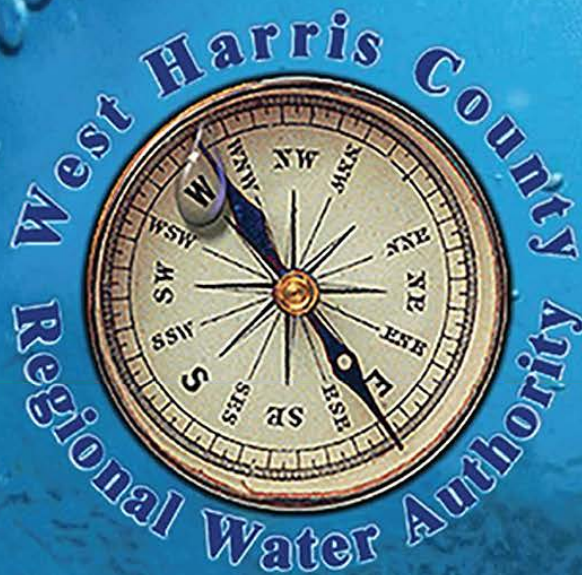


New Water Well Procedures and Meter Guidelines

West Harris County
Regional Water
Authority



July, 2020 -Issued Date
April, 2025 - Revision Date



NEW WELL PROCEDURE:

Submit well application to Harris Galveston Subsidence District (HGSD). HGSD will contact WHCRWA to determine if the new well should be added to the WHCRWA's Groundwater Reduction Plan (GRP).

HGSD determines if a well is exempt or non-exempt based on their rules. See their website for details.

If you become a part of the WHCRWA's GRP, the following is required:

1. Provide contact information (engineer, attorney, operator, billing address) to WHCRWA by submitting the attached form.
2. Inform WHCRWA once the well location has been drilled, so WHCRWA may pull title of the well location for right of entry agreement (ROE). WHCRWA will send ROE to well owner for signatures.
3. Execute ROE allowing WHCRWA to install and maintain an automated meter reading (AMR) device to the well meter. The device is battery operated and transmits by cellular connection to a cloud-based database. The AMR endpoint will be owned and maintained by WHCRWA.
 - a. Well meter must be compatible with WHCRWA's AMR system (see attached technical requirements). Please obtain the WHCRWA's written approval of meter type from WHCRWA's Engineer prior to installation.
4. Once the well is constructed and meter is in place, contact WHCRWA's Engineer to arrange for installation of AMR device prior to startup operations.
5. Once the AMR device is installed, WHCRWA will provide the assigned username and password to well's owner/operator for access. The first user to login for the well will have to acknowledge a user agreement. The Beacon Advanced Metering Analytics system is a cloud-based database providing access to the information from any location where you have access to the internet. The database can be used to monitor well information including pumpage, location, meter information, and well status. Additional information may be found in the WHCRWA's Rate Order.
6. WHCRWA's billing department will use information from the AMR device to bill monthly pumpage fees to well owner.

If the well is currently exempt (10 million gallons per year (MGY) or less as determined by the HGSD) at current pumpage, but planned future development will increase well pumpage to non-exempt levels (more than 10 million gallons per year (MGY)), the following is required after joining the WHCRWA's GRP:

1. Confirm the well meter is compatible with WHCRWA's AMR system (see attached technical requirements). Please obtain the WHCRWA's written approval of meter type from WHCRWA's Engineer before proceeding.
2. Before well becomes non-exempt (more than 10 million gallons per year (MGY)), the owner will need to execute a ROE allowing WHCRWA to install and maintain an AMR device to the well meter. The device is battery operated and transmits by cellular connection to a cloud-based database. The AMR endpoint will be owned and maintained by WHCRWA.
3. Contact WHCRWA's Engineer to schedule installation of the AMR device.
4. Once the AMR device is installed, WHCRWA will provide the assigned username and password to well's owner/operator for access. The first user to login for the well will have to acknowledge a user agreement. The Beacon Advanced Metering Analytics system is a cloud-based database providing access to the information from any location where you have access to the internet. The database can be used to monitor well information including pumpage, location, meter information, and well status. Additional information may be found in the WHCRWA's Rate Order.
5. WHCRWA's billing department will use information from the AMR device to bill monthly pumpage fees to well owner.

Acronyms (in order of appearance):

HGSD – Harris Galveston Subsidence District

GRP – Groundwater Reduction Plan

WHCRWA – West Harris County Regional Water Authority

ROE – Right of Entry

AMR – Automatic Meter Reading Device

Exempt = doesn't meet requirements and will not be included in WHCRWA GRP

Non-Exempt = meets the requirements and will be included in the WHCRWA GRP

Contact Information:

Cindy Gloyna cgloyna@gftinc.com

Melinda Silva mesilva@gftinc.com



Technical Guidelines for AMR System:

A. Groundwater well owners must measure the total water pumped from the groundwater well in accordance with Harris Galveston Subsidence District Rule 8.1. For each well included in the WHCRWA GRP, the Authority's interest in this measurement is to obtain remote simultaneous water meter registration directly from the register odometer expressed in US Gallons. The metering information shall be obtained from the register through a remotely located endpoint using the Authority's compatible data capture system. The system generally consists of three principal elements:

1. Well owner's metrology equipment consisting of well owner's water meter and auxiliary output signal devices (if any) for the use of the well owner; and
 2. Well owner's absolute encoder register for direct mounting on well owner's meter with encoded odometer wheels or LCD display and producing a compatible digital data stream over a three-wire output signal. The output signal is commonly referred as the Sensus ASCII output and includes a 6, 8 or 9 digit encoded meter reading and a 10-digit identification number; and
 3. Authority owned remotely mounted ORION® Cellular LTE Endpoint providing a communication link for the transmission of information from the well owner's encoder register to the Authority's Beacon® Advanced Metering Analytics application service. The endpoint device stores collected meter data in solid state memory and periodically transfers the data for use by the Authority for billing pumpage fees to the well owner and administering the aggregate water well permit from the Harris Galveston Subsidence District.
- B. Compatibility among the three principal features is essential to the Authority's requirement to obtain remote simultaneous water meter registration on their Beacon® AMA system. Well owner's meter installer shall select a register configuration that is compatible with the well owner's metrology equipment. All other well owner's metrology equipment shall be selected, at the time of installation, to conform to Authority's endpoint compatibility requirements at the well owner's expense.
- C. Stamp manufacturer's meter serial number on outer case. Stamp manufacturer's meter serial number on outside of register lid when provided. Manufacturer's serial numbers shall be individual and not duplicated.
- D. Provide sealed registers compatible with the Authority provided Badger Orion® Cellular LTE Endpoint. Totalizer units shall be in US gallons and display no less than six digits in line. Mechanical totalizer shall present a white faceplate for groundwater. Digital totalizer shall present an in-line LED display of total cumulative flow. The encoder output shall produce a three-wire ASCII encoder (Sensus) output.

RESOLUTION ESTABLISHING RULES AND REGULATIONS
GOVERNING THE USE OF THE AUTHORITY'S
AUTOMATED METER READING ONLINE PORTAL SYSTEM

WHEREAS, the West Harris County Regional Water Authority (the "Authority") is a political subdivision and regional water authority created pursuant to House Bill 1842, Act of the 77th Legislature, Regular Session, 2001, as amended, (the "Act") and Article XVI, Section 59 of the Texas Constitution; and

WHEREAS, the Authority was created, among other purposes, to accomplish the purposes of Article XVI, Section 59 of the Texas Constitution, including the acquisition and provision of surface water and groundwater for residential, commercial, industrial, agricultural, and other uses, the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and the control of subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions; and

WHEREAS, the Act provides that the Authority may: (1) provide for the conservation, preservation, protection, recharge, and prevention of waste of groundwater, and for the reduction of groundwater withdrawals as necessary to develop, implement, or enforce a groundwater reduction plan, in a manner consistent with the purposes of Article XVI, Section 59 of the Texas Constitution; and (2) acquire or develop surface water and groundwater supplies from sources inside or outside the boundaries of the Authority and may conserve, store, transport, treat, purify, distribute, sell, and deliver water to or among persons, corporations, municipalities, municipal corporations, political subdivisions of the state, and others, inside and outside the boundaries of the Authority, and allocate water among persons participating in the Authority's groundwater reduction plan whether they are located inside or outside the Authority's boundaries; and

WHEREAS, the Authority has adopted an Amended Rate Order, which may be amended by the Authority from time to time, (as amended, the "Amended Rate Order"); and

WHEREAS, in furtherance of its purposes and regulatory functions provided in the Act and to provide Authority customers with convenient and readily available information regarding their water usage, the Authority provides access to an online portal system (collectively, the "Online Portal System") that Non-Exempt Well Owners (as defined in the Authority's Amended Rate Order), Surface Water Users (as defined in the Authority's Amended Rate Order), and Persons (as defined in the Authority's Amended Rate Order) that own meters that are measured by an automated meter reading device (also sometimes referred to as a remote meter reading device) of the

Authority may access and utilize to view their individual water usage data gathered by the Authority's automated meter reading devices; and

WHEREAS, in order to protect the integrity of the purposes and regulatory functions of the Act that are furthered by the implementation of automated meter reading devices and the Online Portal System, the Board of Directors of the Authority finds it necessary to adopt rules and regulations relating to the use of the Online Portal System and to establish penalties for the violation thereof; and

WHEREAS, the Act provides that the Board of Directors of the Authority may set reasonable civil penalties for the breach of any rule or order of the Authority in an amount not to exceed \$5,000 for each violation or each day of a continuing violation; and

WHEREAS, the Board has determined that the rules adopted by the Authority in this Resolution are necessary to implement the Act and to implement and enforce the Authority's GRP (as defined in the Authority's Amended Rate Order) and its delivery of Surface Water (as defined in the Authority's Amended Rate Order).

NOW, THEREFORE, IT IS ORDERED BY THE BOARD OF DIRECTORS OF THE WEST HARRIS COUNTY REGIONAL WATER AUTHORITY THAT:

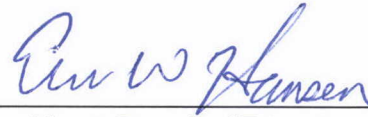
Section 1: The facts recited above are hereby declared to be true and correct. All capitalized terms used in this Resolution not otherwise defined herein shall have the meanings assigned to such terms in the Authority's Amended Rate Order.

Section 2: Pursuant to its authority under the Act, the Authority hereby adopts, and considers appropriate and reasonable, the Rules and Regulations Governing the Use of the Authority's Automated Meter Reading Online Portal System attached hereto as **Exhibit A** (the "Rules and Regulations").

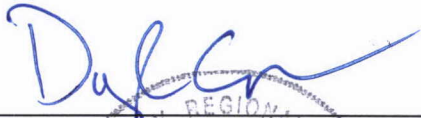
Section 3: Any Person violating the Rules and Regulations adopted pursuant to this Resolution may be subject to a fine of up to \$5,000 per violation, as provided for by the Act.

[EXECUTION PAGE FOLLOWS]

PASSED AND APPROVED this 11th day of December, 2019.



President, Board of Directors



Secretary Board of Directors

(SEAL)

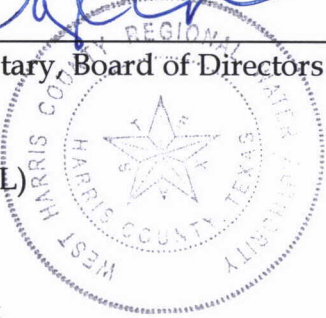


EXHIBIT A

**RULES AND REGULATIONS GOVERNING
THE USE OF THE AUTHORITY'S
AUTOMATED METER READING ONLINE PORTAL SYSTEM**

Unless specifically authorized by the West Harris County Regional Water Authority (the "Authority") Board of Directors, the following rules and regulations (the "Rules and Regulations") apply to all use of the automated meter reading online portal system made available through the Authority (collectively, the "Online Portal System") by any individual, corporation, organization, government or governmental subdivision or agency, District, municipality, county, political subdivision, business trust, trust, estate, partnership, association, or any other legal entity ("Portal User"). In order to obtain access to the Online Portal System, the Authority has entered into a Badger Meter Beacon AMA Managed Solution Master Agreement with Badger Meter, Inc. ("Badger"). For the purposes of these Rules and Regulations, the term "Online Portal System" includes without limitation any network, software, hardware, or infrastructure related to the Online Portal System and any documentation to assist Portal Users in using the Online Portal System, regardless of whether such network, software, hardware, infrastructure, or documentation is provided or owned by the Authority, Badger, Badger's cellular service aggregator and data hosting service providers (collectively and individually, "Badger Suppliers"), or other person or entity. All capitalized terms used in these Rules and Regulations that are not otherwise defined herein shall have the meanings assigned to such terms in the Authority's Amended Rate Order, which may be amended by the Authority from time to time.

I. Online Portal System Access and Ownership.

- a. In order to access the Online Portal System, Portal User must be an Authority Party (defined below) or an authorized representative of a Non-Exempt Well Owner, a Surface Water User, or a Person that owns a meter that is measured by an automated meter reading device of the Authority.
- b. Portal User shall be required to select and use certain user names, passwords or codes to access and use the Online Portal System.
- c. By accessing the Online Portal System, Portal User will not obtain any rights, title, or interest in the Online Portal System or any associated intellectual property rights, other than the right to access and use the Online Portal System subject to the terms and conditions set forth in these Rules and Regulations.
- d. The Authority's Board of Directors, in its sole and absolute discretion, may suspend or terminate access to the Online Portal System at any time of any Portal User for violation of these Rules and Regulations or any other cause.

II. Restrictions on Right to Use. Portal User may not:

- a. Sell, license, resell, sublicense, or otherwise permit any third party to access or use the Online Portal System;
- b. Remove patent, copyright, trademark, or other intellectual markings from the Online Portal System;
- c. Modify, alter, tamper with, repair, or otherwise create derivatives from the Online Portal System;
- d. Copy, reverse engineer, disassemble, or decompile the Online Portal System or apply any other process or procedure to derive the source code from any software included in the Online Portal System;
- e. Provide Portal User content that infringes on, or use the Online Portal System in violation of, the intellectual property rights of any person or entity, including but not limited to the Authority, Authority Parties (defined below), Badger, or Badger Suppliers;
- f. Use the Online Portal System in a manner that violates any applicable international, federal, state, or local laws, rules, or regulations;
- g. Assert, authorize, or encourage any third party to assert any intellectual property infringement claim regarding the Online Portal System against any party, including but not limited to the Authority, Authority Parties, Badger, or Badger Suppliers;
- h. Transmit content or messages that are illegal, fraudulent, threatening, abusive, defamatory, or obscene;
- i. Make any unauthorized connection to the Authority's billing system, if any, or any third party's network via the Online Portal System;
- j. Communicate any unsolicited commercial, voice, SMS, or other message;
- k. Upload or transmit any "virus," "worm," or malicious code or access, alter, or interfere with the communications of and/or information about another Portal User or other person; and
- l. Take actions related to the Online Portal System that could cause damage to or adversely affect the Online Portal System, the Authority, Authority Parties, Badger, Badger Suppliers, or the property of the Authority, Authority Parties, Badger, or Badger Suppliers.

III. Portal User Content and Responsibilities. By accessing and/or utilizing the Online Portal System:

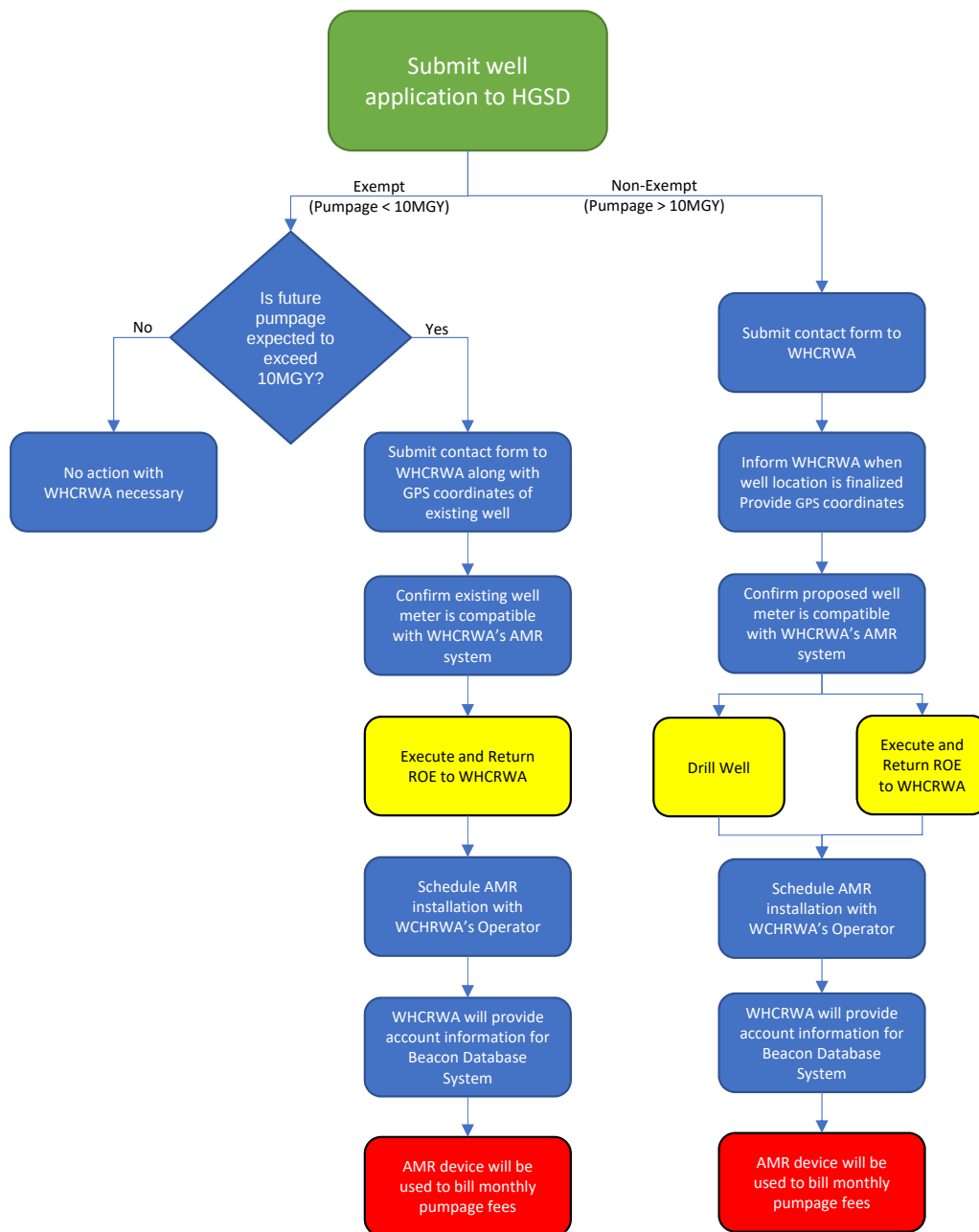
- a. Portal User consents to the Authority's, Badger's, and Badger Suppliers' right to host, access, store, copy, and use Portal User's information, including but not limited to the Portal User's address, meter reading information, water usage history, and account information, as reasonably necessary to provide, maintain, repair, and enhance the Online Portal System;
- b. Portal User is solely responsible for any actions Portal User may take with regards to the Online Portal System;

- c. Portal User agrees to comply with the Badger Meter Terms of Use Policy (<https://beaconama.net/tou/termsofuse.html>) and the Badger Meter Privacy Policy (<https://beaconama.net/privacy/privacy.html>), as either may be amended from time to time;
- d. Portal User agrees that Portal User shall not access or use the Online Portal System in any manner that violates any applicable international, federal, state, and/or local laws and/or regulations, including but not limited to, all applicable data protection, intellectual property, and privacy laws;
- e. Portal User agrees that Portal User shall not use or permit another to use the Online Portal System in violation of these Rules and Regulations;
- f. PORTAL USER AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE AUTHORITY, AND AS APPLICABLE ITS OFFICERS, DIRECTORS, CONSULTANTS, REPRESENTATIVES, AND AGENTS, (COLLECTIVELY AND INDIVIDUALLY, THE "AUTHORITY PARTIES" OR "AUTHORITY PARTY") FROM AND AGAINST ANY LEGAL PROCEEDINGS FILED AGAINST THE AUTHORITY PARTIES BY PORTAL USER OR A THIRD PARTY ARISING OUT OF OR RELATED TO PORTAL USER'S ACCESS OR USE OF THE ONLINE PORTAL SYSTEM;
- g. Portal User acknowledges security of cellular transmissions cannot be guaranteed, and as such, agrees that neither the Authority, the Authority Parties, Badger, nor Badger Suppliers are responsible for interception or unauthorized use of any data transmitted through the cellular network as part of the Online Portal System;
- h. Portal User acknowledges security of transmissions over the internet cannot be guaranteed, and as such, agrees that neither the Authority, the Authority Parties, Badger, nor Badger Suppliers are responsible for: (i) Portal User's access to the internet; (ii) interception, unauthorized use, or interruptions of communications through the internet; or (iii) changes or losses of data through the internet;
- i. Portal User agrees that, to the extent allowed by law, Portal User has no claims against Badger Suppliers; and
- j. Regardless of where Portal User accesses the Online Portal System, Portal User agrees that any action at law or in equity arising from or relating to the Online Portal System shall be filed and adjudicated exclusively in the state courts located in Harris County, Texas, and Portal User hereby irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of such courts over any such action.

IV. Miscellaneous.

- a. These Rules and Regulations are in addition to, and not in lieu of, all federal, state, and local laws, rules, and regulations applicable to the Online Portal System, its use, or its contents.
- b. The provisions of these Rules and Regulations are severable. If any word, phrase, clause, sentence, section, provision, or part of these Rules and Regulations should be held invalid or unconstitutional, it shall not affect the validity of the remaining provisions, and it is hereby declared to be the intent of the Authority's Board of Directors that these Rules and Regulations would have been adopted as to the remaining portions, regardless of the invalidity of any part.
- c. These Rules and Regulations may be amended or rescinded at any time at the sole discretion of the Authority's Board of Directors.
- d. A copy of these Rules and Regulations is available on the Authority's website www.whcrwa.com and is also on file with the Authority's Records Management Officer, Allen Boone Humphries Robinson LLP, 3200 Southwest Freeway, Suite 2600, Houston, Texas 77027, where they may be read by any interested person.
- e. Any violation of these Rules and Regulations shall subject the violator to a penalty not to exceed five thousand dollars (\$5,000) for each violation. Each separate occurrence and day that a violation of any of these Rules and Regulations continues shall be considered a separate violation. This penalty shall be in addition to any other penalties provided by the laws of the State of Texas and to any other legal rights and remedies of the Authority as may be allowed by law or in equity.
- f. Use of the Online Portal System shall be at the sole risk of each Portal User. The Authority accepts no responsibility or liability for any losses or injuries sustained by a Portal User as a result of such use.
- g. The Authority's Board of Directors, in its sole and absolute discretion, may suspend or discontinue the Online Portal System without prior notice at any time with or without cause.

NEW WELL PROCEDURES & METER GUIDELINES





West Harris County Regional Water Authority

Contact Information Request Form

Well Number(s):

New

Modify

Delete

Site Address:

Well Status:

Meter Brand:

Multiplier:

Serial Number:

Meter Size:

Calibration Date:

Calibration Due Date:

Billed to:

Address:

Engineering Firm:

Address:

Owner Firm:

Address:

Engineer Name:

Office Phone:

Email:

Owner Contact:

Office Phone:

Email:

Law Firm:

Address:

Operator Firm:

Address:

Attorney Name:

Office Phone:

Email:

Operator Name:

Office Phone:

Mobile Phone:

Email:

Back Up Operator:

Name:

Office Phone:

Mobile Phone:

Email:

Field Contact

Name:

Office Phone:

Mobile Phone:

Email:

Office Contact

Name:

Office Phone:

Email:

Please review the information auto-filled from the WHCRWA database & return any required changes to email listed below. Please save this auto-filled form for your future use to send any changes required in the future.

We added a "Clear Required Fields Only Button" to save you time by providing the option to clear only the "Well Number" maintaining the information contained in the other fields within the form that may pertain to a different Well Numbers. We maintained the "Clear All Fields Button" as well. We are providing a form for each Well permitted by the WHCRWA adding the individual Calibration Date and the Calibration Due Date for each Well.

We appreciate all your help in keeping the WHCRWA records up to date.

Please fill in the following information in the provided fields regarding the contact information for your wells within the WHCRWA's GRP.

Email completed form to cgloyna@gftinc.com