



City of Garden Ridge

"A way of life, not just a place to live"

AGENDA WATER COMMISSION REGULAR MEETING TUESDAY, MAY 16, 2023, 6:00 PM

The Water Commission will meet in a regular session on Tuesday, May 16, 2023 at 6:00 PM in the City Council Chambers, 9400 Municipal Parkway, Garden Ridge, Texas. This is an open meeting, open to the public, subject to the Open Meetings Law of the State of Texas, and as required by law, notice is hereby posted providing time, place, date, and agenda thereof. The meeting facility is wheelchair accessible and accessible parking spaces are provided. Requests for accommodations or interpretative services must be made to the City Secretary 48 hours prior to this meeting.

1. Call to Order/Roll Call

2. Pledge of Allegiance

3. Citizen Comment Period - limited to 30 minutes total

Rules for Citizens' Participation: The Commission welcomes citizen participation and comments at all Commission Meetings. The Commission offers citizens the opportunity to address them by signing up to speak prior to the meeting. If you speak, you must follow these guidelines:

a) Respect and courtesy:

1. Direct your comments to the entire Commission, not to an individual member, nor to the audience.
2. Show the Commission the same respect that you would like to be shown.
3. End your speaking at the time allotted below.

b) Speaking:

1. First citizen comment period
 - 1.1. You are required to sign up to speak and you are limited to one 3-minute period.
2. Second citizen comment period
 - 2.1. You are not required to sign up and you are limited to one 2-minute period.
3. State your name and address before your comments begin.
4. You are only allowed to speak once per topic, unless also speaking during a posted Public Hearing.

NOTE: The Texas Open Meetings Act permits a member of the public or a member of the governmental body to raise a subject that has not been included in the notice for the meeting. However, any discussion of the subject must be limited to a proposal to place the subject on the agenda for a future meeting and any response to a question posed to the City Council is limited to either a statement of specific factual information or a recitation of existing policy. TEX. GOV'T CODE § 551.042.

4. Business Items

The following items are for discussion, consideration, and/or action.

a. Approvals

1. Approval of Minutes for April 18, 2023, Water Commission Regular Meeting.

b. Discussions/Reports/Updates

1. Utility Department Monthly Activity Report.

- i. Water Pumping/usage from City wells, Water system infrastructure maintenance, repairs

9400 Municipal Parkway * Garden Ridge, Texas 78266-2600
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and/or projects, and Water and/or Drought Management (current Watering Stage).

2. Items applicable to the Water Commission discussed at the May City Council Regular Meeting.

c. Recommendations

1. AMI updates and notification process.

i. Review and discuss AMI updates and notification process.

2. Water Conservation Education booth at Garden Ridge Market Days.

i. Discuss and make possible recommendations for a Water Conservation Education booth at Garden Ridge Market Days.

3. Drought Watering Restrictions (Ordinance No. 61-082022).

i. Review and make possible recommendations on Drought Watering Restrictions (Ordinance No. 61-082022).

d. Future Agenda Items

5. **Citizen Comment Period**

6. **Adjournment**

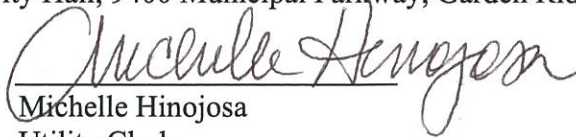
AGENDA NOTICES:

Decorum Required: Any disruptive behavior, including shouting or derogatory statements or comments may be ruled out of order by the Presiding Officer. Continuation of this type of behavior could result in a request by the Presiding Officer that the individual leave the meeting, and if refused, an order of removal.

Action by Commission Authorized: The Commission may vote or act upon any item within this Agenda.

Attendance By Other Elected or Appointed Officials: It is anticipated that members of the City Council, other city board, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of the City Council, other boards, commissions and/or committees of the City, whose members may be in attendance. The members of the boards, commissions and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that board, commission or committee subject to the Texas Open Meetings Act.

This is to certify that I, Michelle Hinojosa, posted this Agenda at 11:50 a.m. on May 11, 2023, on the bulletin board located at the entrance to the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas.


Michelle Hinojosa
Utility Clerk



City of Garden Ridge

"A way of life, not just a place to live"

MINUTES WATER COMMISSION REGULAR MEETING TUESDAY, APRIL 18, 2023, 6:00 P.M.

Commissioners Present:

Chair James Mueller
Vice-Chair Keven Harshbarger
Commissioner Dr. Richard Carmichael
Commissioner Don Stone
Commissioner William Pohl

Commissioners Absent:

Vacant Position
Vacant Position
Mayor Robb Erickson, Ex-Officio

City Staff, City Councilmembers, and Other Commissioners Present:

Nancy Cain, City Administrator
Marisa Spencer, City Secretary
Courtney Billi, Assistant City Secretary/Communications Specialist
Michelle Hinojosa, Utility Clerk
Steven Steinmetz, Public Works Director

1. Call to Order

With a quorum of the Water Commissioners present, Chair Mueller called the regular meeting of the Garden Ridge Water Commission to order at 6:00 p.m. on Tuesday, April 18, 2023, in the City Council Chambers of the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

2. Roll Call: See above.

3. Pledge of Allegiance: Chair Mueller led the Pledge of Allegiance.

4. Citizen Comment Period: None wished to speak.

5. Business Items

The following items are for discussion, consideration, and/or action.

a) Approvals

1. Minutes for January 17, 2023, Water Commission Regular Meeting.

Motion: A motion was made by Vice-Chair Harshbarger, seconded by Commissioner Stone, to approve the minutes for the January 17, 2023, Water Commission Regular Meeting. The Commission voted four (4) for and none (0) opposed. The motion carried unanimously.

b) Discussions/Reports/Updates

1. Utility Department Monthly Activity Report.

i. Water Pumping/usage from City wells, Water system infrastructure maintenance, repairs and/or projects, and Water and/or Drought Management (current Watering Stage).

Steven Steinmetz, Public Works Director, reviewed the monthly activity report and answered questions from the Commission.

2. Items applicable to the Water Commission discussed at the January, February, March, and April 2023 City Council Meetings.

Chair Mueller updated the Commission on the items applicable to the Commission discussed at the January, February, March, and April 2023 City Council Meetings.

3. Pumping and recovery study of City's water storage.

Steven Steinmetz, Public Works Director, reviewed the pumping and recovery study of City's water storage and answered questions from the Commission.

c) Recommendations

1. Request for water loss adjustment for 9902 Michelle Hill for the billing period of December 22, 2022 – January 23, 2023.

i. Review and make possible recommendations regarding the request.

Commission discussed water loss adjustment for 9902 Michelle Hill for the billing period of December 22, 2022 – January 23, 2023.

Motion: A motion was made by Vice-Chair Harshbarger, seconded by Commissioner Stone, to recommend to City Council approval of a water loss adjustment credit of \$1567.24 for 9902 Michelle Hill for the billing period of December 22, 2022 – January 23, 2023. The Commission voted four (4) for and none (0) opposed. The motion carried unanimously.

d) Future Agenda Items

1. Commissioners input on agenda items.

Chair Mueller requested to discuss AMI Notifications.

Commissioner Pohl requested to review the AMI notification profiles and process.

Commissioner Dr. Carmichael requested to discuss planning an Education booth at Garden Ridge Market Days.

Vice-Chair Harshbarger requested to review Ordinance No. 61.

2. Announce the date, time, and location for next meeting (Tuesday, May 16, 2023, at 6:00 p.m. at City Hall).

Chair Mueller announced the next Water Commission Regular Meeting will be held on Tuesday, May 16, 2023, at 6:00 p.m. at City Hall in the City Council Chambers.

6. Citizen Comment Period: None wished to speak.

7. Adjournment

Motion: A motion was made by Commissioner Dr. Carmichael, seconded by Commissioner Stone, to adjourn. The Commission voted four (4) for and none (0) opposed. The motion carried unanimously. There being no further business, the Tuesday, April 18, 2023, Water Commission Regular Meeting was adjourned at 7:09 p.m. by Chair Mueller.

ATTEST:

James Mueller
Chair

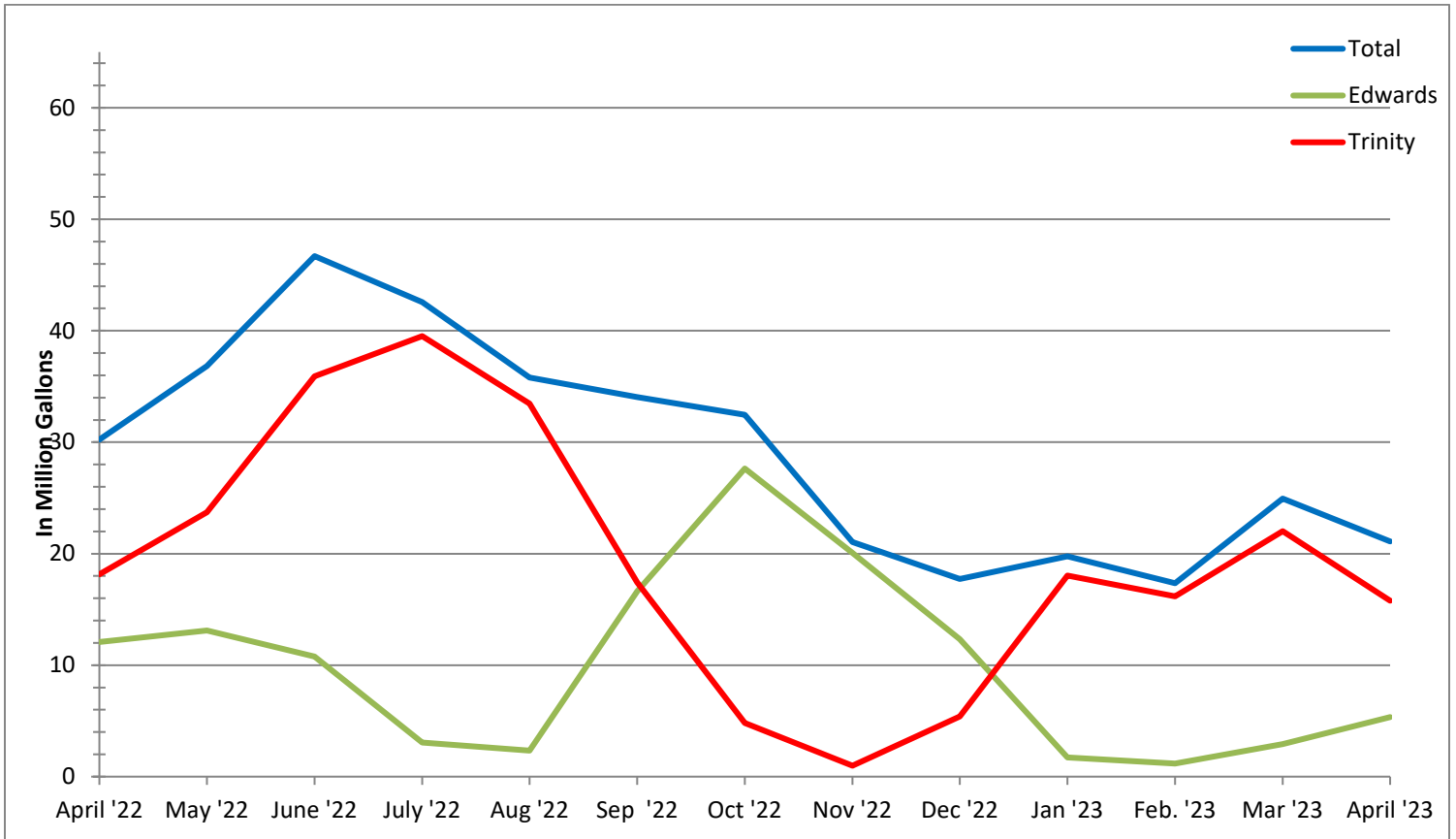
Michelle Hinojosa
Utility Clerk



Utilities Department Report

As of April 30, 2023

City of Garden Ridge Aquifer Usage

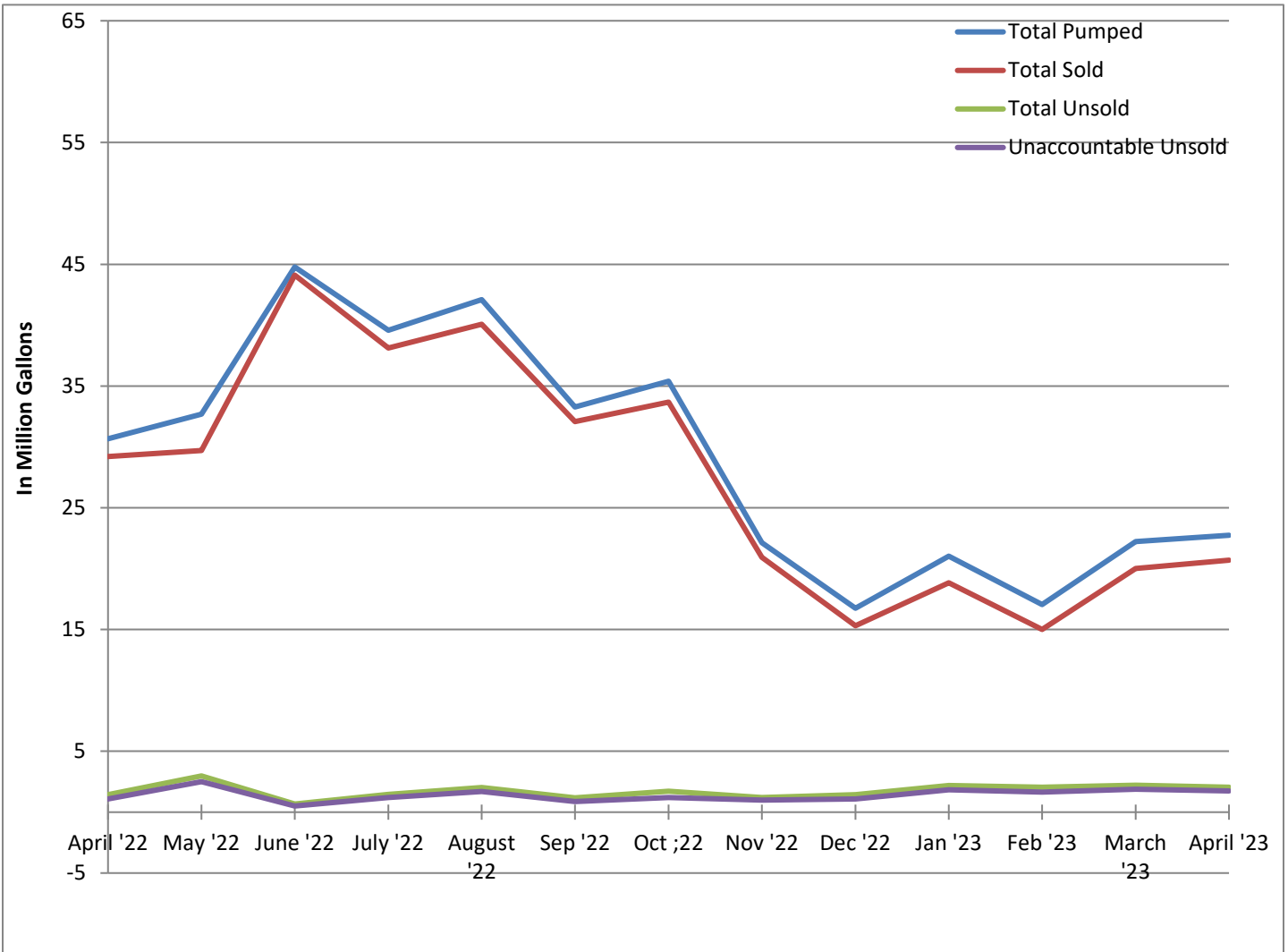


	Month:	Year:	Available:	Stage:
Edwards Well Usage AC/FT:	16.37	34.19	544.00	3
Trinity Well Usage AC/FT:	48.41	220.98	N/A	0

Water Quality

Backteriological Samples	Due :	Missed:	Passed:	Failed:
Distribution Samples :	6	0	6	0
Speacial Samples : well	1	0	1	0
Chlorine Residual Test:	30	0	30	0

2022 – 2023 Pumping Report



	Total Pumped (Thousands)	Total Sold (Thousands)	Total Unsold (Thousands)	Unaccountable Unsold (Thousands)	Unaccountable Unsold %
April '22	30,656	29,217	1,439	1,073	3.5%
May '22	32,689	29,713	2,976	2,505	7.7%
June '22	44,778	44,108	6,703	506	1.1%
July '22	39,584	38,121	1,463	1,196	3.0%
Aug '22	42,087	40,066	2,021	1,687	4.0%
Sep '22	33,266	32,087	1,179	879	2.6%
Oct '22	35,400	33,684	1,716	1,204	3.4%
Nov '22	22,132	20,924	1,208	988	4.5%
Dec '22	16,749	15,305	1,444	1,094	6.5%
Jan '23	21,033	18,840	2,193	1,843	8.8%
Feb '23	17,052	15,007	2,045	1,645	9.6%
Mar '23	22,232	20,020	2,212	1,895	8.5%
April '23	22,754	20,702	2,052	1,742	7.7%
Yearly Average	28,751	27,523	2,204	1,404	5.5%

Utilities Department Monthly Activities:

The utility department replaced pump, motor and eight sections of pipe at the Municipal well site.

New Installed Meters	0	Work Orders	239
Meter Replacements	1	Locates	33
City Owned Leaks	2	Irrigations Permits Issued	0
Meters Read	1699	Total Rebates	0
Meter Tests	0		

AMI Information

	Mar.	April		Mar.	April		
Total AMI Notifications	1047	847	↓ 200	Abnormal Usage	224	132	↓ 92
Automatic Draft Customers	690	693	↑ 3	Continuous Flow	93	68	↓ 25
AMI Customer Portal Profiles	752	754	↑ 2	Leak Info Code	115	90	↓ 25
E-Billing Customers	399	401	↑ 2	Usage Trend	96	88	↓ 8

Stage 2 restriction alerts

April alerts 469

Down 50 from March

*Active Leak Info Code Alerts – The firmware on the meter is measuring the flow rate through the meter and will only be triggered if water is flowing continuously above the configurable parameter of the meter's max-flow rate threshold for 24 hours. The city has set a standard max-flow rate of .1% and is notified of any triggered alert.

Leak Adjustments

New Requests	1	Waiting for Customer	2	Approved	0	Amount Approved		Denied		Sent to Water Commission	1
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H2O Customer Portal - Event Based Notifications

Overview

The H2O Customer Portal can automatically notify utility customers in the case of various “meter data events” that are detected through the analysis of both meter readings and “Infocodes” that are raised by the Kamstrup smart meters.

Through integration with the utility’s Kamstrup Advanced Metering Infrastructure (AMI) system, the H2O system receives meter reads and Infocodes on an hourly basis. It is important to understand that the smart meters themselves have their own wireless communication link with an AMI “collector” and that the collector passes data through a “back haul” link to the Kamstrup cloud platform where the data is aggregated and then delivered to H2O hourly. The wireless link between the meters and the collector, and the back-haul link have their own schedules and latency expectations which may be affected by weather conditions and other factors. Under normal conditions, the data received by H2O each hour is likely several hours old (and maybe older). It is also not uncommon for “gaps” to occur in the time series data; these are typically the result of intermittent problems in the wireless communication phase of the data life cycle.

When H2O receives reads and Infocodes on an hourly basis, it evaluates the data for each meter. Active Infocodes are compared to a list of active alerts in either the system default settings, or the customer’s customized settings (if they have activated the Customer Portal app and modified their settings.) If the settings indicate an email, SMS or phone call should be sent, the system generates the appropriate notification and places it in the outbound message queue. If “auto send” is enabled in the system settings, then a send task will be initiated. If the current time is within the configured allowable messaging window, the message will be sent immediately. If the current time is outside the allowable messaging window, the send task will be scheduled for the following morning when the messaging window opens.

Notification Types

Burst Infocode Active is triggered by the Kamstrup “Burst” Infocode. This is detected by the firmware on the meter if the water flow has exceeded a pre-programmed limit for a minimum of 30 minutes. The pre-programmed limit is configured at the factory and can be modified by the utility in the field. A typical setting for this limit is > 20% of max-flow for 30 minutes. For a 5/8 meter with a max-flow rate of 25GPM this means that water flowing at more than 5GPM for more than 30 minutes will trigger the Infocode. It is likely that every run of an irrigation system, even one using high efficiency drip lines, will trigger this Infocode. See *Abnormal Usage Alert* below for an alternative.

Leak Infocode Active is triggered by the Kamstrup “Leak” Infocode. This is detected by the firmware on the meter “...if the water has not been stagnant in the meter during the past 24 hours.” Again, this is based on a configurable parameter with possible settings being 0.1%, 0.25%, 0.5%, 1% and 2% of the meter max-flow rate. Thus, the most sensitive setting of 0.1% on a 5/8 meter would mean that a continuous flow rate of 0.025 gallons (or about 3.33 ounces) per minute for 24 hours will trigger the Infocode. It is important to note that this is measuring the *flow rate* through the meter, and will only be triggered if water is flowing *continuously* above the threshold for 24 hours. Contrast this with the behavior of the *Continuous Flow Alert* described below.

H2O Customer Portal - Event Based Notifications

Low Ambient Temp Infocode Active is triggered by the Kamstrup “Low Ambient” Infocode which is a measure of the air temperature inside the meter housing. When the temperature reaches a configurable threshold, the Infocode is raised. The threshold temperature setting is configurable (by the utility) with the following options: OFF, 37 °F and 43 °F.

Low Water Temp Infocode Active is triggered by the Kamstrup “Low Media” Infocode which is a measure of the water temperature inside the meter. When the temperature reaches a configurable threshold, the Infocode is raised. The threshold temperature setting is configurable (by the utility) with the following options: OFF, 37 °F and 43 °F.

Continuous Flow Alert is triggered by an algorithm which runs in the H2O cloud platform whenever new meter readings are received for a meter. The most recent readings are evaluated and if the recorded hourly usage exceeds a customer-configurable threshold for a customer-configurable number of consecutive hours, the alert is raised. Note that gaps in the hourly data will prevent this alert from firing. Also note that, unlike the *Leak Infocode* which measures *flow rate*, this alert is evaluating *hourly usage*. It is unlikely that a given customer will want to use both *Leak Infocode Active* and *Continuous Flow* at the same time. *Continuous Flow* can act as a substitute for *Leak Infocode Active* when a given customer knows they have continuous usage and want to set their own alert threshold, as the threshold for the *Leak Infocode* can only be set by the utility.

Restriction Violation Alert is triggered by a business rules module in the H2O cloud platform which compares the recent hourly usage to water use restriction rules that are in effect, based on the utility’s current drought stage setting. When statistically significant water usage is detected during an hour of the day that is outside allowable outdoor water usage hours, this alert is raised. It is important to understand that this algorithm cannot definitively “know” that any water use is either compliant or non-compliant with usage restrictions; it is only an indicator that water usage *may* be out of compliance with current usage restrictions. This alert provides a convenient mechanism for the utility to remind customers of restrictions that are in effect.

Abnormal Usage Alert is triggered by an algorithm that runs in the H2O cloud platform whenever new meter readings are received. This algorithm identifies periods (hours) of statistically significant water usage and builds a profile (for each meter) of when these reoccur. This allows the algorithm to effectively “learn” the customers irrigation controller program. Hours of repeat high usage will be ignored, but high usage during non-repeat periods will trigger the alert. The intent of this alert is to notify the customer of abnormally high usage, but not send “false positives” whenever the irrigation system runs. Compare this behavior to the *Burst Infocode* that will fire on every irrigation system cycle. It is expected the customers with irrigation systems will turn *Burst Infocode Active* to the “off” setting and Abnormal Usage Alert “on.”

Usage Trend Alert is triggered by an algorithm that runs in the H2O cloud platform once daily in the early morning hours. This model predicts the meter’s usage through the end of period and alerts if that usage is predicted to exceed a customer-defined threshold setting.

City of Garden Ridge Event Based Notification settings:

Burst, Low Ambient Temp, Low Water Temp Infocode Notifications are set to alert the Utility Team and log every event in the AMI system. However, Burst alarms are not set up to notify the customer since the majority of our community has irrigation systems and alarms would be going off every time each system turns on.

Leak Infocodes are generated depending on the settings for each profile. If a customer has not set up a profile, the system will send a phone or email notification to the current contact information on the Water Account. If a profile has been set up by the customer, the system will notify the customer based on the contact details they set up. **IMPORTANT NOTE:** If the customer forgets to add a phone number or email on the profile, it will override our customer contact info and notification will not be sent at all because the information is missing. The Utility Department does not have access to their profile data, so we cannot verify what they set up on their profile.

Currently, the City's Leak infocode configuration is set to trigger alarms when there is constant usage at a rate that is greater than 1% of the max flow rate for 24 hours, every 30 days. The customer may change the "snooze" alarm to less than 30 days but they cannot change anything else for a Leak infocode.

The customer may set up a Continuous Flow alert for flow exceeding "X" GPH (gallons per hour) for "X" Hours. But this feature is not automatic. Notifications will be sent once they select their preferences on their profile. It works like the Leak Infocode but it's up to the customer to activate it.

Restriction Violations are currently set to detect when a resident's irrigation system is running outside the Water Restriction days and hours according to the address.

Abnormal Usage learns the customer's irrigation patterns and will alert the customer of high usage during periods when their system doesn't normally run.

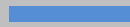
Usage Trend alerts are not automatic. Notifications will be sent once the customer sets this up in their profile.



WANT TO KNOW HOW MUCH WATER YOU USE?

SIGN UP FOR THE CUSTOMER PORTAL

You can view your water usage 24/7/365!



**CREATE YOUR ACCOUNT
AT GETMYMETER.INFO
TODAY AND DOWNLOAD
THE APP!**

**You can find additional information about the
customer portal on the City's website!**

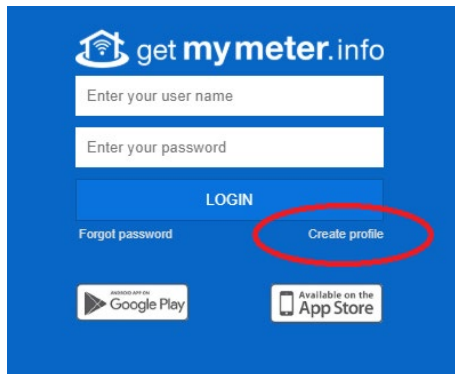


Get My Meter Info

Access your water usage information and configure notification preferences easily and securely from the *Get My Meter Info* web portal and integrated smart phone apps.

Registering your account on the web portal

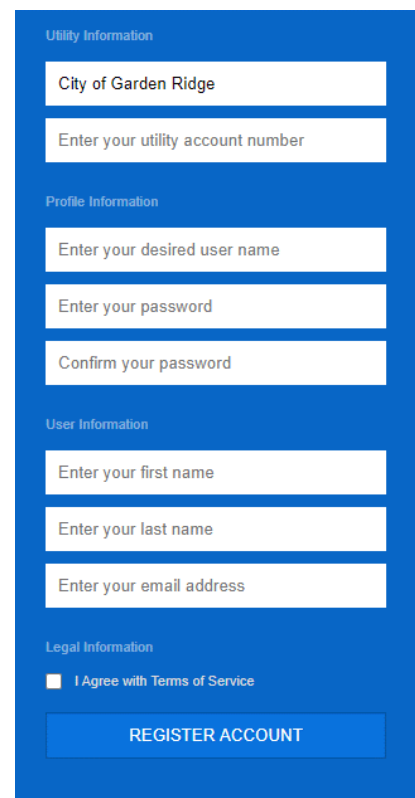
The portal system is accessed by logging into your *Get My Meter Info* portal account. Using your web browser, navigate to <https://getmymeter.info> and register your account. During the registration process, you will be required to enter some information found on your utility billing statement, including your account number and the name associated with your account.



To establish an account please enter “City of Garden Ridge” as the Utility Name and enter your Utility Account Number exactly as it appears on your utility bill.

Enter:

- Selected user name
- Password
- First and Last names
- Email address.



Be sure to check the box to agree with the terms of service and click “Register Account.”

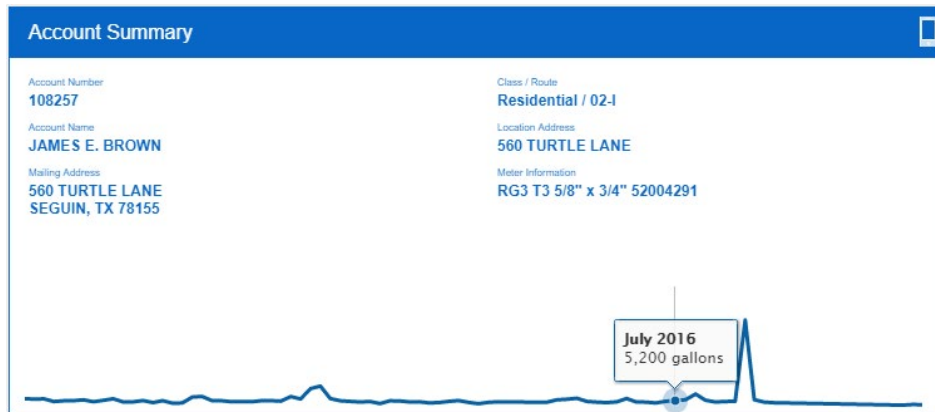
You will receive a confirmation email; click the link in the email to activate your account.

Accessing the Portal

After registering and responding to the confirmation email, log in to your account and view the following portal information:

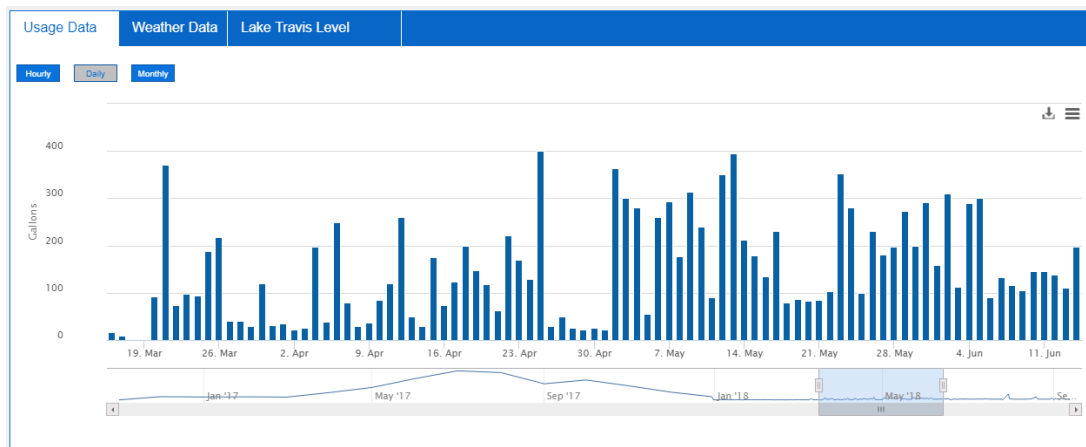
Account Summary

The Account Summary widget shows you information about your account, location and meter along with a graph depicting your monthly water usage history.



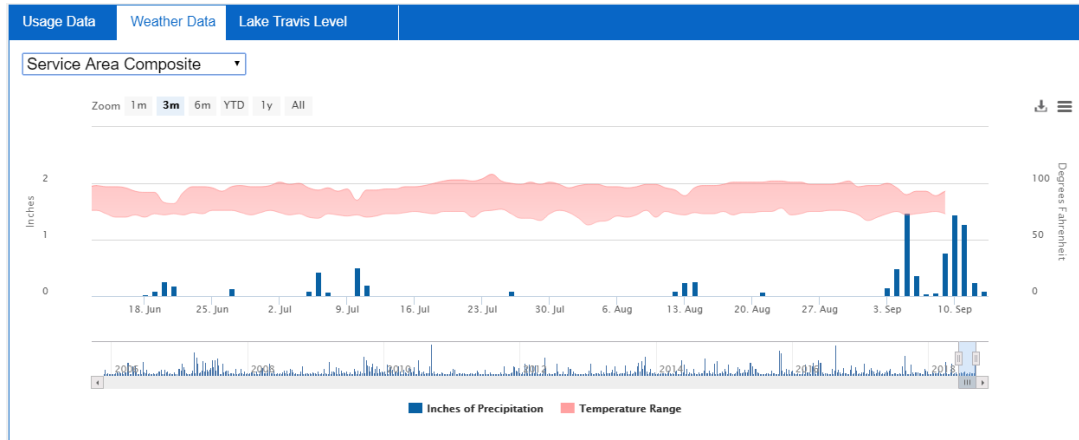
Usage Data

The Usage Data section shows your water consumption; float your mouse over a bar in the chart to view details for that period. Click the “Hourly”, “Daily” and “Monthly” buttons to change the data view. Click the download buttons to retrieve the chart in popular computer graphics formats or the underlying data in Excel format.



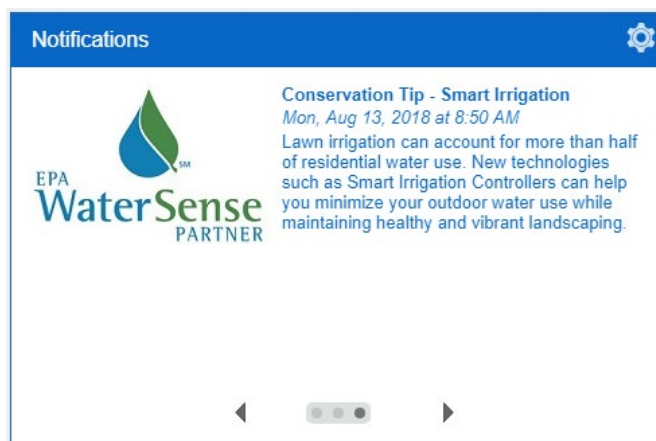
Weather Data

The Weather Data section shows temperature range and precipitation data from weather stations in and around the City of Garden Ridge service area. Click the download buttons to retrieve the chart in popular computer graphics formats or the underlying data in Excel format.



Notification History

The Notifications section shows you recent notifications including conservation tips, service notices and other communications from City of Garden Ridge. These are the same messages that you have received via email, text or phone depending upon your notification configuration settings. Click the “gear” icon in the upper right corner to access your notification configuration preferences.



Configure Notification Preferences

You can configure where you want to receive notification and which notices you prefer.

Notification Settings

Contact Information

Enter your email address

Enter your phone number

Phone Call Window

Begin: 7:00 AM

End: 8:00 PM

Text / Email Window

Begin: 9:00 AM

End: 6:00 PM

Meter Data Event	Email	Phone	Snooze Days	Parameters
High Flow Alert	☒	☐ Call ☒ Text	30	
Customer Leak Alert	☒	☐ Call ☒ Text	30	
Continuous Flow Alert	☐	☐ Call ☐ Text	30	Flow exceeds 1 GPH for 24 Hours
Restriction Violation Alert	☒	☐ Call ☒ Text	30	
Abnormal Usage Alert	☒	☐ Call ☒ Text	30	
Usage Trend Alert	☐	☐ Call ☐ Text	30	Trending to exceed 15,000 monthly gallons
Away From Home Alert	☐	☐ Call ☐ Text	30	Usage exceeds 0 gallon(s)

OK

Cancel

- Enter your email address and phone number for receiving notifications via SMS or automated phone calls.
- Enter the time window during which you want to receive phone messages and the window during which you want to receive messages via SMS or email. To receive messages 24 hours a day, set both to the same value.
- For each notification type, check the “Email”, “Call” and/or “Text” boxes to specify which type of message you want to receive for each alert.
- “Snooze Days” specifies how many days will pass between messages of the same type.
- Some alert types require additional parameter values.
- Float your mouse pointer over the “info” icon for a detailed description of each alert type.

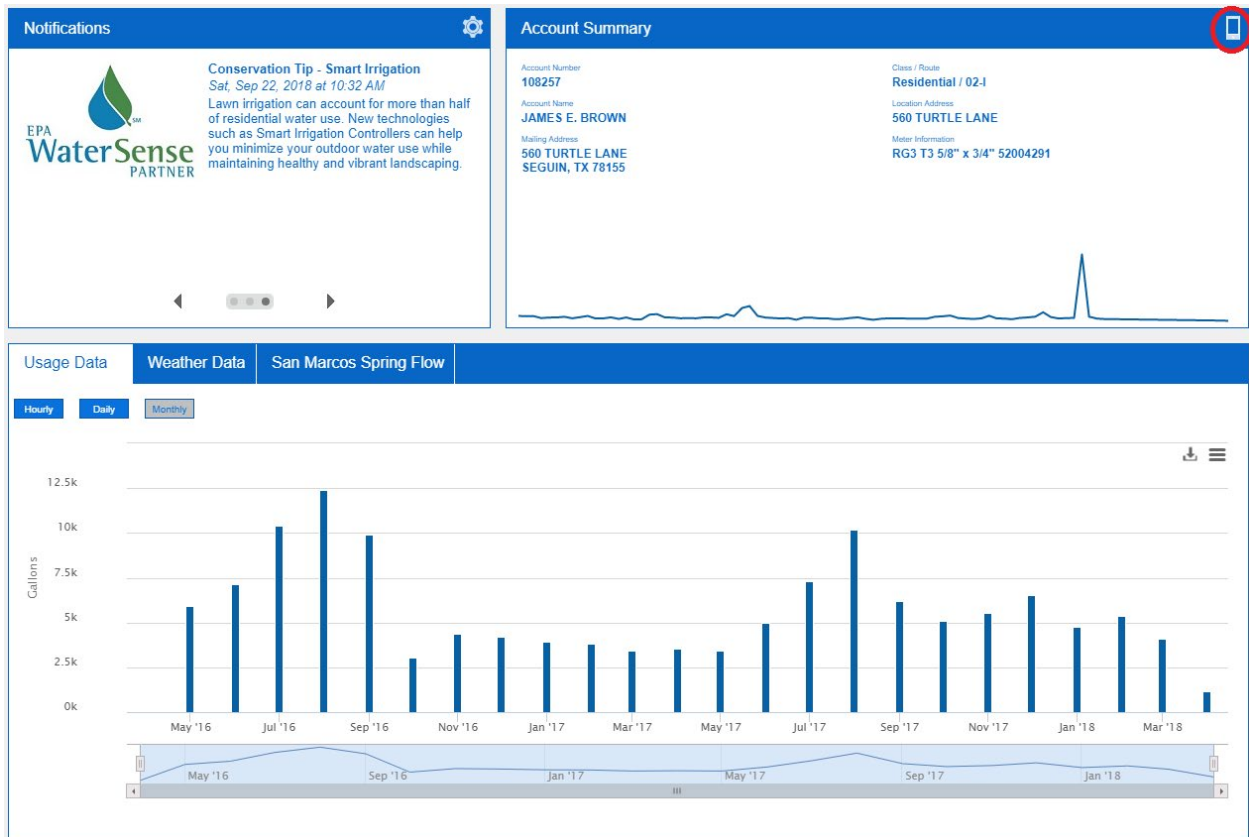
Mobile App

You can also access your portal information using the app **“My Meter Info”** on your iPhone or Android phone. Visit the appropriate store and download the app:

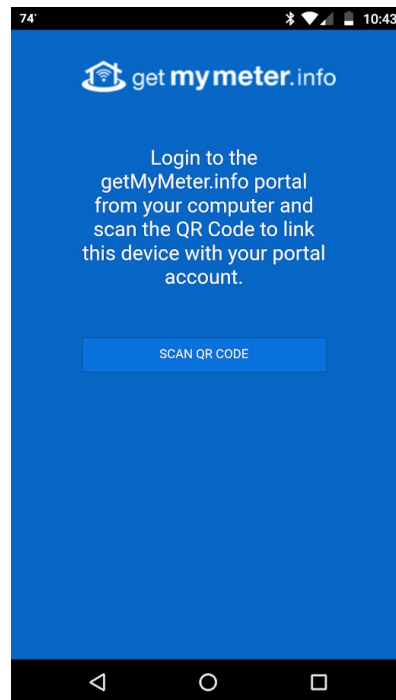


Link the App to Your Account

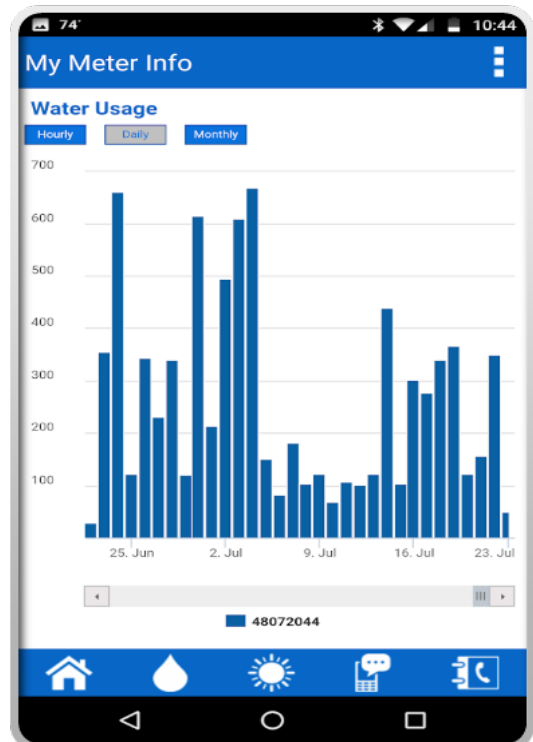
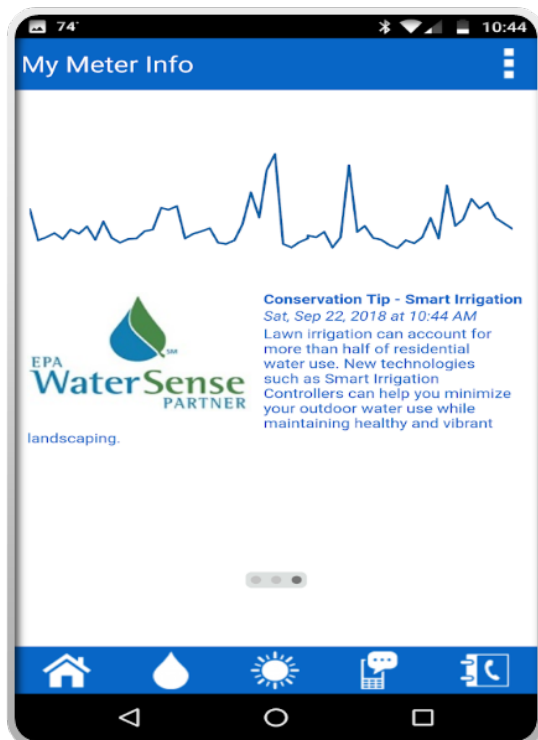
Your mobile app must be linked to your portal account; this allows you to view your information using the mobile app without logging in. First access your account via the web portal and click the mobile device icon to initiate the pairing process:



Scan the QR Code from the web portal application using the mobile app.



Now you can view your account information and meter data on your mobile device.



ORDINANCE NO. 61-082022

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GARDEN RIDGE, TEXAS, ESTABLISHING THE DROUGHT MANAGEMENT PLAN FOR THE CITY OF GARDEN RIDGE; ESTABLISHING TRIGGER POINTS AND DEMAND REDUCTION MEASURES; PROVIDING A VARIANCE PROCEDURE; PROVIDING A PENALTY FOR VIOLATIONS OF THIS ORDINANCE; PROVIDING A CUMULATIVE AND SAVINGS CLAUSE; PROVIDING FOR SEVERABILITY; AND DECLARING AN EFFECTIVE DATE.

WHEREAS, the City of Garden Ridge is a Type A, General Law Municipality located in Comal County, Texas; and

WHEREAS, the Edwards Aquifer Authority is a regional authority managing water pumped out of the Edwards Aquifer by the City of Garden Ridge and has set standards for the Emergency Water Use Reduction Program in the region; and

WHEREAS, the City of Garden Ridge uses both water from the Edwards Aquifer and from the Trinity Aquifer to provide water to residents of the City of Garden Ridge as well as persons residing within the Certificate of Convenience and Necessity (CCN) of the City of Garden Ridge; and

WHEREAS, the Trinity Aquifer is currently an unregulated water source; and

WHEREAS, the level of the Trinity well affects the ability of the city to provide unrestricted water sources; and

WHEREAS, pursuant to Chapter 54 of the Local Government Code, the City is authorized to adopt such ordinances necessary to preserve and conserve its water resources; and

WHEREAS, the City Council finds that the proposed revisions promote the health, safety and welfare of the City and Ordinance No. 61 is amended as contained herein.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GARDEN RIDGE, TEXAS, THAT:

SECTION 1. FINDINGS.

The findings set out herein are found to be true and correct and are hereby adopted by the City Council and made a part of this Ordinance for all purposes.

SECTION 2. DEFINITIONS.

The following words and terms, when used in this plan, shall have the following meanings unless the context clearly indicates otherwise:

Act is the Act creating the Edwards Aquifer Authority, namely the Edwards Aquifer Authority Act of May 30, 1993, 73rd Leg.R.S. Ch. 626, 1993 Texas General Laws 2353, as amended.

Aesthetic Use is the use of water for fountains, waterfalls, and landscape lakes and ponds where such use is entirely ornamental and serves no other functional purpose.

Agricultural Irrigation means irrigation for the purpose of growing crops commercially for human consumption or to use as feed for livestock or poultry.

Bucket means a bucket or other container holding five gallons or less, used singly by one person.

Connection is a metered or unmetered delivery point to a customer or other receiver of water from an organized water distribution system.

Conservations are those practices, techniques, and technologies that will reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses.

Demand Reduction Measure is a specific action to be taken by defined categories of users to reduce the pump age demand on the Edwards Aquifer during a drought.

Domestic Type Use is the use of water, other than uses in the outdoor category, for personal needs or for household purposes, such as drinking, bathing, heating, cooking, sanitation or cleaning, whether the use occurs in a residence or in a commercial or industrial facility.

Drought is a period of shortage of precipitation of seasonal or longer duration.

Edwards Aquifer means that portion of an arcuate belt of porous, water-bearing limestones composed of the Edwards Group Limestone and Associated Formations trending from west to east to northeast through Kinney, Uvalde, Medina, Bexar, Comal and Hays Counties.

Hand-Held Hose is a hose physically held by one person, fitted with a manual or automatic shutoff nozzle.

Healthcare Facility is any hospital, clinic, nursing home or other healthcare or medical research facility.

Impervious Surface Area is any structure, or any street, driveway, sidewalk, patio, or other surface area covered with brick, paving, tile or other impervious material.

Industrial Use is the use of water integral to the production of primary goods and services provided by industrial or commercial facilities, Industrial facilities include facilities which perform such process-specific activities as cooling, boiler feed, cleaning and washing, pollution control, extraction and separation of desirable material from products and waste materials and the incorporation of water into final products, Commercial facilities include, but are not limited to, food service facilities, hotels, retail facilities and nursery operations.

Industrial User is an industrial or commercial water user whose use of water is integral to the production of primary goods and services provided by industrial or commercial facilities.

Industrial Well User is an industrial user who owns one or more wells that produce water used for industrial or commercial facilities.

Irrigator is a well owner who uses water to irrigate land for growing commercial crops.

Landscape Watering means the application of water to grow landscaping plants.

Landscape Plant is any member of the plant kingdom, including any tree, shrub, vine, herb, flower, succulent, groundcover or grass species that grows or has been planted out-of-doors and is used for landscaping purposes or for the support of intensive recreational areas such as playgrounds and playing fields.

Livestock is cattle, sheep, goats, hogs, poultry, horses and game, domestic, exotic and other animals and birds, including zoo animals, used for commercial or personal purposes.

Livestock Use is the use of water for drinking by or washing of livestock.

MSL is mean sea level.

Municipality is a city or other governmental unit with the authority to make and enforce ordinances.

Order is a written order of the City Council or Mayor of the City of Garden Ridge, Texas.

Other Outside Use means the use of water outdoors for the maintenance, cleaning and washing of structures and mobile equipment, including automobiles and boats, the washing of streets, driveways, sidewalks, patios and other similar areas.

Person means any individual, firm, entity, corporation, municipal corporation, governmental or proprietary body, including the United States or the State of Texas, or association of persons.

Reduction Goal means the amount of reduction in pumpage volume, expressed in a percentage from baseline pumpage volume for each drought stage.

Reuse is the use by any user of Edwards Aquifer water that has been recycled or reclaimed for any beneficial purpose, after such water has been previously used for any beneficial purpose, whether or not any treatment of such groundwater may be required in connection with such recycling or reclamation.

Stage means one of the five designated drought stages, which may be declared by the City or the Edwards Aquifer Authority.

Supplier is any person who supplies water to customers for residential, commercial, industrial, military or other uses, including a public or private water company, water supply corporation, municipality and water district.

Trigger Conditions means those specific conditions of rainfall amounts, Edwards Aquifer water level elevations, spring discharges and water quality which the Authority will monitor and use as indicators of the occurrence of drought conditions for purposes of declaring the various stages.

Trigger Points are special conditions experienced by the City of Garden Ridge, which authorize the city to initiate Stage 1 through 5 of the City of Garden Ridge Drought Management Plan.

Trinity Aquifer Well is a source of water for the City of Garden Ridge which is located in the Cow-Creek formation of the Trinity Aquifer.

Use for a Beneficial Purpose means water which is used, without regard to priority, for:

- a) agricultural, commercial, domestic, gardening, industrial, manufacturing, mining, municipal, pleasure, recreational, or stock raising purposes; or

- b) exploring for, producing, handling, or treating oil, gas, sulfur, or other materials; or
- c) any other purpose that is useful and beneficial to the user.

User is a person, public or private, who produces, distributes, or uses water from an Edwards Aquifer well or from the Trinity Aquifer well.

Variance is an authorized exception from compliance by the user with any provision of the Rules granted by this Ordinance.

Waste is:

- a) The flowing or producing of groundwater from wells in the Edwards Aquifer or Trinity Aquifer if the water flowing or produced is not used for a beneficial purpose by any user,
- b) The unreasonable loss of groundwater through faulty design or negligent operation of a well or water delivery or application system; or
- c) Using quantities of groundwater for a purpose that otherwise would be considered beneficial in excess of quantities reasonably necessary for that purpose.

Water Utility Use is water used for withdrawal, treatment, transmission, and distribution by potable water systems.

SECTION 3. DEMAND REDUCTION MEASURES.

The demand reduction measures for all water uses for Stages 1, 2, 3, 4, and 5 are set out in Appendix A. For clarification, certain permitted and exempt water uses are listed. Listed below are the trigger points for the various stages of the Drought Management Plan.

TABLE 1	
Reduction Stage	J-17 Well Level
1	660' (10 day rolling average)
2	650' (10 day rolling average)
3	640' (10 day rolling average)
4	630' (10 day rolling average)
5	625' (10 day rolling average)

SECTION 4. EMERGENCY WATER USE REDUCTION.

- a) **Declaration of Emergency Stages:** The Mayor of Garden Ridge is authorized to order, by proclamation, implementation of provisions of Stages 1 through 5 of the City of Garden Ridge Drought Management Plan when the appropriate trigger points as established in this Ordinance are met.

The City of Garden Ridge shall determine when conditions warrant implementation of the Emergency Water Use Reduction Program. The program is implemented when any one of the below Trigger Points is reached. The City of Garden Ridge may advance stages, as needed to effect compliance with pumping limit goals. The various stages may be declared as shown in Appendix A.

b) Trigger Points:

1. Declaration of Stages 1 through 5 by the Edwards Aquifer Authority and/or at the discretion of the Mayor, City of Garden Ridge, based upon consideration of water supplies, pumping trends, seasonal adjustments, current and forecast precipitation, and other relevant factors impacting the City's water supply.
2. The level of the Edwards Aquifer Authority Test Well J-17 reaches a level of Stages 1 through 5 Emergency Water Use Reduction as defined by Edwards Aquifer Authority.
3. When the pumping ability of the Trinity Aquifer well drops to 600 GPM or Draw down level of the well reaches seventy-five (75) feet above the transponder.
4. When the City's pumping capacity is reduced by infrastructure damage or equipment failure.

c) Public Issuance of Drought Stage Declaration: The Declaration of a critical use stage will be publicly issued by the City of Garden Ridge. Such declaration shall be placed on the City sign, distributed through the Garden Ridge Emergency Alert System, posted on the City's website, posted on the City's social media pages, and/or published in the official City newspaper.

d) Restricting the Use of Water:

1. Upon declaration of a critical use stage by the City of Garden Ridge, compliance with the Emergency Water Use Reduction Program demand reduction measures shall be required and compliance with the voluntary measures shall be encouraged.
2. Demand reduction measures are attached as Appendix A and are herein incorporated for all purposes.
3. Upon declaration of a critical use stage by the City of Garden Ridge, the sale of water to a temporary user for use outside the City shall be prohibited. The sale of water to a temporary user for use within the City shall be at the discretion of the Public Works Director.

e) Water Rate Surcharges:

1. Critical Period Surcharges will be implemented in accordance with the following schedule:
 - i. Stage 3: Customers will be charged the current water rate plus a 100% surcharge for use over 40,000 gallons.
 - ii. Stage 4: Customers will be charged the current water rate plus a 200% surcharge for use over 40,000 gallons.
 - iii. Stage 5: Customers will be charged the current water rate plus a 200% surcharge for use over 40,000 gallons.
2. Water rate surcharges will remain in effect only so long as the City is in Stages 3, 4, or 5 of the Drought Management Plan.
3. Water rate surcharges shall coincide with the normal billing cycle of the Garden Ridge Water Department. Surcharges shall be applied to the next billing cycle following the implementation of Stages 3, 4, or 5.
4. Surcharge revenues shall be deposited in the Water Fund and such revenue is to be used for Water Company Operations.

f) End of Emergency Use Restrictions:

1. Trinity Aquifer: The program and/or each stage may be terminated or changed at the discretion of the Mayor, City of Garden Ridge, after the trigger condition of a stage has been exceeded and after considering the 10 day rolling average of the appropriate index well level, pumping trends, current precipitation, and the outlook for additional precipitation.
2. Edwards Aquifer: The program and/or each stage may be terminated or changed upon declaration of the Edwards Aquifer Authority (EAA) and/or at the discretion of the Mayor, City of Garden Ridge.

SECTION 5. PENALTIES.

- a) A person who knowingly or intentionally violates the provisions of this Ordinance shall be deemed guilty of a misdemeanor offense and upon conviction be punished by a fine of not less than ten dollars (\$10.00) and not more than two thousand dollars (\$2,000). Each day's violation constitutes a separate offense. Compliance may also be sought through injunctive relief in the District Court.
- b) No violation, definition, or penalty under this section shall have bearing on any violation, definition, or penalty under any other section of this Ordinance.

SECTION 6. ENFORCEMENT.

- a) **Applicable to Resident and Non-Resident Customers:** The enforcement provisions of this Ordinance shall apply to all persons, customers, and property utilizing water purchased from and provided by the City. For purposes of this Ordinance, it shall be presumed that any person, corporation, or association in whose name a water meter connection is registered with the City of Garden Ridge Water Company, has knowingly made, caused, used, or permitted to use the water received from the City and that use of said water in a manner contrary to the provisions of Ordinance No. 61, or in an amount in excess of the use permitted by the conservation stage in effect, is considered a violation of Ordinance No. 61 by that resident person, non-resident person, corporation, or association. Proof that the particular premises have a water meter connection registered in the name of the defendant named in a complaint issued under the auspices of Ordinance No. 61 shall constitute in evidence a prima facie presumption that the person in whose name such water connection was registered was the person who permitted the illegal use of water to occur on the premises.

SECTION 7. VARIANCES.

- a) **Request For Variance:** A person may file a written request for a variance from these rules with the City of Garden Ridge. The request must contain the following information:
 1. The specific nature of the variance requested; and
 2. A detailed explanation of why the person believes they should be granted the variance, including any supporting documentation; and
 3. A signed statement that the facts contained in the request are true and within the person's personal knowledge.
- b) **Additional Information:** The City of Garden Ridge may request the variance requester to provide additional information, which must be filed within ten (10) calendar days of the request or as otherwise directed in the request.

- c) **When Variance May Be Granted:** A variance may be granted only when the variance is not contrary to the public interest and is in harmony with the general purpose and intent of this Ordinance so that the public health, safety, and welfare may be secured and that substantial justice may be done. The Water Commission shall recommend to City Council a variance from these regulations when, due to special conditions, an undue hardship will result from requiring compliance. The City Council is the final authority on variances. The variance, if granted, would be the minimum necessary relief required to alleviate the undue hardship, with the following considerations:
1. That the requested variance does not violate the intent of the drought regulations; and
 2. That the relief sought will not cause significant harm to any other person or group of persons or result in the City of Garden Ridge being in violation of regulatory requirements; and
 3. That the granting of a variance will be in harmony with the spirit and purpose of these regulations; and
 4. That the hardship is in no way the result of the applicant's own actions.
- d) **Terms and Conditions of the Variance:**
1. The City Council may grant a variance for such a term and in accordance with any conditions they deem appropriate.
 2. It shall be a term of every variance granted by the City Council that the variance may be rescinded based on changed circumstances, new information, or failure of the holder of the variance to abide by the terms and conditions of the variance or to comply with these rules or any other order or rule of the City of Garden Ridge.
 3. The City Council may require a person granted a variance to file reports with the City of Garden Ridge containing such information as the City believes relevant to monitoring the continuing appropriateness of the variance.

SECTION 8. SEVERABILITY.

If any section, paragraph, subdivision, clause, or phrase of this ordinance shall be adjudged invalid or held unconstitutional, the same shall not affect the validity of this ordinance as a whole or any part of any provision thereof other than the part so decided to be invalid or unconstitutional.

SECTION 9. EFFECTIVE DATE.

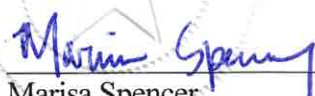
This ordinance shall take effect immediately upon its passage, approval, and publication according to law.

PASSED AND APPROVED ON this 29th day of August, 2022.



Robb Erickson
Mayor

ATTEST:



Marisa Spencer
City Secretary

**APPENDIX A
DEMAND REDUCTION MEASURES**

Watering by automated irrigation systems is restricted year-round between the hours of 10 am and 8 pm.

STAGE 1

Stage One Alert begins when the Edwards Aquifer Authority Test Well J-17 level reaches **660** feet mean sea level (10 day rolling average) at the monitored well and is declared by the Edwards Aquifer Authority (EAA) and/or at the discretion of the Mayor of the City of Garden Ridge.

1. Water waste is prohibited to include, allowing water to run off onto a gutter, ditch, drain, into the street, or failing to repair a controllable leak.
2. Watering with an irrigation system or sprinkler, permitted only during the hours of 12 a.m. to 10 a.m. and 8 p.m. to 12 a.m.
3. Watering with an irrigation system or sprinkler, permitted only once a week on the designated watering day.

Last Digit of Address	Day
0	Monday
1&2	Tuesday
3&4	Wednesday
5&6	Thursday
7&8	Friday
9	Saturday

Areas without a street address such as medians, neighborhood entryways, or common areas water as if their address ended in a 2.

4. Watering with hand-held hose or drip irrigation permitted any day, any time.
5. Residential, commercial, industrial, and agricultural Edwards Aquifer water users should reduce water consumption by any means available.
6. Washing impervious cover such as parking lots, driveways, streets, or sidewalks is prohibited.
7. Non-commercial washing of vehicles and mobile equipment (e.g. washing vehicles at a residence) is permitted any day at any time over landscape or other surface where run off is minimized and with the use of a hose using an automatic shut-off nozzle or bucket of 5 gallons or less.
8. No building permits will be issued to homeowners or pool contractors for the construction of new swimming pools unless verification is provided that 100% of water for filling of pool will be brought in from a water source outside of the City.

This does not apply to non-potable water, gray water, or treated effluent.

Stage 1 restrictions continue until there is an announcement that Stage 1 has been canceled or that Stage 2 is in effect.

STAGE 2

Stage Two Alert begins when the Edwards Aquifer Authority Test Well J-17 level reaches **650** feet mean sea level (10 day rolling average) at the monitored well and is declared by the Edwards Aquifer Authority (EAA) and/or at the discretion of the Mayor of the City of Garden Ridge.

1. Water waste is prohibited to include, allowing water to run off onto a gutter, ditch, drain, into the street, or failing to repair a controllable leak.
2. Watering with an irrigation system or sprinkler, permitted only once a week on the designated watering day during the hours of 4 a.m. to 8 a.m. and 8 p.m. to 11 p.m.

Last Digit of Address	Day
0	Monday
1&2	Tuesday
3&4	Wednesday
5&6	Thursday
7&8	Friday
9	Saturday

Areas without a street address, such as medians, neighborhood entryways, or common areas water as if their address ended in a 2.

3. Watering with drip irrigation or a 5-gallon bucket permitted during the hours of 4 a.m. to 8 a.m. and 8 p.m. to 11 p.m. any day.
4. Watering with a handheld hose permitted any day, any time.
5. Residential, commercial, industrial, and agricultural Edwards Aquifer water users should reduce water consumption by any means available.
6. Washing impervious cover such as parking lots, driveways, streets, or sidewalks is prohibited.
7. Non-commercial washing of vehicles and mobile equipment (e.g. washing vehicles at a residence) is permitted any day at any time over landscape or other surface where run off is minimized and with the use of a hose using an automatic shut-off nozzle or bucket of 5 gallons or less.
8. No building permits will be issued for the construction of new swimming pools. The City Administrator may grant a variance for the construction of a swimming pool with proof that water for construction and filling of the pool will be brought in from a water source outside of the City.

This does not apply to non-potable water, gray water, or treated effluent.

Stage 2 restrictions continue until there is an announcement that Stage 2 has been canceled or that Stage 3 is in effect.

STAGE 3

Stage Three Alert begins when the Edwards Aquifer Authority Test Well J-17 level reaches **640** feet mean sea level (10 day rolling average) at the monitored well and is declared by the Edwards Aquifer Authority (EAA) and/or at the discretion of the Mayor of the City of Garden Ridge.

1. Water waste is prohibited to include, allowing water to run off onto a gutter, ditch, drain, into the street, or failing to repair a controllable leak.
2. Watering with an irrigation system, soaker hose or sprinkler is permitted every other week beginning on the second Monday after Stage 3 has been declared and only on designated watering day from 4 a.m. to 8 a.m. and 8 p.m. to 11 p.m.

A watering day calendar based upon the last digit of each address will be prepared, distributed, and posted monthly during Stage 3 watering restrictions with the following watering schedule.

Last Digit of Address	Day
0	Monday
1&2	Tuesday
3&4	Wednesday
5&6	Thursday
7&8	Friday
9	Saturday

Areas without a street address, such as medians, neighborhood entryways, or common areas water as if their address ended in a 2.

3. Watering with a drip irrigation or 5-gallon bucket permitted during the hours of 4 a.m. to 8 a.m. and 8 p.m. to 11 p.m. on Monday, Wednesday, and Friday.
4. Watering with a handheld hose permitted any day, any time.
5. Watering newly planted landscapes permitted only with a variance from City Council.
6. Washing cars at home is permitted any day at any time over landscape or other surface where run off is minimized and with the use of hose using automatic shut-off nozzle or bucket of 5 gallons or less. Water runoff from property is prohibited.
7. No person may use groundwater or City provided water for an ornamental outdoor fountain or similar feature.
8. No building permits will be issued for the construction of new swimming pools. The City Administrator may grant a variance for the construction of a swimming pool with proof that water for construction and filling of the pool will be brought in from a water source outside of the City.
9. Water customers subject to a 100% surcharge for use over 40,000 gallons.

This does not apply to non-potable water, gray water, or treated effluent.

Stage 3 restrictions continue until there is an announcement that Stage 3 has been canceled or that Stage 4 is in effect.

STAGE 4

Stage Four Alert begins when the Edwards Aquifer Authority Test Well J-17 level reaches **630** feet mean sea level (10 day rolling average) at the monitored well and is declared by the Edwards Aquifer Authority (EAA) and/or at the discretion of the Mayor of the City of Garden Ridge.

1. All restrictions in Stage 3.
2. Water customers subject to a 200% surcharge for use over 40,000 gallons.
3. The Mayor may establish interim restrictions until the City Council is able to meet to establish additional restrictions.

This does not apply to non-potable water, gray water, or treated effluent.

Stage 4 restrictions continue until there is an announcement that Stage 4 has been canceled or that Stage 5 is in effect.

STAGE 5

Stage Five Alert begins when the Edwards Aquifer Authority Test Well J-17 level reaches **625** feet mean sea level (10 day rolling average) at the monitored well and is declared by the Edwards Aquifer Authority (EAA) and/or at the discretion of the Mayor of the City of Garden Ridge.

1. All restrictions in Stage 4.
2. Conditions as directed by the Mayor and City Council.
3. Use Necessary for Public Health or Safety.
4. Notwithstanding any provision of these rules, groundwater may be used when and to the extent it is necessary to prevent danger to public health, safety, or welfare or to the extent required by State or Federal law.
6. Water customers subject to a 200% surcharge for use over 40,000 gallons.

This does not apply to non-potable water, gray water, or treated effluent.

Future Agenda Items

Water Commission

June 20, 2023 Regular Meeting

14 days before Meeting	(06/06/2023)	Water Commission and Staff items are due.
11 days before Meeting	(06/09/2023)	Water Commission Chair reviews agenda. City Attorney is sent agenda.
7 days before Meeting	(06/13/2023)	Post agenda on bulletin board. Water Commission receives packet (allowing a day for corrections/request additional information be added)
5 days before Meeting	(06/15/2023)	Post agenda packet to City Website.
4 days before Meeting	(06/16/2023)	(72 hours) – Local Government Code requirement for posting

City Council = Red
 Planning & Zoning = Green
 Water Commission = Blue
 Municipal Court = Dark Gray
 City Holiday = Orange

Sun	Mon	Tues	Wed	Thur	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

July 18, 2023 Regular Meeting

14 days before Meeting	(07/04/2023)	Water Commission and Staff items are due.
11 days before Meeting	(07/07/2023)	Water Commission Chair reviews agenda. City Attorney is sent agenda.
7 days before Meeting	(07/11/2023)	Post agenda on bulletin board. Water Commission receives packet (allowing a day for corrections/request additional information be added)
5 days before Meeting	(07/13/2023)	Post agenda packet to City Website.
4 days before Meeting	(07/14/2023)	(72 hours) – Local Government Code requirement for posting

City Council = Red
 Planning & Zoning = Green
 Water Commission = Blue
 Municipal Court = Dark Gray
 City Holiday = Orange

Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

PENDING FUTURE AGENDA ITEMS