

Watertown City Council

August 23, 2022

Agenda Item: Drawdown Gauges for Wells**Request for Action:** Adopt Resolution #2022-70, approving the purchase of Well drawdown gauges and SCADA**Employee/Dept.:** Doug Kammerer, Utility Supt.**Background:**

Staff has been reading the static and pumping water levels manually for years. The MN DNR is requiring the city to read the drawdowns more frequently and submit those readings annually. In 2022 Staff budgeted for the installation of Transducers in each well and SCADA which will give staff readings that they can record at any time of the day.

Staff solicited quotes from Vendors for this project and only one met the City's criteria.

Attached please find the quote from Automatic Systems Co. for \$63,939.

Budget Impact:

Staff budgeted \$75,000 in the 2022 CIP budget

Funding Source:

Capital Investment Fund #UC054

Recommendation:

Staff recommends the adoption of Resolution #2022-70, approving the quote for the purchase, installation, and SCADA for city well drawdown gauges

Motion Type:

Simple majority vote of members present.

Requested Action/Motion:

"I move to adopt Resolution #2022-70, approving the quote from Automatic Systems Co. for draw down gauges and SCADA for Wells 1,2,3,4 for \$63,939

Attachments:

Resolution #2022-70

Quotes- Automatic Systems Inc

Thein Well

**CITY OF WATERTOWN
RESOLUTION NO. 2022-70**

**RESOLUTION AUTHORIZING THE PURCHASE OF
AUTOMATED WELL DRAWDOWN GAUGES**

WHEREAS, the City of Watertown (the “City”) provides water utility for the benefit of residents;
and

WHEREAS, the Minnesota Department of Natural Resources revised draw down schedules for the City wells which require City staff to perform these drawdowns on a more frequent basis: and

WHEREAS, the City has identified the need for automated draw down gauges to significantly reduce the staff time related to performing well drawdowns; and

WHEREAS, the City Council has approved the purchase of automated drawdown gauges in the 2022 CIP with a budget of \$75,000.

WHEREAS, the City has requested and received quotes for the purchase of these automated drawdown gauges; and

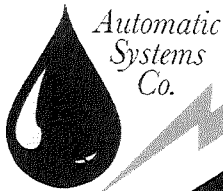
WHEREAS, the City staff has selected quote from Automated Systems Co. as the only quote satisfactorily meeting criteria with a total cost of \$63,939; and

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Watertown, Minnesota, hereby approves the bid received from Automated Systems Co. and authorizes the purchase of automated drawdown gauges for wells 1, 2, 3, and 4 for a price of \$63,393.

Adopted by the City Council of the City of Watertown this 23rd day of August 2022.

Steve Washburn, Mayor

ATTEST: _____
Maggie Reisdorf, Administrative Services Director



AUTOMATIC SYSTEMS CO.

Monday, August 01, 2022

Mr. Doug Kammerer
City of Watertown
309 Lewis Avenue South
Watertown, MN 55388

Reference: Well Draw Down Level Transducers

Dear Doug:

In accordance with your request to add draw down level indicators to Wells No.1, No. 2, No.3, and No. 4, with SCADA integration, we are pleased to offer the following:

Well No. 1

- A One (1) **Analog Input Card**, as needed to expand the I/O functions of the existing Programmable Logic Controller (PLC) allowing for accurate measurement of both static and pumping levels.
- B One (1) **Submersible Well Level Transducer**, small bore, stainless steel for installation in the stilling well to measure draw down levels.
- C One (1) **Lot of Electrical Installation**, as needed to run conduit and corresponding wires between the existing control panel and well base.

Please note, Automatic Systems will assist with the installation of the transducer, but for liability reasons the City will need to set the transducer into the well.
- D One (1) **Lot of Engineering** as needed to engineer the project and provide up to date drawings for City records and insertion in the existing O&M manuals.
- E One (1) **Lot of Programming**, as needed to program the PLC and scale the newly installed level indicator.

Please note, this will include the necessary programming to the SCADA Master required to create new screens showing the current drawdown value, drawdown trending, and generate a spreadsheet that automatically imports drawdown value, twice a day to an Excel spreadsheet.

MANUFACTURERS REPRESENTATIVES

- MAIN OFFICE P.O. BOX 120359
- BRANCH OFFICE P.O. BOX 787
- BRANCH OFFICE

SYSTEMS INTEGRATION

- ST. PAUL, MINNESOTA 55112 PHONE 651-631-9005
- AMES, IOWA 50010 PHONE 515-232-4770
- CHICAGO, ILLINOIS PHONE 815-927-3386

INSTRUMENTATION

- FAX (651) 631-0027
- FAX (515) 232-0795
- FAX (651) 631-0027

- F One (1) **Lot of Start-Up and Testing** as needed to verify the newly installed well level indicator is functioning properly.

Your net price for Items A through F, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$6,949.00 (plus tax).

Items: A-F Accepted by: _____ Date: _____

Well No. 1 Adder Option

- G One (1) **Low Temperature and Flood Alarm Addition**, incorporated with Items A-F above. This will include an adjustable low temperature thermostat to be mounted to the existing RTU, floor flood sensor to be mounded below the existing RTU and all related installation, engineering, programming, and start-up.

Your net price for Item G, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$2,087.00 (plus tax).

Item: G Accepted by: _____ Date: _____
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Well No. 2

- H One (1) **Well No. 2 Remote Telemetry Unit (RTU)**, painted steel, 120Vac, 60Hz., for wall mounting in the existing Pump House No. 2.

Proposed RTU shall be complete with circuit breaker disconnect, surge/lightning arrestor, uninterruptible power supply, DC power supply, Programmable Logic Controller (PLC), SCADA radio transceiver for communications with the existing SCADA Master, antenna lightning arrestor, terminal blocks, relays and fusing.

Provided for separate mounting:

- One (1) **Yagi Directional antenna for mounting to the Pump House.**
- One (1) **Lot of low loss antenna cable** of adequate length to facilitate connection between the antenna and radio complete with connectors.

I One (1) **Submersible Well Level Transducer**, small bore, stainless steel for installation in the stilling well to measure draw down levels.

J One (1) **Lot of Electrical Installation**, as needed to install the new RTU, provide power to it from the existing panel board to the RTU, run conduit and corresponding wires between the control panel and well base, install the Yagi antenna, antenna mast and associated cabling.

Please note, Automatic Systems will assist with the installation of the transducer, but for liability reason the City will need to set the transducer into the well.

K One (1) **Lot of Engineering** as needed to engineer the project and provide up to date drawings for City records and insertion in the existing O&M manuals.

L One (1) **Lot of Programming**, as needed to program the PLC, radio, and scale the newly installed level indicator.

Please note, this will include the necessary programing to the SCADA Master required to create new screens showing the current drawdown value, drawdown trending, and generate a spreadsheet that automatically imports drawdown value twice a day to an Excel spreadsheet.

M One (1) **Lot of Start-Up and Testing** as needed to verify the newly installed well level indicator and radio are functioning properly.

Your net price for Items H through M, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$21,520.00 (plus tax).

Items: H-M Accepted by: _____ Date: _____

Well No. 2 Adder Option

N One (1) **Low Temperature and Flood Alarm Addition**, incorporated with Items I-N above. This will include an adjustable low temperature thermostat to be mounted to the RTU, floor flood sensor to be mounded below the RTU and all related installation, engineering, programming, and start-up.

Your net price for Item N, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$1,549.00 (plus tax).

Item: N Accepted by: _____ Date: _____
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Well No. 3

- O One (1) **Analog Input Card**, as needed to expand the I/O functions of the existing Programmable Logic Controller (PLC) allowing for accurate measurement of both static and pumping levels.

- P One (1) **Submersible Well Level Transducer**, small bore, stainless steel for installation in the stilling well to measure draw down levels.

- Q One (1) **Lot of Electrical Installation**, as needed to run conduit and corresponding wires between the existing control panel and well base.

Please note, Automatic Systems will assist with the installation of the transducer, but for liability reason the City will need to set the transducer into the well.

- R One (1) **Lot of Panel Modifications**, as needed to reconfigure the existing Well No.3 RTU to accommodate the addition of an Uninterrupted Power Supply (UPS) and a UPS bypass circuit.

- S One (1) **Lot of Engineering** as needed to engineer the project and provide up to date drawings for City records and insertion in the existing O&M manuals.

- T One (1) **Lot of Programming**, as needed to program the PLC and scale the newly installed level indicator.

Please note, this will include the necessary programing to the SCADA Master required to create new screens showing the current drawdown value, drawdown trending, and generate a spreadsheet that automatically imports drawdown value twice a day to an Excel spreadsheet.

- U One (1) **Lot of Start-Up and Testing** as needed to verify the newly installed well level indicator is functioning properly.

Your net price for Items O through U, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$8,730.00 (plus tax).

Items: O-U Accepted by: _____ Date: _____

Well No. 3 Adder Option

- V One (1) **Low Temperature and Flood Alarm Addition**, incorporated with Items A-F above. This will include an adjustable low temperature thermostat to be mounted to the existing RTU, floor flood sensor to be mounded below the existing RTU and all related installation, engineering, programming, and start-up.

Your net price for Item V, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$2,087.00 (plus tax).

Item: V Accepted by: _____ Date: _____

Well No. 4

- W One (1) **Well No. 4 Remote Telemetry Unit (RTU)**, painted steel, 120Vac, 60Hz., for mounting near the existing Well No. 4 well casing.

Proposed RTU shall be complete with circuit breaker disconnect, surge/lightning arrestor, uninterruptible power supply, DC power supply, heater, thermostat, Programmable Logic Controller (PLC), SCADA radio transceiver for communications with the existing SCADA Master, antenna lightning arrestor, terminal blocks, relays and fusing.

Provided for separate mounting:

- One (1) **Yagi Directional Antenna** for mounting to the Well No. 4 RTU.
- One (1) **Lot of low loss antenna cable** of adequate length to facilitate connection between the antenna and radio complete with connectors.

- X One (1) **Submersible Well Level Transducer**, small bore, stainless steel for installation in the stilling well to measure draw down levels.

- Y One (1) **Lot of Electrical Installation**, as needed to pull new conductors through the existing conduit from the water plant to Well No. 4 necessary to power the new RTU, install the new RTU, well level indicator, Yagi antenna, antenna mast and associated cabling.

Please note, Automatic Systems will assist with the installation of the transducer, but for liability reason the City will need to set the transducer into the well.

August 1, 2022

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Z One (1) **Lot of Engineering** as needed to engineer the project and provide up to date drawings for City records and insertion in the existing O&M manuals.

AA One (1) **Lot of Programming**, as needed to program the PLC, radio, and scale the newly installed level indicator.

Please note, this will include the necessary programing to the SCADA Master required to create new screens showing the current drawdown value, drawdown trending, and generate a spreadsheet that automatically imports drawdown value twice a day to an Excel spreadsheet.

BB One (1) **Lot of Start-Up and Testing** as needed to verify the newly installed well level indicator and radio are functioning properly.

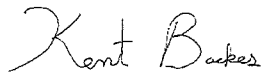
Your net price for Items W through BB, FOB factory with **freight allowed** to jobsite including one (1) year warranty from date of startup (not to exceed 18 months from date of shipment).....\$26,740.00 (plus tax).

Items: W-BB Accepted by: _____ Date: _____
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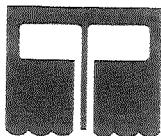
Thank you very much for the opportunity of providing you with the above proposal, should you wish to proceed with an order please sign on the space provided below and return a copy to this office. Upon receipt we will immediately proceed with engineering drawings and equipment release to manufacturing.

We look forward to hearing from you, should you have any questions please don't hesitate to give me a call.

Sincerely,



Kent Backes
Automatic Systems Company



THEIN WELL

PO BOX 778 · 11355 HWY 71 NE · SPICER, MN 56288
102 DUNDAS RD · MONTICELLO, MN 55362
CLARA CITY, MN 56222 · VERMILLION, SD 57069
www.theinwell.com · E-mail: theinwell@tds.net
1-800-450-8000

WELLS ~ PUMPS
SALES ~ SERVICE

Since 1893

July 28, 2022

Doug Kammerer
City of Watertown
PO Box 279
Watertown, MN 55388

Dear Doug,

We at Thein Well Company are pleased to provide you with an estimate to install water level transmitters. We will install the transmitters in the wells and run the cable to the top of the well, others to be responsible for hooking them up.

Estimate for Keller Submersible Microlevel Transmitter per well	\$5,555.00
<u>Estimated total to install transmitter in four wells</u>	<u>\$22,220.00</u>

Price valid for 30 days.

To schedule, or if you have any questions, please feel free to contact me at (800)450-8000, or via email zack@theinwell.com at your convenience.

Sincerely,

Zack Thein
Thein Well Company

Licensed, Bonded and Insured

CERTIFIED MASTER WATER WELL CONTRACTOR
Equal Opportunity Employer

MEMBER
NGWA

MEMBER
AWWA