



**MAGNA WATER DISTRICT AGENDA
FOR THE
REGULAR BOARD MEETING
AT 10:00 AM
THURSDAY JANUARY 13, 2022**

8885 W 3500 S, MAGNA, UT 84044

GENERAL OFFICE BUILDING

(801)250-2118 Fax(801)250-1452

JANUARY 13, 2022
REGULAR BOARD MEETING AGENDA
MAGNA WATER DISTRICT

MEETING DATE: January 13, 2022, at 10:00 am
LOCATION: 8885 W 3500 S, MAGNA, UT, GENERAL OFFICE BUILDING

- A. Call to order.

- B. Public, Board and Staff join in the Pledge of Allegiance.

- C. Welcome the Public and Guests.

- D. Public Comment. (Written requests that are received) Please do not take over three minutes due to time restraints for other individuals and the Board.

- E. Inquire of any conflicts of interests that need to be disclosed to the Board.

- F. Nominations and motion to Elect Board Chairman for 2022.

- G. Approval of common consent items:
 - 1. Minutes of the regular board meeting held December 9, 2021
 - 2. Minutes of the 2022 Budget Hearing Meeting held December 9, 2021
 - 3. Expenses for December 1, 2021, to January 5, 2022:
General expenses: \$1,598,627.85
Zions Bank bond payments: \$167,151.24

- H. Discussion regarding the District's Emergency Response Plan Certification.

- I. Discussion and possible motion to award Bid Schedule C to Newman Construction for the material haul.
- J. Discussion on Haynes Well #2 Rehabilitation and Pump Replacement.
- K. Discussion on the final change order from Newman Construction for the 2021 Waterline Replacements project, decreasing the contract price by \$190,666.60.
- L. Discussion on WWTP Influent Lift Station Technical Memo.
- M. Discussion on EDR Water Treatment Plant Corrosion Assessment.
- N. Discussion on final Change Order from Condie Construction on the 2019 Secondary Waterline Project, decreasing the contract price by \$43,480.
- O. Discussion and possible motion to approve attendance to Rural Water, WEAU, and Utah Water Users Conferences for training.
- P. Discussion and possible motion to approve active shooter/workplace violence insurance proposal.
- Q. Discussion and possible motion to approve the restatement of the District's Executive 401(k) and Defined Benefit Plans required by law.
- R. Discussion and possible motion on proposed changes to the District's AR & R's.
- S. Report & Discussion from General Manager.

- T. Discussion on the Succession Planning Draft Memo and Employee Survey.
- U. Discussion on District's actual vs budget status as of December 31, 2021.
- V. Engineering projects update.
- W. Water Distribution /Production.
 - 1. Water production report.
 - 2. Call out report.
- X. WWTP Operation/Collection System.
 - 1. Status of sewer system.
- Y. Motion to meet immediately in closed session to discuss the character, professional competence, or physical or mental health of an individual, pending or reasonably imminent litigation, and the purchase, exchange, or lease of real property, including any form of a water right or water shares pursuant to Utah Code Ann. §§ 52-4-204 through 205.
- Z. Motion to close the closed meeting and re-open the public board meeting.
 - Aa. Consider action on any noticed agenda item discussed in closed meeting.
 - Ab. Adjourn.

MEETING MINUTES

**MINUTES OF THE BUDGET HEARING
HELD FOR PROPOSED 2022 BUDGET
OF THE BOARD OF TRUSTEES OF
MAGNA WATER DISTRICT**

A public hearing of the Board of Trustees of the Magna Water District was held Thursday, December 9, 2021, at 10:00 am at the District's General Office, Kim Bailey Board Room, at 8885 W 3500 S, Magna, Utah.

Trustees Present:

Mick Sudbury, Chairman
Jeff White
Danny Stewart

Staff Present:

Clint Dilley, District Manager
LeIsle Fitzgerald, District Controller
Dallas Henline, Wastewater Operations Manager
Raymond Mondragon, Water Operations Manager
Trevor Andra, District Engineer

Also Present:

Nathan Bracken, Smith Hartvigsen, PLLC
Don Olsen, Epic Engineering
Jason Luettinger, Bowen Collins & Associates
Dan Peay, Magna Metro Township
Joel Workman, AQS, Inc.
Darrell Child, Olympus Insurance
Todd Richards, Magna Resident

Call to Order:

Mick Sudbury called the public board meeting to order at 6:30 pm and welcomed everyone in attendance.

Verification that legal notification requirements have been met:

Notice of this public hearing was published in the Salt Lake Tribune, newspaper of general circulation in the State of Utah, on November 28, 2021. The notice was placed on the Public Meeting Notice Website and the District's website on November 24, 2021. All requirements for notice of this public hearing were duly given according to Utah law.

A copy of the proposed 2022 Budget was also available for public inspection by November 24, 2021, at the District Office.

D R A F T – Subject to Change**2022 Budget Hearing**
December 9, 2021

Short presentation of the proposed 2021 Budget by Management and discussion of any concerns among the Board and Staff: Management presented the tentative budget and indicated the changes made to the tentative budget since the November Board meeting. If it becomes necessary, as time goes, the District could cut projects if the funds are not available.

Motion to open public comment session: A motion was made by Jeff White, seconded by Dan Stewart, to open the public comment session at 10:03 am. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Call upon individuals who have completed and submitted a request card to address the Board of Trustees. There were no public comments.

Motion to close public comment session: A motion was made by Jeff White, seconded by Dan Stewart, to close the public comment session at 10:34 pm. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Board discussion if needed: None.

Adjourn: Jeff White made a motion to adjourn the public hearing at approximately 10:35 am and to convene the regular board meeting. The motion was seconded by Dan Stewart, and approved as follows: Jeff White, yea, Mick Sudbury, yea and Danny Stewart, yea.

Attest:

Chairperson

**MINUTES OF THE
REGULAR MEETING
OF THE BOARD OF TRUSTEES OF
MAGNA WATER DISTRICT**

A regular meeting of the Board of Trustees of the Magna Water District was held Thursday, December 9, 2021, at 10:00 a.m., at the Magna Water District General Office, Kim Bailey Board Room, located at 8885 West 3500 South, Magna, UT.

Trustees Present:

Mick Sudbury, Chairman
Jeff White
Dan Stewart

Staff Present:

Clint Dilley, General Manager
LeIsle Fitzgerald, District Controller
Trevor Andra, District Engineer
Raymond Mondragon, Water Operations Manager
Dallas Henline, Wastewater Operations Manager

Also Present:

Nathan Bracken, Smith Hartvigsen, PLLC
Don Olsen, Epic Engineering
Jason Luettinger, Bowen Collins & Associates
Dan Peay, Magna Metro Township
Joel Workman, AQS, Inc.
Darrell Child, Olympus Insurance
Todd Richards, Magna Resident

Call to Order: Mick Sudbury called the meeting to order at 10:35 am.

Public, Board, Staff join in the Pledge of Allegiance.

Welcome the Public and Guests: Chairman welcomed those in attendance.

Public Comment: None.

Chairman asked if any of the staff or board members had a conflict of interest with anything on this agenda. There were no conflicts of interest.

Approval of Common Consent Items:

Minutes of the regular board meeting held November 30, 2021

Minutes of the election canvass certification board meeting held November 16, 2021.

Expenses for November 11 to November 30, 2021:

General Expenses: \$301,420.88

Project expenses paid by bond proceeds: \$21,153.95
Zions Bank bond payments: \$83,575.62

A motion was made by Jeff White, seconded by Dan Stewart, to approve the minutes of the regular board meeting held November 30, 2021, the minutes of the election canvass certification board meeting held November 16, 2021, and for the approval of the general expenses, project expenses paid by bond proceeds, and the Zions Bank bond payment from November 11 to November 30, 2021, in the amount of \$301,420.88, \$21,153.95, and \$83,575.62, respectively. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart yea, and Jeff White, yea.

Discussion and possible motion to approve Resolution No 2021-05 regarding adoption of the District's Final 2022 Budget: A motion was made by Jeff White, seconded Dan Stewart, to adopt the Resolution 2021-05, regarding the adoption of the 2022 Final Budget of Magna Water District. The motion was approved as follows: Mick Sudbury, yea, Jeff White, yea and Dan Stewart, yea.

Discussion and possible motion to approve the District's 2022 Insurance coverage provider: Clint indicated to the Board that the District has had Olympus Insurance as the insurance provider for the last five – six years. They have been a great value for the District. Management did ask Utah Local Governments Trust to give the District a proposal for insurance purposes this year. As the cost of the premiums are compared and the services offered, Olympus Insurance is the preferred provider. Darrel Child addressed the Board informing the Board that Olympus's process each year to perform an onsite evaluation of the District's facilities. Darrell expressed when the onsite visit is done, they are always impressed with the quality of the management, facilities and the investments that are made from the community to provide very good outcomes to the public from water and sewer services. Olympus updates annually all details that an underwriter would look at, as they evaluate and determine the cost of the insurance. All property schedules, inland marine, and vehicle schedules have been updated. This year the underwriters had a focus in a couple of areas. One was in cyber liability, underwriters evaluated the coverage will address the nature of the risk the District may have, and to ensure the District has protocols and procedures in place to prevent these events. Darrell reported to the Board a very thorough process of that has been completed and reviewed by the insurance company. The insurance underwriter has a very high bar on policy holders that they will accept into the cyber liability insurance program, which the District met the underwriter's standards. Another area of focus is to evaluate the excess liability amount the District has in their insurance policy. Olympus feels the District has adequate excess liability coverage currently. When Clint met with Darrell to review the District's policy, it was brought to his attention, included in the policy is ID fraud protection. This is for any employee/board member of the District, if anyone has an event of ID fraud, they can contact the insurance and can get assistance in working through the details of rectifying their identification compromised by the ID fraud. A motion was made by Jeff White, seconded by Dan Stewart, to approve the District's 2022 insurance coverage provider to be Olympus Insurance. The motion was approved as follows: Jeff White, yea, Mick Sudbury, yea and Dan Stewart, yea.

Discussion on surplus property and possible motion to approve a surplus sale: A motion was made by Jeff White, seconded by Dan Stewart, to approve holding a surplus sale and the

items not sold to be disposed of. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve Change Order #2 for the 2021 Steel Tank & Secondary Clarifier Painting and Repair Project: Trevor presented the Change Order #2 from Golden West Painting to address the corroding structural needing to be repaired. The contractor received two bids from subcontractors to do the work. The change order also extends the contract an additional 28 days. A motion was made by Jeff White, seconded by Dan Stewart, to approve Change Order #2 for the 2021 Steel Tank & Secondary Clarifier Painting and Repair Project in the amount of \$16,000. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve Amendment B to Epic Engineering task order for the 2021 Steel Tank & Secondary Clarifiers Painting and Repair project by \$11,000: A motion by Jeff White, seconded by Dan Stewart, to approve Amendment B to Epic Engineering task order for the 2021 Steel Tank & Secondary Clarifier Painting and Repair Project. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve the 2022 Regular Board Meeting Schedule: A motion was made by Jeff White, seconded by Dan Stewart, to approve the 2022 Regular Board Meeting Schedule. The motion was approved as follows: Mick Sudbury, yea, Dan Tuttle, yea and Jeff White, yea.

Discussion and possible motion to participate in the 2022 Operator's Challenge: Clint indicated with COVID this was put on hold. Dallas indicated there was a meeting held to see how much interest there was in the operator challenge. Dallas wanted to know if the Board would be interested in sending operators for the challenge in 2022. The Board wanted to know what the costs would be to assist in making the decision. The Board wanted to see if the money spent on the operator's challenge would be better spent on training our new employees. A motion was made by Jeff White, seconded by Dan Stewart, to table a decision of participating in the operator's challenge in 2022. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve awarding the Zone 3 Culinary Water Booster Station Pump Upgrade and Zone 3 Secondary Booster Pump Station project to Newman Construction in the amount of \$1,870,480: Trevor indicated this amount includes the bid for moving the stockpile. Further investigation in having Newman move the stockpile (bid schedule C) needs to be performed before its awarded. Staff recommends awarding bid schedules A & B in the amount of \$1,690,480. A motion was made by Jeff White, seconded by Dan Stewart, to award the Zone 3 Culinary Water Booster Station Pump Upgrade and Zone 3 Secondary Booster Pump Station project to Newman Construction in the amount of \$1,690,480. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve Epic Engineering task order for construction management of the Zone 3 Culinary Water Booster Station Pump Upgrade and Zone 3 Secondary Booster Pump Station Project in the amount of \$114,000: A motion was made by Jeff White, seconded by Dan Stewart, to approve the task order from Epic Engineering for construction management on the Zone 3 Culinary Water Booster Station Pump Upgrade and Zone 3 Secondary Booster Pump Station Project in the amount of \$114,000. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve the Fraud Risk Assessment of the District for 2021: LeIsle presented the annual risk assessment that is required to be adopted by the State Auditor's Office. The District is at a score of 325 points which is in the Low Level of Fraud Risk. At the end of 2020 the District was 275. A motion was made by Jeff White, seconded by Dan Stewart, to approve the Fraud Risk Assessment for 2021, the motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Discussion and possible motion to approve the Indigo Water contract proposal for WWTP operations assistance, troubleshooting and training: Dallas indicated would like to enter an agreement with Indigo Water to improving the training material and training sources for our operators. They are a firm that offers trainings on process efficiency and provides training material and possible onsite visits if needed. They have an online portfolio of categorical study information that would be beneficial to both our water and wastewater operators. Clint explained that this agreement comes because Dallas has reached out to a certain person at Indigo on several occasions for guidance who has been happy to aid, however, is looking now to have an agreement with the District to charge the District for additional consultation. Jeff indicated he would like to get a project price for training for each employee and a price breakdown for each of the new employees may need. Jeff indicated he would like to have Dallas determine what could be utilized online versus talking to one individual, or even having an onsite visit from Indigo. Jeff also expressed he felt like building an inhouse library with the money would be beneficial also before entering into a contract.

Report & Discussion from General Manager: Clint indicated that the District has continued the interview process for the wastewater collections position. They interviewed someone this week that seems promising and would like to go to the next step, this prospect has already been on the walk through of the facilities. They would like to move to the background check step. This prospect has mechanical background.

OPERATIONS:

Water: Clint indicated there is some safety training options for the employees that they are investigating. There has been a couple of incidents with equipment operation and can see there is a need for additional safety training.

Wastewater: The backup generator is up and going at the wastewater admin building and have been reviewing fuel storage and budgeting for that. Management feels there is significant deficiency in diesel fuel storage in the event of an emergency. Management is actively investigation a solution for this. The District is currently at an eight-hour storage level and would like to be at least at a 24-hour level. Jeff warned Staff of the bacteria that can grow on fuel storage if it is kept too long.

General Office: Some of the outside lights have been replaced at the general office and changed the style of the lighting in the drive through, that are brighter and have helped with the parking lighting.

Discussion on District's actual vs budget status as of November 30,2021: LeIsle informed the Board the actual vs budget status was provided to the Board. As of November 30,2021, we have an overall net income of about \$6,000,000. Note that \$1,700,000 is noncash revenue from contributed capital from Little Valley Gateway. The other operating income is well above to 2020 due to the hydrant rental and usage. We are 6% lower than 2020 in water sales and 5% below budget. Property tax revenue, we have received almost 85% of the property tax revenue. The overall expenses are below budget, and 14% higher than 2020.

Engineering projects update:

Segment 1a Sewer Project (30" Sewer trunk line): This project is near completion. Whitaker has some manholes that need to be manholes and raise to grade on 21st. They are waiting to complete that until the gas line is complete.

2019 Secondary Water Line Project: The final walk through has been done. Finished all the punch list items, this project is complete.

Water Distribution/Production:

1. Water production report: The culinary water production for November was 98.8 million gallons, an increase of 2.79% from 2020. Year to date production was 1,660.5 million gallons or 5,096.14-acre feet, this is a decrease from YTD 2020 of 11.66%. We have purchased 734.39-acre feet of water from Jordan Valley Water as of November 2021.

2. Call out report: Raymond reported that there was a total of 2 call outs, (1 mainline leaks and 1 miscellaneous) with a total number of 15 hours paid.

WWTP Operation/Collection System:

1. Status of sewer system: Dallas reported Connor McReynolds has passed his Grade IV in Collections this month. There has been no wastewater treatment call outs this month. The status of the plant is great! Samples are good and removal efficiencies are good. We are right where we want to be moving into the cold weather.

Motion to meet immediately in closed session to discuss the character, professional competence, or physical or mental health of an individual, pending or reasonably imminent litigation, and the sale or purchase of real property pursuant to Utah Code Ann. §§ 52-4-204 through 205: Jeff White made a motion to meet immediately in closed session to discuss the character, professional competence, or physical or mental health of an individual, pending or reasonably imminent litigation, and the sale or purchase of real property pursuant to Utah Code Ann. 52-4-204 through 205. The motion was seconded by Dan Stewart, and approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea. The open session of the Board meeting was closed at 12:19 p.m.

Motion to close the closed session and to reopen the open session of the Board Meeting: Jeff White made a motion to close the closed session and reconvene the open session at 1:53 pm. The motion was seconded by Dan Stewart, and approved as follows: Mick Sudbury, yea, Dan Stewart, yea, and Jeff White, yea.

Consider action on any noticed agenda item discussed in closed meeting: Nathan Bracken indicated during the closed session there have been discussion regarding pending litigation and at the last meeting the Board authorized the acceptance of the settlement offer regarding Terry Pollock's employment lawsuit against the District. Katy Steffey, legal counsel with Smith Hartvigsen PLLC, explained the following: As you all know, Terry Pollock brought a lawsuit against the District claiming discrimination and breach of contract. He was seeking \$100,000's. He ended up extending an offer of \$30,000 which would be covered mostly by the District's insurance carrier and then also the District to continue insurance coverage which is something he would be entitled to as a retiring General Manager. That is essentially the terms of the settlement agreement said forth. They have the payment which would be issued by the District and or it's insurer within 21 days from the effective date of the agreement which means if the agreement is signed today, it would be due 21 days from today. Beginning December 1, 2021, and forward until both Terry Pollock and his wife are no longer alive the District would provide the Medicare supplement plan coverage premiums and those are provided as a reimbursement. Terry pays for the premium, and the District will reimburse every month with the first payroll of each month. As a result of this settlement agreement, once the settlement payment is made within three days Mr. Pollock must dismiss the lawsuit and there is a mutual release meaning both parties relieve each other related to any claims regarding Mr. Pollock's employment. The settlement agreement was signed by Terry on 12/08/2021 and if the District signed today, today is the effective date of the agreement. A motion was made by Jeff White, seconded by Mick Sudbury, to approve the proposed agreement between Terry Pollock and the District. The motion was approved as follows: Mick Sudbury, yea, Dan Stewart, yea and Jeff White, yea.

Adjourn: Having no further business to discuss, a motion was made by Jeff White, seconded by Dan Stewart, to adjourn the meeting at 1:56 pm. The motion was approved as follows: Jeff White, yea, Dan Stewart, yea, and Mick Sudbury, yea.

Attest

Chairperson

INVOICE PAYMENTS

MAGNA WATER DISTRICT
INVOICE PAYMENTS
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
12/1/2021	ALPINE SUPPLY	145.36	SUPPLIES FOR BATTERY CONNECTION FOR GENERATORS
12/1/2021	AMAZON CAPITAL SERVICES	60.08	PINE SOL FOR THE JANITORS
12/1/2021	BANKCARD CENTER	139.20	FLOWER PATCH
12/1/2021	BLUE STAKES OF UTAH 811	835.23	BILLABLE E-MAIL NOTIFICATIONS
12/1/2021	DENTAL SELECT	1,376.99	INSURANCE
12/1/2021	OWEN EQUIPMENT	294.82	NOZZLES FOR VAC TRUCK #45
12/1/2021	THE LINCOLN NATIONAL LIFE	602.51	INSURANCE
12/1/2021	USA BLUEBOOK	102.72	NEOPRENE GLOVES
12/1/2021	USA BLUEBOOK	905.65	MARKING WAND
12/2/2021	AIRGAS USA, LLC - CENTRAL DIVISION	50.88	RENATL OF CYLINDERS ACETYLENE & OXYGEN
12/2/2021	AIRGAS USA, LLC - CENTRAL DIVISION	4.24	RENT LARGE ARGON CYLINDER
12/2/2021	ALLSTREAM	2,656.44	TELEPHONE AND DATA
12/2/2021	AQS ENVIRONMENTAL SCIENCE	2,000.00	SEWER CHEMIST CONSULTANT
12/2/2021	BANKCARD CENTER	4,680.00	SHED FOR EDR
12/2/2021	BOWEN COLLINS & ASSOCIATES	817.50	MAGNA REUSE PROJECTS
12/2/2021	CONDIE CONSTRUCTION CO.	1,800.00	REFUND OF HYDRANT METER DEPOSIT
12/2/2021	E.T. TECHNOLOGIES, INC	2,986.58	SLUDGE REMOVAL
12/2/2021	ESRI	2,500.00	ArcGIS ONLINE CREATOR TERM LICENSE
12/2/2021	HARRINGTON INDUSTRIAL PLASTICS	254.71	VALVE FOR CHLORINATION SYSTEM
12/2/2021	IGES, INC.	298.00	MATERIALS SOILS DENSITY TESTING
12/2/2021	J WRIGHT	1,800.00	REFUND OF HYDRANT METER DEPOSIT
12/2/2021	LYNDON JONES CONSTRUCTION	1,800.00	REFUND OF HYDRANT METER DEPOSIT
12/2/2021	MORGAN ASPHALT	87.55	ASPHALT FOR REPAIRS
12/2/2021	NEWMAN CONSTRUCTION	154,766.78	2021 WATER LINES PROJECT
12/2/2021	PITNEY BOWES GLOBAL FINAN SERVICES LLC	190.20	LEASE OF POSTAGE MACHINE
12/2/2021	ROCKY MOUNTAIN POWER CO.,	19.20	POWER WWTP ADMIN OFFICE
12/2/2021	ROCKY MOUNTAIN POWER CO.,	20,677.64	POWER SEWER PLANT
12/2/2021	S & L INC	1,000.00	REFUND OF HYDRANT METER DEPOSIT
12/2/2021	SALT LAKE VALLEY CHEVROLET	251.57	LOWER DOOR HINGE
12/2/2021	STANTEC CONSULTING SERVICES INC.	3,734.00	MAGNA WATER WESTSIDE COLLECTIONS SYSTEM PROJECT
12/2/2021	STANTEC CONSULTING SERVICES INC.	53,892.00	MAGNA WATER WESTSIDE COLLECTIONS SYSTEM PROJECT
12/3/2021	UTAH BROADBAND	499.00	MONTHLY BROADBAND FEE
12/6/2021	ASPHALT MATERIALS, INC.	225.00	CONCRETE FOR REPAIRS
12/6/2021	DIVISION OF DRINKING WATER	1,350.00	CERTIFICATION RENEWAL FOR 9 EMPLOYEES
12/6/2021	ELITE GROUNDS, LLC	226.80	BLOW OUT IRRIGATION SYSTEM
12/6/2021	STANDARD PRINTING COMPANY	2,209.67	PROCESS OF MONTHLY BILLINGS
12/6/2021	WHEELER MACHINERY CO	296.23	SERVICE KIT (INCLUDES ALL FILTERS) FOR MINI EX # 87
12/7/2021	BANKCARD CENTER	34.20	CHRISTMAS PARTY
12/7/2021	BANKCARD CENTER	73.18	BOARD MEETING LUNCHEON
12/7/2021	BANKCARD CENTER	400.00	CHRISTMAS PARTY
12/7/2021	BANKCARD CENTER	400.00	CHRISTMAS PARTY
12/7/2021	BANKCARD CENTER	1,223.80	LONGEVITY AWARDS
12/7/2021	CASH (PETTY)	4.24	WWTP ALUM PUMP DITCH
12/7/2021	CASH (PETTY)	46.44	OCTOBER SAFETY MEETING
12/7/2021	CASH (PETTY)	63.74	LEAK BLAND RECYCLING
12/7/2021	CASH (PETTY)	12.84	TREE WRAP TO KEEP DEER AWAY
12/7/2021	CASH (PETTY)	5.02	GAS #31
12/7/2021	CASH (PETTY)	12.39	GRIP CHAMBER GEAR BOX
12/7/2021	CASH (PETTY)	5.89	#10 DOOR LATCH REPAIR
12/7/2021	CASH (PETTY)	79.00	CDL LICENSE STEVE CLARK
12/7/2021	CASH (PETTY)	29.73	SAFETY MEETING REFRESHMENTS
12/7/2021	CASH (PETTY)	44.18	FITTING FOR 8000 W CONVAULT
12/7/2021	CASH (PETTY)	6.67	ICE FOR SAMPLES
12/7/2021	CASH (PETTY)	45.49	LUNCH FOR CONSTRUCTION CREW
12/7/2021	CASH (PETTY)	200.00	GIFT CARDS FOR PRIZES CHRISTMAS PARTY
12/7/2021	CHEMTECH-FORD	271.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	441.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	206.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	530.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	414.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	206.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	271.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	380.00	WATER SAMPLES
12/7/2021	CHEMTECH-FORD	84.00	WATER SAMPLES
12/7/2021	CHEMTECH-FORD	701.00	WATER SAMPLES
12/7/2021	CHEMTECH-FORD	206.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	300.00	WATER SAMPLES

MAGNA WATER DISTRICT
INVOICE PAYMENTS
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
12/7/2021	CHEMTECH-FORD	271.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	206.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	271.00	WWTP SAMPLES
12/7/2021	CHEMTECH-FORD	206.00	WWTP SAMPLES
12/7/2021	LOWE'S	293.61	J-CHANNEL AND CONCRETE ANCHORS
12/7/2021	LOWE'S	229.62	SEVERAL FLASHLIGHTS FOR #81, TORCHES & MISC TOOLS FOR EDR
12/7/2021	WHEELER MACHINERY CO	427.31	BUCKET REPAIR #84 BACKHOE
12/8/2021	BATTERY SYSTEMS	180.86	2 BATTERIES FOR UNIT #45
12/8/2021	CASH (PETTY)	900.00	4TH QUARTER BOOT DRAW
12/8/2021	CH SPENCER & COMPANY	559.94	SYNTHETIC INDUST. OIL FOR WELLS EDR
12/8/2021	CINTAS 1ST AID	15.91	FIRST AID CABINET EDR
12/8/2021	CINTAS 1ST AID	23.89	FIRST AID CABINET WWTP
12/8/2021	CINTAS 1ST AID	17.74	FIRST AID CABINET SHOP
12/8/2021	CINTAS 1ST AID	18.46	FIRST AID CABINET WWTP OFFICE
12/8/2021	CINTAS 1ST AID	40.19	FIRST AID CABINET OFFICE
12/8/2021	CREATIVE GRAPHICS LLC	1,252.00	POLO SHIRTS
12/8/2021	DATA SERVICES	57.74	DATA SERVICES
12/8/2021	DATA SERVICES	25.00	DATA SERVICES
12/8/2021	E.T. TECHNOLOGIES, INC	2,922.52	SLUDGE REMOVAL
12/8/2021	ERIKS NORTH AMERICA, Inc	19.12	FITTING FOR PORTA POWER RAM
12/8/2021	ERIKS NORTH AMERICA, Inc	266.57	DISCHARGE HOSES AND FITTINGS FOR PUMP
12/8/2021	FASTENAL COMPANY	743.77	STROKE HOLLOW 6-1/2 VISE
12/8/2021	FASTENAL COMPANY	850.00	STROKE HOLLOW 6-1/2 VISE
12/8/2021	FLOORING SERVICES INC.	2,460.00	CARPET FOR OFFICE
12/8/2021	GOLDENWEST PAINTING, INC.	65,397.70	2021 STEEL TANKS PAINTING
12/8/2021	KOMATSU AMERICA CORP.	875.00	DRONE SURVEY
12/8/2021	METERWORKS	2,953.60	3X12 MACH10 METER"
12/8/2021	MORGAN ASPHALT	295.65	ASPHALT FOR REPAIRS
12/8/2021	POLYDYNE INC	16,663.50	CHEMICALS
12/8/2021	SAFETY SUPPLY & SIGN CO.	336.00	MARKING PAINT
12/8/2021	SKM INC.	1,929.13	RETAINAGE HELD
12/8/2021	TEN POINT SALES & MARKETING LLC	84.10	BUSHING & WASHER MAIN ARM CAMERA ELEVATOR TRANSTAR II
12/8/2021	THATCHER COMPANY	3,784.13	CHEMICALS
12/9/2021	BATT, BOB	600.00	PERFORMANCE BONUS
12/9/2021	BECK, SCOTT	575.00	PERFORMANCE BONUS
12/9/2021	CISNEROS, KIM	600.00	PERFORMANCE BONUS
12/9/2021	CLINTON R GILES	600.00	PERFORMANCE BONUS
12/9/2021	DAVIES, BRAD	600.00	PERFORMANCE BONUS
12/9/2021	DAVIS, JON	600.00	PERFORMANCE BONUS
12/9/2021	DELOBEL, DYLLAN	600.00	PERFORMANCE BONUS
12/9/2021	DRAPER, CHET	600.00	PERFORMANCE BONUS
12/9/2021	GLENS KEY INC.	28.68	6 KEYS FOR SEWER PLANT OFFICE
12/9/2021	HARMS, MICHAEL	600.00	PERFORMANCE BONUS
12/9/2021	HUNTER, MATTHEW	600.00	PERFORMANCE BONUS
12/9/2021	LAMPER, BEAU	600.00	PERFORMANCE BONUS
12/9/2021	LONG, JUSTIN	600.00	PERFORMANCE BONUS
12/9/2021	MATT SKOGERBOE	600.00	PERFORMANCE BONUS
12/9/2021	MCREYNOLDS, CONNOR	600.00	PERFORMANCE BONUS
12/9/2021	MIKEY BOONE	575.00	PERFORMANCE BONUS
12/9/2021	RAWSON, TRAVIS	600.00	PERFORMANCE BONUS
12/9/2021	ROBERT JATERKA	600.00	PERFORMANCE BONUS
12/9/2021	RULON HARPER CONSTRUCTION, INC	904.13	2021 PURCHASES FOR GRAVEL & ROADBASE
12/9/2021	STEVE CLARK	600.00	PERFORMANCE BONUS
12/9/2021	SUEZ WTS SOLUTIONS USA, INC	1,980.00	EDR-CATION
12/9/2021	THOMAS PETROLEUM	4,400.33	FUEL FOR WWTP GENERATORS
12/9/2021	TUCKER, NELDON EDWARD	600.00	PERFORMANCE BONUS
12/9/2021	Utah-Idaho Teamsters Security Fund	37,188.00	HEALTH AND WELFARE PREMIUM UNION
12/9/2021	VIRGINIA FISH	500.00	PERFORMANCE BONUS
12/9/2021	Western Conf Teamsters Pension	23,123.40	UNION PENSION CONTRIBUTION
12/9/2021	WHITMORE, AMANDA	600.00	PERFORMANCE BONUS
12/9/2021	WILKO, CAMERON	500.00	PERFORMANCE BONUS
12/10/2021	FERGUSON WATERWORKS #1616	912.69	BLAND RECYCLING JOB
12/10/2021	FERGUSON WATERWORKS #1616	418.50	SUPPLIES 8400 W JOB
12/10/2021	NATIONAL BENEFIT SERVICES, LLC	52.00	HRA PLAN ADMIN FEE
12/10/2021	PURCHASE POWER	555.93	METER/POSTAGE
12/11/2021	ALLSTATE	574.96	OPEB OBLIGATION
12/13/2021	Unified Fire Authority	485.00	HAZMAT PERMIT
12/14/2021	MID ATLANTIC TRUST COMPANY	2,120.20	401K
12/14/2021	PURCELL TIRE COMPANY	19.26	TIRE REPAIR # 3
12/14/2021	SHRED-IT	225.12	SHREDDING SERVICE

MAGNA WATER DISTRICT
INVOICE PAYMENTS
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
12/14/2021	USA BLUEBOOK	393.66	COREPRO SR. 15 SAMPLER & ADD. SECTION"
12/14/2021	VERIZON CONNECT FLEET USA LLC	741.97	GPS MONTHLY CHARGE
12/14/2021	VERIZON WIRELESS	376.25	CELL PHONE SERVICE
12/15/2021	ALLSTAR SERVICE & REPAIR	240.00	REFUND OF OVERPAYMENT
12/15/2021	CINTAS CORPORATION #180	190.15	SHOP/ EDR UNIFORMS AND LINENS
12/15/2021	CINTAS CORPORATION #180	430.22	WWTP UNIFORMS AND LINENS
12/15/2021	CINTAS CORPORATION #180	290.45	WWTP UNIFORMS AND LINENS
12/15/2021	CINTAS CORPORATION #180	171.91	SHOP/EDR UNIFORMS AND LINENS
12/15/2021	CINTAS CORPORATION #180	197.01	SHOP UNIFORMS AND LINENS
12/15/2021	CINTAS CORPORATION #180	101.23	MATS AT DISTRICT OFFICE
12/15/2021	CINTAS CORPORATION #180	337.27	WWTP UNIFORMS AND LINENS
12/15/2021	DATA SERVICES	25.00	DATA SERVICES
12/15/2021	DOMINION ENERGY	72.45	NATURAL GAS 3291 S 8000 W
12/15/2021	DOMINION ENERGY	1,935.06	NATURAL GAS 6850 W 2820 S
12/15/2021	DOMINION ENERGY	240.79	NATURAL GAS 6026 PARKWAY BLVD
12/15/2021	DOMINION ENERGY	646.29	NATURAL GAS 8931 W 3500 S
12/15/2021	DOMINION ENERGY	1,140.16	NATURAL GAS 7650 W 2100 S
12/15/2021	DOMINION ENERGY	346.21	NATURAL GAS 8885 W 3500 S
12/15/2021	E.T. TECHNOLOGIES, INC	2,708.70	SLUDGE REMOVAL
12/15/2021	EVERGREEN BUSINESS SOLUTIONS	37.45	1009 MISC 10 SHEETS WITH ENVELOPES
12/15/2021	FORCE ELECTRIC, LLC	9,250.00	EMERGENCY GENERATOR/PUMP HOUSE
12/15/2021	FORCE ELECTRIC, LLC	360.00	CLEAN OUT HIGH VOLTAGE SWITCH
12/15/2021	FORCE ELECTRIC, LLC	578.00	REMOVE OLD LIGHT BY THE GATE INSTALLED NEW LIGHT
12/15/2021	FUEL NETWORK	5,030.04	VEHICLE FUEL
12/15/2021	GOLDENWEST PAINTING, INC.	42,259.09	2021 STEEL TANKS PAINTING
12/15/2021	HACH COMPANY	3,918.00	SERVICE AGREEMENT FOR C17 MAINTENANCE 2 EDR
12/15/2021	HANSEN ALLEN & LUCE, INC.	868.28	MAGNA WD EMERGENCY RESPONSE PLAN
12/15/2021	IGES, INC.	13,980.00	MAGNA SEWER INFLOW LINE
12/15/2021	IPS	118.80	MONTHLY FEE PAYROLL SERVICES
12/15/2021	JORDAN VALLEY WATER	26,007.17	WATER DELIVERIES
12/15/2021	MORGAN ASPHALT	121.50	ASPHALT FOR REPAIRS
12/15/2021	PREMIER TRUCK GROUP	27.48	AIRLINE FITTINGS FOR #30
12/15/2021	ROCKY MOUNTAIN CARE CLINIC	39.00	POST ACCIDENT DRUG TEST
12/15/2021	S.L.CO. ENGINEERING DIVISION	1,000.00	CONSTRUCTION PERMITS
12/15/2021	SENERGY PETROLEUM	294.15	OIL FOR WELLS EDR
12/15/2021	STANTEC CONSULTING SERVICES INC.	13,083.25	WESTSIDE SEWER COLLECTION SYSTEM SUPPORT
12/15/2021	STANTEC CONSULTING SERVICES INC.	655.00	WATER AND WASTE WATER PROJECT SUPPORT
12/15/2021	STANTEC CONSULTING SERVICES INC.	7,217.00	WESTSIDE SEWER COLLECTION SYSTEM SUPPORT
12/15/2021	STEP SAVER, INC.	276.52	ICE MELT FOR WINTER
12/15/2021	THATCHER COMPANY	6,503.43	CHEMICALS
12/15/2021	VANGUARD CLEANING SYSTEMS	490.00	CLEANING OF OFFICE
12/15/2021	VANGUARD CLEANING SYSTEMS	185.00	CLEANING OF WTP ADMIN
12/15/2021	VANGUARD CLEANING SYSTEMS	408.00	CLEANING OF EDR
12/15/2021	VORTEX COLORADO, INC.	459.00	REPAIRS TO THE OFFICE DOORS
12/16/2021	APA BENEFITS	37.50	RETIREMENT PLAN PARTICIANT FEES
12/16/2021	ASPHALT MATERIALS, INC.	280.00	CONCRETE FOR REPAIRS
12/16/2021	HUBER TECHNOLOGY	2,470.50	GEARBOX FOR GRIT REMOVAL CLASSIFIER
12/16/2021	PURCELL TIRE COMPANY	55.11	TIRE REPAIR ON UNIT #44
12/16/2021	RULON HARPER CONSTRUCTION, INC	579.11	ROAD BASE AND GRAVEL
12/16/2021	RULON HARPER CONSTRUCTION, INC	109.19	GRAVEL & ROADBASE
12/16/2021	RULON HARPER CONSTRUCTION, INC	1,858.42	GRAVEL & ROADBASE
12/16/2021	SAFETY-KLEEN SYSTEMS, INC.	360.28	RECOVERY FEE-16G PARTS WASHER SOLVENT
12/20/2021	ANSERFONE	203.20	NIGHT ANSWERING SERVICE
12/20/2021	CASELLE, INC.	1,800.00	MONTHLY CONTRACT SUPPORT CHARGES
12/20/2021	LOWE'S	113.05	WHEELBARROW- REPLACE BROKEN
12/20/2021	LOWE'S	133.63	SPRAY NOZZLES FOR CLARIFIERS, WATER SOFTNER PELLETS
12/20/2021	LOWE'S	455.34	BATTERIES, SAWZALL BLADES, MISC. SHOP SUPPLIES
12/20/2021	REPUBLIC SERVICES #864	2,425.02	GARBAGE COLLECTION FOR WWTP
12/20/2021	REPUBLIC SERVICES #864	500.25	GARBAGE COLLECTION EDR/SHOP
12/20/2021	RICOH USA , INC	204.48	PRINTER AT ADMINISTRATION OFFICE
12/20/2021	RICOH USA , INC	60.00	PRINTER AT ADMINISTRATION OFFICE
12/20/2021	ROCKY MOUNTAIN POWER CO.,	17,953.81	POWER BARTON WELLS 1&2
12/20/2021	ROCKY MOUNTAIN POWER CO.,	1,034.34	POWER HAYNES WELLS
12/20/2021	STAPLES BUSINESS CREDIT	27.90	TOILET PAPER
12/20/2021	STAPLES BUSINESS CREDIT	4.15	LENSE CLEANERS OFFICE
12/20/2021	STAPLES BUSINESS CREDIT	157.54	BLACK TONER WWTP
12/20/2021	STAPLES BUSINESS CREDIT	41.48	DIXIE ULTRA BOWLS
12/20/2021	STAPLES BUSINESS CREDIT	64.10	BATTERY BACKUP VIRGINIA
12/20/2021	STAPLES BUSINESS CREDIT	1.74	BATTERY 12V ALK - OPENERS FOR WWTP
12/21/2021	ROCKY MOUNTAIN POWER CO.,	919.55	POWER SHOP PUMP HOUSE

MAGNA WATER DISTRICT
INVOICE PAYMENTS
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
12/21/2021	ROCKY MOUNTAIN POWER CO.,	18.76	POWER BACCHUS TANKS
12/21/2021	ROCKY MOUNTAIN POWER CO.,	283.71	POWER CEMENT BLDG SHOPS
12/21/2021	ROCKY MOUNTAIN POWER CO.,	1,439.78	POWER 7600 W RESERVOIR
12/27/2021	WEST VALLEY CITY	130.20	STORMWATER AT EDR
12/28/2021	ALLRED'S INC.	399.81	AIR FILTERS WWTP
12/28/2021	BOB'S BELT SERVICE	436.59	HEAVY DUTY HOSES WWTP
12/28/2021	BOWEN COLLINS & ASSOCIATES	3,209.50	MAGNA REUSE PROJECTS
12/28/2021	CONDIE CONSTRUCTION COMPANY	316,340.70	SECONDARY WATERLINE PROJECT
12/28/2021	E.T. TECHNOLOGIES, INC	2,984.53	SLUDGE REMOVAL
12/28/2021	E.T. TECHNOLOGIES, INC	2,433.89	SLUDGE REMOVAL
12/28/2021	EPIC ENGINEERING, P.C.	78.00	GATEWAY TO LITTLE VALLEY ENGINEERING
12/28/2021	EPIC ENGINEERING, P.C.	3,224.10	GATEWAY TO LITTLE VALLEY SECONDARY
12/28/2021	EPIC ENGINEERING, P.C.	8,957.25	2020 WATERLINE REPLACEMENTS
12/28/2021	EPIC ENGINEERING, P.C.	312.00	QUICK QUACK WEST VALLEY
12/28/2021	EPIC ENGINEERING, P.C.	343.00	GATEWAY TO LITTLE VALLEY PHASE 1 AND 2
12/28/2021	EPIC ENGINEERING, P.C.	1,200.00	ZONE 3 TANK CONSTRUCTION INSPECTION
12/28/2021	EPIC ENGINEERING, P.C.	374.00	MAGNA GENERAL ENGINEERING 2021
12/28/2021	EPIC ENGINEERING, P.C.	3,516.90	JACOBSEN WAREHOUSE SEWER
12/28/2021	EPIC ENGINEERING, P.C.	1,031.28	QUICK QUACK SEWER
12/28/2021	EPIC ENGINEERING, P.C.	7,560.00	2021 TANK PAINTGING & REPAIRS
12/28/2021	EPIC ENGINEERING, P.C.	2,475.00	TRUCK GARAGE AND SAND BINS
12/28/2021	EPIC ENGINEERING, P.C.	2,535.00	ZONE 3 SECONDARY STORAGE RESERVOIR PRELIMINARY DESIGN
12/28/2021	EPIC ENGINEERING, P.C.	2,130.00	ZONE 3 CULINARY BOOSTER PUMP UPSIZING
12/28/2021	MCREYNOLDS, CONNOR	250.00	GRADE IV DIST. CERT.
12/28/2021	METERWORKS	5,808.00	NEPTUNE 360 ADVANCED AMR MODULE ANNUAL SUBSCRIPTION
12/28/2021	MID ATLANTIC TRUST COMPANY	2,120.20	401K
12/28/2021	MORGAN ASPHALT	170.91	ASPHALT FOR REPAIRS
12/28/2021	REGENCE BCBS OF UTAH	336.00	OPEB OBLIGATION
12/28/2021	REGENCE BCBS OF UTAH	336.00	OPEB OBLIGATION
12/28/2021	ROCKY MOUNTAIN CARE CLINIC	55.00	DOT PHYSICAL
12/28/2021	ROCKY MOUNTAIN POWER CO.,	410.39	POWER BOOSTER STATION
12/28/2021	ROCKY MOUNTAIN POWER CO.,	81.58	POWERSECONDARY WATER PUMP
12/28/2021	ROCKY MOUNTAIN POWER CO.,	225.31	POWER 8885 W 3500 S
12/28/2021	SKM INC.	4,124.20	SCADA MAINTENANCE SEWER SYSTEM
12/28/2021	SKM INC.	207.50	SCADA SERVER SECURITY UPDATES AND REBOOTS
12/28/2021	WHITAKER CONSTRUCTION CO, INC	365,208.50	WESTSIDE COLLECTIONS
12/29/2021	AIRGAS USA, LLC - CENTRAL DIVISION	50.88	RENATL OF CYLINDERS ACETYLENE & OXYGEN
12/29/2021	AIRGAS USA, LLC - CENTRAL DIVISION	4.24	RENT CYLINDRRS
12/29/2021	ALLSTREAM	2,694.46	TELEPHONE AND DATA
12/29/2021	ASPHALT MATERIALS, INC.	280.00	CONCRETE FOR SHED PAD EDR
12/29/2021	ATS	2,740.50	CHEMICALS
12/29/2021	FEDEX	6.96	SHIPPING FOR WWTP
12/29/2021	INDEED, INC	548.77	DECEMBER 2021 SPONSORED JOBS ON INDEED
12/29/2021	THATCHER COMPANY	7,291.00	CHEMICALS
12/29/2021	THATCHER COMPANY	6,253.98	CHEMICALS
12/29/2021	THATCHER COMPANY	(7,500.00)	CHEMICALS
12/30/2021	BLUE STAKES OF UTAH 811	865.90	BILLABLE E-MAIL NOTIFICATIONS
12/31/2021	INDEED, INC	112.82	SPONSORED JOBS ON INDEED.COM
1/3/2022	DENTAL SELECT	1,376.99	INSURANCE
1/3/2022	UTAH BROADBAND	499.00	MONTHLY BROADBAND FEE
1/4/2022	GRASS MASTERS INC	6,036.62	ACCORD & SATISFACTION
1/4/2022	KC LOGISTICS,LLC & GRASS MASTERS	27,382.50	MATERIAL HAUL
1/4/2022	ROCKY MOUNTAIN POWER CO.,	38.69	POWER 7764 W 2100 S
1/4/2022	ROCKY MOUNTAIN POWER CO.,	22,675.12	POWER 7764 W 2100 S
1/5/2022	AQS ENVIRONMENTAL SCIENCE	2,000.00	SEWER CHEMIST CONSULTANT
1/5/2022	BIG D CONSTRUCTION CORP	1,800.00	REFUND OF HYDRANT DEPOSIT
1/5/2022	BOWEN COLLINS & ASSOCIATES	16,172.25	2019 SECONDARY WATERLINE PROJECT ENGINEERING DESIGN
1/5/2022	CINTAS 1ST AID	34.84	FIRST AID CABINET WWTP
1/5/2022	CINTAS 1ST AID	22.90	FIRST AID CABINET WWTP OFFICE
1/5/2022	CINTAS 1ST AID	4.88	FIRST AID CABINET EDR
1/5/2022	CINTAS 1ST AID	41.07	FIRST AID CABINET OFFICE
1/5/2022	CINTAS 1ST AID	13.91	FIRST AID CABINET SHOP
1/5/2022	E.T. TECHNOLOGIES, INC	626.24	SLUDGE REMOVAL
1/5/2022	EVERYDAY EXCAVATORS LLC	1,800.00	REFUND OF HYDRANT DEPOSIT
1/5/2022	FORCE ELECTRIC, LLC	2,490.00	RETROFIT 16 CAN LIGHTS AT OFFICE
1/5/2022	FUEL DISPENSING NETWORK	7,572.51	VEHICLE FUEL
1/5/2022	HUNTER, MATTHEW	250.00	GRADE IV DIST. CERT.
1/5/2022	I-D ELECTRIC COMPANY	222.54	SERVICE CALL TO WEG VFD
1/5/2022	LONESTAR BUILDERS	1,800.00	REFUND OF HYDRANT DEPOSIT
1/5/2022	MAYOR FINANCIAL ADMINISTRAION	17,586.00	ELECTION MATERIALS

MAGNA WATER DISTRICT
INVOICE PAYMENTS
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
1/5/2022	NATIONAL BENEFIT SERVICES, LLC	27,750.00	2022 HRA FUNDS
1/5/2022	PURCELL TIRE COMPANY	783.68	TIRE REPLACEMENT FOR UNIT # 3
1/5/2022	REGENCE BCBS OF UTAH	(24.48)	PROCESSING FEE
1/5/2022	REGENCE BCBS OF UTAH	9,390.24	INSURANCE
1/5/2022	RHINEHART OIL COMPANY	1,197.60	MOBILE SHC626 FOR MAIN PUMPS AT EDR
1/5/2022	ROCKY MOUNTAIN CARE CLINIC	55.00	PRE EMPLOYMENT EXAM
1/5/2022	STANDARD PRINTING COMPANY	2,639.01	PROCESS OF MONTHLY BILLINGS
1/5/2022	TC SALES & SERVICE	7,393.47	CHOPPER PUMP PARTS FOR EAST INFLUENT
1/5/2022	TC SALES & SERVICE	909.04	GUIDE SHOE BRACKET
1/5/2022	TC SALES & SERVICE	3,546.78	CHOPPER PUMP PARTS UPPER SEALS
1/5/2022	TC SALES & SERVICE	3,546.78	INFLUENT CHOPPER PUMP REPAIR
1/5/2022	TC SALES & SERVICE	30,094.00	VAUGHN MODEL S6U-118 SUBMERSABLE CHOPPER
1/5/2022	THE SAFETY CONSORTIUM	229.75	FLAGGER TRAINING
1/5/2022	THE SALT LAKE TRIBUNE	315.20	LEGAL NOTICE
1/5/2022	THE SALT LAKE TRIBUNE	47.90	ELECTION RESULTS
1/5/2022	THE SALT LAKE TRIBUNE	51.20	NOTICE OF PUBLIC HEARING
1/5/2022	WHITAKER CONSTRUCTION	1,800.00	REFUND OF HYDRANT DEPOSIT
1/5/2022	WHITMORE, AMANDA	2,031.88	TUITION REIMBURSEMENT
1/6/2022	AWWA	89.00	MEMBERSHIP
1/6/2022	AWWA	89.00	MEMBERSHIP
1/6/2022	CRUS OIL INC./QUALCO	95.96	AIR FILTER # 44
1/6/2022	FEDEX	15.34	SHIPPING CHARGES
1/6/2022	GOC TECHNOLOGIES	3,005.53	CHEMICALS
1/6/2022	UNITED LABORATORIES	683.56	DISENFECTION SPRAY WITH GUN & SANITIZER
		\$ 1,598,627.85	

MAGNA WATER DISTRICT
INVOICE PAYMENTS PAID BY BOND PROCEEDS
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
		\$ -	

MAGNA WATER DISTRICT
ZIONS BANK BOND PAYMENT
12/1/2021 TO 1/6/2022

Check Issue Date	Payee	Amount	Description
12/8/2021	ZIONS FIRST NATIONAL BANK	83575.62	5436869-BOND SER 2013
1/5/2022	ZIONS FIRST NATIONAL BANK	83575.62	5436869-BOND SER 2013
		\$ 167,151.24	

EMERGENCY RESPONSE PLAN



CULINARY WATER SYSTEM EMERGENCY RESPONSE PLAN

(HAL Project No.: 023.10.201)

DECEMBER 2021

MAGNA WATER DISTRICT

Emergency Response Plan 2021 Update

(HAL Project No.: 023.10.201)



**Lance Nielsen, P.E.
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December 2021

ACKNOWLEDGEMENTS

Successful completion of this Emergency Response Plan was made possible by the cooperation and assistance of many individuals, including the Magna Water District personnel as shown below. We sincerely appreciate the cooperation and assistance provided by these individuals.

Magna Water District

General Manager
Clint Dilley

Board of Directors
Mick Sudbury, Chairman
Jeff White
Dan L. Stewart

District Staff

Trevor Andra, District Engineer
Raymond Mondragon, Water Operations Manager
Dallas Henline, Wastewater Operations Manager
Leisle Fitzgerald, District Controller

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APPENDIX A

Risk and Resilience Assessment / Emergency Response Plan
Electronic Certification Process

APPENDIX B

Risk and Resilience Assessment
Summary of Countermeasure Recommendations

APPENDIX C

Equipment List for Gas Card

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EXECUTIVE SUMMARY

PURPOSE

This document contains all the required information for the Magna Water District to meet America's Water Infrastructure Act (AWIA) requirements, outlined in [CHAPTER 1](#), for the Emergency Response Plan (ERP).

An emergency can occur at any time and without warning. Proper planning is essential to minimize the impacts of any emergency that affects the District's ability to provide safe and reliable drinking water to residents of the Magna Metro Township, and portions of West Valley City and Salt Lake City. This plan is intended to supplement and work concurrently with the District's Risk and Resilience Assessment, completed in June 2021. The EPA requires the Emergency Response Plan and the Risk and Resilience Assessment to be updated at least once every 5 years. [APPENDIX A](#) contains instructions for the self-certification process, which is to be completed when updates are made.

HOW TO USE THIS DOCUMENT

This document is written in a "Rip and Run" style for ease of use during an emergency. Chapters and sections are intended to be used as stand-alone documents and may be placed in locations like pump and well houses, as seen fit. References to other sections, including entries in the Table of Contents, are included as hyperlinks so digital readers may easily navigate the document. Contact information found throughout the document is also hyperlinked for ease of use.

[CHAPTER 4](#) and [CHAPTER 5](#) contain specific steps for the water department to follow during emergency events. These steps are written as bullet points with hollow leaders so they may be "checked-off" when complete. During an emergency planning event, response leaders should review the included steps and select which steps are relevant for the needed response strategy. These response strategies are organized to be consistent with the Federal Emergency Management Agency (FEMA) Incident Command System (ICS) layout.

This document is intended to be updated at least once every 5 years. Items such as contact information, equipment inventories, system components, and personnel rosters change over time. These changes, and any updates to the included response strategies, should be reflected in this document when it is updated. Much of the information contained in this document is confidential and should be treated as such.

CHAPTER 1 – INTRODUCTION

BACKGROUND

Magna Water District (the District) operates and maintains a community public drinking water system (CWS) that serves approximately 32,000 people in the Magna Metro Township, and portions of West Valley City and Salt Lake City, Utah. The drinking water system consists of distribution pipelines, fire hydrants, mainline valves, 10 operational wells, 2 active connections to Jordan Valley Water Conservancy District, 8 water storage tanks, 1 Electrodialysis Reversal (EDR) Treatment Plant, and 4 active booster stations, servicing three pressures zones.

AMERICA'S WATER INFRASTRUCTURE ACT REQUIREMENTS

On October 23, 2018, America's Water Infrastructure Act (AWIA) was signed into law (P.L. 115 – 270). AWIA is an update to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act) (P.L. 107 – 188) with additional emphasis on cyber security, natural hazards, financial infrastructure, and automated systems. Following the completion of the Risk and Resilience Assessment (RRA), community water systems are required to prepare or revise an Emergency Response Plan (ERP) that incorporates the findings of the assessment. Satisfactory Emergency Response Plans, as described by the Environmental Protection Agency (EPA), include the following elements:

1. Strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system;
2. Plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water;
3. Actions, procedures and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes and construction of flood protection barriers; and
4. Strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.

AWIA requires community water systems to certify that they have completed an ERP which incorporates the findings from the Risk and Resilience Assessment and meets the criteria outlined above. The ERP certification deadline is no later than six months after certifying completion of the risk and resilience assessment, which is December 31, 2021. AWIA also requires community water systems to review the ERP at least once every 5 years.

EMERGENCY RESPONSE TEAM

The function and objective of the Emergency Response Plan Team is to gather, analyze, and document necessary data to complete a satisfactory Emergency Response Plan and ultimately document procedures and protocols the District can implement to respond to an emergency that threatens the ability to provide safe, reliable drinking water. The ERP Team is composed of District personnel and the consultant completing the report. A list of the ERP team members is included below.

Magna Water District
Clint Dilley, General Manager
Trevor Andra, District Engineer
Raymond Mondragon, Water Operations Manager
Dallas Henline, Wastewater Operations Manager
Leisle Fitzgerald, District Controller

Hansen, Allen, & Luce, Inc.
Lance Nielsen, Project Manager / Project Engineer
Stephen Marginson, Project Analyst
Tyler Daynes, Project Analyst

CHAPTER 2 – UTILITY INFORMATION

UTILITY OVERVIEW

Table 2-1 includes basic information about the Magna Water District

Table 2-1: Background Information

Utility Information	
PWSID	18014
Utility Name and Address	Magna Water District 8885 West 2500 South Magna, UT 84044
Total Population Served and Total Service Connections (2021)	32,000 population 10,000 ERCs
Primary Contact	Clint Dilley, General Manager 801-250-2118 , EXT 121
Alternate Contact	Trevor Andra, District Engineer 801-250-2118 , EXT 106

PERSONNEL INFORMATION

Table 2-2 contains the personnel roster for the District.

Table 2-2: Personnel Roster

Employee (Last, First)	Extension	Phone Number	Alternate Contact	Email
Andra, Trevor	106	801-231-4249		trevor@magnawater.com
Batt, Bob	120	801-703-3997	801-250-5318	bob@magnawater.com
Beck, Scott	N/A	801-652-8486		scott@magnawater.com
Boone, Mikey	102	801-916-0165	801-563-3975	mikey@magnawater.com
Cisneros, Kim	110	385-210-8999		kimc@magnawater.com
Clark, Steve	117	801-573-4945	435-884-3499	stevec@magnawater.com
Davis, Jon	116	801-718-5395		jjdavis82174@gmail.com
Davies, Brad	116	801-750-6560		bradandpauline@msn.com
Delobel, Dyllan	N/A	801-859-5314		dylland@magnawater.com
Dilley, Clint	121	801-707-1266	801-696-0400	clintd@magnawater.com
Draper, Chet	N/A	801-935-0277		chettd@magnawater.com
Fish, Virginia	100	801-824-2246		virginia@magnawater.com
Fitzgerald, Lelsle	107	801-910-9213		leisle@magnawater.com
Fuchs, Easton	N/A	801-913-8575		eastonfuchs@gmail.com
Giles, Clint	111	801-548-0344		clintg@magnawater.com

Employee (Last, First)	Extension	Phone Number	Alternate Contact	Email
Harms, Mike	N/A	801-856-1782		m_harms84@outlook.com
Henline, Dallas	108	801-864-3255		dallas@magnawater.com
Hunter, Matt	N/A	801-898-1616		huntermatthewm@gmail.com
Jaterka, Rob	N/A	801-232-9930	435-884-0225	rob@magnawater.com
Lamper, Beau	112	801-633-5873		beau@magnawater.com
Long, Justin	N/A	801-910-0513	801-252-1372	justin@magnawater.com
McReynolds, Connor	N/A	702-439-1975		connor796@gmail.com
Mondragan, Raymond	105	801-910-9210	801-969-3472	raymond@magnawater.com
Rawson, Travis	N/A	801-647-3068		Travis.rawson23@gmail.com
Skogerboe, Matt	114	801-910-9216	801-252-1857	matt@magnawater.com
Tucker, Ed	115	435-224-3108	435-843-5795	ed@magnawater.com
Wachter, Kirk	N/A	801-518-4534		kirkwachter42@gmail.com
Wilko, Cameron	N/A	801-554-6407		Wilkocameron35@gmail.com
Whitmore, Mandy	118	801-870-6674		mandy@magnawater.com

PRIMARY UTILITY COMPONENTS

Tables 2-3 through 2-7 list the critical assets in the drinking water system. These assets include wells, storage tanks, booster stations, and chemical treatment facilities used in the water system. Figure 2-1 shows a map of the drinking water system.

Table 2-3: Wells

Well Name	Well Field Location	Available Yield	Area Served
Barton No. 1	2690 S 6750 W Magna, UT	1,100 gpm	Entire System
Barton No. 2	2690 S 6750 W Magna, UT	1,200 gpm	Entire System
Barton No. 3	2690 S 6750 W Magna, UT	850 gpm	Entire System
Barton No. 4	2690 S 6750 W Magna, UT	1,200 gpm	Entire System
Barton No. 5	2690 S 6750 W Magna, UT	1,200 gpm	Entire System
Haynes No. 2	6102 W Parkway Blvd. Magna, UT	1,000 gpm	Entire System
Haynes No. 4	6102 W Parkway Blvd. Magna, UT	1,500 gpm	Entire System

Well Name	Well Field Location	Available Yield	Area Served
Haynes No. 7	6102 W Parkway Blvd. Magna, UT	2,200 gpm	Entire System
Haynes No. 8	6102 W Parkway Blvd. Magna, UT	800 gpm	Entire System
Haynes No. 9	6102 W Parkway Blvd. Magna, UT	1,000 gpm	Entire System

Table 2-4: JWWCD Connections

Intake Name	Location	Capacity	Area Served
7600 West JWWCD Connection	7600 W 4100 S Magna, UT	Historical Usage less than 510 gpm, preferred connection	Entire System
7200 West JWWCD Connection	7200 W 4100 S Magna, Ut	Unknown Capacity, non-preferred connection	Entire System

Table 2-5: Treatment Plants

Plant Name	Location	Area Served	Treatment Train
EDR Treatment Plant	2690 S 6750 W Magna, UT	Entire System	Source water from Haynes and Barton Well Fields. Brine discharges to wastewater treatment plant

Table 2-6: Storage and Distribution System

Component	Location	Area Served	Comments
3500 South Facility	3500 S 8885 W Magna, UT	Zone 1	Two tanks, 0.5 MG and 1.5 MG
4100 South Facility	4100 S 8400 W Magna, UT	Zone 2 & Zone 3	Three tanks, 0.5 MG, 2.0 MG, and 8.0 MG. One pumping station to Zone 3, 340 gpm capacity. No emergency backup power
4120 Bacchus Highway Facility	4120 Bacchus Highway Magna, UT	Zone 3	Two tanks, 0.75 MG and 0.5 MG
8000 W Booster	3291 S 8000 W Magna, UT	Zone 2	Pumping station to Zone 2, 2,800 gpm capacity. Backup power generator on site
EDR Treatment Plant	2690 S 6750 W Magna, UT	Zone 1 & Zone 2	One 0.7 MG storage tank and booster station. 1,750 KW of backup power
Valley Forge Facility	3922 S Valley Forge Rd Magna, UT	Zone 1	One 5.0 MG tank. Pumping stations (2500 gpm capacity) pump tank to the 4100 S Facility. 1,125 KW of backup power

Table 2-7: City Buildings

Facility	Location	Function	Comments
Magna Water District Office	8885 W 3500 S Magna, UT 84044	Administrative Office	Will serve as Emergency Operations Center during an emergency
Waste Water Treatment Plant Admin Building	7650 W 2100 S Magna, UT 84044	Administrative Office for the Wastewater Treatment Plant	Contains some equipment used by the department

EQUIPMENT AND MATERIALS

Tables 2-8 through 2-12 contain equipment and materials that can be used in an emergency response. These items include safety materials, power tools, generators, vehicles, keys, and hand tools. A full inventory of vehicle equipment is included in Appendix C.

Table 2-8: Safety Materials

Material	Items	Location
Toxic material detection and testing supplies	2 carbon monoxide oxygen explosive H ₂ S testers / 1 carbon monoxide oxygen explosive H ₂ S tester	3500 South Facility Shop (8885 W 3500 S) / Wastewater Treatment Plant (7650 W 2100 S)
Emergency Water Supply	Bottled water	3500 South Facility Shop (8885 W 3500 S)
Mobile emergency drinking water trailer	1600-gallon mobile drinking water trailer	Barton Well Fields (6750 W 2690 S)
Personal Protective Equipment (PPE)	Hard Hats, Safety Glasses, Gloves, Safety Vests	3500 South Facility Shop (8885 W 3500 S) / WWTP Admin Building (7764 W 2100 S)

Table 2-9: Heavy Machinery

Resource	Type	Quantity	Location
Generator	Power Plus	3	3500 South Facility Shop (8885 W 3500 S)
Fuel Tanks	5 gal Diesel (4) 5 gal Gas (3)	7	3500 South Facility Shop (8885 W 3500 S)
Portable Pumps	1-6" Diesel, 2-4" Gas, 2-3" Gas, 2-2" Gas, 2-1" Gas	9	3500 South Facility Shop (8885 W 3500 S)
Backup Generators	Diesel	3	Barton Well Field (2690 S 6750 W) EDR Treatment Plant (2690 S 6750 W) 8000 Booster (3291 S 8000 W)

Resource	Type	Quantity	Location
EDR Treatment Plant Fuel Tank	2000 gal Diesel	1	2690 S 6750 W
Valley Forge Facility Fuel Tank	2000 gal Diesel	1	3922 S Valley Forge Rd
Haynes Well Field Fuel Tank	1000 gal Diesel	1	6102 W Parkway Blvd
8000 W Booster Fuel Tank	1000 gal Diesel	1	3291 S 8000 W
3500 South Facility Fuel Tank	300 gal Diesel	1	8885 W 3500 S
Waste Water Equipment			
Pump	1,000-gallon fuel vault hooked to generator	1	WWTP (7650 W 2100 S)
Backup Generator	Diesel powered backup	3	WWTP (7650 W 2100 S)
Fuel Tanks	Diesel 5 gal (2) Gas 5 gal (2)	4	WWTP (7650 W 2100 S)

Table 2-10: Vehicles

Model and Description	Year	Make	Driver	Key Location
F-350	2016	Ford	N/A	
F-550 Service Truck	2013	Ford	N/A	
F-750 Service Truck	2007	Ford	Bob Batt	3500 S Shop
Silverado 1500 Crew	2021	Chevrolet	Jon Davis	3500 S Shop
Silverado 1500 Crew	2021	Chevrolet	Brad Davies	3500 S Shop
Silverado 1500 Crew	2021	Chevrolet	Rob Jaterka	3500 S Shop
Silverado 1500 Crew	2021	Chevrolet	Matt Skogerboe	EDR Plant
Silverado 1500 Crew	2021	Chevrolet	Raymond Mondragon	On person
Silverado 1500 Crew	2021	Chevrolet	Dallas Henline	On person
Silverado 2500HD	2007	Chevrolet	N/A	
Silverado 3500 Crew	2021	Chevrolet	Steve Clark	3500 S Shop
Silverado 3500 Crew	2021	Chevrolet	Construction Crew	3500 S Shop
Silverado 3500 Crew	2021	Chevrolet	Bob Batt	3500 S Shop

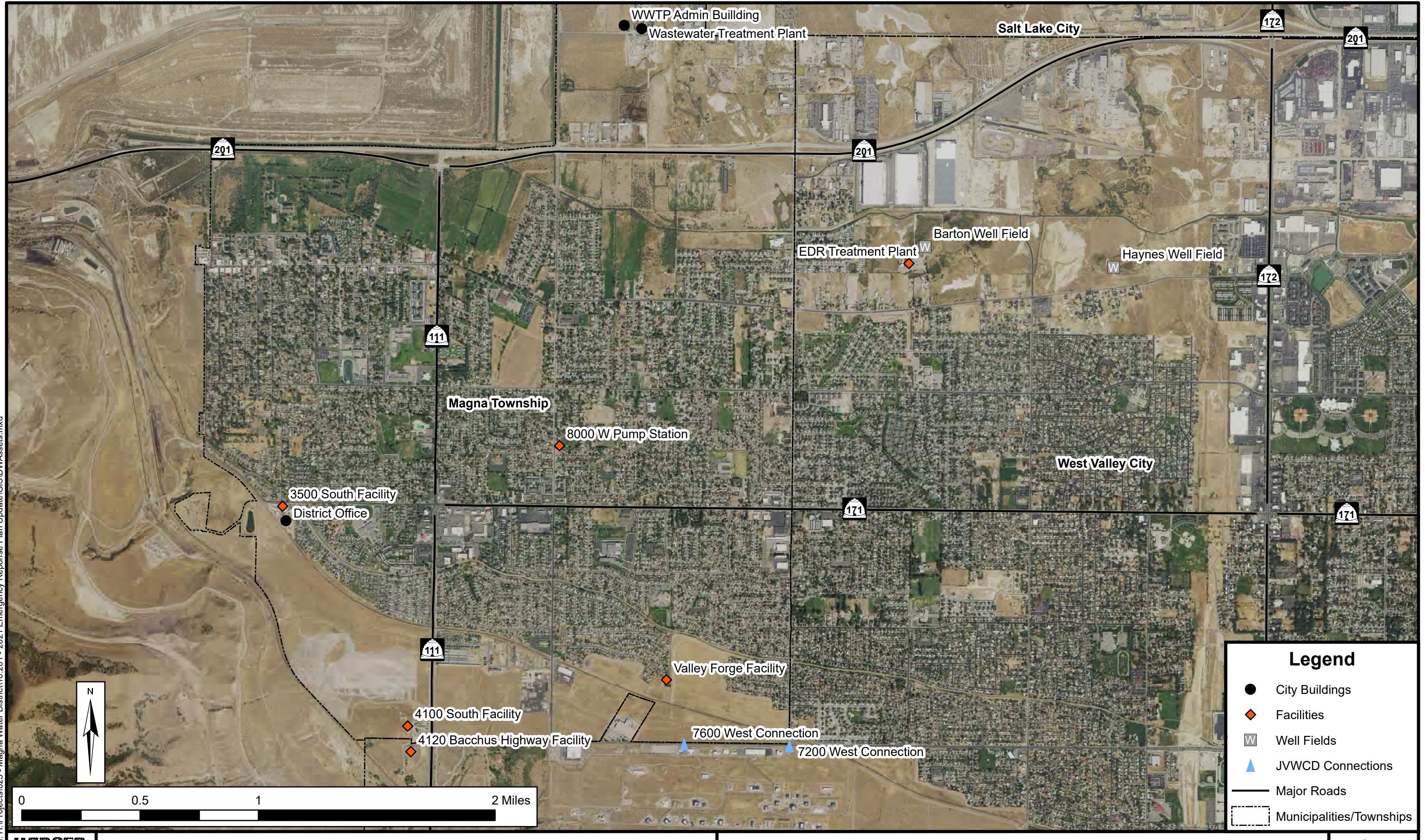
Model and Description	Year	Make	Driver	Key Location
Traverse	2021	Chevrolet	Clint Dilley	On person
Traverse	2021	Chevrolet	Trevor Andra	On person
Waste Water Vehicles				
GMC Canyon	2009	GMC	N/A	WWTP
Silverado 1500 Crew	2021	Chevrolet	Beau Lamper	WWTP
Silverado 1500 Crew	2021	Chevrolet	Clint Giles	WWTP
Silverado 1500 Crew	2021	Chevrolet	Sewer Crew	WWTP

Table 2-11: Keys

Building	Type of Key	Employees with Access	Spare Key Location(s)	
EDR Treatment Plant	Keys & Key Card	Clint, Raymond, Steve, Matt, John, Brad	3500 South Facility	
Pump Station 1	Keys	All employees	3500 South Facility	
Well House 1	Keys	All employees	3500 South Facility	
Waste Water Keys				
WWTP Admin Building	Keys	Dallas, Clint D, Beau, Clint G	WWTP Admin Building	
WW Treatment Plant	Keys	All WW employees	WW Treatment Plant	

Table 2-12: Other Equipment

Kind	Type	Quantity	Location
Chainsaw	Gas powered	1	3500 S Facility
Road Salt	50 lb. bags	150	3500 S Facility
Shovel	Trench Shovel	20	All Trucks and Shop
Water Jug	5 Gallon Jug	3	3500 S Facility



CHAPTER 3 – RESPONSE ROLES

INCIDENT COMMAND SYSTEM ROLES

The Incident Command System (ICS), developed by FEMA, is widely used among private business and public entities in emergency situations. Figure 3-1 shows the general layout of the ICS layout. Employee assignments are identified in Table 3-1. The ICS layout is designed to be flexible, as different incidents require different response strategies and personnel. All ICS roles do not need to be filled for each incident, and positions may be reassigned as-needed.

Figure 3-1: ICS Incident Organization Chart

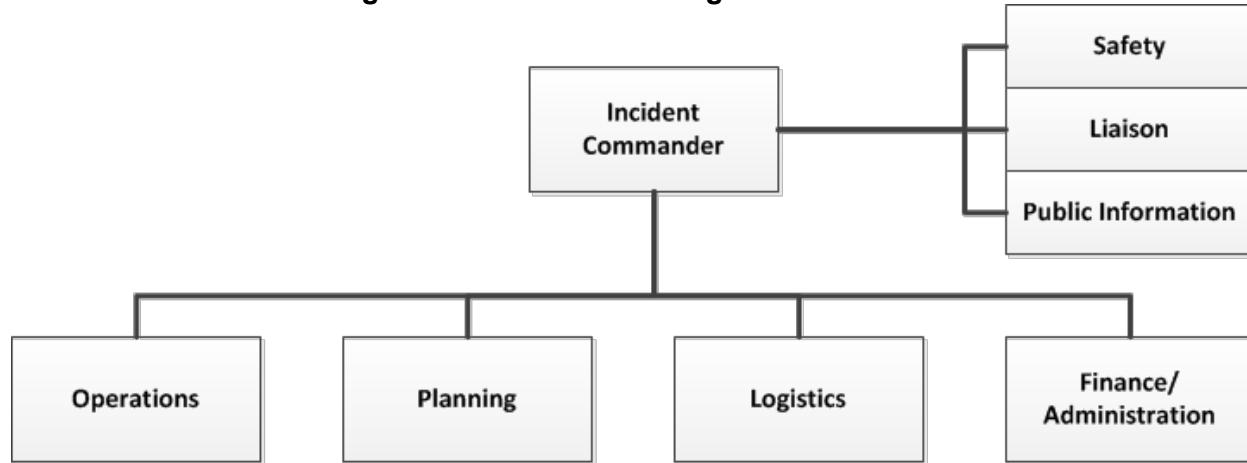


Table 3-1: ICS Roles

ICS Position	Employee	Department Position	Extension	Phone Number
Incident Commander	Clint Dilley	Manager	121	801-707-1266
Safety Officer	Raymond Mondragon	Water Op. Manager	105	801-910-9210
Liaison Officer	Clint Dilley	Manager	121	801-707-1266
Public Information Officer	Trevor Andra	Engineer	106	801-231-4249
Operations Section Chief	Raymond Mondragon	Water Op. Manager	105	801-910-9210
Planning Section Chief	Trevor Andra	Engineer	106	801-231-4249
Logistics Section Chief	Lelsle Fitzgerald	Controller	107	801-910-9213
Finance/Admin Section Chief	Lelsle Fitzgerald	Controller	107	801-910-9213

INCIDENT COMMAND SYSTEM ROLE DEFINITIONS

The next section will offer a brief explanation of the duties for each ICS position. For more information, refer to <https://www.ready.gov/incident-management> or other appropriate FEMA documents, such as [ICS Form 300](#). With larger teams, employees can be assigned to the four different sections to assist the section chiefs with their responsibilities.

Incident Commander

The Incident Commander is the head of the response team. They assume all responsibilities of any ICS positions which are not filled during an emergency. The main role for the Incident Commander is to communicate with the ICS leaders and delegate tasks. The Incident Commander must approve of any communication with the public and will supervise the ICS positions which are directly under their jurisdiction.

Safety Officer

The Safety Officer is responsible for ensuring the safety of all responders. They are responsible for identifying hazardous situations and preventing accidents from occurring.

Liaison Officer

The Liaison Officer is the main point of contact for external emergency response agencies. They are responsible for communicating with other response teams, emergency responders, law enforcement, and any other external organization involved in the emergency response.

Public Information Officer

The Public Information Officer is responsible for communicating with the public and media. Any news release or notice must have the Incident Commander's approval before it is released.

Operations Section Chief

The Operations Section Chief is responsible for overseeing tactical operations during the event. They are responsible for overseeing the use of equipment and materials and must keep close communication with the Incident Commander and Safety Officer.

Planning Section Chief

The Planning Section Chief is responsible for conducting and facilitating meetings during the emergency. They are responsible for creating alternative strategies and plans, assessing current and potential impacts of the emergency, and compiling status information.

Logistics Section Chief

The Logistics Section Chief is responsible for providing resources for responding personnel. Similar to the Operations Section Chief, these responsibilities include tracking the use of equipment and materials, assessing ongoing needs of staff (equipment, medical care, food, water, shelter, etc.) and providing updates on resources to the Incident Commander.

Finance/Administration Section Chief

The Finance/Administration Section Chief is responsible for overseeing all financial aspects of the response. They are responsible for tracking any expenses, insurance claims, worker time, and materials used or purchased during the event. They are also responsible for providing incurred and forecasted costs to the Incident Commander and the rest of the ICS team during meetings.

EXTERNAL RESPONSE PARTNERS

Table 3-2 contains a list of external contacts which may assist in responding to an emergency. These contacts consist of local emergency responders, nearby water departments, contractors and vendors, and state and federal governing agencies.

Table 3-2: External Response Partners

Organization	Phone	Alternate Phone
Local Partners		
Granger Hunter Improvement District	801-968-3551	
Jordan Valley Water Conservancy District	801-565-4300	
Magna Metro Township	801-214-8023	
Salt Lake County EOC	801-580-3171	385-468-4124 HealthEMB@slco.org
Salt Lake County Emergency Management	385-377-7771 (James Woodward, Magna Emergency Coordinator)	801-7143-7100 (County Office)
Salt Lake County Health Department	385-468-4100	
Unified Fire Authority of Greater Salt Lake	911 (emergency)	801-743-7200 (non-emergency)
Unified Police Department	911 (emergency)	385-468-9592 (Magna Precinct)
Contractors / Vendors		
Digital DataComm	801-356-9333 (Craig Peterson)	cpeterson@digital-datacomm.com
RDJ Construction	801-518-8879 (Jared)	
Richard DeFay	801-381-3571	
Thatcher Chemical	801-541-9469 (Jeff Zidek)	
State Partners		
National Guard	801-523-4108	801-716-9087
Rocky Mountain Power	877-508-5088 (report power outages)	866-870-3419 (business customer service)
UDOT Region 2	801-975-4900	
Unified Police of Greater Salt Lake	911 (emergency)	801-743-7000 (non-emergency)
Utah Department of Drinking Water	801-536-4200 (main line)	801-560-8456 (emergency incident response)
Utah Department of Health, Division of Disease Control and Prevention	801-538-6096	800-537-1046

Organization	Phone	Alternate Phone
Utah Division of Water Quality	801-536-4200 (normal hours, emergency line)	801-560-8456 (after hours emergencies)
UT-WARN	801-756-5123	
Federal Partners		
Department of Homeland Security-Cybersecurity and Infrastructure Security Agency	888-282-0870	
EPA Region 8	800-227-8917	303-312-6312
FBI Salt Lake City Office	801-579-1400	
Poison Control Center	800-222-1222	
US Secret Service Electronic Crimes Taskforce	202-406-5708	

CRITICAL CUSTOMER COMMUNICATION

Table 3-3 includes customers that should be given priority notice due to their reliance on the water supply. These customers include large water users, at-risk communities, schools, and other organizations that should be given priority to public notices. Communications with these customers should be noted with date and time stamps detailing when communication was made.

Table 3-3: Critical Customer Contact List

Organization	Point Person	Contact Instructions	Phone	Alternate Phone
Magna Medical Center, Exodus Healthcare, & Magna Urgent Care	Alicia Kay, NAI Premier 801-201-4644	If you can't reach Alicia Kay, contact Heidi or Theresa's phones	801-250-9638 (Exodus Healthcare)	Heidi Jefferies 801-455-1418 Theresa Carlton 801-631-7876
Schools				
Copper Hills Elementary School	Janette Liddell, Principal's Secretary		385-646-4792	
Cyprus High School	Robert Popper, Head Custodian 385-646-5311	If you can't reach Robert, call the Principal's phone	385-646-5300	Robert McDaniel, Principal 385-646-5301
Elk Run Elementary School	Ty Whitting		385-646-2801	385-646-4786
Lake Ridge Elementary School	Austin Morrow	Call Austin after hours	385-646-4888	Austin Morrow 801-230-7490
Magna Elementary School	April Reynolds		385-646-4900	

Organization	Point Person	Contact Instructions	Phone	Alternate Phone
Matheson Junior High School	Nancy Rolfe, Head Custodian 801-694-6494	If you can't reach Nancy call Megan the Principal's phone	385-646-5290	Megan Madsen, Principal 801-808-1218
Pleasant Green Elementary School	Dennis Ottosen, Custodian 801-230-7504 Or 801-654-3932	If you can't reach Dennis call Brian	385-646-4972	Brian, District Foreman 801-330-7112
Sunshine Academy Daycare	Tiffany, Director		801-508-0020	
Magna Rec Center Daycare	Stacy Dasturp, Daycare Director		385-468-1835	
Head Start Preschool	Nictara		801-410-5789	
Special Care Facilities				
Beehive Homes (Assisted Living)	Valerie Mills		801-815-2778	801-250-0072
Gerald H Merrill (Senior Center Housing)	Tiffany, Property Manager	Tiffany is the Property Manager for all 3 in Magna, Martha's Terrace And Justin Stewart Plaza	801-301-6410	801-364-6117
Justin Stewart Plaza- Special Needs Center (Utah Non-profit housing Corporation)	Tiffany, Property Manager	Tiffany is the Property Manager for all 3 in Magna, Martha's Terrace And Gerald H Merrill Senior Hsg	801-301-6410	801-364-6117
Martha's Terrace Senior Living Center (Utah Non-profit Housing Corporation)	Tiffany, Property Manager	Tiffany is the Property Manager for all 3 in Magna, Justin C Stewart Plaza And Gerald H Merrill Senior Hsg	801-301-6410	801-364-6117
UT Tex (Vista Adolescent Home)	Dale, Maintenance		801-608-5295	801-250-9762

COMMUNICATION EQUIPMENT

All district employees have cell phones, phone numbers are included in the roster in [PERSONNEL INFORMATION](#). The District has a two-way radio to contact Jordan Valley Water Conservancy District stored at the 3500 South Facility. The landline for the district is also located at the 3500 South Facility, its phone number is [801-250-2118](#).

MEDIA OUTREACH

Table 3-4 includes media contacts which can be used to distribute public notices during an event. This list includes local contacts for the Greater Salt Lake City Area.

Table 3-4: Media Contact List

Media Outlet	Phone	Alternate phone	Email or Website
ABC4-KTVX/KUCW	801-975-4444 (Main Phone)		https://www.abc4.com/contact/
Deseret News	801-575-5600 (News Tips & Press Releases)	801-237-2194 (General Inquiries)	https://www.deseret.com/pages/contact-us
KSL News Radio	801-575-5555 (Main Phone)		https://kslnewsradio.com/contact/
KSL TV 5	801-575-5600 (Breaking News)	801-575-5555 (General Inquiries)	web@ksl.com
KTSU-FOX 13	801-532-1300 (Main Station)		https://www.fox13now.com/about-us
KUTV 2	801-839-1153 (News Director)	801-839-1234 (Main Line)	https://kutv.com/contact/contact-us

PUBLIC NOTIFICATION TEMPLATES

The Utah Department of Drinking Water has created public notification templates for water departments to use when drinking water is contaminated. These templates can be found at <https://deq.utah.gov/drinking-water/drinking-water-public-notification-templates>. Public notices should be posted on the department website, in public areas, on social media accounts, and delivered to customers in affected areas. Table 3-5 includes well-traveled public areas where notices can be posted. Contact the location ahead of time to receive permission to post the public notice.

Table 3-5: Public Areas

Public Area	Address	Contact Information
Gas Stations		
7-Eleven	2703 S 8400 W Magna, UT	801-250-2759
7-Eleven	2471 S 700 W West Valley City, UT	801-250-2222
Holiday Oil / Chevron	3592 S 8400 W Magna, UT	385-274-2943
Holiday Oil / Chevron	2474 S 7200 W Magna, UT	385-522-2093
Holiday Oil / Sinclair	2644 S 8400 W Magna, UT	801-250-6125
Smith's Fuel Center	8055 W 3500 S Magna, UT	801-250-6798

Public Area	Address	Contact Information
Public Buildings and Parks		
Copper Club Golf Course	8975 W 2600 S Magna, UT	801-250-6396 (Copper Golf Club)
Magna Regional Park	4042 S 7200 W Magna, UT	385-468-1800 (Magna Parks and Rec)
Pleasant Green Park	S 8400 W Magna, UT	385-468-7275 (Salt Lake County Parks)
Salt Lake County Library	2675 S 8950 W Magna, UT	801-943-4636
US Post Office	8470 W Magna Main St Magna, UT	800-275-8777

CHAPTER 4 – CORE RESPONSE PROCEDURES

EMERGENCY OPERATIONS CENTER

The Emergency Operations Center (EOC) functions as the central command for the emergency response and ICS team. The EOC is the key to successful response and recovery operations. With decision makers and leaders located together, personnel and other resources can be used more efficiently. Coordination of activities will ensure that tasks are accomplished with little or no duplication of effort.

The Magna Water District Office, located at 8885 W 3500 S, Magna, UT, will serve as the EOC for the Magna Water District. The District Office houses the SCADA system control center and the offices of critical water system personnel. Copies of the ERP, Employee Roster, communication equipment, and water system GIS are available at this location.

EMERGENCY LEVEL CLASSIFICATIONS

To help classify and organize response procedures, emergency level classifications are listed below.

Level 1—Normal/Routine

- Typical events such as leaks or breaks in distribution piping
- On-duty and on-call employees can handle the issues without external support, during typical operating hours
- The Emergency Operations Center and Incident Command System are not activated

Level 2—Alert/Minor Emergency

- Events that may span multiple days and may require additional department personnel to respond
- The water department has the proper equipment and “man-power” to respond to the event
- Additional assistance from emergency response partners, such as UT-WARN, is not needed
- The Emergency Operations Center and Incident Command System are activated and manned for the duration of the event

Level 3—Major Emergency

- Events that require some assistance from external partners
- The water department is mostly capable of responding to the incident
- Some equipment and/or additional personnel need to be requested from emergency response partners, such as UT-WARN
- The Emergency Operations Center and Incident Command System are activated and manned for the duration of the event

Level 4—Disaster

- Events that are clearly outside of the capabilities of the water district. Recovery time, costs, and working hours will be great
- Large amounts of assistance and guidance from emergency response partners will be required

- The Emergency Operations Center and Incident Command System are activated and manned for the duration of the event
- Instructions from and communication with external response partners, such as the local Fire Department or the Utah Division of Drinking Water, should be expected

GENERAL RESPONSE PROCEDURE

The following procedures detail the general response strategies that can be used in an emergency. These procedures are organized by ICS roles for simplicity. The Incident Commander is responsible for any ICS role which is not assigned for the event. The procedures are not inclusive as every emergency requires a different response procedure. These steps are intended to serve as a starting point for the event-specific response procedure.

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning section Chief
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information is found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
- Brief involved employees on dangers of the ongoing situation
- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)
- Maintain communication with law enforcement, emergency responders, and other agencies throughout the event
- If emergency water is needed, contact suppliers found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations
- If needed, request or offer assistance through UT-WARN

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Determine if public notices need to be made

- Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
- Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings
- Assess critical assets listed in [PRIMARY UTILITY COMPONENTS](#) for damage
 - Break employees into groups for efficiency when possible
 - Refer to [ASSET REPAIR PROCEDURES](#) for tasks to delegate to employees

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies
- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff

Finance/Administration Section Responsibilities

- Document all expenses, insurance claims, hours worked, and materials used and purchased during the event
- Work with your local EMA on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

ASSET REPAIR PROCEDURES

This section includes specific steps for the operations section to follow to bring system components back online if they are damaged during an event. This section can be given to the response crew as they make assessments and repairs on the system.

General Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site
- Never enter a building if it is not safe to do so
- Only enter the site when it is safe to do so
- Bring appropriate PPE (e.g., gas monitors, hard hats, high visibility vests, protective footwear, eye protection, gloves, and/or flashlights)
- Look for signs of disturbance and damage when arriving to the site, including: exposed rebar, concrete spalling (flakes of concrete), loose sediment, landslides, potholes, ponding, downed/exposed powerlines, fallen trees, shifted structures, building debris, damaged locks and fences, etc.
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Review security camera footage for damage during known period of event
 - If remote access is possible, review footage before departing for site
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Repair damage when possible, follow standard protocols for repairs
- Use backup generators when needed
 - Place portable generators outside
 - Monitor fuel needs and coordinate deliveries in advance
- Report findings and actions to supervisor

Tanks

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building/tank if it is not safe to do so
- Isolate the tank from the system by closing inlet and outlet valves. Open bypass connections if present

- Open tank and inspect for sediment, water discoloration, visible damage to tank walls, hatch, or connections when possible
- If damage is suspected, perform a leak test on the tank (APWA 2017 Standards)
 - Close all tank inlets, outlets, inspection holes, or other openings below the water level
 - Fill tank to maximum working water depth and let set for 48 hours
 - Measure change in water depth over the next 5-day period. Take measurement at least once every 24 hours
 - Mark any leaks or damp areas for later repair
 - If the drop in the water exceeds 0.25 percent of tank volume, repair and retest
 - Repair all observed leaks or damp areas and retest full tank again until the tank passes leak test
- Sample water to test for non-standard water quality
- If sediment/contaminant is evident, remove from tank, only enter the tank if it is safe to do so.
- Clean and disinfect tank if needed, follow standard procedures. Never enter a tank that is structurally compromised
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Check surrounding area for sediment shifting
- Check exposed well casings, piping, valves, and other equipment for visible damage
- Check pump (if present) for damage
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- Sample groundwater to test for non-standard water quality
- Isolate and perform repairs as needed
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Distribution System

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check for pressure drops in the system
- Visually inspect large joints and PRVs for damage
 - Water ponding on surface
 - Listen for pressure leaks and other straining noises
 - Compare pressure/flow readings with typical values
- If a leak is detected, use standard protocol for repair
- Report findings and actions to supervisor

Pump Station

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Check around door to pumphouse for flowing water
 - If water is present, close isolation valves outside of the building
- Check for damage to pump
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- If damage is noticed, turn off power to pump in external power cabinet if present
- Inspect inlets to pump for damage and leaks
 - If breaks are present in inlet, do not run pump until it is repaired
- Use a backup pump when possible if damage is known
- Report findings and actions to supervisor

Chemical Storage

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Bring applicable PPE (e.g., gas monitor, mask, eye protection, gloves)
- Visually inspect storage facility for structural damage

- Ensure all gas cylinders are chained up and secured inside building
- Monitor treatment output to ensure that water quality standards are met
- If a gas leak is detected, contact emergency responders to arrange for cleanup crew
 - Contact residents in adjacent area
- Report findings and actions to supervisor

CHAPTER 5 – INCIDENT-SPECIFIC RESPONSE PROCEDURES

This chapter includes response procedures for likely emergency events. Each incident starts on a new page, so the chapter can be used as a “rip and run” style document. References to other sections within the emergency response plan include hyperlinks for convenience.

EMERGENCY RESPONSE PROCEDURES

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EARTHQUAKE

Table 5-1 contains a list of priority assets to check during an earthquake. These assets are most likely to be damaged by an earthquake, may result in greater repair costs/dangerous outcomes if they are damaged, or are more likely to be contaminated during the event. This list may not be inclusive as the amount of assets affected in an emergency varies.

Table 5-1: Priority Assets During an Earthquake

Asset	Location	Size / Capacity	Area Served
Large Transmission Lines	System Wide	> 15"	System Wide
Barton Well Field	2690 S 6750 W	5,500 gpm	Entire System
Haynes Well Field	6102 W Parkway Blvd.	6,500 gpm	Entire System
EDR Treatment Plant	2690 S 6750 W	N/A	Entire System
3500 South Facility	3500 South	0.5 & 1.5 MG	Zone 1
4100 South Facility	4100 South	0.5, 2.0, 8.0 MG	Zone 2 & Zone 3
4120 Bacchus Highway	4120 Bacchus Highway	0.75 & 0.5 MG	Zone 3
Valley Forge Facility	3922 S Valley Forge Rd	5.0 MG	Zone 1

Actions to respond to an earthquake

The following list contains responsibilities for each ICS position during an earthquake. This list is intended to be used as a starting point and is not inclusive.

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning Section Chief
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
 - Coordinate with the Incident Commander during high level emergencies to contact all personnel swiftly
- Brief involved employees on dangers of the ongoing situation

- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)
 - Notify local emergency management and state agencies of system status
- Maintain communication with law enforcement, emergency responders, and other agencies throughout the event
- If needed, request or offer assistance through UT-WARN
- If emergency water is needed, contact suppliers and city interconnections found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations
- Maintain contact with power provider for power outage duration estimates

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Determine if public notices need to be made
 - Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings
- Section Chief should work with the Planning Section Chief to develop an assessment and repair plan
- Assess drinking water system for damage, prioritize assets listed in [Table 5-1](#)
 - Break employees into groups for efficiency when possible

- Refer to [Earthquake Response Crew Tasks](#) for tasks to delegate to employees
- Monitor water quantity and quality, develop a sampling plan, and modify treatment as necessary
- Determine if emergency water is needed
 - Communicate with Incident Commander before drawing emergency water as interconnected cities may not be able to provide water
 - Draw emergency water from emergency interconnections and/or pre-determined storage tanks and fire hydrants

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies
- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event
- Section Chief should assist the Operations Section Chief with planning for damage assessments and repairs

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff, particularly the operations section

Finance/Administration Section Responsibilities

- Document all damage caused, expenses made, insurance claims, hours worked, and materials used and purchased during the event
- Work with local emergency management on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

Earthquake Response Crew Tasks

This section includes steps for the operations section to follow when checking system components.

General Earthquake Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site
- Never enter a building if it is not safe to do so
- Only enter the site when it is safe to do so
- Bring appropriate PPE (e.g., gas monitors, hard hats, high visibility vests, protective footwear, eye protection, gloves, and/or flashlights)
- Look for signs of disturbance and damage when arriving to the site, including: exposed rebar, concrete spalling (flakes of concrete), loose sediment, landslides, potholes, ponding, downed/exposed powerlines, fallen trees, shifted structures, building debris, damaged locks and fences, etc.
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Visibly inspect buildings and facilities for damage
- Review security camera footage for damage during known period of event
 - If remote access is possible, review footage before departing for site
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Repair damage when possible, follow standard protocols for repairs
- Use backup generators when needed
 - Place portable generators outside
 - Monitor fuel needs and coordinate deliveries in advance
- Turn off water meters at destroyed buildings
- Report findings and actions to supervisor

Tanks

- Conduct General Earthquake Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building/tank if it is not safe to do so

- Isolate the tank from the system by closing inlet and outlet valves. Open bypass connections if present
- Check if tank hatch has shifted/loosened. If it has, internal damage is likely
- Open tank and inspect for sediment, water discoloration, visible damage to tank walls, hatch, or connections
- If damage is suspected, perform a leak test on the tank (APWA 2017 Standards)
 - Close all tank inlets, outlets, inspection holes, or other openings below the water level
 - Fill tank to maximum working water depth and let set for 48 hours
 - Measure change in water depth over the next 5-day period. Take measurement at least once every 24 hours
 - Mark any leaks or damp areas for later repair
 - If the drop in the water exceeds 0.25 percent of tank volume, repair and retest
 - Repair all observed leaks or damp areas and retest full tank again until the tank passes leak test
- If the tank needs to be drained for cleaning and/or repair, verify structural integrity with Structural Engineer
- Clean and disinfect tank if needed, follow standard procedures. Never enter a tank that is structurally compromised
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Earthquake Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Check surrounding area for sediment shifting
- Check exposed well casings, piping, valves, and other equipment for visible damage
- Check pump (if present) for damage
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- Sample groundwater to test for non-standard water quality
- Isolate and perform repairs as needed
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Distribution System

- Conduct General Earthquake Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check for pressure drops in the system
- Visually inspect large joints and PRVs for damage
 - Water ponding on surface
 - Listen for pressure leaks and other straining noises
 - Compare pressure/flow readings with typical values
- If a leak is detected, use standard protocol for repair
- Report findings and actions to supervisor

Pump Station

- Conduct General Earthquake Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Check around door to pumphouse for flowing water
 - If water is present, close isolation valves outside of the building
- Check for damage to pump
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- If damage is noticed, turn off power to pump in external power cabinet if present
- Inspect inlets to pump for damage and leaks
 - If breaks are present in inlet, do not run pump until it is repaired
- Use a backup pump when possible if damage is known
- Report findings and actions to supervisor

Chemical Storage

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Bring applicable PPE (e.g., gas monitor, eye protection, and gloves)
- Visually inspect storage facility for structural damage

- Ensure all gas cylinders are chained up and secured inside building
- Monitor treatment output to ensure that water quality standards are met
- If a gas leak is detected, contact emergency responders to arrange for cleanup crew
 - Contact residents in adjacent area
- Report findings and actions to supervisor

FLOODING

Table 5-2 contains a list of priority assets to check during a flood. These assets are most likely to be damaged, or contamination is more likely to occur at these assets during a flood event. This list may not be inclusive as the amount of assets affected in an emergency varies.

Table 5-2: Priority Assets During a Flood

Asset	Location	Capacity	Area Served
Barton Well Field	2690 S 6750 W	5,500 gpm	Entire System
Haynes Well Field	6102 W Parkway Blvd.	6,500 gpm	Entire System

Actions to respond to a flood

The following list contains responsibilities for each ICS position during flood event. This list is intended to be used as a starting point and is not inclusive. Since flooding events can be detected in advance, actions to respond with advance notice are included and indicated with (advance notice).

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning Section Chief
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
 - Coordinate with the Incident Commander during high level emergencies to contact all personnel swiftly
- Brief involved employees on the dangers of the ongoing situation
- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)

- Notify local emergency management and state agencies of system status
- Maintain communication with law enforcement, emergency responders, and other agencies throughout the event
- If needed, request or offer assistance through UT-WARN
- If emergency water is needed, contact suppliers and city interconnections found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations
- Maintain contact with power provider for power outage duration estimates

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Determine if public notices need to be made
 - Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings
- Section Chief should work with the Planning Section Chief to develop an assessment and repair plan
- Assess drinking water system for damage, prioritize assets listed in [Table 5-2](#)
 - Break employees into groups for efficiency when possible
 - Refer to [Flooding Response Crew Tasks](#) for tasks to delegate to employees
- Monitor water quantity and quality, develop a sampling plan, and modify treatment as necessary

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies

- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event
- Section Chief should assist the Operations Section Chief with planning for damage assessments and repairs

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff, particularly the operations section
- Move electronics, equipment, hazardous materials, and important data to a water-tight facility or out of flood-prone areas (advance notice)
- Ensure that a two-week supply of all chemicals used is on-hand and located in a safe location (advance notice)
- Fill vehicles and fuel tanks to full capacity (advance notice)

Finance/Administration Section Responsibilities

- Document all damage caused, expenses made, insurance claims, hours worked, and materials used and purchased during the event
- Work with local emergency management on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

Flooding Response Crew Tasks

This section includes steps for the operations section to follow when checking system components.

General Flood Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site
- Never enter a building if it is not safe to do so
- Never traverse flood waters
- Only enter the site when it is safe to do so
- Do not walk-through standing water when possible
- Bring appropriate PPE (e.g., hard hats, high visibility vests, protective footwear, eye protection, gloves, and/or flashlights)
- Look for signs of disturbance and damage when arriving to the site, including: exposed rebar, concrete spalling (flakes of concrete), loose sediment, landslides, potholes, downed/exposed powerlines, fallen trees, shifted structures, building debris, damaged locks and fences, etc.
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Review security camera footage for damage during known period of event
 - If remote access is possible, review footage before departing for site
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Turn off and unplug electronic equipment and generators if they are at risk of water damage
- Repair damage when possible, follow standard protocols for repairs
- Use backup generators when needed
 - Place portable generators outside
 - Monitor fuel needs and coordinate deliveries in advance
- Report findings and actions to supervisor

Tanks

- Conduct General Flood Safety Measures & Facility Assessment

- Conduct General Response Tasks
- Never enter a building/tank if it is not safe to do so
- Fill tanks to fullest recommended capacity for expected demand
- Place sandbags around tank openings to prevent infiltration
- Sample water to test for non-standard water quality
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Flood Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Place sandbags around openings to prevent infiltration
- Check surrounding area for sediment shifting
- Check exposed well casings, piping, valves, and other equipment for visible damage
- Sample groundwater to test for non-standard water quality
- Isolate and perform repairs as needed
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Pump Station

- Conduct General Flood Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Place sandbags around pumphouse entrances
- Shut down pump and electronics if water damage is possible
- Report findings and actions to supervisor

Chemical Storage

- Conduct General Flood Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Visibly inspect storage facility for structural damage

- Ensure all gas cylinders are chained up and secured inside building
 - Fill empty cylinders with water to prevent them from floating
- Monitor treatment output to ensure that water quality standards are met
- Report findings and actions to supervisor

WILDFIRE

Table 5-3 contains a list of priority assets to check during a wildfire. These assets are most likely to be damaged, or contamination is more likely to occur at these assets during a wildfire. This list may not be inclusive as the amount of assets affected in an emergency varies.

Table 5-3: Priority Assets During a Wildfire

Asset	Location	Size / Capacity	Area Served
Barton Well Field	2690 S 6750 W	5,500 gpm	Entire System
Haynes Well Field	6102 W Parkway Blvd.	6,500 gpm	Entire System
EDR Treatment Plant	2690 S 6750 W	N/A	Entire System
Booster Stations	EDR Plant, Valley Forge Facility, 8000 W Booster	N/A	Entire System

Actions to respond to a Wildfire

The following list contains responsibilities for each ICS position during a wildfire. This list is intended to be used as a starting point and is not inclusive.

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning Section Chief
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer
- When the fire is close to containment, begin planning efforts with the Planning Section for possible flooding and mudslides near the burn scar

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information is found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
 - Coordinate with the Incident Commander during high level emergencies to contact all personnel swiftly
 - If personnel are in the field, update them on wind conditions and determine if evacuation from facilities is needed
- Brief involved employees on the dangers of the ongoing situation

- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)
 - Notify local emergency management and state agencies of system status
- Maintain communication with law enforcement, emergency responders, and other agencies throughout the event
- Once the wildfire is about 40% contained, contact the local fire department and other involved emergency responders to maintain awareness of the situation and, if possible, offer assistance as resource advisors or observers
- Work with emergency responders to identify passable access roads and to ensure that drinking water assets in forested areas are clearly identified
- If needed, request or offer assistance through UT-WARN
- If emergency water is needed, contact suppliers and city interconnections found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations
- Maintain contact with power provider for power outage duration estimates

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Determine if public notices need to be made
 - Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings

- Section Chief should work with the Planning Section Chief to develop an assessment and repair plan
- Assess drinking water system for damage, prioritize assets listed in [Table 5-3](#)
 - Break employees into groups for efficiency when possible
 - Refer to [Wildfire Response Crew Tasks](#) for tasks to delegate to employees
- Maintain required fire storage volume in tanks
- Monitor water quantity and quality, develop a sampling plan, and modify treatment as necessary
- Determine if emergency water is needed
 - Draw emergency water from emergency interconnections
 - Communicate with Incident Commander before drawing emergency water

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies
- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event
- Section Chief should assist the Operations Section Chief with planning for damage assessments and repairs
- When the fire is close to containment, begin planning efforts with the Incident Commander for possible flooding and mudslides near the burn scar

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff, particularly the operations section
- Prepare equipment as needed to support firefighting operations, such as tanker trucks and related pumping equipment

Finance/Administration Section Responsibilities

- Document all damage caused, expenses made, insurance claims, hours worked, and materials used and purchased during the event
- Work with local emergency management on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

Wildfire Response Crew Tasks

This section includes steps for the operations section to follow when checking system components following a wildfire.

General Wildfire Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site, ensure the site is open and declared safe from fire officials
- Never enter a building if it is not safe to do so
- Bring appropriate PPE (e.g., hard hats, high visibility vests, protective footwear, eye protection, gloves, fire extinguisher, and/or flashlights)
- Look for signs of disturbance and damage when arriving to the site, including: smoke or vapors, damaged structures, burn scars, fallen trees, downed powerlines, etc.
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Review security camera footage for damage during known period of event
 - If remote access is possible, review footage before departing for site
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Repair damage when possible, follow standard protocols for repairs
- Use backup generators when needed
 - Place portable generators outside
 - Monitor fuel needs and coordinate deliveries in advance
- Turn off water meters at destroyed buildings
- Report findings and actions to supervisor

Tanks

- Conduct General Wildfire Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Inspect tank and nearby buildings for fire damage
- Sample water to test for non-standard water quality
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Wildfire Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check exposed well casings, piping, valves, and other equipment for visible damage
- Check pump (if present) for damage
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- Sample groundwater to test for non-standard water quality
- Isolate and perform repairs as needed
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Distribution System

- Conduct General Wildfire Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check for pressure drops in the system
- If a leak is detected, use standard protocol for repair
- Report findings and actions to supervisor

Pump Station

- Conduct General Wildfire Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Inspect pumphouse and surrounding facilities for fire damage
- Check around door to pumphouse for flowing water
 - If water is present, close isolation valves outside of the building
- Check for damage to pump
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- If damage is noticed, turn off power to pump in external power cabinet if present
- Inspect inlets to pump for damage and leaks

- If breaks are present in inlet, do not run pump until it is repaired
- Use a backup pump when possible if damage is known
- Report findings and actions to supervisor

Chemical Storage

- Conduct General Wildfire Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Inspect the storage facility and nearby buildings for fire damage
- Bring applicable PPE (e.g., gas monitor, mask, eye protection, gloves)
- Monitor treatment output to ensure that water quality standards are met
- Report findings and actions to supervisor

EXTREME COLD & WINTER STORM

Table 5-4 contains a list of priority assets to check during an extreme cold or winter storm event. These assets are most likely to be damaged than other assets during an event. This list may not be inclusive as the amount of assets affected in an emergency varies.

Table 5-4: Priority Assets During a Winter Storm

Asset	Location	Size / Capacity	Area Served
Large Transmission Lines	System Wide	> 15"	System Wide
Pressure Reducing Valves	System Wide	N/A	System Wide
Barton Well Field	2690 S 6750 W Magna, UT	5,500 gpm	Entire System
Haynes Well Field	6102 W Parkway Blvd. Magna, UT	6,500 gpm	Entire System
3500 South Facility Tanks	3500 S 8885 W	0.5 & 1.5 MG	Zone 1
4100 South Facility Tanks	4100 S 8400 W	8.0, 0.5, & 2.0 MG	Entire System
Valley Forge Facility Tank	3922 S Valley Forge Rd	5 MG	Entire System
4120 Bacchus Highway Facility Tanks	4120 Bacchus Highway	0.5 & 0.75 MG	Zone 3
EDR Treatment Plant Tank	2690 S 6750 W	0.7 MG	Entire System

Actions to respond to an extreme cold or winter storm event

The following list contains responsibilities for each ICS position during an extreme cold or winter storm event. This list is intended to be used as a starting point and is not inclusive.

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning Section Chief
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information is found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
 - Coordinate with the Incident Commander during high level emergencies to contact all personnel swiftly
- Brief involved employees on the dangers of the ongoing situation
- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)
 - Notify local emergency management and state agencies of system status
- Maintain communication with law enforcement, emergency responders, and other agencies throughout the event
- If needed, request or offer assistance through UT-WARN
- If emergency water is needed, contact suppliers and city interconnections found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations
- Maintain contact with power provider for power outage duration estimates

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Determine if public notices need to be made
 - Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings
- Section Chief should work with the Planning Section Chief to develop an assessment and repair plan
- Assess drinking water system for damage, prioritize assets listed in [Table 5-4](#)
 - Break employees into groups for efficiency when possible
 - Refer to [Extreme Cold & Winter Storm Response Crew Tasks](#) for tasks to delegate to employees
- Monitor water quantity and quality, develop a sampling plan, and modify treatment as necessary
- Determine if emergency water is needed
 - Draw emergency water from emergency interconnections and/or pre-determined storage tanks and fire hydrants
 - Communicate with Incident Commander before drawing emergency water

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies
- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event
- Section Chief should assist the Operations Section Chief with planning for damage assessments and repairs

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff, particularly the operations section

Finance/Administration Section Responsibilities

- Document all damage caused, expenses made, insurance claims, hours worked, and materials used and purchased during the event
- Work with local emergency management on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

Extreme Cold & Winter Storm Response Crew Tasks

This section includes tasks for the operations section to follow when checking system components during an extreme cold/winter storm.

General Winter Storm Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site
- Never enter a building if it is not safe to do so
- Only enter the site when it is safe to do so
- Bring appropriate PPE (e.g., gas monitors, hard hats, high visibility vests, protective footwear, eye protection, gloves, appropriate winter clothing, and/or flashlights)
- Do not walk-through deep snow or under locations where sheets of snow and ice may fall
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Review security camera footage for damage during known period of event
 - If remote access is possible, review footage before departing for site
- Clear snow and ice buildup and apply road salt and/or sand to sidewalks, parking lots, fire exit egress passageways, and access roads near the site
- When possible, monitor water intakes for ice and frozen slush that may block valves and cause restrictions in the pipe network
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Repair damage when possible, follow standard protocols for repairs
- Use backup generators when needed
 - Place portable generators outside
 - Monitor fuel needs and coordinate deliveries in advance
- Report findings and actions to supervisor

Tanks

- Conduct General Winter Storm Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Ensure access hatches and doors/windows to site facilities are closed and clear of ice and snow buildup

- Monitor for breaks in tank inlets and outlets by checking for pressure drops
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Winter Storm Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check exposed well casings for visible damage
- Clear well covers and buildings for snow and ice buildup
- Check pump (if present) for damage
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- Sample groundwater to test for non-standard water quality
- Monitor for breaks in well and spring outlets by checking for pressure drops
- Isolate and perform repairs as needed
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Distribution System

- Conduct General Winter Storm Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check for pressure drops in the system
- Visually inspect large joints and PRVs for damage
 - Water ponding/ice on surface
 - Listen for pressure leaks and other straining noises
 - Compare pressure/flow readings with typical values
- If a leak is detected, use standard protocol for repair
- Report findings and actions to supervisor

Pump Station

- Conduct General Winter Storm Safety Measures & Facility Assessment
- Conduct General Response Tasks

- Never enter a building if it is not safe to do so
- Ensure doors and windows to the pumphouse are clear of snow and ice buildup
- Check around door to pumphouse for flowing water or ice buildup
 - If water/ice is present, close isolation valves outside of the building
- Check for damage to pump
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- If damage is noticed, turn off power to pump in external power cabinet if present
- Inspect inlets to pump for damage and leaks
 - If breaks are present in inlet, do not run pump until it is repaired
- Use a backup pump when possible if damage is known
- Report findings and actions to supervisor

Chemical Storage

- Conduct General Winter Storm Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Never enter a building if it is not safe to do so
- Ensure facility doors and windows are clear of snow and ice buildup
- Monitor treatment output to ensure that water quality standards are met
- Report findings and actions to supervisor

EXTREME HEAT & DROUGHT

Table 5-5 contains a list of priority assets to check during an extreme heat or drought event. Damage is less likely to occur to assets during an event, so the included assets are storage tanks, reservoirs, and surface water intakes. Pump stations, however, may be damaged during extreme heat or drought events. This list may not be inclusive as the amount of assets affected in an emergency varies.

Table 5-5: Priority Assets During Extreme Heat and Drought Events

Asset	Location	Size / Capacity	Area Served
Barton Well Field	2690 S 6750 W	5,500 gpm	Entire System
Haynes Well Field	6102 W Parkway Blvd.	6,500 gpm	Entire System
EDR Treatment Plant & Tank	2690 S 6750 W	0.7 MG	Entire System
Booster Stations	EDR Plant, Valley Forge Facility, 8000 W Booster	N/A	Entire System
3500 South Facility Tanks	3500 S 8885 W	0.5 & 1.5 MG	Zone 1
4100 South Facility Tanks	4100 S 8400 W	8.0, 0.5, & 2.0 MG	Entire System
Valley Forge Facility Tank	3922 S Valley Forge Rd	5 MG	Entire System
4120 Bacchus Highway Facility Tanks	4120 Bacchus Highway	0.5 & 0.75 MG	Zone 3

Actions to respond to an extreme heat or drought event

The following list contains responsibilities for each ICS position during an extreme heat or drought event. This list is intended to be used as a starting point and is not inclusive.

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning Section Chief
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer
- Monitor wildfire conditions and outlooks

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information is found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
 - Coordinate with the Incident Commander during high level emergencies to contact all personnel swiftly
- Brief involved employees on the dangers of the ongoing situation
- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees
- Communicate with public health officials and local emergency responders to discuss health risks associated with extreme heat emergencies

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)
 - Notify local emergency management and state agencies of system status
- Maintain communication with law enforcement, emergency responders, and other agencies throughout the event
- When necessary, work with the Utah DDW to identify and approve alternate water supplies and operational or design changes
 - Coordinate with the Operations Section to identify forecasted water needs
- Communicate with local hospitals and other care facilities to ensure water demand is met
 - Provide emergency water supply as needed
- If needed, request or offer assistance through UT-WARN
- If emergency water is needed, contact suppliers and city interconnections found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations
- Maintain contact with power provider for power outage duration estimates

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Determine if public notices need to be made
 - Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)

- Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- Implement mandatory or voluntary water conservation efforts, and conduct regular outreach to customers

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings
- Section Chief should work with the Planning Section Chief to develop an assessment and repair plan
- If possible, run pumps in off-peak hours when there is less demand on power and less risk of a power failure
- Assess drinking water system for damage, prioritize assets listed in [Table 5-5](#)
 - Break employees into groups for efficiency when possible
 - Refer to [Extreme Heat and Drought Response Crew Tasks](#) for tasks to delegate to employees
- Monitor water quantity and quality, develop a sampling plan, and modify treatment as necessary
- Determine if emergency water is needed
 - Draw emergency water from emergency interconnections and/or pre-determined storage tanks and fire hydrants
 - Communicate with Incident Commander before drawing emergency water
 - Be careful not to place undue burdens on interconnected partners by drawing too much water or by drawing water for long periods of time from interconnections

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies
- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event
- Section Chief should assist the Operations Section Chief with planning for damage assessments and repairs

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff, particularly the operations section

Finance/Administration Section Responsibilities

- Document all damage caused, expenses made, insurance claims, hours worked, and materials used and purchased during the event
- Work with local emergency management on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

Extreme Heat and Drought Response Crew Tasks

This section includes tasks for the operations section to follow when checking system components during an extreme heat or drought event.

General Heat and Drought Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site
- Bring appropriate PPE (e.g., gas monitors, hard hats, high visibility vests, protective footwear, eye protection, gloves, and/or flashlights)
- Bring plenty of water, do not work dehydrated
- Be mindful of weather conditions and wildfire possibilities
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Review security camera footage for damage during known period of event
 - If remote access is possible, review footage before departing for site
- Maintain a fire-resistant zone that is free of leaves, debris, or flammable materials for at least 30 feet from facilities and structures
- Check computer equipment, pumps, and generators for damage caused by extreme heat
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Repair damage when possible, follow standard protocols for repairs
- Use backup generators when needed
 - Place portable generators outside
 - Monitor fuel needs and coordinate deliveries in advance
- Report findings and actions to supervisor

Tanks

- Conduct General Heat and Drought Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Keep intakes and access hatches free of debris
- Monitor storage volume and ensure demand is able to be met
- If chemical treatment is present, refer to the Chemical Storage section

- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Heat and Drought Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check pump (if present) for damage
 - Listen for straining noises coming from pump
 - Check gauges for non-standard operations
 - Visually inspect for leaks and damage
- Isolate and perform repairs as needed
- Monitor water output to ensure demand is met
 - Be mindful of water use and avoid groundwater overdraft
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Distribution System

- Conduct General Heat and Drought Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check for pressure drops in the system
- Visually inspect large joints and PRVs for damage
 - Water ponding on surface
 - Listen for pressure leaks and other straining noises
 - Compare pressure/flow readings with typical values
- If a leak is detected, use standard protocol for repair
- Report findings and actions to supervisor

Pump Station

- Conduct General Heat and Drought Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check around door to pumphouse for flowing water
 - If water is present, close isolation valves outside of the building
- Check for damage to pump
 - Listen for straining noises coming from pump

- Check gauges for non-standard operations
- Visually inspect for leaks and damage
- If damage is noticed, turn off power to pump in external power cabinet if present
- Inspect inlets to pump for damage and leaks
 - If breaks are present in inlet, do not run pump until it is repaired
- Use a backup pump when possible if damage is known
- Report findings and actions to supervisor

Chemical Storage

- Conduct General Heat and Drought Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Bring applicable PPE (e.g., gas monitor, eye protection, gloves)
- Monitor treatment output to ensure that water quality standards are met
- Report findings and actions to supervisor

CYBER ATTACK

A cyber-attack could cause interruption of treatment or distribution, theft of private utility or customer data, damage to system components, defacement of the utility's website or email system, and loss of remote-control systems. Confidential information or even drinking water could be held at a ransom from an attacker. Treat all threats of cyber attacks with utmost care, including viruses, malware, ransomware, and phishing scams.

Actions to respond to a cyber-attack

Unlike other sections, this response list is not organized into an ICS layout. The ICS layout may be used to help delegate tasks, but the bulk of the response strategy will be carried out by IT personnel. This list is not inclusive and is intended to be used as a starting point to develop a specific response strategy.

HAL recommends contacting Digital DataComm for assistance in developing a specific response strategy for an attack, contact information can be found in [EXTERNAL RESPONSE PARTNERS](#). Digital DataComm is a local IT consulting firm that specializes in cybersecurity, disaster recovery solutions, and cloud infrastructure. Though Digital DataComm is not the only local IT expert, they have partnered with HAL on previous Risk and Resilience Assessments and are familiar with drinking water systems.

Department Personnel Actions

- Determine the [EMERGENCY LEVEL](#) and select appropriate response strategies
- Notify IT personnel and/or an IT vendor of the incident and the need for emergency response assistance
 - The Department of Homeland Security—Cybersecurity and Infrastructure Security Agency (CISA) can also assist with IT system response and recovery (<https://www.cisa.gov/reporting-cyber-incidents>)
 - Report the cyber incident as required to law enforcement and regulatory agencies
 - Contact information for CISA, US Secret Service Electronic Crimes Taskforce, and the FBI can be found in [EXTERNAL RESPONSE PARTNERS](#)
- If possible, disconnect compromised computers from the network to isolate breached components and prevent further damage, such as the spreading of malware. **Do not turn off or reboot systems**—this preserves evidence and allows for an assessment to be performed
- Notify any external utilities (e.g., vendors, other government offices) that may have remote connections to the affected network(s)
- Document key information on the incident, including any suspicious calls, emails, or messages before and/or during the incident, damage to utility systems, and steps taken in response to the incident
- Change passwords on all computers and for all users
 - Use strong passwords (3 of 4 patterns minimum of upper case, lower case, numbers, and special characters)

Operations Section Actions

- Switch all SCADA and network connected components to manual operation for the duration of the event

IT Staff and/or Vendor Actions

- Review system and network logs, and use anti-virus and malware scans to identify affected equipment, systems, accounts and networks
- Document which user accounts were or are logged on, which programs and processes were or are running, any remote connections to the affected IT systems or network(s) and all open ports and their associated applications
- If possible, take a forensic image of the affected IT systems to preserve evidence. Tools to take forensic images include [Forensic ToolKit](#) and [EnCase](#)
- If possible, identify any malware used in the incident, any remote servers to which data may have been sent during the incident, and the origin of the incident. The Department of Homeland Security—Cybersecurity and Infrastructure Agency can assist with the forensic analysis (<https://www.cisa.gov/reporting-cyber-incidents>)
- Identify any personally identifiable information that may have been compromised, for both employees and customers
- Check the system back-up time stamps to determine if a back-up was compromised during the incident
- Document all findings, and avoid modifying or deleting any data that might be attributable to the incident

SYSTEM OR SOURCE CONTAMINATION

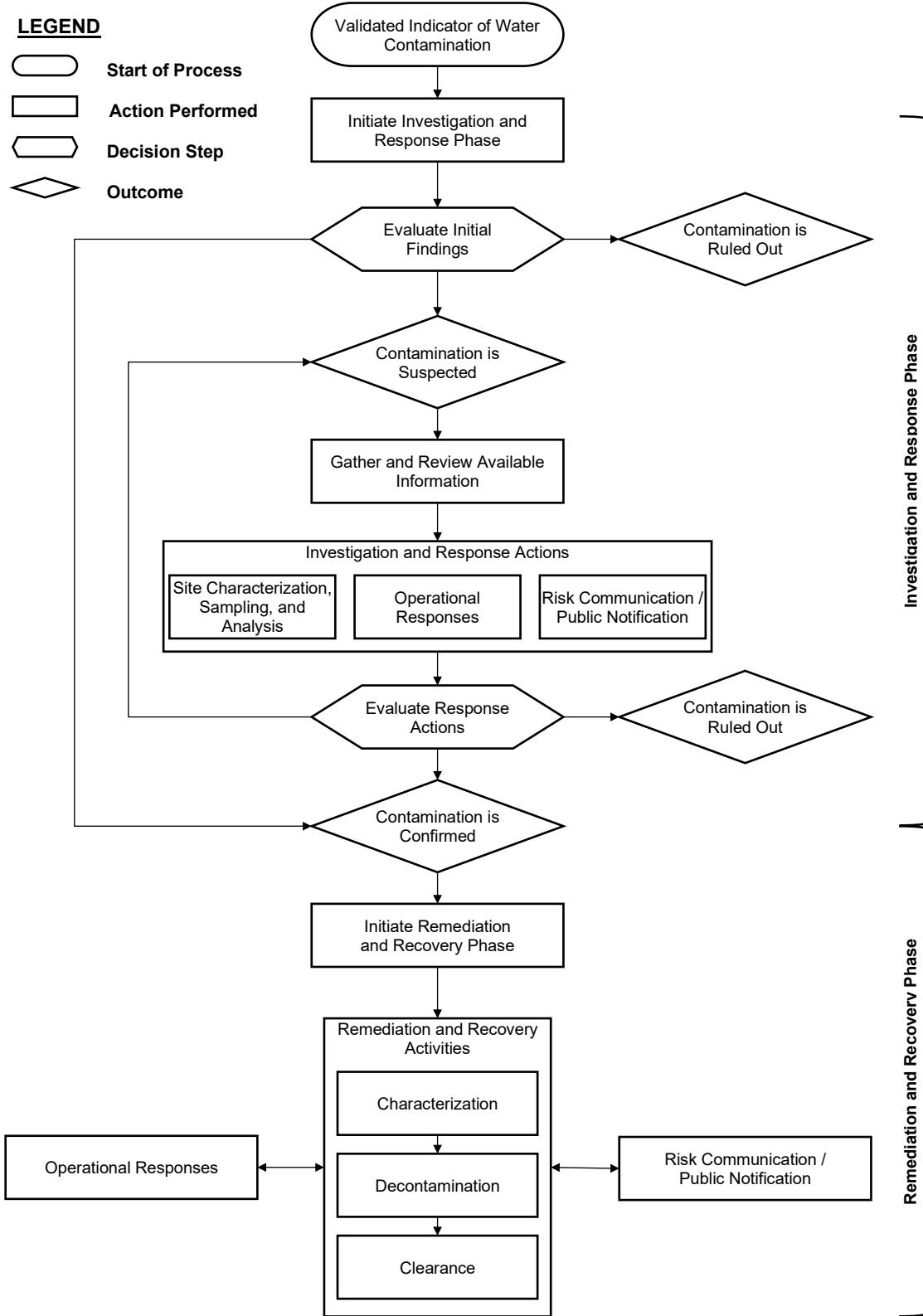
Table 5-6 includes the assets which are susceptible to contamination. These assets include all of the storage tanks, wells, and springs in the system. Accidental or purposeful contamination events are possible at all locations, regardless of security systems; however, accidental contamination events are much more likely to occur than purposeful events.

Since the drinking water system is well-mixed, contamination at any of these locations may affect the entire system. Figure 5-1 shows the decision tree for the utility when water contamination indicators are validated. This figure was provided by the EPA's [Distribution System Contamination Response Procedure Template](#).

Table 5-6: Priority Assets During a Contamination Event

Asset	Location	Size / Capacity	Area Served
Barton Well Field	2690 S 6750 W	5,500 gpm	Entire System
Haynes Well Field	6102 W Parkway Blvd.	6,500 gpm	Entire System
EDR Treatment Plant & Tank	2690 S 6750 W	0.7 MG	Entire System
3500 South Facility Tanks	3500 S 8885 W	0.5 & 1.5 MG	Zone 1
4100 South Facility Tanks	4100 S 8400 W	8.0, 0.5, & 2.0 MG	Entire System
Valley Forge Facility Tank	3922 S Valley Forge Rd.	5 MG	Entire System
4120 Bacchus Highway Facility Tanks	4120 Bacchus Highway Facility	0.5 & 0.75 MG	Zone 3

Figure 5-1: Contamination Event Decision Tree



Actions to respond to a system or source contamination event

The following list contains responsibilities for each ICS position during a contamination event. This list is intended to be used as a starting point and is not inclusive. A common contaminator is a harmful algal bloom (HAB). Actions which are unique to a HAB are indicated with (HAB).

Incident Commander Responsibilities

- Determine the [EMERGENCY LEVEL](#) for the event and develop response procedures with the Planning Section Chief
- Immediately notify the Division of Drinking Water when an indicator of water contamination is validated. Contact information is found in [EXTERNAL RESPONSE PARTNERS](#)
- Assign employees to their respective ICS role found in [INCIDENT COMMAND SYSTEM ROLES](#)
- Brief selected employees on their responsibilities
- Oversee all section chiefs and officers for the duration of the event
- Approve of any public notices made by the Public Information Officer

Safety Officer Responsibilities

- Contact all water department personnel and ensure their safety. Contact information is found in [PERSONNEL INFORMATION](#)
 - Allow personnel to contact their families
- Brief involved employees on the dangers of the ongoing situation
- Oversee efforts made by the operations section, when possible, to ensure safe working conditions for employees
 - Ensure proper safety measures are observed when sampling for cyanotoxins (HAB)

Liaison Officer Responsibilities

- Assess situation and determine if/which external response partners need to be contacted
 - Contact external response partners listed in [EXTERNAL RESPONSE PARTNERS](#)
 - Notify local emergency management and state agencies of system status
- Communicate with the local health department and Utah DDW to determine if health advisories need to be made
- Notify interconnected utilities and utilities that share water sources of contamination
- If needed, request or offer assistance through UT-WARN
- If emergency water is needed, contact suppliers and city interconnections found in [EXTERNAL RESPONSE PARTNERS](#) and arrange for distribution locations

Public Information Officer Responsibilities

- Request Incident Commander's approval of any public notices made
- Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
- Determine if public notices need to be made
 - Utah DDW public notice templates are found in [PUBLIC NOTIFICATION TEMPLATES](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- If emergency water is needed, inform customers of distribution locations
 - Post notices on social media and in well-traveled areas listed in [Table 3-5](#)
 - Contact affected customers listed in [CRITICAL CUSTOMER COMMUNICATION](#)
 - Coordinate with local media contacts found in [MEDIA OUTREACH](#) to distribute the message
- Regularly update customers until normal operations resume

Operations Section Responsibilities

- Section Chief will regularly update the incident commander of ongoing efforts and findings
- Section Chief should work with the Planning Section Chief to develop an assessment and repair plan
- Section Chief should work with the Public Information Officer to distribute messages and notices to affected customers
- Assess drinking water system for damage and to locate contamination source/extent
 - Break employees into groups for efficiency when possible
 - Refer to [Contamination Response Crew Tasks](#) for tasks to delegate to employees
- Frequently take water samples throughout the system to determine the contamination extent
- Monitor water quantity and quality, develop a sampling plan, and modify treatment as necessary
 - Confirm the type and concentration of contamination present in the water by sending samples to laboratories
 - Confirm the type and concentration of cyanotoxins present to determine the most effective treatment strategy. Applying the wrong treatment process can result in the release of cyanotoxins. Refer to [this document](#) for guidance (HAB)
- Implement measures to control blooms that have already occurred. Potential measures include physically removing surface scums and applying algaecides and other chemicals to control blooms. Each bloom is unique and needs to be considered on a case-by-case

basis. Refer to [this website](#) for examples of control and prevention measures. Control measures must be selected carefully as they can have unintended impacts on the ecosystem (HAB)

- Determine if emergency water is needed
 - Draw emergency water from emergency interconnections and/or pre-determined storage tanks and fire hydrants
 - Communicate with Incident Commander before drawing emergency water
 - Ensure that contamination cannot spread through interconnections

Planning Section Responsibilities

- Work with the Incident Commander to develop response strategies
- Organize frequent meetings with the ICS leaders
- Section Chief will conduct any meetings held during the event
- Section Chief should assist the Operations Section Chief with planning for damage assessments and repairs

Logistics Section Responsibilities

- Assign radios to department personnel
 - Different channels per ICS section, and separate channel for ICS leaders
- Keep track of inventory used by employees during the event
- Assess ongoing needs of staff, particularly the operations section

Finance/Administration Section Responsibilities

- Document all damage caused, expenses made, insurance claims, hours worked, and materials used and purchased during the event
- Work with local emergency management on the required paperwork for public assistance requests
- Frequently update the Incident Commander on expense forecasts

Contamination Response Crew Tasks

This section includes tasks for the operations section to follow when checking system components during a contamination event.

General Contamination Safety Measures & Facility Assessment

- Contact supervisor for guidance
- Identify possible hazards before approaching the site
- Bring appropriate PPE (e.g., gas monitors, hard hats, high visibility vests, protective footwear, eye protection, gloves, and/or flashlights)
- Be mindful of harmful gasses in confined spaces
- Call 911 in an emergency, then report to supervisor

General Response Tasks

- Take pictures of work site before entering with date and time stamps
- Review security camera footage to identify malevolent actor/contamination source
 - If remote access is possible, review footage before departing for site
- Check surrounding fences and locks for damage, replace as needed
- Take pictures of damage with date and time stamps
- Contact supervisor if damage is noticed anywhere
- Repair damage when possible, follow standard protocols for repairs
- Remove contamination source if evident
- Take water samples frequently for duration of the contamination event
 - Use proper PPE when taking water samples (gloves, safety glasses)
- Report findings and actions to supervisor

Tanks

- Conduct General Contamination Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Isolate the tank from the system by closing inlet and outlet valves. Open bypass connections if they are present
- Open tank hatch and inspect for contamination source, sediment, water discoloration, visible damage to tank walls, hatch, or connections when possible
- If tank is suspected to be damaged, perform a leak test (APWA 2017 Standards)
 - Close all tank inlets, outlets, inspection holes, or other openings below the water level

- Fill tank to maximum working water depth and let set for 48 hours
- Measure change in water depth over the next 5-day period. Take measurement at least once every 24 hours
- Mark any leaks or damp areas for later repair
- If the drop in the water exceeds 0.25 percent of tank volume, repair and retest
- Repair all observed leaks or damp areas and retest full tank again until the tank passes leak test

- If sediment/contaminant is evident, remove object(s) from tank
- If the tank needs to be isolated for cleaning or repair, close the inlet and outlet valves, and open any bypass connections
- Clean and disinfect tank, follow standard protocols. Do not drain contaminated water into the system
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Wells/Wellhouses and Groundwater

- Conduct General Contamination Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Check exposed well casings, piping, valves, and other equipment for visible damage
- Isolate well/spring from the system and collect water samples
- Isolate and perform repairs as needed
- If chemical treatment is present, refer to the Chemical Storage section
- Report findings and actions to supervisor

Distribution System

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Isolate contaminated areas to prevent spread throughout the system
- Report findings and actions to supervisor

Pump Station

- Conduct General Contamination Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Turn off pump if objects are expected to travel through the pump inlet

- Report findings and actions to supervisor

Chemical Storage

- Conduct General Safety Measures & Facility Assessment
- Conduct General Response Tasks
- Bring applicable PPE (e.g., gas monitor, mask, eye protection, gloves)
- Ensure all gas cylinders are chained up and secured inside building
- Monitor treatment output to ensure that water quality standards are met
- If a gas leak is detected, contact emergency responders to arrange for cleanup crew
 - Contact residents in adjacent area
- Report findings and actions to supervisor

CHAPTER 6 – SUMMARY AND CONCLUSION

RISK AND RESILIENCE ASSESSMENT SUMMARY

In June of 2021, HAL completed the Risk and Resilience Assessment for the District. This assessment was required by the EPA and details vulnerabilities to the drinking water system. This assessment also contains asset-threat pairing for the drinking water system. The following vulnerabilities were identified in the 2021 RRA for the District.

- EDR Treatment Plant
- Electric Power Dependence
- Loss of Access to District SCADA System
- Experienced System Operators Reaching Retirement Age / General Employee Turnover

Table 6-1 includes the recommended countermeasures included in the 2021 RRA. HAL recommends the District implements these countermeasures, as they can reduce the vulnerability of the District, increase the District's ability to detect an emergency scenario, and mitigate the damage caused by an emergency scenario. More information on the vulnerabilities and countermeasures can be found in Appendix B and in the 2021 Risk and Resilience Assessment.

Table 6-1: 2021 Risk and Resilience Countermeasures

Countermeasure Package	Recommendation / Countermeasure
≤ 1 Year Implementation	General Cyber Security Measures per Digital DataComm
	Stockpiling of Critical Parts and Equipment
	District Employee Succession Planning
	Distribution of Alternative Drinking Water Operating Procedure
	Intrastate Mutual Aid Agreements (UT-WARN)
	Develop Earthquake Education, Awareness and Safety Program
1 – 5 Year Implementation	Zone 3 Booster Emergency Power Generator
	Culinary Water Source Redundancy
	Priority Secondary Water Expansion
	Emergency Agreements with Pre-Qualified Contractors
	Structural Inspections of Water Infrastructure
	Development of Business Continuity Plan
	National Incident Management System Compliance
≥ 5 Year Implementation	Haynes Clearwell Emergency Bypass Booster Station
	Full, Comprehensive Cyber Audit from Digital DataComm

CYBER SECURITY RECOMMENDATIONS

As part of the 2021 Risk and Resilience Assessment effort, HAL coordinated with Digital DataComm to produce cyber security recommendations for the District. The recommendations included in Table 6-2 will increase the District's resilience to cyber-attacks.

Table 6-2: Security Recommendations

Category	Recommendations
Water Controls	<ol style="list-style-type: none">1. Use cloud hosted, commercially available SCADA software2. Restrict IP address for SCADA software to U.S. IP addresses3. Utilize 2 Factor Authentication4. Use complex passwords (8 characters minimum and include 3 of the 4; uppercase, lowercase, number, symbol, and no dictionary words/names) for all users5. SCADA backups (on-site and off-site) and retain for 30 days/test quarterly6. SCADA services shall have 2 bandwidth providers, minimum7. Utilize SCADA provider with a guaranteed minimum up time of 99%8. Invest in ISO27001 certification9. Individual credentials/logins for security, auditing, and logging purposes10. Limit admin access to the least number of employees possible11. 24 / 7 SCADA monitoring12. Limit SCADA access to employees that require software as part of their job responsibilities13. Standard Operating Procedure (SOP) for the timely removal of SCADA users upon termination14. Use surge protectors and replace batteries per manufacturer recommendations
Physical Security	<ol style="list-style-type: none">1. Individual personal identification numbers (PIN) for access to facilities and SOP for timely removal of PIN upon termination2. Alarms systems at facilities be monitored by an alarm service3. Escalation process for after-hours alarms4. Install security cameras as all facilities and be equipped with night-vision or adequate lighting. Retain records for 30 days minimum5. Perform facility inspection weekly (in-person or via cameras)

Category	Recommendations
Workstations	<ol style="list-style-type: none"> 1. Assign individual remote devices 2. Screen savers / timeout mechanisms after 10 minutes of inactivity 3. Utilize a well-known, enterprise antivirus software and threat notification monitoring by IT personnel 4. Minimum 3-year warranty from PC hardware manufacturer 5. Standardized workstations (patch management, authorized software, and malware/virus protection) 6. Maintain up-to-date operating systems 7. Use Microsoft Windows Professional or higher version 8. Personal and edge firewalls 9. Bring Your Own Device (BYOD) standard operating procedure 10. Website filtering
Email	<ol style="list-style-type: none"> 1. Keep Exchange Server up to date. Current version of Microsoft Exchange Server is Exchange Service 2019 CU2. 2. Utilize spam filtering 3. Utilize 2 Factor Authentication 4. Use complex passwords (8 characters minimum and include 3 of the 4; uppercase, lowercase, number, symbol, and no dictionary words/names) for all users 5. Utilize a well-known, enterprise antivirus software and threat notification monitoring by IT personnel 6. Perform Cyber Security Training annually for all users 7. Perform active (automated) phishing training quarterly
Documented Policies and Procedures	<ol style="list-style-type: none"> 1. Password Policy 2. Hire / Termination Policy 3. Security Policy 4. Disaster Recovery 5. Email Retention Policy 6. Document Retention Policy 7. Technology Change Management Policy 8. Privacy Policy 9. Call Retention Policy 10. Organization Chart

CONCLUSION

This Emergency Response Plan meets all of the requirements for a satisfactory emergency response plan as determined by the EPA. Included in this document are up-to-date inventories of equipment, lists of each critical asset used in the drinking water system, specific plans the water district can use in response to an emergency scenario, contact information for external partners

and critical customers, and recommendations from the Risk and Resilience Assessment completed in 2021.

This ERP is written in a “Rip and Run” style, meaning chapters and sections can be used as stand-alone documents. This style is intended to help give quick direction and guidance to emergency responders from the Magna Water District. Chapter and section references, as well as contact information are often included as hyperlinks so digital readers can navigate the document, make phone calls, and send emails quickly.

The EPA requires 5-year updates for the Emergency Response Plan and Risk and Resilience Assessment. Updates to equipment inventories, personnel rosters, external contact information, and response strategies should be included in these updates when they occur. HAL also recommends regular emergency training for City personnel. This training can occur on a time-frame the District sees fit (annually, semi-annually, quarterly, etc.) and should include a “dry-run” of an emergency response. This training will help improve the District’s ability to respond, and can help indicate weaknesses in the system and the response strategies included in this document.

APPENDIX A

Risk and Resilience Assessment / Emergency Response Plan Electronic Certification Process

America's Water Infrastructure Act's

Electronic Certification Process for Completion of

Risk and Resilience Assessments and Emergency Response Plans

Introduction:

This document provides guidance on how to certify the completion of your community water system's risk and resilience assessment and emergency response plan to the U.S. EPA, as required under Section 2013 of [America's Water Infrastructure Act](#). This law establishes certification deadlines based on community water system population served and requires re-certification to occur every five-years; see [U.S. EPA's America's Water Infrastructure Act website](#) for more information.

For purposes of this guide, we will illustrate the path of a utility certifying its risk and resilience assessment first, then its emergency response plan.

Step 1 - Account Registration: From our [America's Water Infrastructure Act Certification page](#), select the "***Certify my community water system's risk and resilience assessment***" link.

Begin by registering your community water system. If you do not have an existing U.S. EPA Shared CROMERR Services (SCS) account, select "***Register a new account***" to sign up, otherwise login with your User ID and password.

Once you register, future risk and resilience assessment or emergency response plan certifications can be completed in a few simple clicks. If you need assistance or have questions about the certification process, please reach out to the U.S. EPA via email at helpdesk@epacdx.net or call 888-890-1995 (Option 2).

Step 2 - PWSID Number: Next enter your community water system's PWSID number, including your two-character primacy agency abbreviation, such as your state, territory, or tribal nation abbreviation, followed by the full seven-digit identification number, with no spaces in between, then select "***Continue***." In the specific case of the state of Utah, users should spell out UTAH, followed by their five-digit identification number, with no spaces in between, then select "***Continue***." You'll then see a pop-up to ensure your PWSID number is correct. Recheck your input, then select "***Continue***" again.

Step 3 - Terms and Conditions: Read and accept the terms and conditions, click the box certifying your acceptance, then click "***Accept***."

Step 4 - Account Details: Now it is time to build your "***Account Profile***." Enter the required information in the **Account Owner** section. Required fields are indicated with an asterisk (*). The system does require your First and Last names, as well as your email address.

Create your User ID and password. The password must be at least eight characters long and contain at least one uppercase letter, one lowercase letter, and one number. Confirm your password, then select and complete the three security questions. The answers to these questions will be used to recover your password if it is forgotten. You may click the box on the bottom left-hand side of the screen to **Show Passwords and Answers** to ensure that you have typed in the correct entries. Note that you may create a PDF of your answers and keep a password protected digital copy or print your responses and keep them in a safe place. Now select "**Continue**" to move on to the next screen.

[Step 5 - Organization or Community Water System Information:](#)

On this page you'll encounter one of two scenarios:

Scenario 1: If your community water system is listed below.

- Click on the community water system name.
- Click the "**Select¹**" icon next to your address.
- Click the "**Continue**" icon at the bottom right-hand side of the screen.
- Click the "Add new address" link. If your address information is incorrect, supply the correct information, then click "**Continue**."

Scenario 2: If your community water system is not listed below.

- Enter your community water system's name in the search box.
- Click on your community water system's information, then click the "**Continue**" icon at the bottom right-hand side of the screen.
- If problems persist in identifying your system, select the "*Enter a new organization*" link, add your information, then click the "**Continue**" icon.

Alternatively, you may want to ensure your PWSID number is correctly entered by clicking the "*Program Identification*" link in the upper left-hand toolbar of this screen. When applicable, correct your information and continue.

After walking through one of these two scenarios, click "**Continue**."

[Step 6 - Email Validation:](#)

After entering your community water system's information, you will receive an automated email from SCS Administrator in your email inbox containing an account validation code. Enter the validation code into the "**Code**" field under your User ID and select "**Create Account**." This code is only used for account creation and you do not need to save it.

Your account is now created. You will be directed to your Dashboard where you will see your pending actions. A second email is also sent to your email inbox from SCS Administrator stating that your account has been activated.

¹ The selection of your Organization or Community Water System.

Step 7 – Vulnerability Assessments Submitted to U.S. EPA Under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002:

Under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, your community water system likely submitted a vulnerability assessment to U.S. EPA. On this screen you will be asked if you want that vulnerability assessment: 1) permanently disposed of by U.S. EPA; 2) returned to you; or 3) if the scenario is not applicable. Make your choice and click “**Submit.**” After you select “**Submit,**” you will be presented with a pop-up message asking you to certify your risk and resilience assessment either now or later.

You may select “**Certify Later,**” if you want to use your original vulnerability assessment to inform your new risk and resilience assessment or for any other reason. If you do select “**Certify Later,**” you will be able to login into this system with just your User ID and Password to complete the risk and resilience assessment or emergency response plan certification process.

Please be advised that it may take up to 60 days for U.S. EPA to return your vulnerability assessment.

Step 8 - Certification Selection Process:

The next step is to certify your pending actions. The certification processes for the Risk and Resilience Assessment and Emergency Response Plan are very similar, so for demonstration purposes, we will choose to click on “**Certify your Risk and Resilience Assessment.**”

Step 9 - Certification Statements:

You will be presented with your standard Risk and Resilience Assessment certification statement, which is based on the language in Section 2013 of America’s Water Infrastructure Act. Your name, community water system’s name, and population served will be auto-populated into the certification statement. Please review the statement. If you need to, you can edit your community water system’s name and its population served. Once you verify your information, select the “**Certify Now**” icon on the bottom left of your screen.

Prior to certification, you may also print this page as a record for your files and you will receive an acknowledgment of receipt email from U.S. EPA (scs@epacdx.net) when your certification is completed.

If you run into any issues, please click on the “**Contact Us**” link in the top right of your screen.

Once you have certified your Risk and Resilience Assessment a pop-up message will appear on your screen asking if you want to certify your Emergency Response Plan now or later. You may not be ready to certify your Emergency Response Plan at this time, so you may select “**Certify Later;**” this selection will return you to the homepage.

If you are ready to certify your Emergency Response Plan, select “**Certify Now.**” This will open a page that prompts you to enter your PWSID number. Use the “**Select**” button to enter your organization or community water system as you did under the Enter Organization Information process above.

Once you have opened the certification page, as before, you will have the ability to edit your community water system’s name and population served before submitting. Prior to certification, you may also print this page as a record for your files and you will receive an acknowledgment of receipt email from U.S. EPA (scs@epacdx.net) once certification is completed.

Step 10 - Future Logins:

Once these steps are completed, you will be able to simply login with your established User ID and password to certify your risk and resilience assessment or emergency response plan in the future.

OTHER FEATURES

Accessing Past Certifications:

On the risk and resilience assessment and emergency response plan certification statement pages, there will be an icon to view your certification submission history.

User ID and Password Reset:

If you have an account but have forgotten your User ID, select the “**Forgot your User ID**” hyperlink under the login boxes; this will take you to a screen to retrieve your User ID. Enter the email address you used to register your account and select “**Submit.**” You can then check your email for your User ID.

Similarly, if you have forgotten your password, select the “**Forgot your Password**” hyperlink under the login boxes. This will take you to a screen to reset your password. Enter your email address and User ID and select “**Submit**” and check your email for a link to reset your password.

Help and Technical Support:

If you encounter any issues, please email dwresilience@epa.gov, call the Help Desk at 888-890-1995 (Option 2), or select “**Contact Us**” on the login page to access the Helpdesk via email (helpdesk@epacdx.net).

APPENDIX B

Risk and Resilience Assessment Summary of Countermeasure Recommendations

Table B-1: Risk and Resilience Summary

Vulnerability	Recommendations
<p>EDR Treatment Plant: Currently, all culinary water from the Haynes and Barton Well Fields is feed through and treated at the EDR Treatment Plant. If the plant were to become compromised in some way, the District would have to rely on their single JWWCD connection to meet demand.</p>	<ol style="list-style-type: none"> Culinary Water Source Redundancy: District should seek to add at least 1,000 gpm of capacity to the Haynes or Barton well field. This added redundancy can include the construction of a new well or the rehabilitation of one of the District's unused wells. Priority Secondary Water Expansion: The areas the District will need to expand their secondary supply include; <ol style="list-style-type: none"> Canal Shares Development of Wastewater Reuse Shallow Groundwater Sources Stockpiling of Critical Parts and Equipment: In addition to the stockpiling of extra parts, District crews shall be trained on the operation and installation of backup equipment so repairs can be made in a timely manner. Distribution of Alternative Drinking Water Operating Procedure: Supply bottled water to affected residents for the length of supply interruption. Contact and agreements with suppliers should be established before emergency. Operating procedures shall include methods for procuring, stockpiling, and delivering water bottles. Emergency Agreements with Pre-Qualified Contractors: Maintain a list of contractors, vetted in advance, will enable the District to maximize response time in an emergency, make decisions in a low-pressure environment, and hopefully, reduce overall consequences of an incident. Key attributes that pre-qualified contractors will have include; <ol style="list-style-type: none"> Competitive prices, Quality services and goods, Necessary qualifications and technical and financial capabilities, and A record of integrity and good standing with the District. Structural Inspections of Water Infrastructure: Performed at least annually by a licensed, structural engineer and periodically by maintenance and operation crews. Potential issues to take notice of include; <ol style="list-style-type: none"> Spalling or cracking of concrete Exposed rebar Daylight coming from joints Business Continuity Plan: Shall contain contingencies for business processes, assets, human resources, and business partners. As important as the plan itself, is the review and testing of the developed plan which can range from table-top exercises to full disaster simulation. UT-WARN Membership: As a member, the District will benefit from educational resources on how to reduce the District's

Vulnerability	Recommendations
	<p>malevolent threat risk and how to establish emergency response procedures. The District will also be able to call upon adjacent water systems for assistance before, during and after an emergency.</p> <p>9. National Incident Management System Compliance: All District employees to be trained in the baseline courses and for key employees that are likely to fill managerial roles during emergencies to be trained in some additional, advanced ICS courses.</p> <p>10. Develop Earthquake Education, Awareness and Safety Programs: Programs may take the form of;</p> <ul style="list-style-type: none"> a. "Lunch and Learn" meetings from insurance industry representatives, b. Creation and distribution of GIS hazard mapping, or c. Emergency protocol training seminars. <p>11. Haynes Emergency Bypass Booster Station: The District shall invest in and construct an emergency booster station that would bypass the EDR Plant in the scenario processes in the treatment train were to go offline.</p>
<p>Electric Power Dependence: As seen in the 2021 Texas snowstorms, extreme weather events can cause outages in the power grid and can then quickly disrupt water supply. Currently, Rocky Mountain Power is the sole power supplied to the District's water facilities.</p>	<p>1. Zone 3 Booster Emergency Power: With the increase in future demand and a lack of water source redundancy into Pressure Zone 3, the RRA Team recommends the Zone 3 Booster to be equipped with backup emergency power and the following shall be implemented by the District.</p> <ul style="list-style-type: none"> a. Backup Generator Emergency Operating Plan: Include annual testing requirements, procedures on refueling, and procurement/stockpiling of supplies (diesel, extra parts, etc.). b. Agreements with Local Diesel Suppliers: To include re-fueling requirements during prolonged power outages. c. Generator Maintenance Agreements: With manufacturers or local specialists to include semi-annual inspection and testing of the District's generators. <p>2. Stockpiling of Critical Parts and Equipment: In addition to the stockpiling of extra parts, District crews shall be trained on the operation and installation of backup equipment so repairs can be made in a timely manner.</p> <p>3. Distribution of Alternative Drinking Water Operating Procedure: Supply bottled water to affected residents for the length of supply interruption. Contact and agreements with suppliers should be established before emergency. Operating procedures shall include methods for procuring, stockpiling, and delivering water bottles.</p> <p>4. Emergency Agreements with Pre-Qualified Contractors: Maintain a list of contractors, vetted in advance, will enable the</p>

Vulnerability	Recommendations
	<p>District to maximize response time in an emergency, make decisions in a low-pressure environment, and hopefully, reduce overall consequences of an incident. Key attributes that pre-qualified contractors will have include;</p> <ul style="list-style-type: none"> a. Competitive prices, b. Quality services and goods, c. Necessary qualifications and technical and financial capabilities, and d. A record of integrity and good standing with the District. <p>5. Structural Inspections of Water Infrastructure: Performed at least annually by a licensed, structural engineer and periodically by maintenance and operation crews. Potential issues to take notice of include;</p> <ul style="list-style-type: none"> a. Spalling or cracking of concrete b. Exposed rebar c. Daylight coming from joints <p>6. Business Continuity Plan: Shall contain contingencies for business processes, assets, human resources, and business partners. As important as the plan itself, is the review and testing of the developed plan which can range from table-top exercises to full disaster simulation.</p> <p>7. UT-WARN Membership: As a member, the District will benefit from educational resources on how to reduce the District's malevolent threat risk and how to establish emergency response procedures. The District will also be able to call upon adjacent water systems for assistance before, during and after an emergency.</p> <p>8. National Incident Management System Compliance: All District employees to be trained in the baseline courses and for key employees that are likely to fill managerial roles during emergencies to be trained in some additional, advanced ICS courses.</p>
<p>Loss of Access to District SCADA System:</p> <p>Since COVID-19, industries have adopted "work-from-home" and "remote-in" policies that expose vulnerabilities in networks. As employees remote-in to their work computer this offers hackers an easier path to gain access and encrypt company data if proper security measures are not implemented.</p>	<p>1. General Cyber Security Measures per Digital DataComm: The following measures can be implemented by the District's IT Department. For the preliminary cyber security audit including additional recommendations, refer to Appendix C in the RRA.</p> <ul style="list-style-type: none"> a. Use dual authentication, especially on SCADA accessible devices. b. Limit shared SCADA usernames. c. Reduce the number of employees with SCADA control access. d. Use complex passwords. e. Quarterly cyber system backups both on-site and off-site. f. Implement screensavers and timeout mechanisms. g. Host cyber security seminars / "lunch and learns" h. Maintain up-to-date operating systems and antivirus software.

Vulnerability	Recommendations
	<p>As of January 2020, Windows 7 entered End of Life.</p> <ol style="list-style-type: none"> i. Use Virtual Private Networks (VPN). 2. <u>Distribution of Alternative Drinking Water Operating Procedure:</u> Supply bottled water to affected residents for the length of supply interruption. Contact and agreements with suppliers should be established before emergency. Operating procedures shall include methods for procuring, stockpiling, and delivering water bottles. 3. <u>Development of Business Continuity Plan:</u> Shall contain contingencies for business processes, assets, human resources, and business partners. As important as the plan itself, is the review and testing of the developed plan which can range from table-top exercises to full disaster simulation. 4. <u>UT-WARN Membership:</u> As a member, the District will benefit from educational resources on how to reduce the District's malevolent threat risk and how to establish emergency response procedures. The District will also be able to call upon adjacent water systems for assistance before, during and after an emergency. 5. <u>National Incident Management System Compliance:</u> All District employees to be trained in the baseline courses and for key employees that are likely to fill managerial roles during emergencies to be trained in some additional, advanced ICS courses. 6. <u>Full, Comprehensive Cyber Audit from Digital DataComm:</u> Many of the items during the preliminary audit are verbally confirmed. The full, comprehensive cyber audit would look at verifying all items on the audit report by inspecting the claims. Digital DataComm would also be doing an audit of things such as firewall settings/rules, then looking at written policies and procedures noting whether those policies and procedures are followed.
<p><u>Experienced System Operators Reaching Retirement Age / General Employee Turnover:</u></p> <p>As knowledgeable employees reach retirement age and leave the District, they take with them critical experience and knowledge of the system.</p>	<ol style="list-style-type: none"> 1. <u>District Employee Succession Plans:</u> Succession planning is a strategy for identifying and developing future leaders. Employees with years of experience can pass down their knowledge about the systems so there are no performance interruptions when an employee leaves the department. 2. <u>Develop Employee Screening / Hiring Policies:</u> Screening and hiring policies enable the organization to identify top candidates for employment and ensure those standards are maintained when current hiring managers leave the company. 3. <u>Water System Operating Plan:</u> Adhere to the procedures and recommendations as per the Magna Water Operations Plan.

APPENDIX C

Equipment List for Gas Card

Equipment Number	Equipment Description	Equipment Year	Make	Model	VIN	License #	Driver	Gas Card #
1	pusher trailer	2012	spec tec		1S9EA3823DS188587			
2	Leased John Deere Backhoe	2015	John Deere	310SL	1T0310SLUFF255550			
3	2016 Ford F350	2016	Ford	F350	1FT8W3BT0GED9347	214258		0028-2
4	2017 Kenworth T370	2017	Kenworth	T370	2NKHH7X9JM181820	203007 EX		0029-2
5	4" BYPASS PUMP	2018						
7	Dump Trailer	2000	Clement		5C2DD15C3YM000188	35144 EX		
8	F550 Service Truck	2013	Ford	F550	1FDOW5HT3DEA87729			0018-2
10	Chev 2500HD	2007	Chev	2500HD	1GCHK2907E546906	101074EX		0002-2
11	Cat Backhoe	2012	CAT	430E	CAT0430EHSWC00521			0013-2
12	Haulmark	1997	Haulmark		16HOB101XVU006773	EX66130		
13	Leased John Deere Backhoe	2015	John Deere	310SL	1T0310SLCLF286764			
14	STEAM CLEANER							
15	Air Comp	2000	Ingersoll Rand	Ingersoll Rand 185	306064U1221			
16	metal craft trailer	1986	Metal Craft	trailer	1FWF01297GA004751			
18	honda 2" pump	2015	Honda		WABT3033722			
19	94 TRAILER GEN/WELDER	1994						
20	HOMEITE BRUSH CUTTER							
21	2009 GMC canyon	2009	GMC	CANYON	1GTD114F498123450			
22	husqvarna chop saw	2012	Husqvarna		970	#25 WATJ-1213482		
23	PRESSURE WASHER							
24	3" HONDA PUMP	2018						
25	1" honda pumps	2013	Honda					
27	4" Honda trash pump	2001	honda		WT40X			
28	6" DIESEL PUMP	1986	gorman 6"pump		3ALHG3FF9LDL6580			
29	STOW SUBM. PUMP							
30	Vactor 2100	2019	FRIEGLINER		1145D			
31	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDDED4MZ236309	RAYMOND MONDRAGON	0001-2	0001-2
32	CHAINSAW	2019						
33	Easement machine	1999	sewer company of					
34	walk behind saw	2011	core cut		cc2500	140187		
35	SILVERADO 3500 CREW-LEASED	2021	CHEVROLET		L-31	STEVE CLARK 0036-1		
36	Trimmer sewer plant Husqvarna	2012	Husqvarna					
37	John Deere Lawn Tractor	2015	John Deere	D170	1GXD170ECCFF604638			
39	Camel Vac Truck	2000	Sterling	Camel	2FZEEEDBSYAB32945	74617EX		
40	freightliner columbia	2004	FRIEGLINER	COLUMBIA	1FUJA6CY34LM12283	101418EX		
42	John Deere WEED Cutter	2007	John Deere	MX6	3FRWF75S27V507563	29976 EX		
43	Toro 621R snowblower	2013	toro	621R #38451	312004717			
44	F750 Service Truck	2007	Ford		3FRWF75S27V507563	2976 EX	0020-2	00020-2
45	Vactor	2008	Sterling	LT9513	2F2HADDE3TAY46313	500001 EX		0009-2
46	Cat Roller CB34	2014	CAT	CB34				
47	FORCED AIR HEATER 2004	2004						
48	John Deere Lawn Tractor	1991	John Deere	LX176	T0310DG814626			
49	310D Backhoe	1996	John Deere		2GCEG675A9P418118	16153EX		
52	New camera van E450	2013	Ford	E450	1FDXE4FS9DDA8965	2000038 EX		0006-2
54	TRAILER SPRAYER & PUMP	2009						
55	T880 kenworth	2018	kenworth		T880	1TKU02020DR041690	212253EX	0030-2
56	Trail King TK14T	2013	Trail King	TK14t	L50CP10232			
58	95 volvo loader	1995	Volvo	L50C	4V5JCBP4TR850733			0010-2

Equipment Number	Equipment Description	Equipment Year	Make	Model	VIN	License #	Driver	Gas Card #
60	Volvo Dump	1995	VOLVO	WG64	1M7AX07C1GM030994	213499EX		0008-2
61	MACK	2016	MACK	700	544K II	1DW544KZKHF679569		
62	John Deere loader 544k	2017	John Deere				JON DAVIS	0021-2
63	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED8MZ2363331		BEAU LAMPER	0005-2
65	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED4MZ236570		CLINT DILLEY	0035-1
67	TRaverse- LEASED	2021	CHEVROLET		1GNEVGKWM9MJ162475			
68	ventrac 4200	2003	ventrac	4200	wbb1302			
69	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED3MZ236513		BRAD DAVIES	0017-2
72	Yale fork lift	2010	Yale	GLP050VXE/RE086	B875B17218F			
74	STERLING DUMP TRUCK	2007	Sterling	LT9500	2FZM4ZCR37AX99905	200014 EX		0024-2
75	SUBMERGIBLE GRINDER PUMP	2004					ROB JATERKA	0014-2
76	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED2MZ236566		DALLAS HENLINE	0003-2
77	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED1MZ236350		CLINT GILES	0027-2
78	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED0MZ236596		SEWER CREW	0004-2
79	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDED4MZ236679		MATT SKOGERBOE	0015-2
81	SILVERADO 1500 CREW-LEASED	2021	CHEVROLET		1GCUYDEDXMZ236735		TREVOR ANDRA	0034-1
82	TRaverse- LEASED	2021	CHEVROLET		1GNEVGKWM7MJ162491		CONSTRUCTION CREW	0037-1
83	SILVERADO 3500 CREW-LEASED	2021	CHEVROLET					0016-2
84	Cat Backhoe 420F WATER	2017	CAT	420F2	CAT0420FCHWC01576		BOB BATT	0038-1
85	SILVERADO 3500 CREW-LEASED	2021	CHEVROLET					
86	Cat backhoe 420F SEWER	2017	CAT					
87	CAT MINI EX	2019	CAT	305.5EZ	CAT3055EDCR507916			0007-2
	Husqvarna saw	2016	Husqvarna	K1260				0011-2
	Husqvarna chop saw	2012	Husqvarna	970				0031-2
	Husqvarna	2011	Husqvarna	223L	111001577			0032-2
	Husqvarna chain saw concrete	2019	Husqvarna	k970 II	201631000589672908-1			0033-2
	960 Husqvarna	2009	Husqvarna	960				
	Husqvarna chop saw	2014	Husqvarna	970				

NEWMAN CONSTRUCTION

CHANGE ORDER

ORDER NO. 2
DATE December 16, 2021

CONTRACT FOR: 2021 Waterline Replacements

OWNER: Magna Water District

TO: Newman Construction

(Contractor)

You are hereby requested to comply with the following changes from the Contract Documents, Plans and Specifications:

Description of Changes

<u>(Supplemental Plans & Specifications Attached)</u>	<u>Item</u>	<u>Decrease Contract Price</u>	<u>Increase Contract Price</u>
1)	24-inch CMP Repair		\$10,832.83
2)	Extension of Time		\$0.00
3)	3-inch conduit for Water Laterals		\$346.00
4)	Concrete Under Roadway Beyond 8-inch Thick		\$30,760.75
5)	4-inch Half Loop		\$2,850.00
6)	Jr. High and Church lateral		\$11,425.00
7)	Balancing Change Order	(\$268,306.88)	

JUSTIFICATION: See attached pages.

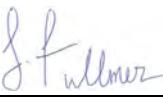
The original Contract Price is: \$ 3,275,362.50

The Contract Price adjusted from previous change orders is: \$ 3,296,787.70

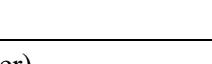
The amount of the Contract Price will be decreased by the sum of: \$ 190,666.60

The Contract Price including this and previous Change Orders will be: \$ 3,084,695.90.

This document will become a modification to the Contract and all provision will apply hereto.

Requested SKYLER FULLMER 
(Contractor) 1/3/22
(Date)

Recommended 
(Engineer) 1/3/22
(Date)

Approved 
(Owner) 1/3/22
(Date)

JUSTIFICATION

1) 24-inch CMP Repair

Newman encountered a buried corrugated metal pipe (CMP) that was not on the plans nor was it marked by Bluestakes as they were excavating at the intersection of 3500 South and Magnolia Street. The CMP is currently being used to deliver irrigation water to users in and around Magna. The CMP was corroded to the point that Newman could not excavate around it without compromising the structure of the pipe. After discussing the situation amongst the parties involved, the decision was made to cut out a section of the CMP and replace it with new pipe. The contractor could then install the culinary and secondary waterlines underneath the new section. The location of this repair required that the work be done at night.

This item shall be compensation in full for time and materials required to cut out the existing CMP and install a new section during night hours. A summary of the costs is listed below. Attached is a copy of the cost breakdown submitted by the Contractor.

Labor	\$4,440.25
Equipment	\$3,005.00
Materials	\$3,387.58
Total	\$10,832.83

2) Extension of Time

Newman experienced delays that were out of their control causing the project to go past the scheduled date of completion. Newman has listed their lost days of production and justifications in the attached documents. Their request for 44 extra days is justified, however they do not believe they will need that many days.

Upon approval of this change order, Newman will agree to a new substantial completion date of September 17, 2021 and a new final completion date of October 1, 2021. Substantial completion shall be defined as the point in the project when all the pipe has been installed and all roadways are paved. Final completion shall be defined as the point at which all the punchlist items have been completed.

3) 3" Conduit for Water Laterals.

During construction on 3500 South, the Contractor indicated that the subservice material was too rocky to directional drill the laterals across the street. Epic's inspector confirmed this to be the case. The alternative to directional drilling is open cutting a trench across the street which is more costly and resulted in the Contractor being required to work nights. In order to avoid the need to open cut every single lateral on 3500 South, the Contractor proposed open cutting trenches periodically along 3500 South and installing parallel 3" conduits in the trenches which they then could pull multiple laterals through after they buried and asphalted each trench.

This item shall be compensation in full for material only to install the 3" conduit. A summary of the breakdown of this item is listed below. Attached is a copy of the costs submitted by the Contractor.

Materials	\$346.50
Total	\$346.50

4) Concrete Under Roadway Beyond 8-inch Thick.

The plans indicated that the Contractor would possibly encounter 8-inch-thick concrete underneath the roadway in 3500 South for the majority of the alignment. During construction, the Contractor discovered that for most of the alignment the concrete layer was actually 16 to 18 inches thick. The contractor agreed that their original bid would cover the initial 8 inches of the concrete that needed to be removed. Their request for additional funds is only to cover any concrete that is in addition to the initial 8 inches of concrete.

This item shall be compensation in full for additional labor to break up and remove the concrete under the roadway in 3500 South that was in addition to the initial 8 inches that was included in the bid. This item shall also include dump fees that the Contractor accrued for the additional concrete that was not part of their bid. A summary of the breakdown of this item is listed below. Attached is a copy of the costs submitted by the Contractor.

Schedule A	\$272.50
Schedule B	\$9,837.25
Schedule C	\$8,311.25
Schedule D	\$8,338.50
<u>Dump Fees</u>	<u>\$4,001.25</u>
Total	\$30,760.75

5) 4-inch Half Loop.

The Contractor came across a 30-inch storm drain pipe that was in the way of a 4-inch service lateral that they were installing. The Contractor could not install the 4-inch service lateral above the storm drain due to lack of clearance from the top of asphalt. The Contractor had to go underneath the storm drain using two 4-inch vertical bends.

This item shall be compensation in full for time and materials required to install two 4-inch vertical bends on a service lateral. A summary of the breakdown of this item is listed below. Attached is a copy of the costs submitted by the Contractor.

<u>Materials</u>	\$2,850.00
Total	\$2,850.00

6) Jr. High and Church lateral.

The plans called for the Contractor to pothole two service lateral connections (one servicing a junior high school and one servicing a church) in order to turn the corp stops and abandon the laterals. The Contractor searched for the laterals where the plans indicated, but could not find them. The District came out to provide markings for the laterals, but the Contractor could not find the laterals where the District had marked them. The Contractor then spent a significant amount of time searching for the laterals which delayed production and required them to repair all the excavated areas to existing conditions.

This item shall be compensation in full for time and materials to locate the two mislocated laterals in addition to the time and materials that were included as part of the bid. This item shall include payment for labor, equipment, and repairing surfaces that were not included in their initial bid. A summary of the breakdown of this item is listed below. Attached is a copy of the costs submitted by the Contractor.

Labor	\$2,635.00
Equipment	\$4,960.00
Dump Fee	\$230.00
<u>Materials</u>	\$3,600.00
Total	\$11,425.00

7) Balancing Change Order

Upon completion of the project, a number of unit quantities were adjusted based on what was actually installed as part of the project. A copy of the pay request spreadsheet showing the changes has been attached.

<u>Labor & Material</u>	(\$268,306.88)
Total	(\$268,306.88)

Total Contract Price Decrease; \$190,666.60
Total Contract Length Extension; 44 Days



CHANGE PROPOSAL

13331 So. Redwood Rd. ● Riverton, Utah 84065 ● Phone 254-3524 ● Fax 254-6469

Excavation ● Demolition ● Pipeline

DATE: 8/10/2021 JOB NAME: 24" CMP IRRIGATION
MAGNA 2021 WATERLINE
SUBMITTED TO: ADDRESS: MAGNA
PHONE: ESTIMATED START DATE: 7/18/2021

CONTACT:

ITEM #	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
	<u>LABOR</u>				
FO	FOREMAN OT	13.50	HR	\$ 84.00	\$ 1,134.00
OO	OPERATOR OT	28.00	HR	\$ 65.00	\$ 1,820.00
PO	PIPE LAYER OT	14.50	HR	\$ 54.50	\$ 790.25
LO	LABORER OT	14.50	HR	\$ 48.00	\$ 696.00
	<u>EQUIPMENT</u>				
305.5	CAT 305.5 EXCAVATOR	8.00	HR	\$ 50.00	\$ 400.00
930	CAT 930 LOADER	6.00	HR	\$ 80.00	\$ 480.00
FT	FOREMAN TRUCK	4.00	HR	\$ 40.00	\$ 160.00
CT	CREW TRUCK	14.50	HR	\$ 50.00	\$ 725.00
DT	DUMP TRUCK & DRIVER	5.00	HR	\$ 120.00	\$ 600.00
WT	WATER TRUCK	2.00	HR	\$ 55.00	\$ 110.00
BROOM	3 WHEEL BROOM	1.00	HR	\$ 30.00	\$ 30.00
MILL	120F MILLING MACHINE	2.00	HR	\$ 250.00	\$ 500.00
	<u>MATERIALS</u>				
MAT	PIPE MATERIALS	1.15	LS	\$ 1,276.57	\$ 1,468.06
MAT	CONCRETE MATERIAL	1.15	LS	\$ 1,669.15	\$ 1,919.52
	Total Job				\$ 10,832.83

NOTES: NIGHT WORK REQUIRED, DUE TO IRRIGATION SCHEDULE.

BID IS: Unit Price (actual measured upon completion)

Lump Sum

We hereby propose to do the outlined items of work, subject to all terms and conditions as set forth herein. All materials used are guaranteed as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from the above specifications which will involve extra costs will be executed only upon written orders and will become an extra charge over and above this estimate. All agreements are contingent upon strikes, accidents, weather, or other unforeseen delays beyond our control. Agreement may be withdrawn if not accepted within 30 days. IN ORDER TO BE PUT ON THE WORK SCHEDULE, WE MUST RECEIVE A SIGNED COPY OF THIS PROPOSAL.

CLAUSE: Solid formations or buried structures will be renegotiated, or billed at T&E rates. Excessive delays beyond our control may be billed at T&E rates.

BY NEWMAN CONSTRUCTION: _____ MIKE DAVIS _____ DATE: 8/10/2021

ACCEPTANCE: The above prices, specifications and conditions are accepted. You are authorized to do the work as specified. Payment will be made as outlined.

PAYMENT IS TO BE MADE AS FOLLOWS (NO CREDIT CARDS): All accounts due by 10th of month following date of invoice. In the event payment is not made by due date, I/We agree to pay all attorney's fees, court costs, including charges or commissions up to 50 percent that may be assessed to us by an outside collection agency or attorney who has been retained to pursue this matter. I/We agree to pay interest at the rate of 2 percent per month (24 percent per year).

SIGNATURE & TITLE: _____ DATE: _____



CHANGE ORDER

13331 So. Redwood Rd. • Riverton, Utah 84065 • Phone 254-3524 • Fax 254-6469

Excavation • Demolition • Pipeline

DATE: 8/31/2021

JOB NAME: Magna Waterlines Project
Additional Work Days

SUBMITTED TO: Epic Engineering

ADDRESS:

PHONE:

CONTACT: Stockton Denos

ITEM #	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	<p>Additional Work</p> <p>Additional Working Days to Complete Magna Waterlines Project</p> <p>Total Job</p> <p>NOTE: The 44 days represents the total number of working days lost due to permitting issues, weather, and unforeseen repairs. This does not include weekends or holidays. Also, this does not include any new events that may impact our schedules. We do not anticipate needing the full 44 days to complete the project and expect the work to be substantially completed within a couple of weeks.</p>	44	Days	\$ -	\$ -

BID IS: Unit Price (actual measured upon completion)

Lump Sum

We propose this Change Order to accommodate a change in scope of work as directed by the owner. This Change Order will become part of an agreement between Newman Construction and the owner. The Owner agrees to this price increase, and if applicable this Change Order will become part of the Contract Agreement.

BY NEWMAN CONSTRUCTION: _____ Steve DeWitt DATE: 8/31/2021

ACCEPTANCE: The above prices, specifications and conditions are accepted. You are authorized to do the work as specified. Payment will be made as outlined.

SIGNATURE & TITLE: _____ DATE: _____



Justifications for Delays

1. Delayed getting UDOT Permit Approved. We submitted all the necessary documents to UDOT on Friday April 9th, 2021. Documents included Bond, Detail Plan of Work, Liability Insurance, Traffic Control Plan. UDOT took exception to the Traffic Control Plan which took until late May to resolve. We finally received an approved permit from UDOT on Monday June 7th, 2021.
2. UDOT does not allow work past noon on a Friday prior to Holiday Weekends. We had to shut down operations at noon on 3500 South on both Friday July 2nd, 2021, and Friday July 23rd, 2021, in accordance with UDOT requirements.
3. Repairs to CMP Irrigation Pipe. Used one night of production hours on Sunday July 18th, 2021, to repair rotted CMP Irrigation pipe on Magnolia Street.
4. Lost a couple days of production due to weather. The heavy rains on Wednesday August 18th, and Thursday August 19th, 2021, prevented Newman Construction from being able to work these days.

#	EVENTS CAUSING DELAYS	DAYS LOST	START	END
1	UDOT PERMIT	40	9-Apr	7-Jun
2	UDOT HALF DAY (Friday before a Holiday)	0.5	2-Jul	2-Jul
3	CMP IRRIGATION REPAIRS	1	18-Jul	18-Jul
4	UDOT HALF DAY (Friday before a Holiday)	0.5	23-Jul	23-Jul
5	WEATHER DELAYS	2	18-Aug	19-Aug
TOTAL		44		



Required Documents for Customer

NEWMAN CONSTRUCTION, INC.
 Riverton, UT, 84065
 (801) 254-3524
 mdavis@newmanllc.com

Application Status Information

Application Type: Encroachment
 Application ID: **112363**
 Application Status: Permit Issued
 Application Date: 31-AUG-21

Required Document Uploads

If the required document items are not broken out into separate documents, and the applicant is uploading the same document multiple times, then make sure the page number where these items can be found is clearly noted in the "Document Description" text field below for each uploaded document

Bond Complete
 Detail Plan of Work Complete
 Liability Insurance Complete
 Traffic Control Plan Complete

Received Documents

Plan Type Desc	Received Date	Approved Date	Version Number	Document Desc	File Url
Bond	06/07/21		3		Newman-UDOT new form Statewide. Bond #34BSBGK1473 with Continuation.pdf
Bond	04/09/21		2	BOND	BONDS.pdf
Bond	04/09/21		1	BOND	Utah-Department-of- Newman-Construc_21-22-GL,-Auto,_3-3-2021_808763695_1.pdf
Detail Plan of Work	04/09/21		1	DETAIL PLAN OF WORK	2021 Waterlines Replacement_Final Plan Set.pdf
Liability Insurance	04/09/21		1	LIABILITY INSURANCE	Utah-Department-of- Newman-Construc_21-22-GL,-Auto,_3-3-2021_808763695_1.pdf
Traffic Control Plan	04/09/21		1	TRAFFIC CONTROL PLAN	2021 MAGNA WATERLINE REPLACEMENT PROJECT 3500 SOUTH 8000 WEST - MAGNA - MULTIPLE SETS.pdf

Upload Documents

Document Type:

Document Description:

File Name:

***IMPORTANT NOTE:** Please click the "Next" button and make sure to click the "Submit to UDOT" button on the following page. Failing to complete this critical step will prevent UDOT from being notified that this application has been updated or completed.



CHANGE ORDER PROPOSAL

13331 So. Redwood Rd. • Riverton, Utah 84065 • Phone 254-3524 • Fax 254-6469

Excavation • Demolition • Pipeline

DATE: 11/17/2021 JOB NAME: MAGNA 2021 WATERLINES

SUBMITTED TO: MAGNA WATER DISTRICT 3" CONDUIT FOR WATER SERVICES

PHONE:

CONTACT:

ITEM #	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
<u>DESCRIPTION OF WORK</u>					
	3" CONDUIT (MATERIAL ONLY)	350	LF	\$ 0.99	\$ 346.50
	Total Job				\$ 346.50

Unit Price (actual measured upon completion)

Lump Sum

BY NEWMAN CONSTRUCTION: SKYLER FULLMER DATE: 11/17/2021

ACCEPTANCE: The above prices, specifications and conditions are accepted. Must be signed by an Authorized Representative.

SIGNATURE & TITLE: _____ DATE: _____



CHANGE ORDER PROPOSAL

13331 So. Redwood Rd. • Riverton, Utah 84065 • Phone 254-3524 • Fax 254-6469

Excavation • Demolition • Pipeline

DATE: 11/16/2021 JOB NAME: MAGNA 2021 WATERLINES

SUBMITTED TO: MAGNA WATER DISTRICT CONCRETE UNDER ROADWAY 8+" THICK

PHONE:

CONTACT:

ITEM #	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
<u>DESCRIPTION OF WORK</u>					
1	SCHEDULE A CONCRETE UNDER ROADWAY	50	LF	\$ 5.45	\$ 272.50
2	SCHEDULE B CONCRETE UNDER ROADWAY	1805	LF	\$ 5.45	\$ 9,837.25
3	SCHEDULE C CONCRETE UNDER ROADWAY	1525	LF	\$ 5.45	\$ 8,311.25
4	SCHEDULE D CONCRETE UNDER ROADWAY	1530	LF	\$ 5.45	\$ 8,338.50
5	CONCRETE DUMP FEES	485	CY	\$ 8.25	\$ 4,001.25
Total Job					
NOTES: NEWMAN CONSTRUCTION HAS TAKEN RESPONSIBILITY OF THE TOP 8" OF CONCRETE REMOVAL, WHICH ACCUMULATED TO 660 CY TOTAL. THE LINEAR FOOTAGES SHOWN ABOVE ARE FROM AREAS WHERE WE ENCOUNTERED 9-18" THICK CONCRETE, AND NEEDED TO BE REMOVED AND DISPOSED OF. ALL CONCRETE THAT WAS THICKER THAN 8" WAS NOT ACCOUNTED FOR IN OUR ORIGINAL BID.					

Unit Price (actual measured upon completion)

Lump Sum

BY NEWMAN CONSTRUCTION: SKYLER FULLMER DATE: 11/16/2021

ACCEPTANCE: The above prices, specifications and conditions are accepted. Must be signed by an Authorized Representative.

SIGNATURE & TITLE: _____ DATE: _____



CHANGE ORDER

13331 So. Redwood Rd. • Riverton, Utah 84065 • Phone 254-3524 • Fax 254-6469

Excavation • Demolition • Pipeline

DATE: 11/17/2021

JOB NAME: MAGNA WATERLINES
4" HALF LOOP UNDER STORM DRAIN

SUBMITTED TO: MAGNA WATER DISTRICT

ADDRESS:

PHONE:

CONTACT:

ITEM #	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	<p>Additional Work</p> <p>INSTALL 4" HALF LOOP UNDER EXISTING STORM</p> <p>Total Job</p> <p>NOTE: INSTALL 4" HALF LOOP UNDERSTORM DRAIN. INCLUDES (2) 45 BENDS WITH THRUST BLOCKS.</p>	1	LS	\$ 2,850.00	\$ 2,850.00

BID IS: Unit Price (actual measured upon completion)

Lump Sum

We propose this Change Order to accommodate a change in scope of work as directed by the owner. This Change Order will become part of an agreement between Newman Construction and the owner. The Owner agrees to this price increase, and if applicable this Change Order will become part of the Contract Agreement.

BY NEWMAN CONSTRUCTION: SKYLER FULLMER DATE: 11/17/2021

ACCEPTANCE: The above prices, specifications and conditions are accepted. You are authorized to do the work as specified. Payment will be made as outlined.

SIGNATURE & TITLE: _____ DATE: _____



CHANGE ORDER PROPOSAL

13331 So. Redwood Rd. • Riverton, Utah 84065 • Phone 254-3524 • Fax 254-6469

Excavation • Demolition • Pipeline

DATE: 11/17/2021 JOB NAME: MAGNA 2021 WATERLINES

SUBMITTED TO: MAGNA WATER DISTRICT

PHONE:

CONTACT:

ITEM #	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	AMOUNT
T&M					
<u>LOCATE JR HIGH WATER LATERAL</u>					
LAB	FOREMAN	6	HR	\$ 65.00	\$ 390.00
EQ	PICKUP TRUCK	6	HR	\$ 40.00	\$ 240.00
LAB	OPERATOR	8	HR	\$ 55.00	\$ 440.00
LAB	OPERATOR OT	4	HR	\$ 65.00	\$ 260.00
EQ	305.5 CAT TRACKHOE	3	HR	\$ 55.00	\$ 165.00
EQ	CAT 259D TRACKLOADER	3	HR	\$ 40.00	\$ 120.00
EQ	CAT 930 LOADER	6	HR	\$ 80.00	\$ 480.00
EQ	CREW TRUCK	6	HR	\$ 50.00	\$ 300.00
LAB	PIPELAYER	4	HR	\$ 42.00	\$ 168.00
LAB	PIPELAYER OT	2	HR	\$ 54.50	\$ 109.00
LAB	LABORER	4	HR	\$ 38.00	\$ 152.00
LAB	LABORER OT	2	HR	\$ 48.00	\$ 96.00
VAC	VAC TRUCK	7	HR	\$ 275.00	\$ 1,925.00
DUMP	VAC DUMP FEE	1	EA	\$ 115.00	\$ 115.00
<u>CHURCH LATERAL</u>					
LAB	FOREMAN	4	HR	\$ 65.00	\$ 260.00
EQ	PICKUP TRUCK	4	HR	\$ 40.00	\$ 160.00
LAB	OPERATOR	8	HR	\$ 55.00	\$ 440.00
EQ	305.5 CAT TRACKHOE	2	HR	\$ 55.00	\$ 110.00
EQ	CAT 930 LOADER	2	HR	\$ 80.00	\$ 160.00
EQ	CREW TRUCK	4	HR	\$ 50.00	\$ 200.00
LAB	PIPELAYER	4	HR	\$ 42.00	\$ 168.00
LAB	LABORER	4	HR	\$ 38.00	\$ 152.00
VAC	VAC TRUCK	4	HR	\$ 275.00	\$ 1,100.00
DUMP	VAC DUMP FEE	1	EA	\$ 115.00	\$ 115.00

CONC	<u>ADDITIONAL CONCRETE & BASE</u>					
CONC	R&R CHURCH DRIVE APPROACH	80	SF	\$ 30.00	\$ 2,400.00	
	R&R SEMINARY DRIVE APPROACH	40	SF	\$ 30.00	\$ 1,200.00	
	Total Job					\$11,425.00
	NOTE: THESE LATERALS WERE MISMARKED IN THE FIELD AND SHOWN DIFFERENTLY ON THE PLANS. WE CONTACTED MAGNA WATER DISTRICT AND HAD THEIR VACCUM TRUCK TRY TO LOCATE THESE AS WELL, BUT THEY COULD NOT LOCATE THEM. MAGNA INSTRUCTED US TO EXCAVATE IN SEVERAL DIFFERENT AREAS TO FINALLY LOCATE THE LATERALS. THIS CHANGE ORDER ACCOUNTS FOR THE TIME AND MATERIAL USED THAT WENT ABOVE AND BEYOND THE ORIGINAL BID ITEM.					

Unit Price (actual measured upon completion)

Lump Sum

BY NEWMAN CONSTRUCTION:

SKYLER FULLMER

DATE: 11/17/2021

ACCEPTANCE: The above prices, specifications and conditions are accepted. Must be signed by an Authorized Representative.

SIGNATURE & TITLE:

DATE:



2021 WATERLINE REPLACEMENTS
MAGNA WATER DISTRICT
Pay Request Worksheet

2021 WATERLINE REPLACEMENTS

Item No.	Description	Est. Quantity	Unit	Unit Cost	Amount	Quantity	Total	% Complete	Balancing Change Order			
									Balancing Quantity	Unit Cost	Total	Amount Remaining
A01	MOBILIZATION	1	LS	\$ 35,000.00	\$35,000	1.00	\$35,000.00	100%		\$35,000.00	\$0.00	\$0.00
A02	TRAFFIC CONTROL	1	LS	\$ 120,000.00	\$120,000	1.00	\$120,000.00	100%		\$120,000.00	\$0.00	\$0.00
A03	12" SECONDARY WATER PIPE	1,800	LF	\$ 87.00	\$156,600	1800.00	\$156,600.00	100%		\$87.00	\$0.00	\$0.00
A04	10" SECONDARY WATER PIPE	20	LF	\$ 108.00	\$2,160	20.00	\$2,160.00	100%		\$108.00	\$0.00	\$0.00
A05	6" SECONDARY WATER PIPE	100	LF	\$ 129.00	\$12,900	100.00	\$12,900.00	100%		\$129.00	\$0.00	\$0.00
A06	12" BEND	2	EA	\$ 1,675.00	\$3,350	2.00	\$3,350.00	100%		\$1,675.00	\$0.00	\$0.00
A07	6" BEND	1	EA	\$ 800.00	\$800	1.00	\$800.00	100%		\$800.00	\$0.00	\$0.00
A08	SECONDARY SERVICE LATERAL	10	EA	\$ 4,600.00	\$46,000	10.00	\$46,000.00	100%		\$4,600.00	\$0.00	\$0.00
A09	OPEN CUT SERVICE LATERAL	3	EA	\$ 2,700.00	\$8,100	3.00	\$8,100.00	100%		\$2,700.00	\$0.00	\$0.00
NEW 1.5" SECONDARY SERVICE LATERAL		1	LS	\$ 5,400.00	\$5,400	0.65	\$3,510.00	65%	-0.35	\$5,400.00	-\$1,890.00	\$0.00
A10	1.5" SECONDARY SERVICE CONNECT TO EX.	1	LS	\$ 5,100.00	\$5,100	1.00	\$5,100.00	100%		\$5,100.00	\$0.00	\$0.00
A11	12" CROSS	1	EA	\$ 4,150.00	\$4,150	1.00	\$4,150.00	100%		\$4,150.00	\$0.00	\$0.00
A13	12"x10" REDUCER	1	EA	\$ 2,800.00	\$2,800	1.00	\$2,800.00	100%		\$2,800.00	\$0.00	\$0.00
A14	12"x8" REDUCER	1	EA	\$ 2,000.00	\$2,000	1.00	\$2,000.00	100%		\$2,000.00	\$0.00	\$0.00
A15	12"x6" REDUCER	1	EA	\$ 1,800.00	\$1,800	1.00	\$1,800.00	100%		\$1,800.00	\$0.00	\$0.00
A16	12" BUTTERFLY VALVE	1	EA	\$ 3,700.00	\$3,700	1.00	\$3,700.00	100%		\$3,700.00	\$0.00	\$0.00
A17	8" GATE VALVE	1	EA	\$ 2,450.00	\$2,450	1.00	\$2,450.00	100%		\$2,450.00	\$0.00	\$0.00
A18	6" GATE VALVE	1	EA	\$ 1,950.00	\$1,950	1.00	\$1,950.00	100%		\$1,950.00	\$0.00	\$0.00
A19	10" CAP	1	EA	\$ 800.00	\$800	0.00	\$0.00	0%	-1.00	\$800.00	-\$800.00	\$0.00
A20	4" BLOWOFF ASSEMBLY	1	EA	\$ 4,450.00	\$4,450	1.00	\$4,450.00	100%		\$4,450.00	\$0.00	\$0.00
A21	IMPORT ROAD BASE	530	TON	\$ 18.00	\$9,540	341.87	\$6,153.66	65%	-188.13	\$18.00	-\$3,386.34	\$0.00
A22	ASPHALT REPLACEMENT	18,000	SF	\$ 8.25	\$148,500	11600.00	\$95,700.00	64%	-6400.00	\$8.25	-\$52,800.00	\$0.00
A23	FLOWABLE FILL	12	CY	\$ 260.00	\$3,120	3.00	\$780.00	25%	-9.00	\$260.00	-\$2,340.00	\$0.00
B01	MOBILIZATION	1	LS	\$ 35,000.00	\$35,000	1.00	\$35,000.00	100%		\$35,000.00	\$0.00	\$0.00
B02	ADDITIONAL TRAFFIC CONTROL	1	LS	\$ 120,000.00	\$120,000	1.00	\$120,000.00	100%		\$120,000.00	\$0.00	\$0.00
B03	8" CULINARY WATER PIPE	1880	LF	\$ 75.00	\$141,000	1880.00	\$141,000.00	100%		\$75.00	\$0.00	\$0.00
B04	6" CULINARY WATER PIPE	10	LF	\$ 171.00	\$1,710	10.00	\$1,710.00	100%		\$171.00	\$0.00	\$0.00
B05	12" CULINARY WATER PIPE	45	LF	\$ 175.00	\$7,875	45.00	\$7,875.00	100%		\$175.00	\$0.00	\$0.00
B06	8" SLEEVE	1	EA	\$ 800.00	\$800	1.00	\$800.00	100%		\$800.00	\$0.00	\$0.00
B07	6" SLEEVE	2	EA	\$ 800.00	\$1,600	2.00	\$1,600.00	100%		\$800.00	\$0.00	\$0.00
B08	12" SLEEVE	1	EA	\$ 1,200.00	\$1,200	1.00	\$1,200.00	100%		\$1,200.00	\$0.00	\$0.00
B09	8" BEND	6	EA	\$ 1,250.00	\$7,500	6.00	\$7,500.00	100%		\$1,250.00	\$0.00	\$0.00
B10	12" BEND	2	EA	\$ 1,750.00	\$3,500	2.00	\$3,500.00	100%		\$1,750.00	\$0.00	\$0.00
B11	8" X 6" REDUCER	2	EA	\$ 1,450.00	\$2,900	2.00	\$2,900.00	100%		\$1,450.00	\$0.00	\$0.00
B12	12" X 8" REDUCER	2	EA	\$ 2,100.00	\$4,200	2.00	\$4,200.00	100%		\$2,100.00	\$0.00	\$0.00
B13	8" GATE VALVE	5	EA	\$ 2,500.00	\$12,500	5.00	\$12,500.00	100%		\$2,500.00	\$0.00	\$0.00
B14	12" BUTTERFLY VALVE	1	EA	\$ 3,600.00	\$3,600	1.00	\$3,600.00	100%		\$3,600.00	\$0.00	\$0.00
B15	8" TEE	2	EA	\$ 2,800.00	\$5,600	2.00	\$5,600.00	100%		\$2,800.00	\$0.00	\$0.00
B16	12" TEE	1	EA	\$ 4,300.00	\$4,300	1.00	\$4,300.00	100%		\$4,300.00	\$0.00	\$0.00
B17	WATER LATERAL REPLACEMENT	10	EA	\$ 4,800.00	\$48,000	10.00	\$48,000.00	100%		\$4,800.00	\$0.00	\$0.00
B18	OPEN CUT SERVICE LATERALS	3	EA	\$ 3,300.00	\$9,900	3.00	\$9,900.00	100%		\$3,300.00	\$0.00	\$0.00
B19	FIRE HYDRANT REPLACEMENT	1	EA	\$ 8,400.00	\$8,400	1.00	\$8,400.00	100%		\$8,400.00	\$0.00	\$0.00
B20	ABANDON EX. LINE	4	EA	\$ 700.00	\$2,800	4.00	\$2,800.00	100%		\$700.00	\$0.00	\$0.00
B21	ABANDON VALVE BOX	4	EA	\$ 500.00	\$2,000	4.00	\$2,000.00	100%		\$500.00	\$0.00	\$0.00
B22	IMPORT ENGINEERED FILL	935	CY	\$ 18.00	\$16,830	91.01	\$1,638.18	10%	-843.99	\$18.00	-\$15,191.82	\$0.00
B23	IMPORT ROAD BASE	290	TON	\$ 18.00	\$5,220	26.51	\$477.18	9%	-263.49	\$18.00	-\$4,742.82	\$0.00
B24	ASPHALT REPLACEMENT	18,600	SF	\$ 8.25	\$153,450	11600.00	\$95,700.00	62%	-7000.00	\$8.25	-\$57,750.00	\$0.00
B25	FLOWABLE FILL	81	CY	\$ 260.00	\$21,060	81.00	\$21,060.00	100%		\$260.00	\$0.00	\$0.00
C01	MOBILIZATION	1	LS	\$ 35,000.00	\$35,000	1.00	\$35,000.00	100%		\$35,000.00	\$0.00	\$0.00
C02	TRAFFIC CONTROL	1	LS	\$ 120,000.00	\$120,000	1.00	\$120,000.00	100%		\$120,000.00	\$0.00	\$0.00
C03	10" SECONDARY WATER PIPE	1550	LF	\$ 80.00	\$124,000	1550.00	\$124,000.00	100%		\$80.00	\$0.00	\$0.00
C04	8" SECONDARY WATER PIPE	80	LF	\$ 137.00	\$10,960	80.00	\$10,960.00	100%		\$137.00	\$0.00	\$0.00
C05	SECONDARY SERVICE LATERAL	7	EA	\$ 4,900.00	\$34,300	7.00	\$34,300.00	100%		\$4,900.00	\$0.00	\$0.00
C06	OPEN CUT SERVICE LATERAL	2	EA	\$ 3,200.00	\$6,400	4.00	\$12,800.00	200%	2.00	\$3,200.00	\$6,400.00	\$0.00
C07	10" X 8" TEE	1	EA	\$ 3,100.00	\$3,100	1.00	\$3,100.00	100%		\$3,100.00	\$0.00	\$0.00
C08	10" BEND	1	EA	\$ 1,450.00	\$1,450	1.00	\$1,450.00	100%		\$1,450.00	\$0.00	\$0.00
C09	8" ADAPTOR	1	EA	\$ 1,000.00	\$1,000	1.00	\$1,000.00	100%		\$1,000.00	\$0.00	\$0.00
C10	10" ADAPTOR	1	EA	\$ 1,200.00	\$1,200	1.00	\$1,200.00	100%		\$1,200.00	\$0.00	\$0.00
C11	10" GATE VALVE	1	EA	\$ 3,500.00	\$3,500	1.00	\$3,500.00	100%		\$3,500.00	\$0.00	\$0.00
C12	4" BLOWOFF ASSEMBLY	1	EA	\$ 4,250.00	\$4,250	1.00	\$4,250.00	100%		\$4,250.00	\$0.00	\$0.00
C13	REMOVE EX. BLOWOFF ASSEMBLY	1	EA	\$ 1,000.00	\$1,000	1.00	\$1,000.00	100%		\$1,000.00	\$0.00	\$0.00
C14	PRV VAULT	1	LS	\$ 30,000.00	\$30,000	1.00	\$30,000.00	100%		\$30,000.00	\$0.00	\$0.00
C15	IMPORT ROAD BASE	470	TON	\$ 18.00	\$8,460	368.56	\$6,634.08	78%	-101.44	\$18.00	-\$1,825.92	\$0.00
C16	ASPHALT REPLACEMENT	15650	SF	\$ 8.25	\$129,113	10650.00	\$87,862.50	68%	-5000.00	\$8.25	-\$41,250.00	\$0.00
C17	FLOWABLE FILL	7	CY	\$ 260.00	\$1,820	7.00	\$1,820.00	100%		\$260.00	\$0.00	\$0.00
D01	MOBILIZATION	1	LS	\$ 35,000.00	\$35,000	1.00	\$35,000.00	100%		\$35,000.00	\$0.00	\$0.00
D02	ADDITIONAL TRAFFIC CONTROL	1	LS	\$ 120,000.00	\$120,000	1.00	\$120,000.00	100%		\$120,000.00	\$0.00	\$0.00
D03	8" CULINARY WATER PIPE	1745	LF	\$ 85.00	\$148,325	1745.00	\$148,325.00	100%		\$85.00	\$0.00	\$0.00
D04	6" CULINARY WATER PIPE	15	LF	\$ 139.00	\$2,085	15.00	\$2,085.00	100%		\$139.00	\$0.00	\$0.00
D05	4" CULINARY WATER PIPE	5	LF	\$ 137.00	\$685	5.00	\$685.00	100%		\$137.00	\$0.00	\$0.00
D06	8" ADAPTER	4	EA	\$ 1,000.00	\$4,000	4.00	\$4,000.00	100%		\$1,000.00	\$0.00	\$0.00
D07	8" SLEEVE	3	EA	\$ 1,250.00	\$3,750	3.00	\$3,750.00	100%		\$1,250.00	\$0.00	\$0.00
D08	6" SLEEVE	2	EA	\$ 1,150.00	\$2,300	2.00	\$2,300.00	100%		\$1,150.00	\$0.00	\$0.00
D09	4" SLEEVE	1	EA	\$ 1,050.00	\$1,050	1.00	\$1,050.00	100%		\$1,050.00	\$0.00	\$0.00
D10	8" BEND	10	EA	\$ 1,050.00	\$10,500	10.00	\$10,500.00	100%		\$1,050.00	\$0.00	\$0.00
D11	8" x 6" REDUCER	2	EA	\$ 1,250.00	\$2,500	2.00	\$2,500.00	100%		\$1,250.00	\$0.00	\$0.00
D12	8" X 4" REDUCER	1	EA	\$ 1,150.00	\$1,150	1.00	\$1,150.00	100%		\$1,150.00	\$0.00	\$0.00

D13	8" GATE VALVE	8	EA	\$ 2,450.00	\$19,600	10.00	\$24,500.00	125%	2.00	\$2,450.00	\$4,900.00	\$0.00
D14	8" TEE	3	EA	\$ 2,450.00	\$7,350	3.00	\$7,350.00	100%		\$2,450.00	\$0.00	\$0.00
D15	8" CROSS	1	EA	\$ 2,800.00	\$2,800	1.00	\$2,800.00	100%		\$2,800.00	\$0.00	\$0.00
D16	WATER LATERAL REPLACEMENT	7	EA	\$ 4,350.00	\$30,450	7.00	\$30,450.00	100%		\$4,350.00	\$0.00	\$0.00
D17	OPEN CUT SERVICE LATERAL	2	EA	\$ 2,800.00	\$5,600	4.00	\$11,200.00	200%	2.00	\$2,800.00	\$5,600.00	\$0.00
D18	ABANDON VALVE BOX	7	EA	\$ 500.00	\$3,500	7.00	\$3,500.00	100%		\$500.00	\$0.00	\$0.00
D19	ABANDON EX. LINE	6	EA	\$ 800.00	\$4,800	6.00	\$4,800.00	100%		\$800.00	\$0.00	\$0.00
D20	IMPORT ENGINEERED FILL	800	CY	\$ 18.00	\$14,400	611.54	\$11,007.72	76%	-188.46	\$18.00	-\$3,392.28	\$0.00
D21	IMPORT ROAD BASE	250	TON	\$ 18.00	\$4,500	233.49	\$4,202.82	93%	-16.51	\$18.00	-\$297.18	\$0.00
D22	ASPHALT REPLACEMENT	17000	SF	\$ 8.25	\$140,250	10650.00	\$87,862.50	63%	-6350.00	\$8.25	-\$52,387.50	\$0.00
D23	FLOWABLE FILL	145	CY	\$ 260.00	\$37,700	77.00	\$20,020.00	53%	-68.00	\$260.00	-\$17,680.00	\$0.00
E01	MOBILIZATION	1	LS	\$ 44,000.00	\$44,000	1.00	\$44,000.00	100%		\$44,000.00	\$0.00	\$0.00
E02	TRAFFIC CONTROL	1	LS	\$ 40,000.00	\$40,000	1.00	\$40,000.00	100%		\$40,000.00	\$0.00	\$0.00
E03	8" SECONDARY WATER PIPE	3525	LF	\$ 72.00	\$253,800	3525.00	\$253,800.00	100%		\$72.00	\$0.00	\$0.00
E04	6" SECONDARY WATER PIPE	280	LF	\$ 75.00	\$21,000	280.00	\$21,000.00	100%		\$75.00	\$0.00	\$0.00
E05	8" BEND	7	EA	\$ 1,100.00	\$7,700	7.00	\$7,700.00	100%		\$1,100.00	\$0.00	\$0.00
E06	8" VERTICAL BEND	1	EA	\$ 1,500.00	\$1,500	1.00	\$1,500.00	100%		\$1,500.00	\$0.00	\$0.00
E07	6" BEND	1	EA	\$ 1,000.00	\$1,000	1.00	\$1,000.00	100%		\$1,000.00	\$0.00	\$0.00
E08	8" GATE VALVE	6	EA	\$ 2,500.00	\$15,000	6.00	\$15,000.00	100%		\$2,500.00	\$0.00	\$0.00
E09	6" GATE VALVE	1	EA	\$ 2,000.00	\$2,000	2.00	\$4,000.00	200%	1.00	\$2,000.00	\$2,000.00	\$0.00
E10	4" GATE VALVE	1	EA	\$ 1,700.00	\$1,700	1.00	\$1,700.00	100%		\$1,700.00	\$0.00	\$0.00
E11	8" TEE	2	EA	\$ 2,500.00	\$5,000	2.00	\$5,000.00	100%		\$2,500.00	\$0.00	\$0.00
E12	8" x 6" TEE	1	EA	\$ 2,500.00	\$2,500	1.00	\$2,500.00	100%		\$2,500.00	\$0.00	\$0.00
E13	8" x 4" TEE	1	EA	\$ 2,200.00	\$2,200	1.00	\$2,200.00	100%		\$2,200.00	\$0.00	\$0.00
E14	8" x 6" REDUCER	1	EA	\$ 1,160.00	\$1,160	1.00	\$1,160.00	100%		\$1,160.00	\$0.00	\$0.00
E15	8" ADAPTER	5	EA	\$ 1,000.00	\$5,000	5.00	\$5,000.00	100%		\$1,000.00	\$0.00	\$0.00
E16	8" CAP	1	EA	\$ 900.00	\$900	1.00	\$900.00	100%		\$900.00	\$0.00	\$0.00
E17	6" CAP	1	EA	\$ 850.00	\$850	1.00	\$850.00	100%		\$850.00	\$0.00	\$0.00
E18	4" BLOWOFF ASSEMBLY	2	EA	\$ 3,650.00	\$7,300	2.00	\$7,300.00	100%		\$3,650.00	\$0.00	\$0.00
E19	SECONDARY SERVICE LATERAL	42	EA	\$ 5,500.00	\$231,000	42.00	\$231,000.00	100%		\$5,500.00	\$0.00	\$0.00
E20	OPEN CUT SERVICE LATERAL	11	EA	\$ 4,000.00	\$44,000	7.00	\$28,000.00	64%	-4.00	\$4,000.00	-\$16,000.00	\$0.00
E21	1.5" SERVICE LATERAL	1	EA	\$ 5,200.00	\$5,200	0.65	\$3,380.00	65%	-0.35	\$5,200.00	-\$1,820.00	\$0.00
E22	1.5" SERVICE LATERAL CONNECT TO EX.	2	EA	\$ 3,350.00	\$6,700	2.00	\$6,700.00	100%		\$3,350.00	\$0.00	\$0.00
E23	ELEMENTARY SCHOOL SERVICE LATERAL TIE OVER	1	LS	\$ 12,000.00	\$12,000	1.00	\$12,000.00	100%		\$12,000.00	\$0.00	\$0.00
E24	JUNIOR HIGH SERVICE LATERAL TIE OVER	1	LS	\$ 12,000.00	\$12,000	1.00	\$12,000.00	100%		\$12,000.00	\$0.00	\$0.00
E25	IMPORT ROAD BASE	1615	TON	\$ 18.00	\$29,070	957.61	\$17,236.98	59%	-657.39	\$18.00	-\$11,833.02	\$0.00
E26	ASPHALT REPLACEMENT	39,500	SF	\$ 5.00	\$197,500	39500.00	\$197,500.00	100%		\$5.00	\$0.00	\$0.00
E27	FLOWABLE FILL	7	CY	\$ 260.00	\$1,820	0.00	\$0.00	0%	-7.00	\$260.00	-\$1,820.00	\$0.00
E28	POTHOLE LATERAL CONNECTION	2	EA	\$ 2,000.00	\$4,000	2.00	\$4,000.00	100%		\$2,000.00	\$0.00	\$0.00

Total Costs

\$3,275,362.50

CHANGE ORDERS			To Date					Balancing Change Order				
Item No.	Description	Est. Quantity	Unit	Unit Cost	Amount	Quantity	Total	% Complete	Balancing Quantity	Unit Cost	Total	Amount Remaining
1A	Pipe Material Increase	1	LS	\$ 21,425.20	\$21,425	1.0	\$21,425.20	100%		\$21,425.20	\$0.00	\$0.00
2A	24-inch CMP Repair	1	LS	\$10,832.83	\$10,833	0.0	\$0.00	0%		\$10,832.83	\$0.00	\$10,832.83
2B	Time Extension Request	1	LS	\$0.00	\$0	0.0	\$0.00	0%		\$0.00	\$0.00	\$0.00
2C	3-inch Conduit	1	LS	\$346.50	\$347	0.0	\$0.00	0%		\$346.50	\$0.00	\$346.50
2D	Concrete Under Roadway	1	LS	\$30,760.75	\$30,763	0.0	\$0.00	0%		\$30,760.75	\$0.00	\$30,760.75
2E	4-inch Half Loop	1	LS	\$2,850.00	\$2,850	0.0	\$0.00	0%		\$2,850.00	\$0.00	\$2,850.00
2F	Jr. High and Church Lateral	1	LS	\$11,425.00	\$11,425	0.0	\$0.00	0%		\$11,425.00	\$0.00	\$11,425.00
2G	Balancing Change Order	1	LS	-\$268,306.88	-\$268,307	0.0	\$0.00	0%		-\$268,306.88	\$0.00	-\$268,306.88

Total Costs

-\$190,666.60

Contract Total	\$3,084,695.90	Summary
		Original Contract Amount \$3,275,362.50 Contract Increase \$96,540.28 Contract Decrease -\$287,206.88 Net Contract Adjustment -\$190,666.60 New Contract Amount \$3,084,695.90

 Indicates that the amount has been changed from original submitted by Contractor

WWTP INFLUENT

Technical Memorandum: WWTP Influent Project



DECEMBER 2021

Prepared for:



Magna Water District
8885 West 3500 South
Magna, UT 84044

Prepared by:



Stantec
2890 East Cottonwood Parkway, Suite 300
Salt Lake City, UT 84121

and

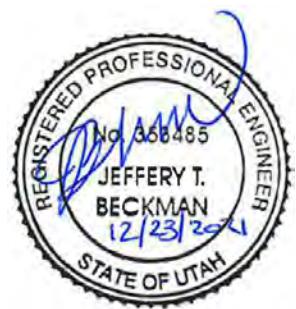


Bowen Collins & Associates
154 East 14075 South
Draper, UT 84020

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J. Clinton Rogers, licensed Professional Engineer registered in the State of Utah
 Stantec Consulting Services Inc.



Jeff Beckman, licensed Professional Engineer registered in the State of Utah
 Bowen Collins and Associates

Executive Summary

Magna Water District (MWD) commissioned this study to identify the projects needed to improve influent pumping at their Wastewater Treatment Plant (WWTP). Currently, MWD operations staff bypass the West Headworks because the aged equipment is no longer operational. This causes hydraulic back-ups to the trunk sewers that result in solids deposition that requires extra maintenance cleans. Additionally, this means that all influent flows are pumped by the influent pumps at the East Headworks. These pumps require frequent maintenance and are undersized for handling the full incoming flow.

The results and recommendations of this report include constructing a new stand-alone Influent Pump Station sized located at an elevation that prevents hydraulic back-ups to the trunk sewers. This new Influent Pump Station should be sized for 6 million gallons per day (MGD) initially, but designed such that it can be easily expanded to a capacity of 8 MGD (projected 2060 peak hour flows). The East Headworks and existing downstream treatment processes can accommodate up to 6 MGD of flow if the existing Blend Pump Station in the East Headworks is upsized. The existing screening and grit equipment in the East Headworks has a firm capacity of 6 MGD. A new Grit Washing Building is required before complete abandonment of the West Headworks is possible. The total project cost of a new Influent Pump Station, East Headworks modifications, and new Grit Washing Building is estimated at just under \$5.3M. These facilities could be online in 2024 if notice to proceed for design is given in early 2022. An additional train or trains of treatment infrastructure will be required once incoming peak hour flows exceed 6.0 MGD, which is projected for 2035. MWD should consider updating the 2015 Sewer Treatment Master Plan to identify concepts for future WWTP expansion.

1. Background and Objectives

Magna Water District (MWD) owns and operates an existing wastewater treatment plant (WWTP) located at 2100 South 7600 West in Magna, Utah. The existing WWTP is currently operating at an average daily flow (ADF) of 2.4 million gallons per day (MGD) and is permitted for an ADF of 4 MGD. Peak hour flow (PHF) has reached 4.6 MGD in the year 2021.

Trunk sewers from the east and west sides of the MWD service area collect and convey wastewater to the WWTP. These trunk sewers currently terminate at a single influent box at the front end of the WWTP. This influent box connects both the East and West Headworks facilities and allows flow to be split between or directed to one or other of the two headworks facilities. Typically, the West Headworks is bypassed, and all influent is treated through the East Headworks. MWD operations staff have been directing all influent wastewater flows to the East Headworks (built in 2007) for nearly a decade because the equipment in the West Headworks (original headworks, built in the early 1990s) has aged and is no longer in working order. The hydraulics of this bypassing results in solids deposition in both the east and west trunk sewers. Additionally, the influent submersible pumps at the East Headworks require frequent maintenance and are undersized to handle the full influent flow; at firm capacity a maximum of 2.9 MGD can be conveyed.

Additionally, MWD owns and operates an RV dump station located along the roadway in front of the WWTP. Flows from the RV dump are conveyed into the west truck sewer currently. MWD wants to make sure that as part of this evaluation that conveyance and temporary storage of RV flows ahead of the influent pump station are considered.

The purpose of this study is to evaluate options for a new influent pump station for MWD's WWTP that matches permitted treatment capacity, minimizes any hydraulic surcharge or water backing to the existing trunk sewers, incorporates the RV dump, and has low maintenance requirements. Furthermore, this study will evaluate equipment and operations needs at the East Headworks should the West Headworks be abandoned permanently. At a minimum, the pump stations in the East Headworks, both influent and blend, will need to be replaced and upsized. Also, grit removed from wastewater flows at the vortex grit systems in the East Headworks is currently pumped to the West Headworks for washing and disposal. This grit washing equipment will need to be relocated or replaced in a new facility adjacent to the East Headworks.

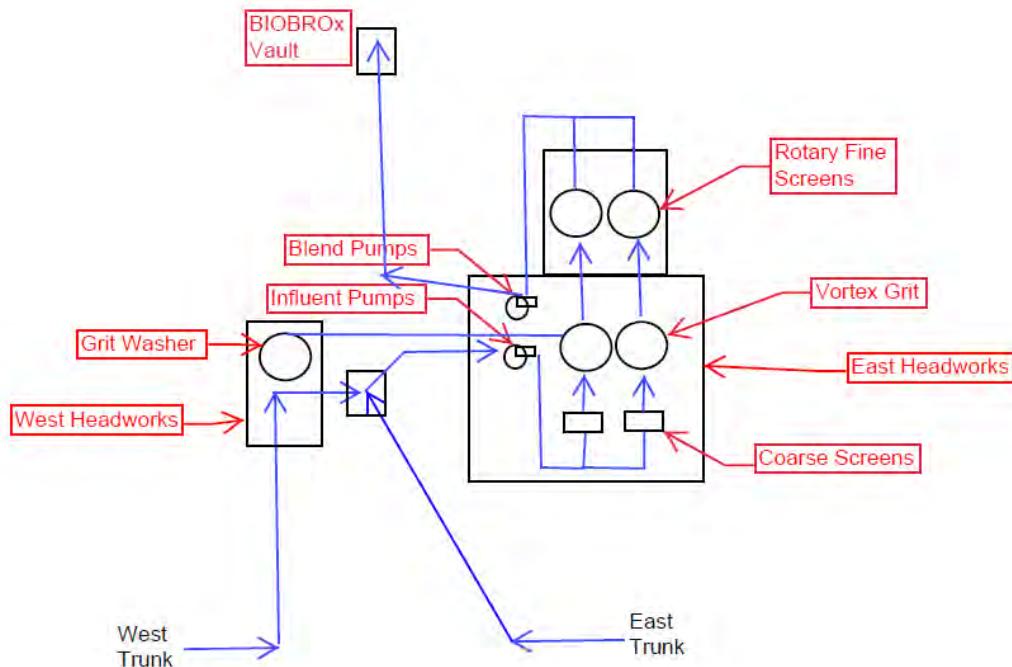


Figure 1: Flow Diagram of Wastewater for Magna WWTP Influent (no scale).

The goal of this pre-design study is to provide MWD with recommendations for influent pumping, identify needed East Headworks modifications to treat flows up to 6 MGD, and develop a concept for a new grit washing facility which can be used for budgeting and facility planning. MWD hired the Stantec Consulting Inc. (Stantec) and Bowen Collins & Associates (BCA) team to perform the evaluations needed for this influent project.

2. Basis of Design

Flow data from 2018 through present day was compiled and evaluated in order to determine the average annual day flow (AADF), max month average day flow (MMF), and peak hour flow (PHF) that sets the basis of design for this study. Current 2021 flows for AADF, MMF, and PHF are 2.3, 2.9, and 4.6 million gallons per day (MGD). The provided data showed close correlation and agreement to the anticipated flows by the 2020 Sewer Master Plan (see Attachment 1). Peaking factors were confirmed at 1.0 for AADF, 1.25 for MMF, and 2.0 for PHF, corresponding to the year 2035 flows of 2.95, 3.70, and 5.90 MGD respectively. The buildout flow is anticipated to be 7.40 MGD (PHF) in 2060 (see Attachment 2). Brine pump station flows can add approximately 0.7 MGD during its maintenance or outage. Thus, the

influent pump station (before screens and grit removal) must handle about 8 MGD at buildout PHF. Flow projections to do not include any side stream recycles from treatment processes back to the Influent Pump Station, but will be considered during design.

Table 1: Summary of current and projected wastewater flows in 2021 and forecasted flows in 2035 and 2060 (Flows do not include side stream recycles).

Current and projected wastewater flows (MGD)	2021	2035	2060
AADF	2.3	3.0	3.7
MMF	2.9	3.7	4.6
PHF	4.6	5.9	7.4

To pump and screen flows greater than 6 MGD as forecasted around the year 2035, additional infrastructure is necessary as identified in the 2015 Treatment Facility Master Plan. This suggests a need to revise and update the 2015 Master Plan to include expansion strategies and identify conceptual expansion plan layouts.

For this study, a new influent pump station will be evaluated based on the 2060 peak hour flow of 7.4 MGD plus the 0.7 MGD flow additional if the brine pump station were out of service due to maintenance or power failure for a total flow of approximately 8 MGD. The East Headworks will be evaluated based on providing capacity for the 2035 flows only, as this is the limit of the current treatment process downstream. An additional treatment train(s) or capacity upgrade will be required starting in 2035 to have the treatment capacity necessary for 2060 flows. A kickoff meeting was held on September 23, 2021. Concept workshops were held on October 25 and 27, 2021. Workshops were split into the headworks evaluation and the pump station evaluation. Workshop outcomes, evaluation findings, and additional details are presented herein.

3. East Headworks Evaluation

MWD operations staff have directed incoming wastewater flows to the East Headworks and bypassed the West Headworks for nearly a decade. Although this operation strategy has been advantageous due to aged equipment in the West Headworks, this causes hydraulic backups and solids deposition in both the east and west trunk sewers. No formal review of the true capacity of the East Headworks has occurred until this study. As stated in the previous Basis of Design Section, the equipment and capacity of the East Headworks will be evaluated based on the anticipated 2035 peak hour flow of approximately 6 MGD (rounded up to the nearest MGD). This 6 MGD flow is also the limit of existing treatment infrastructure downstream of the East Headworks. To be compliant with Utah Division of Water Quality (UDWQ) regulations, the equipment in the East Headworks must have capacities sufficient to pass the peak hour flow with one unit (the largest) out of service. At MWD's WWTP units are of identical size. Total capacity is the sum of all installed equipment. Firm capacity is defined as the capacity with one unit or the largest unit out of service whether for service in an emergency, rotational normal operation, or for scheduled maintenance planning. UDWQ permits and rates facilities based on firm capacity.

The East Headworks was constructed and put into service in 2007, resulting in an age of 14 years in 2021, for most of the equipment. The building was expanded in 2010 for the addition of fine screens. Initially there was only one screen installed, but a second fine screen was added sometime between 2012 and 2015. A typical service life for wastewater treatment plant equipment is 20 years. In discussion with manufacturers who provided the existing headworks equipment at MWD's WWTP, some screens (depending on wastewater characteristics) may last longer than 20 years. Given that we are evaluating the East Headworks on 2035 flow projections, it is important to keep in mind that most of the existing equipment will likely need refurbishment or replacement prior to 2035, assuming the typical 20-year lifespan.

From reviews of as-built drawings and researching equipment submittals, the capacity of East Headworks equipment is summarized in Table 2.

Table 2: Existing East Headworks equipment and capacities.

Equipment	Total Capacity (# of units: MGD)	Firm Capacity (# of units: MGD)
Influent Pumps	Three: 4.3	Two: 2.9
Coarse Screen	Two: 12.0	One: 6.0
Vortex Grit	Two: 14.0	One: 7.0
Fine Screen	Two: 11.6	One: 5.8
Effluent Pumps	Three: 5.6	Two: 3.7

Comparing the capacities shown for existing East Headworks equipment in Table 2 to the 2035 peak hour flow of 6.0 MGD, the influent and effluent (each a set of three submersible pumps) do not have sufficient capacity. The coarse screens, vortex grit system, and fine screens all provide firm capacity for 6.0 MGD. (The fine screening capacity falls slightly short at 5.8 MGD but this could be addressed with greater frequency of cycling or slightly larger perforation size during a refurbishment to pass 6 MGD.) Firm capacity for all East Headworks equipment is less than the 2060 flow condition of 8 MGD as a peak hour flow, further demonstrating the need for additional treatment train in the future. For additional information on existing East Headworks equipment refer to Attachment 3. To improve the capacity of influent pumping at the East Headworks, a new influent pump station is proposed upstream and separate from the East Headworks. This new influent pump station will be addressed and evaluated later in this report. The second pump station in the East Headworks, known as the Blend Pump Station, pumps wastewater that has been screened and degritted to the oxidation

ditch. This pump station must be increased in size with either larger pumps or the addition of a fourth pump.

An additional equipment item to be considered is that grit collected in the vortex grit system of the East Headworks is pumped to a single grit washer located in the West Headworks. To fully abandon the West Headworks, a grit washing system must be added near the East Headworks. A new building is required as there is no room in the existing East Headworks for grit washing equipment. This new facility needs to be large enough to house two grit washing units, as the existing operation with only one unit does not meet UDWQ requirements. Alternatives for a new grit facility from both an equipment and facility location perspective are evaluated in the section that follows.

Recommended Alternatives for Grit Washing Equipment and New Facility

MWD could keep their existing Huber grit washer and buy one additional, identical unit, or MWD could also buy two new Huber units. The existing Huber grit washer was installed in the West Headworks prior to construction of the East Headworks and thus has been in service for over 15 years. Alternatively, MWD could install two Smith & Loveless (S&L) units. These mentioned manufacturers are reputable and well-established in the wastewater industry. Other manufacturers, such as Vulcan, could be another option and should be evaluated during detailed design. Between the Huber and Smith & Loveless units are some distinct differences, mostly dimensionally. The S&L grit washer is narrower but longer than the Huber grit washer (see Attachments 4 and 5 for more detail on Huber and S&L equipment, respectively). This has implications on the building's size. For either equipment option, one new building sized to house two grit washing units will be required.

Table 3: Comparison of Huber and Smith & Loveless grit washing equipment.

	Huber COANDA RoSF4, Size 1	Smith & Loveless Model 250
Length	13 ft 1/2 in	18 ft 1 in
Width	5 ft 10-3/8 in	3 ft 0 in
Height	8 ft 5-1/2 in	9 ft 3 in
Pumping	Average flow of 125 gpm, Max flow of 150 gpm	Design flow of 250 gpm

As seen in Table 3 above, the other difference between Huber and S&L equipment is the flow rate of grit pumped to the grit washing equipment. Huber sizes to accommodate average expected grit flow, S&L pumps a constant higher flow. S&L prefers a higher rate to prevent clogging or related issues. Some of S&L customers have found issues with pumping flows around three feet per second (approximately 125 gallons per minute (gpm) through a four-inch diameter pipe), and thus S&L changed to an increased velocity. Their opinion is that increased electrical demand outweighs the possible maintenance woes and increased (improved) removal percentiles. For the 2007 East Headworks project, the S&L vortex grit

system was provided with smaller than normal pumps to match up with the Huber grit washer that MWD already had in service. Should MWD select S&L grit washing equipment as part of this project, S&L would require that larger pumps be added to the existing vortex grit system.

A new building is needed to house the grit washing equipment. For sizing purposes, the goal was to preserve approximately six feet of space around equipment, between building entries and equipment or equipment related accessories. The S&L grit washers are narrow and could share one common dumpster. Huber grit washing units are too wide for such arrangement and needs one designated dumpster per grit washer; this might be adjustable through means of an extended chute if a single dumpster setup is preferred. As depicted within Figure 2 and Figure 3, a building housing S&L would likely be around 700 square feet. A building housing Huber equipment would be wider, but slightly shorter, about 900 square feet.

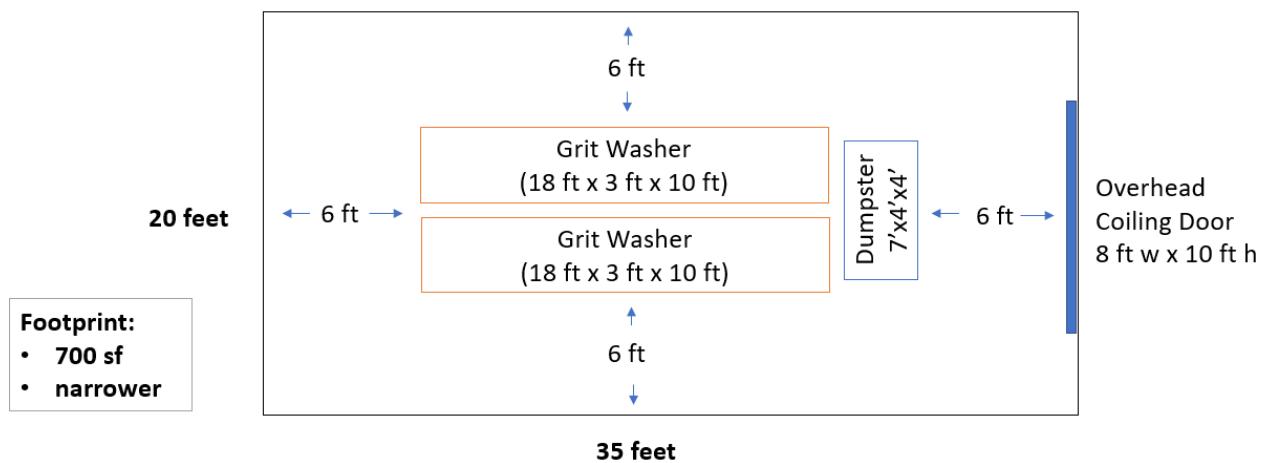


Figure 2: Conceptual Grit Washing Building layout with Smith & Loveless equipment.

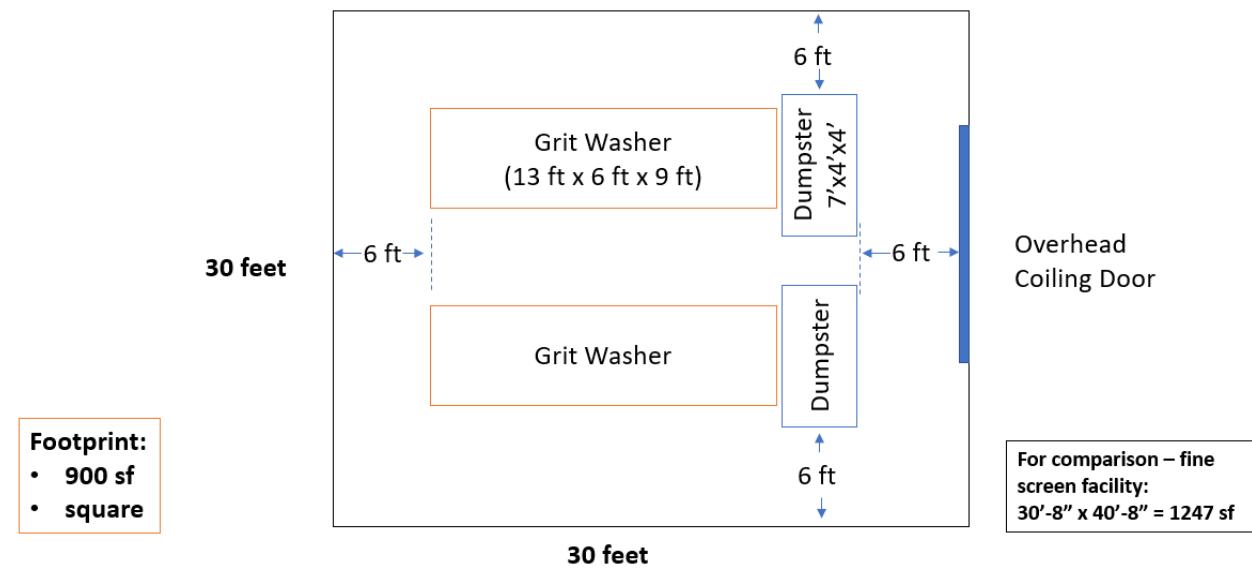


Figure 3: Conceptual Grit Washing Building layout with Huber equipment.

While a 200 square-foot difference in building space may be significant it is likely offset by the pumps that would need to be added for S&L equipment. Therefore, for purposes of siting and costing, the larger 30 by 30-foot layout shown in Figure 3 was used.

Originally, the space northwest of the existing East Headworks was identified for a possible placement of a new building. After researching record drawings, that space is densely occupied with at least seven underground utilities needed for continuous plant operation that could pose a challenge when attempting to bypass, making the space less ideal for new building placement. Instead, other locations were identified as possible alternatives as shown in Figure 4 below. For more detail on these site location alternatives, see Attachments 6 through 9.



Figure 4: Alternative Grit Washing Building locations (orange) compared to original planned location northwest corner of East Headworks (yellow). Squares shown are approximately 30 feet by 30 feet.

The three alternative Grit Washing Building locations proposed are summarized and compared in Table 5.

Table 5: Grit Washing Building location alternatives comparison.

Alternative No. 1, North of East Headworks, East of existing road	Alternative No. 2, Northwest of East Headworks in grass area	Alternative No. 3, repurpose existing West Headworks
New facility	New facility	Repurpose, remodel
Least interference with existing utilities	Need to relocate power, some other encroachments	Unknown condition of structure
Grit pumping distance estimated around 160 ft	Grit pumping distance estimated around 160 ft	Shortest grit pumping distance estimated around 120 ft
Location not likely required for future expansion	Location not likely required for future expansion	Repurpose already occupied space, but may be a better fit new facility for operations staff

Alternatives No. 1 and 2 are new facilities located in areas where construction can occur with minimal impact to existing utilities. The downside to the facilities is a longer pumping distance for grit slurry, which increases the chance of plugging especially at bends and fittings along the pipe route. Alternative No. 3 may have the shortest pumping distance but the risk (cost) of this alternative is the repurposing of the existing facility. There is not enough room to add a second grit washer to the area in the West Headworks where the existing unit resides. Remodeling and demolition of the West Headworks may be more expensive and may encumber an area which may be better used for operations staff needs. Furthermore, bringing an existing building to current codes may be cost prohibitive. If Alternatives No. 1 or 2 were implemented, the West Headworks could be abandoned, and no cost would be incurred until the future best use of the space could be determined. In comparing Alternatives No. 1 and 2, Alternative No. 1 may be preferred as it is a straighter layout for grit pumping and allows for potentially easier construction sequencing (existing grit lines to the west can be left in service while new grit lines can be constructed to the east). Additionally, Alternative No. 1 is closer and potentially more compatible with future expansion of the East Headworks which would occur on the east side. For these reasons, Alternative No. 1 is recommended as the preferred alternative. As part of the Alternative No. 1 concept, south or west facing doors are preferred to minimize ice accumulation during winter months.

4. New Pump Station Evaluation

The existing influent pump station located in the East Headworks utilizes three (2+1 configuration) 15 HP submerged chopper pumps to transfer wastewater to the coarse screen channels. The chopper feature provides protection for the pumps as there is no upstream screening. The pump station has a firm capacity of 2.9 MGD with each pump designed for a 1,000 gpm maximum flow. Current peak hour flows have been observed to reach as high as 3.5 MGD, exceeding the rated firm capacity of the influent pump station.

There are occasions when the pump station does not have sufficient firm pumping capacity or wet well storage/buffer capacity to sustain the incoming flows with only two pumps operating. When all three pumps are operated at total capacity to meet the peak flow conditions, then redundancy falls to zero with no standby capability in case of pump failure or non-performance.

During these peak flow conditions, operators at the MWD WWTP have observed wastewater backing up into the main collection vault and into the east and west trunk lines. When wastewater backs up into the collection system, settling of solids in the pipelines and manholes occurs. It has been determined from recent field measurements that the west trunk line has a lower invert elevation and is more susceptible to solids settling. Due to minimal slope in the 30-inch diameter sewer line between the West Headworks Building and the new sanitary sewer manhole located along 2100 South, solids settling progresses further out into the collection system. Settled solids require increased maintenance to flush the pipelines and clear manholes to avoid reduced operational capacity.

Due to limited pumping capacity of the existing influent pump station, along with the routing of the existing influent piping, it is recommended that a new influent pump station be constructed exterior of the East Headworks. The new pump station will provide sufficient pumping capacity to meet current and projected future peak flows and will allow for influent piping to be re-routed such that velocities are maintained preventing solids deposition.

The existing WWTP site shown in Attachment 10 has multiple utilities located around the East and West Headworks Buildings and southward towards the fence line. In addition to sanitary sewer lines, these utilities include potable water, non-potable water, underground electrical power, natural gas, waste activated sludge, and others. Before detailed design begins on a new influent pump station, a thorough utility search is required to coordinate the design and construction of the new facility with these lines to ensure measures are taken to protect or relocate them.

This section describes and evaluates influent pump station alternatives for Phase 1 of the MWD WWTP Influent Project. The MWD WWTP influent pump station conveys raw influent wastewater from the main collection system to the headworks facility to begin the treatment process. As discussed previously in this report, peak hour flows of approximately 8.0 MGD are projected at the 2060 buildout with the combined WWTP and Brine waste flows. Current low flow conditions are observed at the WWTP can reach as low as 1.3 MGD. This range (1.3-8.0 MGD) is used as the flow design criteria for the influent pump station alternatives.

This report evaluates two pump station alternatives: a Screw Pump Station and a Wet Well/Dry Pit Pump Station. The following paragraphs briefly describe each of these alternatives including identifying advantages and disadvantages of each.

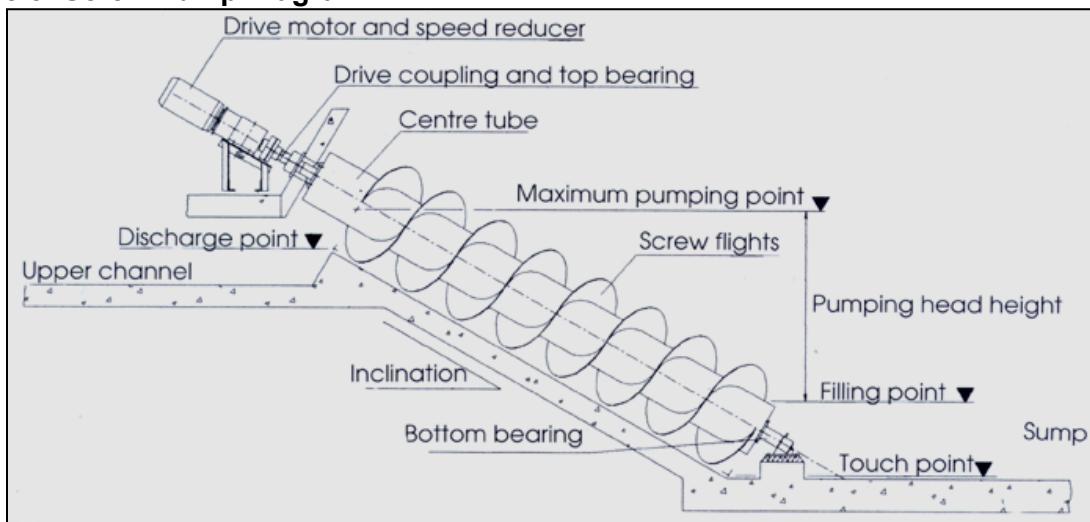
Screw Pump Station

Archimedes screw pumps have been utilized in water conveyance for hundreds of years and are a proven reliable and robust option for wastewater influent pump stations. As shown in Figure 5, a screw pump consists of an inclined large diameter steel screw with bearing supports located at the top and bottom of the screw. The drive motor is located on the top end. Bearings can have a design life of 20 or more years and be automatically or permanently lubricated. The size and number of flights on the screw vary based on capacity requirements. Screw pumps provide a simple system that historically has required minimal maintenance.

Screw pump operation matches influent flow conditions to convey the wastewater to the headworks process. This is accomplished by channeling all flows from the main collection system to a wet well or sump where the bottom of an inclined screw pump is located. As the level in the wet well increases, the amount of water encountered and conveyed by each flight of the screw pump also increases. Since screw pumps do not require priming or risk damage by cavitation, they can operate even when the level in the wet well is below the touch point in a "dry" condition.

Screw pumps typically run at a constant speed but operate in a variable capacity mode via the liquid level variation in the sump as described above. The head or lift is relatively constant as the flow is continuously discharged near the top of the screw as shown in Figure 5.

Figure 5: Screw Pump Diagram*



*From Aissa, Walid. (2021). *Preliminary Design and Cost Estimation of Wastewater Treatment Unit*

Figure 6 contains photos of two screw pump stations, one at the Moab, Utah WRF and the other at the St. George, Utah WRF, both facilities designed by BC&A. The size and capacity of the Moab screw pump station are similar to that proposed for the MWD WWTP Influent Pump Station, while the other is much larger at 50 MGD. The screws are covered with fiberglass covers for safety, and stairs lead from the top of the screws down to the sump below. Motors for the St. George screw pumps are located in a motor room, while the Moab screw pump motors are situated outdoors. Ventilation of the area under the covers for odor control is provided for the St. George facility, and the Moab covers are not mechanically ventilated and rely on air movement by convection.

Figure 6: Screw Pump Station Photos (Left – Moab, Utah, Right – St. George, Utah)



A key advantage of screw pumps is that they generally do not require coarse screening for protection. Small or large debris or grit is simply conveyed up the screw and channeled to the headworks facility. For this project, the existing coarse screening installed in the East Headworks Building should be capable of handling material discharged from a screw pump.

Screw Pump Design Criteria

The Utah Department of Environmental Quality (UDEQ) requires that wastewater pump stations have sufficient redundancy to allow treatment operations to continue unabated during routine equipment maintenance or in the event of equipment failure. The design criteria for the Screw Pump Station alternative includes the following parameters.

- 8.0 MGD reliable capacity
- 3 screw pumps installed, 4.0 MGD capacity each, 2 + 1 configuration
- 15 feet TDH (to be verified during final design)
- Effluent flow measurement with Parshall flume or magnetic flow meter

The construction cost of a screw pump station depends on the design requirements and associated parameters. Given the flows and lift required at the MWD WWTP given above to transport the raw influent from the low point of the collection system to the headworks, the construction cost of a screw pump station is expected to be generally competitive with most other types of wastewater pump stations.

As part of this influent pump station evaluation, a budgetary pre-design proposal for screw pump equipment manufactured by Epic International, Inc. was considered. Attachment 11 shows a conceptual design for the MWD WWTP Screw Pump Station. The conceptual design meets the above parameters and the following additional manufacturer criteria.

- 40-inch diameter screws
- 37° incline
- 3 installed flights on each screw
- 20 HP drive motor for each screw pump

Screw Pump Conceptual Layout

Using the conceptual design of the screw pump station, potential locations for the facility were investigated. Various constraints such as those listed below were considered.

- Continued WWTP operation during construction, and bypass options

- Existing utilities in the area
- Shoring required for construction
- Future expansion of the WWTP and possible connection locations

Attachment 12 shows a location determined to be suitable for pre-design purposes. Upstream from a new main collection manhole (to be installed), two sampling/monitoring manholes will be installed on the east and west trunk lines, respectively. These manholes will also be equipped with non-contact flow meters to individually monitor the flow of each trunk line. The new main collection manhole will collect influent from the east and west trunk lines and direct it to another new manhole which will divert the flow to the screw pump station wet well.

The conceptual design utilizes an open channel Parshall flume for flow measurement on the discharge side of the screw pump station. However, a magnetic flow meter located in a vault on a buried and surcharged line segment could also be used if preferred. Once wastewater has passed through flow measurement, it is conveyed via a buried pipeline to the existing coarse screen channel in the East Headworks Building.

Wet Well/Dry Pit Pump Station

The second alternative investigated is a wet well/dry pit type pump station. In this alternative, the pumps are located in a dry pit adjacent to the wet well. A wet well/dry pit configuration provides access to the pumps and mechanical equipment in a dry environment for easier service and repair. Access to the dry pit can be at grade or through a building as shown in the photographs in Figure 7 of two recent similar projects designed by BC&A.

Figure 7: Wet Well/Dry Pit Pump Station Access Options. (Top Photo – Through a Building, Bottom Photo – At Grade,)



Since submersible pumps are utilized in the dry pit, that concept allows the pumps to continue operating in the event of flooding of that structure until the situation can be corrected. Pump motors may be either liquid cooled by pumped media in an integral cooling jacket or cooled with attached fans. These concepts are differentiated as "submersible" versus "submergible" motor configurations. Dry pit submersible pumps can remain in operation indefinitely whether flooded or dry. Submergible pumps with fans can operate in a flooded condition indefinitely, but the fans will be damaged and require replacement when flooding is corrected.

Other advantages of a wet well/dry pit pump station include the ability to add or upgrade pumps in the future should flow requirements change. Future expansion connections may be installed in a wet well/dry pit to accommodate additional pumps. Pumps with increased head and flow requirements may be installed in existing or new slots if adequately sized for that eventuality.

In order to provide protection for the submersible dry pit pumps, grinders or screens are required prior to the wet well to minimize clogging and/or damage to the pumps. It is also possible to utilize chopper pumps in the dry pit, but chopper pumps may not be as efficient as a grinder and submersible dry pit pump combination. The addition of grinders, screens or chopper pumps to any system brings additional aspects of installation and operating costs and maintenance requirements that should be considered in determining the optimum configuration.

Wet Well/Dry Pit Pump Design Criteria

To meet the minimum and maximum design flow range, variable frequency drives (VFDs) are included in the design criteria. The use of VFDs also reduces the number of pump start/stop cycles required to maintain a proper level in the wet well. For capacity and redundancy requirements, the initial design criteria of the wet well/dry pit pump station alternative for MWD WWTP includes the following parameters.

- 8.0 MGD reliable capacity
- 4 dry pit submersible pumps installed, 2.67 MGD capacity each, 3 + 1 configuration
- 15 HP motors with VFD control installed for each pump
- 20 feet TDH (to be verified during final design)
- 2 channel grinders, 5 HP each, 1+1 configuration
- Flow measurement with magnetic flow meter

With VFDs installed on the submersible dry pit pumps, the assumed minimum turndown of the pump motor (~60% pump flow capacity – to be verified during final design) would result in minimum flow capacity of approximately 1.6 MGD. If the low flow condition entering the wet well is below 1.6 MGD, the submersible pumps may operate in a start/stop condition to maintain the operating level in the wet well during brief overnight diurnal periods. If needed or desired, smaller capacity pumps could be installed to better meet initial flow conditions, and then replaced with full capacity pumps in the future for increased flows.

The wet well/dry pit pump station includes a self-cleaning wet well design per *The Hydraulic Institute and Pump Station Design* text by Sanks, et. al. This is accomplished in part by dropping the floor in the wet well below the furthest pump suction inlet to allow or enable more effective flushing and cleaning. Pump controls may be set so the wet well can be self-cleaned at periodic intervals or when deemed necessary automatically or manually by human operator determination.

BC&A recently completed a wet well/dry pit pump station design for the Salt Lake City Department of Public Utilities with similar design criteria to this project and it was used as a basis of design

and reference for a budgetary cost evaluation. Attachment 13 shows a conceptual design for the MWD WWTP Wet Well/Dry Pit Pump Station.

The conceptual design includes a grinder vault with two channel type grinders installed. If chopper pumps were to be installed in the dry pit, this vault would not be required, and influent flow would enter directly into the wet well. A building structure is also shown above the dry pit. Architectural features were not included in the conceptual design. These design requirements and other features such as an overhead bridge crane would be determined in the detailed design phase; note that details such as these may add costs – contingencies can account for some.

Wet Well/Dry Pit Pump Conceptual Layout

Using the conceptual design of the wet well/dry pit pump station, locations for the wet well/dry pit pump station were investigated. The same site constraints mentioned in the placement of the screw pump station alternative were considered. Since the wet well/dry pit pump station has a smaller footprint than the screw pump station, more options exist for its location. Attachment 14 shows a conceptual location that was determined to be suitable for pre-design purposes.

Similar to the screw pump station alternative, prior to a new main collection manhole, two monitoring manholes will be installed on the east and west trunk lines. The new main collection manhole will collect influent from the east and west trunk lines and then direct it to another new manhole which will direct the flow into the grinder channel and then to the wet well.

A magnetic flow meter housed inside a vault just inside the existing roadway will be utilized for flow measurement. Once the wastewater passes through the flow meter, it follows the same path as the screw pump station alternative to the existing coarse screen channel in the East Headworks Building to continue through the existing treatment path. It may be possible to install the magnetic flow meter inside of or contiguous with the dry pit and eliminate the need for and cost of a separate meter vault structure.

Screw Pump vs Wet Well/Dry Pit Pump Comparison

Both alternatives have different equipment and design options that may be further investigated during the detailed design phase of the project. A summary of the main advantages and disadvantages of these alternatives is shown in Table 4.

Hydraulic or pumping efficiency is not addressed in the table as this criterion is specific to the equipment being considered and may favor one or the other depending on conditions and how well they fit the particular manufactured unit. However, it is the opinion of the engineering consultant based on experience that any difference in hydraulic efficiency will be relatively small and unlikely to affect the outcome of the selection process.

Motor and other electrical efficiencies generally will also be similar. However as noted, VFDs have an electrical efficiency of approximately 97%, and this loss translates into increased electrical power costs for the dry pit submersible pumps.

Table 4: Influent Pump Station Evaluation

Pump Station Type	Advantages	Disadvantages
Screw Pumps	<ul style="list-style-type: none"> Simple and robust equipment Reliable – can operate at any flow within the design range, including zero flow (dry condition) Does not require screening or other protection – materials pumped directly to headworks Lower annual maintenance costs 	<ul style="list-style-type: none"> Greater potential for odor concerns due to the nature of screw pump configuration and operation Greater potential for noise concerns if pump motors are installed outdoors Potential increased dissolved oxygen concentrations due to nature and operation of screw pumps Potential for flow surges when a pump is started and stopped
Wet Well / Dry Pit Submersible	<ul style="list-style-type: none"> Easy access to pumps for maintenance and increased options for pump service Easier to add/upgrade pumps for future flows Lower odor concerns Lower noise concerns 	<ul style="list-style-type: none"> Requires pump protection such as grinders, screens or chopper pumps and associated maintenance Requires more extensive and significant mechanical and electrical equipment and systems Additional controls required for pump operation VFD efficiency of approximately 97% will result in increased electrical power costs

As previously detailed in this report, several factors should be considered when determining which alternative to pursue for the MWD WWTP including the following.

- Future flow and TDH requirements
- Existing site constraints and layout options
- O&M requirements

Construction costs and project schedule constraints should also be considered for these alternatives which will be detailed in the following sections.

RV Dump Station

MWD owns and maintains a RV Dump Station located along 2100 South in front of the WWTP. The RV Dump Station is provided as a community service by MWD but has also been a concern for WWTP operations due to the potential of high strength waste or unknown wastes being dumped directly into the inlet of the WWTP. MWD would like to consider as a future project an

underground storage vault for the RV dump waste such that wastes could be monitored and slowly added to the WWTP.

The proposed Influent Pump Station, for either the screw pump or wet well/dry pit configurations, fits on the site without conflicting with the existing RV Dump Station (see Attachments 12 and 14, the RV Dump Station is located just off page to the west of these layouts). Additionally, the deepest part of the proposed pump stations is 20-25 feet below existing grade. While record drawings of the RV Dump Station were not available for review as part of this study, it is believed that there would be plenty of fall between the RV Dump Station and the inlet of the new Influent Pump Station for both a small holding tank and gravity conveyance of flow. Upgrades to the RV Dump Station could be added to the Influent Pumping Project but are not currently included in the cost estimates for this study.

Recommendation

As listed above both pump station alternatives have advantages and disadvantages associated with each. Both pump station concepts are commonly used to pump influent wastewater flows and would reliably meet the influent pump station requirements. As part of the preliminary evaluation effort, MWD staff visited similar operating installations for both alternatives. Based upon these site visits and discussions with their operations staff, along with its competitive cost, simple operation and minimized maintenance requirements, MWD expressed a desire to move forward with the screw pump station alternative. As a result, the screw pump alternative is recommended for the MWD WWTP.

5. Recommendation and Implementation

The peak hour flow to MWD WWTP in 2060 is estimated at 8.0 MGD from the projections of the 2021 Sewer Master Plan projects combined with the potential of the Brine Pump Station (external to this facility) being out of service. A modified East Headworks and downstream treatment processes can handle a peak hour flow of 6.0 MGD which is projected to occur in 2035. Beyond flows of 6.0 MGD, an additional train or trains will be required at MWD WWTP.

Required modifications at the East Headworks include increasing the capacity of both the influent and blend pump stations as well as adding a new grit washing facility with a redundant grit washer. Rather than modifying the existing influent pump station, MWD directed that a new separate facility, either screw pump or wet well/dry pit configurations, be evaluated as outlined in this report. This new influent pump station should be sized for the 8 MGD buildout condition and configured to prevent hydraulic back-ups in the trunk sewers. MWD operations staff favor the screw pump configuration, but for purposes of costing the higher cost option of wet well/dry pit was carried forward in the cost estimate.

The blend pump station capacity could be increased by upsizing pumps or adding a fourth, slightly bigger pump, increasing from the current 3.7 MGD firm capacity to 6 MGD (one existing pump has capacity of 1.85 MGD). Adding a fourth pump is potentially the least disruptive and costly option. However, to be conservative in project budgeting the cost estimate includes the cost of three new higher capacity pumps. This pump station may also want to be renamed to Intermediate Pump Station as Blend Pump Station is no longer accurate.

Alternative No. 1 is recommended for building a new Grit Washing Building as this location may have the least conflicts with existing infrastructure and be the easiest alternative to construct. Both Huber, S&L, and others make high quality grit washing equipment and the selection of the manufacturer for this project could be a bid day decision based on lowest cost.

The proposed new Influent Pump Station and Grit Washing Building could all be powered off the existing power service that feeds the West Headworks, based on evaluation of conceptual design horsepower for new equipment. The existing service has spare capacity as it is used to feed the Aeration equipment at the oxidation ditches. It is assumed for this study that the Influent Pump Station and Grit Washing Building would each have a room or dedicated area for MCC equipment, and the power feed could be rerouted from the existing service without the need for a new service or switchgear equipment. However, this needs to be confirmed during design. The Blend (Intermediate) pump station is powered from electrical equipment in the existing BIOBROX Building. Removal of the Influent Pump Station load from this feed likely frees up capacity for Blend (Intermediate) Pump Station upsizing, but this too needs to be confirmed during design. Part of this investigation will be verifying onsite backup generator capacity.

Budget

For budgetary and planning purposes, the estimate table below reflects the chosen options: the screw pump station, two new grit washers and new pumps for the existing vortex grit system. Lump sum costs include a 25 percent construction cost contingency. Contractor overhead and profit was assumed to be 10 percent. Engineering, administration, and legal expenses for the project were estimated with a markup of 18 percent. The total estimated project cost for a new Influent Pump Station, modified East Headworks, and new Grit Washing Building is just over \$5.3 million dollars. This cost estimate is a Class 5 Opinions of Probable Construction Cost, which is typical for a planning level study. Typical accuracy ranges from 20 percent to 50 percent on the low side, and plus 30 percent to 100 percent on the high side.

Table 5: Total estimated project cost summary

Description	Unit	Cost
Influent Pump Station	LS	\$2,600,000
New Screw Pump Station (includes 25% contingency)		
East Headworks Improvements	LS	\$1,500,000
New Grit Building, Duty & Standby Equip, New Blend Pumps (includes 25% contingency)		
Contractor Overhead and Profit	10%	\$410,000
<u>Subtotal</u>		\$4,510,000
Engineering, Administration, and Legal	18%	\$812,000
Estimated Capital Cost		\$5,322,000

Things that are not included directly in the construction cost estimate but could impact the overall price, if they result in more than the 30% contingency assumed, are listed below. These items need to be considered during detailed design:

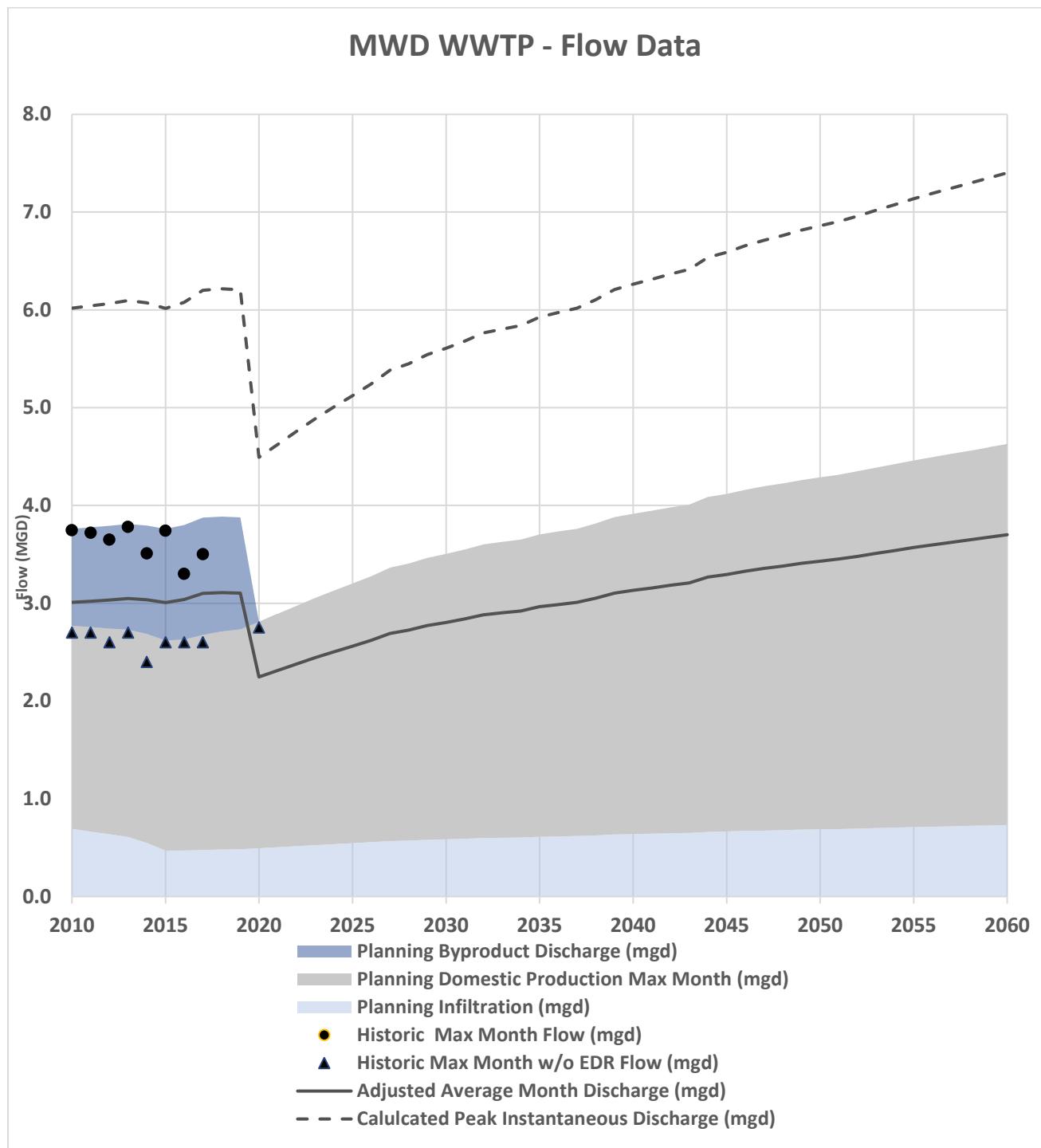
- Electrical capacity/demands and backup power capacity.
- Unknown subsurface conditions, such as geotechnical features requiring special foundations or utilities that need to be re-routed.
- Construction escalation – recent market changes have been difficult to predict and longer than normal lead times have been observed.
- Architectural features for the building.

Implementation Schedule

Table 6 below lists expected durations for design and construction phases of the project. Project review milestones can be adjusted during design phase scoping to the preference of MWD. With early approval, the design phase can conclude at the end of 2022. The construction phase could then take place in the year 2023, possibly finishing by the end of the year but more likely by mid-2024.

Table 6: Proposed project implementation schedule

50% Design	12 weeks, includes 2 weeks for MWD review
90% Design	12 weeks, includes 2 weeks MWD review
Final review and bid set	4 weeks
Permitting	10 weeks, UDWQ requires 8 weeks plus 2 weeks for any adjustments
Bidding period	6 weeks, includes 2 weeks to award
Design period incl. bid, total	44 weeks (appx. 10 months)
Construction period	12 to 15 months



Attachment 1: Flow Data from year 2010 through 2060.

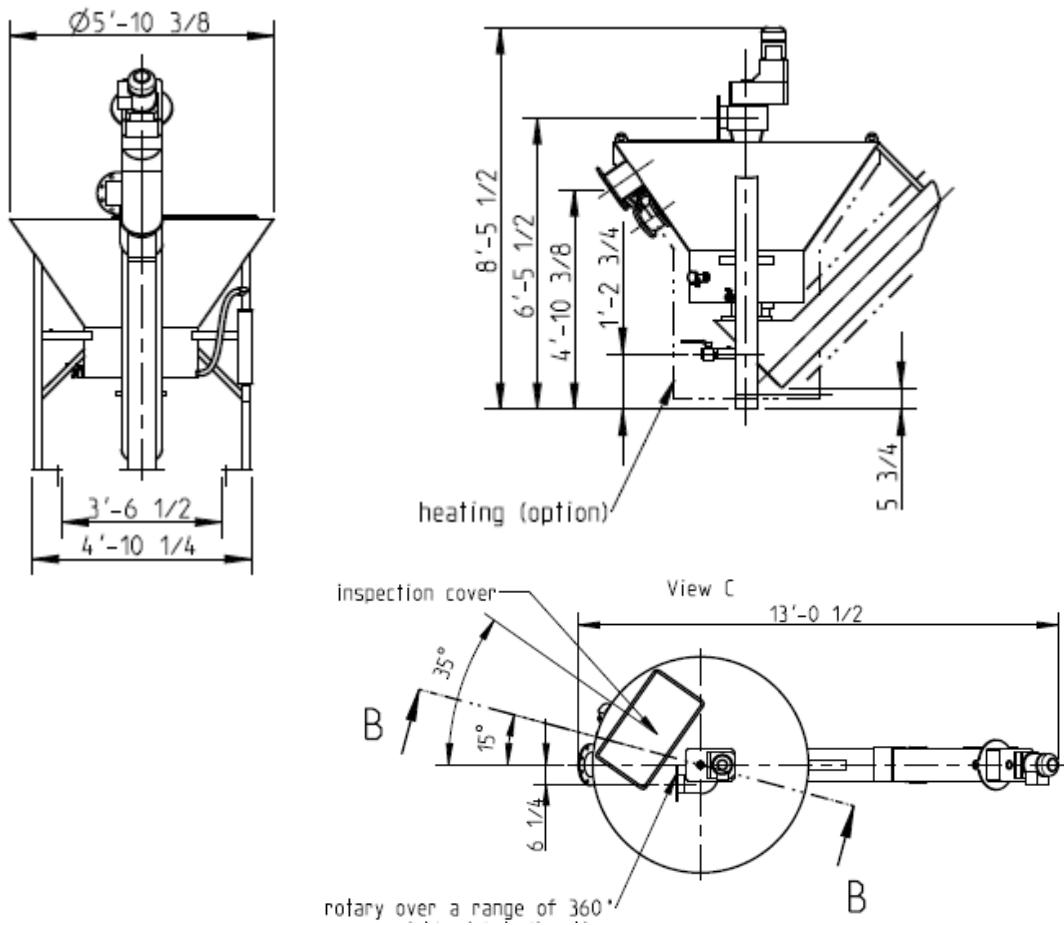
	Average Annual (mgd)	Peak Month (mgd)	Peak Hour (mgd)
2021	2.31	2.89	4.63
2022	2.38	2.97	4.76
2023	2.44	3.05	4.88
2024	2.50	3.13	5.01
2025	2.56	3.20	5.12
2026	2.62	3.28	5.24
2027	2.69	3.36	5.38
2028	2.72	3.41	5.45
2029	2.77	3.46	5.54
2030	2.80	3.50	5.61
2031	2.84	3.55	5.68
2032	2.88	3.60	5.76
2033	2.90	3.63	5.80
2034	2.92	3.65	5.84
2035	2.96	3.70	5.93
2036	2.99	3.73	5.97
2037	3.01	3.76	6.02
2038	3.05	3.82	6.10
2039	3.10	3.88	6.21
2040	3.13	3.91	6.26

	Average Annual (mgd)	Peak Month (mgd)	Peak Hour (mgd)
2041	3.16	3.94	6.31
2042	3.18	3.98	6.37
2043	3.21	4.01	6.41
2044	3.27	4.09	6.54
2045	3.29	4.12	6.59
2046	3.33	4.16	6.66
2047	3.36	4.20	6.71
2048	3.38	4.23	6.76
2049	3.41	4.26	6.82
2050	3.43	4.29	6.86
2051	3.45	4.31	6.90
2052	3.48	4.35	6.96
2053	3.51	4.39	7.02
2054	3.54	4.42	7.08
2055	3.57	4.46	7.14
2056	3.60	4.49	7.19
2057	3.62	4.53	7.24
2058	3.65	4.56	7.30
2059	3.67	4.59	7.35
2060	3.70	4.63	7.40

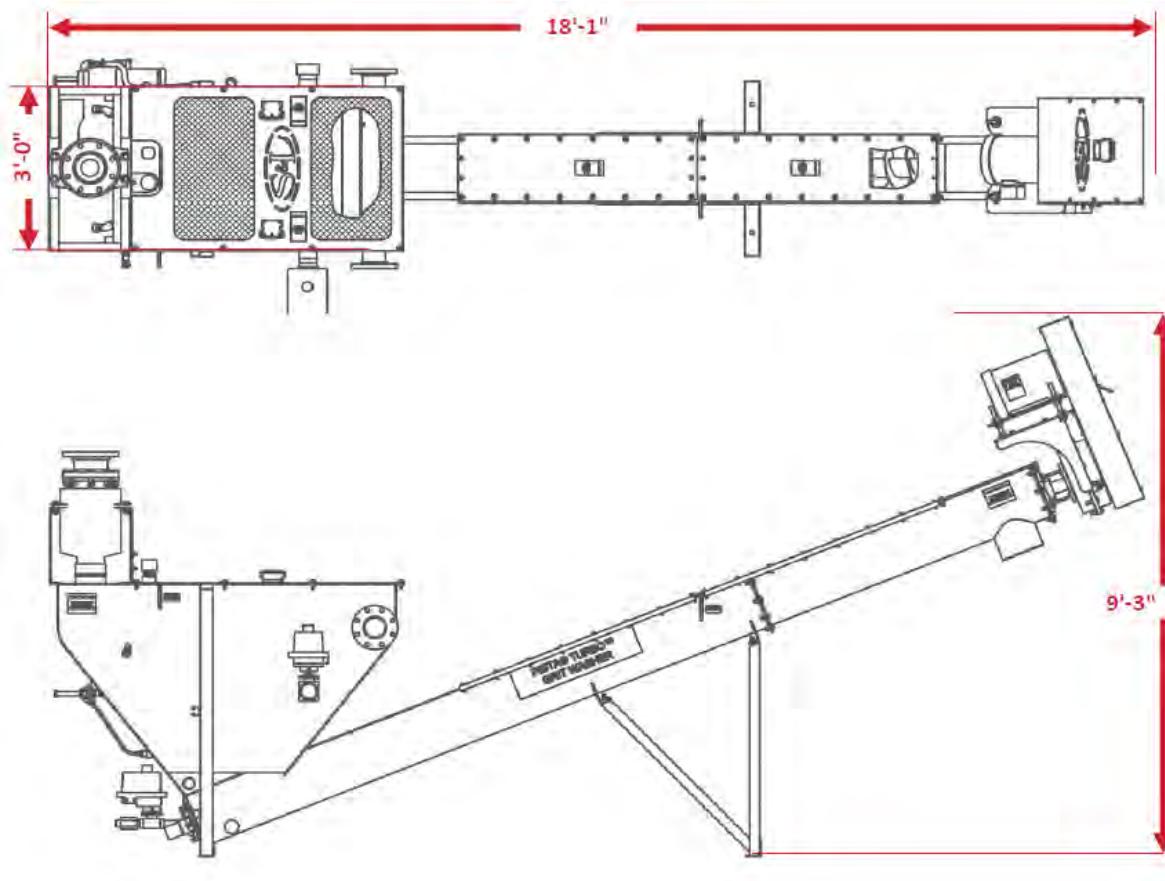
Attachment 2: Tabulated AADF, MMDF, and PHF from 2021 through 2060.

Equipment	Design	Capacity [mgd]	Manufacturer Model	Approximate Installation	Notes
Influent Pumps	1000 gpm each (2)	Two: 2.9 Three: 4.3	Influent Submersible Chopper Pumps	2007 (14 years)	
Coarse Screen, 6mm (Step Screen)	6 mgd	Avg.: 4.3 Peak: 6.0	Huber STEP SCREEN SSF 2500x626x6	2007 (14 years)	channel 3'-7" x 3'
Washpress	-	-	Huber WASHPRESS W.A.P. 2	2007 (14 years)	70 ft3/h
Vortex Grit	6 mgd	Peak: 7.0	Smith & Loveless Pista Grit Chamber 360 w/ Turbo Pump	2007 (14 years)	125 gpm grit pump
Grit Washer	-	-	Huber COANDA Grit Washer RoSF4 size 1	2007 (14 years)	125 gpm grit pump
Fine Screen, 2mm (Rotary Fine Screen)	Avg. 2 mgd Peak 4 mgd	Peak: 5.8	Huber ROTAMAT Perforated Plate Screen RPPS	2010 (11 years) and ~2015 (6 years)	
Effluent Pumps	1300 gpm each (3)	Two: 3.7 Three: 5.6	BIOBROX Feed Pumps	2007 (14 years)	

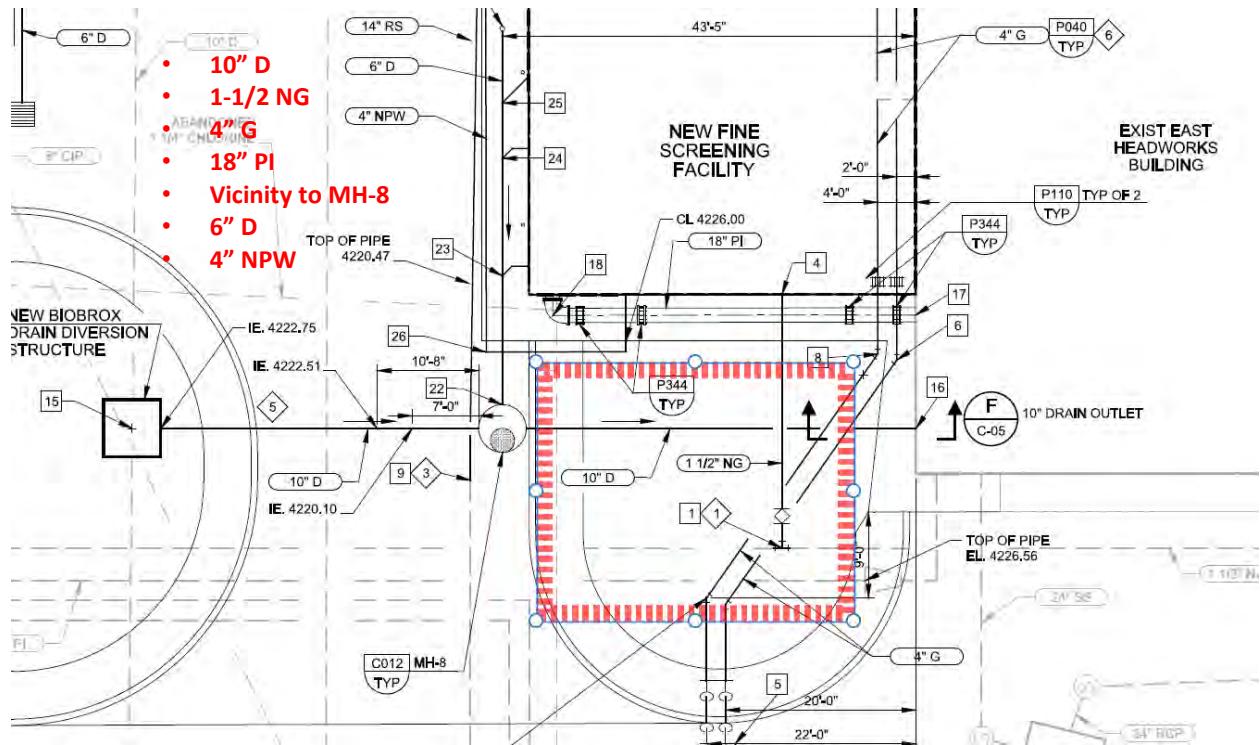
Attachment 3: Capacity of East Headworks



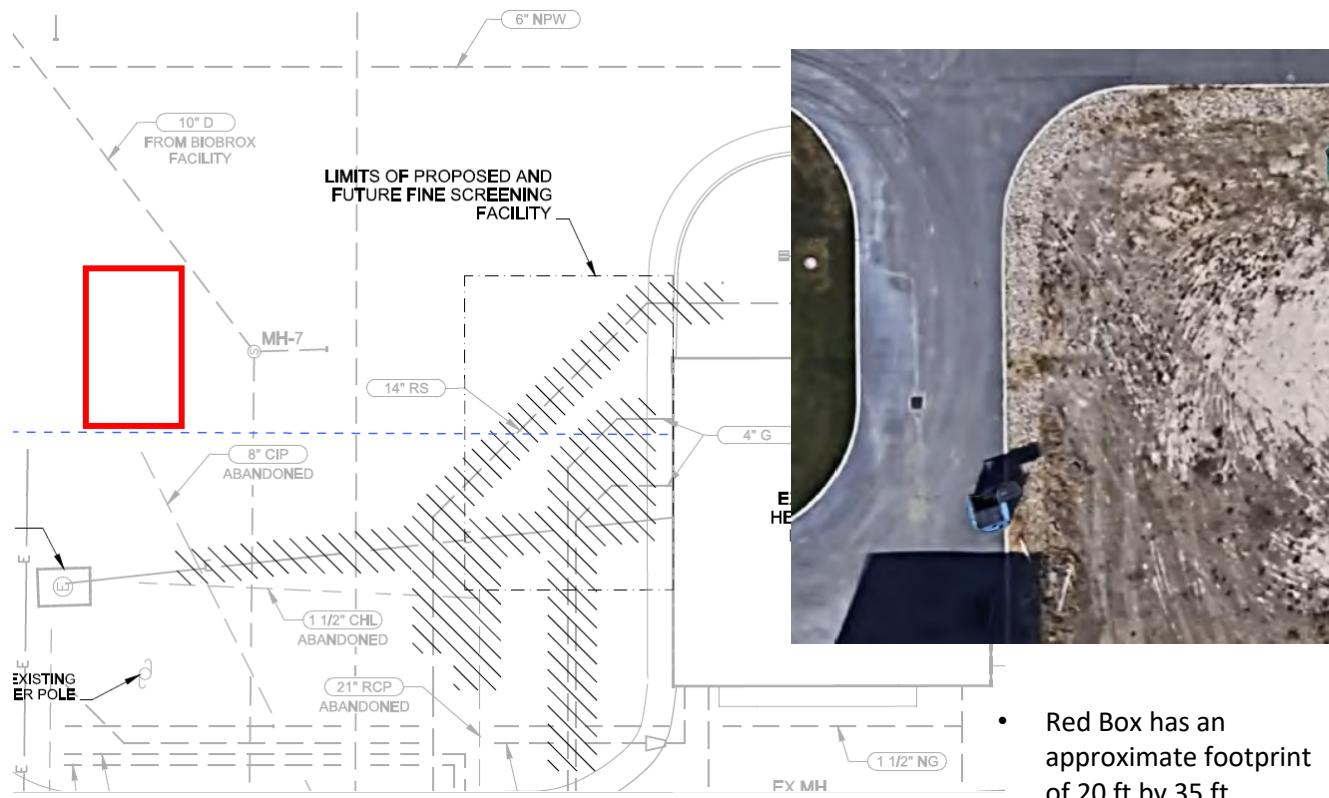
Attachment 4: Huber RoSF4, Size 1, dimensions



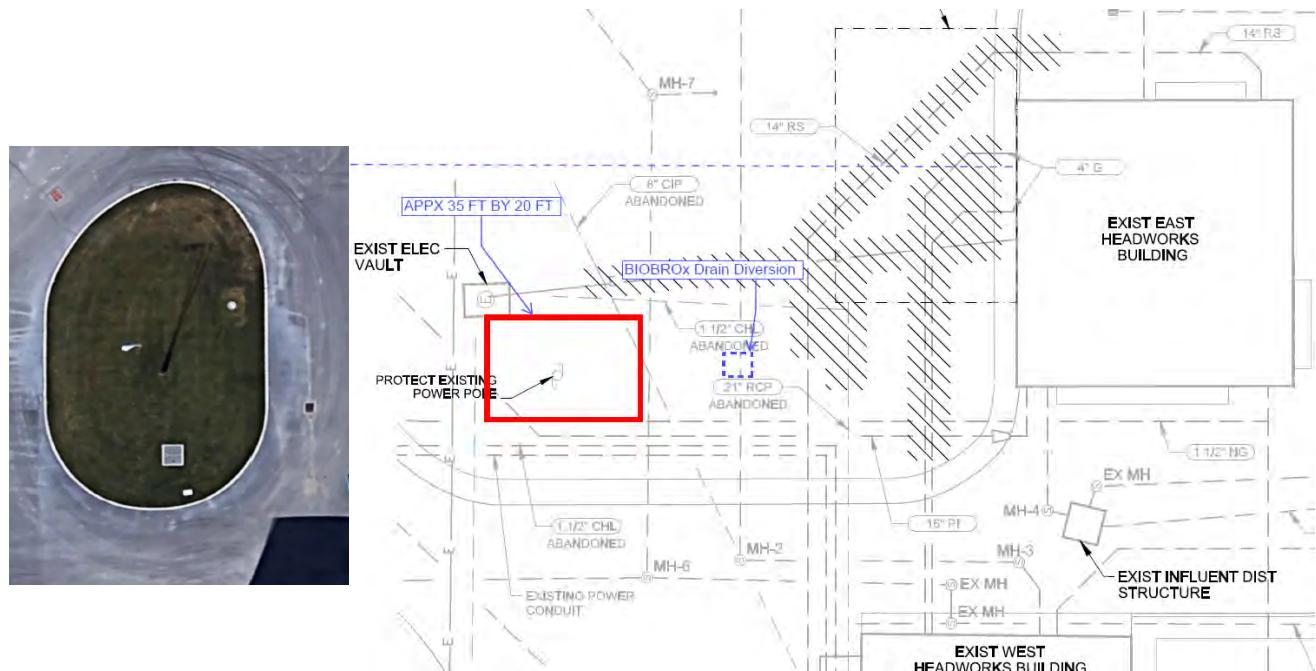
Attachment 5: Smith & Loveless Model 250 dimensions



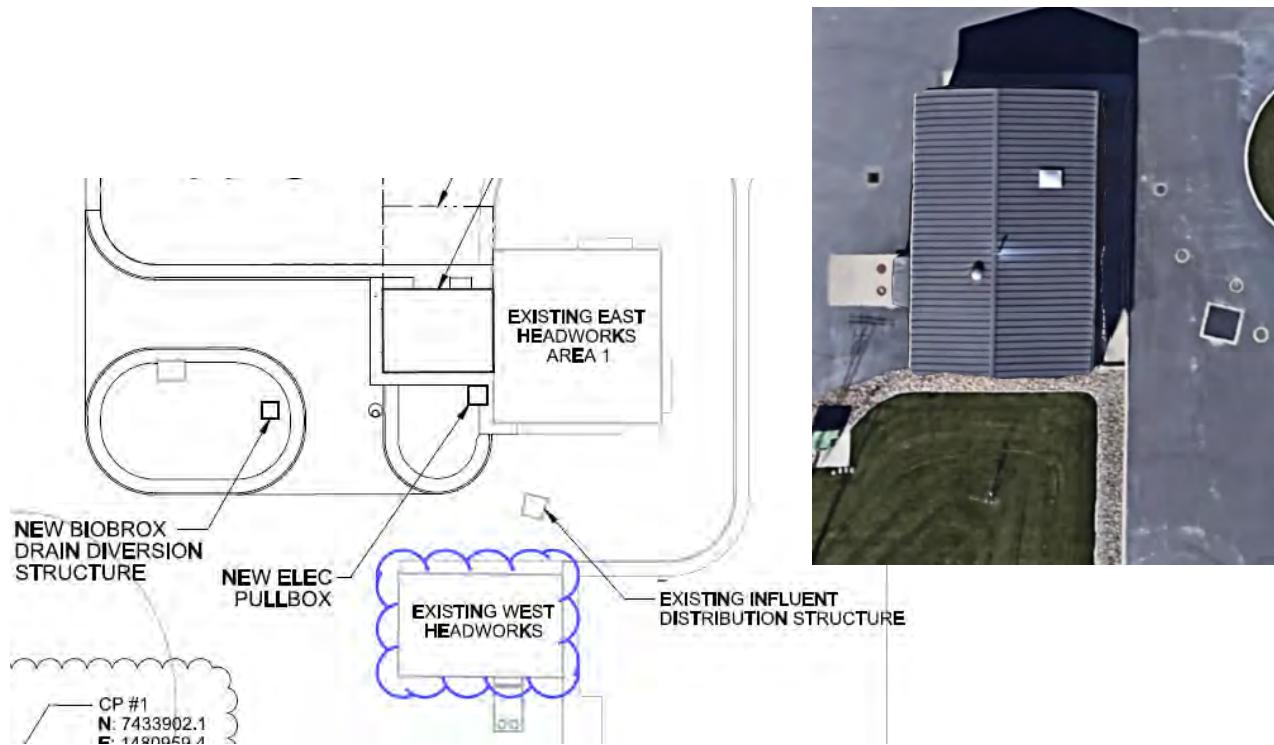
Attachment 6: Placement northwest of East Headwork will not work because of too many utility conflicts. Note, aerial photographs place MH-8 farther south than shown here. Square shown is approximately 35 feet long, 30 feet wide – this was picked for length of building for Smith & Loveless and width for Huber.



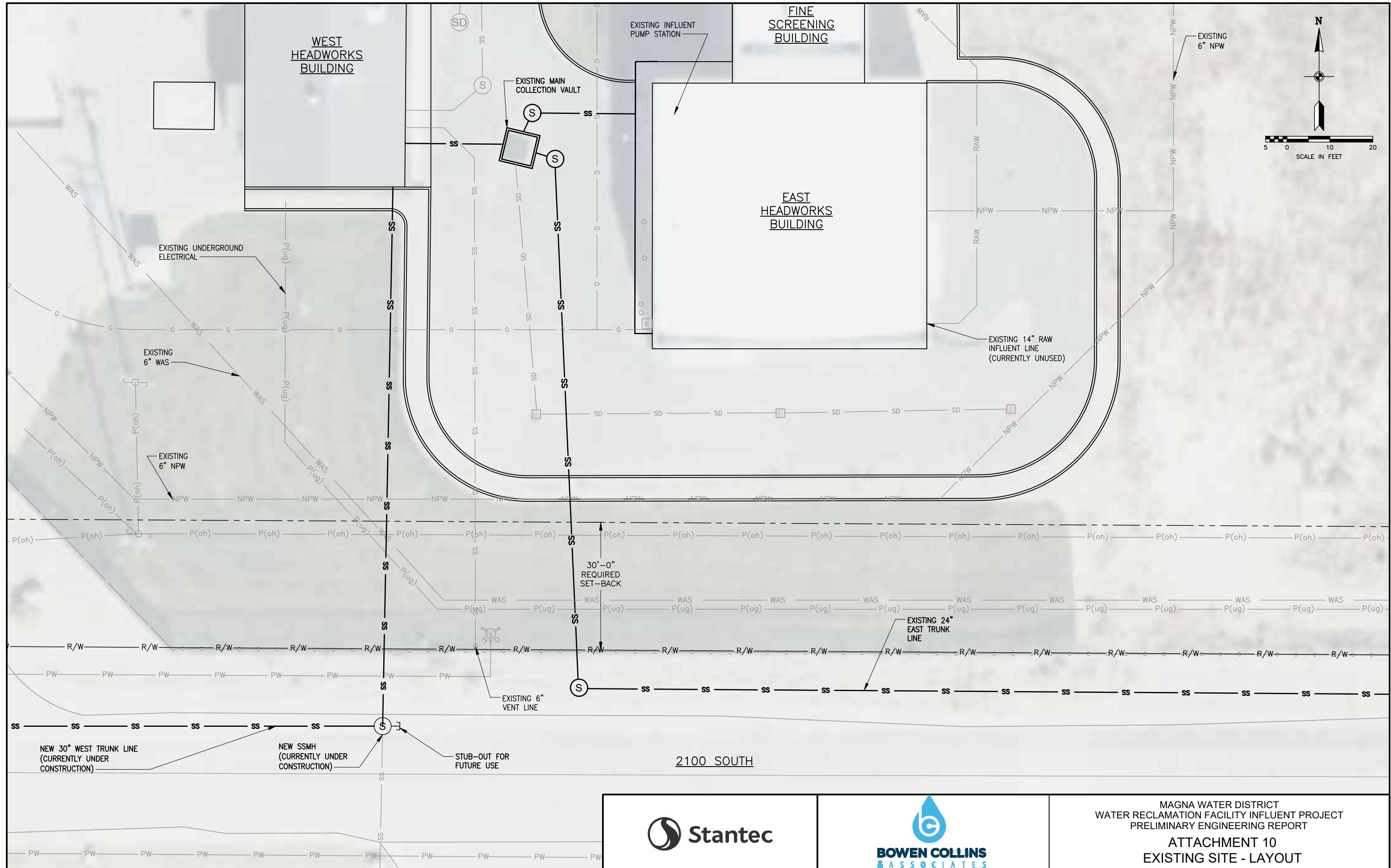
Attachment 7: Alternative #1 for grit washers building. No underground or aboveground conflict identified. Longest pumping path of identified of the three alternatives, but pipe route is potentially the straightest route and location likely does not conflict with future expansion needs.

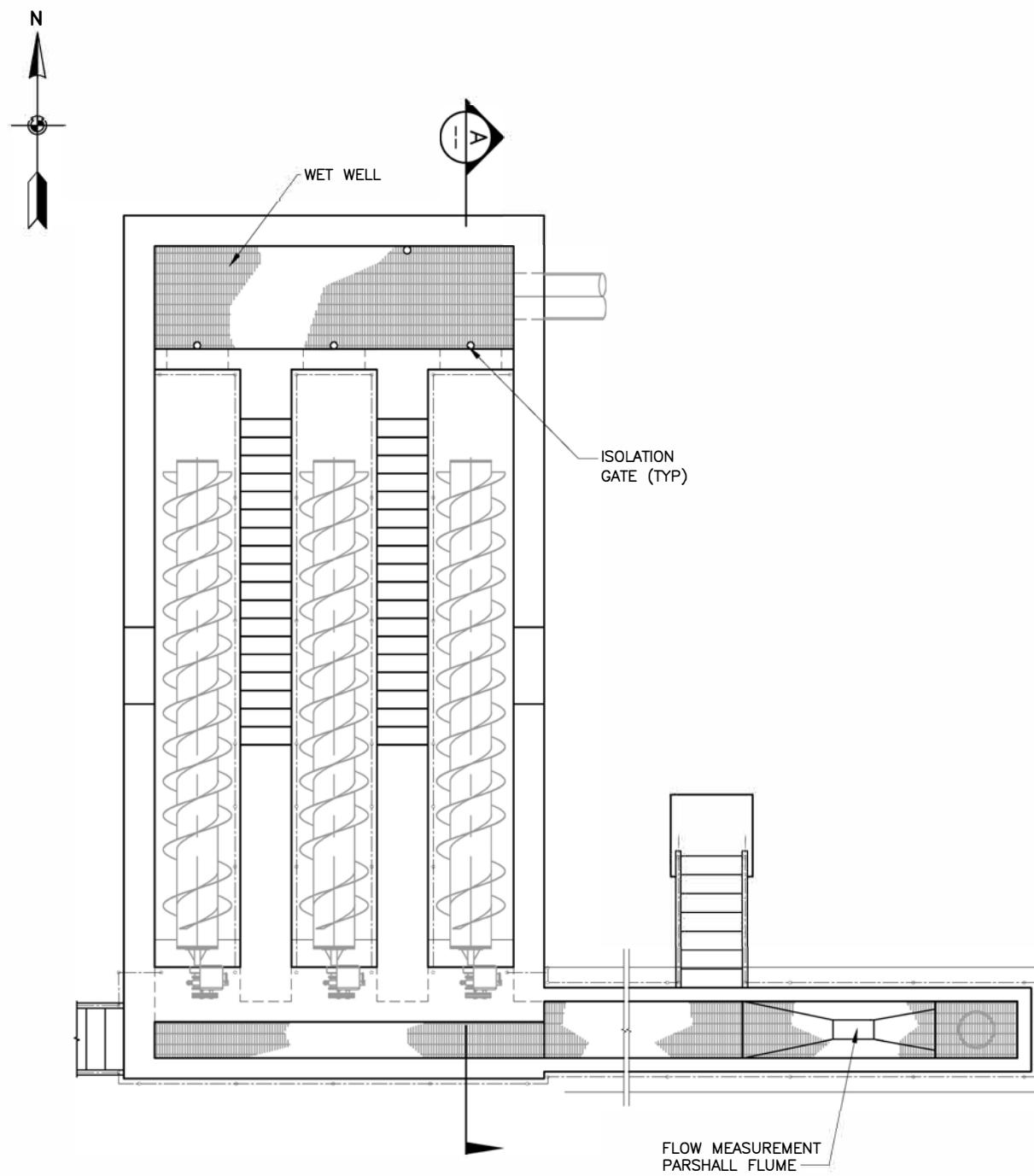


Attachment 8: Location #2 for grit washers building. Challenges: relocate power pole; vicinity to electrical vault, 10" D, 1-1/2" NG; overlap 16" PI. May be possible but only with Smith & Loveless equipment – need narrow building.

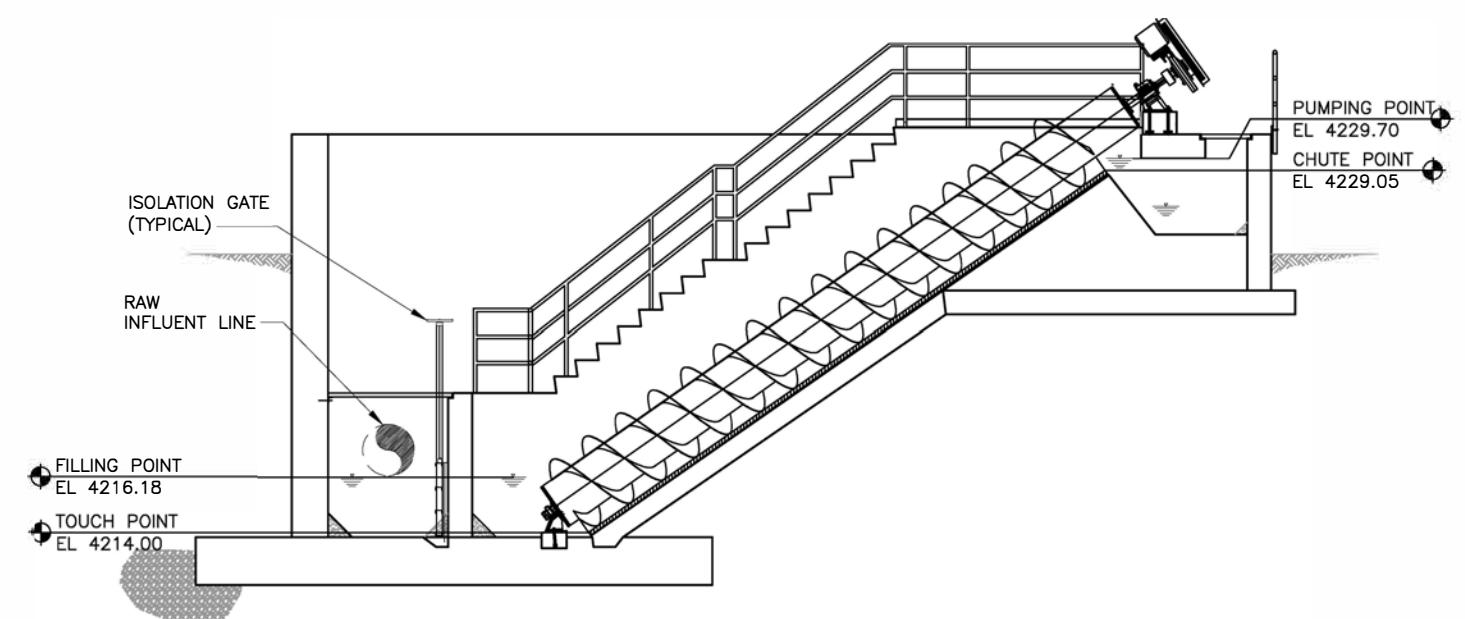


Attachment 9: Location #3 for grit washers building. Requires full remodel of building; building condition is unknown – may encounter complications. Reuse and reutilization potential: Might be able to reuse existing piping. Would need to install two additional pipes. Most likely shortest pumping path.





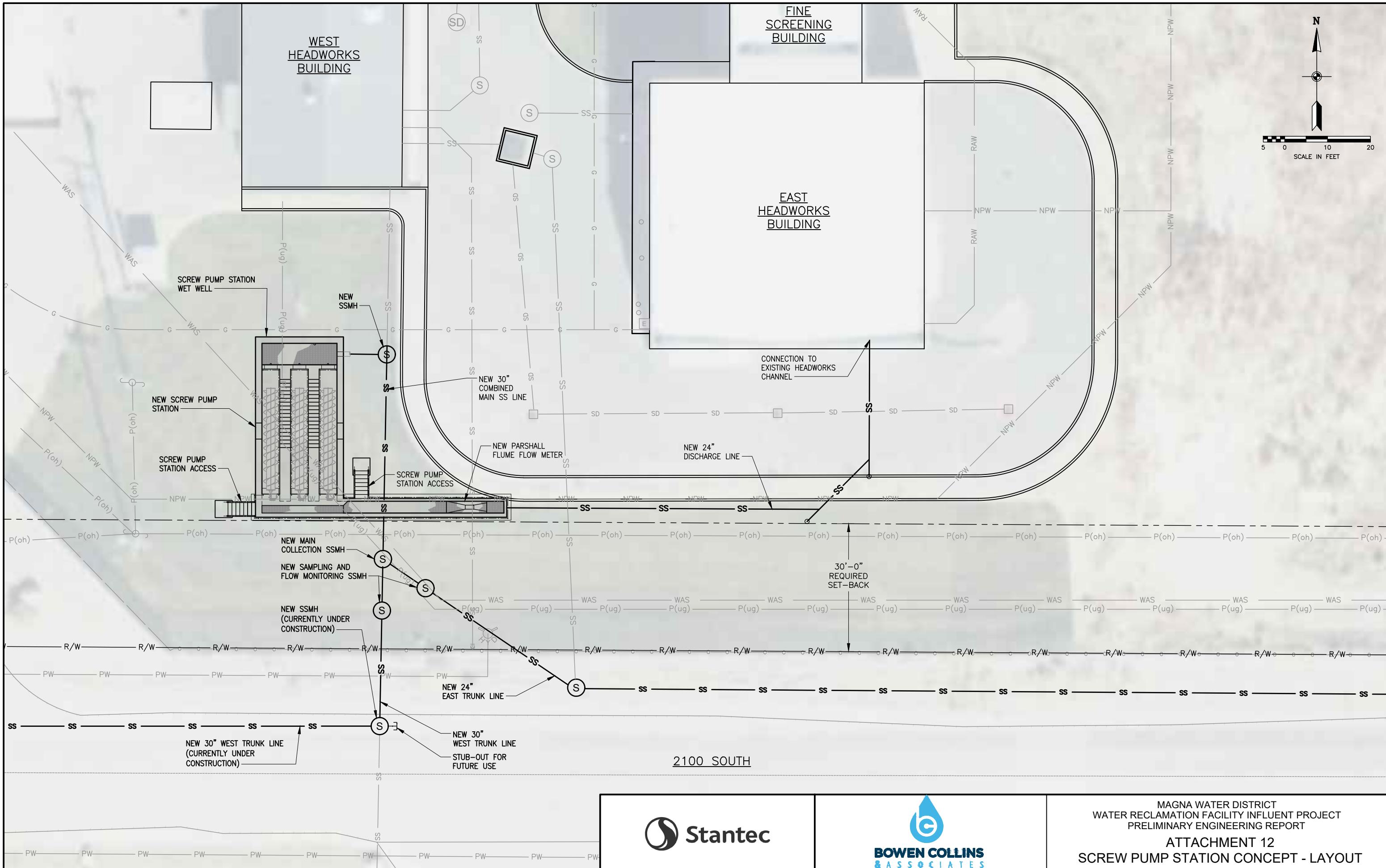
SCREW PUMP LAYOUT
SCALE: 1/4" = 1'-0"

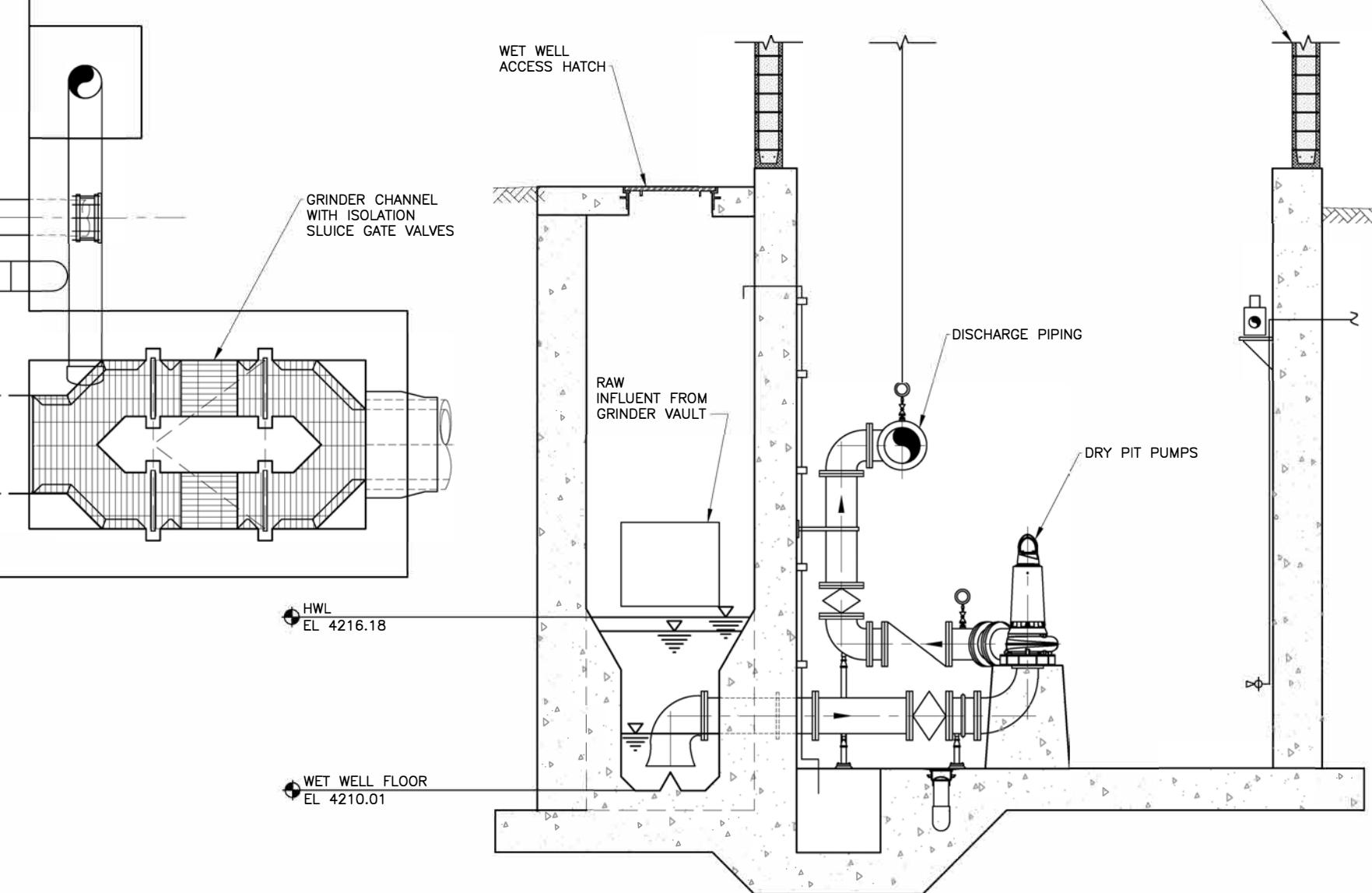
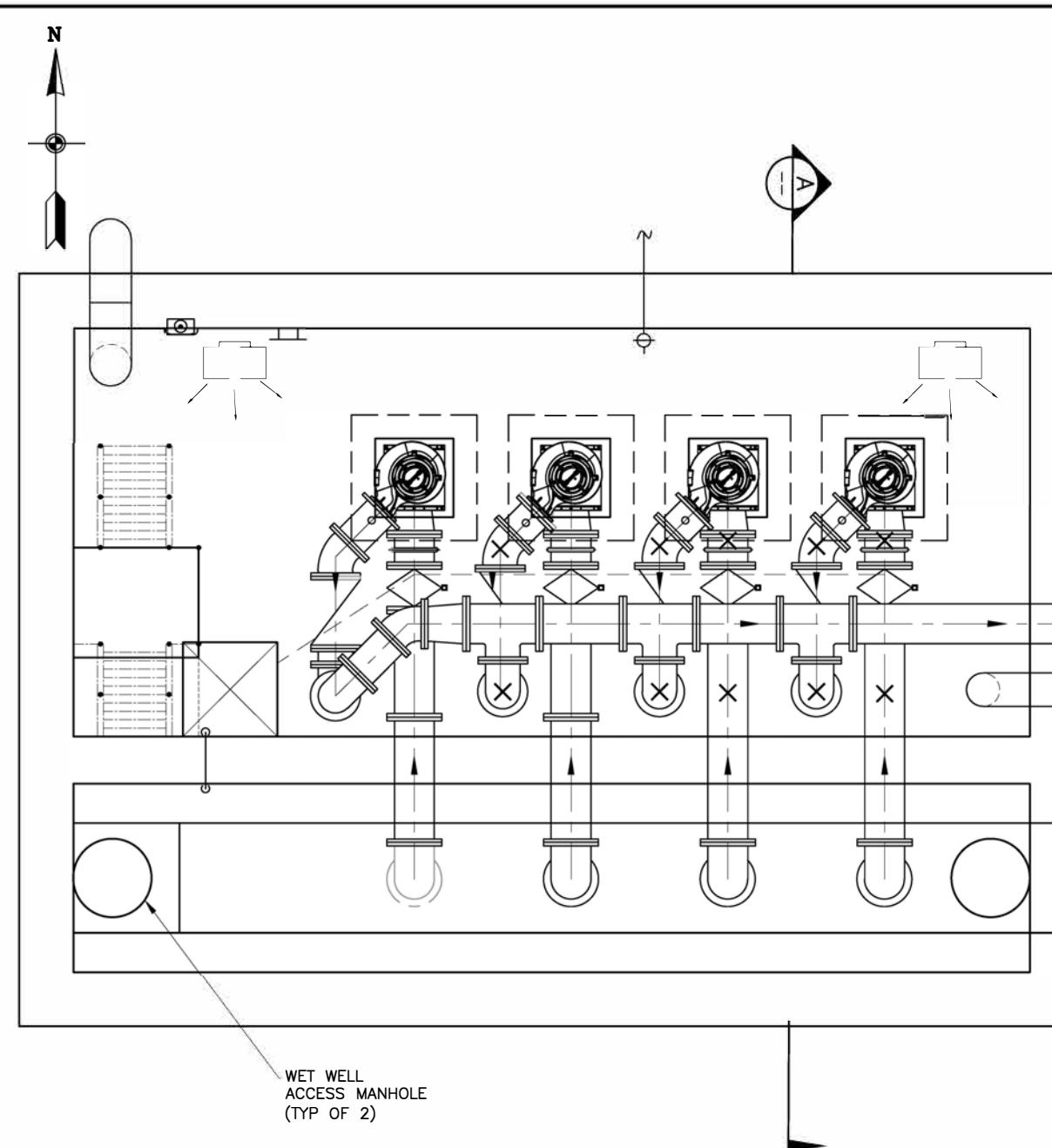


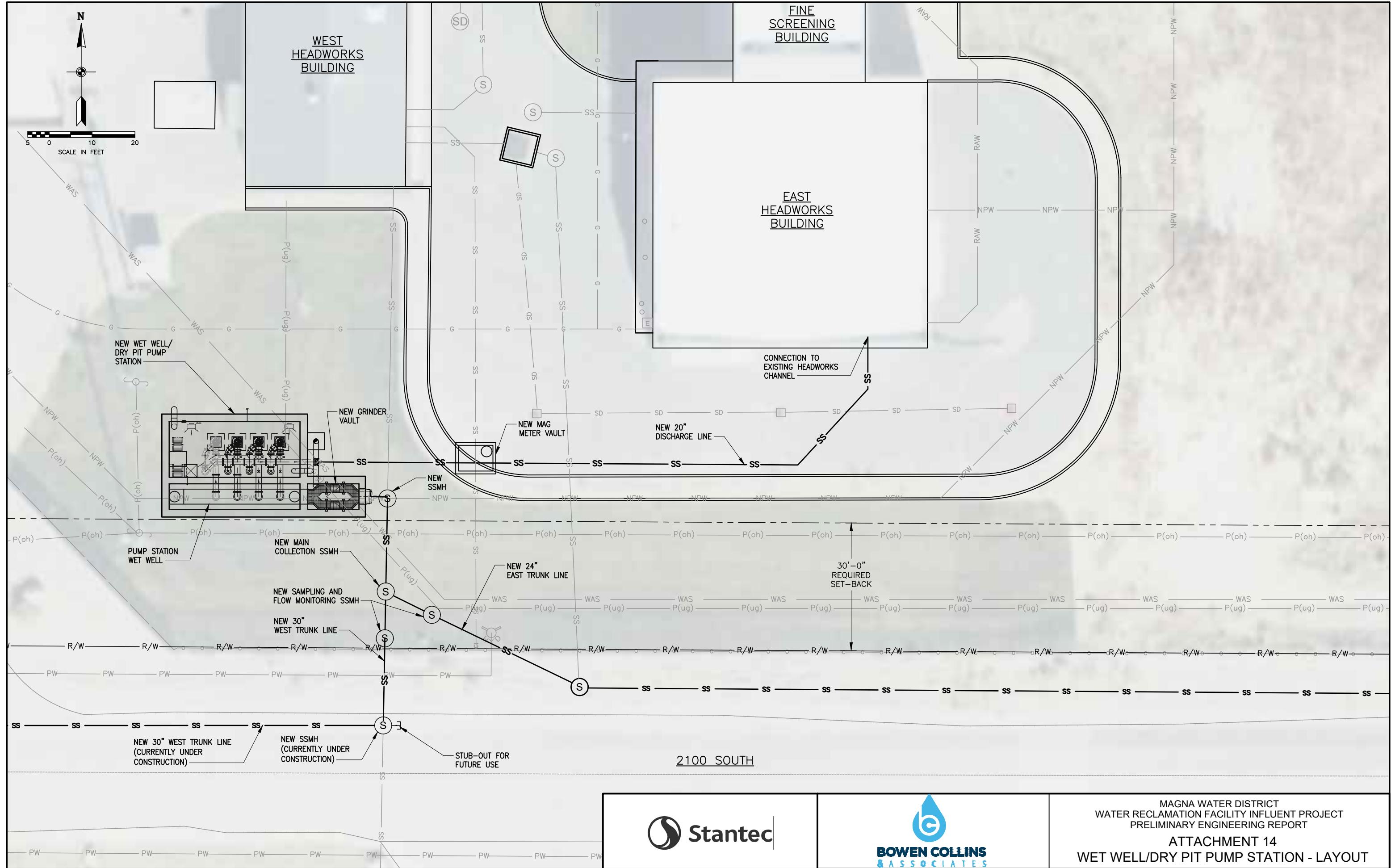
SCREW PUMP SECTION A
SCALE: 1/4" = 1'-0"



MAGNA WATER DISTRICT
WATER RECLAMATION FACILITY INFLUENT PROJECT
PRELIMINARY ENGINEERING REPORT
ATTACHMENT 11
SCREW PUMP STATION CONCEPT- PLAN AND SECTION







EDR PLANT

TECHNICAL MEMORANDUM

TO: Trevor Andra, Magna Water District
FROM: Cody Nelson, Bowen Collins & Associates
DATE: 12/28/2021
SUBJECT: Corrosion Assessment of Chemical and Chlorine Rooms at EDR Water Treatment Plant
JOB NO.: 483-19-02

CORROSION ASSESSMENT OF CHEMICAL AND CHLORINE ROOMS

INTRODUCTION

The Magna Water District (MWD) requested the corrosion services of Bowen Collins & Associates (BC&A) to help evaluate corrosion issues that have been observed in the electrodialysis reversal (EDR) water treatment facility.

This Technical Memorandum (TM) contains summary of the engineering observations and recommendations for the best course of action to address the problems discovered. Also contained in this document are photographs taken during the observations.

CORROSION ASSESSMENT

The assessment involved determining the source of the corrosion within the EDR building. BC&A determined that the corrosion was from the Hydrochloric Acid (HCl) and the vapors associated with this product (Figure 1). From our observations, it was discovered that there were three areas that were affected by the HCl.



Figure 1 - Hydrochloric Acid Storage Tank

The first area affected by the HCl was the concrete floor and the coating system (see Figure 2). From our observations, it is likely the failure occurred from a weakened coating system and inadequate surface preparation. The HCl breaks down the concrete and causes it to become weak, which will cause it to crumble from any stresses that are placed in the exposed area (see Figure 3). This can also affect any rebar that has been placed in the concrete to become exposed to the HCl and corrode. This will ultimately cause more damage to the weakened structure as the rebar will expand as it corrodes. To protect the concrete flooring, a coating system was put in place. While this can be helpful in protecting the concrete, which was the intent of the original design, failure of the concrete coating system can still occur. The failure may be attributed to a lack of adequate surface preparation and an incompatible coating system (see Figure 4). Both failures are found in the EDR building.



Figure 2 - Concrete Coating Failure



Figure 3 - Drainage Trough, Concrete Damage



Figure 4 - Coating Failure from Improper Surface Preparation

The second issue discovered during the observation was improper material selection for areas that require support on exposed steel, galvanized steel, copper piping, and stainless steel. The exposed steel was found at bolted connections, concrete tie downs, and other various steel surfaces, and had surface rust from being exposed (see Figure 5). The galvanized material found on the HVAC duct work, Unistrut supports, and other galvanized material offers great protection when put in an atmospheric condition. When the galvanized material is put in acidic conditions, the Zinc (galvanize) will react quickly and not provide proper protection (see Figure 6). The copper does not corrode as quickly as the steel and the galvanized material, but it will still corrode when exposed to the conditions found in the EDR building with high vaporized acid mixed with oxygen (see Figure 7). The stainless steel offers excellent corrosion protection as well, but there are different types required in acidic areas that are not as common as the typical 316 stainless steel (see Figure 8).

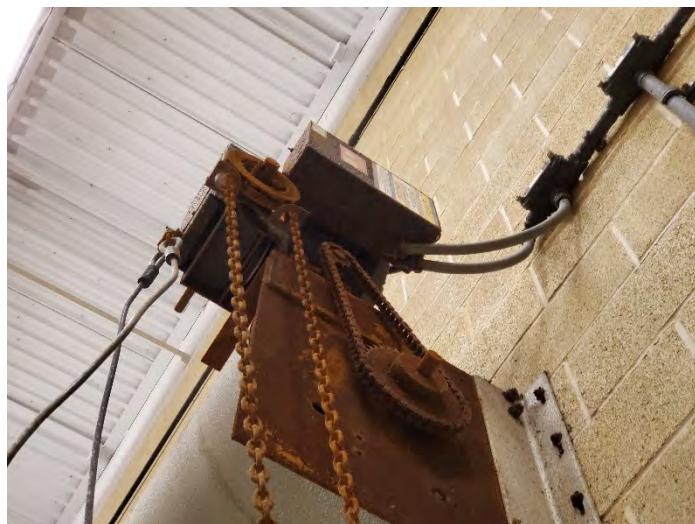


Figure 5 - Exposed Steel on the Overhead Door System



Figure 6 - Galvanized Access Ladder

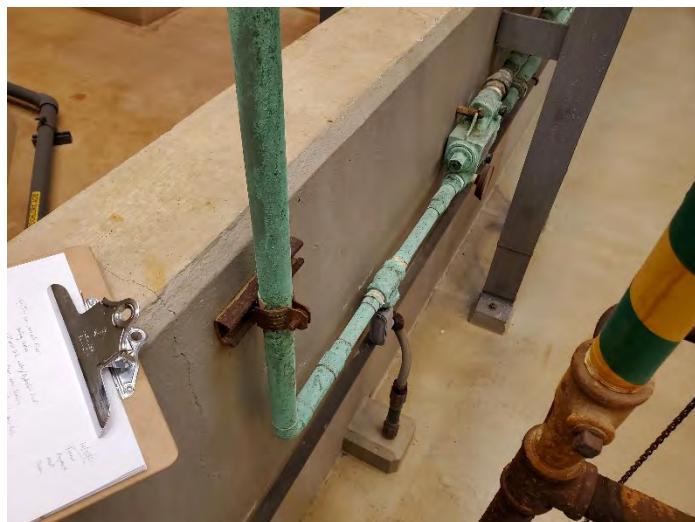


Figure 7 - Copper Piping to the Washout Station



Figure 8 - Stainless Steel Bolts on a Flanged Connection

The last issue discovered during the observation was an overall dusting of corrosion (see Figure 9). This dusting is likely caused by inadequate ventilation and air exchange rates. The exchange of air is required to properly ventilate any area of high acid vapors (see Figure 10). When not properly ventilated, areas of corrosion are often found, similar to what is in the chlorine rooms. Corrosion on the stainless steel and copper fixtures could be mitigated if proper ventilation is put into place. It is understood that the HVAC system at the plant has been recently upgraded and the area is now likely receiving proper air ventilation. The visible corrosion residue that has been gathered on the equipment may have developed prior to the upgrade to the HVAC system.



Figure 9 - Dusting of Corrosion Next to Equipment



Figure 10 - Ventilation Louvers

SUMMARY AND RECOMMENDATIONS

The use of HCl can cause several issues and subsequent damage to areas if not placed properly. Many of these issues can be mitigated by addressing the problems in the affected areas. The following items should be addressed to ensure the use of the HCl does not continue to be a problem:

- **Concrete Flooring** – A properly specified coating system should be maintained on the concrete flooring to prevent any future break down when exposed to HCl and other acidic fluids. From our observations it was noted that the coating failure has occurred in HCl room and the main equipment room of the plant. It is recommended to replace the entire coating system with one that is adequate to handle exposure to HCl and other acid fluids. Due to the large amount of equipment that is currently in place, the replacement of the entire coating system on the floor is not practical. Smaller areas can be addressed where the coating system is failing as long as the surface is properly prepared, and a new coating system can be put in place. Standards for concrete surface preparation is the NACE 6/SSPC SP13 Surface Prep of Concrete.

In areas where the concrete is severely damaged (such as in the drainage troughs) a concrete re-surfacer will be required along with an adequate coating system. Previous discussions were had for installation of a liner that could be utilized in the trough. After research was performed a liner would not feasible due to the types of chemicals and acids utilized in the water treatment process and the required accessibility.

For the use of products there are several options for a concrete coating system. Coatings systems are not limited to specific manufactures as long as a thick-build coating system is used. Thick-build coatings should have a dry film thickness (DFT) of 10-40 mils. Tnemec and Sherwin Williams both provide coating systems for this type of application. Table 1 provides recommendations that can be utilized with the specified areas:

Table 1
Concrete Coating Recommendations

Areas to be Coated	Recommended Manufacturer	Product	Required Coating Thickness
Flooring	Tnemec	Primer/Top Coat - Perma-Glaze Series 435	30 - 40 mils
	Sherwin Williams	Primer - ArmorSeal 33 Top Coat - ArmorSeal 650	8 mils 30 mils
Trough	Tnemec	Resurfacer - MortarClad Series 218 Basecoat - Perma-Shield 434 Topcoat - Perma-Glaze 435	1/16 - 1/4 - inch 125 mils 15 - 20 mils
	Sherwin Williams	Resurfacer - Dura-Plate 2300 Basecoat - Dura-Plate 5900 with aggregate Topcoat - Dura-Plate 5900	1/16 - 1/4 - inch 125 mils 15 - 20 mils

- **Material Selection** – The material present in the area where there is high HCl content has shown signs of corrosion. The recommendation for this is to replace as needed with materials that can withstand exposure to HCl. The newly designed area that contains the Hydrofluorosilicic Acid provides great examples of the types of materials that are required for protection from corrosion (see Figure 11). Table 2 provides a summary for replacement materials.

Table 2
Material Replacement Recommendations

Existing Material		Replacement Material – Manufacturer
Galvanized	Electrical Conduits –	PVC coated conduit – Perma-Cote
	Electrical Boxes –	PVC coated electrical box – Perma-Cote
	Unistrut –	PVC coated Unistrut – Perma-Cote or Calbond
	Hardware (bolt, nuts, washers, and clamps) –	Stainless Steel PVC Coated – Savinobarbera, Calbond
Copper Piping		Schedule 40 PVC Grey Conduit – Generic use for water application
Stainless Steel		317 Stainless Steel

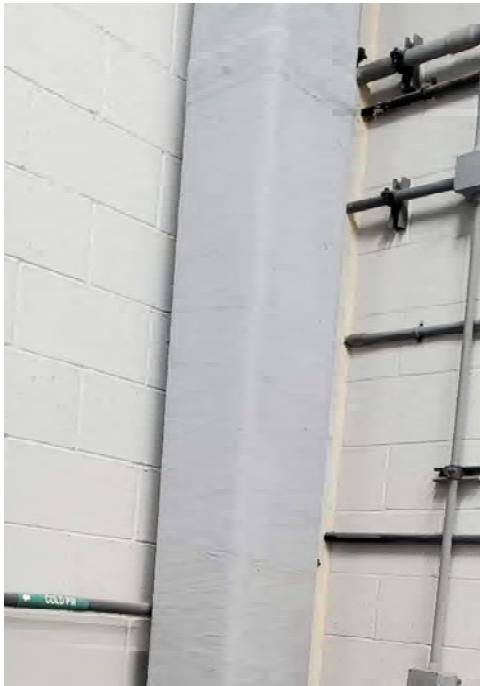


Figure 11 – Hydrofluorosilicic Room, Coated HVAC Duct and Plastic Electrical Conduits

- **Ventilation** – As previously mentioned, it is understood that the HVAC system has been updated by MWD to provide more air circulation. It is recommended that the rooms be cleaned of any corrosion residue and monitor any accumulation. This will help determine if the HVAC system is achieving the specified air changes for the room and that no air movement dead zones are present.

It is recommended that the items listed in Tables 1 and 2 be addressed through regular maintenance and an annual replacement program performed by MWD. These items in the chemical room including corroded bolts, equipment supports, ductwork, and any other items affected by the HCl. Through the assessment there was no observed signs of items with pending failure and need for any immediate repair. All systems appeared to be functioning properly. Corroded items should be swapped out and replace with compatible corrosion resistance materials over time.

By working through these recommendations, the life of the equipment will be extended and continue to function properly. Regular maintenance will be required to provide any upkeep on the materials found within the EDR building.

**CONDIE
CONSTRUCTION**

SECTION 00 63 63
CHANGE ORDER

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Change Order No. 2

Date of Issuance:	December 21, 2021	Effective Date:	December 21, 2021
Owner:	Magna Water District	Owner's Contract No.:	
Contractor:	Condie Construction Co., Inc.	Contractor's Project No.:	2109
Engineer:	Bowen Collins & Associates, Inc.	Engineer's Project No.:	483-19-01
Project:	2019 Secondary Waterline Project	Contract Name:	2019 Secondary Waterline Project

The Contract is modified as follows upon execution of this Change Order:

Description:

1.) Remove 19-tons of bid item 14 (asphalt restoration)	-\$10,735.00
2.) Remove 160-tons of bid item 18 (trench stabilization material)	-\$23,520.00
3.) <u>Remove unused portion of bid item 19 (permit fee allowance)</u>	-\$9,225.00
	Total: -\$43,480.00

Attachments: *Documentation and invoices from Contractor*

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ 1,588,239.00	Original Contract Times: Substantial Completion: November 01,2021 Ready for Final Payment: November 25, 2021 days or dates
from previously approved Change Orders No. <u>0</u> to No. <u>1</u> : -\$ 1,477.06	from previously approved Change Orders No. <u>N/A</u> to No. <u>N/A</u> : Substantial Completion: November 15, 2021 Ready for Final Payment: November 25, 2021 days
Contract Price prior to this Change Order: \$ 1,586,761.94	Contract Times prior to this Change Order: Substantial Completion: November 15, 2021 Ready for Final Payment: November 25, 2021 days or dates
of this Change Order: -\$ 43,480.00	of this Change Order: Substantial Completion: December 02, 2021 Ready for Final Payment: December 16, 2021 days or dates
Contract Price incorporating this Change Order: \$ 1,543,281.94	Contract Times with all approved Change Orders: Substantial Completion: December 02, 2021 Ready for Final Payment: December 16, 2021 days or dates

RECOMMENDED: By: <u>haw</u> Engineer (if required)	ACCEPTED: By: <u>Clint Bally</u> Owner (Authorized)	ACCEPTED: By: <u>Clint H. Wynn</u> Contractor (Authorized)
Title: <u>PROJECT ENGINEER</u>	Title: <u>Construction Manager</u>	Title: <u>Project Manager</u>
Date: <u>12/21/2021</u>	Date: <u>12/27/21</u>	Date: <u>12/21/2021</u>
Approved by Funding Agency (if applicable)		
By: _____	Date: _____	
Title: _____		

END OF SECTION

TRAINING CONFERENCES

2022 Conference Schedule DRAFT

OPERATOR	CONFERENCE DATES	CONFERENCE LOCATIONS	ESTIMATED COST	CEU CREDITS EARNED	CEU CREDITS NEEDED in 2021	CEU CREDITS NEEDED in 2022	CEU CREDITS NEEDED in 2023
WW OPERATORS							
Dallas Henline	Rural Water Feb 28 - Mar 4				3	2	8
Beau Lamper					0	3	0
Scott Beck					0	2	0
Dyllon Dellobel					0	0	0
Chet Draper					0	0	0
Clint Giles	Weau April 12 - 15				0.95	0	3
Matt Hunter	Rural Water Feb 28 - Mar 4				0	0	0
Conner McReynolds					0	0	0
Kirk Wachter					0	0	0
Future Employee							
Water Operators							
Steve Clark							
Matt Skogerbough	Rural Water Feb 28 - Mar 4					2	
Jon Jon Davis							
Ed Tucker	WEAU April 12 - 15					1.9	
Brad Davis							
Justin Long							
Travis Rawson							
Mike Harms	WEAU April 12 - 15						
Rob Jaterka							
Bob Batt							
Easton Fuches							
Cameron Wilko							
Management Team							
Clint Dilley	Rural Water Feb 28 - Mar 4						
	WEAU April 12 - 15						
Trevor Andra							
Leisle Fitzgerald							
Raymond Mondragon	WEAU April 12 - 15						

Additional Conference Options

CONFERENCE	DATES	LOCATIONS				
National AWWA	June 12th - 15th	San Antonio, TX	ACE22 (awwa.org)			
Rural Water Annual	Feb 28 - Mar 4	Dixie Center St. George	Attendees Annual Conference - Rural Water Association of Utah (rwau.net)			
Rural Water Ops Train.	March 22nd - 24th, 2022	Online Broadcast	Spring 2022 Water Operator Certification Online - Rural Water Association of Utah (rwau.net)			
Utah Water Users	March 21st - 23rd, 2022	Dixie Center St. George	https://www.utahwaterusers.com/2022-workshop-information/			
UGFOA Annual Spring	April 25th - 27th	Dixie Center St. George	Utah GFOA (ugfoa.org)			
APWA Conference	June 7th - 10th	Greenville, SC	2022 Annual Conference (apwa.net)			
WEAU Conference	April 12 - 15, 2022	Dixie Center St. George	Water Environment Association of Utah - Annual Conference (weau.org)			
Intermountain AWWA	April 21st, 2022	Zermatt, Midway, UT.	Intermountain Section AWWA (ims-awwa.org)			
GFOA Annual	June 5th - 8th, 2022	Austin, TX	Future GFOA Conferences			
APWA PW Expo	August 28th - 31st, 2022	Charlotte, NC	Home (apwa.net)			
UASD Annual	November 2nd - 4th, 2022	Layton, UT	Home (uasd.org) Scroll to bottom for dates			
WEFTEC	October 8th - 12th, 2022	New Orleans, LA	Exhibit in 2022 (weftec.org)			

ACTIVE SHOOTER INSURANCE

Magna Water District
Insurance Proposal
2022 - 2023

Coverage	Carrier	Limits		Deductible	22/23 Premium
Active Shooter / Workplace Violence	AXA XL (A XV) Annual Term	\$ 1,000,000	Act of Workplace Violence Event Aggregate	\$ -	\$ 2,611
		\$ 1,000,000	Workplace Violence Expenses Per Insured Event	\$ -	
		\$ 1,000,000	3rd Party Legal Liability Per Insured Event	\$ -	
		\$ 50,000	Personal Accident Expenses Per Insured Person	\$ -	
		\$ 1,000,000	Business Interruption Expenses Per Insured Event	\$ -	
		120 Days	Business Interruption Indemnity Period	6 Hours	
		\$ 1,000,000	Stalking Threat Event Aggregate	\$ -	
		\$ 1,000,000	Policy Aggergate	\$ -	

Coverage	Carrier	Limits		Deductible	22/23 Premium
Active Shooter / Workplace Violence	AXA XL (A XV) Annual Term	\$ 2,000,000	Act of Workplace Violence Event Aggregate	\$ -	\$ 3,786
		\$ 2,000,000	Workplace Violence Expenses Per Insured Event	\$ -	
		\$ 2,000,000	3rd Party Legal Liability Per Insured Event	\$ -	
		\$ 50,000	Personal Accident Expenses Per Insured Person	\$ -	
		\$ 2,000,000	Business Interruption Expenses Per Insured Event	\$ -	
		120 Days	Business Interruption Indemnity Period	6 Hours	
		\$ 2,000,000	Stalking Threat Event Aggregate	\$ -	
		\$ 2,000,000	Policy Aggergate	\$ -	

Coverage	Carrier	Limits		Deductible	22/23 Premium
Active Shooter / Workplace Violence	AXA XL (A XV) Annual Term	\$ 3,000,000	Act of Workplace Violence Event Aggregate	\$ -	\$ 4,523
		\$ 3,000,000	Workplace Violence Expenses Per Insured Event	\$ -	
		\$ 3,000,000	3rd Party Legal Liability Per Insured Event	\$ -	
		\$ 50,000	Personal Accident Expenses Per Insured Person	\$ -	
		\$ 3,000,000	Business Interruption Expenses Per Insured Event	\$ -	
		120 Days	Business Interruption Indemnity Period	6 Hours	
		\$ 3,000,000	Stalking Threat Event Aggregate	\$ -	
		\$ 3,000,000	Policy Aggergate	\$ -	

Coverage	Carrier	Limits		Deductible	22/23 Premium
Active Shooter / Workplace Violence	AXA XL (A XV) Annual Term	\$ 4,000,000	Act of Workplace Violence Event Aggregate	\$ -	\$ 5,222
		\$ 4,000,000	Workplace Violence Expenses Per Insured Event	\$ -	
		\$ 4,000,000	3rd Party Legal Liability Per Insured Event	\$ -	
		\$ 50,000	Personal Accident Expenses Per Insured Person	\$ -	
		\$ 4,000,000	Business Interruption Expenses Per Insured Event	\$ -	
		120 Days	Business Interruption Indemnity Period	6 Hours	
		\$ 4,000,000	Stalking Threat Event Aggregate	\$ -	
		\$ 4,000,000	Policy Aggergate	\$ -	

Magna Water District
Insurance Proposal
2022 - 2023

Coverage	Carrier	Limits		Deductible	22/23 Premium
Active Shooter / Workplace Violence	AXA XL (A XV) Annual Term	\$ 5,000,000	Act of Workplace Violence Event Aggregate	\$ -	\$ 5,842
		\$ 5,000,000	Workplace Violence Expenses Per Insured Event	\$ -	
		\$ 5,000,000	3rd Party Legal Liability Per Insured Event	\$ -	
		\$ 50,000	Personal Accident Expenses Per Insured Person	\$ -	
		\$ 5,000,000	Business Interruption Expenses Per Insured Event	\$ -	
		120 Days	Business Interruption Indemnity Period	6 Hours	
		\$ 5,000,000	Stalking Threat Event Aggregate	\$ -	
		\$ 5,000,000	Policy Aggregate	\$ -	

ACT OF WORKPLACE VIOLENCE AND STALKING THREAT INSURANCE POLICY

Throughout this Policy the words **Named Insured** refer to the **Named Insured** shown in the Declarations, and any other person or organization qualifying as a **Named Insured** under this Policy. The word **Company** refers to the company providing this insurance. The words **Insured Person(s)** means any person or organization qualifying as such under Section **V. DEFINITIONS**.

I. COVERAGE

In consideration of payment of the premium, and in reliance on the representations made by the **Named Insured** and its agent, broker or consultant in the application, including the proposal form and all other written statements and materials furnished to the **Company** in conjunction with such application, the **Company** agrees to indemnify the **Named Insured** and/or an **Insured Person(s)** for applicable **Insured Expenses** and **Business Interruption** directly caused by a[n]:

- A. Act of Workplace Violence;** and/or
- B. Stalking Threat**

that commences during the Period of Insurance set forth in the Declarations. If it is evident from the demand(s) or the making of such demand(s) that an **Act of Workplace Violence** and/or a **Stalking Threat** is or was carried out in furtherance of one another or as part of a common scheme, they shall be deemed to be connected and to constitute a single **Act of Workplace Violence** and/or **Stalking Threat**. Nevertheless, there shall be no liability hereunder in respect of any **Act of Workplace Violence** and/or **Stalking Threat** that began before the Period of Insurance.

II. INSURED EXPENSES

The **Company's** obligation to pay for **Insured Expenses** shall not exceed the amounts stated in Section II. of the Declarations and shall be limited to the following:

- A. Act of Workplace Violence Expenses;**
- B. Stalking Threat Expenses;**
- C. Personal Accident Expenses;**
- D. Legal Liability Expenses;** and
- E. Business Interruption Expenses**

III. EXCLUSIONS

- 1. The **Company** shall not be liable for **Insured Expenses** or **Business Interruption** caused by or arising from or attributable to any of the following circumstances:
 - A. An Act of Workplace Violence** that occurs at any location other than the **Premises**.
 - B.** (1) Declared or Undeclared War;
(2) Civil War;
(3) Riot;
(4) Insurrection;
(5) Civil Commotion;
(6) Rebellion;
(7) Revolution;

- (8) Usurped Power;
- (9) Governmental Intervention;
- (10) Expropriation;
- (11) Nationalization;
- (12) Sabotage;
- (13) Malicious Damage;
- (14) Suicide;
- (15) Strike;
- (16) Invasion;
- (17) Coup; or
- (18) Mutiny.

- C. The use or threat of force or violence occurring on the **Premises** for the purpose of demanding money, securities, or property.
- D. Any **Business Interruption** sustained after the earlier of:
 - (1) The resumption of business activities by the **Named Insured**; or
 - (2) The expiration of the **Indemnity Period**.

2. This Policy does not cover:

- A. Any consequential damages that may accompany any **Business Interruption** loss including, but not limited to, damages attributable to loss of market share, harm to business reputation, or loss of goodwill.
- B. Any loss or damages, fees, or expenses, arising out of cancellation, suspension, abrogation or breach of a contract to which the **Named Insured** is a party.

IV. CONDITIONS

- A. ACTION AGAINST THE COMPANY: No suit, action, or proceedings for recovery of any claim under this Policy will be sustainable in any court of law, equity, or other tribunal unless all the requirements of this Policy are complied with and the same is commenced within twelve (12) months after a final statement of loss has been submitted to the **Company** by the **Named Insured** or the **Insured Person**.
- B. APPRAISAL: In the event that the **Named Insured** or the **Insured Person** and **Company** fail to agree on the amount of loss, the **Named Insured** or the **Insured Person**, or the **Company** may make a written demand for appraisal within sixty (60) days after rejection of the final statement of loss by the **Company**. The **Named Insured** or the **Insured Person**, and the **Company** will both select a competent and disinterested appraiser and notify the other of the appraiser selected within twenty (20) days of such demand.

The appraisers shall first select a competent and disinterested umpire and failing for fifteen (15) days to agree on such umpire, then upon the **Company** or **Named Insured**'s or **Insured Person**'s request such umpire shall be selected by a judge of a court of record in the State of New York. The **Named Insured** or the **Insured Person**, and the **Company** will submit their cases to the appraiser and the umpire within thirty (30) days of the appointment of the umpire. An itemized award in writing of any two (2) appraisers will determine the amount of the loss. The **Named Insured** or the **Insured Person**, and the **Company** will each pay its chosen appraiser and will bear equally the other expenses of the appraisal and umpire. The **Company** will not be held to have waived any of its rights by any act relating to the appraisal. The venue for the appraisal will be within the State of New York and governed by the rules promulgated by the State of New York.

- C. ASSIGNMENT: No assignment of the **Named Insured's** or **Insured Person's** interest hereunder shall be binding on the **Company**, unless and until its written consent thereto has been obtained and endorsed hereon.
- D. ASSISTANCE AND COOPERATION: The **Named Insured** and the **Insured Person** will cooperate with the **Company** in all matters relating to this insurance. This may include, but is not limited to, attending hearings and trials, securing and giving evidence, obtaining the attendance of witnesses, assisting in effecting settlements, and in conducting litigation, arbitration or other proceedings.
- E. BANKRUPTCY: Bankruptcy or insolvency of the **Named Insured** or an **Insured Person(s)** or his or her estate shall not relieve the **Company** of any of its obligations under this Policy.
- F. CANCELLATION: This Policy may be cancelled by the first **Named Insured** by delivering or mailing written notices to the **Company** stating when thereafter such cancellation shall be effective. This Policy also may be cancelled by the **Company**, but solely as a result of non-payment of premium by the **Named Insured**. In such event, the **Company** shall mail written notice of cancellation to the first **Named Insured**, stating the effective date of cancellation, not less than ten (10) days prior to the effective date of cancellation at the last mailing address known to the **Company**. The Period of Insurance will end on that date. If notice is mailed, proof of mailing will be sufficient proof of notice. If the first **Named Insured** cancels, earned premium shall be calculated on a pro rata basis. If the **Company** cancels, earned premium shall be calculated on a pro rata basis.
- G. CHANGES: Notice to any or knowledge possessed by any agent of the **Company** or by any other person shall not affect a waiver or a change in any of the terms or conditions of this Policy, or prevent the **Company** from asserting any of its rights under this Policy. Nor shall the terms of this Policy be waived or changed except by written endorsement attached to and forming part of this Policy. Failure by the **Company** to exercise or enforce any rights hereunder will not be deemed to be a waiver of such rights nor operate so far as to bar the exercise or enforcement thereof at any time thereafter.
- H. CHOICE OF LAW AND FORUM: The construction, validity, and performance of this Policy will be governed by the laws of the United States and the State of New York without giving effect to provisions regarding choice of law. All claims and disputes will be brought for adjudication either in the Supreme Court of the State of New York in and for the County of New York or in the U.S. District Court for the Southern District of New York.

I. CONFIDENTIALITY: The **Named Insured** and each and every **Insured Person(s)** must at all times use their best efforts to ensure that knowledge of the existence of this insurance is kept confidential and access to the Policy is restricted as much as possible.

J. CONSOLIDATION-MERGER: The first **Named Insured** shall give the **Company** written notice within ninety (90) days of any of the following:

- (1) Consolidation or merger with;
- (2) Acquisition of the majority stock ownership of; or
- (3) Acquisition of the assets of;

any other entity whose revenues or assets are in excess of twenty-five percent (25%) of the **Named Insured's** revenues or assets as of the effective date of such consolidation, merger, or acquisition.

The **Company** may elect to accept or reject such additional exposure. If the additional exposure is rejected, it will remain covered only until the first **Named Insured** is notified in writing of the rejection.

If the **Company** accepts the additional exposure, the **Named Insured** shall pay the **Company** any additional premium as may be required, computed from the effective date of such consolidation, merger, or acquisition, to the end of the current Period of Insurance unless otherwise specifically requested.

No claim arising out of the additional exposure will be covered unless the **Named Insured**, at the time that notice was given to the **Company**, did not know nor could reasonably have been expected to know of an **Act of Workplace Violence** and/or **Stalking Threat** giving rise to the claim.

K. CURRENCY AND VALUATION: The Limits of Liability of the Policy and the **Company's** obligation to indemnify for **Insured Expenses** are in United States dollars. In the event of any payment of **Insured Expenses** by the **Named Insured** or **Insured Person(s)** in foreign currency, the amount to be indemnified pursuant to the Policy shall be calculated based upon the exchange rate published in The Wall Street Journal on the date the claim for **Insured Expenses** is submitted to the **Company** for payment. In the event of any payment of **Insured Expenses** by the **Named Insured** or **Insured Person(s)** in marketable securities, goods, or services, the **Company** shall pay the least of:

- (1) The actual cash value of the securities, goods, or services at the time of their surrender; or
- (2) The actual cost to replace or repair such securities, goods, or services with consideration of similar quality and value.

L. EXAMINATION UNDER OATH: The **Named Insured** and the **Insured Person**, as often as may reasonably be required, will submit to examination under oath by any person named by the **Company**, and subscribe the same; and as often as may reasonably be required, will produce for examination all books of account, vouchers, bills, invoices, schedules, accounting information, and any documentation related to the **Named Insured's** or **Insured Person's** calculation of its loss, or certified copies thereof if originals are lost, at such reasonable time and place as may be designated by the **Company** or its representative, and will permit extracts and copies thereof to be made.

M. INSURED PERSON'S DUTIES IN THE EVENT OF AN ACT OF WORKPLACE VIOLENCE AND/OR STALKING THREAT: The **Named Insured** shall do the following in the event of an **Act of Workplace Violence** and/or **Stalking Threat** to the **Premises**:

- (1) Notify the proper authorities;
- (2) Give the **Company** prompt written notice of an **Act of Workplace Violence** and/or **Stalking Threat**, which must include all relevant details, including but not limited to a detailed description of the **Personal Accident Expenses** or, the **Business Interruption** incurred.
- (3) Promptly provide the **Company** with relevant documentation, reports, and records bearing on how, when and where an **Act of Workplace Violence** and/or **Stalking Threat** occurred and the matters set forth in (2) above;
- (4) Take all reasonable steps to protect the **Premises** from further **Acts of Workplace Violence** or **Stalking Threats**, and to minimize **Insured Expenses** and **Business Interruption**, including without limitation those steps to:
 - a. Secure the **Premises**;
 - b. Cooperate with law enforcement; and
 - c. Record all expenses for emergency and temporary measures to secure the **Premises**.
- (5) At the **Company's** request, provide complete inventories and records of the **Insured Expenses** and **Business Interruption** that demonstrate to the **Company's** satisfaction the amount of loss claimed;
- (6) Provide complete records detailing any, injuries sustained by the **Named Insured** and the **Insured Person** and amount of **Insured Expenses** claimed;
- (7) Permit the **Company** to inspect the **Premises** and the **Named Insured's** books and records, and to record and take samples related to **Act of Workplace Violence** and/or **Stalking Threat** and any **Business Interruption**;
- (8) At the **Company's** request, permit the **Company** to question under oath the **Insured Person** and its representatives and to obtain verified answers under oath at such as times as may be reasonably required, concerning any matter relating to this Policy or the **Insured Person's** claim, including without limitation, the Insured's books and records;
- (9) Within sixty (60) days after the **Company's** request, submit a signed, sworn Statement of Loss containing information requested by the **Company** in the format specified by the **Company**;
- (10) Cooperate with the **Company** in the investigation, settlement, or other resolution of the claim.
- (11) An **Act of Workplace Violence** may include a **Stalking Threat** and if it does only a single **Act of Workplace Violence** Limit applies.
- (12) In the event of an **Act of Workplace Violence** and/or **Stalking Threat**, any claims for payment shall be made to the **Company** as soon as practicable and shall be accompanied by a computation of loss, prepared by a **Company**-approved firm of forensic accountants using standard accounting procedures, which sets out in detail the how the loss has been calculated and what assumptions have been made.

- (13) The **Company**-approved forensic accountants shall review the **Named Insured's** or **Insured Person's** claim for payment and determine the amount of the **Insured Expenses** and **Business Interruption**, taking into account any savings or recoveries or offsetting of losses which have been made or which the **Named Insured** or **Insured Person** could reasonably have been expected to make, and the ability of the **Named Insured** to resume business operations and activities.
- (14) The **Named Insured** shall produce any documentary evidence, books of accounts, bills, invoices and other vouchers and copies of the same which the **Company**-approved forensic accountants may require and shall afford them every assistance in their investigations including reasonable access to the **Named Insured's** property.
- (15) In the event that the **Company**-approved forensic accountants declare that they are unable to act in this capacity for any reason including potential conflict of interest, the **Company** will appoint another firm of similar standing in the accounting profession.

The foregoing duties of the **Named Insured** are a condition precedent to coverage under this Policy. All sums incurred by the **Named Insured** to discharge these duties or otherwise to prepare and verify its claim are for its own account and are not insured under this Policy.

N. LEGAL ACTION AGAINST THE COMPANY: No one may bring a legal action against the **Company** unless:

- (1) There has been full compliance by each **Named Insured** and **Insured Person(s)** with all of the terms of this Policy; and
- (2) The action is brought within two (2) years after the expiration or cancellation of this Policy.

O. LEGAL LIABILITY: As a condition to the **Company**'s obligation to pay pursuant to this paragraph, the **Named Insured** shall:

- (1) Not admit liability for, settle any claim or suit, nor incur any costs or expenses without the prior written authorization of the **Company**;
- (2) Provide the **Company** the right and opportunity to adjust any such claim or defend such suit against the **Named Insured**, including whatever investigation may be appropriate, and to settle the claim or suit as the **Company** may deem expedient and the law allows; and
- (3) Cooperate fully with the **Company** in all things in connection therewith.

Defense costs incurred by the **Company**, or by the **Named Insured** with the **Company**'s prior consent and authorization, erode the policy limit. In no event shall defense costs exceed the amount stated in Section II. of the Declarations.

P. LIMITS OF LIABILITY: the **Company's** liability hereunder shall in all cases be limited to the amounts shown in the Declarations. Specifically, but without limiting the generality of the foregoing, the **Company's** liability shall not be increased because:

- (1) If more than one **Named Insured**, only the first **Named Insured** shall have the right to make, adjust, receive or enforce payment of any claim;
- (2) **Workplace Violence** and/or **Stalking Threat** may involve the **Named Insured** and/or one or more **Insured Person(s)**;
- (3) Of renewal of this Policy. The **Company's** liability shall not be cumulative from one period of insurance to another;

(4) Of any other reason whatsoever.

Q. MATERIAL CHANGES: Notice to any or knowledge possessed by any agent or representative of the **Company** or by any other person shall not affect a waiver or a change in any of the terms or conditions of this Policy, or prevent the **Company** from asserting any of its rights under this Policy. Nor shall the terms of this Policy be waived or changed except by written endorsement attached to and forming part of this Policy. Failure by the **Company** to exercise or enforce any rights hereunder will not be deemed to be a waiver of such right nor operate so far as to bar the exercise or enforcement thereof at any time thereafter.

R MEDICAL CARE AND EXAMINATIONS: With regard to any claim for **Personal Accident Expenses**, the following additional conditions apply:

- (1) Any **Insured Person(s)** who suffers an incident which caused or may cause **Personal Accident Expense** within the meaning of this Policy must place himself/herself under the care of a qualified medical practitioner approved by the **Company** as early as possible after the incident.
- (2) The **Company** will not be liable to pay **Personal Accident Expenses** unless the medical advisors appointed by the **Company** shall be allowed as often as is thought necessary to examine the **Insured Person(s)**.

S. MITIGATION OF LOSS: The **Named Insured and the Insured Person** shall use due diligence and undertake or concur in the **Company's** undertaking of all things reasonably practicable to avoid or diminish any **Insured Expenses and Business Interruption**.

T. NOTICE OF CLAIM: It is a condition precedent to the **Company's** obligation to pay that, when an **Act of Workplace Violence** and/or **Stalking Threat** has occurred, or is believed to have occurred, the **Named Insured** and/or the **Insured Person** shall notify the **Company**- in writing and provide whatever information is required as soon as is practicable;

U. OTHER INSURANCE: If the **Named Insured** or **Insured Person** has other valid and collectible insurance that may cover all or a portion of **Insured Expenses** or **Business Interruption** also covered under this Policy, this Policy will provide primary coverage Where the **Named Insured** or the **Insured Person** has specifically purchased other valid and collectible Workplace Violence and/or Stalking Threat Insurance, the **Company** will only be liable for its proportionate share of **Insured Expenses** or **Business Interruption up to the limit of liability declared in this policy**. Where the **Named Insured** or the **Insured Person** has other insurance provided by an insurer affiliated with the **Company**, the maximum limit of insurance for **Insured Expenses** or **Business Interruption** under all policies will not exceed the Limit of Liability of this Policy.

V. SERVICE OF SUIT: In the event that any disagreement arises between the **Insured Person** and the **Company** requiring judicial resolution, the **Insured Person** and the **Company** each agree that any suit shall be brought and heard in a court of competent jurisdiction within the State of New York. The **Insured Person** and the **Company** further agree to comply voluntarily with all the requirements necessary to give such court jurisdiction. Any suit shall be barred:

- (1) If commenced before the **Insured Person** has given notice and permitted the **Company** reasonable opportunity for adjustment; or
- (2) If commenced more than twenty-four (24) months after the **Act of Workplace Violence** or the **Stalking Threat** unless the **Company** agrees in writing after damage to extend that suit limitation period.

The filing of any suit does not supersede or otherwise preclude the **Insured Person** or the **Company** from invoking and pursuing appraisal of the amount of any loss under this Policy.

The **Insured Person** and the **Company** further agree that New York law shall control the interpretation, application and meaning of this contract, whether in suit or otherwise.

- W.** **SUBROGATION:** In the event of any payment under this Policy, the **Company** shall be subrogated to the extent of such payment to all rights of recovery of the **Named Insured** and/or any **Insured Person(s)**. The **Named Insured** and any **Insured Person(s)** shall execute all papers required and shall do everything necessary to enable the **Company** to bring suit in the name of the **Named Insured** or the **Insured Person(s)**.
- X.** **TERRITORY:** This Policy applies to **Act of Workplace Violence** and/or **Stalking Threat** anywhere in the world, except as limited in the Declarations.
- Y.** **TITLES OF PARAGRAPHS:** Titles of paragraphs are inserted solely for convenience of reference and will not be deemed to limit, expand, or otherwise affect the provisions to which they relate.
- Z.** **TRANSFER OF RIGHTS AND DUTIES:** The rights of the **Named Insured** and any **Insured Person(s)** may not be transferred or assigned without the prior written consent of the **Company**. Notwithstanding the foregoing, if an **Insured Person(s)** dies, his or her rights will be transferred to the legal representative for such **Insured Person(s)**, but only in the scope of the legal representative's duties as such.
- AA.** **VIOLATIONS OF APPLICABLE LAW:** Notwithstanding TERRITORY (above), or anything else to the contrary no matter where located, payment of loss under this Policy shall only be made in full compliance with all embargoes, economic or trade sanction laws, or regulations applicable to the **Named Insured** or any **Insured Person(s)** under this Policy, including but not limited to sanctions, laws, and regulations administered and enforced by the U.S. Treasury Department's Office of Foreign Assets Control.

V. DEFINITIONS

- A.** **Business Interruption** means the net profit lost before taxes plus payroll expenses, interest, rents and other reasonable and necessary operating expenses unavoidably incurred by the **Named Insured** during the **Indemnity Period**, plus **Extra Expense** incurred by the **Named Insured**, solely because of an **Act of Workplace Violence** and/or **Stalking Threat**.
- B.** **Business Interruption Expenses** means those reasonable and necessary expenses, including fees and expenses of the **Company**-approved forensic accountants directly resulting from the interruption of the **Named Insured's** business operations as a result of an **Act of Workplace Violence** and/or **Stalking Threat** following the Waiting Period set forth in the Declarations but not exceeding the Limits of Liability and the **Indemnity Period** set forth in the Declarations.
- C.** **Company** means the **Company** providing this insurance as indicated on the Declarations.

D. Employee means any:

- (1) Salaried or hourly wage personnel in the **Named Insured's** employ; or
- (2) Leased or temporary employees, volunteers, interns or students.

However, **Employee** does not include independent contractors.

E. Extra Expense means the total reasonably and necessary cost of conducting business activities during the **Indemnity Period** at the **Named Insured's Premises**, where the **Act of Workplace Violence** and/or **Stalking Threat** occurred for the sole purpose of reducing the loss. This Policy only covers those **Extra Expenses** which are over and above the cost of such activities during the same period of time had no **Act of Workplace Violence** and/or **Stalking Threat** occurred.

F. Guest means any natural person visiting the **Named Insured's Premises** for a lawful purpose, including a customer.

G. Indemnity Period means the maximum number of days for which **Business Interruption** and **Business Interruption Expenses** will be indemnified as set forth in the Declarations.

H. Insured Expenses mean those reasonable, customary and necessary expenses that the **Named Insured** or **Insured Person** incurs as a direct result of an **Act of Workplace Violence** and/or **Stalking Threat** and which are specified in Item II. of the Declarations and in Article II. of this Policy.

Insured Expenses shall not exceed those specified in Section II. of the Declarations.

I. Insured Person(s) means:

- (1) Any person specified under Section I. of the Declarations or qualifying as a **Named Insured**;
- (2) Any **Employee**;
- (3) Any **Guest** of the **Named Insured** while on any **Premises** occupied by the **Named Insured** in the conduct of its business;
- (4) However, **Insured Person** does not mean perpetrator of an **Act of Workplace Violence** or **Stalking Threat**.

J. Legal Liability Expenses means those reasonable and necessary defense costs allowable by law, including any resulting settlements or judgments incurred by the **Named Insured** in connection with an action for damages brought by or on behalf of an **Insured Person(s)**, or his or her legal representative, against the **Named Insured** solely and directly as a result of being a victim of an **Act of Workplace Violence** and/or **Stalking Threat**

K. Named Insured means the entity or person(s) specified under Item I. of the Declarations.

L. Personal Accident Expenses mean the following loss payable to an **Insured Person(s)**, that solely and directly results from an **Act of Workplace Violence** and/or **Stalking Threat** provided that such injury, within twelve (12) calendar months from the date of the **Act of Workplace Violence** and/or **Stalking Threat**:

- (1) Loss of Sight – the entire and irrevocable loss of vision of one or both eyes, as certified by a board certified physician specializing in ophthalmology and approved by the **Company**. The limit of loss for Loss of Sight is one hundred percent (100%) of the per **Insured Person(s)** Limit as shown on the Declarations for an **Act of Workplace Violence** and/or **Stalking Threat**.

- (2) Loss of Hearing – the entire and irrevocable loss of hearing of one or both ears, as certified by a board certified physician specializing in audiology and approved by the **Company**. The limit of loss for Loss of Hearing is one hundred percent (100%) of the per **Insured Person(s)** Limit as shown on the Declarations for an **Act of Workplace Violence** and/or **Stalking Threat**.
- (3) Loss of Extremity – the permanent physical separation or the total and irrevocable loss of use of one or more finger(s), toe(s), ear(s), nose, or genital organ(s) or part(s) thereof caused by mutilation as certified by a board certified physician. The limit of loss for Loss of Extremity is one hundred percent (100%) of the per **Insured Person(s)** Limit as shown on the Declarations for an **Act of Workplace Violence** and/or **Stalking Threat**.
- (4) Loss of Limb – the permanent loss by separation or the total and irrevocable loss of use of one or both hand(s) at or above the wrist or a foot or both feet at or above the ankle as certified by a board certified physician. The limit of loss for Loss of Limb is one hundred percent (100%) of the per **Insured Person(s)** Limit as shown on the Declarations for an **Act of Workplace Violence** and/or **Stalking Threat**.
- (5) Permanent Total Disablement – bodily injury which necessarily and continuously prevents an **Insured Person(s)** from attending to every aspect of his or her normal business or occupation for a period of twelve (12) consecutive calendar months or, if the **Insured Person(s)** has no business or occupation, confines him or her immediately and continuously to the home and prevents him or her from attending to normal duties of daily life, as certified by a board certified physician; provided that at the end of such twelve (12) month period, two board certified physicians, who have been approved by the **Company**, certify that the **Insured Person(s)** is disabled and beyond hope of improvement. The limit of loss for Permanent Total Disablement is one hundred percent (100%) of the per **Insured Person(s)** Limit as shown on the Declarations for an **Act of Workplace Violence** and/or **Stalking Threat**.
- (6) Death of an **Insured Person(s)** – the limit of loss for Death of an **Insured Person(s)** is one hundred percent (100%) of the per **Insured Person(s)** Limit as shown on the Declarations for an **Act of Workplace Violence** and/or **Stalking Threat**. Payment for the amount set forth in the Declarations for the Death of an **Insured Person(s)** shall be made in accordance with Condition Z.

M. Personal Financial Loss means loss suffered by an **Insured Person(s)** solely as a result of the physical inability caused by an **Act of Workplace Violence** and/or **Stalking Threat** victim to attend to personal financial matters while such an **Act of Workplace Violence** and/or **Stalking Threat** is ongoing.

N. Premises means that portion of any real property which is occupied by the **Named Insured** in the conduct of the **Named Insured's** business. **Premises** does not include the residences of **Insured Persons**

O. Stalking Threat means conduct by a natural person that:

- (a) demonstrates the repeated and persistent intrusion into an **Insured Person(s)**' privacy against that **Insured Person(s)**' will (whether by direct communication, physical following, indirect contact via friends, family, colleagues, or social or other forms of media); and
- (b) causes alarm, harassment or distress to that **Insured Person(s)**.

Any conduct which falls within the definition of an **Act of Workplace Violence** shall not be a **Stalking Threat**

P. Stalking Threat Expenses means:

- (1) Fees and expenses of the **Company**-approved Security Consultants;
- (2) Temporary security measures as recommended by the **Company**-approved Security Consultants (not to include the cost of capital improvements to property or premises);
- (3) **Personal Financial Loss**; and
- (4) Other reasonable expenses incurred and paid by the **Named Insured(s)** and/or an **Insured Person(s)**, provided that the **Company** has given its prior consent.

Q. Weapon means an instrument or explosive device which is specifically intended to be used for and used to injure, kill or incapacitate a person.

R. Act of Workplace Violence means any intentional and unlawful:

- (1) Act of potentially deadly force involving the use of a **Weapon** on the **Premises**; or
- (2) Threat of deadly force involving the display of a **Weapon** on the **Premises**.

S. Act of Workplace Violence Expenses means additional expenses necessarily and reasonably incurred by the **Named Insured** and/or an **Insured Person(s)** solely as a direct result of, immediately following, and for the duration of an **Act of Workplace Violence**, consisting of:

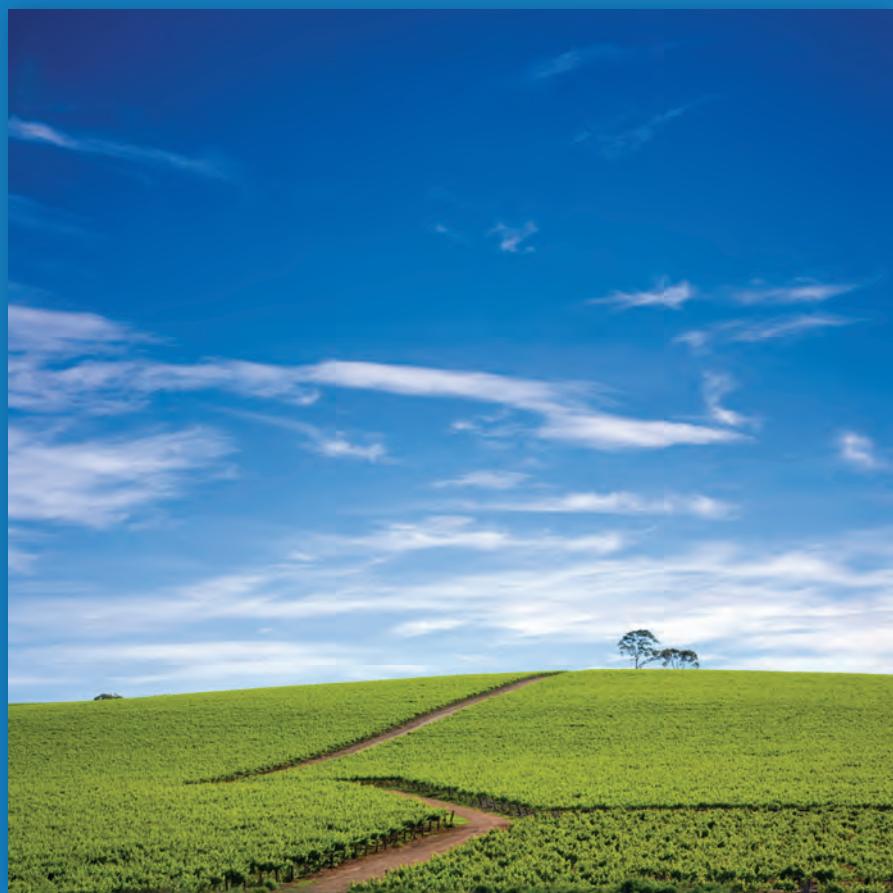
- (1) Fees and expenses of an independent public relations consultant with the prior authorization of the **Company**;
- (2) Fees for independent psychiatric care, medical care, dental care, and reconstructive or plastic surgery for an **Insured Person(s)** who is the victim of an **Act of Workplace Violence**;
- (3) Funeral and burial expenses, including repatriation of remains, of an **Insured Person(s)** in the event of his or her death resulting from an **Act of Workplace Violence**;
- (4) Reward or other monetary consideration paid by the **Named Insured** or an **Insured Person(s)** to an informant for material information, which is not otherwise obtainable and which directly leads to the arrest and conviction of the person(s) responsible for the **Act of Workplace Violence**;
- (5) **Personal Financial Loss**;
- (6) One hundred percent (100%) of the gross compensation, including salary and bonuses, commissions, cost of living adjustment, foreign tax reimbursements, pension, and/or welfare contributions and allowances which were contractually owed to or could reasonably be expected by an **Insured Person(s)** who is a victim of an **Act of Workplace Violence** based on his or her past performance, from the time said **Act of Workplace Violence** occurs up to ninety (90) days following the **Act of Workplace Violence** or his or her return to work, whichever occurs first;
- (7) Costs incurred by the **Named Insured** for the salaries of **Employees** specifically designated to conduct the duties of the **Insured Person** who is victim of an **Act of Workplace Violence** not to exceed the **Employees'** base rate of pay, from the time such **Act of Workplace Violence** occurs up to ninety (90) days following an **Act of Workplace Violence** or his or her return to work, whichever occurs first;

- (8) Costs, fees, and expenses of temporary security measures solely and directly for the purpose of protecting an **Insured Person(s)**, or the **Premises**, where an **Act of Workplace Violence** has occurred up to a period of ninety (90) days following the **Act of Workplace Violence**;

- (9) Reasonable fees and expenses of independent forensic analysts engaged by the **Named Insured** and/or **Insured Person(s)**;
- (10) Reasonable fees for rest and rehabilitation expenses including meals and recreation incurred by the **Named Insured** and/or an **Insured Person(s)** because of an **Act of Workplace Violence** for up to thirty (30) days when such expenses are incurred within twelve (12) months from the date of an **Act of Workplace Violence**; and
- (11) Any other reasonable fees and expenses incurred by the **Named Insured** or **Insured Person(s)** with the prior written approval of the **Company**.

401(K)

The Clear Direction for Your Future.



Dear Plan Sponsor:

Enclosed is the draft copy of your Post PPA document restatement for your retirement plan.

All Defined Contribution plan documents (including 401(k), Profit Sharing, and Money Purchase Plans) periodically need to be restated. We are currently in a mandatory restatement period and all documents must be restated no later than July 31, 2022.

Why does our Plan need to be Restated?

Plan documents are drafted based on laws and regulations put in place by Congress, the Treasury Department (IRS), and the Department of Labor. As those laws and regulations change, documents must be updated to reflect those changes. Since the last restatement period, there have been several regulatory and legislative changes affecting retirement plans, including the following:

- Expansion of the definition of “spouse” to include those of the same gender;
- Availability of plan forfeitures to offset certain additional types of company contributions;
- Ability to amend safe harbor 401(k) plans once the year has already started;
- Creation of in-plan Roth transfers.

In addition, the Post PPA documents will incorporate permanently the amendments that had been adopted for your previous (PPA) document.

What is the timing for the Post PPA restatements?

All defined contribution plans must adopt Post PPA provisions no later than July 31, 2022. We will be restating your plan effective January 1, 2022.

Please take the opportunity to review this draft and assess whether or not it is meeting all of the needs of you and your employees. Should you want to make any changes, please contact our office for a review of your plan and we can discuss what changes may be beneficial to incorporate into the final copy of your Post PPA restatement.

If you have any questions please contact our office.

MAGNA WATER DISTRICT 401(K) PLAN

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**ADOPTION AGREEMENT #001
401(k)/PROFIT SHARING NON-STANDARDIZED PLAN**

The undersigned adopting employer hereby adopts this Plan. The Plan is intended to qualify as a tax-exempt profit sharing plan under Code section 401(a), and the cash or deferred arrangement forming part of the Plan (to the extent provided in the Adoption Agreement) is intended to qualify under Code section 401(k). The Plan shall consist of this Adoption Agreement, its related Basic Plan Document #01, and any Addendum to the Adoption Agreement. Unless otherwise indicated, all Section references are to Sections in the Basic Plan Document.

EMPLOYER INFORMATION

NOTE: An amendment is not required to change the responses in items 1-13 below.

1. Name of adopting employer (Plan Sponsor): Magna Water District

2. Address: 2711 South 8600 West

3. City: Magna

4. State: Utah

5. Zip: 84044

6. Phone number: 801-250-2118

7. Fax number: 801-250-1452

8. Plan Sponsor EIN: 87-6112397

9. Plan Sponsor fiscal year end: 12/31

10. Entity Type

a. Plan Sponsor entity type:

- i. C Corporation
- ii. S Corporation
- iii. Non-Profit Organization
- iv. Partnership
- v. Limited Liability Company (taxed as: _____)
- vi. Limited Liability Partnership
- vii. Sole Proprietorship
- viii. Electing Church (ERISA section 3(33))
- ix. Other: Government agency (must be a legal entity recognized under the Code)

11. State or commonwealth of organization of Plan Sponsor: Utah

12. Affiliated Service Groups

The Plan Sponsor is a member of an affiliated service group. List all members of the group (other than the Plan Sponsor): _____

NOTE: Affiliated service group members must adopt the Plan with the approval of the Plan Sponsor to participate.

NOTE: Listing affiliated service group members is for information purposes only and is optional.

13. Controlled Groups

The Plan Sponsor is a member of a controlled group. List all members of the group (other than the Plan Sponsor): _____

NOTE: Controlled group members must adopt the Plan with the approval of the Plan Sponsor to participate.

NOTE: Listing controlled group members is for information purposes only and is optional.

PLAN INFORMATION

SECTION A. GENERAL INFORMATION

Plan Name/Effective Date

1. Plan Number: 001

2. Plan name:

a. Magna Water District 401(k) Plan

b. _____

3. Effective Datea. Original effective date of Plan: 04/01/2009b. This is a restatement of a previously-adopted plan. Effective date of Plan restatement: 01/01/2022*NOTE: The dates specified above in A.3a or A.3b may not be earlier than the first day of the Plan Year during which the Plan is adopted or amended and restated by the Plan Sponsor.***4. Merger Information**

a. Other Plan name: _____

b. Merger effective date: _____

c. Additional merger information: _____

5. Plan Yeara. Plan Year means each consecutive 12-month period ending on 12/31 (e.g., December 31)b. The Plan has a Short Plan Year. The Short Plan Year begins _____ and ends _____

i. In the event of a Short Plan Year, service conditions will be pro-rated based on months for the following purposes:

 None All purposes (i.e., eligibility, allocation conditions, and vesting) Other: _____*NOTE: The provisions of A.5b apply only in the event of an initial Plan Year. A Short Plan Year for reasons other than the initial Plan Year requires a Plan amendment.***6. Limitation Year means:**a. Plan Yearb. calendar yearc. tax year of the Plan Sponsord. Other: _____*NOTE: If "Other" is selected, the limitation year must be a consecutive 12-month period.***7. Frozen Plan**a. The Plan is frozen as to eligibility effective: _____b. The Plan is frozen as to benefit accruals effective: _____**Plan Features****8. Elective Deferrals**

a. Elective Deferrals are permitted (Section 4.01):

 Yes No

b. Roth Elective Deferrals are permitted:

 Yes No*NOTE: If "No" is selected in A.8a, no Elective Deferrals, Voluntary Contributions, Employer Matching Contributions or 401(k) safe harbor contributions shall be permitted - A.8b, A.9, A.10, A.12, and A.13 shall be deemed to be "No".***9. Voluntary Contributions**

Voluntary (after-tax) Contributions are permitted (Section 4.01):

a. Yesb. Noc. Formerly Allowed*NOTE: If "No", questions regarding Voluntary Contributions are disregarded.**NOTE: A.9 must be "Yes" if the Plan intends to use recharacterization (Section 5.04(a)(3)).***10. Employer Matching Contributions**

Employer Matching Contributions are permitted (Section 4.02):

 Yes No*NOTE: If "No", questions regarding Employer Matching Contributions are disregarded.***11. Non-Elective Contributions**

Non-Elective Contributions are permitted (Section 4.03):

 Yes No*NOTE: If "No", questions regarding Non-Elective Contributions are disregarded.***12. Safe Harbor Contributions**

Safe harbor contributions are permitted (Section 4.04):

[] Yes [X] No

NOTE: If "No", questions regarding safe harbor contributions are disregarded.

13. SIMPLE 401(k)

[] The Plan is intended to be a SIMPLE 401(k) Plan (Section 4.11). For purposes of Section 4.11(c)(2)(B) (non-elective contribution of 2 percent of compensation), provide the amount of compensation, as defined in Section 4.11(b)(1), to be eligible for SIMPLE 401(k) Plan (cannot be greater than \$5,000): _____

14. Plan Features Effective Dates

- a. [] There is a special effective date for one or more features specified in A.8 through A.13. The special effective date(s) which occur after the Effective Date specified in A.3 is/are: _____
- b. [] A previous plan amendment eliminated one or more of the features specified in A.8 through A.13. Specify any provisions that apply to the eliminated Plan features: _____

NOTE: The effective date for Elective Deferrals in A.14a cannot be earlier than the date the cash or deferred arrangement was adopted.

Compensation

15. Statutory Compensation

- a. Definition of Statutory Compensation (as defined in Article 2 of the Basic Plan Document):
 - i. [] Section 415 Compensation
 - ii. [X] W-2 Compensation
 - iii. [] Withholding Compensation
 - iv. [] Section 415 Safe Harbor Option
- b. [] Include deemed Code section 125 compensation in definition of Statutory Compensation.
- c. [X] Include Post Severance Compensation in definition of Statutory Compensation.
- d. [] Include Post Year End Compensation in definition of Statutory Compensation.

16. Plan Compensation

- a. Definition of Plan Compensation (as defined in Article 2 of the Basic Plan Document) for purposes of allocations will be Statutory Compensation with the following exclusions:

	Elective Deferrals/ Voluntary Contributions	Employer Match	Non-Elective
i. No Exclusions	[]	[]	[]
ii. Pay earned before participation	n/a	[]	[]
iii. Amounts which are contributed by the Employer pursuant to a salary reduction agreement and not includable in the gross income of the Participant under Code sections 125, 402(e)(3), 402(h), 403(b), 132(f) or 457	[]	[]	[]
iv. All of the following benefits (even if includable in gross income): reimbursements or other expense allowances, fringe benefits (cash and noncash), moving expenses, deferred compensation, and welfare benefits (Treas. Reg. section 1.414(s)-1(c)(3))	[]	[]	[]
v. Differential military pay as defined in Code section 3401(h)(2)	[X]	[X]	[X]
vi. Final Paycheck Pay	[]	[]	[]
vii. Post Severance Compensation	[]	[]	[]

viii. Post Year End Compensation	[<input type="checkbox"/>]	[<input type="checkbox"/>]	[<input type="checkbox"/>]
ix. Other adjustments (e.g., commissions, bonuses, etc.):	_____		

NOTE: The definition of Plan Compensation for Elective Deferrals/Voluntary Contributions will apply for purposes of safe harbor contributions. See C.16 to include pay earned before participation for purposes of safe harbor contributions.

NOTE: Except for "Final Paycheck Pay" and "Other adjustments," all of the above exclusions meet the safe harbor definition under Section 414(s) Compensation.

NOTE: If "Other adjustments" is selected, the description must be objectively determinable and may not be specified in a manner that is subject to Employer discretion. The description may not meet the safe harbor definition under Section 414(s) Compensation, resulting in the definition of Plan Compensation failing to qualify for any contribution safe harbors, such as the permitted disparity allocation or safe harbor contributions.

NOTE: See Section 4.01(c) for rules regarding elections for bonuses or other special pay.

b. Plan Compensation is determined over the period specified below ending with or within the Plan Year:

- i. [] Plan Year
- ii. [] calendar year
- iii. [] Plan Sponsor Fiscal Year
- iv. [] Limitation Year
- v. [] Other 12-month period beginning on: _____ (enter month and day)

Definitions

17. Highly Compensated Employee

- a. [] Use top-paid group election in determining Highly Compensated Employees
- b. [] Use calendar year beginning with or within the preceding Plan Year in determining Highly Compensated Employees

18. Disability

Definition of Disability

- a. [] The Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. The permanence and degree of such impairment shall be supported by medical evidence.
- b. [] Under the Social Security Act. The determination by the Social Security Administration that the Participant is eligible to receive disability benefits under the Social Security Act.
- c. [] Inability to engage in comparable occupation. The Participant suffers from a physical or mental impairment that results in his inability to engage in any occupation comparable to that in which the Participant was engaged at the time of his disability. The permanence and degree of such impairment shall be supported by medical evidence.
- d. [] Pursuant to other Employer Disability Plan. The Participant is eligible to receive benefits under an Employer-sponsored disability plan.
- e. [] Under uniform rules established by the Plan Administrator. The Participant is mentally or physically disabled under a written nondiscriminatory policy.
- f. [] Other: _____

NOTE: If "Other" is selected, the definition provided must be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

19. Choice of Law

Name of state or commonwealth for choice of law (Section 13.05): Utah

SECTION B. ELIGIBILITY

Exclusions

1. The term "Eligible Employee" shall not include (Check items as appropriate):

Elective Deferrals/ Voluntary	Employer Match	Non-Elective
-------------------------------	----------------	--------------

Contributions			
a. No Exclusions	[]	[]	[]
b. Union Employees	[X]	[X]	[X]
c. Leased Employees	[]	[]	[]
d. Non-Resident Alien	[X]	[X]	[X]
e. Other Employees (Section 3.06(a)): _____	[]	[]	[]

NOTE: For safe harbor contributions, the exclusion of classes of employees for "Eligible Employee" shall have the same meaning as for Elective Deferrals.

NOTE: If "Other Employees" is selected, the definition provided must be objectively determinable and may not be based on age or length of service, create an indirect service requirement or be specified in a manner that is subject to Employer discretion.

2. Opt-Out

[X] An Employee may irrevocably elect not to participate in Plan pursuant to Treas. Reg. section 1.401(k)-1(a)(3)(v).

Eligibility Service Rules

3. Other Employer Service

[] Count years of service with employers other than the Employer for eligibility purposes. List other employers and indicate for what purposes (e.g., Elective Deferrals, Employer Matching, etc.) the service applies along with any limitations: _____

4. Break in Service

- a. [X] Rule of parity. Exclude eligibility service before a period of five (5) consecutive One-Year Breaks in Service/Periods of Severance if an Employee does not have any nonforfeitable right to the Account balance derived from Employer contributions.
- b. [] One-year holdout. If an Employee has a One-Year Break in Service/Period of Severance, exclude eligibility service before such period until the Employee has completed a Year of Eligibility Service after returning to employment with the Employer.
- c. [] The following modifications shall be made to the requirements specified in B.4: _____

NOTE: B.4b applies for purposes of eligibility to receive Employer Matching Contributions and Non-Elective Contributions only.

5. Special Participation Date

- a. [] Allow immediate participation for all Eligible Employees employed on a specific date. All Eligible Employees employed on _____ shall become eligible to participate in the Plan as of _____
- b. [] The Plan provides conditions or limitations on immediate participation: _____

NOTE: Describe the conditions or limitations and indicate for what purposes (e.g., Elective Deferrals, Employer Matching, etc.) the conditions or limitations apply. The conditions/limitations must be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

Eligibility for Plan Participation

6. Age Requirement for Plan Participation

	Elective Deferrals/ Voluntary Contributions	Employer Match	Non-Elective
a. Age Requirement	21	21	21

NOTE: Age 21 maximum; an age 26 maximum will apply for certain educational institution plans (Section 3.06).

7. Service Requirement for Plan Participation

	Elective Deferrals/ Voluntary Contributions	Employer Match	Non-Elective
a. No Minimum Service	[X]	[X]	[X]
b. Completion of one Year of Eligibility Service - Hours of Service necessary for a Year of Eligibility Service (not to exceed 1,000): _____	[]	[]	[]
c. Completion of one Year of Eligibility	[]	[]	[]

Service - Elapsed Time				
d. Completion of _____ Hours of Service (not to exceed 1,000) within a 12-month period. The service requirement shall be deemed met at the time the specified number of Hours of Service are completed	[]	[]	[]	[]
e. Completion of _____ month(s) of service - Elapsed Time (not to exceed 12)	[]	[]	[]	[]
f. Completion of _____ Hours of Service (not to exceed 1,000) in a month period (not to exceed 12; hours of service failsafe applies)	[]	[]	[]	[]
g. Completion of _____ consecutive month(s) of continuous service (not to exceed 12; hours of service failsafe applies)	[]	[]	[]	[]
h. Completion of two (2) Years of Eligibility Service - Hours of Service (100% vesting required under Sections E.8 and E.9); Hours of Service necessary for a Year of Eligibility Service (not to exceed 1,000): _____	n/a	[]	[]	[]
i. Completion of two (2) Years of Eligibility Service - Elapsed Time (100% vesting required under Sections E.8 and E.9)	n/a	[]	[]	[]
j. Other: _____ (hours of service failsafe applies if Elapsed Time is not specified)	[]	[]	[]	[]
k. Additional Requirements: _____	[]	[]	[]	[]

NOTE: Service taken into account for purposes of B.7 shall be determined under the terms and conditions specified for determining a Year of Eligibility Service.

NOTE: Hours of service failsafe: if B.7f, B.7g or B.7j is selected and the Plan uses the Hours of Service method, the service requirement under B.7 shall be deemed met no later than the end of an Eligibility Computation Period during which the Eligible Employee completes 1,000 Hours of Service; provided, that the individual is an Eligible Employee on the applicable entry date.

NOTE: If "Other" is selected, the service requirements provided must comply with Code section 410(a), be definitely determinable and may not be specified in a manner that is subject to Employer discretion.

NOTE: Any "Additional Requirements" provided must be objectively determinable and may not be specified in a manner that is subject to Employer discretion. For example, different service requirements for specified job classifications. A plan may not impose an eligibility condition that, on the surface, appears to be unrelated to age or service, but, in reality, is an age or service condition that violates the minimum age or service standards.

- I. Months of service (only applies if B.7f or B.7g is selected). If the service requirement is not met in the first consecutive period of months, describe the next service requirement:
 - i. [] Rolling. Each period shall begin immediately after the preceding period and shall end on or before the first Eligibility Computation Period after which time the Plan will revert to 1,000 Hours of Service in an Eligibility Computation Period.
 - ii. [] Revert to _____ Hours of Service (not to exceed 1,000) in an Eligibility Computation Period.

NOTE: The Employer has the discretion to apply the rolling periods in either an overlapping or consecutive manner. For example, if a three-month period is used, the overlapping method would look at hours worked from January through March, then February through April, etc. Conversely, a consecutive application would look at January through March, then April through June, etc.

8. Entry Dates for Plan Participation

	Elective Deferrals/ Voluntary Contributions	Employer Match	Non-Elective
a.	Immediate <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b.	First day of each payroll period <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	First day of the calendar month <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	First day of each Plan quarter <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	First day of the first month and seventh month of the Plan Year <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f.	First day of the Plan Year <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g.	Other: _____ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: If "First day of the Plan Year" is selected, the maximum age and service requirements are reduced by 1/2 year (i.e., age 20-1/2) unless the employee participates on the entry date nearest the date the employee completes the minimum age and service requirements and the entry date is the first day of the Plan Year.

NOTE: The Plan must provide that an Eligible Employee who has attained age 21 and who has completed one Year of Eligibility Service shall commence participation in the Plan no later than the earlier of: (1) the first day of the first Plan Year beginning after the date on which such Eligible Employee satisfied such requirements; or (2) the date that is 6 months after the date on which he satisfied such requirements.

9. Entry Timing for Plan Participation

An Eligible Employee shall become a Participant on the entry date that is:

	Elective Deferrals/ Voluntary Contributions	Employer Match	Non-Elective
a.	Coincident with or next following the date the eligibility requirements are met <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Next following the date the eligibility requirements are met <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Coincident with or immediately preceding the date the eligibility requirements are met <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.	Immediately preceding the date the eligibility requirements are met <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e.	Nearest to the date the eligibility requirements are met <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE: If immediate entry (B.8a) is selected, an Eligible Employee shall become a Participant eligible for the applicable contribution source(s) immediately upon meeting the eligibility requirements.

10. Eligibility Service Computation Rules

- a. Eligibility Computation Period switches to Plan Year.
- b. Select hours equivalency for eligibility purposes:
 - i. None
An Employee shall be credited with the following service with the Employer:
 - ii. 10 Hours of Service for each day or partial day
 - iii. 45 Hours of Service for each week or partial week
 - iv. 95 Hours of Service for each semi-monthly payroll period or partial semi-monthly payroll period
 - v. 190 Hours of Service for each month or partial month
- c. The hours equivalency shall apply to:
 - i. All Employees
 - ii. Only Employees for whom hours are not tracked. If the Employer tracks hours for an Employee, Eligibility will be determined based on actual hours worked.
- d. The following modifications shall be made to the requirements specified in B.10a-c: _____

NOTE: B.10b.ii-v and B.10c will not apply if B.10b.i is selected ("None").

NOTE: The responses to B.10 are used only to the extent that the Plan determines eligibility service by the Hour of Service method and will

apply uniformly wherever Hours of Service is elected unless otherwise provided in B.10d.

NOTE: If B.10d is selected, the modifications must be objectively determinable and may not be specified in a manner that is subject to Employer discretion. For example, B.10d could be used to restrict the Accounts where Eligibility Computation Periods switch to the Plan Year.

SECTION C. CONTRIBUTIONS - ELECTIVE DEFERRALS AND SAFE HARBOR

Elective Deferrals

NOTE: If A.8 is "Yes" (Elective Deferrals are permitted), an Eligible Employee who has met the requirements of B.6 through B.8 shall be eligible to make Elective Deferrals to the Plan in the following manner (Section 4.01):

1. Minimum and Maximum Deferral Amounts

Unless otherwise indicated below, there shall be no minimum deferral, and the maximum deferral will be defined by the limitations set forth under Code Section 415.

- a. The Plan will impose a minimum Elective Deferral of: _____
- b. The Plan will impose a maximum Elective Deferral of: _____
- c. Other limitations on Elective Deferrals (specify): _____

NOTE: If C.13a.ii (safe harbor match) or C.13.v (QACA match) is selected, C.1a and C.1b may not be used to limit deferrals by Nonhighly Compensated Employees.

NOTE: If C.13a.ii (safe harbor match) or C.13.v (QACA match) is selected, C.1c may not be used to limit deferrals by Nonhighly Compensated Employees. Further, any limitations provided must be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

2. Modifications of Elective Deferrals

- a. Participants modify/start/stop Elective Deferrals/Voluntary Contribution elections:
 - i. Each pay period
 - ii. Monthly
 - iii. Quarterly
 - iv. Semi Annual
 - v. Annual
 - vi. Pursuant to Plan Administrator procedures (at least once each calendar year)
- b. Participants may stop an election to contribute at any time.

3. Catch-up Contributions

- Allow Participants to make Catch-up Contributions (Section 5.01(d))

Automatic Enrollment

4. The Plan has Automatic Enrollment provisions intended to satisfy:

- a. None
- b. ACA
 - i. The automatic enrollment provisions shall be set according to a written administrative policy which is timely communicated to Participants so they have an effective opportunity to elect to receive cash or complete an affirmative election deferring a different amount or no amount.
- c. EACA
- d. QACA

NOTE: If the plan is intended to satisfy the QACA provisions, the applicable EACA provisions will be made available.

5. Automatic Enrollment Application Indicate which employees will be subject to the automatic enrollment provisions of the Plan:

- a. Only Participants whose Plan entry date is on or after: _____
- b. All Participants without an existing affirmative election (an affirmative election includes an election not to defer into the Plan)
- c. All Participants without an existing affirmative election or whose affirmative election is less than the automatic enrollment amount
- d. Other: _____

NOTE: If C.5a is selected and the plan is intended to satisfy the EACA requirements (C.4c is selected), the plan cannot use the extended 6-month period to distribute excess contributions and excess aggregate contributions to correct failed ADP or ACP tests.

SECTION C. CONTRIBUTIONS - ELECTIVE DEFERRALS AND SAFE HARBOR

NOTE: If C.13a.v (QACA match) or C.13a.vi or C.13a.vii (QACA non-elective) is selected, C.5a may not be selected. Automatic enrollment must apply to all Participants eligible for the safe harbor contribution unless the Participant has an election in place.

NOTE: If C.13a.v (QACA match) or C.13a.vi or C.13a.vii (QACA non-elective) is selected, the rate of Elective Deferral contributions in effect for an Employee immediately prior to the effective date of the default percentage under the qualified automatic contribution arrangement shall not be reduced.

NOTE: If "Other" is selected, the description must be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

6. Covered Employees - EACA

Indicate which employees will be "covered employees" who are subject to the automatic contribution arrangement:

- a. All Employees who make an affirmative election shall remain covered Employees within the meaning of Treas. Reg. section 1.414(w)-1(e)(3)
- b. Only Eligible Employees who have not made an Elective Deferral election

NOTE: Covered Employees must receive the notice described in Section 4.01(g)(1).

NOTE: A plan intending to satisfy the EACA requirements must cover all eligible employees (C.6a) to be eligible for the extended 6-month period to distribute excess contributions and excess aggregate contributions to correct failed ADP or ACP tests.

7. Initial Automatic Enrollment Amount (ACA and EACA)

- a. The initial amount of the automatic enrollment (as a percentage of pay): three percent (3)%
- b. The automatic enrollment deferral percentage will increase by _____% according to the schedule in C.9.
 - i. The maximum automatic enrollment deferral percentage is: _____%
- c. Delayed automatic enrollment. The traditional automatic enrollment will be deemed elected _____ after the initial satisfaction of the eligibility requirements of Article 3 with respect to Elective Deferrals (and after effective date of the addition of an automatic enrollment feature for current Participants).

NOTE: If C.4c is selected (EACA), the Plan must provide that the initial default contribution is a uniform percentage of Plan Compensation; although, the percentage may vary based on years of service.

NOTE: C.7c may only be used with a plan intending to satisfy the ACA requirements.

8. QACA Safe Harbor Automatic Enrollment Amounts (Section 4.01(g)(2))

- a. Enter the amount of the automatic election for the Initial Period as a percentage of Plan Compensation (between 3 - 10%): _____%
- b. Enter the amount of the election for the first year after the Initial Period as a percentage of Plan Compensation (between 4 - 10%): _____%
- c. Enter the amount of the election for the second year after the Initial Period as a percentage of Plan Compensation (between 5 - 10%): _____%
- d. Enter the amount of the election for the third year after the Initial Period as a percentage of Plan Compensation (between 6 - 10%): _____%
- e. The amount of the election increases after the third year in the following manner (must be at least 6%): _____

NOTE: C.8 only applies if C.13a.v or C.13a.vi is selected (Qualified Automatic Contribution Arrangement).

9. Application of Increase Provisions

- a. The first deferral rate increase will occur on:
 - i. The first day of the second Plan Year following the Plan Year during which the initial automatic enrollment became effective.
 - ii. The first day of the _____ Plan Year following the Plan Year during which the initial automatic enrollment became effective.
 - iii. Other: _____
- b. Subsequent deferral increases will occur:
 - i. The first day of each Plan Year
 - ii. The anniversary of the Participant's initial automatic enrollment
 - iii. The anniversary of the Participant's date of hire
 - iv. Other: _____

NOTE: If C.9a.ii is selected and the plan is intended to satisfy the QACA requirements, the plan may not delay the first deferral rate increase beyond the first day of the second Plan Year following the Plan Year during which the initial automatic enrollment became effective.

NOTE: C.9b.iv may not be used with a plan intending to satisfy the EACA or QACA requirements.

NOTE: If the Plan is intended to satisfy the QACA requirements, the provisions of C.8 and C.9 must be used together in such a way that the both the automatic enrollment percentages and the schedule of deferral increases satisfy the minimum requirements.

10. Permissible Withdrawals - EACA/QACA

SECTION C. CONTRIBUTIONS - ELECTIVE DEFERRALS AND SAFE HARBOR

Permissible withdrawals will be allowed provided they are requested within _____ after the first automatic deferral (no fewer than 30 or more than 90 days)

11. Deferral Contribution Source If the Plan provides for automatic enrollment and Roth contributions are allowed, select the default type of automatic contributions:

- Pre-tax. All Elective Deferrals made under Section 4.01(g) shall be designated as Pre-tax Elective Deferrals.
- Roth. All Elective Deferrals made under Section 4.01(g) shall be designated as Roth Elective Deferrals.

NOTE: C.11 only applies if A.8b is "Yes" (Roth contributions are allowed in the Plan).

Voluntary Contributions

NOTE: If A.9 is "Yes" (Voluntary Contributions are permitted), an Eligible Employee who has met the requirements of B.6 through B.8 shall be eligible to make Voluntary Contributions to the Plan as follows (Section 4.01):

12. Minimum and Maximum Voluntary Contributions

- Minimum Voluntary Contribution: _____
- Maximum Voluntary Contribution: _____
- Maximum of total combined Elective Deferral/Voluntary Contribution: _____
- Other: _____

NOTE: C.12b and C.12c may not be more than 100% of Plan Compensation.

NOTE: If "Other" is selected the requirements provided must be nondiscriminatory, objectively determinable and may not be specified in a manner that is subject to Employer discretion.

Safe Harbor Contributions

13. Safe Harbor Plan

- Is this a safe harbor plan exempt from most testing:
 - No
 - Yes - safe harbor match
 - Yes - non-elective contribution, not less than _____ % of Plan Compensation
 - Yes - non-elective contribution, not less than _____ % of Plan Compensation but only if the Plan Sponsor provides a follow-up notice
 - Yes - Qualified Automatic Contribution Arrangement safe harbor match
 - Yes - Qualified Automatic Contribution Arrangement with a non-elective contribution not less than _____ % of Plan Compensation
 - Yes - Qualified Automatic Contribution Arrangement with a non-elective contribution not less than _____ % of Plan Compensation but only if the Plan Sponsor provides a follow-up notice
- Indicate the safe harbors the Plan is intended to satisfy:
 - ADP (Code section 401(k)(12)) and ACP (Code section 401(m)(11))
 - ADP (Code section 401(k)(13)) and ACP (Code section 401(m)(12))
 - ADP (Code section 401(k)(12)) only
 - ADP (Code section 401(k)(13)) only
- The safe harbor provisions are effective: _____
- Safe harbor contributions will be made to another plan (Section 4.04(d)). Name of other plan to which safe harbor contributions are made: _____

NOTE: If safe harbor non-elective is selected (C.13a.iii, C.13a.iv, C.13a.vi or C.13a.vii), the non-elective contribution amount must be at least 3% of Plan Compensation.

NOTE: If safe harbor non-elective (C.13a.iii or C.13a.vi) is selected, see Section 4.04(a)(1). If non-elective contribution with follow-up notice (C.13a.iv or C.13a.vii) is selected, see 4.04(a)(2).

NOTE: If non-elective contribution with follow-up notice (C.13a.iv or C.13a.vii) is selected and the follow-up notice is not given for an applicable Plan Year, the Plan will not be subject to any of the conditions or limitations that apply to safe harbor contributions and the Plan will be subject to the nondiscrimination requirements of Section 5.02 (Section 4.04(a)(2)).

NOTE: If C.13a.v, C.13a.vi or C.13a.vii is selected (Qualified Automatic Contribution Arrangement (QACA) safe harbor), you must select C.13b.ii or C.13b.iv; C.13b.i and C.13b.iii may not be selected. If the Plan is not a QACA safe harbor (C.13a.ii or C.13a.iv is selected), you must select C.13b.i or C.13b.iii; C.13b.ii and C.13b.vi may not be selected.

SECTION C. CONTRIBUTIONS - ELECTIVE DEFERRALS AND SAFE HARBOR

NOTE: If QACA safe harbor (C.13a.v, C.13a.vi or C.13a.vii) is selected, see C.8 for the automatic contribution amounts.

NOTE: If safe harbor match is selected (C.13a.ii or C.13a.v), see C.17 for the formula and Section 4.04(c).

NOTE: If C.13d is selected, see Section 4.04(d) for requirements.

14. Prior Safe Harbor Provisions

Plan may contain safe harbor contributions pursuant to prior safe harbor provisions (describe provisions or contribution types): _____

15. ADP/ACP Safe Harbor Eligibility

a. Exclusions. For purposes of safe harbor contributions, the term "Eligible Employee" shall not include

- i. No exclusions
- ii. Participants who are Highly Compensated Employees
- iii. Participants who are considered both a Key Employee and a Highly Compensated Employee
- iv. Other exclusions: _____

b. Participants covered by a collective bargaining agreement will share in safe harbor allocations provided retirement benefits were the subject of good faith bargaining.

c. Eligibility conditions for safe harbor contributions (may require testing in accordance with Section 5.03(g))

- i. None.
- ii. Safe harbor eligibility conditions follow the conditions established for:
 - A. Elective Deferrals
 - B. Employer Match
 - C. Non-Elective
- iii. The following age, service and entry date requirements (must satisfy requirements under Code section 410(a)(1)(A)): _____
- iv. Participants who have met the greatest minimum age and service conditions permitted under Code section 410(a)(1)(A) with semi-annual entry dates (first day of the first month and seventh month of the Plan Year)
- v. Participants who have met the greatest minimum age and service conditions permitted under Code section 410(a)(1)(A) before the first day of the seventh month of the Plan Year

d. The Plan imposes allocation requirements for Highly Compensated Employees

- i. Require service for Highly Compensated Employees to receive a safe harbor contribution. Hours of Service required in the applicable Plan Year for Highly Compensated Employees to receive a safe harbor contribution (not to exceed 1,000): _____
- ii. Require employment on the last day of Plan Year for Highly Compensated Employees to receive a safe harbor contribution

e. Employer contributions will be offset by safe harbor contributions

NOTE: Any exclusion selected in C.15a is in addition to the exclusions under B.1. If "No exclusions" is selected, any exclusion in B.1 will still apply to the applicable contribution type.

NOTE: If C.15a.ii is selected, the Employer may still elect to make a discretionary safe harbor contribution to Highly Compensated Employees in a percentage that does not exceed the amount or rate of contribution provided to Nonhighly Compensated Employees.

NOTE: C.15b only applies if the Plan has a safe harbor non-elective (C.13a.iii, C.13a.iv, C.13a.vi or C.13a.vii is selected). If C.15b applies and is not selected, Employees covered under a collective bargaining agreement that bargains in good faith for retirement benefits shall not be eligible to receive safe harbor allocations.

16. ADP/ACP Safe Harbor Compensation

Pay earned before participation is included in the definition of Plan Compensation for purposes of safe harbor contributions.

17. Safe Harbor Matching Contribution Formula

If C.13a.ii or C.13a.v is selected, the safe harbor matching formula will be:

a. Single rate. The Employer will contribute an amount equal to

- i. _____ % of the Participant's Matched Employee Contributions that are not in excess of
- ii. _____ % of the Participant's Plan Compensation

b. Two rates. The Employer will contribute an amount equal to

Rate One

- i. _____ % of the Participant's Matched Employee Contributions that are not in excess of
- ii. _____ % of the Participant's Plan Compensation; plus

Rate Two

- iii. _____ % of the amount of the Participant's Matched Employee Contributions that exceed _____ % of the Participant's Plan Compensation but that do not exceed
- iv. _____ % of the Participant's Plan Compensation

c. Three rates. The Employer will contribute an amount equal to

Rate One

SECTION C. CONTRIBUTIONS - ELECTIVE DEFERRALS AND SAFE HARBOR

- i. _____ % of the Participant's Matched Employee Contributions that are not in excess of
- ii. _____ % of the Participant's Plan Compensation; plus

Rate Two

- iii. _____ % of the amount of the Participant's Matched Employee Contributions that exceed _____ % of the Participant's Plan Compensation but that do not exceed
- iv. _____ % of the Participant's Plan Compensation; plus

Rate Three

- v. _____ % of the amount of the Participant's Matched Employee Contributions that exceed _____ % of the Participant's Plan Compensation but that do not exceed
- vi. _____ % of the Participant's Plan Compensation

NOTE: No Highly Compensated Employee can receive a greater rate of safe harbor match than a Nonhighly Compensated Employee at the same rate of Matched Employee Contributions.

NOTE: An Employer Matching Contribution of a Nonhighly Compensated Employee will not be taken into account in satisfying the requirements of Section 5.02 to the extent it is a disproportionate contribution within the meaning of Treas. Reg. section 1.401(m)-2(a)(5).

NOTE: If the Plan is a safe harbor match (C.13a.ii is selected) the formula must be completed so that it at least meets the following minimum formula: the Employer will contribute as a safe harbor match an amount equal to 100% of the Participant's Matched Employee Contributions that are not in excess of 3% of the Participant's Plan Compensation; plus 50% of the amount of the Participant's Matched Employee Contributions that exceed 3% but that do not exceed 5% of the Participant's Plan Compensation. The Employer may also elect a safe harbor match formula where: (i) the aggregate amount of safe harbor match at each rate of Matched Employee Contributions is at least equal to the aggregate amount of safe harbor match which would have been made if the safe harbor match were made under the formula described in the applicable preceding sentences, and (ii) the rate of safe harbor match cannot increase as a Participant's Matched Employee Contributions increase.

NOTE: If C.13a.v (QACA match) is selected, the formula must be completed so that it at least meets the following minimum formula: the Employer will contribute as a QACA match an amount equal to 100% of the Participant's Matched Employee Contributions that are not in excess of 1% of the Participant's Plan Compensation; plus 50% of the amount of the Participant's Matched Employee Contributions that exceed 1% but that do not exceed 6% of the Participant's Plan Compensation. The Employer may also elect a QACA match formula where: (i) the aggregate amount of QACA match at each rate of Matched Employee Contributions is at least equal to the aggregate amount of QACA match which would have been made if the QACA match were made under the formula described in the applicable preceding sentences, and (ii) the rate of QACA match cannot increase as a Participant's Matched Employee Contributions increase.

NOTE: If the Plan is intended to also satisfy the ACP safe harbor of Code section 401(m)(11) or 401(m)(12) (C.13b.i or C.13b.ii is selected): (i) the rate of safe harbor match cannot increase as a Participant's Matched Employee Contributions increase, (ii) safe harbor match cannot be made on Matched Employee Contributions in excess of six percent (6%) of Plan Compensation, and (iii) the amount of Employer Matching Contributions subject to Employer discretion shall not exceed four percent (4%) of Plan Compensation.

NOTE: If the Plan is a safe harbor match (C.13a.ii or C.13a.v is selected) or the Plan is an ACP safe harbor (C.13b.i or C.13b.ii is selected), no Highly Compensated Employee can receive a greater rate of safe harbor match than a Nonhighly Compensated Employee at the same rate of Matched Employee Contributions.

18. Determination Period for Safe Harbor Matching Contributions

- a. The period for determining the amount of an allocation of Safe Harbor Matching Contributions is:
 - i. End of Plan Year
 - ii. Semi-annually
 - iii. Quarterly
 - iv. Each calendar month
 - v. Each pay period

NOTE: If the safe harbor match is funded more frequently than the period selected, a true-up contribution will be owed to any Participant who did not receive a safe harbor match based on Matched Employee Contributions or Plan Compensation for the entire period selected.

Testing Elections

19. ADP Testing Elections (Section 5.02(a))

- a. Average Deferral Percentage of Nonhighly Compensated Employees are determined using:
 - i. Current year
 - ii. Prior year
- b. If prior year testing is selected, for the first year the Plan is a 401(k) plan, the Nonhighly Compensated Employee percentage:
 - i. 3%

SECTION C. CONTRIBUTIONS - ELECTIVE DEFERRALS AND SAFE HARBOR

ii. Current year percentages

NOTE: If the Plan is a 401(k) safe harbor plan, the current year must be used for those Plan Years during which the Plan is subject to the 401(k) safe harbor requirements.

NOTE: C.19b only applies for the first year the Plan is a 401(k) plan. If the Effective Date is after the first year a Plan is a 401(k) plan C.19b can be left blank.

20. ACP Testing Elections (Section 5.02(b))

a. Average Contribution Percentage of Nonhighly Compensated Employees are determined using:

i. Current year
ii. Prior year

b. If prior year testing is selected, for the first year the Plan is a 401(m) plan, the Nonhighly Compensated Employee percentage:

i. 3%
ii. Current year percentages

NOTE: If the Plan is a 401(k) safe harbor plan and it is intended to satisfy the ACP safe harbor, the current year must be used for those Plan Years during which the Plan is subject to the 401(k) safe harbor requirements.

NOTE: C.20b only applies for the first year the Plan is a 401(m) plan. If the Effective Date is after the first year a Plan is a 401(m) plan C.20b can be left blank.

SECTION D. CONTRIBUTIONS - EMPLOYER MATCHING, NON-ELECTIVE AND OTHER CONTRIBUTIONS

Employer Matching - Allocation Service

NOTE: If A.10 is "Yes" (Employer Matching Contributions are permitted), an Eligible Employee who has met the requirements of Section B and who has satisfied the following requirements shall be eligible to receive an allocation of Employer Matching Contributions during the applicable Plan Year.

1. Allocation Service Requirements for Employer Matching Contributions

a. In order to share in the allocation of Employer Matching Contributions, a Participant is required to complete the following Hours of Service in the applicable period (not to exceed 1,000 hours in a Plan Year or a prorated version thereof): _____

b. In order to share in the allocation of Employer Matching Contributions, a Participant is required to be employed by the Employer on the last day of the applicable period

c. In order to share in the allocation of Employer Matching Contributions, a Participant is required to be employed by the Employer on the last day of the applicable period or complete at least _____ Hours of Service in the applicable period (not to exceed 1,000 hours in a Plan Year or a prorated version thereof)

d. None

NOTE: If the Plan is intended to be a safe harbor 401(k) plan, any requirements specified in the Employer Matching allocation service rules to receive an allocation of Employer Matching Contributions will not apply to any safe harbor contribution.

2. Applicable Period

a. The applicable period for determining the satisfaction of service requirements for an allocation of Employer Matching Contributions is:

i. Plan Year
ii. Plan Quarter
iii. Calendar Month
iv. Payroll Period
v. Other: _____

3. Employer Matching Allocation Service Computation Rules

a. Select hours equivalency:

i. None.

An Employee shall be credited with the following service with the Employer:

ii. 10 Hours of Service for each day or partial day
iii. 45 Hours of Service for each week or partial week
iv. 95 Hours of Service for each semi-monthly payroll period or partial semi-monthly payroll period
v. 190 Hours of Service for each month or partial month

b. The hours equivalency shall apply to:

i. All Employees

SECTION D. CONTRIBUTIONS - EMPLOYER MATCHING, NON-ELECTIVE AND OTHER CONTRIBUTIONS

ii. Only Employees for whom hours are not tracked. If the Employer tracks hours for an Employee, satisfaction of allocation conditions will be determined based on actual hours worked.

NOTE: D.3 is only applicable if D.1a or D.1c is selected.

4. Other Employer Service

Count hours of service with employers other than the Employer for purposes of satisfying the allocation service requirements. List other employer(s) along with any limitations: _____

5. Exceptions to Allocation Service Requirements for Employer Matching Contributions

a. A Participant whose employment terminates on the last day of the applicable period is treated as being employed by the Employer on the last day of the applicable period.

b. Modify Hour of Service requirement or last day requirement for a Participant who terminates employment with the Employer during the applicable period due to:

- i. death
- ii. Disability
- iii. attainment of Normal Retirement Date
- iv. attainment of Early Retirement date

c. Any Hour of Service requirement and last day requirement shall be modified as follows:

- i. Waive both the Hour of Service requirement and last day requirement
- ii. Waive the Hour of Service requirement only
- iii. Waive last day requirement only

d. The following other modifications shall be made to the requirements specified in D.1-5c: _____

NOTE: Other modifications must be specified in a manner that is objectively determinable and may not be specified in a manner that is subject to Employer discretion.

6. Coverage Failures for Employer Matching Contributions

Method to fix Employer Matching Contribution Code section 410(b) ratio percentage coverage failures (Section 4.02(d)):

a. Corrective amendment under Treasury Regulation section 1.401(a)(4)-(11)(g)

b. Add just enough Participants to meet the coverage requirements

c. Add all non-excludable Participants

Employer Matching - Formula

7. Matched Employee Contribution Inclusions

a. Elective Deferrals are included in the definition of Matched Employee Contribution to the extent selected below

- i. Include a Participant's Catch-up Contributions in the definition of Matched Employee Contribution
- ii. Include a Participant's Roth Elective Deferrals in the definition of Matched Employee Contribution

b. Include a Participant's Voluntary Contributions in the definition of Matched Employee Contributions

NOTE: Pre-tax Elective Deferrals that are not Catch-up Contributions are always included in the definition of Matched Employee Contribution.

8. Employer Matching Contribution Formula

a. A discretionary amount. The amount will be allocated:

- i. as a uniform percentage of Matched Employee Contributions.
- ii. as a flat dollar amount for each Participant.
- iii. based on written instructions provided by the Employer to the Plan Administrator (or Trustee, if applicable) describing (1) how the discretionary Employer Matching Contribution formula will be allocated to Participants (e.g., a uniform percentage of Matched Employee Contributions or a flat dollar amount), (2) the computation period(s) to which the discretionary Employer Matching Contribution formula applies, and (3) if applicable, a description of each business location or business classification subject to separate discretionary Employer Matching Contribution allocation formulas. Such instructions must be provided no later than the date on which the discretionary Employer Matching Contribution is made to the Plan. A summary of these instructions must be communicated to Participants who receive discretionary Employer Matching Contributions. The summary must be communicated to Participants no later than 60 days following the date on which the last discretionary Employer Matching Contribution is made to the Plan for a Plan Year.

b. Single rate. The Employer will contribute as an Employer Matching Contribution an amount equal to

- i. 100% of the Participant's Matched Employee Contributions that are not in excess of
- ii. 3% of the Participant's Plan Compensation

c. Two rates. The Employer will contribute as an Employer Matching Contribution an amount equal to

SECTION D. CONTRIBUTIONS - EMPLOYER MATCHING, NON-ELECTIVE AND OTHER CONTRIBUTIONS

Rate One

- i. _____ % of the Participant's Matched Employee Contributions that are not in excess of
- ii. _____ % of the Participant's Plan Compensation; plus

Rate Two

- iii. _____ % of the amount of the Participant's Matched Employee Contributions that exceed _____ % of the Participant's Plan Compensation but that do not exceed
- iv. _____ % of the Participant's Plan Compensation

d. [] Three rates. The Employer will contribute as an Employer Matching Contribution an amount equal to

Rate One

- i. _____ % of the Participant's Matched Employee Contributions that are not in excess of
- ii. _____ % of the Participant's Plan Compensation; plus

Rate Two

- iii. _____ % of the amount of the Participant's Matched Employee Contributions that exceed _____ % of the Participant's Plan Compensation but that do not exceed
- iv. _____ % of the Participant's Plan Compensation; plus

Rate Three

- v. _____ % of the amount of the Participant's Matched Employee Contributions that exceed _____ % of the Participant's Plan Compensation but that do not exceed
- vi. _____ % of the Participant's Plan Compensation

e. [] Years of service. See D.11 below

f. [] Special schedule. Employer Matching Contributions shall be made according to the following fixed schedule: _____

NOTE: The discretionary formula in D.8a must meet the nondiscrimination requirements regarding benefits, right or features described in Treas. Reg. section 1.401(a)(4)-4.

NOTE: If "Special schedule" is selected, the schedule must describe a formula from the options already available or a combination thereof (e.g., single rate formula applies to Group A; two rate formula applies to Group B), be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

9. Additional Discretionary Employer Matching Contributions

a. [] Permit discretionary Employer Matching Contributions to be made in addition to the contributions described in D.8. The amount will be allocated:

- i. [] as a uniform percentage of Matched Employee Contributions.
- ii. [] as a flat dollar amount for each Participant.
- iii. [] based on written instructions provided by the Employer to the Plan Administrator (or Trustee, if applicable) describing (1) how the discretionary Employer Matching Contribution formula will be allocated to Participants (e.g., a uniform percentage of Matched Employee Contributions or a flat dollar amount), (2) the computation period(s) to which the discretionary Employer Matching Contribution formula applies, and (3) if applicable, a description of each business location or business classification subject to separate discretionary Employer Matching Contribution allocation formulas. Such instructions must be provided no later than the date on which the discretionary Employer Matching Contribution is made to the Plan. A summary of these instructions must be communicated to Participants who receive discretionary Employer Matching Contributions. The summary must be communicated to Participants no later than 60 days following the date on which the last discretionary Employer Matching Contribution is made to the Plan for a Plan Year.

10. Additional Fixed Employer Matching Contributions

[] Permit fixed Employer Matching Contributions to be made in addition to the contributions described in D.8: _____

NOTE: The formula entered in D.10 must describe a formula from the options already available or a combination thereof (e.g., single rate formula applies to Group A; two rate formula applies to Group B), be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

11. Years of Service

a. The Employer Matching contribution will be made according to the schedule below:

- i. _____ Years of service _____ % of Matched Employee Contributions
- ii. _____ Years of service _____ % of Matched Employee Contributions
- iii. _____ Years of service _____ % of Matched Employee Contributions
- iv. _____ Years of service _____ % of Matched Employee Contributions

b. [] Only Matched Employee Contributions that are not in excess of _____ % of the Participant's Plan Compensation shall be matched.

SECTION D. CONTRIBUTIONS - EMPLOYER MATCHING, NON-ELECTIVE AND OTHER CONTRIBUTIONS

c. In determining years of service in this D.11, the following service shall be used:

- i. Years of Eligibility Service
- ii. Years of Vesting Service

d. Enter the number of Hours of Service necessary to earn a year of service described in D.11a: _____

NOTE: Each tier of Employer Matching Contributions must satisfy the nondiscriminatory availability of benefits, rights, and features in Treas. Reg. section 1.401(a)(4)-4.

12. Employer Matching Contribution(s) - Limitations

a. Plan limits Employer Matching Contributions to the following in each Plan Year:

- i. Maximum percentage of Plan Compensation that applies to all Participants: _____ %
- ii. Maximum percentage of Plan Compensation that applies to Highly Compensated Employees only: _____ %
- iii. Maximum dollar amount that applies to all Participants: \$ _____
- iv. Maximum dollar amount that applies to Highly Compensated Employees only: \$ _____
- v. Other: _____

vi. No Maximum

b. Apply the dollar limit in D.12:

- i. On a Plan Year basis only
- ii. Pro rata as of each period specified in D.13a

NOTE: If the Plan is intended to satisfy the ACP safe harbor of Code section 401(m)(11) or 401(m)(12) (C.13b.i or C.13b.ii is selected) and the Plan allows for an additional discretionary Employer Matching Contribution, the amount of Employer Matching Contributions subject to Employer discretion shall not exceed four percent (4%) of Plan Compensation.

NOTE: If "Other" is selected the requirements provided must be nondiscriminatory, objectively determinable and may not be specified in a manner that is subject to Employer discretion.

NOTE: D.12b shall only apply if a maximum dollar amount (D.12a.iii or D.12a.iv) is selected and "End of Plan Year" (D.13a.i) is not selected.

13. Determination Period for Employer Matching Contributions

a. The period for determining the amount of an allocation of Employer Matching Contributions is:

- i. End of Plan Year
- ii. Semi-annually
- iii. Quarterly
- iv. Each calendar month
- v. Each pay period

NOTE: The determination period elected in D.13 must be equal to or longer than the applicable period elected in D.2.

NOTE: Discretionary Employer Matching Contributions (if selected) may be allocated at a time other than that selected in D.13.

NOTE: See Section 4.02(b)(1) for rules relating to "true-up" Matching Contributions.

Non-Elective - Allocation Service

NOTE: If A.11 is "Yes" (Non-Elective Contributions are permitted), an Eligible Employee who has met the requirements of Section B and who has satisfied the following requirements shall be eligible to receive an allocation of Non-Elective Contributions during the applicable Plan Year.

14. Continuing Eligibility for Non-Elective Contributions (select one):

- a. Same as Employer Matching Contributions. An Eligible Employee shall be eligible to receive an allocation of Non-Elective Contributions upon meeting the requirements of D.1 through D.5
- b. Pursuant to options selected below. An Eligible Employee shall be eligible to receive an allocation of Non-Elective Contributions upon meeting the requirements of D.15 through D.19

15. Allocation Service Requirements for Non-Elective Contributions

- a. In order to share in the allocation of Non-Elective Contributions, a Participant is required to complete the following Hours of Service in the applicable period (not to exceed 1,000 hours in a Plan Year or a prorated version thereof): 1000
- b. In order to share in the allocation of Non-Elective Contributions, a Participant is required to be employed by the Employer on the last day of the applicable period
- c. In order to share in the allocation of Non-Elective Contributions, a Participant is required to be employed by the Employer on the last day of the applicable period or complete at least _____ Hours of Service in the applicable period (not to exceed 1,000 hours in a Plan Year or a prorated version thereof)

d. None

16. Applicable Period

a. The applicable period for determining the satisfaction of service requirements for an allocation of Non-Elective Contributions is:

- i. Plan Year
- ii. Plan Quarter
- iii. Calendar Month
- iv. Payroll Period
- v. Other: _____

17. Non-Elective Allocation Service Computation Rules

a. Select hours equivalency:

i. None

An Employee shall be credited with the following service with the Employer:

- ii. 10 Hours of Service for each day or partial day
- iii. 45 Hours of Service for each week or partial week
- iv. 95 Hours of Service for each semi-monthly payroll period or partial semi-monthly payroll period
- v. 190 Hours of Service for each month or partial month

b. The hours equivalency shall apply to:

i. All Employees

ii. Only Employees for whom hours are not tracked. If the Employer tracks hours for an Employee, satisfaction of allocation conditions will be determined based on actual hours worked.

18. Other Employer Service

Count hours of service with employers other than the Employer for purposes of satisfying the allocation service requirements. List other employer(s) along with any limitations: _____

19. Exceptions to Allocation Service Requirements for Non-Elective Contributions

a. A Participant whose employment terminates on the last day of the applicable period is treated as being employed by the Employer on the last day of the applicable period.

b. Modify Hour of Service requirement or last day requirement for a Participant who terminates employment with the Employer during the applicable period due to:

- i. death
- ii. Disability
- iii. attainment of Normal Retirement Date
- iv. attainment of Early Retirement date

c. Any Hour of Service requirement and last day requirement shall be modified as follows:

- i. Waive both the Hour of Service requirement and last day requirement
- ii. Waive the Hour of Service requirement only
- iii. Waive last day requirement only

d. The following other modifications shall be made to the requirements specified in D.14-19c: _____

NOTE: Other modifications must be specified in a manner that is objectively determinable and may not be specified in a manner that is subject to Employer discretion.

20. Coverage Failures for Non-Elective Contributions

Method to fix Non-Elective Contribution Code section 410(b) ratio percentage coverage failures (Section 4.03(d)):

- a. Corrective amendment under Treasury Regulation section 1.401(a)(4)-(11)(g)
- b. Add just enough Participants to meet the coverage requirements
- c. Add all non-excludable Participants

Non-Elective - Formula

21. Amount of Non-Elective Contributions

- a. Discretionary in an amount as determined by the Employer
- b. _____ % of total Participant Plan Compensation for the Plan Year
- c. \$_____ for the Plan Year
- d. Other amount necessary to fund the allocation provided below: _____

22. Non-Elective allocation formula. The Non-Elective Contribution shall be allocated to eligible Participants who have met the

requirements of Section B and D.14 through 17 as follows (Section 4.03):

- a. Pro rata. In the ratio that each Participant's Plan Compensation bears to the Plan Compensation of all eligible Participants.
- b. Integrated. See D.23.
- c. Points. See D.24.
- d. Fixed Amount. In an amount equal to the total Non-Elective Contribution divided by the number of Participants eligible to share in such contribution.
- e. Age Weighted. In the ratio that such Participant's points bears to the points of all eligible Participants for such Plan Year. The points awarded to each Participant shall be equal to the product of the Participant's Plan Compensation multiplied by the factor in the Age Weighted Addendum determined using the Participant's age as of the end of the Plan Year.
- f. New Comparability - Defined Groups. See D.25.
- g. New Comparability - One Group per Participant. In an amount designated by the Employer to be allocated to each group. For purposes of this D.22g, there shall be one group created for each Participant eligible to receive allocations of Non-Elective Contributions. The contribution shall be allocated to each group in a manner determined by the Employer. The amount allocated to one group need not bear any relationship to amounts allocated to any other group. The Employer shall notify the Plan Administrator or the Trustee in writing of the amount of contributions allocated to each group.
- h. Other fixed formula: _____

NOTE: If Age Weighted (D.22e) or New Comparability (D.22f or D.22g) is selected, see Section 4.03(b)(1) for rules regarding the gateway test.

NOTE: If "Other fixed formula" is selected, it must describe a formula from the options already available or a combination thereof (e.g., pro rata formula applies to Group A; fixed amount applies to Group B), be objectively determinable and may not be specified in a manner that is subject to Employer discretion.

23. Non-Elective - Integration

If D.22b is selected, the Non-Elective Contribution shall be allocated to eligible Participants who have met the requirements of Sections B.6 - B.8 and D.14 pursuant to either Paragraph (1) or (2) below (Section 4.03(b)(3)):

- (1) 2-step method for plans that are not Top-Heavy or who have met the Top-Heavy minimum allocation requirements using other allocations:
 - (A) Non-Elective Contributions shall first be allocated to each Participant's Non-Elective Contribution Account in the ratio that the sum of such Participant's Plan Compensation plus his Excess Compensation bears to the sum of all eligible Participants' Plan Compensation plus Excess Compensation, but not to exceed the permitted disparity of such sum; and
 - (B) The balance, if any, remaining after the allocation in subparagraph (A) shall then be allocated to each Participant's Non-Elective Contribution Account in the ratio that such Participant's Plan Compensation bears to all eligible Participants' Plan Compensation.
- (2) 4-step method for plans that are meeting the Top-Heavy minimum allocation requirements using Non-Elective Contributions:
 - (A) Non-Elective Contributions shall first be allocated to each Participant's Non-Elective Contribution Account in the ratio that each Participant's Statutory Compensation bears to all eligible Participants' Statutory Compensation, but not in excess of 3% of each Participant's Statutory Compensation.
 - (B) The balance, if any, remaining after the allocation in subparagraph (A) shall then be allocated to each Participant's Non-Elective Contribution Account in the ratio that each Participant's Excess Compensation bears to the Excess Compensation of all Participants, but not in excess of 3% of each Participant's Excess Compensation.
 - (C) The balance, if any, remaining after the allocation in subparagraph (B) shall then be allocated to each Participant's Non-Elective Contribution Account in the ratio that the sum of each Participant's Plan Compensation and Excess Compensation bears to the sum of all eligible Participants' Plan Compensation and Excess Compensation, but not in excess of the permitted disparity less 3%.
 - (D) The balance, if any, remaining after the allocation in subparagraph (C) shall be allocated to each Participant's Non-Elective Contribution Account in the ratio that each Participant's Plan Compensation bears to all Participants' Plan Compensation.
- (3) 2-step method will be used for plans that are meeting the Top-Heavy minimum allocation requirements using Non-Elective Contributions

Integration level for determining Excess Compensation:

- a. Taxable wage base (as defined under Section 230 of the Social Security Act) in effect on the first day of such Plan Year
- b. 20% of the taxable wage base (as defined under Section 230 of the Social Security Act) in effect on the first day of such Plan Year; minus \$1.00
- c. 80% of the taxable wage base (as defined under Section 230 of the Social Security Act) in effect on the first day of such Plan Year; minus \$1.00
- d. 80% of the taxable wage base (as defined under Section 230 of the Social Security Act) in effect on the first day of such Plan Year; plus \$1.00
- e. _____ % (not more than 100%) of the taxable wage base (as defined under Section 230 of the Social Security Act) in effect

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on the first day of such Plan Year

f. Fixed dollar amount: \$ _____ (not more than the taxable wage base (as defined under Section 230 of the Social Security Act) in effect on the first day of such Plan Year)

NOTE: If D.23a (taxable wage base) is not selected, the amount of permitted disparity will be determined in accordance with the following table:

Integration Level	Permitted Disparity
More than \$0 but not more than 20% of the TWB	5.7%
More than 20% of the TWB but not greater than 80% of the TWB	4.3%
More than 80% of the TWB but less than 100% of the TWB	5.4%
100% of the TWB	5.7%

TWB = taxable wage base (as defined under Section 230 of the Social Security Act)

24. Non-Elective - Points

If D.22c is selected, the Non-Elective Contribution shall be allocated to eligible Participants who have met the requirements of B.6 through B.8 and D.14 through D.19 in the ratio that such Participant's points bears to the points of all eligible Participants.

Each Participant shall receive to the extent provided in D.24a: (a) the points described in D.24d for each year of age he has attained (as of his birthday during such Plan Year), (b) the points described in D.24c for each Plan Year, including the current Plan Year, during which he was eligible to participate in the Plan after meeting the requirements of Article 3 (regardless of any service or last day requirement in Article 4) applicable to Non-Elective Contributions, and (c) the points described in D.24b for each \$ _____ of Plan Compensation he has earned for such Plan Year.

If after application of the foregoing, the average of the allocation rates for eligible Highly Compensated Employees exceeds the average of the allocation rates for eligible Nonhighly Compensated Employees, each eligible Nonhighly Compensated Employee who has earned any points during the Plan Year shall be awarded the same minimum number of points (or fraction of a point) so that the average of the allocation rates for eligible Highly Compensated Employees does not exceed the average of the allocation rates for eligible Nonhighly Compensated Employees.

a. Points will be computed on basis of:

- i. Age, Service and Plan Compensation
- ii. Age and Service
- iii. Age and Plan Compensation
- iv. Service and Plan Compensation
- v. Age Only
- vi. Service Only

b. Points awarded for \$ _____ of Plan Compensation: _____

c. Points awarded for each year of service within the meaning of Treas. Reg. section 1.401(a)(4)-11(d)(3): _____

d. Points awarded for each year of age: _____

25. Non-Elective - New Comparability

New Comparability - Defined Groups. If D.22f is selected, the Non-Elective Contribution shall be allocated to eligible Participants who have met the requirements of B.6 through B.8 and D.14 through D.19 in an amount designated by the Employer to be allocated to each group described in this section. The contribution for a group shall then be further allocated to the members of such group who are eligible to receive allocations of Non-Elective Contributions in the method as specified in this section for such group. The amount allocated to one group need not bear any relationship to amounts allocated to any other group. In the event that an eligible Participant is included in more than one group, the Participant's share of the contribution allocated to each group will be based upon either the amount of service or the Plan Compensation for the part of the year the Participant was in the group.

The groups and allocations shall be determined as follows:

a. Group One: _____ An amount equal to:

- i. A percentage of Plan Compensation
- ii. A fixed dollar amount
- iii. the greater of i. or ii.

NOTE: Groups must be clearly defined in a manner that will not violate the definite predetermined allocation formula requirement of Treas. Reg. section 1.401-1(b)(1)(ii) and the groups cannot be designed in such a manner to where the only NHCE's participating are those NHCE's with the lowest amounts of compensation or the shortest periods of service and who may represent the minimum number of these employees necessary to satisfy coverage under Code section 410(b). In the case of self-employed individuals (i.e., sole proprietorships or partnerships), the requirements of Treas. Reg. section 1.401(k)-1(a)(6) continue to apply and the allocation method should not be such that a cash or deferred election is created for a self-employed individual as a result of application of the allocation method. The Employer shall notify the Plan Administrator or the Trustee in writing of the amount of contributions allocated to each group.

26. Determination Period for Non-Elective Contributions

a. The period for determining the amount of an allocation of Non-Elective Contributions is:

- i. End of Plan Year
- ii. Semi-annually
- iii. Quarterly
- iv. Each calendar month
- v. Each pay period
- vi. At such times as may be determined by the Employer

b. Minimum and Maximum Non-Elective Allocations

- i. Allocations of Non-Elective Contributions for a Participant shall be subject to a minimum amount: _____
- ii. Allocations of Non-Elective Contributions for a Participant shall be subject to a maximum amount: _____

NOTE: The determination period elected in D.26 must be equal to or longer than the applicable period elected in D.16.

27. Non-Elective - Disability

- Allocate Non-Elective Contributions to Disabled Participants who do not meet the allocation service requirements (Section 4.03(e)).
Allocations to Disabled Participants end as of the earliest of: (i) the last day of the Plan Year in which occurs the _____ anniversary of the start of the Participant's Disability or (ii) such other time specified in Section 4.03(e).

28. Collective Bargaining Agreement

- a. In addition to the formula selected in D.22, an amount necessary to meet the Employer's requirements under an applicable collective bargaining agreement shall be allocated as follows: _____
- b. The collective bargaining allocations will offset any other Employer contribution allocations that would otherwise be made to a Participant:
 - i. Yes - Non-Elective Contributions only
 - ii. No
 - iii. Other: _____

NOTE: D.21-26 (amount, formula, timing, maximum and minimum Non-Elective Contributions) will not apply to collectively bargained contributions. Collectively bargained contribution allocation timing, maximums and minimums will be determined under the collective bargaining agreement unless otherwise specified in D.28b.

Other Contributions/415

29. Prevailing Wage

- a. The Employer will make a prevailing wage contribution for each Participant who performs an hour or more of service under a public contract subject to the Davis-Bacon Act. The formula for allocating prevailing wage contributions shall be specified in the Prevailing Wage Addendum to the Adoption Agreement. The contribution allocated will be dependent on the Participant's job classification and the hourly rate established:
 - i. by the applicable federal, state, or municipal prevailing wage laws.
 - ii. in the Prevailing Wage Addendum to the Adoption Agreement.
- b. The following modifications will be made to the default prevailing wage contribution provisions (Section 4.05):
 - i. Highly Compensated Employees will be eligible to receive prevailing wage contributions
 - ii. The following age/service requirements apply in order to become eligible to receive prevailing wage contributions: _____
 - iii. The following prevailing wage vesting schedule will apply: _____
 - iv. Exclude the following from receiving benefits under an applicable prevailing wage statute under this Plan: _____
- c. Offset of other contributions:
 - i. Employer Matching Contributions (other than safe harbor)
 - ii. Non-Elective Contributions
 - iii. Safe harbor contributions
 - iv. Qualified Non-Elective Contributions (QNECs)/Qualified Matching Contributions (QMACs)

NOTE: If D.29a.ii is selected, the Prevailing Wage Addendum entry should include job classifications and applicable hourly rates. To the extent the hourly rates established in the Prevailing Wage Addendum result in a smaller contribution than is required under the applicable federal, state, or municipal prevailing wage laws, the Plan Administrator retains the discretion to make the larger contribution as the prevailing wage contribution.

NOTE: If D.29b is used to modify the default provisions applicable to prevailing wage contributions, the Plan Administrator may not be entitled to full credit for the prevailing wage contribution.

NOTE: D.29b.iv must be used to exclude a nondiscriminatory class of employees from receiving prevailing wage allocations. Employees

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excluded will generally still need to be provided the prevailing wage benefits in another manner.

30. QNECs/QMACs

The following limitations, conditions or special rules apply to Qualified Non-Elective Contributions (QNECs) or Qualified Matching Contributions (QMACs): _____

If the Employer makes discretionary QNECs (Section 4.04(b)) or QMACs (Section 4.04(c)) to the Plan, the Employer must provide the Plan Administrator (or Trustee, if applicable), written instructions describing (1) how the discretionary QNEC or QMAC formula will be allocated to Participants, (2) the computation period(s) to which the discretionary QNEC or QMAC formula applies, and (3) if applicable, a description of each business location or business classification subject to separate discretionary QNEC or QMAC allocation formulas. Such instructions must be provided no later than the date on which the discretionary QNEC or QMAC is made to the Plan. A summary of these instructions must be communicated to Participants who receive discretionary QNECs or QMACs. The summary must be communicated to Participants no later than 60 days following the date on which the last discretionary QNEC or QMAC is made to the Plan.

31. Rollovers

Rollover Contributions are permitted (Section 4.06):

- a. No
- b. Yes - All Eligible Employees may make a Rollover Contribution even if not yet a Participant in the Plan
- c. Yes - Only active Participants may make a Rollover Contribution
- d. Yes - _____ may make a Rollover Contribution

NOTE: The nondiscriminatory availability of benefits, rights, and features in Treas. Reg. section 1.401(a)(4)-4 includes rollovers as defined in 1.401(a)(4)-4(e)(3)(ii)(I) and must be available on a nondiscriminatory basis.

32. Deemed IRAs

The Plan may accept voluntary contributions to deemed IRAs (Section 4.12).

33. Death or Disability During Qualified Military Service

For benefit accrual purposes, a Participant that dies or becomes Disabled while performing qualified military service will be treated as if he had been employed by the Employer on the day preceding death or Disability and terminated employment on the day of death or Disability (Section 4.08).

34. 415 Additional Language

Additional language necessary to satisfy Code section 415 because of the required aggregation of multiple plans: _____

SECTION E. VESTING

Vesting Service Rules

1. Vesting service computation method

- a. Hours of Service. Number of Hours of Service necessary for a Year of Vesting Service (not to exceed 1,000): 1000
- b. Elapsed Time

NOTE: Unless E.1.b (Elapsed Time) is selected, the Plan will use the Hours of Service method for determining vesting service. If E.1.b (Elapsed Time) is selected, questions E.2 through E.3 are disregarded.

2. Vesting Service Equivalencies

a. Select equivalency for vesting purposes:

- i. None.

An Employee shall be credited with the following service with the Employer:

- ii. 10 Hours of Service for each day or partial day
- iii. 45 Hours of Service for each week or partial week
- iv. 95 Hours of Service for each semi-monthly payroll period or partial semi-monthly payroll period
- v. 190 Hours of Service for each month or partial month

b. The hours equivalency selected in E.2a shall apply to:

- i. All Employees
- ii. Only Employees for whom hours are not tracked. If the Employer tracks hours for an Employee, vesting will be determined based on actual hours worked.

3. Vesting Computation Period

- a. Calendar year
- b. Plan Year

- c. The consecutive 12-month period commencing on the date the Employee first performs an Hour of Service; each subsequent consecutive 12-month period shall commence on the anniversary of such date
- d. Other (must be a consecutive 12-month period): _____

4. Other Employer Service

- Count years of service with employers other than the Employer for vesting purposes. List other employers and indicate for what purposes (e.g., Employer Matching, Non-Elective, etc.) the service applies along with any limitations: _____

5. Vesting Exceptions (Section 6.02)

- a. Death. Provide for full vesting for a Participant who terminates employment with the Employer due to death while an Employee.
- b. Disability. Provide for full vesting for a Participant who terminates employment with the Employer due to Disability while an Employee.
- c. Early Retirement. Provide for 100% vesting upon the attainment of Early Retirement Date while an Employee.

6. Vesting Exclusions

- a. Exclude Years of Vesting Service earned before age 18.
- b. Exclude Years of Vesting Service earned before the Employer maintained this Plan or a predecessor plan.
- c. One-year holdout. If an Employee has a One-Year Break in Service/Period of Severance, exclude Years of Vesting Service earned before such period until the Employee has completed a Year of Vesting Service after returning to employment with the Employer.
- d. Rule of parity. If an Employee does not have any nonforfeitable right to the Account balance derived from Employer contributions, exclude Years of Vesting Service earned before a period of five (5) consecutive One-Year Breaks in Service/Periods of Severance.

7. Special Vesting Provisions

- Provide for special vesting provisions (e.g., 100% vesting as of a certain date, or to set a different vesting schedule for employees based on division): _____

NOTE: Any special provisions must satisfy Code sections 401(a)(4) and 411.

Vesting Schedules

8. Employer Matching Contributions

Vesting Schedule for Employer Matching Contributions (Section 6.02):

- a. 100%
- b. 2-6 Year Graded
- c. 1-5 Year Graded
- d. 1-4 Year Graded
- e. 3 Year Cliff
- f. 2 Year Cliff
- g. Other:
 - i. Other Employer Match Schedule - less than 1 year: _____%
 - ii. Other Employer Match Schedule - 1 year but less than 2 years: _____%
 - iii. Other Employer Match Schedule - 2 years but less than 3 years: _____%
 - iv. Other Employer Match Schedule - 3 years but less than 4 years: _____%
 - v. Other Employer Match Schedule - 4 years but less than 5 years: _____%
 - vi. Other Employer Match Schedule - 5 years but less than 6 years: _____%
 - vii. Other Employer Match Schedule - 6 or more years: 100%.

NOTE: Any vesting schedule described in E.8g must provide vesting at least as rapidly as the "3 Year Cliff" vesting schedule or the "2-6 Year Graded" vesting schedule and E.8g.vii will be deemed to be 100%.

9. Non-Elective Contributions

Vesting Schedule for Non-Elective Contributions (Section 6.02):

- a. 100%
- b. 2-6 Year Graded
- c. 1-5 Year Graded
- d. 1-4 Year Graded
- e. 3 Year Cliff
- f. 2 Year Cliff
- g. Other:

- i. Other Non-Elective Schedule - less than 1 year: _____%
- ii. Other Non-Elective Schedule - 1 year but less than 2 years: _____%
- iii. Other Non-Elective Schedule - 2 years but less than 3 years: _____%
- iv. Other Non-Elective Schedule - 3 years but less than 4 years: _____%
- v. Other Non-Elective Schedule - 4 years but less than 5 years: _____%
- vi. Other Non-Elective Schedule - 5 years but less than 6 years: _____%
- vii. Other Non-Elective Schedule - 6 or more years: 100%.

NOTE: Any vesting schedule described in E.9g must provide vesting at least as rapidly as the "3 Year Cliff" vesting schedule or the "2-6 Year Graded" vesting schedule and E.9g.vii will be deemed to be 100%.

10. QACA Contributions

QACA (Non-Elective and Match) Vesting Schedule (Section 6.02). Specify the vesting schedule for contributions made pursuant to C.13a.v or C.13a.vi:

- a. 100%
- b. 2 Year Cliff
- c. Other:
 - i. Other QACA Schedule - less than 1 year: _____%
 - ii. Other QACA Schedule - 1 year but less than 2 years: _____%
 - iii. Other QACA Schedule - 2 or more years: 100%.

11. Other Vesting Schedule

- a. The Plan has another vesting schedule: _____
- b. Describe the Participants to which the other vesting schedule applies: _____
- c. Retain pre-PPA Non-Elective vesting schedule for pre 2007 contributions: 2-6 Year Graded

NOTE: The vesting schedule in E.11 is in addition to the vesting schedules in E.8 through E.10.

NOTE: E.11b must be applied in a consistent and nondiscriminatory manner and must satisfy the applicable minimum vesting requirements of Code section 411(a)(2) at every point in time, for all Participants' years of service.

12. Forfeitures

Forfeitures will be used in the following manner (Article 6):

- a. Any permissible method described in Section 6.03(d)
- b. Other: _____

NOTE: If E.12a is selected, forfeitures may be allocated in any manner at the discretion of the Plan Administrator.

NOTE: E.12b is limited to one or a combination of the options described in Section 6.03(d), may be used to further restrict the uses of forfeiture, and must be applied in a consistent and nondiscriminatory manner.

SECTION F. DISTRIBUTIONS

Normal/Early Retirement

1. Normal Retirement

- a. Normal Retirement Age means:
 - i. Attainment of age (not to exceed 65): _____
 - ii. Later of attainment of age 65 or the service specified in F.1b
- b. Select the type and length of service used to measure Normal Retirement Age (not to exceed the fifth anniversary of the first day of the Plan Year in which participation commenced):
 - i. Eligibility. fifth Year(s) of Eligibility Service
 - ii. Vesting. _____ Year(s) of Vesting Service
 - iii. Participation. _____ anniversary of participation (e.g., third, fourth, etc.)
- c. Normal Retirement Date means:
 - i. Normal Retirement Age
 - ii. First day of calendar month coincident or next following Normal Retirement Age
 - iii. First day of calendar month nearest Normal Retirement Age
 - iv. Anniversary date nearest Normal Retirement Age
 - v. Other: _____

NOTE: The Normal Retirement Age shall be deemed met no later than the later of age 65 or the fifth anniversary of participation as defined in

Treas. Reg. section 1.411(a)-7(b)(1) and any superseding guidance.

2. Early Retirement

- a. Early Retirement Age means:
 - i. None. The Plan does not have an early retirement feature.
 - ii. Attainment of age _____
 - iii. Later of attainment of age 55 or the service specified in F.2b
- b. Select the type and length of service used to measure Early Retirement Age:
 - i. Eligibility. _____ Year(s) of Eligibility Service
 - ii. Vesting. _____ Year(s) of Vesting Service
 - iii. Participation. sixth anniversary of participation (e.g., third, fourth, etc.)
- c. Early Retirement Date means:
 - i. Early Retirement Age
 - ii. First day of calendar month coincident or next following Early Retirement Age
 - iii. First day of calendar month nearest Early Retirement Age
 - iv. Anniversary date nearest Early Retirement Age
 - v. Other: _____

NOTE: If F.2a.iii is selected and a participant terminates from service before satisfying the age requirement for early retirement, but after satisfying the service requirement, the Participant will be entitled to elect an early retirement benefit upon reaching the required age.

Time & Form of Payment

3. Time of Payment (Other than Death)

Distributions after Termination of Employment for reasons other than death shall commence (Section 7.02):

- a. Immediate. As soon as administratively feasible with a final payment made consisting of any allocations occurring after such Termination of Employment.
- b. End of Plan Year. As soon as administratively feasible after all contributions have been allocated relating to the Plan Year in which the Participant's Account balance becomes distributable.
- c. Normal Retirement Date.
- d. Other: _____

NOTE: Any entry in "Other" must comply with Code section 401(a)(9), Section 7.02(e) and other requirements of Article 7.

4. Form of Payment (Other than Death)

Medium of distribution from the Plan:

- a. Cash only
- b. Cash or in-kind

5. Default Form of Payment (Other than Death)

a. Unless otherwise elected by the Participant, distributions shall be made in the form of:

- i. Lump sum only
- ii. Qualified Joint and _____ % Survivor Annuity (not less than 50% and not more than 100%)
- b. In addition to the form described in F.5a, distributions from the Plan after Termination for reasons other than death may be made in the following forms (select all that apply):
 - i. Lump sum only
 - ii. Lump sum payment or substantially equal annual, or more frequent installments over a period not to exceed the joint life expectancy of the Participant and his Beneficiary
 - iii. Partial withdrawals - a Participant may withdraw such amounts at such times as he shall elect
 - iv. Other: _____
- c. Partial or installment distributions will be permitted only to satisfy the required minimum distribution rules

NOTE: F.5b.iii and any entry in F.5b.iv must comply with Code section 401(a)(9), Section 7.02(e) and other requirements of Article 7.

6. Distributions as an Annuity

- a. Permit Participants to make distributions in the form of an annuity
 - i. Yes - entire Account
 - ii. Yes - the following conditions or limitations shall apply: _____
 - iii. No
- b. Permit Beneficiaries to make distributions in the form of an annuity
 - i. Yes - the entire Account

- ii. Yes - the following conditions or limitations shall apply: _____
- iii. No

NOTE: If selected, a Participant/Beneficiary may elect to have the Plan Administrator apply his vested Account to the extent provided above toward the purchase of an annuity contract, which shall be distributed to the Participant/Beneficiary. The terms of such annuity contract shall comply with the provisions of this Plan and any annuity contract shall be nontransferable.

NOTE: Any conditions or limitations must be applied in a consistent and nondiscriminatory manner (for example, limiting annuity distributions to Accounts in excess of a certain dollar amount.)

7. Transfer from Pension Plan

- a. The Plan has received a transfer of assets from a plan subject to the survivor annuity rules of Code sections 411(a)(11) and 417 (e.g., a money purchase or defined benefit plan).
- b. Plan name (optional): _____
- c. Transfer effective date (optional): _____
- d. Other information related to transfer assets (optional): _____

Payments on Death

8. Beneficiary Designation

To the extent that a Participant's Account is subject to the survivor annuity rules of Section 7.10, the spouse of a married Participant shall be the beneficiary of (not less than 50%) _____% of such Participant's Account unless the spouse waives his or her rights to such benefit pursuant to Section 7.10 (Section 7.04).

9. Payment upon Participant's Death

Distributions on account of the death of the Participant shall be made in accordance with the following:

- a. Pay entire Account balance by end of fifth year for all Beneficiaries in accordance with Sections 7.02(b)(1)(A) and 7.02(b)(2)(A) only
- b. Pay entire Account balance no later than the 60th day following the end of Plan Year in which the Participant dies
- c. Allow extended payments for all beneficiaries in accordance with Sections 7.02(b)(1)(A), (B) and (C) and 7.02(b)(2)(A) and (B)
- d. Pay entire Account balance by end of fifth year for Beneficiaries in accordance with Sections 7.02(b)(1)(A) and 7.02(b)(2)(A) and allow extended payments in accordance with Sections 7.02(b)(1)(B) and (C) and 7.02(b)(2)(B) only if the Participant's spouse is the Participant's sole primary Beneficiary
- e. Other: _____

NOTE: Any entry in "Other" must comply with Code section 401(a)(9), Section 7.02(b) and other requirements of Article 7.

10. Beneficiaries

- a. Death benefits when there is no designated beneficiary:
 - i. In accordance with Section 7.04(c)
 - ii. Other: _____
- b. A beneficiary designation to a spouse shall be automatically revoked upon the legal divorce of the Participant and the spouse.
- c. For purposes of determining a Participant's spouse, the one-year rule in Code section 417(d), Treas. Reg. section 1.401(a)-20 applies.

NOTE: If "Other" is selected, the description must be definitely determinable and may not be specified in a manner that is subject to Employer discretion.

Force-Out Provisions

11. Force-Out Provisions

- a. Maximum force-out amount for purposes of Section 7.03 (not to exceed \$5,000): \$5000
 - i. Exclude amounts attributable to Rollover Contributions in determining the value of the Participant's nonforfeitable account balance
 - ii. Force-outs will be subject to the automatic rollover provisions of 7.06(c) if over: \$1000
- b. If the Account is subject to the survivor annuity requirements of Section 7.10, minimum Account balance for Qualified Joint and Survivor Annuity consent requirements (not to exceed \$5,000): \$_____
- c. Force-out of a terminated Participant's Account balance is deferred under Section 7.03(b) until:
 - i. Later of age 62 or Normal Retirement Date - payment made in a lump sum only
 - ii. Required Beginning Date - Participant may elect payment in a lump sum or installments
 - iii. Required Beginning Date - payment made in a lump sum only

iv. Other (must comply with Code section 411(a)(11), Section 7.03 and other requirements of Article 7): _____

NOTE: If F.11a is less than \$1,000, F.11a.i may not be selected.

Required Beginning Date

12. Required Beginning Date

Required Beginning Date for a Participant other than a More Than 5% Owner:

- a. Retirement. April 1 of the calendar year following the later of the calendar year in which the Participant attains age 70-1/2 or retires
- b. Age 70-1/2. April 1 of the calendar year following the calendar year in which the Participant attains age 70-1/2
- c. Election. The option provided in F.12a; provided that a Participant may elect to commence distributions pursuant to either F.12a or F.12b

SECTION G. IN-SERVICE WITHDRAWALS

NOTE: See Section 8.05 for limits on in-service distributions.

NOTE: Safe harbor contributions will be distributable when the Qualified Non-Elective Contribution Account is distributable unless otherwise limited by the Code, Treasury Regulations or Adoption Agreement.

Retirement/Hardship/Age

1. Normal/Early Retirement

- a. Allow in-service distributions after attainment of Normal Retirement Date (Section 7.01(b)) from the following Accounts: all accounts
- b. Allow in-service distributions after attainment of Early Retirement Date (Section 7.01(a)) from the following Accounts: all permissible accounts

NOTE: If the Normal Retirement Date or Early Retirement Date is less than age 59-1/2 and in-service is selected, Elective Deferrals, Qualified Non-Elective Contributions, Qualified Matching Contributions and the portion of any Account that has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) shall not be eligible for withdrawal until the Participant attains age 59-1/2.

2. Hardship

Hardship withdrawals are allowed as follows (Section 8.01):

- a. None
- b. All Accounts. A Participant may receive a distribution on account of Hardship, except from: (i) his Qualified Non-Elective Contribution Account, (ii) his Matching Contribution Account to the extent such Account has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) or to the extent such Account is treated as a Qualified Matching Contribution, and (iii) earnings on his Elective Deferral Account credited after the later of December 31, 1988, and the end of the last Plan Year ending before July 1, 1989
- c. Selected Accounts
 - i. Elective Deferral Account (excluding earnings on his Elective Deferral Account credited after the later of December 31, 1988, and the end of the last Plan Year ending before July 1, 1989)
 - ii. Employer Matching Contribution Account (except that portion that has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) or to the extent such Account is treated as a Qualified Matching Contribution)
 - iii. Non-Elective Contribution Account
 - iv. Voluntary Contribution Account
 - v. Rollover Contribution Account
 - vi. Transfer Account
 - vii. Other: _____
- d. The criteria used in determining whether a Participant is entitled to receive a Hardship withdrawal:
 - i. Safe Harbor criteria set forth in Section 8.01(b)
 - ii. Non Safe Harbor criteria set forth in Section 8.01(c)
- e. More flexible Hardship criteria applies to permitted Account(s)

- i. Use criteria specified in Section 8.01(c)
- ii. Use criteria specified in Section 8.01(c) with the following additional criteria or modifications: _____
- f. Expand the Hardship criteria to include the Beneficiary of the Participant
- g. If a Participant may receive a Hardship withdrawal from his Elective Deferral Account, permit Hardship withdrawals from the Participant's Roth Elective Deferral Account subject to the same terms and conditions as apply to the Participant's Elective Deferral Account:
 - i. Yes
 - ii. Yes - only if the withdrawal from the Roth Elective Deferral Account qualifies as a "qualified distribution" within the meaning of Code section 402A(d)(2)
 - iii. No
- h. Other limitations on Hardship withdrawals: _____

NOTE: If G.2a is selected, G.2b through G.2h do not apply.

NOTE: G.2e only applies if Hardship withdrawals are permitted from Accounts not subject to Treas. Reg. 1.401(k)-1(d) (Accounts specified in G.2c.ii-vi to the extent applicable and selected above). If G.2e is selected, the requirements of Section 8.01(b)(2) shall not apply, the amount of the hardship distribution may not exceed the Participant's vested interest under the applicable Account and the requirements of Revenue Ruling 71-224 and any superseding guidance shall apply.

NOTE: G.2f only applies if the Plan provides for in-service withdrawals on account of Hardship and uses the safe harbor criteria for Hardship determinations. If G.2f is selected, Hardship distributions may be made for a primary Beneficiary for expenses described in Treas. Reg. sections 1.401(k)-1(d)(3)(iii)(B)(1), (3), or (5) (relating to medical, tuition, and funeral expenses, respectively). A "primary Beneficiary" is an individual who is named as a Beneficiary under the Plan and has an unconditional right to all or a portion of the Participant's Account Balance upon the death of the Participant.

NOTE: G.2g only applies if A.8b is "Yes", (Roth Elective Deferrals are permitted).

NOTE: Any limitations in G.2h (such as limits on the number of withdrawals per year or minimum amount of distributions) must be objectively determinable and may not be specified in a manner that is subject to Employer discretion. Minimum amount of hardship withdrawals may not exceed \$1,000.

3. Specified Age and Service

- a. In-service withdrawals are allowed on attainment of age _____ and _____ service (Section 8.02):
 - i. None
 - ii. All Accounts
 - iii. Selected Accounts
- b. If Selected Accounts is selected, specified age and service withdrawals may be made from the following Accounts:
 - i. Elective Deferral Account
 - ii. Employer Matching Contribution Account
 - iii. Non-Elective Contribution Account
 - iv. Qualified Non-Elective Contribution Account
 - v. Voluntary Contribution Account
 - vi. Rollover Contribution Account
 - vii. Transfer Account
 - viii. Other: _____
- c. If a Participant may receive a withdrawal upon the attainment of a specified age and service from his Elective Deferral Account, permit such withdrawals from the Participant's Roth Elective Deferral Account subject to the same terms and conditions as apply to the Participant's Elective Deferral Account:
 - i. Yes
 - ii. Yes - only if the withdrawal from the Roth Elective Deferral Account qualifies as a "qualified distribution" within the meaning of Code section 402A(d)(2)
 - iii. No

NOTE: If G.3a is less than age 59-1/2, Elective Deferrals, Qualified Non-Elective Contributions, Qualified Matching Contributions and the portion of any Account that has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) shall not be eligible for withdrawal until the Participant attains age 59-1/2 and completes required service; but only to the extent withdrawals are permitted from such Accounts pursuant to G.3a and G.3b.

NOTE: G.3b only applies if G.3a.iii is selected.

NOTE: G.3c only applies if A.8b is "Yes", (Roth Elective Deferrals are permitted) and G.3a.ii or G.3a.iii and G.3b.i is selected.

4. Specified Age

- a. In-service withdrawals are allowed on attainment of age 59-1/2 (Section 8.02):

- i. None
- ii. All Accounts
- iii. Selected Accounts

b. If Selected Accounts is selected, specified age withdrawals may be made from the following Accounts:

- i. Elective Deferral Account
- ii. Employer Matching Contribution Account
- iii. Non-Elective Contribution Account
- iv. Qualified Non-Elective Contribution Account
- v. Voluntary Contribution Account
- vi. Rollover Contribution Account
- vii. Transfer Account
- viii. Other: _____

c. If a Participant may receive a withdrawal upon the attainment of a specified age from his Elective Deferral Account, permit such withdrawals from the Participant's Roth Elective Deferral Account subject to the same terms and conditions as apply to the Participant's Elective Deferral Account:

- i. Yes
- ii. Yes - only if the withdrawal from the Roth Elective Deferral Account qualifies as a "qualified distribution" within the meaning of Code section 402A(d)(2)
- iii. No

NOTE: If G.4a is less than age 59-1/2, Elective Deferrals, Qualified Non-Elective Contributions, Qualified Matching Contributions and the portion of any Account that has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) shall not be eligible for withdrawal until the Participant attains age 59-1/2; but only to the extent withdrawals are permitted from such Accounts pursuant to G.4a and G.4b.

NOTE: G.4b only applies if G.4a.iii is selected.

NOTE: G.4c only applies if A.8b is "Yes", (Roth Elective Deferrals are permitted) and G.4a.ii or G.4a.iii and G.4b.i is selected.

Other Withdrawals

5. Withdrawals After Period of Participation

- a. Employer Matching Contributions (Section 8.03(a)). In-service withdrawals are allowed from a Participant's Employer Matching Contribution Account after _____ years of Participation
- b. Non-Elective Contributions (Section 8.03(a)). In-service withdrawals are allowed from a Participant's Non-Elective Contribution Account after _____ years of Participation

NOTE: Withdrawals under G.5a are only permitted from the Matching Contribution Account to the extent such Account has not been used to satisfy the requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) or to the extent such contributions have not been treated as Qualified Matching Contributions.

NOTE: G.5a-b may not be less than five.

6. Withdrawals After Period of Accumulation

- a. Employer Matching Contributions (Section 8.03(a)). In-service withdrawals are allowed from a Participant's Employer Matching Contribution Account on funds held for _____ years.
- b. Non-Elective Contributions (Section 8.03(a)). In-service withdrawals are allowed from a Participant's Non-Elective Contribution Account on funds held for _____ years.

NOTE: Withdrawals under G.6a are only permitted from the Matching Contribution Account to the extent such Account has not been used to satisfy the requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) or to the extent such contributions have not been treated as Qualified Matching Contributions.

NOTE: G.6a-b may not be less than two.

7. At Any Time (Section 8.03(b))

In-service withdrawals are allowed from the following Accounts at any time:

- a. Voluntary Contribution Account
- b. Rollover Contribution Account

8. Military Distributions

- a. Qualified Reservist Distributions are permitted (Section 8.03(c))
- b. Deemed Severance Distributions are permitted (Section 8.03(d))

9. Transfer Account

Permit a distribution to be made to a Participant who has attained age 62 and who has not separated from employment from the transfer Account

- a. Yes - under any distribution option offered to a Terminated Participant
- b. Yes - limited to the following terms and conditions: _____

NOTE: G.9 only applies if F.7a is selected (Plan has received a transfer of assets from a plan subject to the survivor annuity rules of Code sections 401(a)(11) and 417).

10. Disability

Allow distributions upon Disability.

NOTE: If G.10 is selected, the following Accounts may not be distributed unless a severe disability equivalent to A.18a. has occurred: (i) Elective Deferral Account, (ii) Qualified Non-Elective Contribution Account, (iii) Matching Contribution Account to the extent such Account has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) or to the extent such Account is treated as a Qualified Matching Contribution. A severe disability equivalent to A.18a is as follows: the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. The permanence and degree of such impairment shall be supported by medical evidence.

Conditions/Limitations

11. Vesting Status for In-service Withdrawals

In-service withdrawals otherwise permitted under Section G are allowed only if the distributing Account is fully vested.

NOTE: Withdrawals under G.1-10 are only permitted from the portion of a Participant's Account described in G.11 unless otherwise specified in G.12.

12. Other Conditions/Limitations

The following limitations, conditions or special rules apply to in-service withdrawals: _____

NOTE: Unless otherwise specified, the limitations will apply to all in-service withdrawals (G.1 through G.11). G.12 must be applied in a consistent and nondiscriminatory manner. For example, G.12 could be used to specify the number of withdrawals permitted in a specified time period. See Section 8.05.

Roth Rollovers and Transfers

13. In-Plan Roth Rollovers

- a. If the Plan allows for Roth contributions, In-Plan Roth Rollovers are permitted (Section 4.06(c)):
 - i. No
 - ii. Yes - no limitations
 - iii. Yes - only if the Plan otherwise allows for the distribution/in-service withdrawal
 - iv. Yes - all distributions/in-service withdrawals permitted under the Code even if not otherwise provided under the Plan and upon the attainment of age: _____
 - v. Yes - limitations or conditions apply: _____
- b. In-Plan Roth Rollovers are permitted from partially vested accounts
- c. Indicate method of preserving Code section 411(d)(6) protected benefits:
 - i. Preserve existing distributions/in-service withdrawals rights for each Account
 - ii. Other: _____

NOTE: To prevent terminated Employees from taking an In-Plan Roth Rollover or to limit In-Plan Roth Rollovers to a nondiscriminatory class, choose "limitations or conditions apply" and describe the circumstances under which Participants can take an In-Plan Roth Rollover.

NOTE: Elective Deferrals, Qualified Non-Elective Contributions, Qualified Matching Contributions and the portion of any Account that has been used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13) or 401(m)(11) or 401(m)(12) shall not be eligible for withdrawal until the Participant attains age 59-1/2 irrespective of G.13a.iii, an age entered under G.13a.iv, or other limitation under G.13a.v.

14. In-Plan Roth Transfers

If the Plan allows for Roth contributions, In-Plan Roth Transfers are permitted (Section 4.06(d)):

- a. No
- b. Yes
- c. Yes - limitations or conditions apply: _____

NOTE: Assets included in an In-Plan Roth Transfer will retain the restrictions on distribution the assets had before such transfer.

SECTION H. PLAN OPERATIONS AND TOP-HEAVY**Plan Operations****1. Permitted Investments**

Unless indicated below, the Plan may invest up to 100% of the Trust in "qualifying employer securities" and "qualifying employer real property" (Section 9.04(b)).

- a. Investment in "qualifying employer securities" and "qualifying employer real property" is restricted as follows: The Plan may not invest in qualifying employer securities or qualifying employer real property
- b. Investment in "qualifying employer securities" and "qualifying employer real property" is restricted to the following Accounts:
 - i. Elective Deferral Account
 - ii. Employer Matching Contribution Account
 - iii. Voluntary Contribution Account
 - iv. Non-Elective Contribution Account
 - v. Qualified Non-Elective Contribution Account
 - vi. Rollover Contribution Account
 - vii. Transfer Account
- c. The following restrictions apply to distributions of "qualifying employer securities" and "qualifying employer real property": _____
NOTE: Any restrictions or limitations must satisfy the nondiscrimination requirements of Code section 401(a)(4).

2. Life Insurance

- Plan may invest in life insurance (Section 9.07)

3. Qualifying Longevity Annuity Contracts

- Participants may invest in a Qualifying Longevity Annuity Contract (Section 9.08)

4. Participant Self-Direction

- a. Specify the extent to which the Plan permits Participant self-direction and indicate the Plan's intent to comply with ERISA section 404(c) (Section 9.02):
 - i. All Accounts and 404(c) applies
 - ii. All Accounts but 404(c) does not apply
 - iii. Some Accounts and 404(c) applies
 - iv. Some Accounts but 404(c) does not apply
 - v. None
- b. If "Some Accounts" is selected, a Participant may self-direct the following Accounts:
 - i. Elective Deferral Account
 - ii. Matching Contribution Account
 - iii. Voluntary Contribution Account
 - iv. Non-Elective Contribution Account
 - v. Qualified Non-Elective Contribution Account
 - vi. Rollover Contribution Account
 - vii. Transfer Account
 - viii. Other: _____
- c. Participants may also establish individual brokerage accounts.
- d. Participants may exercise voting rights with respect to the following investments (Section 9.06):
 - i. Employer stock only
 - ii. All investments
 - iii. Selected investments: _____

5. Valuation Date

Enter Valuation Date:

- a. Last day of Plan Year
- b. Last day of each Plan quarter
- c. Last day of each month
- d. Each business day
- e. Other: _____ (Must be at least annually).

6. Plan Administration

- a. Designation of Plan Administrator (Section 11.01):
 - i. Plan Sponsor
 - ii. Committee appointed by Plan Sponsor
 - iii. Other: _____
- b. Establishment of procedures for the Plan Administrator and the Investment Fiduciary (Sections 11.01(d) and 11.02(c)):
 - i. Plan Administrator and Investment Fiduciary adopt own procedures
 - ii. Governing body of the Plan Sponsor sets procedures for Plan Administrator and Investment Fiduciary
- c. The Trustee is also the Investment Fiduciary (Section 11.02):
 - i. Yes
 - ii. No. The Investment Fiduciary is: _____
- d. Type of indemnification for the Plan Administrator and Investment Fiduciary:
 - i. None - the Employer will not indemnify the Plan Administrator or the Investment Fiduciary
 - ii. Standard according to Section 11.06
 - iii. Provided pursuant to an outside agreement
- e. The following modifications shall be made to the duties of the applicable parties: _____

7. Claims Procedures Limitations

The following limitations, conditions, or special rules apply to the Claims Procedures described in Section 11.07: The Plan has contractual statute of limitations as follows: 2 years

NOTE: Any limitations, conditions, or special rules must satisfy requirements under DOL regulations or any other applicable guidance.

Top-Heavy**8. Top-Heavy Allocations**

- a. Top-Heavy allocations are made to:
 - i. This Plan. Participants who share in Top-Heavy minimum allocations:
 - A. Non-Key only. Any Participant who is employed by the Employer on the last day of the Plan Year and is not a Key Employee
 - B. All Participants. Any Participant who is employed by the Employer on the last day of the Plan Year
 - C. Participants covered by a collective bargaining agreement will share in Top-Heavy minimum allocations provided retirement benefits were the subject of good faith bargaining.
 - ii. Another plan: _____
 - iii. Other (include information about which Plan allocations are made to and which Participants in this Plan will share in Top-Heavy minimums): _____
- b. Other plan maintained by the Employer
 - i. N/A - no other plan
 - ii. Defined Contribution
 - iii. Defined Benefit

NOTE: H.8a.i.C may be selected in addition to H.8a.i.A or H.8a.i.B. If H.8a.i.C applies and is not selected, Employees covered under a collective bargaining agreement that bargains in good faith for retirement benefits shall not be eligible to receive top-heavy minimum allocations.

NOTE: If the Employer also maintains a defined benefit plan and if such plan is silent with respect to the actuarial assumptions used to determine the present value of accrued benefits for Top-Heavy purposes, then the assumptions used must be reasonable, need not relate to the actual plan and investment experience, and need not be the same as those used for minimum funding purposes or for purposes of determining the actual equivalence of optional benefits under the Plan.

9. Top-Heavy Vesting

Top-Heavy vesting schedule (Section 10.03):

- a. Not applicable - Vesting schedule is Top-Heavy compliant
- b. 100%
- c. 2-6 Year Graded
- d. 1-5 Year Graded
- e. 1-4 Year Graded
- f. 3 Year Cliff
- g. 2 Year Cliff

h. Other:

- i. Other Top-Heavy Schedule - less than 1 year: _____ %
- ii. Other Top-Heavy Schedule - 1 year but less than 2 years: _____ %
- iii. Other Top-Heavy Schedule - 2 years but less than 3 years: _____ %
- iv. Other Top-Heavy Schedule - 3 years but less than 4 years: _____ %
- v. Other Top-Heavy Schedule - 4 years but less than 5 years: _____ %
- vi. Other Top-Heavy Schedule - 5 years but less than 6 years: _____ %
- vii. Other Top-Heavy Schedule - 6 or more years: 100%.

NOTE: If "Other" is selected, any vesting schedule described in H.9h must provide vesting at least as rapidly as the "3 Year Cliff" vesting schedule or the "2-6 Year Graded" vesting schedule.

10. 416 Additional Language

Additional language necessary to satisfy Code section 416 because of the required aggregation of multiple plans: _____

SECTION I. MISCELLANEOUS

Failure to properly fill out the Adoption Agreement may result in disqualification of the Plan.

The Plan shall consist of this Adoption Agreement #001, its related Basic Plan Document #01, and any Addendum to the Adoption Agreement.

The adopting Employer may rely on an opinion letter issued by the Internal Revenue Service as evidence that the Plan is qualified under Code section 401 only to the extent provided in Revenue Procedure 2017-41 and any superseding guidance. The Employer may not rely on the opinion letter in certain other circumstances or with respect to certain qualification requirements, which are specified in the opinion letter issued with respect to the Plan and in Revenue Procedure 2017-41 and any superseding guidance. In order to have reliance in such circumstances or with respect to such qualification requirements, application for a determination letter must be made to Employee Plans Determinations of the Internal Revenue Service. The Pre-Approved Plan Provider will inform the adopting Employer of any amendments made to the Plan or of the discontinuance or abandonment of the Plan. The Pre-Approved Plan Provider, CCH Incorporated, DBA ftwilliam.com may be contacted at 1245 E. Washington Ave., Ste. 101 Madison, WI 53703; 414-226-2442.

SECTION J. EXECUTION PAGE

The undersigned agree to be bound by the terms of this Adoption Agreement and Basic Plan Document and acknowledge receipt of same. The parties have caused this Plan to be executed this _____ day of _____, 2021.

MAGNA WATER DISTRICT:

Signature:_____

Print Name:_____

Title/Position:_____

HARDSHIP DISTRIBUTION ADDENDUM

This Addendum is intended as a good faith effort to comply with the requirements of the hardship distribution final regulations and is to be construed in accordance with same. Both the Addendum and the provisions of the hardship distribution final regulations will supersede any inconsistent Plan provisions.

For each item below, if the check boxes are empty, the *italicized* provision will apply.

1. **Deferral Earnings**

Effective on the first day of the first plan year after 12/31/2018, hardship distributions may be taken from earnings on all Elective Deferrals.

Effective January 1, 2020, earnings on all Elective Deferrals are available for hardship distributions.

Hardship distributions continue to only be available from earnings on Elective Deferrals grandfathered under Treas. Reg. section 1.401(k)-1(d)(3)(ii)(B).

2. **Safe Harbor Contributions/QNECs/QMACs**

Effective on the first day of the first plan year after 12/31/2018, if available under the Plan, Qualified Non-Elective Contributions (QNECs), Qualified Matching Contributions (QMACs) or contributions used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13), or 401(m)(11) or 401(m)(12), will be available for hardship distributions.

Effective _____, hardship distributions are permitted from Qualified Non-Elective Contributions, Qualified Matching Contributions or contributions used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13), or 401(m)(11) or 401(m)(12), if available under the Plan.

Hardship distributions continue to be prohibited from Qualified Non-Elective Contributions, Qualified Matching Contributions or contributions used to satisfy the safe harbor requirements of Code sections 401(k)(12) or 401(k)(13), or 401(m)(11) or 401(m)(12).

3. **Amount Necessary to Satisfy Need Requirement**

Effective on the first day of the first plan year after 12/31/2018, a hardship distribution will be considered necessary to satisfy an immediate and heavy financial need of the Participant only if:

- *The distribution is not in excess of the amount required to satisfy the financial need (including any amounts necessary to pay any federal, state or local income taxes or penalties reasonably anticipated to result from the distribution);*
- *The Participant has obtained all other currently available distributions, other than hardship distributions, under any deferred compensation plan, whether qualified or nonqualified, maintained by the Employer; and*
- *Effective for distributions made on or after 01/01/2020, the Participant has represented (in writing or by an electronic medium) that he has insufficient cash or other liquid assets to satisfy the financial need.*

Effective January 1, 2020, a distribution will be determined to satisfy an immediate and heavy financial need only if the three criteria listed above are met.

The following provisions will be used for complying with the amount necessary to satisfy need requirement: _____

4. **Six-Month Suspension**

If the Safe Harbor criteria are used for hardship distributions, effective on the first day of the first plan year after 12/31/2018, the six-month suspension period for Elective Deferrals (and after-tax contributions) will no longer be a condition for obtaining a hardship distribution, even if the hardship distribution was made in the prior plan year.

Effective January 1, 2020, the Plan will not initiate a six-month suspension period on Elective Deferrals (and after-tax contributions) following a hardship distribution (cannot be later than 01/01/2020).

The Plan will discontinue any remaining portion of the suspension period for hardship distributions made prior to the

entered effective date.

The Plan will continue any remaining portion of the full six-month suspension period for hardship distributions made prior to the entered effective date.

5. Loan Requirement

If the Safe Harbor criteria are used for hardship distributions, effective on the first day of the first plan year after 12/31/2018, Participants are not required to take all nontaxable loans under all plans maintained by the Employer prior to applying for a hardship distribution.

Effective January 1, 2020, Participants are not required to take all available nontaxable loans before applying for a hardship distribution.

Participants must continue to take all nontaxable loans under all plans maintained by the Employer before applying for a hardship distribution.

6. Safe Harbor Financial Needs

If the Safe Harbor criteria are used for hardship distributions, the following immediate and heavy financial needs are considered as safe harbor criteria for hardship distributions made on or after 01/01/2018:

- *Expenses for the repair of damage to the Employee's principal residence that would qualify for the casualty deduction under Code section 165 (determined without regard to section 165(h)(5) and whether the loss exceeds 10% of adjusted gross income).*
- *Expenses and losses (including loss of income) incurred by the Employee on account of a disaster declared by the Federal Emergency Management Agency (FEMA) under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, provided that the Employee's principal residence or principal place of employment at the time of the disaster was located in an area designated by FEMA for individual assistance with respect to the disaster.*

Effective January 1, 2020, the immediate and heavy financial needs listed above are considered as safe harbor criteria for hardship distributions.

The immediate and heavy financial needs listed above are not considered as safe harbor criteria for hardship distributions.

The undersigned agree to be bound by the terms of the foregoing addenda to the Plan and acknowledge receipt of same. The addenda are executed this _____ day of _____, 2021.

MAGNA WATER DISTRICT:

Signature: _____

Print Name: _____

Title/Position: _____

SECURE/CARES/CAA ADDENDUM

This Addendum is intended as a good faith effort to comply with the requirements of the Further Consolidated Appropriations Act, 2020, including the SECURE Act provisions, the Coronavirus, Aid, Relief and Economic Security (CARES) Act, and the Consolidated Appropriations Act, 2021 (CAA), and corresponding guidance (the "Applicable Law"). This Addendum is to be construed in accordance with the Applicable Law and both the Addendum and the Applicable Law will supersede any inconsistent Plan provisions.

OPTIONAL PROVISIONS:

For each item below, if the check boxes are empty, the *italicized* provision will apply.

1. Qualified Birth or Adoption Distributions (see Section A. below)

The Plan does not permit qualified birth or adoption distributions as a separate distribution event.

Effective _____ (no earlier than 01/01/2020), the Plan permits qualified birth or adoption distributions as a separate distribution event.

The following limitations and conditions apply: _____.

2. Treatment of 2020 RMDs (see Section B. below)

Effective 01/01/2020, unless the Participant or beneficiary chooses otherwise, a Participant or beneficiary who would have been required to receive a 2020 RMD will not receive this distribution.

Effective _____ (no earlier than 01/01/2020):

Unless the Participant or beneficiary chooses otherwise, a Participant or beneficiary who would have been required to receive a 2020 RMD will not receive this distribution.

Unless the Participant or beneficiary chooses otherwise, a Participant or beneficiary who would have been required to receive a 2020 RMD will receive this distribution.

3. 2020 RMDs as Direct Rollovers (see Section B. below)

A direct rollover is not offered for 2020 RMDs or Extended 2020 RMDs.

For purposes of the direct rollover provisions of the Plan, the following will be treated as eligible rollover distributions in 2020:

2020 RMDs.

2020 RMDs and Extended 2020 RMDs.

2020 RMDs, but only if paid with an additional amount that is an eligible rollover distribution without regard to Code section 401(a)(9)(I).

4. Portability of Lifetime Income Options (see Section F. below)

The Plan does not permit "qualified distributions" or "qualified plan distribution annuity contracts" of lifetime income investment options.

The Plan permits "qualified distributions" or "qualified plan distribution annuity contracts" of lifetime income investment options when such investment options are no longer authorized to be held as an investment option under the Plan effective: _____ (no earlier than the plan year beginning after 12/31/2019).

The following limitations and conditions apply: _____.

5. Transfer Account

The existing Plan provisions, if any, remain in effect for distributions to a Participant who has not separated from employment from a Transfer Account holding assets transferred from a plan subject to the survivor annuity rules of Code section 401(a)(11) and 417 (e.g., age cannot be less than 62).

[] Effective _____ (no earlier than 01/01/2020), the Plan permits distributions to a Participant who has not separated from employment from a Transfer Account holding assets transferred from a plan subject to the survivor annuity rules of Code section 401(a)(11) and 417 if the Participant attains: _____ (age cannot be less than 59-1/2).

STANDARD PROVISIONS:

A. Qualified Birth or Adoption Distributions

To the extent provided above, a Participant may receive a distribution up to \$5,000 during the 1-year period beginning on the date on which the Participant's child is born or on which the legal adoption by the Participant of an eligible adoptee is finalized. An eligible adoptee is any individual (other than a child of the Participant's spouse) who has not attained age 18 or is physically or mentally incapable of self-support. The \$5,000 maximum is an aggregate amount of such distributions from all plans maintained by the Employer.

B. Required Minimum Distributions

In defining Required Beginning Date or determining required minimum distributions, any references to age 70-1/2 are replaced with: age 70-1/2 (for Participants born before 07/01/1949) or age 72 (for Participants born after 06/30/1949).

Notwithstanding other provisions of the Plan to the contrary and if selected above, a Participant or beneficiary who would have been required to receive required minimum distributions in 2020 (or paid in 2021 for the 2020 calendar year for a Participant with a required beginning date of 04/01/2021) but for the enactment of section 401(a)(9)(l) of the Code ("2020 RMDs"), and who would have satisfied that requirement by receiving distributions that are either: (1) equal to the 2020 RMDs, or (2) one or more payments (that include the 2020 RMDs) in a series of substantially equal periodic payments made at least annually and expected to last for the life (or life expectancy) of the Participant, the joint lives (or joint life expectancies) of the Participant and the Participant's designated beneficiary, or for a period of at least 10 years ("Extended 2020 RMDs"), may receive those distributions.

C. Distribution on Account of Death for Certain Eligible Retirement Plans

Whether before or after distribution has begun, a Participant's entire interest will be distributed to the designated beneficiary by 12/31 of the calendar year containing the tenth anniversary of the Participant's death unless the designated beneficiary meets the requirements of an "eligible designated beneficiary". An "eligible designated beneficiary" may receive distributions over the life of such designated beneficiary. If there is no designated beneficiary as of 09/30 of the year following the year of the Participant's death, the Participant's entire interest will be distributed by 12/31 of the calendar year containing the fifth anniversary of the Participant's death.

An "eligible designated beneficiary" is defined as any designated beneficiary who is: (i) the surviving spouse of the Participant; (ii) a minor child of the Participant; (iii) disabled; (iv) a chronically ill individual; or (v) an individual who is not more than 10 years younger than the Participant. The determination of whether a designated beneficiary is an "eligible designated beneficiary" is made as of the date of death of the Participant. If an "eligible designated beneficiary" dies before the portion of the Participant's interest is entirely distributed, the remainder of such portion must be distributed within 10 years after the death of such "eligible designated beneficiary".

D. Qualified Automatic Contribution Arrangement (QACA)

If a Qualified Automatic Contribution Arrangement (QACA) feature is elected, the Plan Administrator has the discretion to increase automatic elections subsequent to the initial period up to a maximum limitation of 15% of Plan Compensation.

E. Safe Harbor Notice

If the non-elective contribution method is elected for safe harbor plan exemption (including under a Qualified Automatic Contribution Arrangement), effective for Plan years beginning on or after 01/01/2020, the safe harbor notice is not required for satisfying the conditions of Code sections 401(k)(12) or 401(k)(13).

F. Portability of Lifetime Income Investments

To the extent provided above, any amounts invested in a "lifetime income investment" may be distributed through either "qualified distributions" or "qualified plan distribution annuity contracts" no earlier than 90 days prior to the date that such "lifetime income investment" may no longer be held as an investment option under the Plan.

The following terms are used in this section:

"Qualified distribution" means a direct trustee-to-trustee transfer described in Code section 401(a)(31)(A) to an eligible retirement plan (as defined in Code section 402(c)(8)(B)).

"Qualified plan distribution annuity contract" means an annuity contract purchased for a Participant and distributed to the Participant by a plan or contract described in subparagraph (B) of Code section 402(c)(8) (without regard to clauses (i) and (ii) thereof).

"Lifetime income investment" means an investment option which is designed to provide an employee with election rights which: (a) are not uniformly available with respect to other investment options under the plan, and (b) are to a "lifetime income feature" available through a contract or other arrangement offered under the plan (or under another eligible retirement plan (as so defined), if paid by means of a direct trustee-to-trustee transfer described in Code section 401(a)(31)(A) to such other eligible retirement plan).

"Lifetime income feature" means: (a) a feature which guarantees a minimum level of income annually (or more frequently) for at least the remainder of the life of the employee or the joint lives of the employee and the employee's designated beneficiary, or (b) an annuity payable on behalf of the employee under which payments are made in substantially equal periodic payments (not less frequently than annually) over the life of the employee or the joint lives of the employee and the employee's designated beneficiary.

G. Disaster or Coronavirus-Related Relief

Notwithstanding any provision of the Plan to the contrary, the Plan may grant temporary disaster or coronavirus-related relief in compliance with Code sections 1400M and 1400Q, section 15345 of the Food, Conservation, and Energy Act of 2008, section 702 of the Heartland Disaster Tax Relief Act of 2008, section 502 of the Disaster Tax Relief and Airport and Airway Extension Act of 2017, section 11028 of the Tax Cuts and Jobs Act of 2017, section 20102 of the Bipartisan Budget Act of 2018, subtitle II of Division Q of the Further Consolidated Appropriations Act, 2020, section 2202 of the Coronavirus, Aid, Relief and Economic Security Act, and Title III of Division EE of the Consolidated Appropriations Act, 2021 ("Applicable Law"). This Section only applies to the extent the Plan has provided some or all of the relief listed below in compliance with Applicable Law.

A. Qualified Distributions

- I. "Qualified Distribution" means a distribution to a qualified individual within the applicable time periods as defined in the relevant sections of Applicable Law which may not exceed \$100,000 in aggregate from all plans maintained by the Employer.
- II. If the Plan permits rollover contributions, at any time during the 3-year period beginning on the day after the Qualified Distribution was received, an individual may contribute as a rollover to the Plan an aggregate amount that does not exceed the amount of the Qualified Distribution.
- III. If the Plan permits rollover contributions, an individual who received a withdrawal for the purchase of a home, but could not use the withdrawal amount due to the disaster, may contribute as a rollover to the Plan an aggregate amount that does not exceed the amount of the withdrawal amount within the applicable time periods as defined in the relevant sections of Applicable Law.

B. Expanded Loan Provisions

- I. The maximum loan limit under Code section 72(p)(2)(A) may be applied by substituting "\$100,000" for "\$50,000" and substituting "the present value" for "one-half the present value" under the Loan Procedures for a qualified individual within the applicable time periods as defined in the relevant sections of Applicable Law.
- II. The loan repayment may be delayed for 1 year for a qualified individual within the applicable time periods as defined in the relevant sections of Applicable Law.
- III. Subsequent repayments will be adjusted to reflect the 1-year delay and any interest accrued during such delay.
- IV. The 1-year delay will be disregarded in determining the 5-year maximum term of loans under Code section 72(p)(2)(B) and (C).

H. Difficulty of Care Payments Included in Statutory Compensation

In determining the contribution limitation, Statutory Compensation will be increased by qualified foster care payments. Qualified foster care payments are difficulty of care payments excluded from gross income under Code section 131. Any contribution by the Participant which is allowable due to such increase is treated as an after-tax contribution.

I. Long-Term, Part-Time Employees

Notwithstanding any provision of the Plan to the contrary, effective for Plan years beginning after 12/31/2020, any Employee working at least 500 hours of service during each of three consecutive 12-month periods ("LTPT Employee") becomes a Participant eligible to make Elective Deferrals on the date specified in the Plan provided that he or she is an Eligible Employee and has attained the applicable age requirement, if any, on such date. No 12-month period beginning before 01/01/2021 is taken into account. Each 12-month period for which an LTPT Employee has at least 500 hours of service is treated as a year of service for vesting purposes.

MAGNUM ANALYTICS, INC. 401(K) PLAN

TRUST AGREEMENT

2021
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TRUST AGREEMENT

THIS TRUST AGREEMENT is effective 01/01/2022, between Magnum Analytics, Inc. (the "Employer"), and Gerald Clancy (the "Trustee").

WHEREAS, the Employer sponsors the Magnum Analytics, Inc. 401(k) Plan (the "Plan") for the benefit of employees eligible to participate therein (the "Participants") and their beneficiaries (the "Beneficiaries");

WHEREAS, the Employer designates the Trustee to act as the trustee of a trust constituting a part of the Plan (the "Trust"), pursuant to which assets are being held to provide for the funding and payment of benefits under the Plan;

WHEREAS, the Trustee is willing to serve as trustee for the Plan and to hold in trust those assets of the Plan that have been and will be transferred to the Trustee in accordance with the provisions of this Agreement (the "Trust Fund");

WHEREAS, the Employer is, or has designated a person(s) to act as, the "Plan Administrator" as that term is defined in the Plan;

WHEREAS, the Employer has designated a fiduciary to select Trust Fund investments and perform other duties with respect to the investment of the Trust Fund (the "Investment Fiduciary");

WHEREAS, the Employer and the Trustee deem it necessary and desirable to enter into a written agreement of trust; and

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto, intending to be legally bound, hereby agree and declare as follows:

ARTICLE I TRUST FUND

Section 1.01 Trust Fund. A Trust is hereby established or continued under the Plan and the Trustee will maintain a trust account for the Plan and, as part thereof, accounts for such individuals as the Employer shall from time to time give written notice to the Trustee are Participants in the Plan. The Trustee will accept and hold in the Trust Fund such contributions on behalf of Participants as it may receive from time to time from the Employer, including amounts transferred by any prior trustee of the Plan, and such earnings, income and appreciation as may accrue thereon; less losses, depreciation and payments made by the Trustee to carry out the purposes of the Plan. The Trust Fund shall be fully invested and reinvested in accordance with the applicable provisions of the Plan.

Section 1.02 Exclusive Benefit. All contributions made to the Plan are made for the exclusive benefit of the Participants and their Beneficiaries, and such contributions shall not be used for, or diverted to, purposes other than for the exclusive benefit of the Participants and their Beneficiaries (including the costs of maintaining and administering the Plan and corresponding Trust).

Section 1.03 Return of Contributions. Notwithstanding any other provision of the Plan: (a) as contributions made prior to the receipt of an initial determination letter are conditional upon a favorable determination as to the qualified status of the Plan under Code section 401(a), if the Plan receives an adverse determination with respect to its initial qualification, then any such contribution may be returned to the Employer within one year after such determination, provided the application for determination is made by the time prescribed by law; (b) contributions made by the Employer based upon mistake of fact may be returned to the Employer within one year of such contribution; (c) as all contributions to the Plan are conditioned upon their deductibility under the Code, if a deduction for such a contribution is disallowed, such contribution may be returned to the Employer within one year of the disallowance of such deduction; and (d) after all liabilities under the Plan have been satisfied, the remaining assets of the Trust shall be distributed to the Employer if such distribution does not contravene any provision of applicable law.

In the case of the return of a contribution due to mistake of fact or the disallowance of a deduction, the amount that may be returned is the excess of the amount contributed over the amount that would have been contributed had there not been a mistake or disallowance. Earnings attributable to the excess contributions may not be returned to the Employer but losses attributable thereto must reduce the amount to be so returned. Any return of contribution or distribution of assets made by the Trustee pursuant to this Section shall be made only upon the direction of the Employer, which shall have exclusive responsibility for determining whether the conditions of such return or distribution have been satisfied and for the amount to be returned.

Section 1.04 Assets Not Held by Trustee. The Trustee shall not be responsible for any assets of the Plan that are held outside of the Trust Fund. The Trustee is expressly hereby relieved of any responsibility or liability for any losses resulting to the Plan arising from any acts or omissions on the part of any insurance company holding assets outside of the Trust Fund. The Trustee may require the Employer to serve as custodian for all promissory notes and related documents issued in connection with the Plan's Participant loan program and require the Employer to be responsible for the safekeeping of same.

Section 1.05 Group Trust. In the event that the Trust is a part of any group trust (within the meaning of Internal Revenue Service Revenue Rulings 81-100 and 2011-1): (a) participation in the Trust is limited to (i) individual retirement accounts which are exempt under Code section 408(e), (ii) pension and profit-sharing trusts which are exempt under Code section 501(a) by qualifying under Code section 401(a) and (iii) accounts under Code sections 403(b)(7), 403(b)(9) and governmental retiree benefit plans under Code section 401(a)(24) to the extent the requirements of Revenue Ruling 2011-1 are met; (b) no part of the corpus or income which equitably belongs to any individual retirement account or Employer's trust may be used for or diverted to any purposes other than for the exclusive benefit of the individual or the Employees, respectively, or

their Beneficiaries who are entitled to benefits under such participating individual retirement account or Employer's trust; (c) no part of the equity or interest in the Trust Fund shall be subject to assignment by a participating individual retirement account or Employer's trust; and (d) the Trustee shall maintain separate accounts for each participating trust or individual retirement account.

ARTICLE II DUTIES OF THE TRUSTEE

Section 2.01 In General. The Trustee is not a party to, and has no duties or responsibilities under the Plan, other than those that may be expressly contained in this Article. The Trustee shall have no duties, responsibilities or liability with respect to the acts or omissions of any prior trustee. The Trustee shall discharge its assigned duties and responsibilities under this Article and the Plan with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

Section 2.02 Contributions. The Trustee agrees to accept contributions that are paid to it by the Plan Administrator (as well as rollover contributions and direct transfers from other eligible retirement plans) in accordance with the terms of this Article. Such contributions shall be in cash or in such other form that may be acceptable to the Trustee. In-kind contributions of other than qualifying employer securities are permitted only in non-pension plans provided that the contribution is discretionary and unencumbered. Qualifying employer securities may be contributed to both pension and non-pension plans subject to the requirements of ERISA section 408(e). The Trustee shall have no responsibility for any property until it is received by the Trustee. The Plan Administrator shall have the sole duty and responsibility for the determination of the accuracy or sufficiency of the contributions to be made under the Plan, the transmittal of the same to the Trustee and compliance with any statute, regulation or rule applicable to contributions.

Section 2.03 Distributions. The Trustee shall make distributions out of the Trust Fund pursuant to instructions described in Article V. The Trustee shall not have any responsibility or duty under this Article for determining that such are in accordance with the terms of the Plan and applicable law, including without limitation, the amount, timing or method of payment and the identity of each person to whom such payments shall be made. The Trustee shall have no responsibility or duty to determine the tax effect of any payment or to see to the application of any payment. In making payments, the Employer acknowledges that the Trustee is acting as a paying agent and not as the payor, for tax information reporting and withholding purposes. In the event that any dispute shall arise as to the persons to whom payment or delivery of any assets shall be made by the Trustee, the Trustee may withhold such payment or delivery until such dispute shall have been settled by the parties concerned or shall have been determined by a court of competent jurisdiction.

Section 2.04 Records. The Trustee shall keep full and accurate accounts of all receipts, investments, disbursements and other transactions hereunder, including such specific records as may be agreed upon in writing between the Employer and the Trustee. All such accounts, books and records shall be open to inspection and audit at all reasonable times by any authorized representative of the Employer or the Plan Administrator. A Participant may examine only those individual account records pertaining directly to him.

Section 2.05 Accounting. The Trustee shall file with the Plan Administrator a written account of the administration of the Trust Fund showing all transactions effected by the Trustee subsequent to the period covered by the last preceding account and all property held at the end of the accounting period. The Trustee shall use its best effort to file such written account within ninety (90) days, but not later than one hundred twenty (120) days after the end of each Plan Year. Upon approval of such accounting by the Plan Administrator, neither the Employer nor the Plan Administrator shall be entitled to any further accounting by the Trustee. The Plan Administrator may approve such accounting by written notice of approval delivered to the Trustee or by failure to express objection to such accounting in writing delivered to the Trustee within six (6) months from the date on which the accounting is delivered to the Plan Administrator.

Section 2.06 Participant Eligibility. The Trustee shall not be required to determine the facts concerning the eligibility of any Participant to participate in the Plan, the amount of benefits payable to any Participant or Beneficiary under the Plan, or the date or method of payment or disbursement. The Trustee shall be fully entitled to rely in good faith solely upon the written advice and directions of the Plan Administrator as to any such question of fact.

Section 2.07 Indicia of Ownership. The Trustee shall not hold the indicia of ownership of any assets of the Trust Fund outside of the jurisdiction of the District Courts of the United States, unless in compliance with section 404(b) of ERISA and regulations thereunder.

Section 2.08 Notice. The Trustee shall provide the Employer with advance notice of any legal actions the Trustee may take with respect to the Plan and Trust and shall promptly notify the Employer of any claim against the Plan and Trust.

Section 2.09 Other Fiduciaries. The Trustee shall not be responsible for the acts or omissions of any other persons except as may be required by ERISA section 405.

ARTICLE III GENERAL INVESTMENT POWERS

In addition to all powers and authority under common law, statutory authority and other provisions of this Article, the Trustee shall have the following powers and authorities to be exercised in accordance with and subject to the provisions of Article IV hereof:

Section 3.01 Invest and reinvest the Trust Fund in any property, real, personal or mixed, wherever situated, and whether situated, and whether or not productive of income or consisting of wasting assets, including, without limitation, common and preferred stock, bonds, notes,

debentures, options, mutual funds, leaseholds, mortgages (including without limitation, any collective or part interest in any bond and mortgage or note and mortgage), certificates of deposit, and oil, mineral or gas properties, royalties, interests or rights (including equipment pertaining thereto), without being limited to the classes of property in which trustees are authorized by law or any rule of court to invest trust funds and without regard to the proportion any such property may bear to the entire amount of the Trust Fund;

Section 3.02 Hold property in nominee name, in bearer form, or in book entry form, in a clearinghouse corporation or in a depository, provided that such property is held in conformance with DOL Reg. section 2550-403a-1(b) and that such property is held by (i) a bank or trust company that is subject to supervision by the United States or a state, or a nominee of such bank or trust company, (ii) a broker or dealer registered under the Securities Exchange Act of 1934, or a nominee of such broker or dealer; (iii) a "clearing agency," as defined in section 3(a)(23) of the Securities Exchange Act of 1934, or its nominee; or (iv) any other entity as provided in DOL Reg. section 2550-403a-1(b);

Section 3.03 Collect income payable to and distributions due to the Trust Fund and sign on behalf of the Trust any declarations, affidavits, certificates of ownership and other documents required to collect income and principal payments, including but not limited to, tax reclamations, rebates and other withheld amounts;

Section 3.04 To sell, exchange, convey, transfer, grant options to purchase, or otherwise dispose of any securities or other property held by the Trustee. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity, expediency, or propriety of any such sale or other disposition;

Section 3.05 Pursuant to the terms of Article VI, to vote upon any stocks, bonds, or other securities; to give general or special proxies or powers of attorney with or without power of substitution; to exercise any conversion privileges, subscription rights or other options, and to make any payments incidental thereto; to oppose, or to consent to, or otherwise participate in, corporate reorganizations or other changes affecting corporate securities, and to delegate discretionary powers, and to pay any assessments or charges in connection therewith; and generally to exercise any of the powers of an owner with respect to stocks, bonds, securities, or other property;

Section 3.06 Take all action necessary to pay for authorized transactions or make authorized distributions, including exercising the power to borrow or raise monies from any lender, upon such terms and conditions as are necessary to settle such transactions or distributions;

Section 3.07 To keep such portion of the Trust Fund uninvested in cash or cash balances as the Trustee may, from time to time, deem to be in the best interests of the Plan, without liability for interest thereon;

Section 3.08 To accept and retain for such time as the Trustee may deem advisable any securities or other property received or acquired as Trustee hereunder, whether or not such securities or other property would normally be purchased as investments hereunder;

Section 3.09 To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

Section 3.10 To settle, compromise, or submit to arbitration any claims, debts, or damages due or owing to or from the Trust Fund, to commence or defend suits or legal or administrative proceedings, and to represent the Plan and/or Trust Fund in all suits and legal and administrative proceedings;

Section 3.11 To invest in Treasury Bills and other forms of United States government obligations;

Section 3.12 To deposit cash in accounts in the banking department of the Trustee or an affiliated banking organization;

Section 3.13 To deposit monies in federally insured savings accounts or certificates of deposit in banks or savings and loan associations;

Section 3.14 To invest and reinvest all or any portion of the Trust Fund collectively with funds of other retirement plan trusts exempt from tax under Code section 501(a), including, without limitation, the power to invest collectively with such other funds through the medium of one or more common, collective or commingled trust funds which have been or may hereafter be operated by the Trustee, the instrument or instruments establishing such trust fund or funds, as amended from time to time, being made part of this Trust so long as any portion of the Trust Fund shall be invested through the medium thereof;

Section 3.15 To sell, either at public or private sale, option to sell, mortgage, lease for a term of years less than or continuing beyond the possible date of the termination of the Trust created hereunder, partition or exchange any real property which may from time to time constitute a portion of the Trust Fund, for such prices and upon such terms as it may deem best, and to make, execute and deliver to the purchasers thereof good and sufficient deeds of conveyance therefor and all assignments, transfers and other legal instruments, either necessary or convenient for the passing of the title and ownership thereof to the purchaser, free and discharged of all trusts and without liability on the part of such purchasers to see to the proper application of the purchase price;

Section 3.16 To repair, alter, improve or demolish any buildings which may be on any real estate forming part of the Trust Fund or to erect entirely new structures thereon;

Section 3.17 To renew, extend or participate in the renewal or extension of any mortgage, upon such terms as may be deemed advisable, and to agree to a reduction in the rate of interest on any mortgage or to any other modification or change in the terms of any mortgage or of

any guarantee pertaining thereto, in any manner and to any extent that may be deemed advisable for the protection of the Trust Fund or the preservation of the value of the investment; to waive any default, whether in the performance of any covenant or condition of any mortgage or in the performance of any guarantee, or to enforce any such default in such manner and to such extent as may be deemed advisable; to exercise and enforce any and all rights of foreclosure, to bid on property in foreclosure, to take a deed in lieu of foreclosure with or without paying a consideration therefor, and in connection therewith to release the obligation on the bond or note secured by the mortgage; and to exercise and enforce in any action, suit or proceeding at law or in equity any rights or remedies in respect to any mortgage or guarantee;

Section 3.18 To purchase any authorized investment at a premium or at a discount;

Section 3.19 To purchase any annuity contract; and

Section 3.20 To do all such acts and exercise all such rights and privileges, although not specifically mentioned herein, as the Trustee may deem necessary to carry out the purposes of the Plan.

ARTICLE IV OTHER INVESTMENT POWERS

Section 4.01 Requirement for Preapproval. The powers granted the Trustee under Article III shall be exercised by the Trustee upon the written direction from the Investment Fiduciary pursuant to Article V and VI. Any written direction of the Investment Fiduciary may be of a continuing nature, but may be revoked in writing by the Investment Fiduciary at any time. The Trustee shall comply with any direction as promptly as possible, provided it does not contravene the terms of the Plan or the provision of any applicable law. The Investment Fiduciary, by written direction, may require the Trustee to obtain written approval of the Investment Fiduciary before exercising such of its powers as may be specified in such direction. Any such direction may be of a continuing nature or otherwise and may be revoked in writing by the Investment Fiduciary at any time. The Trustee shall not be responsible for any loss that may result from the failure or refusal of the Investment Fiduciary to give any such required direction or approval.

Section 4.02 Prohibited Transactions. The Trustee shall not engage in any prohibited transaction within the meaning of the Code and ERISA.

Section 4.03 Legal Actions. The Trustee is authorized to execute all necessary receipts and releases and shall be under the duty to make efforts to collect such sums as may appear to be due (except contributions hereunder); provided, however, that the Trustee shall not be required to institute suit or maintain any litigation to collect the proceeds of any asset unless it has been indemnified to its satisfaction for counsel fees, costs, disbursements and all other expenses and liabilities to which it may in its judgment be subjected by such action. Notwithstanding anything to the contrary herein contained, the Trustee is authorized to compromise and adjust claims arising out of any asset held in the Trust Fund upon such terms and conditions as the Trustee may deem just, and the action so taken by the Trustee shall be binding and conclusive upon all persons interested in the Trust Fund.

Section 4.04 Retention of Advisors. The Trustee, with the consent of the Investment Fiduciary, may retain the services of investment advisors to invest and reinvest the assets of the Trust Fund, as well as employ such legal, actuarial, medical, accounting, clerical and other assistance as may be required in carrying out the provisions of the Plan. The Trustee may also appoint custodians, subcustodians or subtrustees as to part or all of the Trust Fund.

ARTICLE V INSTRUCTIONS

Section 5.01 Reliance on Instructions. Whenever the Trustee is permitted or required to act upon the directions or instructions of the Investment Fiduciary, Plan Administrator or Employer, the Trustee shall be entitled to act in good faith upon any written communication signed by any person or agent designated to act as or on behalf of the Investment Fiduciary, Plan Administrator or Employer. Such person or agent shall be so designated either under the provisions of the Plan or in writing by the Employer and their authority shall continue until revoked in writing. The Trustee shall incur no liability for failure to act in good faith on such person's or agent's instructions or orders without written communication, and the Trustee shall be fully protected in all actions taken in good faith in reliance upon any instructions, directions, certifications and communications believed to be genuine and to have been signed or communicated by the proper person.

Section 5.02 Designation of Agent.

(1) Employer. The Employer shall notify the Trustee in writing as to the appointment, removal or resignation of any person designated to act as or on behalf of the Investment Fiduciary, Plan Administrator or Employer. After such notification, the Trustee shall be fully protected in acting in good faith upon the directions of, or dealing with, any person designated to act as or on behalf of the Investment Fiduciary, Plan Administrator or Employer until it receives notice to the contrary. The Trustee shall have no duty to inquire into the qualifications of any person designated to act as or on behalf of the Investment Fiduciary, Plan Administrator or Employer.

(2) Trustee. If there is more than one Trustee, the Trustees may designate one or more of the Trustees to act on behalf of the Trustees. Such designated Trustee shall be authorized to take any and all actions and execute and deliver such documents as may be necessary or appropriate.

Section 5.03 Procedures. The Trustee may adopt such rules and procedures as it deems necessary, desirable, or appropriate

including, but not limited to: (a) taking action with or without formal meetings; and (b) in the event that there is more than one Trustee, a procedure specifying whether action may be taken by a less than unanimous vote.

Section 5.04 Payment of Benefits. The Trustee shall pay benefits and expenses from the Trust Fund only upon the written direction of the Plan Administrator. The Trustee shall be fully entitled to rely in good faith on such directions furnished by the Plan Administrator, and shall be under no duty to ascertain whether the directions are in accordance with the provisions of the Plan.

ARTICLE VI INVESTMENT OF THE FUND

Section 6.01 Investment Funds. The Investment Fiduciary shall have the exclusive authority and discretion to select the investment funds available for investment under the Plan ("Investment Funds"). In making such selection, the Investment Fiduciary shall use the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. The available investments under the Plan shall be sufficiently diversified so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so. The Investment Fiduciary shall notify the Trustee in writing of the selection of the Investment Funds currently available for investment under the Plan, and any changes thereto.

Section 6.02 Participant Self-Direction. Participants shall not have the right to direct the investment of amounts allocated to their separate accounts under the Plan.

Section 6.03 Investment Managers.

(1) Appointment of Investment Managers. The Investment Fiduciary may appoint one or more investment managers as described in section 3(38) of ERISA ("Investment Managers") with respect to some or all of the assets of the Trust Fund as contemplated by section 402(c)(3) of ERISA. Any such Investment Manager shall acknowledge to the Investment Fiduciary in writing that it accepts such appointment and that it is an ERISA fiduciary with respect to the Plan and the Trust Fund. The Investment Fiduciary shall provide the Trustee with a copy of the written agreement (and any amendments thereto) between the Investment Fiduciary and the Investment Manager. By notifying the Trustee of the appointment of an Investment Manager, the Investment Fiduciary shall be deemed to certify that such Investment Manager meets the requirements of section 3(38) of ERISA. The authority of the Investment Manager shall continue until the Investment Fiduciary rescinds the appointment or the Investment Manager has resigned.

(2) Separation of Duties. The assets with respect to which a particular Investment Manager has been appointed shall be specified by the Investment Fiduciary and shall be segregated in a separate account for the Investment Manager (the "Separate Account") and the Investment Manager shall have the power to direct the Trustee in every aspect of the investment of the assets of the Separate Account. The Trustee shall not be liable for the acts or omissions of an Investment Manager and shall have no liability or responsibility for acting pursuant to the direction of, or failing to act in the absence of, any direction from an Investment Manager, unless the Trustee knows that by such action or failure to act it would be itself committing a breach of fiduciary duty or participating in a breach of fiduciary duty by such Investment Manager, it being the intention of the parties that each party shall have the full protection of section 405(d) of ERISA.

Section 6.04 Proxies.

(1) Delivery of Information. The Trustee shall deliver, or cause to be delivered, to the Employer or Plan Administrator all notices, prospectuses, financial statements, proxies and proxy soliciting materials received by the Trustee relating to securities held by the Trust or, if applicable, deliver these materials to the appropriate Participant or the Beneficiary of a deceased Participant.

(2) Voting. The Trustee shall not vote any securities held by the Trust except in accordance with the written instructions of the Employer, the Investment Fiduciary, or if otherwise permitted in the Plan, the Participant or the Beneficiary of the Participant, if the Participant is deceased. However, the Trustee may, in the absence of instructions, vote "present" for the sole purpose of allowing such shares to be counted for establishment of a quorum at a shareholders' meeting. The Trustee shall have no duty to solicit instructions from Participants, Beneficiaries, the Investment Fiduciary or the Employer.

(3) Investment Manager. To the extent not delegated to Participants pursuant to subsection (2), the Investment Manager shall be responsible for making any proxy voting or tender offer decisions with respect to securities held in the Separate Account and the Investment Manager shall maintain a record of the reasons for the manner in which it voted proxies or responded to tender offers.

ARTICLE VII COMPENSATION AND INDEMNIFICATION

Section 7.01 Compensation. The Trustee shall be entitled to reasonable compensation for its services as is mutually agreed upon with the Employer; provided that such compensation does not result in a prohibited transaction within the meaning of the Code and ERISA. If the Trustee and the Employer mutually agree that the Trustee may retain as additional compensation for its services any earnings resulting from the anticipated short-term investment of funds ("float") on Plan assets deposited in or transferred to a Trustee general or omnibus account, then the Trustee shall be authorized to retain such float; provided, that such agreement: (i) discloses the specific circumstances under which float will be earned and retained, (ii) in the case of float on distributions, discloses when the float period commences and ends, and (iii) discloses the rate of the float or the specific manner in which such rate will be determined. If approved by the Plan Administrator, the Trustee shall also be entitled to reimbursement for all direct expenses properly and actually incurred on behalf of the Plan. Such compensation or reimbursement shall be paid to the

Trustee out of the Trust Fund unless paid directly by the Employer.

Section 7.02 Indemnification. The Employer shall indemnify and hold harmless the Trustee (and its delegates) from all claims, liabilities, losses, damages and expenses, including reasonable attorneys' fees and expenses, incurred by the Trustee in connection with its duties hereunder to the extent not covered by insurance, except when the same is due to the Trustee's own gross negligence, willful misconduct, lack of good faith, or breach of its fiduciary duties under the Plan or ERISA.

ARTICLE VIII RESIGNATION AND REMOVAL

Section 8.01 Resignation. The Trustee may resign at any time by written notice to the Plan Administrator which shall be effective 60 days after delivery unless prior thereto a successor Trustee assumes the responsibilities of Trustee hereunder.

Section 8.02 Removal. The Trustee may be removed by the Employer at any time.

Section 8.03 Successor Trustee. The appointment of a successor Trustee hereunder shall be accomplished by and shall take effect upon the delivery to the resigning or removed Trustee, as the case may be, of written notice of the Employer appointing such successor Trustee, and an acceptance in writing of the office of successor Trustee hereunder executed by the successor so appointed. Any successor Trustee may be either a corporation authorized and empowered to exercise trust powers or one or more individuals. All of the provisions set forth herein with respect to the Trustee shall relate to each successor Trustee so appointed with the same force and effect as if such successor Trustee had been originally named herein as the Trustee hereunder. If within 45 days after notice of resignation shall have been given under the provisions of this Article a successor Trustee shall not have been appointed, the resigning Trustee or the Employer may apply to any court of competent jurisdiction for the appointment of a successor Trustee.

Section 8.04 Transfer of Trust Fund. Upon the appointment of a successor Trustee, the resigning or removed Trustee shall transfer and deliver the Trust Fund to such successor Trustee, after reserving such reasonable amount as it shall deem necessary to provide for its expenses in the settlement of its account, the amount of any compensation due to it and any sums chargeable against the Trust Fund for which it may be liable. If the sums so reserved are not sufficient for such purposes, the resigning or removed Trustee shall be entitled to reimbursement for any deficiency from the Employer.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties have caused this Trust to be executed this _____ day of _____, 2021.

MAGNUM ANALYTICS, INC.:

Signature: _____

Print Name: _____

Title/Position: _____

TRUSTEE:

Gerald Clancy



APA Financial Group, LLC.
8899 South 700 East Suite 225
Sandy, UT 84070

MANAGERS REPORT

MEMO



TO: MWD Board of Directors

FROM: Clint Dilley, P.E., General Manager

DATE: 01/05/22 (January 13th Board Meeting)

RE: Report and Discussion from General Manager

PURPOSE OF MEMO

The purpose of this memo is to provide the Magna Water District (MWD) Board of Directors a general report from the General Manager and associated discussion with input from rest of management team to keep the board abreast of general matters in the District. The format of the memo will primarily be a list of bullet points to assist guiding the discussion in the board meeting.

REPORT FROM GENERAL MANAGER

After discussions with the board and management team we have focused our efforts on three main areas including 1) Staffing 2) Operations and 3) Communication as outlined in the following sections.

STAFFING

- Succession Planning
 - Draft succession planning employee survey completed for board input
 - Follow up with discussions on upcoming openings and employee interest
 - Set up training/hiring plan to fill future vacancy from planned retirements
- Service Maintenance position open on Sewer side
 - Outside job posting on 9/29/21 open until filled
 - Working with the top candidate on a potential starting date
 - In house employee has expressed interest in position from water side. Would likely require reposting in-house

OPERATIONS

- Emergency Response Plan
 - Completed and self-certified to US EPA in December 2021
 - Set up a meeting with employees to review in Spring 2022
 - Set up a training exercise for a mock event in Summer 2022
- Review of Standby and Callout Expense for year end 2020 and 2021
 - Spent 20% less in 2021 on callouts compared to 2020
 - Improved oversight and tracking from operations managers
 - Increased productivity during normal business hours (especially leak repairs)
 - Improved efficiency and remote operational tools and controls at WWTP

- Standby expense was 5% more in 2021 than 2020
 - Approx. half due to annual wage increase
 - Other half a combo of lead man wage increases and full changeover to 4-10 operations at WWTP
- Water Operations
 - Review sampling program and protocols
 - District has historically completed sampling at exterior hose bibs
 - Had a sample site issue cause two bad samples (outside hose bib)
 - Triggers a Level 1 Assessment even though additional sampling and testing showed clean samples inside home, at the meter and in the system and sources
 - Review other sampling methods used at other water districts
 - Consider sampling stations in new development
 - Setting up UDOT flagger training for new employees who have not yet received certification
 - Single day group training
 - Setting up safety training on heavy equipment operation for new employees
 - 2-day hands on training with 2 employees at time
- WWTP Operations
 - Received warning letter from DWQ for the ammonia issues that started occurring about this same time last winter while commissioning new process equipment at the WWTP
 - In a much better place than we were a year ago with improved operational & process controls, process modeling, in house sampling program, & instrumentation changes
 - Collections college weekly class for collections operators
 - Free training towards operator certification exams hosted by Cottonwood ID
 - Wastewater treatment weekly in house training for WWTP operators
 - Using in house approach to prepare for Spring wastewater operator certification exams using the online training materials library provided through Indigo Water
 - Look at using the WEAU Operator Challenge in future as a goal to work towards for new operators who still need 2-3 years of training and experience
- Office
 - Working w/ original artist to schedule repair & cleaning of lobby water fountain feature
 - Surplus sale planned to be held by the end of Jan. for misc. furniture in office basement
 - Scheduled card swipe reader install to secure board room door
 - Looking at options for water dispenser in board room to use instead of bottled water
- Delinquent accounts
 - January 2022
 - Accounts that are delinquent: 793
 - Total of all delinquent accounts: \$103,778.60
 - Average delinquent account balance: \$130.86
 - Pink notices sent out on 1/5/2022 for January 18th shut offs = 286
 - No actual shutoffs planned due to cold temps to avoid freezing service lines
 - December 2021 (Not available)
 - Accounts that are delinquent: XXX

- Total of all delinquent accounts: \$XX
- Average delinquent account balance: \$XX
- Pink notices sent out on 12/9/2021 for December shut offs = 227
- On 11/16/2021 there were 53 shut offs after preliminary notices were sent out
- Payment was received on all but 3 accounts that were verified disconnected on 11/29/2021
- November 2021
 - Accounts that are delinquent: 711
 - Total of all delinquent accounts: \$105,664.33
 - Average delinquent account balance: \$148.61
 - Pink notices sent out on 11/3/2021 for November shut offs = 274
 - On 10/19/2021 there were 54 shut offs after preliminary notices were sent out
 - Payment was received on all but 2 accounts verified disconnected on 11/3/2021

COMMUNICATION & MORALE

- Continue working toward improving communication w/ board members & community partners
 - Board members sworn in for new term on 1/3/22
 - Setup display certificates
 - Put together an information release with pictures for website
 - GM attended December Magna Chamber of Commerce monthly lunch meeting
- Work to improve communication & morale with employees
 - Working on putting together new employee performance goal format for board consideration
 - Distribute ID Fraud benefit information for employees
- Work to improve communication with customers
 - Mailer sent out on 2021 Year in Review and 2022 Look Ahead with January bills. Plan on a general water or sewer info in Feb. 1st mailer
 - Thorough and prompt response to customer concerns and complaints
 - Customer who was diagnosed with Giardia was concerned about water. Worked with her and division of drinking water and salt lake health department and completed extensive testing including HPC testing and all sampling of water was clean and not the cause of the Giardia
 - Customer was in shower when water main was shutdown in 3100 South for an emergency repair. Crew had to shutdown water immediately or leak could have ruptured and caused more damage to road and possibility of flooding homes. Leak was repaired quickly. Customer was also upset that an employee in front office used the terms “honey” and “sweetheart” with her when she was upset
 - Customer called in about a strong chlorine odor and taste in drinking water. We tested his water and it was in middle of target chlorine residual range at 0.5 mg/L.
 - Customer was frustrated that a shutoff notice was used to communicate the need to coordinate a leak check on a covered meter box.

SUCCESSION PLANNING

EMPLOYEE SURVEY



TO: All Employees
FROM: Clint Dilley, P.E., General Manager
DATE: 1/5/22
RE: (DRAFT) Succession Planning Employee Survey

PURPOSE OF SURVEYS

The purpose of the attached employee survey is for succession planning. Providing 24/7 delivery of safe, cost-effective water and wastewater services can only happen with a team of highly skilled and knowledgeable employees. These skills and knowledge take years to develop through a combination of training, studying, testing, certifications, and on the job experience.

Fortunately, Magna Water District has been successful in retaining employees over the years with many having completed 30 or 40+ years of service prior to retirement. In addition to the sense of pride and job satisfaction that comes from working in an essential service industry, we believe the District's success in retaining employees has been due to a combination of factors including exceptional employees, outstanding board member leadership and vision, continuous training and education, tuition reimbursement, priority for in-house promotion, strong labor union representation and participation, practical and sound executive management, and a robust wages and benefit package.

While it is difficult to lose the experience, knowledge, and daily interactions with one of our employees when he or she leaves employment with the District, significant negative impacts to District operations can arise if an employee leaves his or her position with little notice, making it difficult to properly plan in advance for a transition of the job responsibilities to another employee. It is therefore critical that we do succession planning, which will allow the District to provide as smooth of a transition as possible when these changes occur while, at the same time, providing a path and opportunity for our newest team members to grow and develop into these key roles.

Although we feel there are a lot of good things happening here at the District, there is always room for improvement. Routine feedback and evaluation of standard practices help ensure continued long-term success and improvement. In order to do that, we need to get feedback from our team. Please take a moment to fill out the attached two part survey – please add your name and date to Part 1 of the survey. Part 2 of the survey is anonymous so that you feel comfortable providing honest feedback without fear of repercussions. Please return Part 1 of the survey to your supervisor by 1/25/22. Please fold and drop Part 2 of the survey into any one of the black suggestion/comment boxes located at any of the District's offices by 1/31/22.

SUCCESSION PLANNING EMPLOYEE SURVEY

PART 1 – EMPLOYEE FEEDBACK



EMPLOYEE INFORMATION

DATE: _____

Name: _____

Job Title: _____

Years of Service: _____

Supervisor: _____

PRIMARY JOB RESPONSIBILITIES OR DUTIES

Please list a few primary job responsibilities or duties that you perform in your current role:

-
-
-
-

How long have you been performing these duties in your current role: _____

KEY EXPERIENCE, KNOWLEDGE AND TRAINING NECESSARY

Please list the key experience, knowledge and training necessary to successfully do your job:

-
-
-
-

How long of a transition period do you think would be needed for training a fellow employee to take your job if you decided to end your employment with the District: _____

CAREER PLANNING WITH MAGNA WATER DISTRICT

Please check a box below for the timeframe which best represents your current plan for continued employment with the District:

<input type="checkbox"/> 0 to 3 months	<input type="checkbox"/> 1 to 2 years	<input type="checkbox"/> 5 to 10 years
<input type="checkbox"/> 3 to 6 months	<input type="checkbox"/> 2 to 3 years	<input type="checkbox"/> 10 to 20 years
<input type="checkbox"/> 6 to 12 months	<input type="checkbox"/> 3 to 5 years	<input type="checkbox"/> 20+ years

Please check a box below for any of the following District job positions that would align with your future career goals:

<input type="checkbox"/> Mechanic	<input type="checkbox"/> Lead WWTP	<input type="checkbox"/> Engineer
<input type="checkbox"/> Lead Construction	<input type="checkbox"/> Lead Inspector	<input type="checkbox"/> Water Op. Manager
<input type="checkbox"/> Lead EDR/Cust. Ser	<input type="checkbox"/> Accountant	<input type="checkbox"/> WW Op. Manager
<input type="checkbox"/> Lead Collections	<input type="checkbox"/> Controller	<input type="checkbox"/> General Manager

SUCCESSION PLANNING EMPLOYEE SURVEY

PART 2 - ANONYMOUS FEEDBACK



Please check a box below that best describes your understanding of opportunities and path for future career advancement here at the District:

- Strong understanding/very clear of path
- Average understanding/clear of path
- Little understanding/not clear of path

Please check all boxes below that best represent what you like about working for the District that influences your career planning or long-term goals:

<input type="checkbox"/> Job responsibilities	<input type="checkbox"/> Schedule/hours	<input type="checkbox"/> Opp. to advance
<input type="checkbox"/> Water/WW industry	<input type="checkbox"/> Wages	<input type="checkbox"/> In house promotion
<input type="checkbox"/> Local government	<input type="checkbox"/> Health Benefits	<input type="checkbox"/> Office location
<input type="checkbox"/> Customer service	<input type="checkbox"/> Pension	<input type="checkbox"/> Working conditions
<input type="checkbox"/> Continuous education	<input type="checkbox"/> Standby/On Call	<input type="checkbox"/> Team
<input type="checkbox"/> Training/certifications	<input type="checkbox"/> Overtime/Call Out	<input type="checkbox"/> Supervisor
<input type="checkbox"/> Tuition Reimb.	<input type="checkbox"/> Labor Union	<input type="checkbox"/> Management
<input type="checkbox"/> Other _____		

Please check all boxes below that best represent what you don't like or would change about working for the District that influences your career planning or long-term goals:

<input type="checkbox"/> Job responsibilities	<input type="checkbox"/> Schedule/hours	<input type="checkbox"/> Opp. to advance
<input type="checkbox"/> Water/WW industry	<input type="checkbox"/> Wages	<input type="checkbox"/> In house promotion
<input type="checkbox"/> Local government	<input type="checkbox"/> Health Benefits	<input type="checkbox"/> Office location
<input type="checkbox"/> Customer service	<input type="checkbox"/> Pension	<input type="checkbox"/> Working conditions
<input type="checkbox"/> Continuous education	<input type="checkbox"/> Standby/On Call	<input type="checkbox"/> Team
<input type="checkbox"/> Training/certifications	<input type="checkbox"/> Overtime/Call Out	<input type="checkbox"/> Supervisor
<input type="checkbox"/> Tuition Reimb.	<input type="checkbox"/> Labor Union	<input type="checkbox"/> Management
<input type="checkbox"/> Other _____		

Please check a box below that best describes your overall level of job/career satisfaction working for the District?

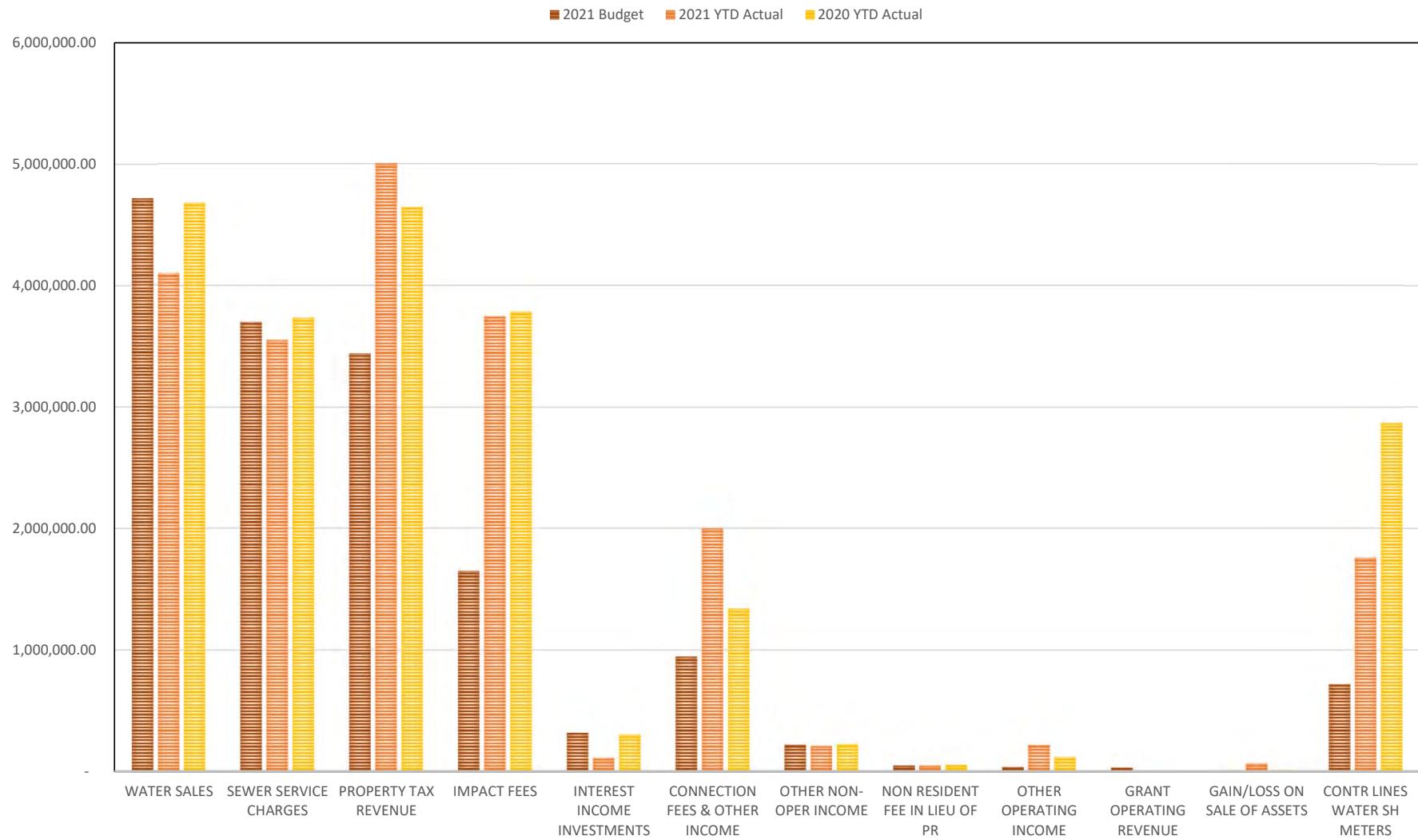
- Very satisfied
- Satisfied
- Unsatisfied

DISTRICT FINANCIALS

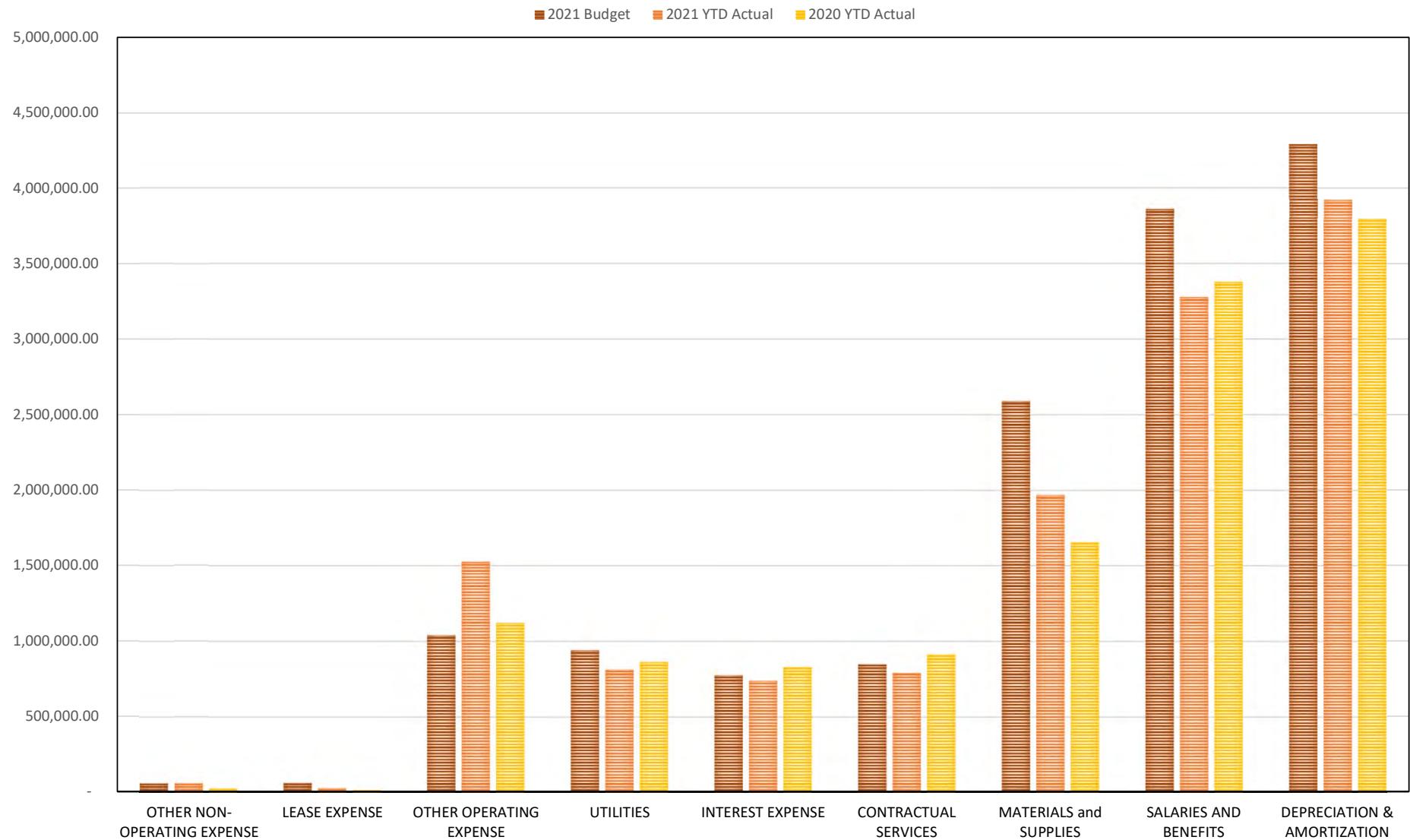
**MAGNA WATER DISTRICT
OVERAL BOTTOM LINE**

Total Revenue	\$ 20,801,102.10	\$ 21,756,100.14
Total Expenses	\$ 13,114,512.92	\$ 12,587,756.45
Overall Income/(Loss)	<u>\$ 7,686,589.18</u>	<u>\$ 9,168,343.69</u>
		<u>\$ (1,481,754.51)</u>

DECEMBER 2021 YTD REVENUE BUDGET VS ACTUAL



DECEMBER 2021 YTD EXPENSES BUDGET VS ACTUAL



MAGNA WATER DISTRICT
 BALANCE SHEET
 DECEMBER 31, 2021

ASSETS

01-00-1010-00	014198014 CHECKING	(944,951.68)
01-00-1011-00	5038 SEWER IMPACT FEES-RESTR	3,353,384.36
01-00-1012-00	TILL MONEY	900.00
01-00-1013-00	REFUND CHECKING ACCOUNT	(16,056.50)
01-00-1015-00	EXPRESS EFT PAYMENTS	236,466.96
01-00-1027-00	610497 PROJECT CASH BONDS	261,093.09
01-00-1028-00	610505 PROJECT CASH BONDS	261,103.07
01-00-1030-00	PETTY CASH	400.00
01-00-1035-00	5767 - PROPERTY TAXES	8,121,697.45
01-00-1050-00	980984157 GO BOND PROCEEDS	1,187,856.17
01-00-1111-00	5039 - SECONDARY IMP FEE-RESTR	359,404.38
01-00-1112-00	5674 OPEB RESERVE	2,522,682.30
01-00-1118-00	4816 WW RESERVE ACCOUNT	218,300.58
01-00-1118-01	4816 SECONDARY SUBSIDY FUND	866,717.08
01-00-1124-01	3166 IMPACT FEES WATER-RESTR	5,125,288.26
01-00-1127-00	5436867A 2007 REV BOND FUND-RESTR	296,266.27
01-00-1129-01	4319 REPLACE & RESERV-REST	4,567,574.73
01-00-1130-00	3900 SECONDARY WATER LINES	1,035,275.98
01-00-1145-00	5186 ATK FIXED SERV COSTS PMT	5,434,873.83
01-00-1257-00	5436867 2007 BOND FUND-RESTR	315,121.28
01-00-1262-00	5436869 2013 GO BOND FUND REST	415,332.93
01-00-1275-00	5436871 2017 GO BOND FUND	197,231.12
01-00-1290-00	5436872 SERIES 2019 BOND FUND	122,824.94
01-00-1300-00	CASH CLEARING - UTILITIES	(618,935.53)
01-00-1310-00	ACCTS REC. -WATER & SEWER	765,324.67
01-00-1315-00	CONTRACT AR	319.78
01-00-1320-00	ALLO UNCOLL. ACCT. (CRE.)	(8,311.00)
01-00-1340-00	ALLOW UNCOLLECTIBLE TAXES	(900.00)
01-00-1370-00	MISCELLANEOUS RECEIVABLES	814,558.60
01-00-1520-00	PREPAID EXPENSE	20,828.29
01-00-1530-00	OTHER - INVENTORY	217,106.75
01-00-1530-01	OTHER-METER INVENTORY	392,392.61
01-00-1580-00	SUSPENSE	5,577.48
01-00-1610-00	ORGANIZATION	8,749.98
01-00-1620-00	LAND AND LAND RIGHTS	967,211.40
01-00-1640-00	FURNITURE & FIXTURES	106,668.11
01-00-1650-00	TRANSPORTATION EQUIPMENT	1,661,949.46
01-00-1660-00	OTHER GENERAL EQUIPMENT	1,207,665.29
01-00-1670-00	BUILDINGS	4,060,499.85
01-00-1690-00	LESS ACC. DEP. GEN. PLANT	(2,254,624.40)
01-00-1702-00	WATER RIGHTS	350,592.00
01-00-1705-00	LAND AND LAND RIGHTS	2,101,239.61
01-00-1710-00	STRUCTURES & IMPROVEMENTS	28,359,314.29
01-00-1710-85	ZONE 3 CUL BST PMP & SNDBY GEN	4,260.00
01-00-1710-86	TRUCK GARAGE & SAND BINS AT SH	17,950.00
01-00-1715-00	COLL. & IMPD. RESERVOIRS	6,426,349.61
01-00-1715-93	2021 TANK PAINTING RESERVOIRS	385,297.73
01-00-1715-94	GATEWAY TO LITTLE VALLEY	2,909,377.50
01-00-1720-00	WELLS AND SPRINGS	1,908,427.73
01-00-1740-00	TRANS. & DISTRIB. MAINS	23,116,054.33
01-00-1740-80	MORGAN ASPHALT WL UPGRADE	5,670.00
01-00-1740-81	2021 WATERLINE REPLACEMENT PRO	3,147,978.60
01-00-1745-00	SERVICE WATER CONNECTIONS	105,958.71
01-00-1750-00	WATER METERS	2,345,836.74
01-00-1765-00	LESS ACC. DEP WATER UT PL	(29,567,463.64)
01-00-1810-00	LAND & LAND RIGHTS-SEWER	412,740.72

MAGNA WATER DISTRICT
 BALANCE SHEET
 DECEMBER 31, 2021

01-00-1820-00	WASTEWATER TREATMNT PLANT	37,090,326.37
01-00-1820-83	WWTP INFLUENT PROJECT	53,892.00
01-00-1840-00	CAP. INT.-NEW SEWAGE PLNT	270,373.89
01-00-1850-00	TRANS. & DISTR. LINES	13,754,218.30
01-00-1850-92	30" WESTSIDE COLLECT PROJ 1A	969,052.25
01-00-1850-93	2019-2020 SEWER COLL REPAIRS	711,532.92
01-00-1850-94	MERIDIAN REST SEWER MAIN UPGRA	80,126.84
01-00-1880-00	OTHER GENERAL EQUIPMENT	339,924.73
01-00-1890-00	LESS ACC. DEP. -SEWER PLT	(23,936,578.93)
01-00-1920-00	SECONDARY WATER SHARES	17,575.84
01-00-1925-00	CANAL SHARES	534,986.72
01-00-1930-00	SECONDARY TRANS & MAINS	8,708,943.66
01-00-1930-87	UPSIZE SECONDARY UDOT	11,646.43
01-00-1930-88	4100 S SECONDARY WATERLINE	652,381.51
01-00-1930-89	2019 SECONDARY WATER LINE PROJ	1,750,651.49
01-00-1930-91	SECONDARY WATER REUSE PIPELINE	159,643.38
01-00-1930-92	SECONDARY LINE COTTONWOOD LAND	41,880.23
01-00-1930-99	CW FARMS UPSIZE SEC 6" TO 16"	78,966.90
01-00-1935-00	SECONDARY WATER RESERVOIR	1,478,057.35
01-00-1940-00	SECONDARY METERS SET	98,958.29
01-00-1945-99	ZONE 3 SCONDY BOOSTR PUMP STA	63,804.32
01-00-1990-00	SECONDARY WATER ACCUM DEPRECIA	(2,631,839.71)
01-00-1995-00	DEFERRED PENSION OUTFLOWS	484,916.00
01-00-1996-00	DEFERRED OPEB OUTFLOWS	882,335.00
TOTAL ASSETS		<u>124,980,227.65</u>

MAGNA WATER DISTRICT
BALANCE SHEET
DECEMBER 31, 2021

LIABILITIES AND EQUITY

LIABILITIES

01-00-2020-00	RETAINIAGE PAYABLE	227,591.52
01-00-2110-00	ACCOUNTS PAYABLE	69,270.06
01-00-2120-00	ACCRUED WAGES	(.02)
01-00-2125-00	OPEB OBLIGATION	2,452,767.43
01-00-2140-00	ACCRUED SICK LEAVE	87,886.81
01-00-2210-00	ACCRUED INTEREST 2019 GO BOND	132,687.29
01-00-2245-00	ACCR INT PAYABLE 2017 GO BOND	215,611.86
01-00-2260-00	2003 WATER RESOURCE INT PAYABL	1,296.85
01-00-2264-00	ACCRUED INTEREST 2013 GO BOND	67,085.27
01-00-2268-00	ACCRUED INT 2007REV BOND	66,770.00
01-00-2310-00	FEDERAL INC. TAX WITHHELD	.03
01-00-2320-00	STATE INC. TAXES WITHHELD	(5,614.26)
01-00-2330-00	FICA WITHHELD	222.24
01-00-2335-00	DENTAL SELECT INSURANCE	45.73
01-00-2340-00	401(K) WTH & PAID	.03
01-00-2350-00	UNION DUES	(129.00)
01-00-2354-00	OPEB DEFERRED INFLOWS	8,439.00
01-00-2355-00	NET PENSION LIABILITY	487,876.00
01-00-2360-00	EMPLOYER'S SUTA/WORK COMP	65,934.20
01-00-2365-00	AFLAC WTH & PMTS	518.15
01-00-2370-00	ALLSTATE INSURANCE LIFE DIS	1,035.64
01-00-2383-00	LINCOLN NATIONAL LIFE INS CO	192.60
01-00-2390-00	WASHINGTON NAT INSURANCE	(49.07)
01-00-2391-00	UITSF UNION HEALTH INSURANCE	37,188.00
01-00-2392-00	WCT UNION PENSION	20,271.11
01-00-2395-00	REGENCE BCBS INSURANCE	(2,358.67)
01-00-2399-00	MISC PAYABLE	587,011.91
01-00-2410-00	HYDRANT DEPOSITS	43,661.00
01-00-2420-00	BANKRUPTCY DEPOSITS	469.36
01-00-2450-02	WAT LAO SALT LAKE	929.04
01-00-2450-11	MAGNA STORAGE UNITS	(997.04)
01-00-2450-21	GRANITE SCHOOL DIST CYPRUS FIE	3,681.40
01-00-2450-23	MAGNA HAMPTONS	8,979.00
01-00-2450-26	OQUIRRH MEADOWS PHASE IV	6,909.95
01-00-2450-30	PLANET TOOTH	(880.97)
01-00-2450-31	SENIOR CITIZENS CENTER	126.81
01-00-2450-34	TOLBERT SUBDIVISION	642.50
01-00-2450-35	DIAMOND TREE EXPERTS	678.00
01-00-2450-36	MAGNA LIBRARY	(2,626.03)
01-00-2450-40	MILL POINT PROJECT	(.01)
01-00-2450-46	BONANZA MEADOWS SUB	717.00
01-00-2450-47	DAISY MEADOWS SUB	1,116.84
01-00-2450-51	WHITE FARMS/IVORY HOMES	21,051.69
01-00-2450-63	SAGE GATE HARKER'S LANDING	7,472.24
01-00-2450-71	ARTIC CIRCLE REBUILD	1,680.00
01-00-2450-79	GODFREY TRUCK MTNCE FACILITY	(2,757.03)
01-00-2450-80	BURGER KING	2,660.40
01-00-2450-84	WINDSOR ESTATES	6,279.78
01-00-2450-85	GREAT WESTERN LEASING	2,390.34
01-00-2450-98	FAMILY DOLLAR STORE	1,427.09
01-00-2451-02	MOUNTAINWEST TRUCK CENTER	1,514.45
01-00-2451-03	EMR SHOP	370.10
01-00-2451-08	FREEPORT WEST ARA BUILDING B	(7,797.71)

MAGNA WATER DISTRICT
 BALANCE SHEET
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01-00-2451-10	ATK WATERLINE 2100 S FOR RESID	559.50
01-00-2451-12	PENDLETON GROVE SUBDIVISION	7,244.47
01-00-2451-14	DOMINION ENERGY LNG FACILITY	439,220.64
01-00-2451-16	COPART OF AZ INC	1,377.70
01-00-2451-17	FIG COLONY FARMS LLC	57,347.88
01-00-2451-19	PENDLETON PUD SUBDIVISION	(97.70)
01-00-2451-21	GABLERS GROVE IVORY HOMES	13,161.74
01-00-2451-22	SILVER SPUR OFFICE & SHOP	516.75
01-00-2451-23	MAGNA REGIONAL PARK PROJECT	2,046.45
01-00-2451-24	GATEWAY TO LITTLE VALLEY PROJE	(18,485.12)
01-00-2451-25	WVC PARKS PROJECT	4,575.17
01-00-2451-26	MAGNA APT & DINER REMODEL	(189.00)
01-00-2451-27	201 MOUNTAIN VIEW PROJECT	22,483.05
01-00-2451-28	SWIFT TOWING IMPOUND LOT	900.00
01-00-2451-29	HOLIDAY OIL 7200 W	1,992.50
01-00-2451-30	8400 W TRAFFIC CALMING SLCO	795.30
01-00-2451-32	CALDER FIELD SUBDIVISION	(8,684.00)
01-00-2451-33	MAGNA DETENTION PONDS/SLCO	450.00
01-00-2451-34	WASATCH FLEET SERVICE	1,932.38
01-00-2451-36	ARA INDUSTRIAL PARK BLDG D	9,856.12
01-00-2451-37	201 LOGISTICS CENTER PH I	25,292.27
01-00-2451-38	OQUIRRH MEADOWS PHASE V	16,224.63
01-00-2451-39	RWK 201	2,715.35
01-00-2451-40	RICHARDS RANCH	30,399.13
01-00-2451-41	7 ELEVEN 8400 W	7,675.88
01-00-2451-42	ARDERO 8000	223.50
01-00-2451-43	JCC WAREHOUSE	6,464.35
01-00-2451-44	QUICK QUACK WEST VALLEY	186.27
01-00-2451-45	TEANCUM PROPERTIES 2	2,032.57
01-00-2451-47	ARA INDUS CENTER PH3 ROADWAY	16,158.34
01-00-2451-49	SANSONE GROUPWAREHOUSE/FLEX BL	22,711.88
01-00-2451-50	CW FARMS PH 5 & 6	48,678.00
01-00-2451-51	MAVERIK 8000 WEST	4,904.73
01-00-2451-52	ARBOR PARK APARTMENTS PROJECT	255.00
01-00-2451-53	7200 W TOWNHOUSES	900.00
01-00-2451-54	GABLERS GROVE PHASE II	10,705.00
01-00-2451-55	JACOBSON LAYDOWN YARD	963.06
01-00-2451-56	WALLACE STEGNER ACADEMY	13,757.88
01-00-2451-57	ASCEND AT LITTLE VALLEY - APTS	795.12
01-00-2451-58	BRENNAN CREEK	21,245.12
01-00-2451-59	GAZELLE PROJECT BY DOMINION EN	12,889.52
01-00-2451-62	GABLERS GROVE PHASE III IVORY	46,528.64
01-00-2451-63	ARBOR PARK TOWNHOMES	36,052.52
01-00-2451-66	MAGNA STORAGE UNITS 215 DEVEL	7,041.00
01-00-2451-68	DG MAGNA WAREHOUSE	7,643.76
01-00-2451-70	GODFREY WEST WAREHOUSE BGLY RD	9,782.00
01-00-2512-00	VEHICLE LEASE PAYABLE	466,196.78
01-00-2530-00	2007 REV BOND WATER RESOURCE	4,633,000.00
01-00-2545-00	2013 GO REFUNDING BOND	4,050,000.00
01-00-2558-00	2017 GO BOND PAYABLE	11,935,000.00
01-00-2559-00	2019 GO BOND PAYABLE	7,490,000.00
01-00-2562-00	2003 WATER RESOURCE LOAN - SEC	349,937.89
01-00-2562-01	2003 WR LOAN Curr Portion	(.04)
01-00-2570-00	2017 BOND PREMIUM	684,650.64
01-00-2575-00	2019 BOND PREMIUM	624,673.50
01-00-2580-00	2013 BOND PREMIUM	137,389.14
01-00-2590-00	SECONDARY WATER DEDICATION CRE	754,119.00

MAGNA WATER DISTRICT
BALANCE SHEET
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TOTAL LIABILITIES 36,633,445.17

FUND EQUITY

UNAPPROPRIATED FUND BALANCE:

01-00-3010-00	UNRESTRICTED NET ASSETS	26,171,891.12
01-00-3020-00	RESTRICTED FOR DEBT SERVICE	636,530.00
01-00-3030-00	RESTRICTED FOR CAPITAL PROJECT	5,209,950.66
01-00-3100-00	INV IN FIXED ASSET NET DEBT	48,641,094.00
	REVENUE OVER EXPENDITURES - YTD	7,687,316.70

BALANCE - CURRENT DATE 88,346,782.48

TOTAL FUND EQUITY 88,346,782.48

TOTAL LIABILITIES AND EQUITY 124,980,227.65

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
<u>WATER</u>						
01-01-4000-00	WATER SALES	4,302,295.14	3,848,441.77	4,300,000.00	451,558.23	89.5
01-01-4001-00	FLUORIDE SALES	126,489.09	42,555.31	130,000.00	87,444.69	32.7
01-01-4005-00	WATER METER SET	154,047.00	149,642.00	170,000.00	20,358.00	88.0
01-01-4007-00	WATER INSPECTION	238,986.42	55,094.77	230,000.00	174,905.23	24.0
01-01-4008-00	WATER BUY-IN	159,555.00	376,075.00	75,000.00	(301,075.00)	501.4
01-01-4010-00	WATER IMPACT FEE	1,853,928.00	2,366,505.00	800,000.00	(1,566,505.00)	295.8
01-01-4013-00	INCOME CONTRIBUTED CAPITAL	.00	1,734,554.00	300,000.00	(1,434,554.00)	578.2
01-01-4014-00	WATER LETTER	180.00	6,182.00	500.00	(5,682.00)	1236.4
01-01-4015-00	METER TAMPERING FEE	55.00	300.00	500.00	200.00	60.0
01-01-4016-00	FEES (DELINQUENT ACCTS)	2,499.97	3,772.34	4,500.00	727.66	83.8
01-01-4040-00	OTHER OPER. INCOME-WATER	114,684.00	215,109.22	40,000.00	(175,109.22)	537.8
01-01-4044-00	PROPERTY TAX REVENUE 42.50%	1,981,741.15	2,125,402.11	1,462,253.00	(663,149.11)	145.4
01-01-4060-00	GAIN ON SALE OF ASSETS	.00	24,948.63	2,000.00	(22,948.63)	1247.4
01-01-4065-00	INDUSTRY COST SHARE INCOME	187,754.00	.00	180,000.00	180,000.00	.0
01-01-4080-00	OTHER NON-OPERATING INCOM	671.80	1,748.10	100.00	(1,648.10)	1748.1
01-01-4080-01	GRANT MONIES JVWCD CONSERVATIO	.00	.00	35,000.00	35,000.00	.0
TOTAL WATER REVENUE		9,122,886.57	10,950,330.25	7,729,853.00	(3,220,477.25)	141.7

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
01-01-4115-00	SALARIES - WATER	523,930.20	685,863.26	657,000.00	(28,863.26)	104.4
01-01-4130-00	PAYROLL TAXES	46,129.01	87,835.47	115,000.00	27,164.53	76.4
01-01-4135-00	EMPLOYEE FRINGE BENEFITS	228,493.75	315,202.37	373,000.00	57,797.63	84.5
01-01-4150-00	ENGINEERING	14,273.25	3,975.00	95,000.00	91,025.00	4.2
01-01-4150-01	WELL EVAL & GRWATER MONITORING	11,588.70	1,026.83	.00	(1,026.83)	.0
01-01-4150-03	TANK RELOCATION STUDY	10,010.00	.00	.00	.00	.0
01-01-4150-05	SCADA SYSTEM (DIST)	38,582.50	.00	30,000.00	30,000.00	.0
01-01-4150-06	SOURCE WATER PROTECTION	7,024.61	.00	.00	.00	.0
01-01-4150-07	EMERGENCY RESPONSE PLAN	1,660.35	2,405.63	25,000.00	22,594.37	9.6
01-01-4150-08	2021 TANK PAINTING & REPAIRS	.00	187,225.50	.00	(187,225.50)	.0
01-01-4156-00	MAINTENANCE CONTRACTS	2,930.22	3,514.79	2,000.00	(1,514.79)	175.7
01-01-4160-00	EQUIPMENT LEASE EXPENSE	22,337.70	24,799.74	35,000.00	10,200.26	70.9
01-01-4165-00	JANITORIAL EDR	4,673.00	4,896.00	5,600.00	704.00	87.4
01-01-4170-00	WATER LAB & TESTING	22,898.40	15,872.84	27,000.00	11,127.16	58.8
01-01-4173-00	FIRST AID & SAFETY	802.72	426.55	6,000.00	5,573.45	7.1
01-01-4175-00	OTHER CONTRACTUAL SERVICE	12,000.00	12,000.00	12,000.00	.00	100.0
01-01-4178-00	INSPECTION EXPENSE	88,930.35	28,793.22	55,000.00	26,206.78	52.4
01-01-4180-00	WATER PURCHASED	298,771.13	300,985.44	389,000.00	88,014.56	77.4
01-01-4185-00	REPAIRS MAINTENANCE-WATER	454,524.27	596,798.24	603,000.00	6,201.76	99.0
01-01-4215-00	UNIFORMS AND LINEN WATER	9,531.95	12,465.69	10,000.00	(2,465.69)	124.7
01-01-4216-00	STORMWATER FEE FOR EDR	862.40	1,121.40	1,000.00	(121.40)	112.1
01-01-4217-00	GARBAGE COLLECTION	5,735.40	5,281.84	6,000.00	718.16	88.0
01-01-4220-00	OFFICE SUPPLIES	2,628.41	9,142.80	3,500.00	(5,642.80)	261.2
01-01-4220-01	OFFICE EQUIPMENT EXPENSE	4,531.87	1,539.98	6,000.00	4,460.02	25.7
01-01-4230-00	QUESTAR GAS	19,215.04	21,961.62	24,000.00	2,038.38	91.5
01-01-4230-01	ROCKY MOUNTAIN POWER	48,248.36	92,466.97	500,000.00	407,533.03	18.5
01-01-4230-02	BARTON 1&2 201610860078	344,089.86	263,312.82	.00	(263,312.82)	.0
01-01-4230-05	ZONE 3 CUL PMP ST 201610860011	2,142.68	1,635.08	.00	(1,635.08)	.0
01-01-4230-06	BOOSTER STA. 201610860060	23,570.42	17,484.84	.00	(17,484.84)	.0
01-01-4230-07	BACHUS RESV. 201610860029	564.37	561.57	.00	(561.57)	.0
01-01-4230-08	3500 S. TNKS. 201610860011	4,330.59	8,547.84	.00	(8,547.84)	.0
01-01-4230-09	VFORGE RESERV 259599560036	21,979.42	22,827.49	.00	(22,827.49)	.0
01-01-4230-10	JORDAN V CON 259599560044	157.74	.00	.00	.00	.0
01-01-4240-00	CMENT SHP 259599560010	4,144.54	4,982.43	.00	(4,982.43)	.0
01-01-4244-00	CHEMICALS WATER PLANT	53,881.89	69,091.44	65,000.00	(4,091.44)	106.3
01-01-4250-00	TELEPHONE/DATA SERVICES	4,546.10	5,051.29	5,200.00	148.71	97.1
01-01-4255-00	PERFORMANCE & EVALUATION	.00	.00	6,000.00	6,000.00	.0
01-01-4257-00	CELLULAR - PHONES SERVICE	4,307.01	2,804.13	4,800.00	1,995.87	58.4
01-01-4258-00	SAFETY TRAINING PROGRAM	.00	.00	4,000.00	4,000.00	.0
01-01-4270-00	DEPRECIATION-WATER UTILITY	2,000,004.00	1,833,337.00	2,040,000.00	206,663.00	89.9
01-01-4320-00	VEHICLE/EQUIPMENT GAS & REPAIR	(918.53)	.00	.00	.00	.0
01-01-4320-04	2018 KWT370 DUMP TRUCK 181820	1,063.28	2,895.14	1,000.00	(1,895.14)	289.5
01-01-4320-07	2000 END DUMP PUP TRAILER	.00	139.12	.00	(139.12)	.0
01-01-4320-08	F550 2 1/2 TON 4 DOOR SERVICE	4,480.24	3,439.65	2,000.00	(1,439.65)	172.0
01-01-4320-11	CAT BACKHOE 430 D	117.43	1,657.57	1,000.00	(657.57)	165.8
01-01-4320-12	HAULMARK TRAILER	12.85	114.85	.00	(114.85)	.0
01-01-4320-16	86 METAL CRAFT TRAILER	127.86	75.81	200.00	124.19	37.9
01-01-4320-21	2009 GMC CANYON 4X4	761.45	1,868.69	800.00	(1,068.69)	233.6
01-01-4320-22	2014 970 HUSQUAVARNA SAW	245.80	.00	800.00	800.00	.0
01-01-4320-25	1" HONDA PUMP	.00	34.20	.00	(34.20)	.0
01-01-4320-34	ASPHALT CUTTER	92.75	.00	.00	.00	.0
01-01-4320-35	2021 CHEV 3500 SLVRDO	.00	2,993.53	.00	(2,993.53)	.0
01-01-4320-39	2000 SEWER TRUCK	40.65	.00	1,500.00	1,500.00	.0
01-01-4320-44	F750 FORD SERVICE TRUCK	2,310.59	2,156.31	3,000.00	843.69	71.9
01-01-4320-45	08 VAC TRUCK	11,929.82	36,301.47	14,500.00	(21,801.47)	250.4
01-01-4320-46	CB 34 ROLLER	.00	215.99	.00	(215.99)	.0

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
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		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
01-01-4320-49	94 J.D. BACKHOE	316.06	.00	600.00	600.00	.0
01-01-4320-54	TRAILER SPRAYER & PUMP	.00	3.16	.00	(3.16)	.0
01-01-4320-56	TRAIL KING TRAILER	150.14	422.47	500.00	77.53	84.5
01-01-4320-63	2021 CHEV SLVRDO 1500 236331	1,521.20	10,244.42	1,000.00	(9,244.42)	1024.4
01-01-4320-64	F-150 FORD 2013 B04364	1,109.84	.00	1,600.00	1,600.00	.0
01-01-4320-66	PARTNER SAW	.00	684.46	.00	(684.46)	.0
01-01-4320-67	2021 CHEV TRAVERSE 162475	.00	855.32	.00	(855.32)	.0
01-01-4320-69	2021 CHEV SLVRDO 1500 236513	2,608.97	3,501.85	2,500.00	(1,001.85)	140.1
01-01-4320-74	STERLINE DUMP TRUCK	1,744.79	7,013.40	1,500.00	(5,513.40)	467.6
01-01-4320-76	2021 CHEV SLVRADO 1500 236566	2,656.77	4,251.04	2,500.00	(1,751.04)	170.0
01-01-4320-81	2021 CHEV SLVRDO 1500 236735	1,726.01	1,783.77	2,000.00	216.23	89.2
01-01-4320-83	2021 CHEV SLVRDO 3500 227731	.00	3,144.04	.00	(3,144.04)	.0
01-01-4320-84	BACKHOE 420F2 SN 01576	7,628.15	2,432.12	7,000.00	4,567.88	34.7
01-01-4320-85	2021 CHEV SLVRDO 3500 227581	.00	1,197.06	.00	(1,197.06)	.0
01-01-4320-87	CAT MINI-EX	774.03	1,601.74	1,000.00	(601.74)	160.2
01-01-4320-97	RENTAL EQUIP(DIESEL)	65.92	.00	.00	.00	.0
01-01-4320-98	RENTAL EQUIP (GAS) FUEL	58.36	882.87	.00	(882.87)	.0
01-01-4345-00	CONSERVATION	.00	.00	4,000.00	4,000.00	.0
01-01-4350-00	TRAINING	9,987.84	11,112.76	18,000.00	6,887.24	61.7
01-01-4355-00	DUES, MEMBERSHIPS	4,972.00	5,283.50	7,000.00	1,716.50	75.5
01-01-4360-00	BAD DEBTS	16,781.29	12,332.59	15,000.00	2,667.41	82.2
01-01-4370-00	INSURANCE	55,163.00	64,330.00	85,000.00	20,670.00	75.7
01-01-4380-00	MISC. OPERATING EXPENSE	1,787.71	4,809.38	5,000.00	190.62	96.2
01-01-4510-00	CDRA PROPERTY TAX EXPENSE	325,598.33	459,592.45	250,000.00	(209,592.45)	183.8
01-01-4519-00	AMORTIZ OF PREMIUM DISC 2013	(8,195.76)	(7,512.78)	(8,200.00)	(687.22)	(91.6)
01-01-4525-00	AMORT OF PREMIUM DISC 2017	(13,727.76)	(12,583.78)	(13,800.00)	(1,216.22)	(91.2)
01-01-4527-00	2019 GO BOND PREMIUM AMORT	.00	(10,170.93)	(11,100.00)	(929.07)	(91.6)
01-01-4540-00	LEASE INTERST EXPENSE	6,120.95	2,272.43	10,000.00	7,727.57	22.7
01-01-4551-00	INTEREST EXP 2007 REV BOND	72,840.00	66,770.00	70,000.00	3,230.00	95.4
01-01-4554-00	INTEREST EXP 2013 BOND 48.22%	62,788.44	57,556.07	60,000.00	2,443.93	95.9
01-01-4557-00	INTEREST EXPENSE 2017 GO BOND	134,135.40	122,957.45	128,000.00	5,042.55	96.1
01-01-4559-00	INTEREST EXP FOR 2019 BOND	86,581.05	76,035.30	79,000.00	2,964.70	96.3
01-01-4560-00	OTHER NON-OPERATING EXPNS	945.43	2,341.39	2,000.00	(341.39)	117.1
01-01-5001-00	EDR MAINTENANCE	118,916.80	180,682.78	400,000.00	219,317.22	45.2
01-01-5005-00	EDR CHEMICALS	27,259.15	24,965.05	30,000.00	5,034.95	83.2
01-01-5015-00	EDR SAMPLING	4,599.40	3,255.00	7,000.00	3,745.00	46.5
TOTAL WATER EXPENSE		5,291,209.91	5,799,175.82	6,287,000.00	487,824.18	92.2
TOTAL WATER NET REVENUE/INCOME(LOSS)		3,831,676.66	5,151,154.43	1,442,853.00	(3,708,301.43)	357.0

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
SEWER						
01-02-4000-00	SEWER SERVICE CHARGES	3,747,546.91	3,550,693.91	3,700,000.00	149,306.09	96.0
01-02-4007-00	SEWER INSPECTION	367,484.00	177,197.55	230,000.00	52,802.45	77.0
01-02-4008-00	SEWER BUY-IN	182,299.00	992,861.00	100,000.00	(892,861.00)	992.9
01-02-4010-00	SEWER CONNECTION	1,440,067.00	1,282,540.00	600,000.00	(682,540.00)	213.8
01-02-4013-00	INCOME CONTRIBUTED CAPITAL	.00	.00	300,000.00	300,000.00	.0
01-02-4014-00	SEWER LETTER	90.00	.00	100.00	100.00	.0
01-02-4040-00	OTHER OPER. INCOME-SEWER	.00	.00	100.00	100.00	.0
01-02-4044-00	PROPERTY TAX REVENUE 44.07%	2,122,808.53	2,204,456.24	1,516,236.00	(688,220.24)	145.4
01-02-4060-00	GAIN ON SALE OF ASSETS	.00	25,242.87	4,000.00	(21,242.87)	631.1
01-02-4080-00	OTHER NON-OPERATING INCOM	600.00	784.25	800.00	15.75	98.0
TOTAL SEWER REVENUE		7,860,895.44	8,233,775.82	6,451,236.00	(1,782,539.82)	127.6

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
01-02-4115-00	SALARIES - SEWER	637,548.33	541,377.82	690,000.00	148,622.18	78.5
01-02-4130-00	PAYROLL TAXES	54,005.38	79,893.16	134,000.00	54,106.84	59.6
01-02-4135-00	EMPLOYEE FRINGE BENEFITS	266,728.13	258,408.06	343,000.00	84,591.94	75.3
01-02-4150-00	ENGINEERING STUDY WWTP FUTURE	99,828.75	163,264.60	20,000.00	(143,264.60)	816.3
01-02-4160-00	EQUIPMENT LEASE EXPENSE	.00	.00	25,000.00	25,000.00	.0
01-02-4165-00	JANITORIAL WWTP ADMIN	2,443.00	2,220.00	2,600.00	380.00	85.4
01-02-4170-00	SEWER LAB & TESTING	34,412.70	39,824.92	40,000.00	175.08	99.6
01-02-4173-00	FIRST AID & SAFETY	1,350.80	611.65	4,000.00	3,388.35	15.3
01-02-4175-00	OTHER CONTRACTUAL SERVICE	12,000.00	12,000.00	12,000.00	.00	100.0
01-02-4178-00	INSPECTION EXPENSE	93,577.99	44,971.11	65,000.00	20,028.89	69.2
01-02-4185-00	REPAIRS MAINTENANCE-SEWER	344,291.76	389,070.70	600,000.00	210,929.30	64.9
01-02-4215-00	UNIFORMS AND LINEN SEWER	16,393.66	19,612.02	20,000.00	387.98	98.1
01-02-4217-00	GARBAGE COLLECTION	26,235.46	23,171.36	32,000.00	8,828.64	72.4
01-02-4220-00	OFFICE SUPPLIES	3,807.82	4,742.45	4,500.00	(242.45)	105.4
01-02-4220-01	OFFICE EQUIPMENT EXPENSE	3,581.97	1,689.97	6,000.00	4,310.03	28.2
01-02-4230-00	QUESTAR GAS	21,937.75	21,612.52	35,000.00	13,387.48	61.8
01-02-4230-01	POWER 7650 W 2100 S 15460016	75,736.82	63,272.59	275,000.00	211,727.41	23.0
01-02-4230-02	POWER WWTP 10860177 CONT & USG	156,230.80	206,041.46	.00	(206,041.46)	.0
01-02-4230-12	POWER ADMIN BLDG 10860169	101.71	161.86	.00	(161.86)	.0
01-02-4244-00	CHEMICALS - SEWER	116,694.86	163,994.80	150,000.00	(13,994.80)	109.3
01-02-4250-00	TELEPHONE/DATA SERVICES	8,783.37	9,372.18	10,000.00	627.82	93.7
01-02-4255-00	PERFORMANCE & EVALUATION	.00	.00	5,000.00	5,000.00	.0
01-02-4257-00	CELLULAR - PHONES SERVICE	8,530.87	9,783.92	8,200.00	(1,583.92)	119.3
01-02-4258-00	SAFETY TRAINING PROGRAM	.00	.00	3,000.00	3,000.00	.0
01-02-4270-00	DEPRECIATION-SEWER UTILITY	1,500,000.00	1,375,000.00	1,500,000.00	125,000.00	91.7
01-02-4320-00	VEHICLE/EQUIP GAS & REPAIRS	(1,099.38)	.00	700.00	700.00	.0
01-02-4320-01	SPEC TEC TRAILER VIN 188587	.00	196.41	.00	(196.41)	.0
01-02-4320-03	2016 FORD F-350 VIN 39347	3,276.55	3,152.67	3,000.00	(152.67)	105.1
01-02-4320-06	2007 CHEV PICKUP VIN 542936	151.20	199.66	.00	(199.66)	.0
01-02-4320-10	2007 CHEV PICKUP VIN 546906	1,242.24	799.60	1,000.00	200.40	80.0
01-02-4320-30	2015 VACTOR TRUCK FREIGHTLINER	3,190.33	5,393.81	5,000.00	(393.81)	107.9
01-02-4320-33	SEWER MOBILE TRACK/EASMENT MAC	595.82	.00	1,500.00	1,500.00	.0
01-02-4320-37	JD LAWN TRACTOR D170 604638	906.95	139.96	2,000.00	1,860.04	7.0
01-02-4320-48	JD LAWN TRACTOR (1991)	370.60	.00	700.00	700.00	.0
01-02-4320-52	2013 CAMERA VAN 78965	5,819.11	10,146.02	6,000.00	(4,146.02)	169.1
01-02-4320-55	2019 KENWTH T880 TRUCK 247348	846.68	1,913.23	1,000.00	(913.23)	191.3
01-02-4320-58	95 VOLVO WHEEL LOADR FUEL	1,471.61	456.94	2,000.00	1,543.06	22.9
01-02-4320-60	10-WHEELER DUMP TRUCK	1,632.96	.00	1,500.00	1,500.00	.0
01-02-4320-61	2016 MACK DUMP TRUCK	357.75	2,708.99	500.00	(2,208.99)	541.8
01-02-4320-62	LOADER 544K VIN 679569	35.00	196.74	1,000.00	803.26	19.7
01-02-4320-65	2021 CHEV SLVRDO 1500 236350	1,978.06	1,912.96	1,800.00	(112.96)	106.3
01-02-4320-68	VENTRAC MOWER	199.27	159.47	.00	(159.47)	.0
01-02-4320-77	2021 CHEV SLVRDO 1500 236596	4,154.23	1,946.00	3,800.00	1,854.00	51.2
01-02-4320-78	2021 CHEV SLVRDO 1500 236596	3,481.52	2,115.92	3,500.00	1,384.08	60.5
01-02-4320-79	2021 CHEV SLVRDO 1500 236679	1,264.02	2,479.68	1,500.00	(979.68)	165.3
01-02-4320-80	FORD F150 LEASED 01967	.00	.00	1,500.00	1,500.00	.0
01-02-4320-86	BACKHOE 420F2	.00	.00	1,500.00	1,500.00	.0
01-02-4320-87	ECHO GAS TRIMMER AT WWTP	.00	319.99	.00	(319.99)	.0
01-02-4320-99	SMALL EQUIP (GAS) FUEL	377.63	436.37	500.00	63.63	87.3
01-02-4350-00	TRAINING	4,467.50	9,028.80	10,000.00	971.20	90.3
01-02-4355-00	DUES, MEMBERSHIPS	2,295.00	597.50	4,500.00	3,902.50	13.3
01-02-4360-00	BAD DEBTS	991.47	5.47	5,000.00	4,994.53	.1
01-02-4370-00	INSURANCE	54,165.00	55,737.00	75,000.00	19,263.00	74.3
01-02-4380-00	MISC. OPERATING EXPENSE	1,423.30	5,883.71	7,000.00	1,116.29	84.1
01-02-4510-00	CDRA PROPERTY TAX EXPENSE	338,761.90	476,570.33	250,000.00	(226,570.33)	190.6
01-02-4520-00	AMORT ON 2013 BOND PREMIUM	(8,800.92)	(8,067.51)	(9,000.00)	(932.49)	(89.6)

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
01-02-4525-00	AMORT ON 2017 BOND PREMIUM	(18,857.16)	(17,285.73)	(19,000.00)	(1,714.27)	(91.0)
01-02-4527-00	AMORT ON 2019 BOND PREMIUM	.00	(13,971.43)	(15,300.00)	(1,328.57)	(91.3)
01-02-4540-00	LEASE INTERST EXPENSE	6,120.95	1,513.44	7,000.00	5,486.56	21.6
01-02-4554-00	INTEREST EXP 2013 BBOND 51.78%	67,424.04	61,805.37	61,000.00	(805.37)	101.3
01-02-4558-00	INTEREST EXPENSE 2017 GO BOND	184,255.68	168,901.04	175,000.00	6,098.96	96.5
01-02-4559-00	INTEREST EXP 2019 BOND	118,932.54	104,446.32	108,100.00	3,653.68	96.6
01-02-4560-00	OTHER NON-OPERATING EXPNS	10,207.74	2,075.59	40,000.00	37,924.41	5.2
 TOTAL SEWER EXPENSE		 4,275,861.12	 4,312,011.47	 4,723,600.00	 411,588.53	 91.3
 TOTAL SEWER NET REVENUE/INCOME(LOSS)		 3,585,034.32	 3,921,764.35	 1,727,636.00	 (2,194,128.35)	 227.0

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
<u>ADMINISTRATIVE</u>						
01-03-4007-00	ENGINEERING REVENUE - SUBDIVIS	21,962.15	87,043.00	100,000.00	12,957.00	87.0
01-03-4011-00	NON RESIDENT FEES	53,707.20	49,231.60	50,000.00	768.40	98.5
01-03-4020-00	INTEREST INCOME-INVESTMS	303,020.18	110,762.46	320,000.00	209,237.54	34.6
01-03-4040-00	OTHER OPER. INCOME-GENERAL	2,291.88	1,613.85	.00	(1,613.85)	.0
01-03-4060-00	GAIN ON SALE OF ASSETS	.00	6,223.22	500.00	(5,723.22)	1244.6
01-03-4080-00	OTHER NON-OPERATING INCOM	26,088.29	206,579.67	8,000.00	(198,579.67)	2582.3
TOTAL ADMINISTRATIVE REVENUE		407,069.70	461,453.80	478,500.00	17,046.20	96.4

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
01-03-4105-00	TRUSTEE COMPENSATION	15,000.12	15,000.12	15,000.00	(.12)	100.0
01-03-4115-00	SALARIES-OFFICE	213,936.76	205,553.95	180,000.00	(25,553.95)	114.2
01-03-4116-00	SALARIES - MANAGEMENT	516,996.74	581,569.65	630,000.00	48,430.35	92.3
01-03-4120-00	OFFICE - PAYROLL TAXES	12,025.70	15,981.77	20,000.00	4,018.23	79.9
01-03-4130-00	MANAGEMENT - PR TAXES	44,743.72	59,761.93	55,000.00	(4,761.93)	108.7
01-03-4135-00	FRINGE BENEFITS - OFFICE	102,091.11	119,286.60	125,000.00	5,713.40	95.4
01-03-4138-00	MANAGEMENT FRINGE BENEFITS	302,443.21	312,131.53	425,000.00	112,868.47	73.4
01-03-4139-00	OPEB EXPENSE	2,950.33	.00	100,000.00	100,000.00	.0
01-03-4140-00	LEGAL EXPENSE	68,767.50	43,303.31	100,000.00	56,696.69	43.3
01-03-4142-00	PAYROLL PROCESSING SERVICE	7,406.10	6,372.22	10,000.00	3,627.78	63.7
01-03-4145-00	ACCOUNTING AND AUDITING	.00	12,500.00	25,000.00	12,500.00	50.0
01-03-4147-00	HUMAN RESOURCES	680.00	.00	.00	.00	.0
01-03-4150-00	ENGINEERING SERVICES	86,686.08	66,378.91	100,000.00	33,621.09	66.4
01-03-4150-01	CAROLLO REU/SEC WAT SYS STUDY	4,930.00	.00	.00	.00	.0
01-03-4150-03	GDA GIS SERVICES	75,132.72	41,851.40	75,000.00	33,148.60	55.8
01-03-4150-04	MASTER PLAN STUDY	49,629.00	9,182.50	.00	(9,182.50)	.0
01-03-4151-00	ENGINEERING EXP - SUBDIVISIONS	21,962.15	5,245.00	15,000.00	9,755.00	35.0
01-03-4155-00	DATA PROCESSING	10,330.00	5,200.00	20,000.00	14,800.00	26.0
01-03-4156-00	DATA PROC.MAINT. SERVICE	31,834.98	32,898.51	35,000.00	2,101.49	94.0
01-03-4165-00	JANITORIAL GENERAL OFFICE	6,059.97	7,164.15	8,000.00	835.85	89.6
01-03-4173-00	FIRST AID & SAFETY	396.03	495.10	4,800.00	4,304.90	10.3
01-03-4175-00	OTHER CONTRACTUAL SERVICE	2,000.00	1,920.02	.00	(1,920.02)	.0
01-03-4176-00	WEB DEVELOPMENT	798.45	.00	1,500.00	1,500.00	.0
01-03-4185-00	REPAIR AND MAINT - OFFICE	40,904.21	28,447.52	80,000.00	51,552.48	35.6
01-03-4215-00	OFFICE RUGS & UNIFORMS	673.11	1,561.60	1,200.00	(361.60)	130.1
01-03-4220-00	OFFICE SUPPLIES	10,040.13	11,417.93	15,000.00	3,582.07	76.1
01-03-4220-01	OFFICE EQUIPMENT EXPENSE	11,178.92	2,619.98	10,000.00	7,380.02	26.2
01-03-4225-00	POSTAGE	55,566.71	66,495.18	50,000.00	(16,495.18)	133.0
01-03-4230-00	ROCKY MTN POWER 201610860177	2,828.48	3,693.45	3,000.00	(693.45)	123.1
01-03-4235-00	QUESTAR	1,846.50	2,581.10	4,000.00	1,418.90	64.5
01-03-4250-00	TELEPHONE/DATA SERVICES	27,790.43	23,760.42	35,000.00	11,239.58	67.9
01-03-4255-00	PERFORMANCE & EVALUATION	.00	.00	2,000.00	2,000.00	.0
01-03-4257-00	CELLULAR - PHONES SERVICE	3,526.14	4,310.29	6,000.00	1,689.71	71.8
01-03-4258-00	SAFETY TRAINING PROGRAM	.00	.00	1,000.00	1,000.00	.0
01-03-4270-00	DEPRECIATION - GEN. PLANT	420,000.00	385,000.00	400,000.00	15,000.00	96.3
01-03-4320-00	VEHICLE GAS & REPAIRS	(241.59)	.00	1,000.00	1,000.00	.0
01-03-4320-31	2017 F150 SN 76671	1,467.58	2,514.56	1,000.00	(1,514.56)	251.5
01-03-4320-82	2021 CHEV TRAVERSE 162491	.00	1,966.50	.00	(1,966.50)	.0
01-03-4350-00	TRAINING	2,894.41	15,231.73	5,000.00	(10,231.73)	304.6
01-03-4355-00	DUES, MEMBERSHIPS	385.00	12,258.40	15,000.00	2,741.60	81.7
01-03-4370-00	INSURANCE	4,933.98	5,177.49	10,000.00	4,822.51	51.8
01-03-4375-00	ADVERTISING & PUBLIC RELA	1,327.50	2,217.35	10,000.00	7,782.65	22.2
01-03-4380-00	MISC. OPERATING EXPENSE	5,421.09	4,443.28	5,200.00	756.72	85.5
01-03-4385-00	CASH SHORTAGE/OVERAGE	54.33	(67.89)	50.00	117.89	(135.8)
01-03-4540-00	LEASE INTEREST EXPENSE	1,530.24	766.10	2,500.00	1,733.90	30.6
01-03-4550-00	BANK SERVICE FEES	106,616.86	105,474.29	100,000.00	(5,474.29)	105.5
01-03-4560-00	OTHER NON-OPERATING EXPNS	11,015.63	54,590.87	15,000.00	(39,590.87)	363.9
TOTAL ADMINISTRATIVE EXPENSE		2,286,560.33	2,276,256.82	2,716,250.00	439,993.18	83.8
TOTAL ADMINISTRATIVE NET REVENUE/INCOME(L)		(1,879,490.63)	(1,814,803.02)	(2,237,750.00)	(422,946.98)	(81.1)

MAGNA WATER DISTRICT
REVENUES AND EXPENDITURES WITH COMPARISON TO BUDGET
FOR THE 12 MONTHS ENDING DECEMBER 31, 2021

		PY ACTUAL	YTD ACTUAL	BUDGET	REMAINING	PCNT
SECONDARY WATER						
01-04-4000-00	SECONDARY WATER SERVICE CHARGE	250,726.78	207,723.67	280,000.00	72,276.33	74.2
01-04-4003-00	SUBSIDY FROM CUL FOR SECO	10.44	(95.12)	.00	95.12	.0
01-04-4005-00	SECONDART WATER METER SET	8,748.30	110,338.70	10,000.00	(100,338.70)	1103.4
01-04-4007-00	WATER INSPECTION SECONDARY	37,726.88	38,476.16	25,000.00	(13,476.16)	153.9
01-04-4010-00	SECONDARY IMPACT FEES	489,902.00	96,980.00	250,000.00	153,020.00	38.8
01-04-4013-00	INCOME CONTRIBUTED CAPITAL	.00	20,988.00	120,000.00	99,012.00	17.5
01-04-4014-00	SECONDARY WATER AVAIL LETTER	2,291.00	.00	600.00	600.00	.0
01-04-4044-00	PROPERTY TAX REVENUE 13.43%	382,891.81	671,993.58	461,862.00	(210,131.58)	145.5
01-04-4060-00	GAIN ON SALE OF ASSETS	.00	9,137.24	1,000.00	(8,137.24)	913.7
01-04-4080-00	GRANT MONIES - JVWCD	.00	.00	35,000.00	35,000.00	.0
TOTAL SECONDARY WATER REVENUE		1,172,297.21	1,155,542.23	1,183,462.00	27,919.77	97.6
01-04-4150-01	2018 MAGNA REGIONAL PARK SECON	784.50	.00	.00	.00	.0
01-04-4150-02	ZONE 3 SECONDARY RESERV STUDY	.00	12,675.00	30,000.00	17,325.00	42.3
01-04-4178-00	INSPECTION EXPENSE	32,614.66	18,610.62	20,000.00	1,389.38	93.1
01-04-4185-00	REPAIRS MAINTENANCE-SECONDARY	110,868.56	49,770.15	100,000.00	50,229.85	49.8
01-04-4230-00	FUEL & POWER	.00	.00	28,000.00	28,000.00	.0
01-04-4230-01	SHALLOW WELLS 0144 & 0110	12,477.96	14,811.17	.00	(14,811.17)	.0
01-04-4230-02	SEC RES PUMP STAT 0136 & 0128	10,480.38	8,879.21	.00	(8,879.21)	.0
01-04-4270-00	DEPRECIATION	360,000.00	330,000.00	350,000.00	20,000.00	94.3
01-04-4355-00	DUES, MEMBERSHIPS	154.00	.00	.00	.00	.0
01-04-4360-00	BAD DEBTS	(119.83)	466.77	1,000.00	533.23	46.7
01-04-4370-00	INSURANCE	2,057.00	2,197.00	3,000.00	803.00	73.2
01-04-4510-00	CDRA PROPERTY TAX EXPENSE	62,908.77	145,231.22	45,000.00	(100,231.22)	322.7
01-04-4525-00	AMORT ON 2017 BOND PREMIUM	(10,884.84)	(9,977.77)	(10,885.00)	(907.23)	(91.7)
01-04-4527-00	AMORT ON 2019 BOND PREMIUM	.00	(8,064.65)	(8,800.00)	(735.35)	(91.6)
01-04-4548-00	INTEREST EXP ON 2017 GO BOND	106,357.08	97,493.99	102,000.00	4,506.01	95.6
01-04-4549-00	INTEREST EXPENSE	4,319.52	3,959.56	3,800.00	(159.56)	104.2
01-04-4559-00	INTEREST EXP 2019 BOND	68,650.78	60,289.02	63,000.00	2,710.98	95.7
TOTAL SECONDARY WATER EXPENSE		760,668.54	726,341.29	726,115.00	(226.29)	100.0
TOTAL SECONDARY WATER NET REVENUE/INCOM		411,628.67	429,200.94	457,347.00	28,146.06	93.9
COMBINED NET REVENUE OVER EXPENDITURES		5,948,849.02	7,687,316.70	1,390,086.00	(6,297,230.70)	553.0

PRODUCTION REPORT

Summary Of Water Deliveries

MAGNA WATER DISTRICT

System # 18014

Dec-21

Source	Month's Deliveries (AF)		Change %	Current Month's Gall	Deliveries YTD (AF)		Change %	YTD Gallons
CULINARY WATER	2021	2020			2021	2020		
Well Sources								
Barton and Haynes	270.72	264.75			5,211.21	5,703.69		
To Waste	30.98	31.48			604.19	656.13		
Total Finished Blend EDR	237.94	229.83			4,599.69	5,181.37		
JVWCD Magna Reading	65.23	65.78			800.52	788.09		
JVWCD	65.40	65.98			799.79	804.90		
Total Culinary Water	303.34	295.81	2.48%	98,836,666	5,399.48	5,986.27	-10.87%	1,759,301,769
SECONDARY WATER								
Irrigation Well #1	-	-			162.22	113.10		
Irrigation Well #2	-	-			165.73	162.85		
Irrigation Well #3	-	-			73.69	46.16		
High Zone (secondary)	-	-			151.89	184.22		
Low Zone (secondary)	-	-			385.42	411.93		
Total secondary Usage	-	-	#DIV/0!	-	938.95	918.26	2.20%	305,936,201
Total Production of Water	303.34	295.81	2.48%	98,836,666	6,338.43	6,904.53	-9%	2,065,237,970

* EDR Blend + Total Secondary + JVWCD = Total Production

Water Production Report

December 2021

Water Production Summary

The culinary water production for December was 98.8 million gallons, an increase of 2.48% from 2020. Year to date production was 1,759.3 million gallons or 5,399.48-acre feet, this is a decrease from YTD 2020 of 10.87%

We have purchased 799.79-acre feet of water from Jordan Valley Water as of December 2021.

Callout Report – Water and Wastewater Combined

Total number of call outs: 17

3 Mainline Leak

14 Miscellaneous

Total number of hours paid for call outs: 86.25

DECEMBER CALL OUTS

Dept.	Employee	Date	Hours	Description
EDR	STEVE CLARK	12/3/2021	3	EDR Power issue
EDR	MATT SKOGERBOE	12/1/2021	3	EDR Peak Alarm, alarm set off
		12/19/2021	3	MAINLINE LEAK, 3447 S RULON ST
		12/22/2021	5	MAINLINE LEAK, 3100 S RULON ST
WATER	JON DAVIS	12/11/2021	3	TURN OFF WATER 3244 FAIRLANE ST
EDR	JON DAVIS	12/14/2021	3	RESTART HAYNES #7, START UNIT #3 EDR
WATER	CLINT GILES	12/18/2021	3	MAINLINE LEAK, 7750 W 2820 S
WATER	MATT HUNTER	12/10/2021	3	CUSTOMER WATER LINE FROZEN, 3778 S COPPERHOLLOW DR
		12/18/2021	3	MAINLINE LEAK, 7750 W 2820 S
WATER	JUSTIN LONG	12/15/2021	3	PLOW SNOW AT OFFICE
		12/15/2021	3	AIRVAC MANHOLE, 6500 W 2820 S
		12/17/2021	3	CANYON PIPELINE THOUGH THEY HIT MWD LINE, WASN'T MWD LINE 7500 W 2100 S
		12/18/2021	4	MAINLINE LEAK, 7750 W 2820 S
		12/19/2021	3	MAINLINE LEAK, 3447 S RULON ST
WATER	KIRK WACHTER	12/19/2021	3	MAINLINE LEAK, 3447 S RULON ST
WATER	ROB JATERKA	12/22/2021	7	MAINLINE LEAK, 3100 S RULON ST
		12/22/2021	3	CUSTOMER COMPLAINT OF NO WATER 2962 S SPENCER AVE
		12/25/2021	3	WATER RUNNING FROM YARD, 3056 S 9150 W
		12/26/2021	3	CLEAR SNOW
WATER	ED TUCKER	12/22/2021	6.75	MAINLINE LEAK, 3100 S RULON ST
WATER	CONNOR MCREYNOLDS	12/22/2021	6.5	MAINLINE LEAK, 3100 S RULON ST
		12/30/2021	3	COLD SIDE LEAK, 3427 S PATTRICK DR.
		12/30/2021	3	LEAK FROM HYDRANT, 2809 S 8950 W
		12/31/2021	3	SOFT SPOT IN PARKING LOT IN FRONT OF REAM'S STORE

Total Callout Hours **86.25**

Total Callouts **17**

Total Water/EDR Hours **86.25**

Total # of Water Callouts **17**

Total WWTP Hours **0**

Total WWTP Callouts **0**

LEAKS

Date	Address	Hours	Mainline/Service
12/18/2021	7750 W 2820 S	10	MAINLINE
12/19/2021	3447 S RULON ST	9	MAINLINE
12/22/2021	3100 S RULON ST	25.25	MAINLINE
	TOTAL	44.25	