

Operating Expense	Base	Max Day	Bills	Total
Units of Service	767,596	2,784	36	
Unit Cost	1.3018	380.6287	3.2295	
	$ 999,261	$ 1,059,813	$ 116	$ 2,059,190
Capital Expense				
Units of Service	767,596	4,887	36	
Unit Cost (1)	1.0418	103.9634	0.0000	
	$ 799,682	$ 508,108	$ -	$ 1,307,790
Total: Cost of Service	$ 1,798,943	$ 1,567,922	$ 116	$ 3,366,981

Figure 39: Water Development Co.

Operating Expense	Base	Max Day	Bills	Total
Units of Service	15,861	33	24	
Unit Cost	1.3018	380.6287	3.2295	
	$ 20,648	$ 12,682	$ 78	$ 33,408
Capital Expense				
Units of Service	15,861	77	24	
Unit Cost (1)	1.0418	103.9634	0.0000	
	$ 16,524	$ 7,982	$ -	$ 24,506
Total: Cost of Service	$ 37,172	$ 20,664	$ 78	$ 57,913

GLOSSARY

Availability Charge - A flat monthly charge designed to recover part or all of customer related costs in lieu of recovering them through volume rates since these costs do not vary with the amount of water use. Availability charges can be established as progressive based on meter size or capped to meet specific needs.

Base Costs - Costs that tend to vary with the total quantity of water used and operation under average load conditions. Costs included are operation, maintenance, and replacement expenses of supply, treatment, pumping facilities and capital costs related to plant investment associated with serving customers at a constant, or average demand.

Base-Extra Capacity - The method of cost allocation in which the costs of service are classified to the functional cost components of base, extra-capacity (maximum day, maximum hour), customer related, and fire protection costs.

Cash-Needs Approach – One of two commonly used methods that projects revenue requirements with the objective of ensuring utility revenues are sufficient to recover total cash needs for a given projection period. Components of the cash-needs approach include O&M expenses, debt service payments, contributions to reserves, and cost of capital expenditures that are not debt-financed or contributed (primarily recovered through rates). Also called "**Cash Basis Approach.**"

Customer Classification - The grouping of customers into homogeneous classes. Typically, water utility customers may be classified as residential, commercial, industrial or wholesale for rate-making and other purposes.

Customer Related Costs - Costs directly associated with serving customers, regardless of the amount of water use. Such costs generally include meter reading, billing, accounting, and collecting expense, and maintenance and capital costs related to
meters and associated services.

Debt Service - The amounts of money necessary to pay interest and principal requirements resulting from the borrowing of money for capital expenditures.

Demand Costs - Costs associated with providing facilities to meet peak day and peak hour demands placed on the system by customers. They include capital-related costs and operation and maintenance expenses associated with those facilities.

Depreciation - The periodic cost incurred based on replacement cost of fixed assets and plant facilities. The funds resulting from depreciation are used for replacement of these assets.

Equivalent Meter Ratio - The ratio of the capacity in larger meters to that of a 5/8" meter used for most residential customers.

Extra Capacity Costs - Capital and operation and maintenance costs related to providing water at levels above average demand. These costs are divided between maximum-day and maximum-hour components.

Fire Protection Costs - Cost of providing fire protection service to the areas served by the utility.

Full Service Customers – Customers outside the City of Des Moines who are served by Des Moines Water Works under contract. Des Moines Water Works provides full service to these communities, including operations and maintenance of the water system, customer service, billing, planning for capital improvements, etc. Also called "**Total Service**" customers.

Maximum-Day - Extra capacity costs associated with system capacity designed to meet the one-day maximum demand placed on the system.

Maximum-Hour - Extra capacity costs associated with system capacity designed to meet the one-hour maximum demand placed on the system.

Operational Areas - Specific areas of the utility operations under which related operating and maintenance expenses are grouped.

Peak-Day - Demand costs related to treatment, pumping and transmission facilities designed to meet peak one day usage.

Peak-Hour - Demand costs, in excess of peak-day, related to treatment, pumping and transmission facilities designed to meet peak one hour usage.

Purchased Capacity - Direct purchase of capacity in the treatment, pumping and transmission facilities of the utility in order to eliminate the return on investment
cost component related to those facilities.

Rate Base – Rate base is the net book value of capital assets (original cost less depreciation) and usually also includes the costs for construction in progress.

Rate-Making Process - The process of developing and establishing rates and charges. The process is comprised of four phases: (1) determination of revenue requirements; (2) allocation of costs to the functional components of the cost of service; (3) distribution of the functional costs of service to customer classes; and (4) development and design of a schedule of rates and charges to recover the revenue requirements.

Return on Investment - The cost computed as a percentage of the value of plant investments dedicated to serving outside city and wholesale customers.

Revenue Requirement - The total revenues needed to meet all expenses and capital replacement costs of the utility.

Test Year - The annualized period for which costs are analyzed and rates established.

Utility Approach – One of two commonly used approaches to projecting revenue requirements. Components of the utility basis include O&M expenses, depreciation expense, and return on rate base. This approach is particularly appropriate when the government owned utility serves customers outside its geographical limits, based on the premise that the owner investors are entitled to a reasonable return from nonowner customers based on the value of assets required to serve those customers.

Wholesale Customers - Service in which water is sold to a customer at one or more major points of delivery for resale within the wholesale customer's service area.

Des Moines Water Works
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DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-C
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: Approval of Proposed 2023 Water Rates

SUMMARY:

Proposed 2023 water rates were discussed at the October Finance and Audit Committee meeting

Retail Rates
Staff recommends a 5.5% rate increase for Des Moines and most other retail customers, with a few exceptions. Based on Cost of Service cost recovery percentages, staff recommends a 10% increase for DM Outside City customers, and an 8% increase for customers in the Berwick service area.

Staff recommends no increases in capital improvement fees or water availability charges for 2023.

Wholesale Rates
Staff recommends maintaining the current rate structure for 2023 wholesale rates. In light of Cost of Service results also discussed at Finance & Audit, staff recommends a 10% increase in the wholesale Purchased Capacity rate, and a 0% increase in the wholesale With Storage rate.

Rates for all customer classes have significantly improved in their alignment with costs since 2020, when DMWW began a 3-year phase in of rate adjustments to more closely align revenues with the costs to serve each customer class.

Water rates and capital improvement fees by customer class are summarized in the attachment. Water availability charges by service territory and meter size are also summarized. Proposed rates will take effect April 1, 2023.

FISCAL IMPACT:

The recommended rate increases will result in approximately $3,600,000 of increased water revenue for 2023.

RECOMMENDED ACTION:

Approve the proposed rates according to the attached schedules to be effective for all water bills issued on or after April 1, 2023 and direct staff to publish the adopted rates as provided by law.

BOARD REQUIRED ACTION:

Motion to approve the proposed rates according to the attached schedule to be effective for all water bills issued on or after April 1, 2023 and direct staff to publish the adopted rates as provided by law.

Amy Kahler, CPA / 10/18/22 (date) Chief Financial Officer	_____ / _____ (date)	Ted Corrigan / 10/21/22 (date) CEO and General Manager

Attachment: schedule of proposed 2023 water rates; summary of water availabilities

Des Moines Water Works
2023 Proposed Water Rates
Effective April 1, 2023

	2022 Rate Per 1,000 Gallons	2023 Rate Per 1,000 Gallons	Increase	Percent Increase	Dollar Monthly Increase for Avg. Home With: 2 Person 3,750 gal	4 Person 7,500 gal
Des Moines Inside City						
Residential (Step 1)	$5.35	$5.64	$0.29	5.50%	$1.09	$2.18
Commercial (Step 2)	3.59	3.79	0.20	5.50%		
Industrial (Step 3)	2.76	2.91	0.15	5.50%		
Capital Improvement Fee						
Step 1	$0.25	$0.25	$0.00	0.00%	$0.00	$0.00
Step 2	0.17	0.17	0.00	0.00%		
Step 3	0.13	0.13	0.00	0.00%		
Des Moines Outside City						
Residential (Step 1)	$6.20	$6.82	$0.62	10.00%	$2.33	$4.65
Commercial (Step 2)	4.66	5.13	0.47	10.00%		
Industrial (Step 3)	3.33	3.66	0.33	10.00%		
Off Peak	2.75	3.03	0.28	10.00%		
Polk County						
Residential (Step 1)	$10.54	$11.12	$0.58	5.50%	$2.18	$4.35
Commercial (Step 2)	6.45	6.80	0.35	5.50%		
Industrial (Step 3)	5.03	5.31	0.28	5.50%		
Capital Improvement Fee						
Step 1	$1.50	$1.50	$0.00	0.00%	$0.00	$0.00
Step 2	0.92	0.92	0.00	0.00%		
Step 3	0.71	0.71	0.00	0.00%		
Pleasant Hill						
Residential (Step 1)	$9.80	$10.34	$0.54	5.50%	$2.03	$4.05
Commercial (Step 2)	8.27	8.72	0.45	5.50%		
Outside City	16.80	17.72	0.92	5.50%	$3.45	$6.90
Windsor Heights	$5.45	$5.75	$0.30	5.50%	$1.13	$2.25
Capital Improvement Fee	2.00	2.00	0.00	0.00%	$0.00	$0.00
PCRWD #1	$5.14	$5.42	$0.28	5.50%	$1.05	$2.10
Berwick	$4.28	$4.62	$0.34	8.00%	$1.28	$2.55
Runnells						
Water	$8.86	$9.35	$0.49	5.50%	$1.84	$3.68
Waste Water	9.61	10.14	0.53	5.50%	$1.99	$3.98
Cumming	$9.14	$9.64	$0.50	5.50%	$1.88	$3.75
Alleman	$10.85	$11.45	$0.60	5.50%	$2.25	$4.50
Wholesale						
Purchased Capacity	$3.08	$3.39	$0.31	10.00%		
With Storage	$4.57	$4.57	$0.00	0.00%		

Des Moines Water Works
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DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-D
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: Proposed 2023 Budget – Establish a Public Hearing as the Date of the November 2022 Board Meeting

SUMMARY:

- The budget for 2023 is based on total operating revenue of $85.4 million.
- The proposed operating budget totals $58.1 million which is an increase of 9.6% (or $5.1 million) over the approved 2022 budget. Chemical expenses are budgeted to increase nearly $3.2 million. This is a result of supply shortages and increased logistic costs. Moderate increases in operating labor, benefits, and purchased services are also contributors to the increase of the operating budget.
- Capital expenditures budgeted for 2023 total $62.5 million. The budget includes $6.3 million of capital projects to be funded with State Revolving Fund loans. There is $24.4 million budgeted for the initial costs of expanding the Saylorville Water Treatment Plant, including the expansion of raw water, expansion of the treatment plant, and construction of necessary feeder mains. These expansion projects are expected to be funded through regional participation.

See the attached memo for detailed information concerning the proposed 2023 budget.

These materials were discussed at the October Finance & Audit committee meeting on October 11, 2022.

FISCAL IMPACT:

This budget establishes the 2023 operations and capital replacement needs for the utility and identifies funding sources to support the utility's operating and capital expenses.

RECOMMENDED ACTION:

Establish the date of Public Hearing as the date of the November 2022 Board meeting to act on the approval of the 2023 budget and direct staff to publish notice as set forth in the Board Policy Manual.

BOARD REQUIRED ACTION:

Motion to establish the date of Public Hearing as the date of the November 2022 Board meeting to act on the approval of the 2023 budget and direct staff to publish notice as set forth in the Board Policy Manual.

Michelle Holland, CPA (date) 10/19/22 Controller	Amy Kahler, CPA (date) 10/18/22 Chief Financial Officer	Ted Corrigan (date) 10/21/22 CEO & General Manager

Attachments: 2023 Budget Memo

DES MOINES WATER WORKS
Board of Water Works Trustees

Des Moines Water Works
Water You Can Trust for Life

2201 George Flagg Parkway | Des Moines, Iowa 50321-1190 | (515) 283-8700 | www.dmww.com

DATE: October 4, 2022

TO: Ted Corrigan, CEO & General Manager

FROM: Amy Kahler, Chief Financial Officer
Michelle Holland, Controller

SUBJECT: Proposed 2023 Budget

The attached document contains the following:

- 2023 Budget Highlights
- 2023 Overview of Budget Process
- Proposed 2023 Budget Summary and Comparison to 2022 Budget
- Details of Proposed Revenue, Additional Funding, Operating Expenses, and Capital Expenses
- Summary of Expenditures from 2019-2023
- Future Capital Expenses
- 2023 Budget by Department
- 2023 Labor and Benefits Budget
- 2023 Operating Work Plans Recommended for Funding
- 2023 Capital Work Plans Recommended for Funding
- DMWW Budget Process & Timeline

2023 Budget Highlights

PUMPAGE

17.7 BILLION GALLONS

Based on 7-year average pumpage
17.2 billion gallons in 2022 budget

WATER REVENUE

$79 MILLION

($5.9 million / 8.0% higher than 2022 budget)

HEADCOUNT

Increase in FTE from 2022 Budget
+1.0 Engineering
+1.0 HR/OCEO
+1.0 Water Distribution
+1.5 Water Production

OPERATING EXPENSES

$58.1 MILLION

($5.1 million / 9.6% higher than 2022 budget)

CAPITAL EXPENSES

$62.5 MILLION

(Capital budget in 2022 was $45.9 million)

CAPITAL PROJECTS FUNDED BY DMWW DEBT (SRF)

$6.3 million

INITIAL CAPITAL EXPENSES FOR:

- ASR Well $2.8 million
- FDTP CO2 Feed $1.6 million
- DM River Well Field $1.9 million

CAPITAL PROJECTS FUNDED WITH REGIONAL PARTICIPATION

$24.4 million

INITIAL CAPITAL EXPENSES FOR:

- SWTP Raw Water Expansion $ 7.1 million
- SWTP Plant Expansion $13.2 million
- SWTP W Feeder Main $ 3.8 million
- Tenny-LP Moon Feeder Main $ 0.4 million

CAPITAL PROJECTS FUNDED BY UTILITY REVENUES ($28.4 million) & OTHER FUNDING SOURCES ($2.1 million)

Water Main Replacement (Des Moines, Polk County, Pleasant Hill)
Rehabilitation of Lime Sludge Filter Presses
Modifications to Distribution Building
Rehabilitation of Collector Wells at McMullen
Financial Management Software (Year 2)
Hazen Tower Structural Concrete
Improvement of SCADA Network
Replace MWTP Truck Scale
Continuing Basin Rechaining
Ongoing Departmental Capital – Customer Service, I.T., Water Distribution, Water Production
Several other projects at Fleur Drive Treatment Plant, McMullen Treatment Plant and Saylorville Treatment Plant (see details on page 35)

2023 Overview of Budget Process

The Des Moines Water Works budget process is very detailed and requires a high level of participation from all departments. We use an activity-based methodology which correlates to our internal financial reporting. Activity-based costing provides the cost tracking and allocations required for our Cost of Service calculations.

The utility prepares a zero-based budget by "project" or activity. Staff identifies strategic goals, identifies the tasks to achieve those goals, and requests the funding necessary to support the tasks and goals. While many companies use a traditional budgeting approach that simply increases the prior year's budget by a set percentage, DMWW's zero-based, activity-based budget process reconsiders and justifies all activities of the business every year. The process is detailed, time-consuming, and rigorous; however, the methodology is decision oriented, supports the utility's Cost of Service study, and results in a budget that is more aligned with strategic goals.

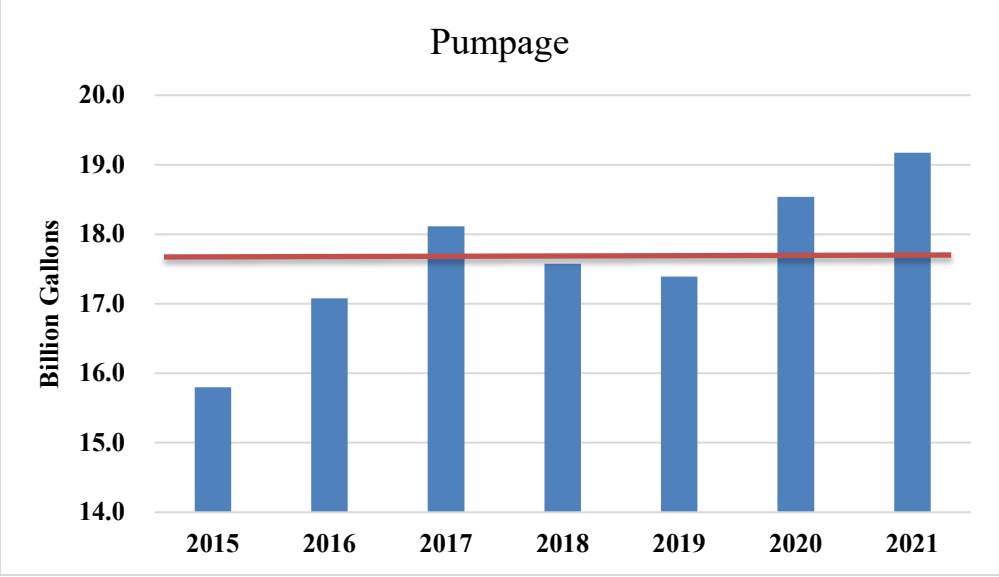
Budget files for operating and capital expenses are created by Finance. These files include prior year budget and actual information for comparative purposes and are created uniformly so that they total into a utility-wide budget. Additionally, there are several monthly financial reports to aid budgeters in reviewing and analyzing data to determine a proper level of expense for the upcoming budget year.

Budgeting is a compilation of assumptions, estimations, and a reliance on financial information and other relevant data.

One of the first assumptions made is the water pumpage budget. Actual pumpage varies from year to year and is rather unpredictable several months out. Weather plays a huge impact on pumpage.

The pumpage budget for 2023 is 17.7 billion gallons. The annual pumpage budget was calculated based on the average pumpage for the last seven years. This is an increase of 500 million gallons from the 2022 budget. By budgeting an average pumpage level, rather than any extreme, there is less likelihood of being significantly different than budget.

The chart below shows the last seven years of pumpage.



The annual pumpage number drives several components of the budget:

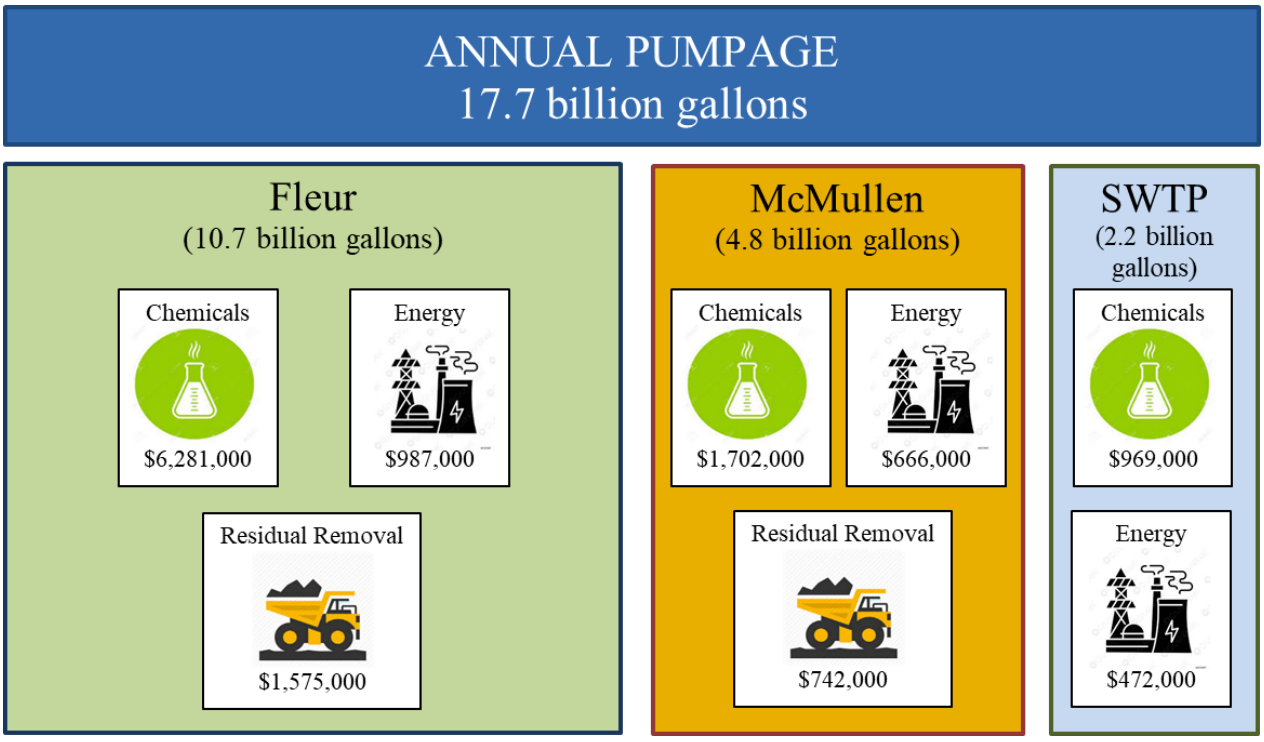
1. Water Revenue Budget

From the budgeted pumped gallons, a "billed consumption" number is calculated. On average, approximately 90% of water pumpage is billed. The approximately 10% of unbilled water is from main breaks, hydrant flushing, fire service, water used in production, and free water provided to the City of Des Moines.

The total billed consumption number of gallons is then allocated to the service areas based on historical usage. And finally, the projected water rates are applied to those consumption numbers by service area to calculate budgeted revenues.

2. Production at Treatment Facilities

The annual pumpage number is also used to determine the production at each of the three treatment facilities. Once the allocation of pumpage is determined, chemicals, energy, and residual removal expenses are budgeted based on the projected levels of production at each facility. The ongoing mission of water treatment at DMWW is to maintain a consistent finished product despite dynamic changes in raw water quality and quantity. Therefore, day-to-day decisions are being made to provide an adequate supply of water from each treatment plant in a manner that balances the factors of finished water quality, overall treatment expense, and regulatory compliance.



While pumpage is determined at the top level and pushed down, the operating budget is built from the ground up. To derive a budget, a set of assumptions must be used to calculate expenses. Historical data and estimates of future per-unit costs are two factors used to estimate direct treatment costs.

For example, one project within the Distribution System Maintenance work plan is "Repairs – Broken Mains." The number of main breaks is budgeted at an average of the last several years. Once the number of main breaks is determined, the future cost elements of fixing a main break are projected. These costs include pipe materials, concrete, aggregate materials, street permits, rental barricades, and of course, the labor of our distribution crews.

This type of detailed budgeting is done for the 300+ operating projects within the utility.

A similar process is done to build the capital budget. The 5-year capital improvement plan (CIP) is the starting point for the capital budget. The projects identified in the CIP are pulled into the budget templates and new projects are added for evolving capital needs. The proposed capital projects are reviewed, prioritized, and ultimately included or excluded from the budget depending on available financial resources.

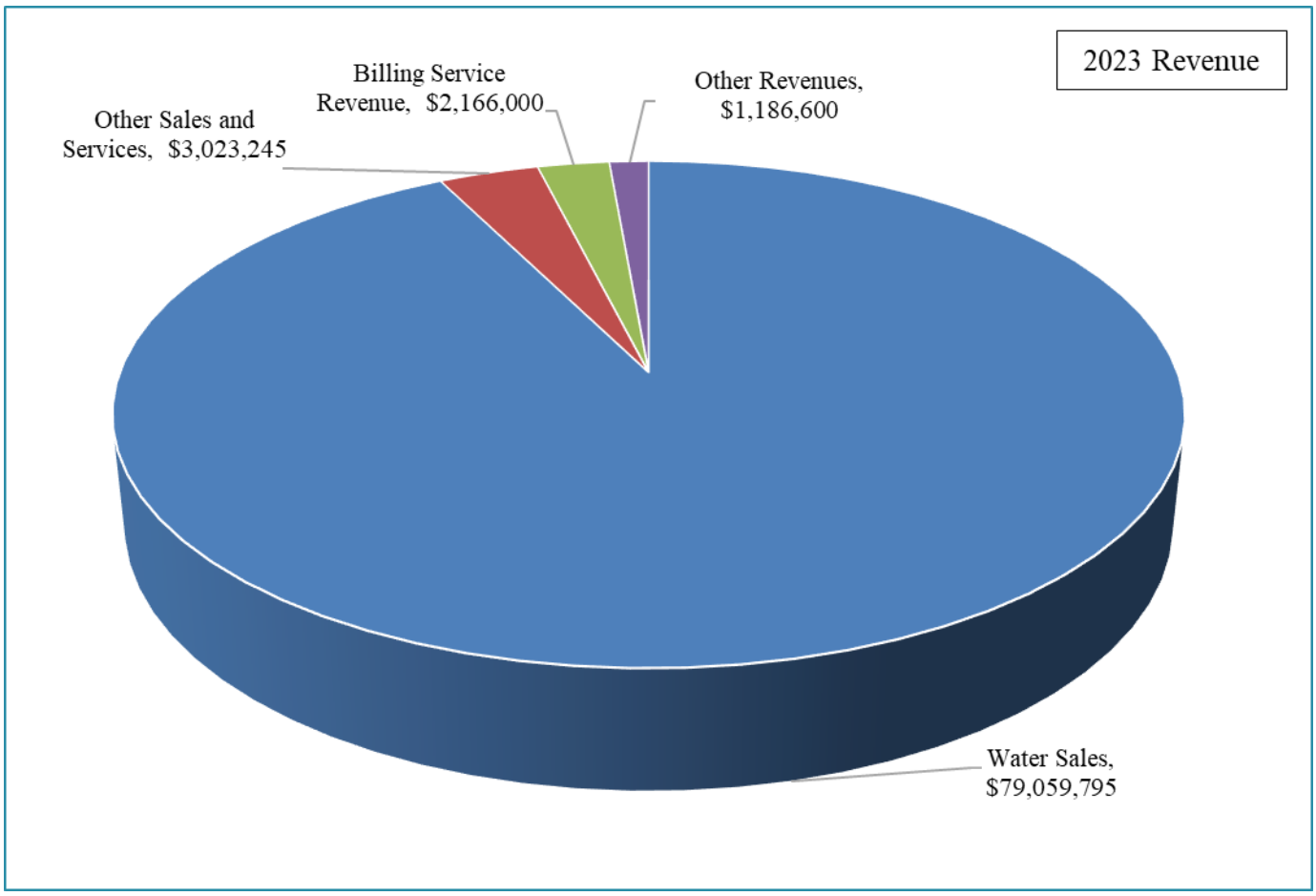
DES MOINES WATER WORKS
PROPOSED 2023 BUDGET SUMMARY AND COMPARISON TO 2022 BUDGET

	2023 Proposed Budget	2022 Approved Budget	Percentage Change
REVENUE:			
Water sales	$ 79,059,795	$ 73,176,757	8.0%
Penalties and fees	375,000	330,000	13.6%
Other sales and services	3,023,245	3,044,112	(0.7%)
Billing service revenue	2,166,000	1,954,280	10.8%
Land & building use revenue	216,000	172,800	25.0%
Connection Fees	400,000	750,000	(46.7%)
Interest income	195,600	177,000	10.5%
Total revenue available for expenses	$ 85,435,640	$ 79,604,949	7.3%
ADDITIONAL FUNDING:			
Unspent funds carried over from prior year's approved budget	$ 1,269,980	$ 3,092,000	(58.9%)
Development Plan Review	78,600	77,948	0.8%
Capital projects funded by outside entities	25,000	1,174,395	(97.9%)
Projects funded by SRF proceeds (DMWW Debt)	6,271,686	9,387,608	(33.2%)
Projects funded through regional participation	24,391,805	6,601,799	269.5%
American Rescue Plan Act (ARPA) funds through City of Des Moines	1,500,000	-	-
Funds received for capacity in feeder main (Ankeny)	500,000	-	-
PY Excess Revenues to offset regionalization expense	1,130,000	-	-
Total additional funding available for expenses	$ 35,167,071	$ 20,333,750	72.9%
Total revenue and additional funding	**$ 120,602,711**	**$ 99,938,699**	20.7%
EXPENSES:			
Operating expenses:			
Labor	$ 17,310,594	$ 16,661,114	3.9%
Benefits	10,103,000	9,662,600	4.6%
Chemicals	8,952,971	5,769,749	55.2%
Residual Removal	2,317,346	3,607,708	(35.8%)
Utilities	3,149,500	3,000,300	5.0%
Gasoline/Fuel	382,680	228,660	67.4%
Purchased Services	8,673,504	7,432,896	16.7%
Training	251,270	158,860	58.2%
Materials and Equipment	4,371,355	3,901,960	12.0%
Insurance	1,625,000	1,575,000	3.2%
Postage	450,000	490,000	(8.2%)
Telephone	288,735	307,500	(6.1%)
Casualty Loss	110,000	100,000	10.0%
Loss on Bad Accounts	155,000	150,000	3.3%
Subtotal - Operating expenses	$ 58,140,955	$ 53,046,346	9.6%
Capital expenditures:			
Requests for new capital projects	$ 61,191,776	$ 42,840,211	42.8%
Multiple-year capital projects began before 2021 (carryover)	1,269,980	3,092,000	(58.9%)
Subtotal - Capital expenditures	$ 62,461,756	$ 45,932,211	36.0%
Debt service obligations:			
Des Moines Water Works' direct obligation	$ -	$ 460,142	(100.0%)
Operating reserves:			
Addition to operating reserves	$ -	$ 500,000	(100.0%)
Total projected uses	**$ 120,602,710**	**$ 99,938,699**	20.7%
Net position of revenues to expenses	*0*	*0*	

REVENUE

Operating revenue for 2023 is budgeted at $85.4 million. This is an increase of approximately $5.8 million and results in a 7.3% increase over the approved 2022 budget.

This revenue budget includes 17.7 billion gallons of pumpage which is 500 million gallons higher than the 2022 budget of 17.2 billion gallons. The 2023 budget includes volume rate increases of 5.5% for most classes of retail customers, a 10% increase for the wholesale Purchased Capacity customer class, and 0% for the wholesale With Storage customer class. These rates will be effective on April 1, 2023. Capital improvement and water availability fees remain unchanged in the 2023 budget.



Water Sales are the most significant source of operating revenue, making up nearly 93% of total revenue. Water sales are budgeted to be $79.1 million in 2023 which is $5.9 million higher than the 2022 water sales budget.

Other Sales and Services are budgeted at approximately $3.0 million. These revenues represent amounts budgeted within the departmental work plans. This includes reconnect fees, stop box repairs, distribution system repairs, lab testing, etc.

Billing Service Revenue is budgeted at nearly $2.2 million. This represents fees charged to various cities, including Des Moines, Pleasant Hill, Windsor Heights, and others, for billing and collection services. This also includes revenue from HomeServe USA for billing and collection of fees from the optional service line maintenance program for residential customers.

Other Revenues, which are grouped together on the chart above, are budgeted at nearly $1.2 million and is made up of:

Penalties & Fees	$375,000
Connection Fees	$400,000
Land & Bldg Lease Revenue	$216,000
Interest Income on Invested Reserves	$195,600

ADDITIONAL FUNDING

Additional funding is made up of several components in the 2023 budget:

- Unspent funds that have been carried over from the prior year's budget

- Iowa State Revolving Fund (SRF) Loans
  Capital projects that are budgeted to be funded with State Revolving Fund (SRF) loans (DMWW debt):
  - Design and initial construction of an ASR well at the Polk County Pump Station site.
  - Design and initial construction costs to increase storage of CO2 at Fleur Drive Treatment Plant. This project includes new storage tanks (providing more than two weeks of storage), feed modifications, and appropriate controls and instrumentation.
  - Partial design of a well field along the Des Moines River to increase the amount of alluvial ground water available for the Fleur Drive Water Treatment Plant.

- Regional Participation
  Capital projects to be funded through regional participation:
  - Design and initial regulatory and permitting tasks related to adding horizontal collector wells along the Des Moines River to supply the Saylorville Water Treatment Plant expansion.
  - Design, pilot testing and other analyses, and initial regulatory and permitting tasks related to expanding the Saylorville Water Treatment Plant from 10 MGD to 20 MGD.

- Design and initial construction of the SWTP West Feeder Main Phase 3, a 30” feeder main from the Saylorville Water Treatment Plant to critical feeder mains located near Tenny Standpipe, which will provide immediate operational benefits and then become imperative on completion of plant expansion.
- Design of the Tenny to LP Moon Feeder Connection project, a 24” feeder main on Hickman Road from Merle Hay Road to 70th Street, that will enhance future flows west toward LP Moon Pumping and Storage Facility.

- American Rescue Plan Act of 2021 (ARPA) Funds from City of Des Moines.
  City of Des Moines indicated they would be willing to direct a total of $2.0 million towards water main replacement and/or alterations for city projects. The 2023 budget includes $1.5 million of ARPA funding.

- City of Ankeny
  Anticipated funding from City of Ankeny to pay for capacity in a 24” feeder main between Ankeny and the Saylorville Water Treatment Plant.

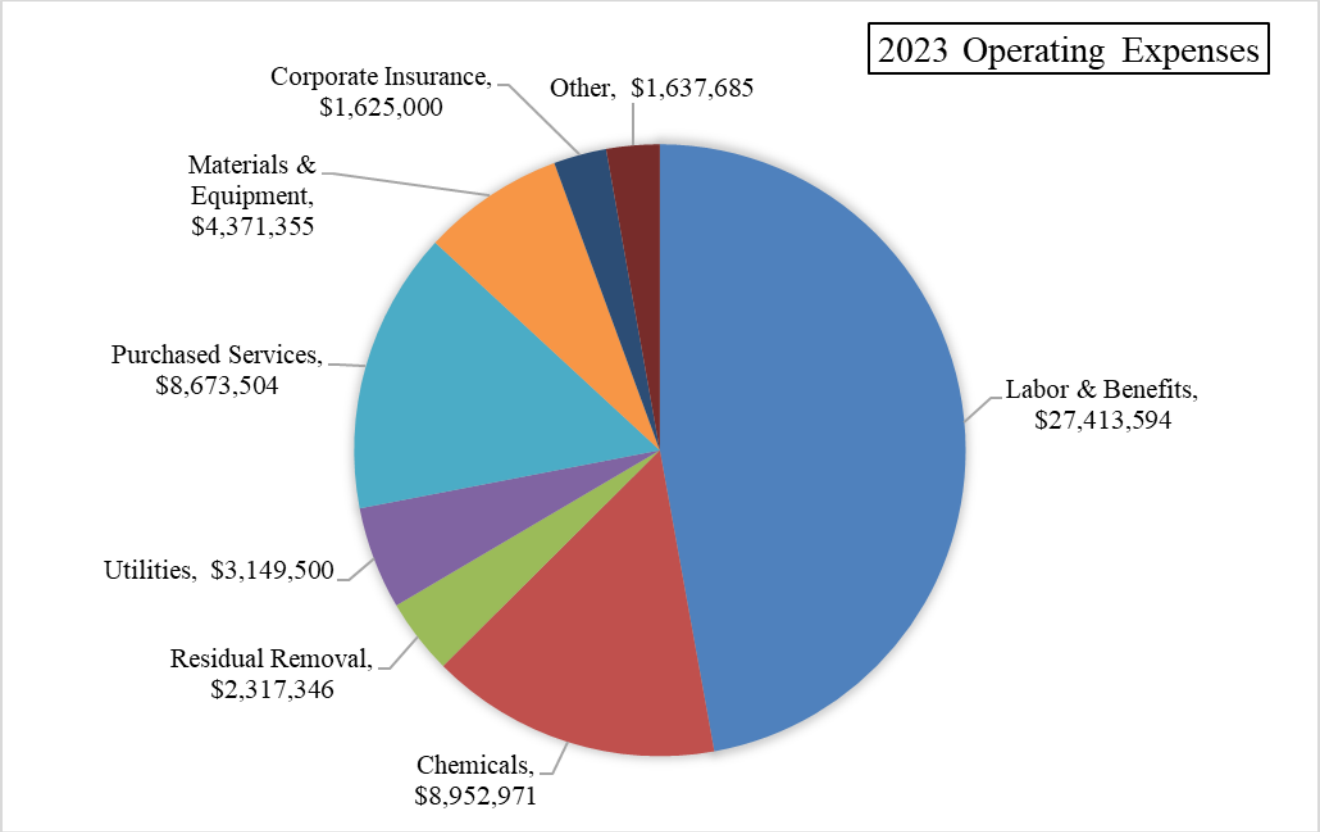
- Prior Year Excess Revenues
  Pumpage and water revenue have exceeded budget for the last several years and operating expenses have generally been favorable to budget as well. These factors have resulted in excess cash reserves. The 2023 budget includes infusing $1.1 million of the excess cash to offset the one-time regionalization expenses that are included in the budget. Much of these regionalization expenses were budgeted in a prior year but have remained unspent; hence, use of prior year excess revenues is deemed appropriate.

OPERATING EXPENSE BUDGET

The operating expense budget reflects the budgeted costs of the day-to-day operations of the utility. The proposed operating budget totals $58.1 million. This is an increase of 9.6% or approximately $5.1 million from the approved 2022 budget.

The table and chart below show the budgeted operating expenses, the increase over the prior years' budget for the last five years, and the components of the 2023 operating budget:

Year	Operating Budget	Increase
2019	$ 46,060,938	6.2%
2020	$ 48,545,551	5.4%
2021	$ 50,738,899	4.5%
2022	$ 53,046,346	4.5%
2023	$ 58,140,955	9.6%



The components of the 2023 operating budget compared to the 2022 operating budget are shown in the table below with more detailed explanations on the following pages.

Operating Expenses	2023 Bgt	2022 Bgt	Change
Labor	$ 17,310,594	$ 16,661,114	$ 649,480
Benefits	10,103,000	9,662,600	440,400
Chemicals	8,952,971	5,769,749	3,183,222
Residual Removal	2,317,346	3,607,708	(1,290,362)
Utilities	3,149,500	3,000,300	149,200
Gasoline/Fuel	382,680	228,660	154,020
Purchased Services	8,673,504	7,432,896	1,240,608
Training	251,270	158,860	92,410
Materials and Equipment	4,371,355	3,901,960	469,395
Insurance	1,625,000	1,575,000	50,000
Postage	450,000	490,000	(40,000)
Telephone	288,735	307,500	(18,765)
Casualty Loss	110,000	100,000	10,000
Loss on Bad Accounts	155,000	150,000	5,000
TOTAL OPERATING EXPENSES	**$ 58,140,955**	**$ 53,046,346**	**$ 5,094,608**

Operating **Labor** is budgeted nearly $650,000 higher than the 2022 budget. There are approximately 2,200 more hours being budgeted in operating projects in 2023. Some of the increase is a result of adding staff in the 2023 budget, which affects both operating and capital labor hours. There is an increase of 4.5 full-time-equivalents in the 2023 budget compared to the 2022 budget. Most of the increase is in the operations/engineering departments. Additionally, labor rate increases also contribute to the increase in labor dollars.

Benefit expenses are up 4.6%, or $440,000, compared to the 2022 budget. Nearly half of the increase relates to the actuarial defined contribution to the DMWW pension plan. It is budgeted at $1,700,000 in 2023, which is $200,000 higher than the 2022 budget. Along with a labor rate increase comes increases to those benefits tied to wages, such as FICA taxes, DMWW contribution to IPERS, and the deferred compensation plan. This accounts for $178,000 of the overall increase. Finally, the increase of the DMWW contribution to employees' medical premiums is budgeted $63,000 higher than the 2022 budget.

Chemical expenses are budgeted to increase 55.2%, or nearly $3.2 million in 2023. The increase in chemical expenses is the largest driver of the increase in the operating budget. Some of the increase is a result of increasing budgeted pumpage from 17.2 billion gallons in 2022 to 17.7 billion gallons in 2023. Chemical prices are expected to rise to record levels, causing most of the increase in chemical expenses. Diesel prices, driver shortages, and shortages of raw materials are all contributing to the increased costs. Based on initial indications from chemical vendors, many chemicals are budgeted to increase 15-20% with a few chemicals expected to increase 70-75%.

During budgeting, the Water Production operations staff looks at historical usage trends for each chemical at each plant. That determines the projected amount of chemicals to be used for the 2023 budget. The actual usage of chemicals at the treatment plants will be made on a day-to-day basis throughout the year to provide safe, potable water.

Residual (lime) Removal expenses are down nearly $1.3 million.

Each year, the Fleur and McMullen treatment plants produce lime residuals. The residuals at Fleur are removed as produced. The 2023 budget assumes removal expenses for 51,000 tons of Fleur residual material. The 2022 budget assumed nearly the same tonnage to be removed. The 2023 budget assumes an increase in removal price per ton equating to a $300,000 increase.

Residual removal expenses at McMullen are minimal in 2023. This results in $1.6 million of lower expenses compared to the 2022 budget. The residuals at McMullen go through a multi-year cycle. The cycle is: fill lagoon with residuals, dry residuals, remove residuals from the lagoon to a drying area which is located near the lagoon on DMWW property, remove residuals from the drying area to off-site storage or to the final disposal site. There are two lagoons and two drying areas at the McMullen Treatment Plant. The removal cost for the McMullen residual material is multifaceted as well. There are costs incurred when the residual hauler moves material to off-site storage, when they move material from the lagoon to the drying area, and when they move material to the final disposal site. In 2023, the west lagoon will be filled with residuals and the east lagoon will have residual material drying. The 2023 budget assumes the remaining 30,000 tons of material in the drying area will be hauled to the final disposal site. This is down from 121,000 tons of material budgeted in 2022 to be moved from the drying area to the final disposal site. There are no costs in the 2023 budget, nor were there any in the 2022 budget, for expenses related to hauling materials to off-site storage or from a lagoon to the drying area.

Utilities expense is up 5.0%, or $149,000, in 2023. Most of the utility expense is electricity used in the treatment process. The increase in budgeted pumpage and modest electric rate increases account for much of the increase. There is also a $34,000 increase in diesel fuel expenses at the three treatment plants.

Gasoline/Fuel expenses are up $154,000 due to expected increases in fuel and diesel costs.

Purchased Services budgeted in 2023 include:

Purchased Services	2023 Proposed Budget
PILOT	$ 1,310,000
Regionalization	1,130,000
I.T. Maintenance Contracts	1,019,000
Plant Maintenance	687,000
Remote Site Maintenance	235,000
Distribution Maintenance/Repair	215,000
Stop Box Repairs	280,000
Banking/Audit/Payroll Fees	177,000
Credit Card/E-check/Bill-pay Fees	195,000
Security	615,000
Facility Maintenance	214,000
Public Relations & Communications	130,000
GDMBG annual payment	100,000
Strategic Plan Initiatives	362,000
Public Policy/Watershed Initiatives	182,000
"Other" Services (numerous)	1,822,504
Total	**$ 8,673,504**

These expenses are up 16.7% from the 2022 budget.

Many categories of purchased services have gone up a moderate amount including I.T. maintenance security services, stop box repairs, processing fees for electronic payments, and services relating to facility maintenance.

Regionalization expenses of $1.1 million have been included in the 2023 budget. The 2022 budget included $505,000 in regionalization expenses that have been largely unspent due to ongoing discussions. These costs include legal fees, consultation and facilitation services as well as DMWW's share of start-up costs for the new entity. There is offsetting funding for this expense from prior year excess revenues.

There are $362,000 of budgeted expenses related to the strategic plan initiatives. These initiatives include an organizational assessment in the Water Production department, consulting services for a water rate study focusing on affordability and DMWW's retail rate structure, consulting services and other expenses relating to diversity, equality, and inclusion, as well as budgeted funds to improve employee culture.

Offsetting the increases are several categories of purchased services that have decreased for 2023. This includes plant maintenance, distribution maintenance & repairs, GDMBG in-kind services, and public policy/watershed initiatives.

Materials & Equipment expenses include the supplies and materials used primarily in distribution, plant and remote site maintenance, laboratory supplies, and facility and vehicle maintenance. Expenses are budgeted 12.0% higher in 2023, which equates to $469,000. As with chemicals, other materials used throughout the utility have had significant price increases due to supply shortages and increased logistics costs.

Corporate Insurance expenses include the premium cost for the utility's insurance policies along with budgeted costs for workers' compensation claims. The 2023 budget has premium expenses increasing by $100,000 and workers' compensation claims decreasing by $50,000 based on historical trends in claims.

Other expenses include postage expenses, telephone, casualty losses, training, bad debt write-off, etc. The amount budgeted for 2023 is approximately $40,000 lower than the 2022 budget.

Details of all the Operating Work Plans and the comparison between the 2023 Proposed Budget and the 2022 Approved Budget begin on page 23.

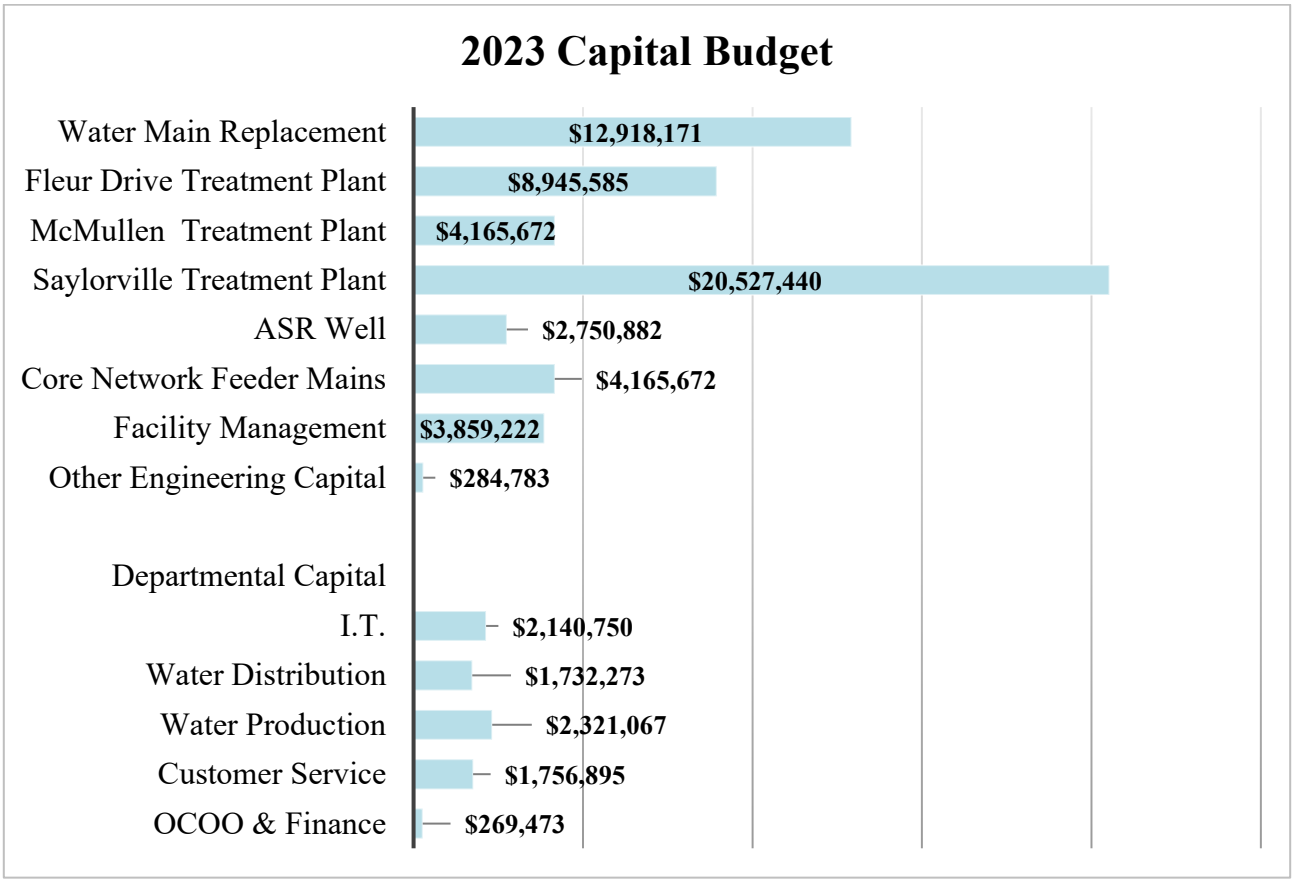
CAPITAL BUDGET

The 2023 capital budget includes $62.5 million of capital requests.

Approximately $1.3 million of the capital budget is for projects that are carried over from the prior year's budget. Due to the efforts involved in planning, designing, bidding, and constructing large capital items, it is common for some capital spending to carry forward into a new budget year.

Other funding sources for capital projects included in the 2023 budget include $6.3 million of SRF loans, $24.4 million through regional participation, $1.5 million of ARPA funds from City of Des Moines, $500,000 from City of Ankeny, and roughly $100,000 from other sources.

That leaves approximately $28.4 million of capital projects from the utility's revenue in 2023. This compares to $25.6 million of capital projects budgeted from the utility's revenues in 2022.



Water main replacement is budgeted at $12.9 million in 2023. This amount includes main replacement in Des Moines, Pleasant Hill, and the unincorporated Polk County service area. Included in the 2023 water main replacement budget in Des Moines is $3.0 million for installation of new feeder main and other system enhancements at the former DICO site (superfund site immediately east of the Fleur Drive Water Treatment) to replace existing feeder main on the site. The enhancements here are being completed in advance of a new soccer stadium that will be

constructed on the site. Additionally, IDOT work results in an additional $1.8 million being allocated for feeder main alterations needed at the intersection of I-35 and Hickman Road.

Projects budgeted at the Fleur Drive Treatment Plant include installation of permanent backwash return facilities, containment of diesel pump fuel at EHL #1, rebuilding of WHL pump, and continued efforts for basin rechaining. Several projects that are expected to be constructed over multiple years have been budgeted including construction of a new bulk powder activated carbon storage and feed system, initial costs for rehabilitating the filter plant, and additional funds to rehabilitate the lime sludge filter presses, and improvements to the SCADA network. Finally, the FDTP budget includes funds to begin construction on enhancements to the CO2 feed system and initial design costs for an alluvial well field along the Des Moines River. Both of these projects are expected to be financed with SRF loan proceeds.

The McMullen Treatment Plant budget includes projects for rehabilitating a collector well and installation of an isolation valve to isolate well #5 from the raw water system.

The Saylorville Water Treatment Plant budget contains initial design costs and targeted analysis to expand the plant from 10 MGD to 20 MGD as well as the addition of necessary horizontal collector wells along the Des Moines River to supply the plant expansion. The total of these two projects budgeted in 2023 is $20.5 million and is expected to be funded through regional participation. There are also projects budgeted for improvements to the floor drain and ongoing replacement of the RO membranes.

Design and partial construction of a new ASR well at the Polk County Pump Station site is included in the 2022 budget at $2.8 million. This project is expected to be financed with SRF loan proceeds.

The Core Network Feeder Main work plan contains two projects. One is to design and begin construction of a 30” feeder main from the Saylorville Water Treatment Plant to critical feeder mains located near Tenny Standpipe. This will provide immediate operational benefits and will be imperative when the plant is expanded. The 2nd project is to design the feeder main connection, on Hickman Road, that will enhance flows from Tenny Standpipe to LP Moon. The amount budgeted in 2023 for both projects is $4.2 million and is expected to be funded through regional participation.

Facility Management projects include funds for restoration of concrete at Hazen Tower, modification to the distribution building due to corrosion issues on the ramp, replacing internal storm and sanitary sewer drain piping, replacement of the trucking scale at McMullen Treatment Plant, and enhancements to the Fleur Drive pump station HVAC. There are several projects budgeted to continue efforts to address safety concerns, replace or improve structural elements of facilities such as roofs, stairs, floors, and concrete.

The I.T. capital budget includes $1.1 million of funding to replace the PeopleSoft financial system with a new financial management system. This is the 2nd year of budgeting $1.1 million for a total project cost of approximately $2.2 million. PeopleSoft Financials was implemented in 1999. While it is currently meeting our needs, the system is running on outdated technology and the volume of

activity it has accumulated over 23+ years has caused the system to slow and reach potential breaking points.

There are departmental capital items that are budgeted each year to maintain and upgrade assets. While the projects continue to be budgeted each year, the same review process and prioritization occurs as with the other capital requests to determine the overall capital budget.

The Water Distribution capital budget includes funds for replacing hydrants and valves, replacing large tools to perform the tasks, as well as other upgrades.

Customer Service budgets for meter replacement and automated meter reading equipment (.e.g., MTU) change-outs.

I.T. has a budget for new hardware and software to replace aging equipment. There are two new capital projects budgeted in 2023 for replacing Cradlepoints and Sierra devices in company vehicles and to replace LabLite, the database for laboratory analysis.

Water Production has a capital budget to replace motors, pumps, and other individual parts within the treatment and remote facilities.

Vehicle and equipment replacement is included in the Water Production budget.

Details of the Capital Work Plans begin on page 35.

Operating Reserves – The 2023 budget does not include funds to increase operating reserves. Generally, the increase to operating reserves is budgeted at $500,000. The increase needed for operating reserves to meet the Board policy of three months' operating expenses in reserves will come from prior year excess revenues rather than 2023 rate revenue.

SUMMARY OF EXPENDITURES

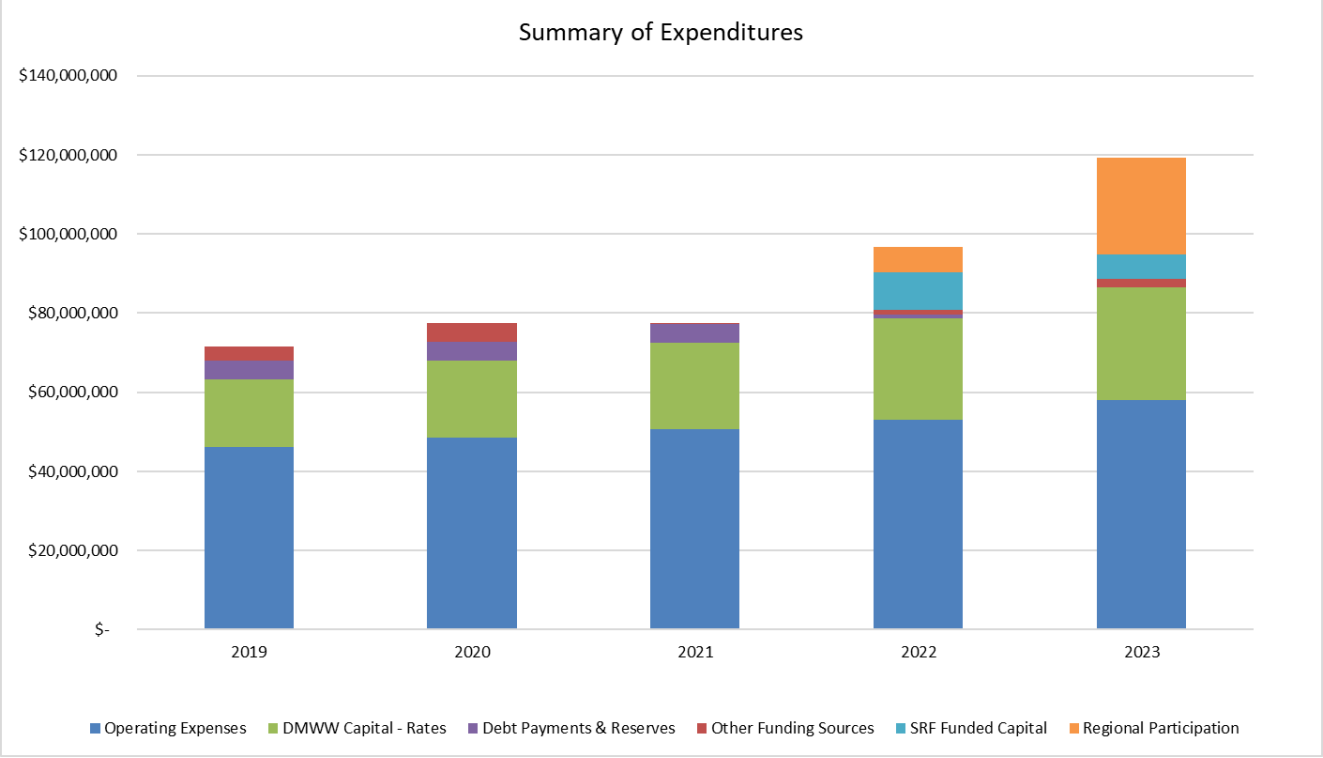
The following chart shows five years of budgeted cash expenditures. The categories of expenditures are: operating expenses, DMWW capital funded through rates, debt payments and increase in operating reserves, outside funded capital expenses, SRF funded capital expenses, capital expenses funded through regional participation, and other funding sources.

As expected, operating expenses and DMWW funded capital expenses have steadily increased through the five-year period.

Debt service payments were fairly constant from 2018-2021. The 2012A and 2012B bonds were paid off in 2021. There were minimal debt service payments budgeted in 2022 and as SRF-funded projects will still be under early construction in 2023, no debt service payments are budgeted in 2023.

The budget to increase operating reserves has been budgeted at $500,000 for 2019-2022 and removed from the 2023 budget as operating reserves will be increased from prior year excess cash. Capital projects with other funding sources vary from year to year. These are primarily joint projects such as feeder mains and pump stations which will benefit those entities contributing the funds. Additionally, the 2023 budget includes $2.0 million for expected funds received from ARPA through the City of Des Moines ($1.5 million) and Ankeny for capacity in a feeder main ($500,000).

Finally, the 2022 and 2023 budgets include capital projects to be funded by SRF borrowings and regional participation.



FUTURE CAPITAL EXPENSES

There are significant dollars budgeted in 2023 for projects that will take more than a year to construct or implement. The chart below shows the expenses budgeted in 2023 along with an estimate of the dollars that will need to be budgeted in subsequent years to complete those projects. These projects have been included in the 5-year Capital Improvement Plan and are estimated in today's dollars. Certainly, as the design work is completed, the scope of work is identified, and the projects go through the formal bidding process, the amounts will be updated in future budget years.

Projects	2023 Budget	Future Years	Total Project Cost
Funded with DMWW Debt (SRF)		*in millions*	
Additional ASR	$ 2.8	$ 6.4	$ 9.2
CO2 Feed at FDTP	1.6	1.1	2.7
DM River Well Field	1.9	35.8	37.7
Total	**$ 6.3**	**$ 43.3**	**$ 49.6**
Funded with Regional Participation			
SWTP 10MGD Raw Water Expansion	$ 7.1	$ 47.2	$ 54.3
SWTP 10MGD Plant Expansion	13.2	64.1	77.3
SWTP W Feeder Main Phase 3	3.8	7.1	10.9
Tenny-LP Moon Feeder Main	0.3	3.3	3.6
Total	**$ 24.4**	**$ 121.7**	**$ 146.1**
Funded by Rates			
FDTP Distribution Bldg Modifications	$ 0.7	$ 0.7	$ 1.4
FDTP Bulk PAC System	0.6	2.3	2.9
FDTP Filter Plant Rehabilitation	0.4	13.8	14.2
FDTP Lime Sludge Filter Press	1.1	1.1	2.2
FDTP Sanitary Sewer Lift Station	0.2	0.1	0.3
SCADA	1.6	10.5	12.1
WMR-DM	9.3	3.8	13.1
WMR-PC	3.1	2.9	6.0
Total	**$ 17.0**	**$ 35.2**	**$ 52.2**

BUDGET BY DEPARTMENT

The next page shows expenses by department sliced a little differently than the project/work plan method that the utility uses for financial reporting, cost of service, etc.

The table shows the *Non-Labor* expenses by department. These expenses include Materials/Inventory, Services, Utilities and are shown in the department that budgets for those expenses.

The table shows the *Labor* expenses for each department. This is based on which department the employee works in and does not take into consideration where that employee charges his/her time.

2023 Budget by Department

This table shows non-labor expenses by department - that is, the department where the materials, services, etc. are budgeted. It shows the labor expenses for each department - that is, the employee's department and doesn't take into consideration where that employee charges his/her time.

NON LABOR EXPENSES	CEO	Customer Service	Engineering	Finance	Human Resources	Information Technology	OCOO	Water Distribution	Water Production	Unallocated Benefits	Total
OPERATING											
Company-Wide	-	155,000	-	1,625,000	-	-	110,000	-	-	10,103,000	11,993,000
Inventory	1,500	101,000	8,000	82,870	1,500	400	18,550	539,290	10,278,201	-	11,031,311
Materials	121,570	120,200	25,730	481,250	90,820	79,100	171,425	915,800	1,119,800	-	3,125,695
Services	1,560,550	237,908	50,875	1,938,729	296,000	1,613,160	904,650	682,844	3,957,404	-	11,242,120
Utilities	-	-	-	-	-	288,735	10,400	-	3,139,100	-	3,438,235
Total Operating	$ 1,683,620	$ 614,108	$ 84,605	$ 4,127,849	$ 388,320	$ 1,981,395	$ 1,215,025	$ 2,137,934	$ 18,494,505	$ 10,103,000	$ 40,830,361
CAPITAL	-	1,756,895	52,374,590	18,000	-	1,924,325	251,000	1,226,251	2,233,900	-	59,784,961
LABOR EXPENSES (by department)	420,722	2,723,981	2,421,501	1,072,389	383,843	1,135,920	1,009,336	4,923,641	5,896,056		19,987,389
TOTAL	**$ 2,104,342**	**$ 5,094,984**	**$ 54,880,696**	**$ 5,218,238**	**$ 772,163**	**$ 5,041,640**	**$ 2,475,361**	**$ 8,287,826**	**$ 26,624,461**	**$ 10,103,000**	**$ 120,602,711**
Full-Time Equivalents	3.0	35.5	22.4	10.8	4.0	9.0	13.6	55.0	65.4		218.6

Reconciliation to 2023 Budget Summary	
Operating Expenses	58,140,955
Capital Expenses	62,461,756
Total Expenses	120,602,711

LABOR and BENEFITS BUDGET

Labor and benefit costs makes up a significant portion of the utility's budget.

Labor hours are budgeted in operating projects and capital projects. Many positions within the utility are primarily budgeted in operating projects as the work involved is in the general day-to-day operations of the utility. These positions include those in the administrative departments of Customer Service, Finance, Human Resources, Information Technology, OCOO, and OCEO. Within the operating departments of the utility, there are positions that support the operating activities – ongoing operations and maintenance of the utility. There are positions that generally support the capital efforts – design and construction of assets, replacement of assets, etc. And then there are positions that complete both types of functions. Therefore, while the overall headcount of the utility remains significantly consistent, the allocation between operating and capital hours varies from year to year.

Employees are budgeted with non-productive time – which is their time off through the year. This includes holidays, vacation, floating holidays, sick time, and on-call pay. The total amount budgeted for 2023 is $3.0 million.

The non-labor piece of benefit expenses is budgeted at $10.1 million and includes costs for insurance premiums, employer contributions to IPERS, deferred compensation, and social security taxes, contributions to the DMWW pension plan, and flex pay.

	2023 Proposed Budget	2022 Approved Budget	Percentage Change
Labor			
Operating	$ 17,310,594	$ 16,661,114	
Capital	2,676,795	2,190,016	
	$ 19,987,389	**$ 18,851,130**	6.0%
Benefits			
Insurance Premiums			
Employee Medical	$ 3,914,000	$ 3,851,100	
Retiree Medical	269,000	269,000	
Life/LTD/AD&D	61,600	59,800	
Retirement Expenses			
IPERS (9.44%)	1,865,900	1,777,600	
FICA taxes (7.65%)	1,512,100	1,440,500	
DMWW Pension	1,700,000	1,500,000	
Deferred Compensation	376,800	361,000	
Flex Dollars	378,100	378,100	
Car Allowance	25,500	25,500	
Total Benefits	**$ 10,103,000**	**$ 9,662,600**	4.6%
% of total labor	*50.5%*	*51.3%*	
Total Labor & Benefits	**$ 30,090,389**	**$ 28,513,730**	5.5%

2023 Operating Work Plans Recommended for Funding

Office of the CEO

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Board Activities					
Facilitation of Board-related activities in accordance with Code of Iowa requirements and to assure a well-informed Board of Trustees fully prepared to render policy decisions for the optimal benefit of the utility.	Labor	149,226	144,865		
	Non Labor	1,177,800	562,050		
Provides for costs associated with regionalization efforts. Non-labor expense of $1,130,000 was budgeted in 2023. The 2022 budget contained $505,000 of non-labor expense for regionalization that will largely be unspent. Therefore, the money was budgeted again in 2023. This includes funds for consulting expenses, legal fees, and DMWW's share of the start-up costs for the new entity. Funding was added to the 2023 budget from prior year excess revenues to offset this non-recurring expense.	Total	1,327,026	706,915	620,111	87.7%
CEO Office Operations					
Provides for the efficient administrative and leadership support for the Office of the CEO including staff appraisals, professional support for senior management on miscellaneous non-project issues, and communication/support with outside organizations and other utilities.	Labor	125,934	111,451		
	Non Labor	108,320	72,300		
Training budget has been increased for leadership training. Includes new membership dues to US Water Alliance.	Total	234,254	183,751	50,502	27.5%
Business Strategy					
Provides for the costs associated with the visionary leadership of the utility which includes supervisor meetings, senior management team meetings, and CEO walk-arounds.	Labor	122,176	103,159		
	Non Labor	66,800	74,770		
	Total	188,976	177,929	11,046	6.2%
Project Management					
Provides costs associated with managing the Energy Management System as well as operational projects as assigned by the CEO.	Labor	3,785	3,589		
	Non Labor	94,850	33,250		
Consulting expenses have been increased to accurately reflect hours spent on energy management efforts.	Total	98,635	36,839	61,796	167.7%
Public Policy - Watershed Advocate					
Includes activities to influence and monitor public policy and resource allocation decisions of state and federal legislative and regulatory initiatives which have a potential impact on the utility and/or the drinking water industry's ability to provide safe drinking water to consumers in a cost effective and sustainable manner.	Labor	69,998	72,614		
	Non Labor	235,850	227,100		
	Total	305,848	299,714	6,134	2.0%
Total Office of the CEO	Labor	471,118	435,678		
	Non Labor	1,683,620	969,470		
	Total	2,154,738	1,405,148	749,590	53.3%

2023 Operating Work Plans Recommended for Funding

Customer Service

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Customer Service Administration					
Captures the general and administrative costs of customer service, including training.	Labor	61,217	55,351		
	Non Labor	30,500	56,600		
Non-labor is lower due to Voice of the Customer being done in 2022 and not budgeted in 2023. Training increased for leadership training.	Total	91,717	111,951	(20,234)	-18.1%
Customer Service Contact Center & Data Quality					
Costs to provide quality customer service to both external and internal customers. This includes providing walk-in, written and telephone customer service to the customers of DMWW, as well as our billing and collecting customers. Also encompasses account maintenance and collection activities.	Labor	976,915	973,507		
	Non Labor	223,268	228,568		
	Total	1,200,183	1,202,075	(1,891)	-0.2%
Field Customer Service					
Includes the costs of field service workers in completing work orders, repairing meters, administration of contracted plumbers, and repairing stop boxes.	Labor	1,228,434	1,195,075		
	Non Labor	139,500	189,900		
	Total	1,367,934	1,384,975	(17,041)	-1.2%
Communications & Public Relations					
Provides for activities related to public relations, utility communications, website and social media support, graphics services, marketing, speaking engagements and treatment plant tours.	Labor	105,460	88,429		
	Non Labor	160,440	162,450		
	Total	265,900	250,879	15,021	6.0%
New Business, Community & Economic Development, Existing Relationships					
Includes client contact with key wholesale and commercial/industrial customers and the development and execution of action plans as a result of identified new business opportunities. Includes the contribution to the Greater Des Moines Partnership.	Labor	17,637	16,146		
	Non Labor	60,400	60,400		
	Total	78,037	76,546	1,491	1.9%
Total Customer Service	Labor	2,389,663	2,328,507		
	Non Labor	614,108	697,918		
	Total	3,003,771	3,026,425	(22,653)	-0.7%

2023 Operating Work Plans Recommended for Funding

Engineering

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Engineering Management					
Tracks operating costs including: communication with staff, training for Engineering staff, leadership and department meetings, safety chats, customer service, administrative support activities, attendance at city pre-app meetings, Engineering leadership support of the Water Works Park Foundation, and cell tower administration.	Labor	303,448	318,495		
	Non Labor	44,605	37,310		
	Total	348,053	355,805	(7,753)	-2.2%
Engineering Studies					
Covers the cost to conduct engineering studies to determine the feasibility of future capital projects as well as monitoring efforts around DMWW facilities.	Labor	30,416	58,220		
	Non Labor	40,000	25,000		
	Total	70,416	83,220	(12,804)	-15.4%
Total Engineering	Labor	333,864	376,715		
	Non Labor	84,605	62,310		
	Total	418,469	439,025	(20,557)	-4.7%

2023 Operating Work Plans Recommended for Funding

Finance

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Finance Administration					
Summarizes the administrative costs for the Finance department including clerical support, performance management, and training.	Labor	51,672	48,076		
	Non Labor	47,250	31,290		
Training budget has increased foe leadership training.	Total	98,922	79,366	19,556	24.6%
Financial Services					
Summarizes the costs related to the financial services performed throughout, and for the benefit of, the entire utility. Services include, but are not limited to: payroll, accounts payable, financial reporting, banking, annual audit, cost of service study, etc. This work plan also includes the corporate insurance premiums and the PILOT to City of Des Moines.	Labor	394,537	392,773		
	Non Labor	3,200,029	1,780,100		
The PILOT of $1.3 million in 2023 has been moved from the OCOO department into this work plan in the Finance department. Premium expense for corporate insurance is budgeted to increase $100,000 in 2023 based on initial discussions with our insurance broker. Workers' Compensation claims' expense has been reduced by $50,000 based on trending in the last few years. Consulting expenses of $70,000 are included in the 2023 budget for a rate study focusing on affordability and the retail rate structure.	Total	3,594,566	2,172,873	1,421,692	65.4%
Payment Processing					
Summarizes the costs to perform accounts receivable billing, collection, and balancing functions for the utility.	Labor	67,344	74,897		
	Non Labor	219,350	183,450		
Fees for processing electronic payments are budgeted to increase by $35,000.	Total	286,694	258,347	28,347	11.0%
Mail Processing					
Summarizes the costs to prepare and mail customer bills.	Labor	49,646	46,901		
	Non Labor	556,470	608,150		
Postage expenses are declining by $45,000 due to more customers switching to receiving e-statements.	Total	606,116	655,051	(48,935)	-7.5%
Purchasing & Central Stores					
Provides support to our internal customers for purchasing, warehousing and delivering of product in a cost effective and timely manner.	Labor	221,420	206,532		
	Non Labor	4,750	7,350		
	Total	226,170	213,882	12,288	5.7%
Greater Des Moines Botanical Gardens					
Summarizes the in-kind services provided to the GDMBG according to our agreement.	Labor	-	18,571		
	Non Labor	100,000	181,429		
The level of contribution for 2023 is $100,000.	Total	100,000	200,000	(100,000)	-50.0%
Total Finance	Labor	784,619	787,751		
	Non Labor	4,127,849	2,791,769		
	Total	4,912,468	3,579,520	1,332,948	37.2%

2023 Operating Work Plans Recommended for Funding

Human Resources

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
HR Administration					
Captures the general clerical and administrative costs of the Human Resources department.	Labor	84,666	60,991		
Includes additional labor hours for full-time HR admin position. This has been converted from 1/2 time assistant (shared with CEO's Office) to full time.					
Training budget has been increased for leadership training.	Non Labor	31,720	18,500		
	Total	116,386	79,491	36,895	46.4%
Employee Relations					
Includes costs for the use of focus groups, labor/management committees, recognition initiatives, the Spigot employee newsletter, employee meetings, one-on-one issue identification and resolution, formal grievance resolution, and administration of DMWW's drug-free workplace program.	Labor	154,381	149,451		
	Non Labor	107,800	44,500		
Increased budget in 2023 for recognition and employee activities.	Total	262,181	193,951	68,230	35.2%
Employment					
Provides resources for recruiting and selecting quality new employees for vacant positions. Equal Employment Opportunity and affirmative action compliance is also assured.	Labor	24,703	26,811		
	Non Labor	110,200	67,500		
The 2023 budget includes increased costs for recruiting as it's becoming more difficult to find qualified candidates for specialty jobs. The budget pertaining to diversity initiatives has also been increased.	Total	134,903	94,311	40,592	43.0%
Compensation & Benefits					
Includes costs associated with maintaining and enhancing a competitive, cost-effective and compliant employee compensation and benefits program.	Labor	82,666	81,737		
	Non Labor	60,600	70,700		
	Total	143,266	152,437	(9,171)	-6.0%
Employee Learning & Growth					
Provides for the administration and coordination of utility-wide employee training, continual learning, career planning, and work-life balance initiatives.	Labor	3,723	3,544		
	Non Labor	78,000	49,850		
Increase relates to additional utility-wide training and for tuition reimbursement for employees pursuing additional job-related education.	Total	81,723	53,394	28,330	53.1%
Total Human Resources	Labor	350,138	322,532		
	Non Labor	388,320	251,050		
	Total	738,458	573,582	164,876	28.7%

2023 Operating Work Plans Recommended for Funding

Information Technology

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
I.T. Administration					
Captures the general and administrative costs of the I.T. department including: invoice processing, budget tracking, performance management and training.	Labor	149,925	125,875		
	Non Labor	72,400	55,600		
Training budget has been increased for leadership training. Additional labor hours for technical training.	Total	222,325	181,475	40,850	22.5%
Technical Services					
Provides technical support for all hardware and software components used for client computing. This includes file serving, printing, PC software and hardware maintenance, computer operations, helpdesk support, PC upgrades and patches. Additionally, IT computer operations are supported, including activities around nightly processing, reporting, and printing.	Labor	55,653	123,145		
	Non Labor	215,300	167,300		
Labor hours have decreased due to realignment of IT staff to focus on technical issues relating to cybersecurity. Non-labor is up due to budgeting for a consultant to assist with PC and laptop replacements.	Total	270,953	290,445	(19,492)	-6.7%
I.T. Development					
Provides technical support for all applications and software components used for corporate computing. This includes application support and application development.	Labor	45,712	28,959		
	Non Labor	160,000	40,000		
Increased consulting and internal labor costs for application development. This includes upgrades and enhancements to CIS, Clevest, and other essential systems used at the utility.	Total	205,712	68,959	136,753	198.3%
System Services					
Provides technical support for all network hardware, software, and components used for utility computing. This includes all networking, file serving, printing, disaster recovery, security, backups, internet connectivity, upgrades, and patches.	Labor	189,169	167,665		
	Non Labor	717,745	672,605		
	Total	906,914	840,270	66,644	7.9%
Increases relate to cyber-security and the transition of physical security related to cameras and access card readers from the OCOO department to I.T.					
I.T. Services					
Provides resources to support all facets of software and hardware as they relate to core I.T. services including in-house software applications, purchased applications, support, reporting, and technical consulting.	Labor	376,563	403,744		
	Non Labor	815,950	827,096		
	Total	1,192,513	1,230,840	(38,327)	-3.1%
Total I.T.	Labor	817,021	849,387		
	Non Labor	1,981,395	1,762,601		
	Total	2,798,416	2,611,988	186,428	7.1%

2023 Operating Work Plans Recommended for Funding

Office of the Chief Operating Officer

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
OCOO Administration					
Administrative costs for the Office of the Chief Operating Officer including employee meetings, performance management, and training.	Labor	68,628	64,882		
	Non Labor	17,200	4,900		
Training budget has been increased for leadership training.	Total	85,828	69,782	16,046	23.0%
Risk & Incident Management					
Costs including park police, contract security, access control, surveillance, emergency operations, and flood protective measures. Also includes costs associated with liability claims.	Labor	108,707	113,687		
	Non Labor	817,300	708,500		
Contracted security guard services budgeted to increase $100,000. Consulting expenses of $20,000 has been added for review of revised 100-year storm elevations compared to DMWW levees.	Total	926,007	822,187	103,820	12.6%
Grounds Maintenance					
Management and maintenance of DMWW properties as well as properties maintained under 28E agreements with the City of Des Moines. Includes labor and materials to administer park events that are held in Water Works Park.	Labor	514,876	512,004		
	Non Labor	288,150	1,614,182		
PILOT of $1.3 million has been moved to Finance department.	Total	803,026	2,126,186	(1,323,160)	-62.2%
Safety					
Captures the general and administrative costs of the safety program - which includes labor, outside consultants to provide training, and safety materials and supplies.	Labor	139,253	122,835		
	Non Labor	92,375	108,250		
	Total	231,628	231,085	543	0.2%
Total Office of the COO	Labor	831,464	813,408		
	Non Labor	1,215,025	2,435,832		
	Total	2,046,489	3,249,240	(1,202,751)	-37.0%

2023 Operating Work Plans Recommended for Funding

Water Distribution

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Distribution Administration (Distribution Support)					
Administrative costs for the Distribution department including clerical support, employee meetings, performance management, and training.	Labor	185,644	180,154		
	Non Labor	46,350	33,840		
Training budget has been increased for leadership training.	Total	231,994	213,994	17,999	8.4%
Des Moines Field Support					
Tasks required to support distribution system maintenance and utility locates; including work order processing, twenty-four hour dispatch, record updates, database maintenance, and customer contact.	Labor	495,313	525,569		
	Non Labor	56,650	50,557		
	Total	551,963	576,126	(24,163)	-4.2%
Distribution System Maintenance & Repair					
Costs for distribution system maintenance and repair tasks which include repairing broken water mains, hydrant and valve maintenance and repair, flushing dead end water mains, adjusting valve boxes to grade for city paving projects, and maintaining cathodic protection systems.	Labor	1,794,495	1,628,291		
	Non Labor	1,301,884	1,244,448		
Non-labor expenses up due to increased costs of materials, asphalt, and concrete for main breaks. Increased labor due to additional staff added to 2023 budget to deploy and maintain barricades. The cost of barricade rental has decreased by a similar amount.	Total	3,096,379	2,872,739	223,639	7.8%
Leak Detection and Locating					
Costs for leak detection, locating, customer distribution services (complaints/inquiries), and feeder signage maintenance.	Labor	708,171	670,038		
	Non Labor	48,050	41,700		
Average cost of stop box repairs, done by external contractor, has increased in the 2023 budget. Additionally, materials used for installation and removal of service connections (taps) has increased.	Total	756,221	711,738	44,484	6.2%
Distribution Billed Services					
Costs for billed services including making taps for new service lines, providing contracted leak location services, repairing damaged facilities, and repairing inoperable service valves.	Labor	206,742	208,680		
	Non Labor	614,400	482,510		
	Total	821,142	691,190	129,952	18.8%
Distribution Water Quality					
Maintain the quality of the water in the distribution system through administration of the cross-connection control program and the implementation of the initiatives that will maintain water quality and response to water quality complaints.	Labor	198,878	168,185		
	Non Labor	70,600	51,850		
Additional labor hours added for backflow administrative support.	Total	269,478	220,035	49,442	22.5%
Total Water Distribution	Labor	3,589,243	3,380,918		
	Non Labor	2,137,934	1,904,905		
	Total	5,727,177	5,285,823	441,353	8.3%

2023 Operating Work Plans Recommended for Funding

Water Production (page 1 of 3)

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Water Production Administration					
Administrative and support costs for the Water Production department including clerical support, employee meetings, performance management, and training.	Labor	330,769	306,361		
	Non Labor	196,400	85,200		
Includes $100,000 in consulting services for WP organization assessment. Training budget has been increased for leadership training.	Total	527,169	391,561	135,608	34.6%
Water Production Operations					
To provide a safe and reliable drinking water supply to the customers of Des Moines Water Works in sufficient quantities and at adequate pressures to meet their needs.	Labor	1,037,299	966,855		
	Non Labor	152,300	117,600		
Increased costs for uniforms & clothing, much of which is personal protective equipment. Labor hours increased for monthly operator meetings.	Total	1,189,599	1,084,455	105,144	9.7%
Fleur Plant Chemicals & Energy					
Provide the water treatment chemicals and energy necessary to insure the production of safe, high quality water in sufficient quantities to meet our customers' needs. Provides funding for the removal of lime softening residuals.	Labor	49,977	20,707		
	Non Labor	8,853,155	6,248,020		
	Total	8,903,132	6,268,728	2,634,405	42.0%
2023 budget includes increase of $2.3 million for chemicals. Most of this is due to price increases from chemical vendors. Higher pumpage at FDTP is causing increased chemical usage but to much less extent than increased chemical prices. Residual removal expenses are up $275,000 over 2022 budget.					
McMullen Plant Chemicals & Energy					
Provide the water treatment chemicals and energy necessary to insure the production of safe, high quality water in sufficient quantities to meet our customers' needs. Provides funding for the removal of lime softening residuals.	Labor	113,206	90,970		
	Non Labor	3,118,045	4,263,829		
Residual removal expenses are down $1.6 million due to minimal movement of residuals. One lagoon is being filled and the other is drying. There are only 31,000 tons of residual material budgeted to be removed from the drying area to the final disposal site. Chemical expenses are up $413,000 due to increased prices.	Total	3,231,250	4,354,799	(1,123,549)	-25.8%
SWTP Chemicals & Energy					
Provide the water treatment chemicals and energy necessary to insure the production of safe, high quality water in sufficient quantities to meet our customers' needs.	Labor	125,629	104,331		
	Non Labor	1,479,417	959,207		
Chemical expenses are up $485,000 due to large increases in chemical costs.	Total	1,605,045	1,063,538	541,507	50.9%
Fleur Maintenance					
Includes all maintenance and repair expenses of the Fleur Drive treatment plant, Des Moines River intake/pump station, Fleur electric substation, flooding station, and pressed sludge lagoons.	Labor	859,586	918,377		
	Non Labor	1,034,047	1,018,830		
	Total	1,893,633	1,937,207	(43,574)	-2.2%
McMullen Maintenance					
Includes all maintenance and repair expenses of the McMullen Treatment Plant, radial collector wells, Crystal Lake, and ASR.	Labor	285,559	251,286		
	Non Labor	297,285	303,840		
	Total	582,844	555,126	27,719	5.0%
SWTP Maintenance					
Includes mechanical and electrical maintenance for the Saylorville Water Treatment Plant.	Labor	231,932	203,402		
	Non Labor	289,746	299,485		
	Total	521,678	502,887	18,791	3.7%

2023 Operating Work Plans Recommended for Funding

Water Production (page 2 of 3)

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Water Production Maintenance Oversight					
Provides oversight efforts for the daily planning of maintenance in Water Production. Also encompasses the efforts to maintain the CMMS system.	Labor	220,992	217,923		
	Non Labor	-	-		
	Total	220,992	217,923	3,068	1.4%
Louise P. Moon Pumping Maintenance					
Provides for maintenance of the Louise P. Moon Storage and Pumping Facility, the Waukee Booster Station, the LPM ASR facility, and Waukee/Xenia Booster station which will ensure water is provided in acceptable quantities at desirable pressures.	Labor	92,236	75,632		
	Non Labor	489,100	465,120		
Increased costs for operations and maintenance of LP Moon. This is offset by additional revenue.	Total	581,336	540,752	40,585	7.5%
Polk County Storage & Pumping					
Provides for maintenance of the Polk County Pumping Station which will ensure water is provided to our Ankeny and Polk County customers in acceptable quantities at desirable pressures.	Labor	33,485	35,432		
	Non Labor	127,500	116,600		
	Total	160,985	152,032	8,953	5.9%
Des Moines Remote Storage					
Provides for the maintenance of remote facilities within the cities of Des Moines and Pleasant Hill, the Norwalk booster station, Polk City booster station, Southeast Polk/Bondurant chloramination facility, sites in Runnells for water and waste water operations, Army Post Road ASR facility, and the new Joint Maffitt Lake Booster Station.	Labor	234,302	209,062		
	Non Labor	571,300	532,620		
Increased costs for operations and maintenance of several remote sites. This is partially offset by additional revenue.	Total	805,602	741,682	63,920	8.6%
Lab Operations					
Routine, non-investigative testing in the chemistry laboratory related to regulatory compliance and assessment of treatment plant processes.	Labor	390,140	382,441		
	Non Labor	267,000	233,000		
Materials used for sample collection and routine analytical testing for assessing plant processes and the distribution system have increased. The 2023 budget includes costs for lab certification which is done every other year.	Total	657,140	615,441	41,699	6.8%
Water Quality Research					
Investigative testing concerning water quality and plant process improvements.	Labor	64,178	63,200		
	Non Labor	106,500	88,000		
Increase in non-labor expenses relates to services provided for PFAS analysis.	Total	170,678	151,200	19,478	12.9%

2023 Operating Work Plans Recommended for Funding

Water Production (page 3 of 3)

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Radio Communication Equipment					
Maintenance and supervision expenses of the trunked radio system and telemetry system.	Labor	17,464	14,778		
	Non Labor	35,600	34,500		
	Total	53,064	49,278	3,787	7.7%
HVAC Operations					
To operate, maintain, and repair all heating, air conditioning, and ventilation equipment for all DMWW facilities.	Labor	25,077	68,583		
	Non Labor	74,500	69,956		
	Total	99,577	138,539	(38,962)	-28.1%
Facility Maintenance					
Captures the general and administrative costs of building upkeep and general facility maintenance.	Labor	173,761	166,429		
	Non Labor	579,280	411,960		
Increases expenses have been budgeted for higher costs for contracted facility cleaning and additional expenses for building maintenance & repairs.					
	Total	753,041	578,389	174,652	30.2%
Vehicle Maintenance					
Costs for maintaining the vehicles and equipment for our internal users. It also provides support to fabricating and repairing tools and parts for our customers.	Labor	482,827	463,505		
	Non Labor	823,330	599,010		
Gasoline and diesel fuel costs have increased $148,000 from the 2022 budget. Expenses for vehicle maintenance & repairs have increased by $78,000. Labor hours have increased due to converting part-time service worker to full time lube technician.	Total	1,306,157	1,062,515	243,642	22.9%
Total Water Production	Labor	4,768,418	4,559,274		
	Non Labor	18,494,505	15,846,778		
	Total	23,262,923	20,406,051	2,856,871	14.0%

2023 Operating Work Plans Recommended for Funding

Summary Operating Expenses	2023 Proposed Budget	2022 Approved Budget	Inc / (Dec)
Total by Department			
CEO	2,154,738	1,405,148	749,590
Customer Service	3,003,771	3,026,425	(22,653)
Engineering	418,469	439,025	(20,557)
Finance	4,912,468	3,579,520	1,332,948
HR	738,458	573,582	164,876
IT	2,798,416	2,611,988	186,428
Office of the COO	2,046,489	3,249,240	(1,202,751)
Water Distribution	5,727,177	5,285,823	441,353
Water Production	23,262,923	20,406,051	2,856,871
Utility Benefits Includes non-productive time (vacation, sick, holiday) and benefits (health insurance, deferred comp match, pension, IPERS, FICA, retiree payouts in 2022, etc.)	13,078,046	12,469,544	608,502
Total Recommended Operating Budget	58,140,955	53,046,346	5,094,608
			9.6%

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Field Customer Service Capital					
Provides capital materials (meters & MTUs) needed to update and keep our current meter reading system updated and provide accurate meter reads needed for billing. We will also continue to work towards completion of our meter change-out program of meters in service for over 17 years.	Labor	-	-		
	Non Labor	1,756,895	1,426,682		
	Total	1,756,895	1,426,682	330,212	23.1%
Facility Management					
Includes costs of providing rehabilitation and enhancements as needed to extend the service life and improve the function of buildings and structures owned by Des Moines Water Works.	Labor	159,072	129,185		
	Non Labor	3,700,150	4,979,500		
	Total	3,859,222	5,108,685	(1,249,463)	-24.5%
Projects budgeted include:					
Hazen structural improvements		875,821			
Replacement of truck scale at MWTP		725,840			
Modifications to Distribution Building/Ramp		683,759			
Ongoing projects for safety, building improvements, roof replacements		511,619			
Replacing storm/sanitary sewer drain piping at FDTP Pump Station		231,623			
HVAC enhancements at FDTP Pump Station		215,415			
Eyewash/showers/tempering		179,602			
Additional costs for grounds shop		131,491			
Parking lot paving at FDTP - near nitrate facility & pump station		127,585			
		3,682,755			
Fleur Drive Treatment Plant					
Includes costs of providing rehabilitation and enhancements as needed to extend the service life and improve the function of buildings and structures at the Fleur Drive Treatment Plant.	Labor	274,345	270,963		
	Non Labor	8,671,240	7,199,680		
	Total	8,945,585	7,470,643	1,474,942	19.7%
Projects budgeted include:					
DM River well field		1,889,500	Funded by DMWW debt (SRF)		
CO2 feed system		1,631,304	Funded by DMWW debt (SRF)		
SCADA network improvements		1,571,523	$976k carried over from 2022 bgt		
Lime sludge filter presses		1,068,562			
Treatment basin rechaining (ongoing)		639,802			
PAC facility upgrade		594,467	$293k carried over from 2022 bgt		
Filter plant rehabilitation		444,527			
Rebuild west high lift pumps		336,557			
		8,176,242			
McMullen Treatment Plant					
Includes costs of providing rehabilitation and enhancements as needed to extend the service life and improve the function of buildings and structures at the McMullen Treatment Plant.	Labor	24,043	102,866		
	Non Labor	765,500	1,524,000		
	Total	789,543	1,626,866	(837,323)	-51.5%
Projects budgeted include:					
Rehabilitation of collector wells		677,998			
Well isolation valves		111,545			
		789,543			

2023 CAPITAL Work Plans Recommended for Funding

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
Saylorville Treatment Plant					
Includes costs of providing rehabilitation and enhancements as needed to extend the service life and improve the function of buildings and structures at the Saylorville Treatment Plant.	Labor	141,290	104,029		
	Non Labor	20,386,150	6,309,500		
	Total	20,527,440	6,413,529	14,113,911	220.1%
Projects budgeted include:					
Expansion of raw water		7,066,425	Funded through regional participation		
10 MGD expansion of SWTP		13,159,708	Funded through regional participation		
RO membrane replacement		213,893			
		20,440,026			
New ASR Well					
Captures costs to construct a new ASR well at Polk County Pump Station.	Labor	40,682	114,076		
	Non Labor	2,710,200	5,791,100		
This project to be funded by DMWW debt (SRF)	Total	2,750,882	5,905,176	(3,154,294)	-
Water Main Replacement					
Captures costs of maintaining and upgrading the water distribution system by replacing mains that have a history of breaks, will result in improved water flow, or that need to be relocated to accommodate city, county, or state construction projects.	Labor	960,171	553,563		
	Non Labor	11,958,000	10,341,000		
	Total	12,918,171	10,894,563	2,023,608	18.6%
Water main replacement by service area:					
Des Moines		9,452,241			
Polk County		3,137,710			
Pleasant Hill		300,000			
Windsor Heights		28,221			
		12,918,172			
Core Network Feeder Mains					
Projects here typically include the transmission, storage, and pumping that serve as core network facilities. Typically these are significant enhancements/additions that serve, or effectively stand to serve, the broader regional water system needs.	Labor	25,322	31,160		
	Non Labor	4,140,350	884,400		
	Total	4,165,672	915,560	3,250,112	-
Projects budgeted include:					
SWTP west feeder main phase 3		3,803,416	Funded through regional participation		
Army Post-Maffitt-FD remote valve		362,256	Funded through regional participation		
		4,165,672			
Development Plan Review					
Provides a mechanism to track the time spent by Engineering staff to review development of large tap plans, inspect construction, and update records for new mains and services.	Labor	241,784	238,948		
	Non Labor	43,000	41,191		
	Total	284,784	280,139	4,645	1.7%
Bondurant Feeder Main & Pump Station					
This work plan consists of installing a new feeder mains (suction & discharge) and a booster pumping station with 4.5 MGD capacity to serve Bondurant and Polk County rural area. This project is ~70% funded by Bondurant.	Labor	-	15,021		
	Non Labor	-	1,200,150		
	Total	-	1,215,171	(1,215,171)	-

2023 CAPITAL Work Plans Recommended for Funding

Work Plan & Description		2023 Proposed Budget	2022 Approved Budget	Inc / (Dec) $	Inc / (Dec) %
I.T. Capital					
Provides funding for investments into hardware and software infrastructures to ensure that a reliable, secure, capable, fully functional computing environment is available to our users and customers. The 2023 budget includes continued funds for ongoing replacement of hardware and software, Microsoft licensing, and cyber-security. Additionally, there are three initiatives budgeted in 2023 for upgrades and software replacement.	Labor	216,425	92,262		
	Non Labor	1,924,325	1,293,500		
	Total	2,140,750	1,385,762	754,989	54.5%
Projects budgeted include:					
Financial system replacement (2nd year, total project cost of $2.2 million)		1,142,023			
Replacement of Cradlepoints & Sierra devices in company vehicles		209,688			
Replacement of LabLite (database for laboratory results)		230,340			
		1,582,051			
Water Distribution System Improvements					
Summarized costs for distribution system upgrades such as tying in dead end mains and installation of new hydrants and valves. Replacement tools and equipment are also included in this work plan.	Labor	506,022	462,008		
	Non Labor	1,226,251	925,492		
	Total	1,732,273	1,387,500	344,774	24.8%
Grounds Capital					
Provides for capital replacement for specific grounds and park maintenance capital. The 2023 budget includes costs for resurfacing roads at the arboretum and east of the main office as well as rekeying the treatment plants and remotes sites.	Labor	473	-		
	Non Labor	251,000	34,000		
	Total	251,473	34,000	217,473	
Water Production Plant Reinvestment					
Provides necessary capital for replacement and/or improvements of existing equipment and the addition of new equipment to ensure the effective operation of the utility and its processes.	Labor	79,609	68,297		
	Non Labor	1,117,000	900,000		
	Total	1,196,609	968,297	228,311	23.6%
Vehicle Replacement					
Captures the cost of replacing vehicles and related equipment.	Labor	7,558	7,638		
	Non Labor	1,116,900	892,000		
	Total	1,124,458	899,638	224,820	25.0%
Finance Capital					
Provides for remodeling project in Central Stores.	Labor	-	-		
	Non Labor	18,000	-		
	Total	18,000	-	18,000	-
Total Recommended Capital Budget		62,461,756	45,932,211	16,529,545	36.0%
Summary by Expense Classification					
Total Labor		2,676,795	2,190,016	486,779	
Total Non Labor		59,784,961	43,742,195	16,042,766	
Summary by Funding Source					
Carryover		1,269,980	3,092,000		
Funded by Outside Entities		2,103,600	1,252,343		
Funded by DMWW Debt (SRF Loans)		6,271,686	9,387,608		
Funded through Regional Participation		24,391,805	6,601,799		
Funded by Utility Revenue		28,424,685	25,598,461		

DMWW Budget Process & Timeline

April – May

- Finance prepares budget templates for 2023 budget entry.
- Finance provides budget training/refresher, as needed.

June – July

- Departmental teams prepare project/work plan budgets which include labor hours by position (which results in labor dollars) and non-labor resources requested. A work plan is a grouping of like projects. For example:
  - Department: Water Production
  - Work Plan: Fleur Maintenance
  - Projects: Raw Intake/Pumping, Basins, Chemical Systems, Filter Plant, etc.
- Senior managers review the work plans of their department.

August-September

- Review of all work plans by "review team" which consists of CEO/GM, Chief Operating Officer, Chief Financial Officer, and Controller.
- Initial review session with department senior manager and the review team
- Teams revise work plans based on feedback from their review session.
- Finance staff compiles work plans into utility budget.

September

- Senior management team meets to balance available resources with budget requests.

October

- Finance staff presents budget for discussion and review at Board Committee meetings.
- Board reviews and discusses budget at October meeting, sets public hearing for November board meeting.

November

- Public hearing is held, and Board approves budget at November meeting.

December

- Budget documents are forwarded to Des Moines City Clerk for receipt and file by City Council.

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-E
Meeting Date: October 25, 2022
Chairperson's Signature ☒ Yes ☐ No

SUBJECT: Berwick Water Association 28E Total Service Agreement

SUMMARY:

Des Moines Water Works has provided Total Service to Berwick Water Association under contract since October 1, 2013. The extended 2017 Agreement expired June 30, 2022, and both parties wish to continue the Total Service relationship under a renewed 28E Total Service Agreement. This renewed agreement is consistent with the previous agreement in all material respects, and continues for a period of five years. The Agreement shall renew, on and after December 31, 2027 for successive five year terms without further action by Association or Des Moines Water Works, unless either party notifies other of nonrenewal.

The agreement may be terminated without cause by either party if written notice is given at least one year prior to the effective date of termination.

The Berwick Water Association Board of Trustees approved the 28E Agreement at a meeting October 17, 2022. Legal Counsel has reviewed the agreement.

FISCAL IMPACT:

DMWW will continue to directly bill Berwick Water Association customers for water service. Rates will reflect the cost to serve customers in this service area.

RECOMMENDED ACTION:

Recommend the Board approve and authorize the Chairperson and CEO and General Manager to execute the Total Service Chapter 28E agreement with Berwick Water Association.

BOARD REQUIRED ACTION:

Motion to approve and authorize the Chairperson and CEO and General Manager to execute the Total Service Chapter 28E agreement with Berwick Water Association.

Laura Sarcone 10/19/22	/	10/21/22
Laura Sarcone (date) Director of Customer Service & Marketing		Ted Corrigan, PE (date) CEO and General Manager

Attachment: 28E Total Service Agreement between Berwick Water Association and the Board of Water Works Trustees of the City of Des Moines, Iowa

Return To:
Prepared by John Lande, 699 Walnut Street, Suite 1600, Des Moines, IA 50309-3986 (515) 246-4516

SPACE ABOVE THIS LINE FOR RECORDER

TOTAL SERVICE CHAPTER 28E AGREEMENT BETWEEN BERWICK WATER ASSOCIATION AND THE BOARD OF WATER WORKS TRUSTEES OF THE CITY OF DES MOINES, IOWA

Total Service Chapter 28E Agreement by and between the Berwick Water Association ("**Association**") and the Board of Water Works Trustees of the City of Des Moines, Iowa ("**DMWW**") made as of the date set forth below:

R E C I TAL S:

A. DMWW is a municipal water utility established and operating in the City of Des Moines, Iowa and elsewhere pursuant to Chapter 388 of the Iowa Code and other applicable statutes; and

B. Association is a rural water Association organized and existing under Chapter 504 of the Code of Iowa, with a membership that consists of its water customers (the "**Members**"). Association has, for many years, obtained a supply of water from DMWW. The water so delivered has been delivered by Association to its Members, metered and billed in the name of Association. The water provided by DMWW to Association for delivery by Association to its Members has previously been provided by DMWW to Association under the "Wholesale Water Service Master Agreement" dated June 10, 2005, and the Adoption Annex thereto between DMWW and Association (the "**Water Service Master Agreement**") which remain in effect; and

C. Association and DMWW are parties to an Agreement for Assignment and Sale of Purchased Capacity with City of Polk City, dated August 27, 2017, selling and

assigning 250,000 gallons per day of the Purchased Capacity originally acquired by Association to the City of Polk City, under the Wholesale Water Service Master Agreement which remains in effect, and

D. Association and DMWW are parties to, and have operated under, Total Service 28E Agreements effective on October 1, 2013, and filed with the Secretary of State as number M506636 ("2013 Agreement"), as extended, modified, and replaced by the 28E agreement effective on July 1, 2017, filed with the Secretary of State file as number M510059 ("2017 Agreement"), whereby DMWW provides water service to certain customers within Association's service territory on a total service basis; and

E. Association and DMWW desire to extend, modify, and replace their agreement with respect to Total Service with this Agreement as of the Effective Date.

NOW THEREFORE, in consideration of the mutual undertakings hereby provided, Association and DMWW hereby agree as follows:

Part I - Joint Exercise of Powers Under Chapter 28E of the Code of Iowa.

1. Pursuant to Chapter 28E of the Code of Iowa, the parties state that the purpose of this Agreement is to coordinate the exercise of the respective powers of Association and DMWW regarding water service to be provided to customers utilizing Association's existing water distribution facilities and systems, located as shown in Exhibit A (the "**Association Water Distribution Facilities**"). The Agreement shall also be deemed a contract for services under Section 384.84(7)(a), Code of Iowa.

2. During the term hereof, DMWW shall serve Association's Members, and such other customers as may subsequently tap into the Association Water Distribution Facilities. The area within which such service is provided is referred to herein as the "**Association Service Territory**". Such customers shall be considered the direct, retail customers of DMWW. Any references to customers in this Agreement shall mean retail customers that have a tap for consumption and use of treated water by the retail customer. DMWW's services shall be provided pursuant to the authority of Chapter 388, Code of Iowa, and Section 384.84(7)(a), Code of Iowa. The existing Members of Association, and their respective successors, shall retain previously existing membership rights as of the Effective Date (other than the right, if any, to receive water service from Association during the term of this Agreement). If any new service location is established within the Association Service Territory after the Effective Date during the Term of this Agreement, the new customer shall be required to become a new Member of the Association as a condition of service, and to pay a membership fee to Association of $500, which Association shall collect and retain. Such membership fee shall be in addition to any system development fees or connection charges collected by DMWW hereunder.

3. Subject to the provisions of this Agreement, Association authorizes DMWW to exercise all of Association's rights and powers to serve water customers using Association Water Distribution Facilities within the Association Service Territory, including, but not limited to, the right and power to provide water service; to expand and improve availability of water service; to set and collect rates for water service, subject to the terms herein provided, under Section 384.84, Code of Iowa; to maintain, to replace, to service and to build new water distribution facilities; to bill and collect for connection and water service; to impose fees, liens and charges for nonpayment of water service; and to discontinue water service in the event of nonpayment or other delinquency with respect to water service provided by Association prior to the Effective Date of this Agreement, or provided by DMWW after the effective date of this Agreement.

4. This Agreement shall become effective on November 1, 2022, (the "**Effective Date**") after its execution by both parties and its filing with the Secretary of State, subject to the condition that this Agreement shall have been previously approved by the Board of Trustees of DMWW and by Association's Board of Directors (the "**Approvals**"). If the Approvals are not obtained prior to the Effective Date, this Agreement shall be null and void. Association represents and warrants that its Board of Directors has authority to enter into Agreement without a vote of its members.

5. No separate entity is created hereby. The administrator of this Agreement shall be the General Manager and Chief Executive Officer of the DMWW ("**Administrator**"). The Administrator, or the Administrator's designee, shall meet annually, or more frequently if requested by Association or by DMWW, with the Board of Directors of Association at such time, date, and place as are specified by notice given by the Administrator in order to review the administration of this Agreement, to approve plans established as provided in this Agreement, and to take actions necessary or appropriate in accordance with this Agreement.

6. No joint property shall be acquired, held or disposed of hereunder. Each party shall at all times hold and own its respective properties, before and after termination. Each party shall be solely authorized to supervise, direct, and manage its own activities and the activities of its respective employees and agents hereunder. Each party shall retain sole responsibility and liability for its own acts and omissions hereunder and for the acts and omissions of its respective employees and agents hereunder, and each party waives subrogation against the other for all claims, suits, damages, and demands which are covered by any insurance, including but not limited to property, casualty and workers compensation insurance.

7. This 28E Agreement supersedes and replaces the 2017 Agreement, which replaced the 2013 Agreement between the parties as of the Effective Date.

Part II - DMWW and Association Responsibilities

1. From and after the Effective Date, DMWW shall continue to provide total water service to Association's Members and new customers within the Association Service Territory.

2. Association shall maintain ownership of its water utility assets, including mains, valves, easements, distribution facilities, and all related properties and facilities, but not including customer meters and meter reading devices which shall become DMWW property during the term of this Agreement, but which shall revert to Association's ownership upon termination of this Agreement. Except for the Association customer meters and meter reading devices, DMWW shall not acquire any ownership interest in any of Association's assets. DMWW shall be solely responsible for the operation, maintenance, expansion and improvement of Association's Water Distribution Facilities as required to provide adequate service to customers per DMWW's customary rules, regulations, and standards, subject to reimbursements by Association to DMWW as provided herein. During the term of this Agreement, Association grants to DMWW the unlimited and unrestricted use of Association's water utility assets, but excluding Association's cash, cash equivalents and investments, office leasehold and office equipment.

3. Association shall continue to own the part of the customer service lines in existence and in active service as of October 1, 2013, from the main up to and including the stopbox, which is also referred to by Association as a "curb stop", until such time as the property served shall be transferred to a new owner, at which time the ownership and responsibility for the full service line including the stop box, shall be required to be assumed by the new owner as a condition of obtaining water service. All new service lines created or installed after October 1, 2013, including replacement service lines, shall be installed at the customer's expense, and shall be owned by, and be the responsibility of, the customer in their entirety as provided in DMWW's customers service rules and policies.

4. During the term of this Agreement, all Association water customers, including the Association itself, are, and shall continue to be, direct customers of DMWW.

5. During the term of this Agreement, DMWW shall bill customers for water service in the Association Service Territory in DMWW's own name, and water customers within the Association Service Territory shall be treated by DMWW and Association as customers of DMWW, under DMWW's rules and regulations and billing and collection practices. DMWW therefore agrees that such customers shall have the same rights and privileges as water customers located within the City of Des Moines. These rights and privileges include, but are not limited to, the following:

(a) Billings to customers will be performed on a monthly basis. Such bills may be paid using any payment method offered by DMWW, including check, electronic check, credit card, electronic funds transfer, and any pay stations maintained by DMWW. Online account access and all

functionality provided therein will be available to Association's customers.

(b) Procedures for billing, collections, liens and termination of service as they pertain to water service shall be in the sole discretion of DMWW. Customers shall be subject to DMWW's policy concerning delinquent accounts.

(c) Customers shall be subject to such rationing, conservation rates, or other restrictions on water use as may be imposed by DMWW upon other DMWW customers.

(d) DMWW shall provide a program of regular inspection and preventive maintenance and repair on a scheduled basis for the purpose of leak detection, resolution of meter irregularities, leaking service repair, valve and hydrant maintenance, and main repair and replacement.

(e) Water system development fees and connection fees or tap charges within the Association Service Territory shall be specifically established by DMWW to reflect appropriate cost recovery for new connections within the Association Service Territory.

(f) DMWW shall provide a program of regular inspection and preventive maintenance and repair for Association's water system facilities.

7. DMWW shall undertake to provide planning for maintaining adequate water service hereunder within the Association Service Territory during the term of this Agreement, which shall include a system of planning for, design of, and construction of capital improvements required to provide adequate water service within the Association Service Territory during the term of this Agreement. DMWW's planning for water service shall take into account existing water service needs and reasonably anticipated future water service needs. DMWW shall be responsible for design and construction of all capital improvement projects with respect to the Association Water Distribution Facilities during the Term of this Agreement. In order to implement the foregoing, DMWW and Association may, during the term of this Agreement, jointly establish a schedule and budget for capital improvement projects. DMWW may, in its discretion, reallocate budget amounts among projects or to new projects deemed urgent by DMWW.

8. DMWW shall be liable for, and indemnify Association from any claims, demands and costs, including attorney's fees, which may be made or asserted by third parties on account of DMWW's (i) willful misconduct, (ii) negligent action or conduct in the performance hereunder or (iii) breach of any representation, warranty or covenant of DMWW under this Agreement. Association shall be liable for and indemnify DMWW from any claims, demands and costs, including attorney's fees, which may be made or asserted by (a) third parties on account of any condition or failure of the water distribution system on the Effective Date or (b) Association's customers claiming

damages or other relief solely by reason of becoming direct customers of DMWW hereunder rather than being direct customers of Association.

9. The Water Service Master Agreement shall remain in effect between the parties, but the provisions thereof for wholesale water service shall be suspended during the term of this Agreement.

10. DMWW shall perform its services, including, but not limited to, the provision of water pursuant to this Agreement in compliance with all applicable laws, rules, regulations and ordinances. DMWW will at all times maintain all licenses and permits required for the performance by DMWW of its obligations pursuant to this Agreement and the provision of water service pursuant to this Agreement.

11. DMWW shall be solely responsible for providing the personnel necessary for DMWW to perform its obligations pursuant to this Agreement, including, but not limited to, all personnel necessary to provide water service pursuant to this Agreement.

12. DMWW and Association shall each timely pay all of its respective liabilities and will not permit any liens to attach to any of Association's assets by reason of such liabilities.

13. All water facilities newly constructed or installed by DMWW within the Association Service Territory shall become the property of Association upon termination of this Agreement. Neither Association nor DMWW shall allow the assets of Association to become subjected to any liens, mortgages, security interests or other encumbrances.

Part III- Term and Termination

1. This Agreement shall continue in force from the Effective Date until December 31, 2027, unless sooner terminated as provided herein.

2. This Agreement shall renew, on and after December 31, 2027 for successive five year terms, each commencing on a December 31, without any further action by Association or DMWW, unless either Association or DMWW shall notify the other of nonrenewal not later than the preceding March 1.

3. This Agreement may be terminated, without cause, by either party by written notice given at least one year prior to the effective date of termination.

4. In the event that either party determines that the other party has defaulted in the performance of its obligations hereunder, the aggrieved party may declare that default has occurred and give notice thereof to the defaulting party. Notice of default shall be given in writing, shall specify the nature of the default and the provision of the Agreement involved, and shall specify what action is required of the defaulting party to correct the default. The defaulting party shall have 30 days from the date of its receipt of the notice of default to correct the default. If at the end of said 30-day period, the default

has not, in the opinion of the aggrieved party, been corrected, that party may thereupon pursue its remedies as provided by this Agreement. In the event of default by one party in the performance of any material provision of this Agreement, the other party may, at its option, after declaring default and giving notice thereof, terminate this Agreement or seek specific performance of its provisions. A party seeking termination of this Agreement due to a default in performance by the other party shall also be entitled to seek damages for such default. In addition to any remedies available under this Agreement, or at law or equity, DMWW shall have as an additional remedy for default under this Agreement to suspend service to Association and Association's customers.

5. DMWW's revenues and operating and maintenance costs shall be determined annually as provided in Part IV hereunder, in accordance with DMWW's regular system of accounting and shall be reported to Association on an annual and cumulative basis. Upon termination of this Agreement, the cumulative total of DMMW's revenues less operating and maintenance costs and capital costs shall be determined through the effective date of termination. If the cumulative total of revenues is greater than the cumulative total of operating and maintenance costs and capital costs, the difference (the "**Excess Revenues**") shall be paid by DMWW to Association within 90 days following the termination of this Agreement. If the cumulative total of operating and maintenance costs and capital costs is greater than the cumulative total of revenues, the difference (the "**Cost Deficit**") shall be paid by Association to DMWW within 90 days following the termination of this Agreement.

6. On or prior to the effective date of termination, DMWW shall deliver copies of such records of customer accounts as it may be maintaining in order to enable Association to thereafter do as it wishes in respect to such customer accounts. Such termination shall not extinguish any liability of any customers to DMWW for unpaid bills for water service previously delivered, and, unless DMWW shall have been able to determine the quantity of water consumed and not billed prior to the termination date, Association shall account to DMWW on a per diem basis for service between the DMWW's last meter reading and Association's first meter reading.

7. A party's delay in enforcing any rights under this Agreement will not be construed as a waiver by the party of rights provided by this Agreement.

Part IV - Financing

1. DMWW's sole compensation for services, other than any other separate incidental services that may be later agreed upon to be provided by DMWW, shall be obtained by collection of water service rates and charges from Association customers and by reimbursement from time to time as provided herein by Association to DMWW of any cumulative Cost Deficit incurred by DMWW. As used herein, "**Operating and Maintenance Costs**" shall mean all expenditures necessary to operate and maintain the distribution system and its appurtenances in accordance with widely adopted industry standards, including but not limited to regular preventive maintenance of valves,

hydrants, and meters, and repair of main breaks. **"Capital Costs"** shall mean all expenditures made with respect to work on the Association Water Distribution Facilities that would be capitalized by DMWW under its regular system of accounting and shall include, but not be limited to, the costs of any improvements made by DMWW to the Association Water Distribution Facilities, including but not limited to main replacements or extensions, installation or replacement of fire hydrants or blow-off valves, and the costs of meters and meter reading devices acquired by DMWW for use by Association customers.

2. Rates for water service shall be as follows:

(a) The initial rate to be charged by DMWW to customers for water shall be the sum of (i) a monthly availability charge for each separately metered service location equal to $3.00 per location, plus (ii) $4.28 per thousand gallons of water delivered.

(b) The rates set forth in Section 2(a) shall apply until March 31, 2023, and are subsequently subject to change from time to time, in the sole discretion of DMWW. Such discretion shall always be exercised in a manner consistent with the following provisions of this subsection (b) so as to reasonably relate the cost of water provided to Association customers with the cost of production and delivery of such water and with other costs associated with the performance by DMWW of this Agreement. Rates shall be set in accordance with the regular cost of service study conducted by DMWW each year, with a goal of preventing service to Association customers from being subsidized by other DMWW customers, and preventing service to other DMWW customers from being subsidized by Association customers. Notwithstanding the discretion of DMWW as described in this paragraph, DMWW shall, at least 180 days prior to any proposed change in rates, solicit comments from Association as to such a rate change. DMWW agrees to consider fully all such comments from Association and its customers in making any decision on a rate change

(c) DMWW shall maintain an annual summary ("Fund Balance") of revenues, Operating and Maintenance Costs, and Capital Costs for Association which shall compute annually the cumulative Excess Revenues or Cost Deficit. Any Excess Revenues remaining at the end of any year shall be carried forward to offset costs in a future year or contribute towards Association's capital improvements. In the event of a cumulative Cost Deficit in any given year during the term of this Agreement, DMWW may request payment from Association to offset the deficit.

(d) To the extent additional capital improvements exceeding the Fund Balance are needed or desired, DMWW shall communicate the need for any capital improvements to the Association, and Association shall provide funding for such improvements out of Association cash reserves. No project

requiring payment from Association's cash reserves shall be undertaken by DMWW without the written consent of the Association.

3. If a property owner or developer desires water service within Association's Service Area and there is no water main in front of the property or properties to be served, the owner or developer will be required to construct a water main from the nearest Association water main to the property or properties to be served to be owned by Association. The water main will be constructed in accordance with DMWW's water main standards. Construction will be inspected by DMWW staff to ensure construction of the water main is completed in accordance with such standards. Property owner or developer will be responsible for the cost of construction, inspection, system development fees, tap fees, any easements that may be required, and a maintenance bond to guarantee the water main to be free from leaks and any other construction or material defects for a period of two (2) years from the date the water main is put into service. Once constructed and put into service, ownership of the water main will be conveyed by the property owner or developer to Association and after the two (2) year warranty period expires, Association will be responsible for the maintenance, upkeep and repair of the main and otherwise treat it in all respects as part of its system.

4. DMWW will invoice Association for any Cost Deficit or for Capital Costs exceeding Association's Fund Balance as described in this Part IV. Such invoiced amounts shall be paid by Association within twenty-five (25) days of date of issuance. Failure to make timely payment shall cause a late payment fee of 5% to be applied to charges due. In addition, if Association fails to timely pay any such invoice, Association shall be subject to legal action for collection and enforcement and such failure shall constitute a default under Part III of this Agreement.

Association shall retain the right during the term of this Agreement to sell and transfer its legal right to serve new or existing customers within, or within the legally protected area adjacent to, the Association Service Territory, provided that such sale and transfer shall not transfer any Association Water Facilities then in use by DMWW under this Agreement, and further provided that such sale and transfer shall not apply to any customer served by DMWW as of the date of sale and transfer. In the event of such sale and transfer, Association shall retain all of the proceeds thereof.

Part V - General Provisions

1. All notices which the parties are authorized or required to give one another pursuant to this Agreement shall be in writing and may be personally delivered or sent by ordinary mail to the addresses, hereafter provided. Mailed notices shall be deemed to be received by the party to whom directed when they are postmarked. Such notices shall be delivered or mailed to the following persons at the addresses listed:

Notices to Association:

Board President

Berwick Water Association
P.O. Box 187
Berwick, Iowa 50032

Notices to the DMWW:

Director of Customer Service and Marketing
Des Moines Water Works
2201 George Flag Drive
Des Moines, IA 50321

2. This Agreement is the entire understanding of the parties concerning the subject matter hereof, and it may be modified only in writing signed by the parties. The parties may enter into other agreements in writing, including but not limited to service agreements.

3. If any provision or provisions of this agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

4. Neither party shall be liable for any failure to perform any or all of the provisions of this Agreement if and to the extent that performance has been delayed or prevented by reason of any cause beyond the reasonable control of such party. The expression "cause beyond the reasonable control" shall be deemed to include, but not be limited to: acts, regulations, laws, or restraints imposed by any governmental body; wars, hostilities, sabotage, riots, or commotions; acts of God; or fires, frost, storms, or lightning.

5. Neither party shall assign this Agreement without the consent of the other party, which consent shall not be unreasonably withheld.

6. Binding arbitration is the sole remedy for a dispute between the Parties related to the Excess Revenues or Cost Deficit due, and any dispute related to the rates established by DMWW. If the parties cannot agree on the amount of the Excess Revenues, the amount of the Cost Deficit, or rates through good faith negotiations, the parties agree to submit the matter for decision to an arbitrator. If the parties cannot agree on an arbitrator then each party may identify one arbitrator, and the two identified arbitrators will select a third arbitrator, and the three arbitrators will decide the matter. The appointed arbitrator(s) will conduct a hearing using the Commercial Arbitration Rules of the American Arbitration Association (“AAA”). The arbitrator(s) shall have access to all relevant books and records of DMWW and Association respecting DMWW’s claim for Cost Deficit or Association's claim for Excess Revenues. The arbitrator(s) shall decide the question based on such books and records and such other information as the arbitrator(s) shall deem appropriate. The costs of the arbitration shall be allocated as the arbitrator(s) shall determine, except each party will bear its own attorneys’ fees. The decision of the arbitrator shall be final and shall constitute an award

within the meaning of Iowa Code Chapter 679A. If the arbitration is decided by a panel of three arbitrators, then the decision of a majority of the panel shall be final and shall constitute an award within the meaning of Iowa Code Chapter 679A.

7. For any dispute between the parties not related to rates or Excess Revenues or Cost Deficit, the parties consent to jurisdiction in the Iowa District Court for Polk County. The parties agree to waive any right to trial by jury.

Dated this _____ day of _____, 2022.

BERWICK WATER ASSOCIATION

By:_____
Ted Griffieon, Board President

BOARD OF WATER WORKS TRUSTEES
OF THE CITY OF DES MOINES, IOWA

By: _____
Graham Gillette, Board Chairperson

Attest: _____
Ted Corrigan, General Manager and
CEO

STATE OF IOWA)
) SS:
COUNTY OF POLK)

On this _____ day of _____, 2022 before me, the undersigned, a Notary Public in and for the State of Iowa, personally appeared Ted Griffieon to me personally known, and, who, being by me duly sworn, did say that they are Board President of the BERWICK WATER ASSOCIATION that no seal has been procured by the entity; that the instrument was signed on behalf of the entity by authority of its Board as contained in the resolution adopted by the Board on the ____ day of _____, 2022, and that Ted Griffieon acknowledged the execution of the instrument to be the voluntary act and deed of the BOARD OF DIRECTORS OF BERWICK WATER ASSOCIATION by it and by them voluntarily executed.

_____
Notary Public in and for the State of Iowa

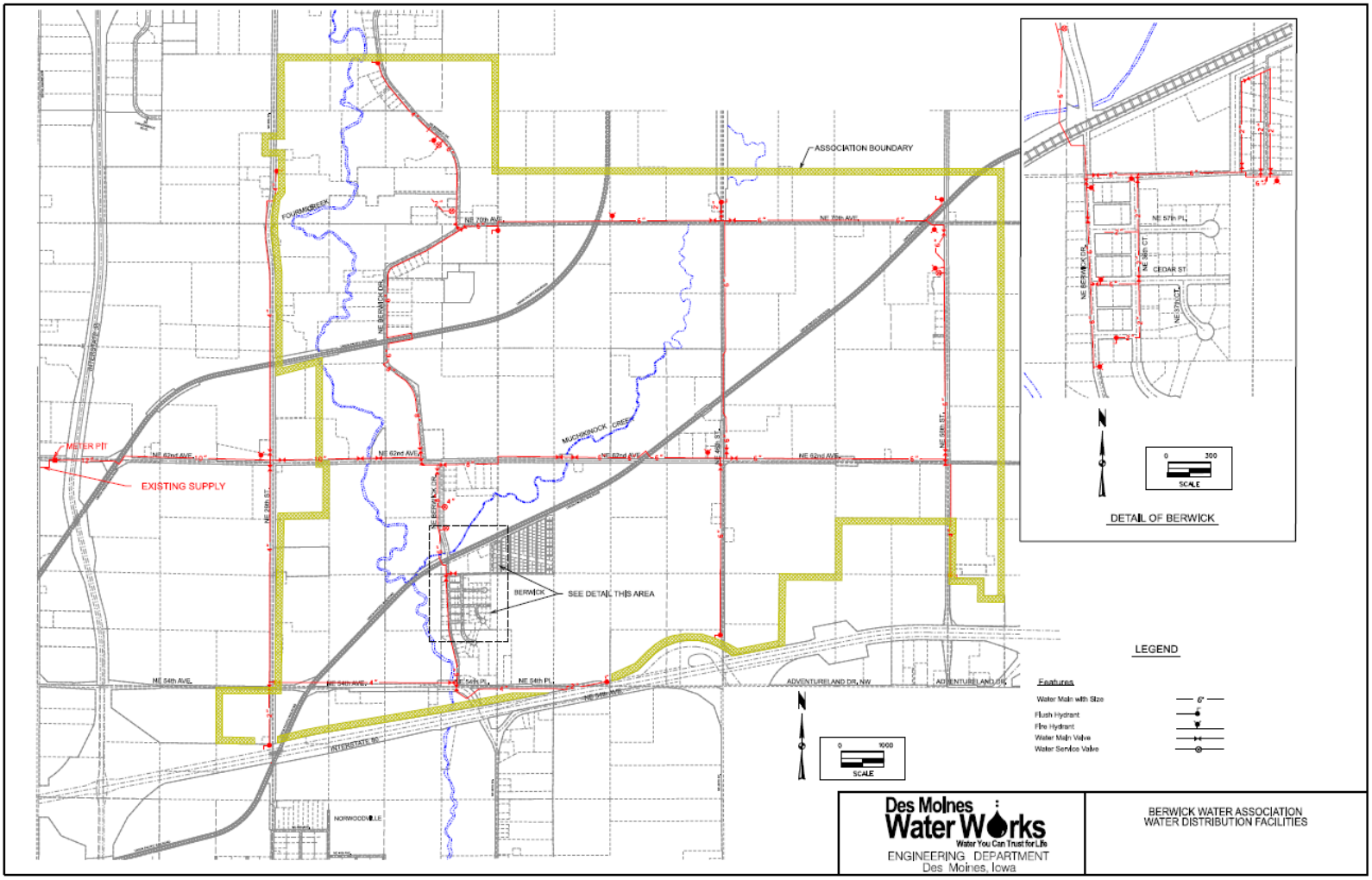
STATE OF IOWA)
) SS:
COUNTY OF POLK)

On this _____ day of _____, 2022, before me, a Notary Public in and for the State of Iowa, personally appeared Graham Gillette and Ted Corrigan, to me personally known, and, who being by me duly sworn, did say that they are the Board

Chairperson and the Chief Executive Officer and General Manager of the BOARD OF WATER WORKS TRUSTEES OF THE CITY OF DES MOINES, IOWA, that no seal has been procured by the entity; that the instrument was signed on behalf of the entity by authority of its Board as contained in the resolution adopted by the Board on the ____ day of _____, 2022, and that Graham Gillette and Ted Corrigan acknowledged the execution of the instrument to be the voluntary act and deed of the BOARD OF Water Works TRUSTEES OF THE CITY OF DES MOINES, IOWA, by it and by them voluntarily executed.

_____
Notary Public in and for the State of Iowa

EXHIBIT A
ASSOCIATION WATER DISTRIBUTION FACILITIES



Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-F
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: 2023 Water Treatment Chemicals – Lime Contract

SUMMARY:

- Every year Des Moines Water Works rebids chemicals used in the water treatment process. After discussions with lime suppliers, it was decided to bid the lime contract early this year.
- For 2023 we received three bids for Quick Pebble Lime. Following is a summary of the bids received:

Bidder	Bid
Mississippi Lime	$215.50 per ton
Pete Lien & Sons	$238.00 per ton
LHoist	$428.49 per ton
Graymon	No Bid

- The 2022 cost was $184.50 per ton Mississippi lime. The 2023 cost is $215.50 per ton Mississippi Lime. This is a percent increase of 16.8%. Estimated total cost for both plants in 2023 $3,407,486.
- Each year Staff contracts with Kemecto Labs, an independent lab, for testing of lime samples.
- The lab testing is then used to analyze the bid prices along lime reactivity to compare different volumes of water to be treated at each plant, the purity of different products, and the cost to remove inert materials from each specific lime vendor. This analysis provides us with a more precise cost comparison based on how much lime will be needed and how much additional inert material will need to be removed.
- Staff recommends award of the 2023 Lime Contract for both the Fleur Drive and McMullen Water Treatment plants to Mississippi Lime Company for $215.50 per ton.

FISCAL IMPACT:

Funds for this project will be provided through the Water Production operating budgets.

RECOMMENDED ACTION:

Award the 2023 Lime Contract to Mississippi Lime.

BOARD REQUIRED ACTION:

Motion to award the 2023 Lime Contract to Mississippi Lime.

10/19/2022	Nathan W. Casey 10/18/2022	10/21/22
Julia Johnston (date)	Nathan W. Casey, PE (date)	Ted Corrigan, PE (date)
Purchasing/Central Stores Supervisor	Director of Water Production	CEO and General Manager

Attachments: 2023 Analysis of Lime Bids and Lime Reactivity Report

DES MOINES WATER WORKS
Board of Water Works Trustees

Des Moines Water Works
Water You Can Trust for Life

2201 George Flagg Parkway | Des Moines, Iowa 50321-1190 | (515) 283-8700 | www.dmww.com

MEMORANDUM

DATE: October 6, 2022

TO: Kyle Danley, Chief Operating Officer

FROM: Nathan W. Casey, Director of Water Production

SUBJECT: 2023 Analysis of Lime Bids

Summary of the three lime bids that were received is given below for both of our softening treatment plants. Prices shown are for bottom drop truck delivery. Bid analysis was completed based upon bottom drop delivery pricing.

Vendor	Fleur & McMullen ($/Ton)	Fleur ($/Ton)	McMullen ($/Ton)
Mississippi Lime Company	$215.50	$225.50	$225.50
Pete Lien & Sons	$238.00	$238.00	$238.00
Lhoist	$428.49	No Bid	No Bid

Des Moines Water Works hired Kemetco Research Inc. to conduct testing in accordance with ASTM standards, to quantify and evaluate the relative lime efficiency and handling of the three lime sources.

There are three options for consideration. One is to allow Mississippi to provide both plants at $215.50/ton. The second is to have Pete Lien & Sons to provide both plants at $238.00/ton while the third is to allow Lhoist to provide both plants at $428.49. Analysis of the three options is summarized below and it takes into account the different volumes of water to be treated at each plant, the purity difference between the three products, and the costs to remove inert materials from each product via our lime sludge dewatering process at the Fleur Plant.

Option #1 has the lowest total cost.

Fleur Pumpage (MG)	10,800	2023 Lime Bid Analysis				
McMullen Pumpage (MG)	4,800					
Option #1	**Bid**	**Price/Ton**	**Dosage(mg/L)**	**Pounds/Year**	**Tons/Year**	**Cost/Year**
Mississippi	Mississippi @ FDWTP	$215.50	260	23,418,720	11,709	$2,523,367.08
	Mississippi @ MWTP	$215.50	205	8,206,560	4,103	$884,256.84
	FDWTP - Sludge	$30.69			1,564	$48,010.53
	Total Option #1- Mississippi					**$3,455,634.45**
Option #2	**Bid**	**Price/Ton**	**Dosage(mg/L)**	**Pounds/Year**	**Tons/Year**	**Cost/Year**
Pete Lien & Sons	Pete Lien & Sons @ FDWTP	$238.00	252	22,684,633	11,342	$2,699,471.35
	Pete Lien & Sons @ MWTP	$238.00	200	7,989,587	3,995	$950,760.80
	FDWTP - Sludge	$30.69			1,107	$33,974.14
	Total Option #2- Pete Lien & Sons					**$3,684,206.29**
Option #3	**Bid**	**Price/Ton**	**Dosage(mg/L)**	**Pounds/Year**	**Tons/Year**	**Cost/Year**
LHOIST	LHOIST @ FDWTP	$428.49	256	23,048,524	11,524	$4,938,031.04
	LHOIST @ MWTP	$428.49	202	8,076,856	4,038	$1,730,426.08
	FDWTP - Sludge	$30.69			1,770	$54,325.19
	Total Option #3 - Lhoist					**$6,722,782.31**

Staff recommends award of the 2023 Lime contract for both the Fleur Drive and McMullen Water Treatment Plants to Mississippi Lime Company for $215.50/per ton.

DES MOINES WATER TREATMENT PLANT: INDEPENDENT LIME QA/QC CHEMICAL REVIEW

Lime Reactivity Testing Report

PROJECT ID: Q2408

PREPARED FOR:
Des Moines Water Works
2201 George Flagg Parkway
Des Moines, Iowa 50321

PREPARED BY:
Becca Liang, Chemical EIT
Roman Stoiber, Metallurgical Lab Manager
Kemetco Research Inc.
#150 - 13260 Delf Place
Richmond, BC V6V 2A2
CANADA

October 5, 2022

CONTACTS

Julia Johnston
Purchasing/Central Stores Supervisor
Des Moines Water Works
2201 George Flagg Parkway
Des Moines, Iowa 50321
Phone: 515.283.8724
Fax: 515.323-6232
Email: johnston@dmww.com
www.dmww.com

Jeff Mitchell
Supervisor of Laboratory
Des Moines Water Works
2201 George Flagg Parkway
Des Moines, Iowa 50321-1190
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EXECUTIVE SUMMARY

Three unique calcium oxide pebble lime samples, at -½" size, were received by Kemetco Research on September 12th, 2022. Kemetco conducted testing, in accordance with ASTM standards, to quantify and evaluate the relative lime efficiency and handling of the three lime sources. For this round of testing, we received lime samples from Mississippi, from Lhoist and Pete Lien & Sons' Jonathon lime plant.

Testing compared the efficiency of the milk of lime slurry that would be produced by Des Moines Water Works (DMWW) after the calcium oxide lime was slaked, replicating slaking conditions reasonably achievable with the existing equipment currently at the DMWW facility. It is paramount that lime efficiency testing be conducted in a manner to reflect real world conditions, as opposed to only theoretical laboratory conditions. The six main components in determining lime efficiency for these three lime sources are summarized in the table below.

Table 1. Comparison of three calcium oxide sources using key lime efficiency indicators.

Lime Efficiency Indicators		Lhoist	Mississippi	Pete Lien
Total Active Slaking Time (TAST)	**min**	5.8	4.3	9.7
% Grit (+30 Mesh Residue) CaO	**%**	0.89	0.18	0.61
% Solids after Slaking (incl. grit)	**%**	25.52	25.69	25.73
Available Lime Index (ALI)	**%**	92.32	93.32	95.12
Loss on Ignition (LOI)	**%**	1.26	2.15	0.80
Neutralization Capacity	**g/(250.00 g of stnd'd 1.500% H_2SO_4)**	3.110	3.160	3.061

A detailed review of all the lime testing data, taken into context, showed that samples from Pete Lien & Sons performed the best in most lime efficiency tests, and the Mississippi lime and Lhoist lime were of nearly identical quality. The tests indicate that Pete Lien & Sons lime produced the most solids after slaking, and the solids had the most available lime, as well as the highest neutralization capacity. The other two lime samples, Lhoist and Mississippi, require 1.6–3.2% more lime consumption for the same neutralization capacity as Pete Lien & Sons lime. Pete Lien & Sons lime also had the lowest LOI at 0.8%, indicating it contained the least limestone. Although the lime from Pete Lien & Sons performed the best according to most lime efficiency indicators, it had the slowest slaking rate at 9.7 minutes.

The conclusions of the current lime testing program are as follows:

1. Mississippi lime had the fastest and highest slaking temperature rise, indicating the fastest slaking kinetics and shortest retention time in a slaker for complete slaking.
2. The amount of solids produced after slaking were comparable between the three lime samples, the minor differences were within the error of testing and analysis.
3. The Pete Lien & Sons samples had 1.8–2.8% more available lime than the other two lime samples.
4. **It is expected that the Lhoist and Mississippi limes would require 1.019 tons and 1.028 tons of lime, respectively, to neutralize the same as 1.000 tons of the Pete Lien & Sons lime.**
5. Pete Lien & Sons lime had a slower slaking rate and slower neutralization kinetics. The total active slaking time (TAST) was 9.7 minutes, which was about two times slower than the other two lime samples.
6. Despite the slow slaking kinetics, the quality of slaked solids produced from Pete Lien & Sons lime was the highest out of the three lime sources. The Pete Liens & Sons Jonathon Pebble Lime had not been tested by Kemetco before. It appeared to be a very good quicklime as received.

NOTE: The reported test data is based on the three lime samples as received on September 12, 2022 by Kemetco Research, tested in accordance with ASTM standards.

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1. INTRODUCTION

The tests employed in this study quantify the chemical efficiency of calcium oxide (lime) sourced from three separate vendors, to aid in the evaluation of the lime supply.

The parameters that will be examined are similar to the batch evaluated in September 2021. The following six groups of tests were performed:

1. Quicklime (calcium oxide) reactivity or slaking rate indicates lime quality in general terms.
2. Percent grit determination (or plus 30 mesh residue) after slaking, because this large fraction is effectively waste material, and therefore, not utilized in standard pH adjustment processes.
3. Percent solids determination of the resultant milk of lime after slaking tests under standard controlled conditions indicates the slaking efficiency or the percent of hydration from calcium oxide to calcium hydroxide.
4. Available Lime Index (ALI) determines the percentage of calcium oxide in the source lime supply that is available for slaking reactivity, and then if fully slaked is available for the subsequent neutralization step as calcium hydroxide reactivity.
5. Loss on Ignition (LOI) determines the portion of a quicklime supply that did not effectively calcine during the calcination process. It is a good indicator of calcining efficiency in the 'as delivered' calcium oxide.
6. Neutralization capacity and kinetics tests determine the efficiency of the calcium hydroxide (the final product of slaking) in effecting a change in pH. Higher quality and efficiency calcium hydroxide not only more effectively adjust the pH on a weight to weight basis but does so more quickly.

Overall lime efficiency and utilization is determined by a combination of all six tests.

2. SAMPLES RECEIVED

Table 2. Samples received by Kemetco.

VENDOR Sample ID	RECEIVED at KEMETCO			
	Date	Packaging	Description	Quantity
Mississippi	12-Sep-2022	double zip-lock bag	1/2" pebble lime	Three bags with a gross weight of 2,100g
Lhoist	12-Sep-2022	double zip-lock bag	1/2" pebble lime	Three bags with a gross weight of 2,720 g
Pete Lien & Sons	12-Sep-2022	airtight sealed bag	1/2" pebble lime	Three bags with a gross weight of 3,000 g

Figure 1. Lhoist (top), Mississippi (middle) and Pete Lien & Sons (bottom) samples as received, Sept. 12, 2022.

3. OVERVIEW OF LIME EVALUATION TESTS PERFORMED

Table 3. Description of lime tests conducted.

Test Performed	#of Tests Performed	Test Standards/Methods	Samples Tested
Slaking Rate Test	**9**: Three tests for each of the three samples	ASTM C110-5, Section 11 4.0:1 using 25 °C H_2O	Lime as supplied by Lhoist, Mississippi, and Pete Lien & Sons, Sept. 2022
Residue & Sieve Analysis (% Grit)	**3**: One test for each of the three samples	ASTM C110-15, Section 15 Plus 30 mesh grit %	Milk of lime slurry as produced
% Solids Determination	**9**: Three tests for each of the three samples	Slurry (weighed, dried, weighed) at 105 °C	Milk of lime slurry as produced by slaking rate tests
Available Lime Index (ALI)	**6**: Two tests for each of the three samples	ASTM C25-99, Section 28	Lime as supplied by Lhoist, Mississippi, and Pete Lien & Sons, Sept. 2022
Loss on Ignition (LOI)	**3**: One test for each of the three samples	ASTM C25-99, Section 19	Lime as supplied by Lhoist, Mississippi, and Pete Lien & Sons, Sept. 2022
Neutralization Capacity/Kinetics	**22**: Minimum five ranging tests for each of the three samples	ASTM C400-98 guidelines, Kemetco Procedure	Milk of lime slurry as produced by slaking rate tests

4. SLAKING RATE TESTS

Slaking rate tests were performed in this study to generate lime slurry samples in a controlled environment that could be used in downstream evaluative tests, such as those for comparative neutralization capacity, % grit and solids % determination tests. The goal was to use these resultant hydrates to further define and quantify the potential lime reagent efficiencies for different lime sources, where possible.

It was assumed the solid samples, as received from the three lime vendors, were produced in lime kilns and crushing plants under normal plant operating conditions.

Each unique lime sample was slaked three times so that triplicate results could be obtained for accuracy. In total, nine slaking tests were performed.

The nine slaking tests performed by Kemetco were designed to use identical lime sources, meaning potential suppliers and similar water quality as available at Des Moines Water Works and at standard ASTM test conditions. The ratio of water to quicklime by weight was 4:1 (w/w). Since the exact amount of quicklime input was known for these tests, by filtering, drying, and weighing the resultant solids, a determination of the mass of solids produced could also be accurately made.

The quicklime samples used for the nine slaking tests were crushed to approximately 6 mesh using a cone crusher and riffle sample splitter and then immediately placed in a sealed bag to prevent air slaking. A representative sample of this crushed sample was used for each slaking test performed. Any oversized quicklime pebbles were still used in the slaking tests as per ASTM C110-15 Section 11.

Figure 2. Typical CaO, as prepared for slaking, involves rapid crushing to -6 mesh, screening, and riffling to obtain a representative sample.

There are three components to determining lime efficiency; these measure how the product of more efficient calcium oxide slaking can be related and quantified to an efficient or reactive calcium hydroxide compound:

1. The first component is neutralization capacity and kinetics testing, to determine calcium hydroxide particle reactivity. Calcium hydroxide particles produced at higher temperatures have higher specific surface area and therefore have faster and more complete dissolution in water (i.e., higher particle reactivity).
2. The second component is by determining the percentage of calcium hydroxide conversion. A higher percentage of calcium hydroxide conversion correlates to more efficient slaking.
3. The third component is by comparing grit production or plus 30 mesh residue production under differing slaking parameters.

These three components are interrelated and used to quantify lime and lime slaking efficiency.

Quicklime reactivity with water is measured by the rate of release of the heat of hydration that is produced while making slurry. For the purpose of this report, quicklime reactivity was determined by measuring the slaking rate, as described in ASTM C110-15. Quicklime reactivity in this context describes quicklime slaking kinetics, measured by recording the actual temperature rise and the rate of temperature rise. Some useful principals follow:

1. Quicklime is considered more reactive if it has a faster and greater slaking temperature rise.
2. Quicklime that has a faster temperature rise requires less retention time in a slaker for complete slaking, effectively increasing slaking equipment throughput.
3. In general, the higher the temperature rise during the slaking process, the more reactive the quicklime is considered to be overall.
4. The more complete the slaking, the better the quality of the resulting lime slurry, due to the higher hydration or conversion percentage of CaO to $Ca(OH)_2$.

Slaking rate was determined using a laboratory equipment set-up similar to what is depicted in Appendix A. In these tests, 400 mL of distilled water was heated to the indicated temperature, then transferred into an insulated Dewar flask. Details of the procedure used can be found in the ASTM standard C-110-015 Section 11.

4.1 Slaking Water Quality Considerations

The best lime slaking results are always obtained when using heated potable water. Des Moines Water Works uses finished water for slaking, originating either from the Raccoon River or the Des Moines River. The water that was used for the nine slaking tests performed by Kemetco was demineralized water, which is essentially the same as finished or potable water when it comes to lime slaking.

The only significant concern in using the site-finished water as lime slaking water is the seasonal variation of the incoming water temperature. In colder winter months, the temperature could fall as low as 4.4 °C, and in the summer, it is typically around 15.6 °C.

In order to achieve a good target final slaking temperature of at least 79.4 °C in the winter months, it may be necessary to heat incoming water to 15.6 °C using steam or another type of heater. The other option could be to allow the Detention slaker to automatically adjust the water to lime ratio lower in order to operate at a thicker, more exothermic mixture. A lower water to lime ratio produces higher percent solids slurry that will also be more viscous. Slaker operations would require monitoring for acceptable operations due to the percent solids and viscosity, especially through the grit screen and the gravity flow discharge line to the slurry holding tank.

Results of the reactivity or slaking rate test can be significantly affected by impurities present in the slaking water, as well as the initial slaking water temperature. The presence of anions such as sulfate, phosphate or carbonate in the water can retard the slaking reaction and, for this reason, distilled water can be used as a reference standard.

Slaking rate can also be reduced by the adsorption of water or carbon dioxide during improper storage of the quicklime sample.

4.2 Slaking Rate Test Results

In total, nine slaking tests were performed. Each unique lime sample was slaked three times so that triplicate results could be obtained for accuracy. The results reported in Table 4 represent averages of those tests.

At first glance, it is clear that lime from Mississippi slaked faster than the other two lime sources, Lhoist and Pete Lien & Sons. For all measurements taken as required by ASTM standard C-110-015, Mississippi consistently outperformed the other two limes in terms of temperature rise at a specified time, total slaking temperature, and overall degree of reactivity as indicated by its total active slaking time (TAST). With respect to total slaking temperature, which is the main critical parameter in producing a higher quality milk of lime, Mississippi lime reached an average temperature rise of 54.7°C in 4.3 minutes, in contrast to Lhoist lime only reaching a 52.2°C temperature rise in 5.8 minutes, and Pete Lien & Sons lime only reaching a 50.2°C temperature rise in 9.7 minutes.

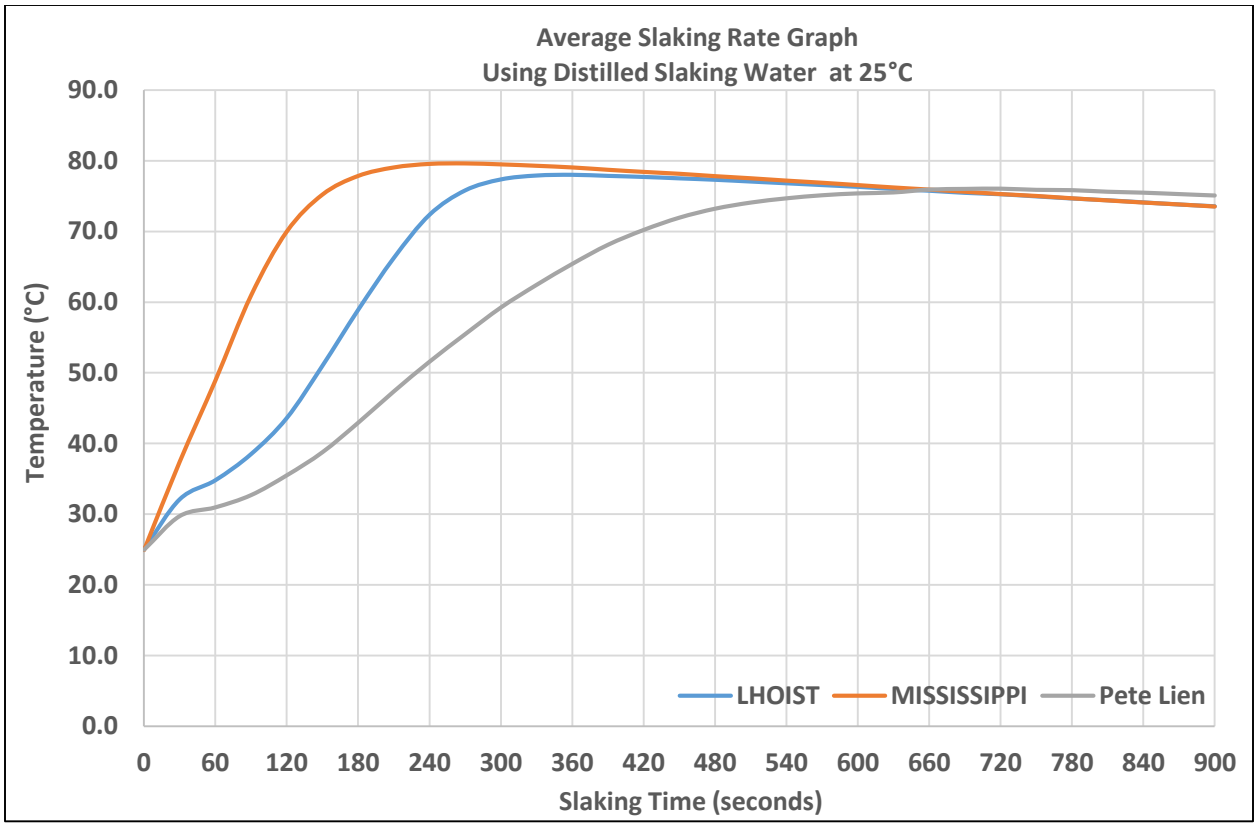


Figure 3. Average slaking rates of the three lime sources tested in 2022.

Table 4. Averaged slaking test data including grit production.

Parameter	LHOIST	MISSISSIPPI	Pete Lien & Sons
Initial Temperature (°C)	25.1	24.9	25.0
Temperature increase at 30 s (°C)	7.0	12.5	4.8
Temperature increase at 1.0 min (°C)	9.8	24.0	6.0
Temperature increase at 3.0 min (°C)	32.2	52.9	18.0
Total Temperature Rise (°C)	52.2	54.7	50.2
Total Active Slaking Time (TAST) (min)	5.8	4.3	9.7
% Grit	0.89	0.18	0.61

5. PERCENT GRIT AND +30 MESH RESIDUE PRODUCTION

Grit production measures the plus 30 mesh portion (+ 600 µm) of the resultant slurry produced by slaking lime. Often this portion is screened out and disposed of.

Standard ASTM grit or residue screening procedures were followed for the three lime samples.

This larger sized fraction of grit is considered inert or ineffective when used in a water treatment or acid neutralization process. The typical calcium hydroxide particle that is readily dissolved as used in neutralization commonly has a d50 of between 6 to 10 µm and a d80 of between 60 to 90 µm. It stands to reason that particles over 600 µm are not primarily calcium hydroxide particles.

5.1 PERCENT GRIT (+30 MESH RESIDUE) TEST RESULTS

When slaked under identical conditions, the three lime samples had a comparable grit content:

- For every 100 grams of CaO for Mississippi Lime, 0.18 grams were over 600 µm.
- For every 100 grams of CaO for Lhoist Lime, 0.89 grams were over 600 µm.
- For every 100 grams of CaO for Pete Lien & Sons Lime, 0.61 grams were over 600 µm.

Percentage grit is shown in Table 5. Mississippi lime contains the least grit followed by Pete Lien & Sons lime and then Lhoist lime. +30 mesh residues are presented in Figure 4, the grits in Lhoist and Pete Lien & Sons lime contained some coarse solids.

Table 5. Grit (+30 Mesh Residue).

Lime Source	% Grit (+30 mesh)
Lhoist	0.89
Mississippi	0.18
Pete Lien & Sons	0.61

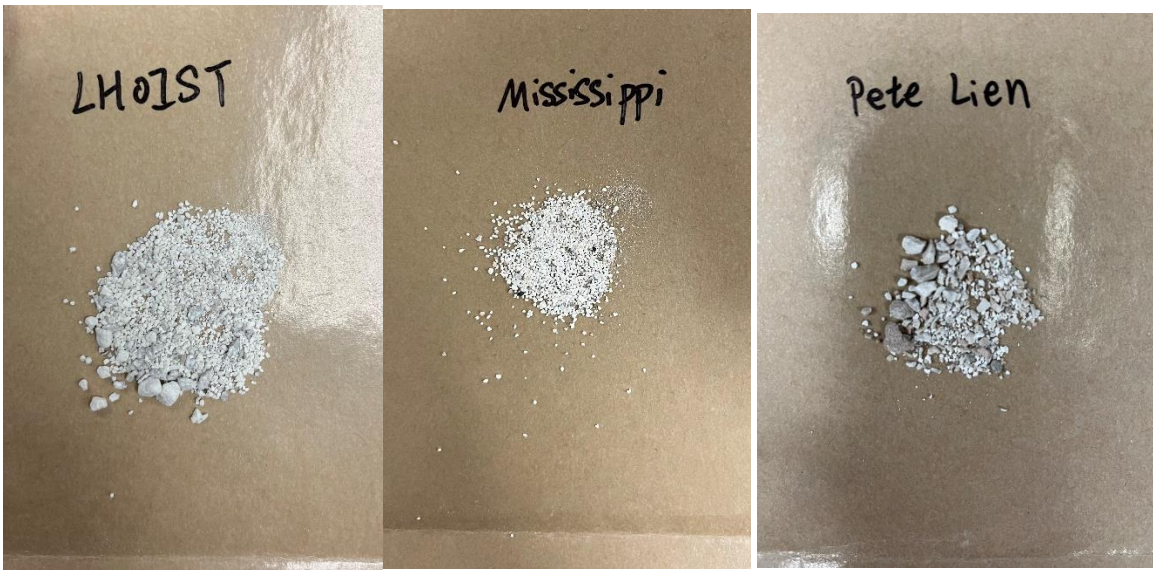


Figure 4: Grit/+30 Mesh Production: Lhoist Lime (left), Mississippi Lime (middle) and Pete Lien & Sons (right)

6. PERCENT SOLIDS TESTS

Slaking at a higher final slaking temperature is generally known to be more efficient, and therefore, a higher percentage of conversion from calcium oxide to calcium hydroxide is expected to occur. This hydration results in up to a theoretical 32% stoichiometric mass gain.

Calcium oxide has an atomic mass of 56.0774 grams per mol. Calcium hydroxide has an atomic mass of 74.093 grams per mol.

For every 100 g of pure CaO that is fully hydrated, 32 g of water is consumed to produce 132 g of $Ca(OH)_2$. This assumes 100% pure CaO and assumes a slaking efficiency of 100%. Since this is not a normal industrial reality, the efficiency calculations are adjusted accordingly, based on percent solids test results.

The reported percent solids includes the grit portion. In other words, it is the percent solids as produced by the slaking reaction prior to screening out oversized solids. This percent solids number is a combination of the degree of CaO conversion to $Ca(OH)_2$ and the amount of grit produced. The amount of grit produced typically does not undergo a chemical reaction during the slaking process.

The $Ca(OH)_2$ solids were obtained from the milk of lime slurry produced from the nine slaking rate tests (Section 4). Lime slurry from the slaking tests was filtered and dried in an oven overnight at low temperature (<105°C) before weighing. Each 500 g slurry contained 100 g CaO and 400 g water, thus, the highest achievable percent solids was 26.4% when assuming 100% pure CaO and 100% slaking efficiency.

6.1 PERCENT SOLIDS TEST RESULTS

Despite the difference in final slaking temperatures of the three lime samples (Section 4.2), percent solids obtained were similar: Pete Lien & Sons lime sample had 0.04% and 0.21% more solids than Mississippi and Lhoist, respectively. The percent solids includes grit content, and according to Section 5, Pete Lien & Sons sample had 0.43% more grit than Mississippi and 0.28% less grit than Lhoist. Overall, the differences in percent solids were minimal and within the error of testing and analysis. Percent solids results are listed in Table 6.

Table 6. Percent solids after standard slaking tests.

Lime Source	Avg. Slaked Slurry Wt. (g)	Avg. Dry Wt. (g)	Avg %Solids	Avg -30 mesh %solids
Lhoist	500.01	127.61	25.52	24.63
Mississippi	500.00	128.45	25.69	25.51
Pete Lien & Sons	500.00	128.64	25.73	25.12

7. AVAILABLE LIME INDEX (ALI) TESTS

The available lime index test (ALI) was performed by Kemetco on each of the new lime samples provided by the lime suppliers.

The ALI is a useful quick index relating the general quality of a particular quicklime source by highlighting how much potential calcium oxide is available for slaking.

The actual degree of slaking or conversion to calcium hydroxide depends on many parameters that all need to be satisfied in order to optimize the slaking process. In other words, the ALI tells the potential of quicklime conversion to slaked lime but not the actual degree of conversion.

7.1 AVAILABLE LIME INDEX TEST RESULTS

The Pete Lien & Sons lime had the highest available lime index (ALI) at 95.1%, indicating this lime had the highest potential of CaO conversion to $Ca(OH)_2$. The Mississippi and Lhoist lime sources had comparable ALI numbers, with the Mississippi lime edging out the Lhoist lime by 1%. All lime samples showed very high ALI percentages (>92%), confirming that they were very high calcium quicklime sources.

Table 7. Available Lime Index (ALI) summary for 2022 samples.

Lime Vendor	Mississippi		Lhoist		Pete Lien & Sons	
Titration #	1	2	3	4	5	6
Vol. 1 N HCl (mL)	93.4	93.2	92.2	92.4	95.2	95
Sample Wt. (g)	2.803	2.804	2.804	2.803	2.804	2.803
Available Lime (CaO) (%)	93.4	93.2	92.2	92.4	95.2	95.0
Average (%)	**93.3**		**92.3**		**95.1**	

8. LOSS ON IGNITION (LOI) TESTS

Loss on Ignition (LOI) is an ASTM test that determines the portion of a quicklime supply that may not have effectively calcined during the calcination process in the lime supplier's kiln. LOI can be a good indicator of slaking efficiency in the as delivered calcium oxide.

Essentially the limestone or $CaCO_3$ that did not liberate its CO_2 during normal calcining operations will be liberated during this LOI test at 1,000°C along with free moisture.

8.1 LOI TEST RESULTS

The LOI result indicated Pete Lien & Sons lime contained the least limestone, followed by Lhoist and Mississippi. LOI results are presented in Table 8.

Table 8. Loss on Ignition (LOI) summary for 2022 samples.

Sample	Avg LOI (%)
LHoist -100Mesh	1.26
Mississippi -100Mesh	2.15
Pete Lien & Sons -100 Mesh	0.80

9. NEUTRALIZATION CAPACITY & KINETICS TESTS

The hydrated lime samples used in the neutralization tests for Figure 6 were generated by the previous slaking rate tests (section 4) in a tightly controlled laboratory environment to ensure identical slaking conditions for the two lime sources.

The samples were then filtered using two layers of fine lab filter paper and dried overnight in a drying oven at low temperatures (<105 °C) to avoid sample degradation. The dried filter cake was weighed and rolled between two layers of Kraft paper. Once rolled the samples were sieved dry into +30 mesh / +100 mesh and -100 mesh fractions. The -100 mesh fractions of the two lime samples were used for the Neutralization Capacity and Kinetics testing to ensure a comparative test.

The Neutralization Capacity and Kinetics test is a modified test developed by Kemetco based on the ASTM C 400-98 guidelines. The experimental setup is shown in Figure 5.

The typical neutralization capacity test equipment required includes:

- Standard concentrated sulfuric acid to make up 1.500% standard
- Certified standard sodium hydroxide to standardize sulfuric acid
- Scale capacity 1,000 grams +/- 0.001 grams
- pH probes with 3-point calibration and standards (pH 4 / pH 7 / pH 12)
- Magnetic stirrers and bars

Figure 5: Neutralization capacity and kinetics test set-up.

9.1 Neutralization Capacity & Kinetics Test Results

A total of 22 neutralization titration tests were performed. Most of these are considered as ranging, to zone in on the matching performance curves, paying attention to a pH value of 4–4.5 at the 5-minute mark, as well as a similar final pH value at the 20 to 30-minute mark.

The three neutralization curves shown in Figure 6 indicate that the three lime sources represent very similar kinetics in the first five minutes, and Mississippi lime had the fastest kinetics after five minutes, while Pete Lien & Sons had slower kinetics. The time to reach pH 8 of Mississippi lime was nine minutes, Lhoist lime took 10 minutes and Pete Lien & Sons lime took 28 minutes. The final pH at 30 minutes was 9.57, 10.64 and 8.14 for Lhoist, Mississippi and Pete Lien & Sons lime, respectively.

Despite the slow kinetics and low final pH of Pete Lien & Sons lime, it required the least amount of lime to neutralize the same amount of standardized acid. Therefore, it had the highest neutralization capacity.

The green line, which is Pete Lien & Sons lime, needed only 3.061 g of dry calcium hydroxide to neutralize 250.00 g of standardized 1.500% H_2SO_4 acid.

The orange line, which is Mississippi Lime, used 3.160 g of dry calcium hydroxide to neutralize 250.00 g of standardized 1.500% H_2SO_4 acid.

The blue line, which is Lhoist Lime, needed 3.110 grams of dry calcium hydroxide to neutralize 250.00 g of standardized 1.500% H_2SO_4 acid.

The titration tests show Pete Lien & Sons lime had the highest neutralization capacity but slowest kinetics when compared to the other two lime sources.

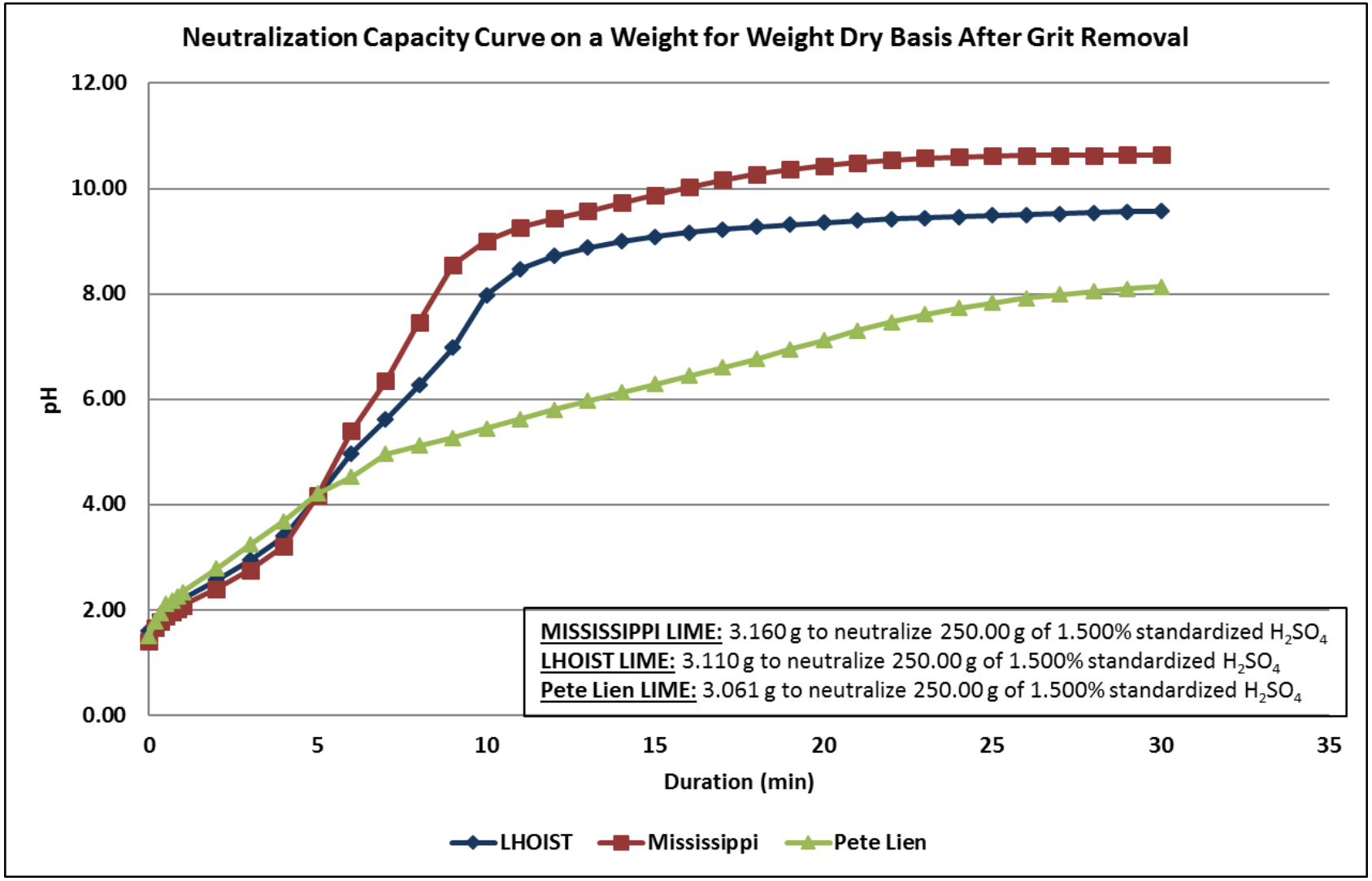


Figure 6: Comparison of neutralization capacity and kinetics of the 2022 samples.

APPENDICES

APPENDIX A: ASTM C110-15 SECTION 11 SLAKING EQUIPMENT

ASTM C110-15 Section 11 Slaking Rate Laboratory Equipment

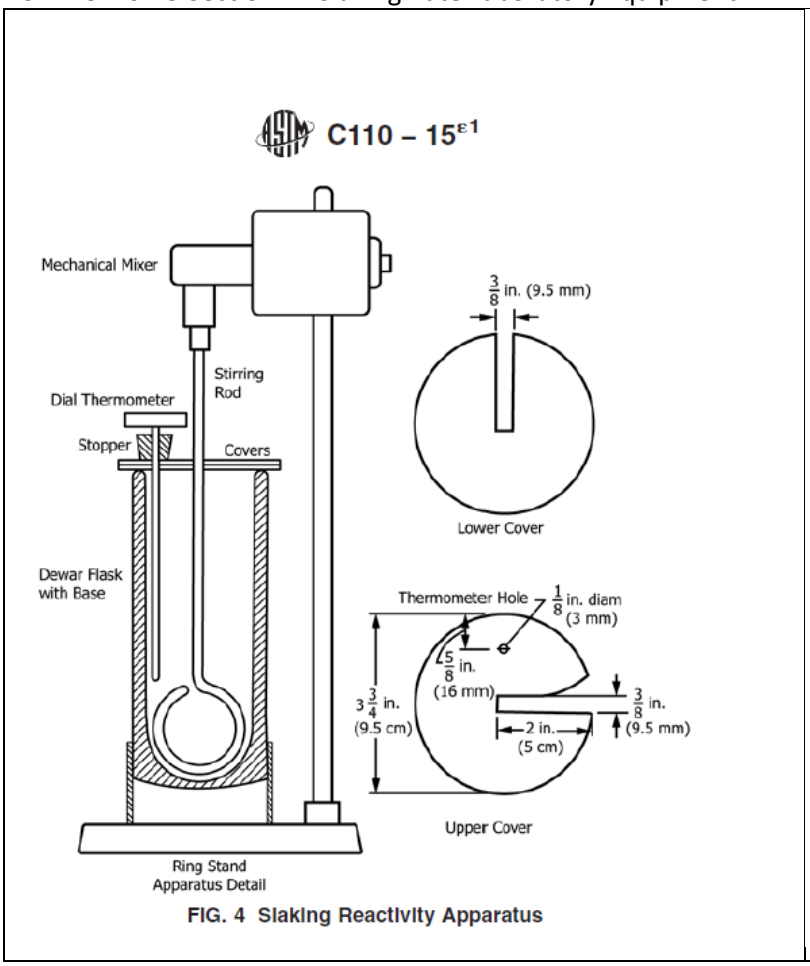


FIG. 4 Slaking Reactivity Apparatus

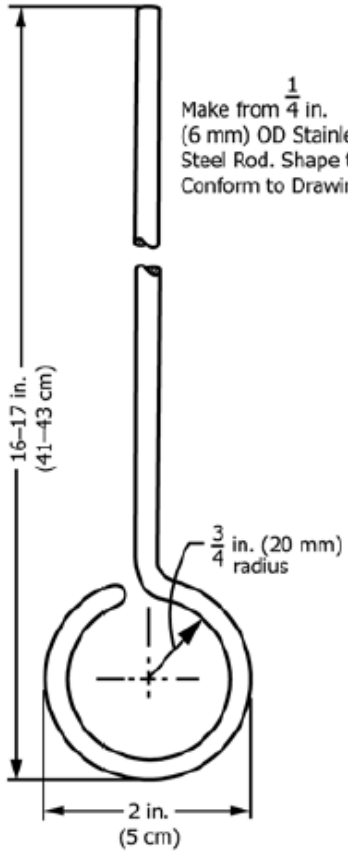


FIG. 5 Stirring Rod Detail

APPENDIX B: SLAKING RATE DATA

Slaking rate data tests performed by Kemetco Research, September 2022.

Lime Source	LHOIST			MISSISSIPPI			Pete Lien		
Test Date									
Test #	ST#1	ST#2	ST#3	ST#1	ST#2	ST#3	ST#1	ST#2	ST#3
Quicklime/Water	100.01/400.00	100.01/400.00	100.00/400.00	100.01/400.00	100.00/400.00	100.00/400.00	100.01/400.00	100.01/400.00	100.00/400.00
Reactor	Smaller Thermos	Smaller Thermos	Smaller Thermos	Smaller Thermos	Smaller Thermos	Smaller Thermos	Smaller Thermos	Smaller Thermos	Smaller Thermos
Impeller/Speed	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm	Smaller Ring 400 rpm
T_{int}/T_{final}	25.0/68.9	25.1/74.4	25.0/72.7	25.0/73.4	24.8/74.4	25.0/72.8	24.9/74.1	25.0/76.6	25.0/74.5
TR_{30s}	6.9	6.8	7.3	11.3	16.8	9.4	4.4	5.3	4.6
TR_{3min}	29.0	31.7	36.0	52.7	54.8	51.3	17.0	19.8	17.1
TR_{total}	50.8	53.3	52.6	54.5	55.4	54.3	49.8	50.8	50.1
Active Time (min)	6.0	6.0	5.5	4.5	4.0	4.5	9.5	10.0	9.5
Water Source	deionized water	deionized water	deionized water	deionized water	deionized water	deionized water	deionized water	deionized water	deionized water
Comment	slow lime addition	small split during filtration	%grit		major impeller jam	%grit		major impeller jam	%grit
Time (mins : secs)	Temperature (°C)	Temperature (°C)	Temperature (°C)	Temperature (°C)	Temperature (°C)	Temperature (°C)	Temperature (°C)	Temperature (°C)	Temperature (°C)
0	25.0	25.1	25.0	25.0	24.8	25.0	24.9	25.0	25.0
30	31.9	31.9	32.3	36.3	41.6	34.4	29.3	30.3	29.6
60	33.7	34.3	35.3	47.0	57.2	42.6	30.8	31.1	31.0
90	63.7	37.5	39.5	60.0	68.5	54.4	32.4	33.1	32.6
120	40.6	41.7	45.5	69.7	75.0	65.3	34.8	36.7	35.0
150	46.5	48.4	53.6	75.0	78.2	72.5	37.9	40.2	38.2
180	54.0	56.8	61.0	77.7	79.6	76.3	41.9	44.8	42.1
210	61.0	64.5	68.0	78.9	80.1	78.2	46.7	48.5	46.9
240	67.5	71.2	73.5	79.5	80.2	79.0	51.2	51.9	51.6
270	72.3	75.4	76.2	79.5	80.1	79.3	55.3	55.2	55.9
300	74.8	77.4	77.3	79.4	79.9	79.2	59.5	58.4	59.8
330	75.6	78.2	77.6	79.2	79.7	79.0	62.5	61.5	63.3
360	75.8	78.4	77.6	78.9	79.5	78.8	65.7	64.0	66.5
390	75.6	78.3	77.4	78.6	79.2	78.4	68.5	66.6	69.2
420	75.3	78.2	77.2	78.3	78.9	78.1	70.3	69.0	71.3
450	75.0	78.0	77.0	78.0	78.7	77.8	71.9	71.2	72.7
480	74.6	77.9	76.7	77.7	78.4	77.4	73.0	72.9	73.7
510	74.3	77.6	76.5	77.4	78.1	77.1	73.8	74.1	74.3
540	73.9	77.4	76.2	77.0	77.8	76.8	74.3	74.9	74.8
570	73.5	77.2	75.9	76.8	77.5	76.4	74.7	75.5	75.1
600	73.2	77.0	75.6	76.4	77.2	76.1	75.0	75.8	75.3
630	72.8	76.7	75.3	76.1	76.9	75.7	75.1	75.9	75.5
660	72.3	76.5	75.0	75.8	76.6	75.4	75.2	77.0	75.5
690	71.6	76.2	74.7	75.5	76.3	75.1	75.2	77.3	75.5
720	71.2	76.0	74.5	75.2	76.0	74.7	75.2	77.4	75.5
750	70.8	75.7	74.2	74.9	75.8	74.4	75.0	77.3	75.3
780	70.4	75.4	73.9	74.6	75.5	74.0	74.9	77.4	75.2
810	70.0	75.2	73.6	74.2	75.2	73.8	74.8	77.0	75.0
840	69.7	74.9	73.3	74.0	74.9	73.4	74.5	77.0	74.9
870	69.3	74.6	73.0	73.7	74.7	73.1	74.3	76.9	74.6
900	68.9	74.4	72.7	73.4	74.4	72.8	74.1	76.6	74.5

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-G
Meeting Date: October 25, 2022
Chairperson's Signature Yes ☐ No ☒

AGENDA ITEM FORM

SUBJECT: Acceptance of Des Moines River Intake Roof Structure Modifications

SUMMARY:

- At the September 2021 Board meeting, the Board of Water Works Trustees awarded a contract to Henkel Construction in the amount of $311,000 for the Des Moines River Intake Roof Structure Modifications project.
- The scope of work for this Contract was to retrofit the existing Des Moines River Intake building roof structure to feature four large openings that will allow the screening equipment and sluice gates to be removed from the facility with a crane.
- All work associated with this Contract has been completed with no Change Orders.
- The final price for the Des Moines River Intake Roof Structure Modifications Contract is $311,000.

FISCAL IMPACT:

Funds for this project will come from the 2021 Facility Management budget.

RECOMMENDED ACTION:

Accept the Des Moines River Intake Roof Structure Modifications Contract, completed by Henkel Construction, in the amount of $311,000.

BOARD REQUIRED ACTION:

Motion to accept the Des Moines River Intake Roof Structure Modifications Contract, completed by Henkel Construction, in the amount of $311,000.

Donald K. Staley, P.E. (date) 10/19/22 Project Manager	Michael J. McCurnin, P.E. (date) 10/18/22 Director of Engineering Services	Ted Corrigan, P.E. (date) 10/21/22 CEO and General Manager

Attachments: none

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-H
Meeting Date: October 25, 2022
Chairperson's Signature Yes ☐ No ☒

AGENDA ITEM FORM

SUBJECT: Request Authorization for CEO and General Manager to Execute Change Order 4 and 5 to the 2021 Well Rehabilitation Contract

SUMMARY:

- On July 27, 2021, the Board of Water Works Trustees (the Board) awarded the 2021 Well Rehabilitation contract to Layne Christensen Company (Layne). The award of contract by the Board acknowledged and accepted a condition included with Layne's bid.
- Layne's bid included a letter of exception that conditioned their bid stating that Layne:
  1. Has several projects currently underway and may not be available to start on the 2021 Well Rehabilitation contract until January 2022.
  2. Will mobilize and begin executing the work at one of the well sites when they are able to do so.
  3. Included the cost for two mobilizations to the project site in their bid to complete rehabilitation of one well in Spring 2022 and rehabilitation of the second well in Fall 2022.
- The Board was informed at their July 27 meeting that staff was willing to adjust the contract schedule by change order to accommodate the conditions proposed by Layne. Change Order No. 1 was subsequently executed to modify the contract schedule to meet Layne's conditions.
- Well 2 at the Saylorville well field was rehabilitated in Spring 2022 and placed back in service in May 2022 with a one hundred twenty percent (120%) increase in yield after rehabilitation was completed.
- Layne was not able to return in the Fall 2022 to complete rehabilitation of the second well which was Well 6 at the Maffitt Reservoir. Layne intends to return in January 2023 to complete rehabilitation of Well 6.
- Staff has determined there would be operational advantages to have Layne rehabilitate Well 1 at the Saylorville well field in January 2023 and defer rehabilitation of Well 6 at Maffitt Reservoir until Fall 2023.
- Layne is agreeable to adding rehabilitation of Well 1 at the Saylorville well field to the 2021 Well Rehabilitation contract and complete rehabilitation of Well 6 at Maffitt Reservoir in the Fall 2023. This will require execution of two change orders to the 2021 Well Rehabilitation contract:
  1. Change Order No. 4 – Adds $599,630 to the contract amount to add rehabilitation of Well 1 at the Saylorville well field to the contract.
  2. Change Order No. 5 – Adds $123,495 to the contract amount by increasing Layne's unit prices on their Proposal by 15 percent (15%) for rehabilitation of Well 6 at the Maffitt Reservoir well field. These increases in the unit prices are due to increases in Layne's labor and material costs since their Proposal was submitted in July 2021.
- Staff recommends the Board authorize the CEO and General Manager to execute Change Order No. 4, in the amount of $599,630, and Change Order No. 5, in the amount of $123,495, to the 2021 Well Rehabilitation contract.

FISCAL IMPACT:

Funds for this project will come from the 2021 and 2022 Raw Water – Maffitt Reservoir budgets.

RECOMMENDED ACTION:

Authorize the CEO and General Manager to execute Change Order No. 4, in the amount of $599,630, and Change Order No. 5, in the amount of $123,495, to the 2021 Well Rehabilitation contract.

BOARD REQUIRED ACTION:

Motion authorizing the CEO and General Manager to execute Change Order No. 4, in the amount of $599,630, and Change Order No. 5, in the amount of $123,495, to the 2021 Well Rehabilitation contract.

Vern Rash 10/20/22	Michael J. McCurnin 10/20/2022	Ted Corrigan 10/21/22
Vern Rash, P.E., L.S. (date)	Michael J. McCurnin, P.E. (date)	Ted Corrigan, P.E. (date)
Project Manager	Director of Engineering Services	CEO and General Manager

Attachments: Change Order Nos. 4 and 5, signed by Layne Christensen Company.

ENGINEERING DEPARTMENT
DES MOINES WATER WORKS

CONTRACT CHANGE ORDER AGREEMENT

PROJECT:
2021 Well Rehabilitation

CONTRACT NO.: 546-497 & 546-479

CONTRACTOR:
Layne Christensen Company
6360 Huntley Road
Columbus, OH 43229

CHANGE ORDER NO.: 4

Add Rehabilitation of Saylorville Well 1 to Contract

Provide all necessary machinery, tools, labor, and other means of construction, and furnish all equipment and materials specified or required to rehabilitate Saylorville Well 1 according to the Plans and Specifcations at the price set out in the attached.

Modify Paragraph 1.11 from Section 01 00 00, General Requirements for the Project, as shown on the attached.

Total Cost for Change Order No. 4: $599,630.00

Current Contract Completion Date	
Saylorville Well 1:	5/1/2023
Adjustment in Calendar Days	To Be Determined
Revised Contract Completion Date	5/1/2023

Original Contract Sum	$1,344,820.00
Net Change by Previous Change Orders	$0.00
as a % of Original Contract Sum	0.00%
Current Contract Sum	$1,344,820.00
Net Change by this Change Order	$599,630.00
as a % of the Original Contract Sum	44.59%
Total Change Orders	$599,630.00
as a % of Original Contract	44.59%
Revised Contract Sum	$1,944,450.00

ACCEPTED BY:

7 Oct 2022

Layne Christensen Company Date

APPROVED BY:

Project Manager Date

Director of Engineering Services Date

CEO and General Manager Date

CHANGE ORDER NO. 4
TO
CONTRACT DOCUMENTS AND SPECIFICATIONS

2021 WELL REHABILITATION

October 3, 2022

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents and Specifications for the 2021 Well Rehabilitation Contract, dated June 2021, as fully and completely as if the same were set forth therein:

CONTRACT DOCUMENTS

Proposal for 2021 Well Rehabilitation

1. On Page P-2 of the Proposal, delete the unit prices for Well 1 at Saylorville Water Treatment Plant and substitute the unit prices shown on the attached.

CHAPTER 2 - DETAILED SPECIFICATIONS

Section 01 00 00 – General Requirements for the Project

1. Delete Paragraph 1.11. its entirety and substitute the following:

1.11 CONSTRUCTION SEQUENCE

A. Notice to Proceed to commence work at Saylorville Well 1 will be issued at a date mutually agreeable to the Contractor and the Owner, but the Notice to Proceed will not be issued any later than January 3, 2023.

B. Commence work at Well 1 at the Saylorville Water Treatment Plant within fifteen (15) calendar days after the date set forth in the Notice to Proceed.

C. Intermediate completion date for Well 1 at the Saylorville Water Treatment Plant: 83 calendar days from the date set forth in the Notice to Proceed.

D. Commence work at Well 6 at the Maffitt Reservoir on or before September 30, 2023.

E. Do not start work at Well 6 at Maffitt Reservoir until all work at Well 1 at the Saylorville Water Treatment Plant has been completed and Well 1 at the Saylorville Water Treatment Plant is fully operational.

F. Intermediate completion date for Well 6 at Maffitt Reservoir:
   1. For Well 6 at Maffitt Reservoir the earliest of:
      a. 90 calendar days after the date Well 6 is removed from service.
      b. Before December 31, 2023.

G. All work must be completed under the contract on or before December 31, 2023.

Vern Rash, P.E., L.S.
Des Moines Water Works
515-283-8733

CHANGE ORDER NO. 4

WELL 1 AT SAYLORVILLE WATER TREATMENT PLANT

No.	ITEM	UNITS	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
1	General Requirements	LS	-------	$154,000	$154,000
2	Additional Demobilization and Remobilization Due to Flood	Each	1	$27,000	$27,000
3	Site Work	LS	-------	$48,300	$48,300
4	Video Inspection of Laterals	LF	2,110	$14	$29,540
5	Lateral Development	LS	-------	$235,750	$235,750
6	Additional Lateral Development	Day	2	$9,280	$18,560
7	Observation Well - New	LF	60	$80.50	$4,830
8	Observation Well - Upgrade Existing	Each	3	$1,150	$3,450
9	Pumping Test - Pre-Maintenance	Each	1	$27,600	$27,600
10	Pumping Test - Post-Maintenance	Each	1	$50,600	$50,600
	TOTAL COST FOR WELL 1 AT SAYLORVILLE WATER TREATMENT PLANT =				$599,630

END.

ENGINEERING DEPARTMENT
DES MOINES WATER WORKS

CONTRACT CHANGE ORDER AGREEMENT

PROJECT:
2021 Well Rehabilitation

CONTRACT NO.: 546-497 & 546-479

CONTRACTOR:
Layne Christensen Company
6360 Huntley Road
Columbus, OH 43229

CHANGE ORDER NO.: 5

Adjust Unit Prices for Well 6 at Maffitt Reservoir

On Page P-1 of the Proposal, delete the unit prices and extended prices for Well 6 at Maffitt Reservoir and substitute the unit prices and extended prices shown on the attached.

Unit prices and extended prices are increased by 15 percent to account for increases in Contractor's labor costs and material costs since sealed Proposals were submitted in July 2021.

Total Cost for Change Order No. 5: $123,495.00

Current Contract Completion Date	5/1/2022	Original Contract Sum	$1,344,820.00
Saylorville Well 1:	To Be Determined	Net Change by Previous Change Orders	$599,630.00
Adjustment in Calendar Days	To Be Determined	as a % of Original Contract Sum	44.59%
Revised Contract Completion Date	12/31/2023	Current Contract Sum	$1,944,450.00
		Net Change by this Change Order	$123,495.00
		as a % of the Original Contract Sum	9.18%
		Total Change Orders	$723,125.00
		as a % of Original Contract	53.77%
		Revised Contract Sum	$2,067,945.00

ACCEPTED BY:

24 Oct 22 — 7 Oct 2022

Layne Christensen Company — Date

APPROVED BY:

Project Manager — Date

Director of Engineering Services — Date

CEO and General Manager — Date

CHANGE ORDER NO. 5

WELL 6 AT MAFFITT RESERVOIR

No.	ITEM	UNITS	ESTIMATED QUANTITY	UNIT PRICE ADJUSTED +15%	EXTENDED PRICE
1	General Requirements	LS	-------	$154,330	$154,330
2	Additional Demobilization and Remobilization Due to Flood	Each	1	$27,600	$27,600
3	Site Work	LS	-------	$48,300	$48,300
4	New Lateral Projection	LF	230	$1,518	$349,140
5	Video Inspection of Laterals	LF	1,650	$11.50	$18,975
6	Lateral 3 - Clean and Develop	Day	2	$10,120	$20,240
6	Lateral Development	LS	-------	$166,750	$166,750
7	Additional Lateral Development	Day	2	$10,120	$20,240
8	Observation Well - New	LF	60	$92	$5,520
9	Observation Well - Upgrade Existing	Each	2	$1,150	$2,300
10	Pumping Test - Pre-Maintenance	Each	2	$27,600	$55,200
11	Pumping Test - Post-Maintenance	Each	2	$39,100	$78,200

TOTAL REVISED COST FOR WELL 6 AT MAFFITT RESERVOIR = $946,795

CONTRACTOR'S TOTAL BID FOR WELL 6 AT MAFFITT RESERVOIR = $823,300

INCREASE IN CONTRACT SUM BY CHANGE ORDER NO. 5 = $123,495

END.

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. III-I
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: Resolution of Appreciation for Departing Board of Water Works Trustee Joel Aschbrenner

SUMMARY:

The following Resolution of Appreciation is proposed to provide recognition to Mr. Joel Aschbrenner for his dedicated service during his term on the Board of Water Works Trustees.

Whereas, ***Joel Aschbrenner*** *was appointed to the Board of Water Works Trustees in February 2020; and*

Whereas, ***Mr. Aschbrenner's*** *term as Board of Water Works Trustee will end with his resignation, effective October 26, 2022; and*

Whereas, during his service on the Board, ***Mr. Aschbrenner*** *provided thoughtful perspectives on all issues brought before the Board, joined with other Board members in support and promotion of regional governance of drinking water production, strongly supported ongoing water quality and environmental initiatives, represented the Board on the Des Moines Water Works Park Foundation Board, and consistently championed open, transparent public communication,*

Now, Therefore, be it Resolved that the Board of Water Works Trustees of the City of Des Moines, Iowa, hereby acknowledges with sincere appreciation the contributions made by ***Joel Aschbrenner*** *to Des Moines Water Works and the community he has served by entering this Resolution of Appreciation into the minutes of the Board.*

FISCAL IMPACT:

No fiscal impact.

RECOMMENDED ACTION:

Adopt the above resolution.

BOARD REQUIRED ACTION:

Motion to adopt the resolution as set out above.

_____/_____ (date)	_____/_____ (date)	_____ 10/21/22 Ted Corrigan, PE (date) CEO and General Manager

Attachments: none

Des Moines Water Works
Water You Can Trust for Life

DES MOINES WATER WORKS
Board of Water Works Trustees

Agenda Item No. Information Items A-C
Meeting Date: October 25, 2022
Chairperson's Signature ☐ Yes ☒ No

AGENDA ITEM FORM

SUBJECT: Information Items

SUMMARY:

A. Board Committee Reports
- Planning Committee
- Finance and Audit Committee
- Bill Stowe Memorial Committee
- Greater Des Moines Botanical Garden Board
- Des Moines Water Works Park Foundation Board

B. CEO and General Manager's Comments
- Quarterly Strategic Plan Update

C. Contract Status and Professional Services Agreements

FISCAL IMPACT:

No impact to the budget.

RECOMMENDED ACTION:

For review and discussion.

BOARD REQUIRED ACTION:

Review and discussion.

_____/_____ (date)	_____/_____ (date)	_____/10/21/22 Ted Corrigan, P.E. (date) CEO and General Manager

Attachments: DMWWPF Executive Summary, Board Minutes, August 2022 Financials, Events Calendar; Quarterly Strategic Plan Update: Contract Status and Professional Services Agreements Spreadsheets

19 October 2022

Updates from the Des Moines Water Works Park Foundation

The Campaign/Development:
A draft repayment plan has been submitted to the City for remaining balance of Ruan Connector. We are also continuing to negotiate what share of the city's project should be forgiven. Sponsorship's are being built out for the 2023 season.

Park Construction
Memorial Park benches are finally arriving the last week of October after a year long wait and will be installed around the various walk ways.

Programming
It has been a full month of programming between Bread + Puppets, GDMLI's 40th Anniversary, the Above + Beyond Cancer Elevate Festival, the Local Bands, Brews & Bike concert series each Sunday, the ICADV's Dia de los Muertos Tribute, the IMT Des Moines Marathon and of course the Bier Garten. The Bier Garten

will be open through the end of October. Operating in the afternoons and evenings Thursday – Sunday from the marketplace area it has drawn diverse multigeneration age group and their pets. It offers german and local beers, wine and food and has fulfilled the void of having a reliable service option for people visiting the park as well as those coming to other park events. It has also spawned mini pop ups for local businesses. We were able to update the User Permit from the City for the park allowing for seasonal alcohol and food permitting and allowances for temporary storage etc. to more accurately support summer programming.

October Meeting Minutes attached along with August Financials.

DES MOINES WATER WORKS PARK FOUNDATION
Board of Directors Meeting
Friday, October 14, 2022 – Board Meeting - 12:00 - 1:30
Draft Minutes

DMWWPF Vision: *Water Works Park is the place where nature and people flourish.*
DMWWPF Mission: *Foster stewardship for clean water and nature through unique learning opportunities, cultural experiences, and outdoor adventures.*

BOD Members in Person Attendance: Chad Rasmussen, Matt Van Loon, Ashley Aust, Drew Manatt, Ardis Kelley
BOD Members Virtual: Amy Jennings, Corey Morrison, Jason Stone, Crystal Franke, Chris Lightfoot, Andrea Boulton, Joel Aschbrenner
Guests/Staff: Sam Carrell – DMWWPF; Mike McCurnin – DMWW; Teri TeBockhorst - DMWWPF; Jordan Richardson, Community Foundation of Greater Des Moines

I. Call to Order & Welcome/Affirm Agenda – Matt Van Loon

II. Approve minutes – Matt Van Loon

Motion to approve September Minutes: Chad Rasmussen
Second: Ashley Aust
APPROVED

III. Planned Giving – Jordan Richardson, Community Foundation of Greater Des Moines

- Richardson gave an overview of the Community Foundation's program's that DMWWPF was involved with from bookkeeping to fund management and DMWWPF's Endow Iowa fund.

IV. Financial Report – Ardis Kelley

- August Financials
  Cash jumped over $400k from July to August due to a pledge fulfillment. However assets didn't change much as it was in Pledges Receivable. Small deficit from revenue to expenses of about $500 in August.
  Motion to Accept August Financials: Ashley Aust
  Second: Chad Rasmussen
  ACCEPTED

V. Committee Reports/Discussion Items

- **Programming** – Andrea Boulton/Bethany Wilcoxon
  Update: Local Bands, Brews, and Bikes is going well.
  Biergarten had biggest day with one of the bands. Multi-generational crowds.
  Biergarten is up to $91k in sales – exceeding projections. Looking to be here next summer too.
  Marathon is this weekend on Sunday.
  Day of the Dead celebration tomorrow from 1-4pm.
  NOLA jazz band playing Saturday.
  Bier Garten has provided consistency of service for daily park goers and smaller events that food trucks have not been able to fulfill
- **Development** – Teri Wood TeBockhorst
  Van Loon reported on Wood's activities in her absence.
- **Marketing** – Chris Lightfoot
  Update: Reviewing how to reach more people for the docuseries next year if we hold the event.
  Get e-newsletter back up and going. Looking to do this at a quarterly basis.
  Get events up on the website so people know what is going on.
  Website is averaging over 2000+ clicks a week.
- **Governance** – Ashley Aust
  - Nominations/Officer track
    Update: Working on the process for nominations.

  Jenny Herrera presented as a candidate for 2023 Board.
  Motion to accept Herrera's nomination: Ardis Kelley
  Second: Drew Manatt
  APPROVED
  Looking for additional members to fill the board for 2023.

- **Contracting Amphitheater** – Chad Rasmussen
  Update: Signage update. Three priorities: stage, donor recognition, and park signage. Stage Signage to add to power boxes by the stage. Donor recognition – map of the park that outlines donated areas and list of significant donor names. Park – looking for what needs signage overall. RDG has done work on this already, so we are looking at what they provided. Marketing reviewing fonts.

- **Stowe Memorial/Lakeside Lab update/Intern Presentations** – Andrea Boulton, Amy Jennings
  Update: Stowe Memorial and Lakeside Lab put together a report. Meeting upcoming in October for next steps on a strategic plan on the project.

- **Connector Repayment Agreement update** – Jason Stone/Matt Van Loon
  In the city's court. Legal counsel between DMWW and City are talking.

- **DMWW** – Mike McCurnin

Rivers in town are low. Could cause problems in the spring. More water in the water shed would be ideal. The utility will embark on treatment plant expansion.

VI. Executive Director Report – Sam Carrell

- Park improvements – benches to arrive in the next two weeks
- City User Permit – new permit granted by city allowing for more flexibility in staging events in park
- 2022 Season/Local Bands, Brews and Bike series/DocuSeries
- Bier Garten
  Update: Reviewed calendar. Have a potential large event for winter 2023. Next year's calendar is filling up with bigger concert names and activities.

VII. Announcements

VIII. Adjourn

Motion to Adjourn at 1:25 pm: Chad Rasmussen
Second: Ashley Aust
APPROVED

Upcoming Events:
BOD Meeting – Friday, November 11 - 12 pm – 1:30 pm DMWW Admin Bldg.
Bier Garten – Thursdays – Sundays (Sept & October) 2:00 pm on Weekdays, Noon on weekends
Local Bands, Brews & Bike Concert Series – Sunday afternoons at 2:00 pm

DMWWPF Values:

1. Conservation: We are a model of urban conservation that protects and promotes our natural environment through engaging amenities and activities, with an intentional focus on clean water.

2. Well-being: We provide opportunities for park lovers of any age to invigorate their bodies and quiet their minds through recreation, play, and connection to nature.

3. Collaboration: We nurture and grow strategic partnerships with other organizations and community attractions to maximize our collective impact.

4. Inclusion: We create a place that is welcoming to all, encouraging and growing understanding, and connection to strengthen our community. We are everyone's park.

5. Amazement: We leverage 1500 acres of urban greenspace to create unique experiences that delight and amaze human visitors, while respecting and enhancing the park's ecosystem.

Des Moines Water Works Park Foundation

Comparative Statements of Financial Postion as of	August 31, 2022	July 31, 2022	December 31, 2021
ASSETS			
Cash and Cash Equivalents	$ 435,233.85	$ 37,666.73	$ 163,886.67
Investments - Endow Iowa	51,714.35	53,257.87	59,004.60
Pledges Receivable	650,827.40	1,050,827.40	933,327.40
Prepaid Expenses	2,010.64	2,261.98	766.39
Total Assets	$ 1,139,786.24	$ 1,144,013.98	$ 1,156,985.06
LIABILITIES			
Accounts Payable	$ 5,041.76	$ 8,772.10	$ 9,003.24
Accrued Expenses	1,780,212.29	1,780,212.29	1,787,912.29
Loan Payable - Line of Credit	699,893.72	699,893.72	703,745.80
Total Liabilities	$ 2,485,147.77	$ 2,488,878.11	$ 2,500,661.33
NET ASSETS			
Net Assets without donor restrictions:			
Available to Spend	$ 944,522.95	$ 940,001.94	$ 1,037,421.32
Net Assets with donor restrictions:			
Endow Iowa	51,714.35	53,257.87	59,004.60
Karras Kaul Sculpture	10,957.21	10,957.21	10,957.21
Park Improvement/Fleur Trail	(2,352,556.04)	(2,349,081.15)	(2,451,059.40)
Total Net Assets	$ (1,345,361.53)	$ (1,344,864.13)	$ (1,343,676.27)
Total Liabilities and Net Assets	$ 1,139,786.24	$ 1,144,013.98	$ 1,156,985.06

Des Moines Water Works Park Foundation
Consolidated Statement of Financial Activity and Change in Net Assets
For the eight months ending August 31, 2022

	August-22					FISCAL YEAR TO DATE			Annual Budget
	Operating	Development	Programming	Capital	Total	Actual	Budget	Budget Variances	2022
REVENUES AND OTHER SUPPORT									
Corporate & Foundation Giving	$ -	$ 20,000.00	$ -	$ -	$ 20,000.00	**$ 147,521.46**	*$ -*	*$ 147,521.46*	*$ -*
Individual Gifts	-	3,062.23	-	-	3,062.23	**9,520.73**	-	*9,520.73*	-
Park Sponsorhip	-	-	-	-	-	**-**	-	-	*75,000.00*
Special Event Income	-	-	55.00	-	55.00	**14,555.00**	*7,500.00*	*7,055.00*	*15,000.00*
State Grant Income	-	-	-	-	-	**-**	-	-	*25,000.00*
User/Vendor Revenue	-	-	-	-	-	**-**	*48,000.00*	*(48,000.00)*	*442,670.00*
Investment Income, net of fees	(1,287.35)	-	-	0.28	(1,287.07)	**(6,950.87)**	-	*(6,950.87)*	-
Total Revenues and Other Support	$ (1,287.35)	$ 23,062.23	$ 55.00	$ 0.28	$ 21,830.16	**$ 164,646.32**	*$ 55,500.00*	*$ 109,146.32*	*$ 557,670.00*
EXPENSES									
Accounting/Audit	$ 850.00	$ -	$ -	$ -	$ 850.00	**$ 6,800.00**	*$ 4,620.00*	*$ 2,180.00*	*$ 11,088.00*
Amphitheater Programming	-	-	3,868.82	-	3,868.82	**35,860.94**	*78,125.00*	*(42,264.06)*	*125,000.00*
Consulting Services	1,100.00	-	-	-	1,100.00	**8,800.00**	-	*8,800.00*	-
Community Programming	-	-	-	-	-	**6,167.71**	*11,000.00*	*(4,832.29)*	*19,850.00*
Development	-	-	-	-	-	**-**	*5,500.00*	*(5,500.00)*	*14,750.00*
Food Expense	-	-	-	-	-	**264.19**	*155,988.00*	*(155,723.81)*	*363,846.00*
General Office	388.37	-	-	-	388.37	**3,891.03**	*2,290.00*	*1,601.03*	*5,496.00*
Governance	-	-	-	-	-	**-**	-	-	*2,650.00*
Information Technology	28.72	-	-	-	28.72	**1,520.80**	-	*1,520.80*	-
Interest Expense	-	-	-	3,475.17	3,475.17	**19,289.29**	-	*19,289.29*	-
Marketing	-	-	74.90	-	74.90	**591.69**	*7,153.00*	*(6,561.31)*	*26,352.00*
Misc. Expense	-	-	-	-	-	**3.00**	*150.00*	*(147.00)*	*500.00*
Office Equipment	-	-	-	-	-	**53.49**	*4,150.00*	*(4,096.51)*	*9,960.00*
Park Maintenance	-	-	-	-	-	**-**	-	-	*45,000.00*
Professional Services	300.00	6,400.00	-	-	6,700.00	**38,606.96**	-	*38,606.96*	-
Rent Expense	130.00	-	-	-	130.00	**1,040.00**	-	*1,040.00*	-
Staffing & Administrative Costs	4,770.00	-	-	-	4,770.00	**38,160.00**	*43,000.00*	*(4,840.00)*	*103,200.00*
Supplies Expense	12.71	-	-	-	12.71	**108.23**	-	*108.23*	-
Utilities	-	-	928.87	-	928.87	**5,174.25**	*4,150.00*	*1,024.25*	*9,960.00*
Total Expenses	$ 7,579.80	$ 6,400.00	$ 4,872.59	$ 3,475.17	$ 22,327.56	**$ 166,331.58**	*$ 155,988.00*	*$ 10,025.90*	*$ 363,846.00*
Change in Net Assets	$ (8,867.15)	$ 16,662.23	$ (4,817.59)	$ (3,474.89)	$ (497.40)	**$ (1,685.26)**	*$ (100,488.00)*	*$ 99,120.42*	*$ 193,824.00*
Net Assets, Beginning of Year						**(1,343,676.27)**			
Net Assets, End of Year						**$ (1,345,361.53)**			

2022	Date	Event
October	1-2	Iowa Coursing Hounds
	5	Bread & Puppet
	8-9	A & B cancer elevate festival
	8	Private gazebo wedding
	8	Private shelter rental
	9	Blazing 5k race
	13	Private shelter rental
	14-16	DSM marathon
	22-23	Hydrocephalus walk
	29-30	Coursing Hounds of Iowa
November	19	Iowa Coursing Association

Several plot tours June July and August
Biergarten every Thursday-Sunday at amphitheater

KEY
Sport/Fitness Event
DMWWPF Event
Wedding/shelter
Misc. (car shows, political events, festivals)

Updated as of 10/19/2022

Strategic Initiative	*Implementation Tactics*	*KPI*	*Percent*	*Plan for Completion*
Initiative: *Update employee onboarding and training to educate new and existing staff about the utility's Mission and Service Vision and Core Values and how they can be a utility champion in the next five years.* **Champions:** HR, IT, All Department Leads **Core Values:** Diversity & Inclusion, Leadership, One Team	Develop internal tools/messaging for introducing and rolling out strategic plan vision, service mission and core values.	Convene an Onboarding/Offboarding Task Force dedicated to formalizing and developing an implementation plan for the utility's new On/Off process.	**100%**	The task force was expanded and held their second meeting on August 16th. A third meeting is scheduled for September 26th. The first onboarding session for new employees is scheduled for October 28th.
	Provide quarterly communications to employees with ongoing initiatives, progress, opportunities to engage, and provide input.	Develop a tracking and communication plan and tools that provide quarterly updates to all employees and interested stakeholders to be operational by end of Q1. (OCEO)	**100%**	Internal tracking tool developed, external reporting tool developed by HDR.
Initiative: *Formally recognize and plan how the utility values Diversity and Inclusion as a part of its business and service in the community and foster an environment that enriches the employee and customer experiences.* **Champions:** HR, OCEO, Customer Service **Core Values:**	Employ an outside firm to help facilitate a utility-wide D&I planning effort.	Issue an RFP for consultant to lead D&I initiative	**100%**	RFP issued, proposals received.
		Select and hire consultant to lead D&I initiative	**100%**	Selection team formed, proposal selected.
		Formal D&I Plan Complete	30%	Plan expected from consultant by end of year. Opportunities for employee and community engagement in progress.
	Form a D&I Task Force comprised of members of the Board, management team, staff, and community with the goal to advise and consult on D&I efforts into the future.	-	-	This is a tactic with no associated KPI.*

Customer Experience, Diversity & Inclusion, Leadership, One Team	Formalize a Community Advisory Group (CAG), comprised of diverse backgrounds and affiliations to provide the utility with a community perspective.	-	-	This is a tactic with no associated KPI.* Several potential CAG members have been contacted, formation expected 2023.
Initiative: *Invest in and develop an employee succession planning initiative that includes a focus on staff levels, training, recognition, succession, and retention to build and support a more robust and diverse employee experience and allow DMWW to become an employer of choice in central Iowa.* **Champions:** HR, OCEO, Customer Service, ENG **Core Values:** Customer Experience, Diversity & Inclusion, Leadership, One Team, Stewardship	Provide regular opportunities and forums for employee feedback and engagement to strengthen the employee experience and improve organizational transparency and communication.	Convene (retool) an employee recognition team to meet three times to establish recommendations for an employee recognition program.	**67%**	The newly formed combined Recognition/HIP Team held their second meeting September 8th and has already started planning events for employee recognition in 2022/2023.
		Assess level of internal customer service to WP and WD. (ENG)	0%	No direct action, but OA process is highlighting multiple targets on WD side.
		Implement 2 improvements in Q2 and Q3. (ENG)	0%	As-Built and GIS Update Policy with internal 15-day deadlines has been drafted. (Sep '22)
	Employ an outside consultant to help facilitate employee succession, retention, and organizational assessment planning effort.	Hire a consultant to conduct an internal organization assessment of the Engineering Department and establish recommendations for future initiatives and other departmental assessments. (ENG, OCEO)	**90%**	HDR has completed Team Charter with ENG Team. ENG Team now focusing on "responding to key themes from interviews" (Role Clarity, Responsibilities, Accountability, and Training). Initial focus here centric to WMR activities and processes. WMR workflow templates to be reviewed and adjusted to discern role responsibility. CADD standards and training have Q4 deadlines to ensure those measures move forward. Long-Term WMR vision shared in Q3 in advance of workflow reviews and adjustments.
	Identify obvious gaps in staffing levels, skill sets, and succession planning.	-	-	This is a tactic with no associated KPI.*
Initiative: *Be deliberate in how all portions of the community are engaged and served by the utility.*	Conduct customer assessment such as "Voice of the Customer"	Advertise and select RFP for a consultant to conduct a Voice of the Customer survey. (Customer Service)	**100%**	RFP issued on January 24, 2022, with responses due on February 28, 2022. A committee, consisting of Customer Service, Finance and Office of the CEO, met to review

Champions: Customer Service, OCEO **Core Values:** Customer Experience, Diversity & Inclusion, Leadership, One Team				proposals and selected vendor, SPPG+Essman Research for the 2022 Voice of the Customer Survey project.
		Conduct Voice of Customer Survey. (Customer Service)	**100%**	Essman Research completed the first phase of the VOC study, with two focus groups held in May. Essman Research completed the second phase of the VOC study in June, with 601 phone and online surveys.
		Survey results/findings complete. (Customer Service)	**100%**	SPPG+Essman Research has completed the final report of the 2022 Voice of the Customer survey. Consultants presented at the September Planning Committee and the full Board will receive and file the report at the September Board Meeting.
		Identify one joint campaign, project, or effort with a group, neighborhood, or customer demographic that has not been partnered with in the past to complete a project. (OCEO)	**100%**	Projects are underway. Gateway Dance Academy Water Week; Epsilon Eta professional fraternity at Drake University for undergrad students majoring or interested in environmental science.
		Complete joint campaign/project with new partner. (OCEO)	50%	A plan, cross-departmental team, and funding opportunity have been identified and engaged. Awaiting approval of proposal submitted by UI. Phase 1 of the project may not be completed until at least YE2022.
		Review and update recruitment tactics for the Clean Water Support Program. (OCEO)	**100%**	Reached out to organizations with whom we have not engaged before whose constituents are underprivileged or include immigrant populations. Realigned the description and goals of the CWSP with strategic plan initiatives. Awarded $20k to 5 organizations.
Initiative: *Determine formal direction the utility will take with regard to regional governance for the utility across central Iowa.*	Engage in partnering discussions to develop MOU for governance of a regional production utility, should that be the chosen path forward for central Iowa.	Hire a PR firm directly after signing of founding resolution by all parties. (OCEO)	**100%**	Proposal from Wixted accepted March 4.

Champions: OCEO, Finance **Core Values:** Customer Experience, Diversity & Inclusion, Leadership, One Team, Stewardship				
Initiative: *Set realistic expectations for Capital Improvement Plan implementation.* **Champions:** ENG, Finance **Core Values:** Customer Experience, Diversity & Inclusion, Leadership, One Team, Stewardship	Expand treatment capacity to ensure adequate water supply and treatment based on regional outcomes.	Obligate 90% of CIP (not constructed). (ENG, FIN)	42%	42% has been obligated through Aug '22.
		WMR work obligated 90%. (ENG)	43%	43% has been obligated through Aug '22.
		Professional Service Agreements aligned with established timelines. (ENG)	0%	Source, Treatment, Transmission, and ASR draft RFP are near ready. Selection of consultants on 4 of the original 5 remain possible by year's end. Initial goal called for these to be awarded by mid-year. Garnering by year end is a revised goal by ENG personnel.
	Replace existing distribution system infrastructure at a level that will reduce main breaks and duration of customer water outages.	-	-	This is a tactic with no associated KPI.*
Initiative: *Develop and implement a broad community and employee education campaign that is focused on utility Mission, source water and drinking water quality, financial investments, and natural resources.* **Champions:**	Update utility communications plan to reflect 2021 Strategic Plan Initiatives.	Establish a clear communication plan for employee and customer/community roll out of the 2021 Strategic Plan. (OCEO)	**100%**	Plan for internal and external communications has been developed. External communications to begin early March.

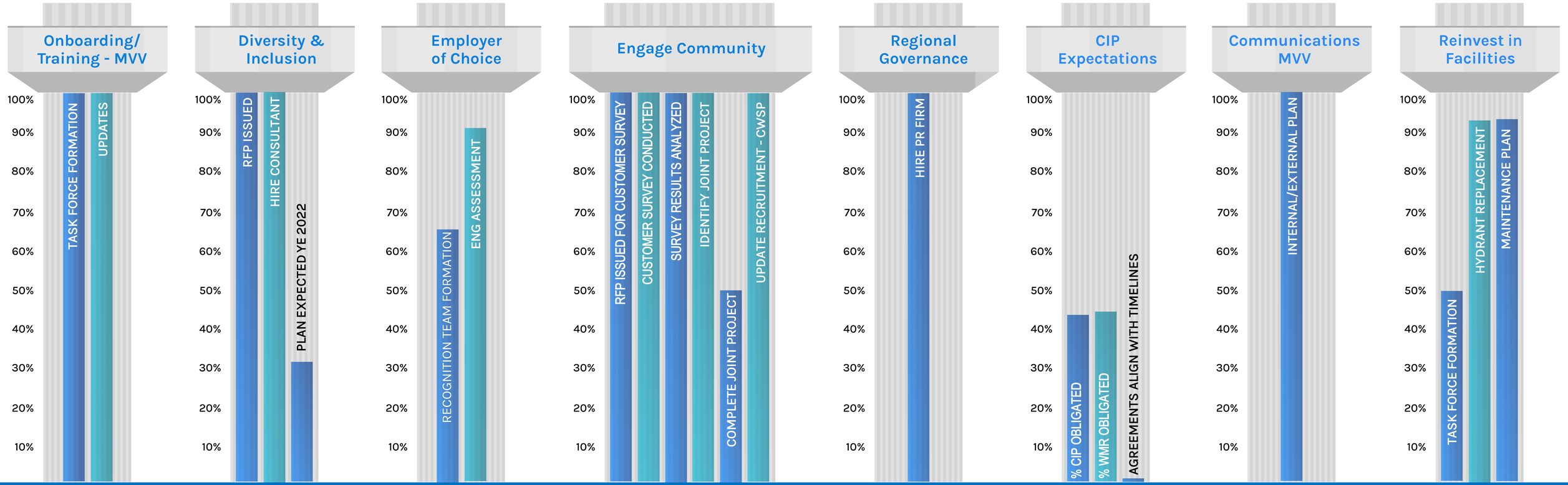
OCEO, Customer Service, Supervisors **Core Values:** Customer Experience, Diversity & Inclusion, Leadership, One Team, Stewardship	Consider assessment and engagement tools to provide customers the opportunity to offer feedback on service experiences.	-	-	This is a tactic with no associated KPI.*
Initiative: *Operate, maintain, and reinvest in our facilities in a manner that respects our investments, employees, customers, environment.* **Champions:** Water Production, Water Distribution **Core Values:** Customer Experience, Diversity & Inclusion, Leadership, One Team, Stewardship	Leverage varied source water facilities to respond to emerging contaminants, regulations, and health advisories.	-	-	This is a tactic with no associated KPI.*
	Evaluate potential impacts of climate change on utility operations.	-	-	This is a tactic with no associated KPI.*
	Prioritize reinvestment in existing Treatment and Distribution infrastructure to maintain long term viability.	Form Task force to identify crucial equipment, processes, and determine usage to build redundancy. (WP)	**50%**	Presented concept to staff and gathering volunteers for task force.
		Complete 20% of Sentinel hydrant replacements by YE2022. (WD)	**90%**	Distribution has identified ten Sentinel fire hydrants to be replaced this year. Three have been replaced, and two more are in progress.
	Plan for production capacity expansion to comfortably meet customer demand.	Deliver/Meet execution plan for the development of predictive and preventative maintenance beyond basic tasks. (WP)	**90%**	Draft document created that outlines what is already being done, and review of improvements started.

* This is a tactic with no associated KPI. Not every implementation tactic must have an association KPI. The implementation tactic is meant to be a strong suggestion for how the utility might work toward the end goal of the associated initiative. They could turn into a more specific initiative in the future.

How to use this tracker:

Quarterly, SMT or a designee should provide a short sentence summarizing the current status of each of their KPIs, along with an estimated “percent complete” number, to be reported to CEO & Board. Email to Rachel Brown.

STRATEGIC PLAN KPIs - QUARTER 3



COMPETITIVE BIDS CONTRACT STATUS FOR OCTOBER 2022

NW 26th Street Booster Station	Punchlist itemas are being completed.	Contractor	Henkel Construction Company
		Notice to Proceed	8/14/2020
		Original Contract Sum	$1,533,000.00
		Net Change by Change Orders	$69,618.46
		Contract Sum to Date	$1,602,618.46
		Total Completed to Date	$1,491,106.08
		Anticipated Completion Date	Nov-22
Nitrate Removal Facility Crawlspace Renovation	Construction is substantially complete. Coating and punch list items remain.	Contractor	Henkel Construction Company
		Notice to Proceed	6/1/2021
		Original Contract Sum	$1,312,000.00
		Net Change by Change Orders	$292,621.07
		Contract Sum to Date	$1,604,621.07
		Total Completed to Date	$1,303,690.16
		Anticipated Completion Date	Nov-22
2021 Well Rehabilitation	SWTP Well #2 is to be done in place of SWTP Well #1. Construction in progress. Cleaning of second well being coordinated with DMWW operational needs.	Contractor	Layne Christensen Company, Inc.
		Notice to Proceed	2/14/2022
		Original Contract Sum	$1,344,820.00
		Net Change by Change Orders	$0.00
		Contract Sum to Date	$1,344,820.00
		Total Completed to Date	$478,876.00
		Anticipated Completion Date	Dec-22
Des Moines River Intake Roof Structure Modifications	Construction is complete.	Contractor	Henkel Construction Company
		Notice to Proceed	11/18/2021
		Original Contract Sum	$311,000.00
		Net Change by Change Orders	$0.00
		Contract Sum to Date	$311,000.00
		Total Completed to Date	$271,400.00
		Anticipated Completion Date	Oct-22
Joint Eastside Booster Station Hypochlorite Feed System	Construction in progress.	Contractor	C.L. Carroll Co., Inc.
		Notice to Proceed	12/6/2021
		Original Contract Sum	$202,000.00
		Net Change by Change Orders	$0.00
		Contract Sum to Date	$202,000.00
		Total Completed to Date	$163,500.00
		Anticipated Completion Date	Nov-22
L. P. Moon Pumping Station - Pump No. 8	Contractor preparing to mobilize.	Contractor	The Waldinger Corporation
		Notice to Proceed	pending
		Original Contract Sum	$123,390.00
		Net Change by Change Orders	$1,710.00
		Contract Sum to Date	$125,100.00
		Total Completed to Date	$8,433.70
		Anticipated Completion Date	Dec-22

Item IV-C

Norwalk Highway G14 Meter Vault	Construction in progress.	Contractor	Rognes Corp.
		Notice to Proceed	4/6/2022
		Original Contract Sum	$536,000.00
		Net Change by Change Orders	$2,853.00
		Contract Sum to Date	$538,853.00
		Total Completed to Date	$457,002.45
		Anticipated Completion Date	Nov-22
Fleur Drive Operations Center Stormwater System Improvements - Phase 2	Construction in progress.	Contractor	WRH, Inc.
		Notice to Proceed	3/28/2022
		Original Contract Sum	$1,179,900.00
		Net Change by Change Orders	-$4,100.00
		Contract Sum to Date	$1,175,800.00
		Total Completed to Date	$469,399.72
		Anticipated Completion Date	Dec-22
2022 Tank Painting - Tenny Standpipe and Runnells Water Tower	Construction in progress.	Contractor	G & L Tank Sandblasting & Coatings, LLC
		Notice to Proceed	7/29/2022
		Original Contract Sum	$860,000.00
		Net Change by Change Orders	$46,500.00
		Contract Sum to Date	$906,500.00
		Total Completed to Date	$0.00
		Anticipated Completion Date	Nov-22
2022 Water Main Replacement	Construction in progress.	Contractor	J & K Contracting, LLC
		Notice to Proceed	9/6/2022
		Original Contract Sum	$989,145.00
		Net Change by Change Orders	$395,975.00
		Contract Sum to Date	$1,385,120.00
		Total Completed to Date	$440,895.00
		Anticipated Completion Date	Nov-22
Gallery Valve Chamber Structures Reconstruction - Phase 2	Construction in progress.	Contractor	Nate Todd Construction, LLC
		Notice to Proceed	7/11/2022
		Original Contract Sum	$498,750.00
		Net Change by Change Orders	$0.00
		Contract Sum to Date	$498,750.00
		Total Completed to Date	$277,000.00
		Anticipated Completion Date	Dec-22
2022 Des Moines Water Main Replacement - Contract 1	Construction in progress.	Contractor	Synergy Contracting, LLC
		Notice to Proceed	7/29/2022
		Original Contract Sum	$1,486,413.00
		Net Change by Change Orders	-$3,790.00
		Contract Sum to Date	$1,482,623.00
		Total Completed to Date	$614,503.50
		Anticipated Completion Date	Dec-22

COMPETITIVE QUOTATIONS CONTRACT STATUS FOR OCTOBER 2022

Contractor
Date of Contract
Notice to Proceed
Original Contract Sum
Net Change by Change Orders
Contract Sum to Date
Total Completed to Date
Anticipated Completion Date

PROFESSIONAL SERVICES AGREEMENTS

No.	Service	Selected Vendor	Date	Amount	Comments
1	Communications, Public Relations - Melissa Walker	MW Media Consultants, LLC	Q4 2020	$4,000/month	COMPLETE
2	Legislative Advocacy	Advocacy Strategies	2020-2021	$10,000/qtr	COMPLETE
3	Updates to Regional Cost Model with Retail Rate Impacts	FCS Group	1/1/2021	$33,200	
4	2017 Long Range Plan Timeline Review	HDR Engineering	1/7/2021	$18,000	COMPLETE
5	Social Media Consultant	Megan McDowell	2/15/2021	$909.09/month	Independent contractor
6	Easement Exhilbit for NW 26th Street Booster Station	JEO Consulting Group	2/8/2021	$1,200	COMPLETE
7	Inspection Services for Pleasant Hill Tower painting	Dixon Engineering	2/11/2021	$45,420	COMPLETE
8	Engineering Services - Drafing water main relocations for City of Des Moines Hamilton Drain - Phase 2	Kirkham Michael	2/25/2021	$10,000	COMPLETE
9	Railroad Right-Of-Way Assistance	VAA Engineering	4/9/2021	$5,000	COMPLETE
10	Drafting Assitance for Bondurant Meter Pit	Veenstra & Kimm, Inc.	4/9/2021	$3,000	COMPLETE
11	Electrical Consultation: LP Moon Pump 8	Stanley Consultants	5/6/2021	$9,500	COMPLETE
12	Design and construction services: Joint Eastside Booster Station Hypochlorite Feed System	Veenstra & Kimm, Inc.	6/8/2021	$22,900	
13	Design and construction services: Operation Center Stormwater Pump Station Improvements	Veenstra & Kimm, Inc.	6/8/2021	$50,150	
14	Roof Membrane Relaxation Design	WTI	7/2/2021	$3,000	
15	Design and preconstruction for DSM River Intake Roofing and Structural Modification	Accord Architecture	7/2/2021	$9,280	COMPLETE
16	Maffitt East Feeder Main Control Valve Design	Stanley Consultants	8/6/2021	$46,920	
17	Engineering & Drafting assistance - 2021 DM WMR #4	JEO Consulting Group	8/16/2021	$20,270	COMPLETE
18	Government Relations Services - October 1, 2021 - September 30, 202	Woodberry Associates, LLC	9/22/2021	$5,000/month	COMPLETE
19	Engineering Services - Drafing water main relocations for City of Des Moines SE Connector SE 30th to US Hwy 65	Kirkham Michael	9/24/2021	$10,000	
20	Legislative Advocacy - October 1, 2021 - December 31, 2022	Advocacy Strategies	9/24/2021	$53,125	$10,625/qtr
21	Survey Services for 2022 WMR - SW 10th Place	Snyder & Associates	11/9/2021	$24,600	COMPLETE
22	Survey Services for 2022 WMR - SW 11th Street	Snyder & Associates	11/9/2021	$24,600	COMPLETE
23	Specs and Contract Documents for 2022 Tank Painting - Tenny	Dixon Engineering	11/24/2021	$5,125	COMPLETE
24	Drafting and Design for City of DM 2nd Ave. Improvements Project - University Ave to 2nd Ave Bridge	Bolton & Menk	11/22/2021	$39,510	
25	Survey Services for 2022 WMR - Luster Ln & SW 9th St	McClure Engineering	12/1/2021	$19,325	COMPLETE
26	Specs and Contract Documents for 2022 Tank Painting - Runnells	Dixon Engineering	12/28/2021	$6,625	COMPLETE
27	Communications, Public Relations - Melissa Walker	MW Media Consultants, LLC	1/1/2022	$4,800/month	
28	Consulting Services for Replacement of Financial Mgmt. Software	Adbo Financial Solution	2/11/2022	$98,400	
29	2022 Voice of the Customer Survey/Research	SPPG+Essman Research	3/21/2022	$40,000	
30	Survey Services for 2022 Des Moines WMR - Contract 2	Snyder & Associates	3/22/2022	$37,953	
31	Diversity and Inclusion Plan	Keen Independent Research	4/15/2022	$49,985	
32	Inspection Services for Tenny Standpipe painting	KLM Engineering, Inc.	5/12/2022	$60,295	
33	Engineering Services - Drafing water main relocations for City of Des Moines Hamilton Drain - Phase 3	Kirkham Michael	6/15/2022	$10,000	
34	Engineering Svcs for City of DM E Court Ave from DM River to E14th St	Shive-Hattery	6/23/2022	$90,500	
35	Water Main Design for Windsor Heights 73rd St. Phase 1 Improvements	Bolten & Menk, Inc.	7/14/2022	$30,000	
36	Development of Drafing Standards for Engineering Department	DTM Solutions	8/30/20022	$13,200	
37	MicroStation Connect and OpenRoads Designer Training	DTM Solutions	8/30/2022	$3,800	
38	Design, Bid, and Construction Administration Services	Shive-Hattery	9/26/2022	$15,750	
39	Engineering Services - Closed Loop Cooling Projects Planning Study	IMEG	9/27/2022	$23,600	