



Citizens Emergency Management Advisory Committee Report (CEMAC)

05.07.2021

City of Woodcreek
41 Champions Circle
Woodcreek, TX 78676-3327



Overview

This report covers the work of the Citizen Emergency Management Advisory Committee (CEMAC) formed in March, 2021 in response to the prolonged sub-freezing temperatures which resulted in rolling blackouts directed by the Electric Reliability Council of Texas (ERCOT-Texas's power grid) and implemented by our electrical utility provider, Pedernales Electric Cooperative (PEC). The rolling blackout impacted both Woodcreek's water utility, Aqua Texas and the electrical utility, Pedernales Electric Cooperative. This resulted in a majority of citizens not having water, ranging from several days to four days, as well as little to no electricity. This is just one type of emergency that this report addresses, but the catastrophic combination of no electricity and no water in temperatures below freezing underlined the vulnerability of our city's systems whether they be utilities or communications. We were fortunate that a number of Woodcreek citizens stepped up and helped those affected.

On March 3, 2021, the City Council approved Mayor Whitehead's recommendation to form CEMAC to establish a timeline of events, including the preparation by the City, solicit comments from citizens, communicate with surrounding cities for their pre/post planning and experiences, develop a pre/post checklist for citizens and City staff, reaffirm points of contact between the City and Utilities, discuss and revise, if necessary, the standard operating procedure for City Staff to release information to the public and any other items the Committee determines essential. The main thrust of this effort centered around three principal areas: 1) Communications, 2) Utilities and 3) Preparation. The Committee was composed of Woodcreek citizens Jack Boze, Nancye Britner and Pat Rawlings. An email address emergencymanagement07@gmail.com, was established to receive citizen comments. The committee received suggestions and observations on preparations, communications, and utilities from citizens via Nextdoor, Facebook, comments to the City Council, comments at Mayor's Coffee discussing CEMAC, and the email suggestion mailbox listed above. The CEMAC Committee appreciates the input and has addressed or incorporated these suggestions as much as possible.

Goals

The goal of this effort is to collect and document information from Woodcreek's citizens, public officials, utility providers, and first responders in order to help them better prepare for future events. Completion of this effort was expected within 60 days.



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1 The Big Freeze

State Wide Impact

In February 2021, the state of Texas suffered a major power crisis, which came about as a result of three severe winter storms sweeping across the United States on February 10–11, 13–17, and 15–20; a massive electricity generation failure in the state of Texas; and resultant shortages of water, food, and heat. More than 4.5 million homes and businesses were left without power, some for several days.

Inadequately winterized natural gas equipment was the primary cause. Also, most of Texas had isolated its power grid from the two major national grids, making it difficult for the state to import electricity from other states.


Federal regulators ten years earlier had warned Texas its power plants would fail in sufficiently cold conditions

The crisis drew much attention to the state's lack of preparedness for such storms, and to a report from U.S. Federal regulators ten years earlier that had warned Texas its power plants would fail in sufficiently cold conditions. Damages from the blackouts were estimated at \$195 billion, making them the costliest disaster in Texas history. According to the Electric Reliability Council of Texas (ERCOT), the Texas power grid was "seconds or minutes away from" complete failure when partial grid shutdowns were implemented. *From Wikipedia*



Impact in Woodcreek

Although local meteorologists had warned us that this winter storm would be worse than what we had experienced before, we were largely unprepared for the unprecedented, continuously-below-freezing temperatures, days-long duration and completely unprepared for the rolling blackouts imposed by ERCOT which crippled our transportation, water supply, and communications infrastructures. While some had filled tubs with



water in anticipation of the freeze, they still expected the interruption to be similar to others they had experienced before.

No one expected the temperatures to stay at or below freezing for 144 hours.

The combination of ice and the initial 6” of snow that fell here rendered our narrow, hilly roads impassable for most passenger vehicles. Even some 4 wheel drive vehicles had difficulty. Most people hunkered down and tried to stay warm and conserve water. A number of citizens were caught off guard and had insufficient food, water, and firewood. The expectation of most was that we would have a freeze, the roads would thaw in the sun the next day, and they could go get more provisions within 24 hours. No one expected the temperatures to stay at or below freezing for 144 hours. The coordination and communication between the City staff, Council members, utilities and citizens were strained because of impassable roads, internet outage, cell phone disruption, and the lack of a suitable gathering facility because utilities were out at the City office. Thus, sometimes real time communications were developed on the fly.

2 Timeline of City activities during the 3 winter storms:

After Action Report — Winter Weather Event beginning February 14, 2021

The following documented communications by the City Staff, Council Members and Utility companies represents the attempts to keep the public informed of events and to coordinate power and water system recoveries.

Friday, February 12

- City issues lengthy email blast/text about Winter Weather Advisory and how to be prepared for winter weather, as well as utility emergency contacts and waste collection delay. This was also published on the city website. (12:35 pm)
- City issues email blast/text about Winter Storm Warning, delay in waste Collection.

Saturday, February 13

- Freezing rain and ice on roads
- Staff continues to monitor predicted winter weather



Sunday, February 14

- Start of widespread snow
- City issues email blast/text about hazardous road conditions (11:39 am)
- **Rolling black-out notices issued by ERCOT (5:38 pm)**

Monday, February 15

- **Rolling blackouts begin**
- City Manager contacts PEC emergency number to confirm (approximately 9:15 pm)

Tuesday, February 16


- City Manager contacted PEC regarding rolling blackouts
- Reported areas without power — possible equipment failure
- City Manager contacts Aqua Texas concerning water system

Wednesday, February 17

- City Manager contacts Aqua Texas concerning low water pressure
- Loss of water service occurs
- City Manager emails Bob Laughman, Aqua Texas's President, regarding update on Woodcreek water situation
(8:40 am)
- Bob Laughman responds to City Manager email (12:20 pm)
- PEC Issues service interruption statement
- Aqua Texas issues possible loss of water statement
- Waste Connections issues collection service interruption
- City Issues email blast/text regarding PEC, Aqua Texas, Waste Connections statements (1:17 pm)
- City Issues email Blast/text of Mayor Whitehead issues Disaster Declaration (3:11 pm)

Thursday, February 18

- City Issues email blast/text statement regarding possible boil water notice (10:51 am)
- Statement included small amount of bottled water available at City Hall (City Manager and Staff distributes Water)
- City Issues email blast/text statement regarding all available bottled water has been distributed (11:52 am)


- 
- City Manager meets with Aqua Texas System operator on water situation
 - City Manager drives streets assisting Aqua Texas in leak detection, assists stranded motorist
 - City Staff meets Dripping Springs EMC at Veterans Memorial Plaza to receive 70 large bottles of water from Hays County
 - City Issues email blast/text statement regarding bottles of water available (5:53 pm) (City Manager and Staff distributes Water)
 - City email blast/text statement regarding all bottles of water has been picked up and includes statement reminding the boil water notice (6:04 pm)
 - City Manager drives streets assisting Aqua Texas in leak detection
 - City email blast/text statement regarding all bottles of water has been picked up and includes statement reminding the boil water notice (6:14 pm) (City Manager and staff distribute water)
 - City email blast/text statement regarding Waste Connections possible garbage collection on 2/19/2021 (8:58 pm)
 - City email blast/text statement regarding Waste Connections possible garbage collection on 2/19/2021 (9:39 pm)

Friday, February 19

- City Secretary emails 4 residents to determine if water service had been restored (11:03-11:17am)
- City email blast/text statement regarding water pressure being restored, limited resources, and streets are improving but may be hazardous (11:52 am)
- City Manager drives streets assisting Aqua Texas in leak detection
- City email blast/text statement regarding water system almost fully pressurized, contact Aqua if you don't have water. (5:30 pm)
- City email blast/text statement regarding asking residents to contact City Manager if still without running water (10:00 pm)
- City Manager emails Bob Laughman regarding properties without water service (10:51pm)

Saturday, February 20

- City Manager calls and emails several residents to confirm water had been restored (all had been) (9:00 am)
- City email blast/text statement regarding Hays County had delivered a limited quantity of bottled water and it was available to be picked up and reminder to report water



outage to Aqua and to email City Manager regarding outage (11:00 am) (City Manager and Staff distributes Water)

- City Manager contacts Aqua Texas System operator as emails regarding no water are received
- City email blast/text statement regarding bottled water at City Hall has been depleted (12:08 pm)
- City email blast/text statement regarding Hays County had delivered a limited quantity of bottled water and it was available to be picked up (2:35 pm) (City Manager and staff distributes Water)
- City email blast/text statement regarding bottled water distribution is completed (3:50 pm)
- City Manager drives streets assisting Aqua Texas in leak detection (locates water main leak on Canyon Creek Drive and reports to Aqua)
- City email blast/text statement regarding potable water is available at VFW Post 6441 from 10:00 am to 6:00 pm (6:22 pm)

Sunday, February 21

- City email blast/text statement regarding 8 pallets of water available at Woodcreek City Hall delivered by Aqua Texas. (12:07 PM) (Water distributed by elected officials, City Manager and staff, and Aqua Texas Representatives)
- Water distribution ceased approximately 5:00 pm
- City email blast/text statement regarding Boil Water Notice Still in Effect (8:05 pm)

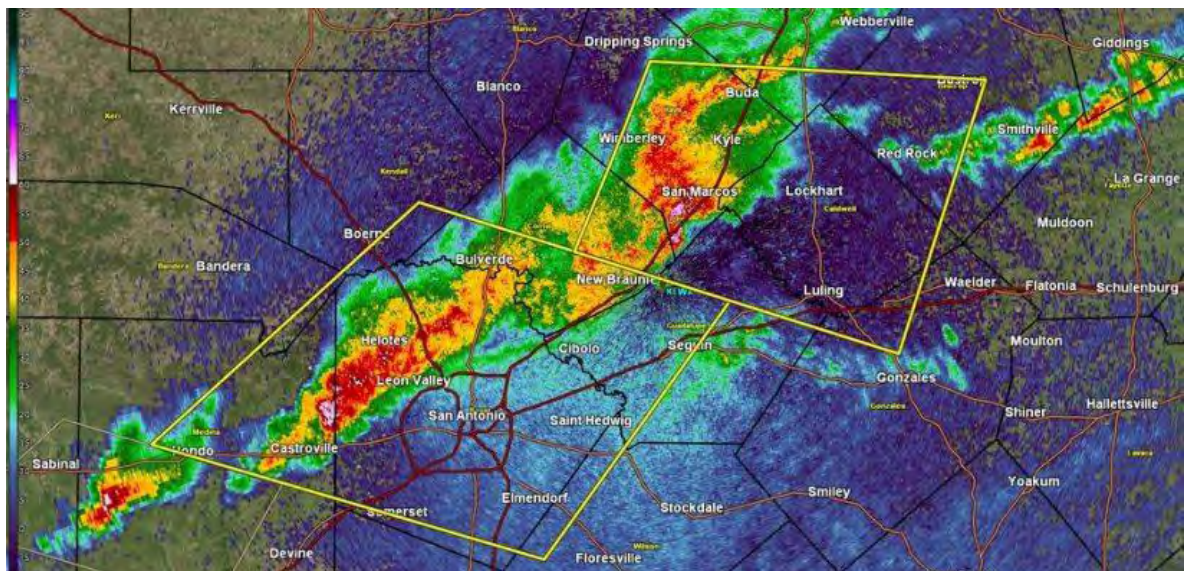
Monday, February 22

- City email blast/text statement regarding Aqua Texas Lifted Boil Water Notice (11:44 am) Throughout winter weather event, City Manager was in contact by telephone, text, and email with various City and County Officials, City Staff, and utility provider representatives too numerous to list.



3 Will it Happen Again? Will it be the same?

Will it happen again? Probably, but the duration and continuously low temperatures are impossible to predict. The consensus of this committee, the City and others we have talked to is that this sort of emergency will certainly occur again. This emergency and the awareness it heightened led the Mayor to form this Citizen Advisory Committee. In addition to considering the ramifications of this event, we were also encouraged to include other possible emergencies in our considerations.



4 Is it the Worst Thing that Could Happen?

The chart below lists possible disasters that could occur in the city of Woodcreek:

Types of Disasters	Impacted Areas							
	Roads	Aqua	PEC	Spectrum	EMS	Property Damage	Cell Service	Health
Winter Storm	X	X	•	•	•	X	•	X
Severe Storm	•		X		•	X		
Tornado	X	X	XX	X	X	XX	X	X
Flood	X	•	•	•	X	XX		X
Wildfire	•	•	X	X	X	XX		X
Heat			•		X	XX		X
Hazardous Spill (RR 12)	X				XX			X


IMPACTED - • SEVERE IMPACT - X EXTREME IMPACT - XX

The winter storm we experienced in February 2021, was bad, but a wildfire or tornado could be much more devastating. In all instances the following apply:

- Being prepared with your personal emergency preparedness kit(s)
- Having plans for what to do and where to go in an emergency
- Paying attention to emergency communications

All can make an important and potentially lifesaving difference.

SEVERE STORMS - While we usually know these are on the way, we don't know exactly where they are going to hit and whether they are just a lot of sound and fury or a rain "bomb" (19" fell in 24 hours in Marble Falls), extreme lightning, severe straight line winds, damaging hail, or even a tornado. We see a lot of these in Central Texas and monitoring emergency alerts, TV weather forecasts, or even smartphone alerts can help you stay safe.



TORNADO - Of all the emergencies we can have here, tornados have the most potential impact. There isn't a single category of impacted areas that it misses. Fortunately, for most of us, these are a once in a lifetime, if ever, event that we hopefully will not have to experience.

FLOOD- The Hill Country is the epicenter of flash flooding in Texas. Even though we weren't hit by the tragic flooding of the Blanco River in 2015, later that year we had substantial street and low water crossing flooding on Halloween of the same year. With Hog Creek threading through our city, surrounded by tall hills we could still have much worse flooding if hit by a rain



"bomb". On June 27, 2007 Marble Falls had over 19" of rain in one day which did millions of dollars worth of damage to the city and wastewater treatment facilities were overwhelmed and did not function properly.

WILDFIRE- Woodcreek is surrounded by rural areas with heavy thickets of highly flammable Ashe Juniper or Mountain Cedar, tall weeds and dry underbrush. During periods of drought, 100° days and high wind, this is the perfect formula for a brush wildfire which can consume many acres within a short period of time. Fortunately, much of the cedar has been removed from the central portion of the city, but certain areas on the edges and areas with a high density of cedars are vulnerable.

HEAT- During the summer months, many 100° days cause Texas' power grid to react as it did during the freeze and have rolling brownouts. This can affect our water system, cause homes to become unbearably hot and affect persons with medical conditions. Having water on hand is a continuing theme with emergencies.

HAZARDOUS SPILL-Tanker trucks are responsible for transporting a wide variety of liquid substances across Texas and the United States. Like regular run-of-the-mill tractor-trailers, tanker trucks can cause significant damage when a traffic accident occurs. The large size and weight lead to more severe bodily injury and a higher likelihood of fatalities, especially at high speeds.



Yet, many tankers carry hazardous materials making them ticking time bombs on wheels, which can explode causing catastrophic injuries in a matter of seconds. Dangerous chemicals, when leaked, can spread through the air and affect persons with vulnerable

respiratory systems and cause long term physical damage.

With RR 12 adjacent to our eastern city boundary, trucks often pass through the Winters Mill Intersection or make tight turns.

OTHER EMERGENCIES- Events such as active shooter situations, car chases, fugitives from the law, and other first-responder-related incidents will be highly fluid and will rely to a great extent on their location, the length of the event and whether the situation is a threat to our citizens. These situations happen so quickly that Hays County Sheriff's text alerts, email from the city and social media will probably be the best way to let people know quickly. If someone uses social media, they need to make certain that the information they are conveying is accurate to the best of their knowledge.

The **Neighbor to Neighbor** network and the **Neighborhood Watch** programs can be very helpful here. If you can collect your group of Neighbors as a cell phone group, you can quickly text them an alert when something happens and help them to keep up with official sources of information.

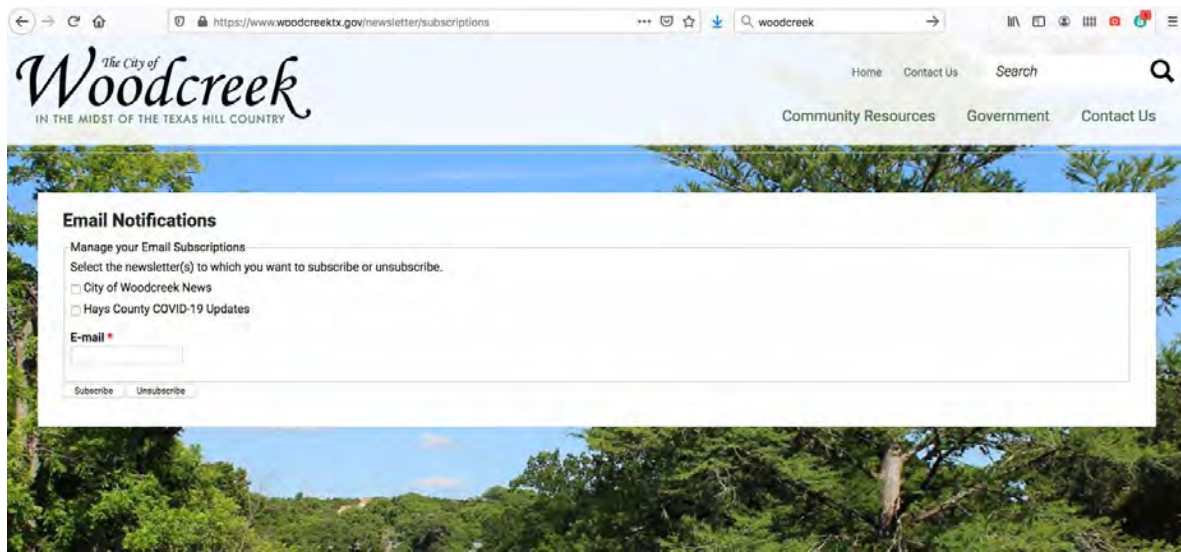
5 Communications

We now live in an era where we are immersed in multiple forms of communication. The question, during an emergency, is which sources provide you with both the best and fastest forms of communication?

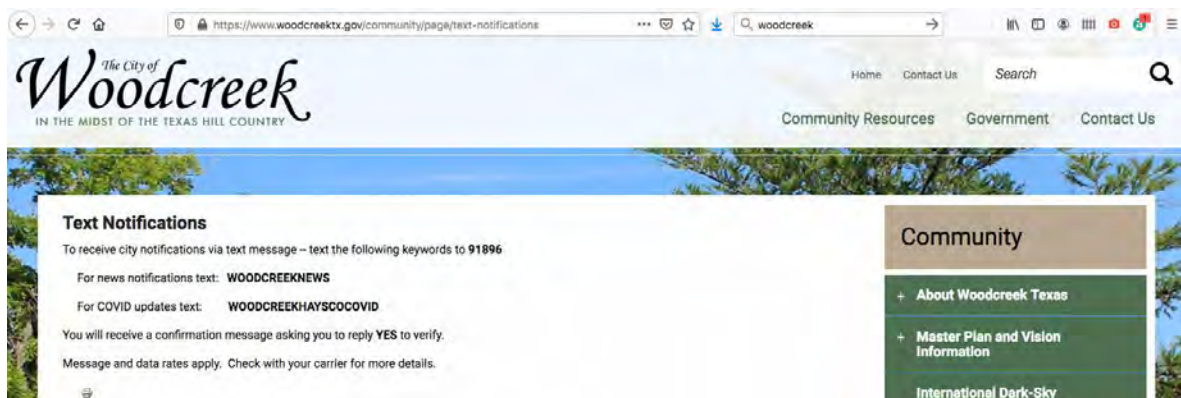
Official sources of information are the best.

City of Woodcreek Sources

On the City of Woodcreek website (<https://www.woodcreektx.gov/>) you can **subscribe to City email notifications**. The form is under **Community Resources**.



On the City of Woodcreek website (<https://www.woodcreektx.gov/>) there is information on how you can subscribe to **text notifications**. The information is under **Community Resources**.



Hays County/Central Texas Sources

Sign up for text, email and phone warnings at:

<https://warncentraltexas.org>

STAY INFORMED
BE PREPARED
Register to get Emergency Warnings
by Text, Email or Phone.

Get Alerts COVID-19 Resources

Current Alerts: Lee County **4** Llano County **1**

Regional Vaccination Locations: ---> <https://centraltxvaccs.org/>

The **Capital Area Council of Governments** and its partners are pleased to offer an emergency notification system to residents of Central Texas. Registering with WarnCentralTexas allows local officials to contact their communities by phone, email and text during times of disasters or public safety events.

Get Alerts

Hays Informed is also a wealth of information on resources, links, instructions and emergency contacts <https://www.haysinformed.com/>

Engli...

Hays County Public Safety Building
810 S. Stagecoach Trail, STE 1200, San Marcos, TX 78666

Member Log In

HAYS INFORMED

Home News Events Calendar Public Health Emergency Management Emergency Preparedness Fire Marshal More

COVID-19 Vaccine Appointment
Programador de citas de vacunas C

CERT
Preparedness Fair
Make A Plan
Natural Disasters & Weather
Winter Weather Advisory
Individuals, Families & Communities
30 Days 30 Ways

HAYS COUNTY EMERGENCY OPERATIONS CENTER

WILDFIRE STATUS: **MODERATE**

PLEASE DO NOT CALL 9-1-1 FOR INFORMATION.
9-1-1 IS FOR EMERGENCY ASSISTANCE ONLY.

Nextdoor

Nextdoor's hyperlocal network of neighbors is an unfiltered source of communication that allows you to make requests for information, assistance and to report information such as water and power outages to one another (but unfortunately not to providers). As it is unfiltered it can have varying levels of reliability, but when you need help it is often the easiest way to appeal to a large group of folks nearby.



During the freeze there were numerous appeals for food, water, firewood that enabled some of our more enterprising neighbors to reach out and help. When it works this way it's great. Just remember it is unfiltered so some information might be inaccurate or biased.

Facebook

There are several Facebook groups dedicated to Woodcreek and Wimberley that share information about our city and the Wimberley valley. Just search for "Woodcreek" on facebook and you will find them. Just remember they are unfiltered so some information might be inaccurate or biased.

twitter

Hays County Emergency Management Services has a twitter account that posts very current information before, during and after emergencies. Follow them at:

@hays_oem



Local TV station meteorologists also maintain 24/7 updates on twitter during weather emergencies.

@KXAN_Weather, @KVUE_Weather, @AustinWeather are other good twitter sources

KWVH -Wimberley Valley Radio 94.3

Often, a local radio station is a great source of a variety of information that you might not hear elsewhere. Candid conversations with City, County and law enforcement officials happen here regularly. During the freeze the main station had difficulty with fluctuating power so Production Director, Brach Thomas, grabbed a plastic bin full of equipment and hitched a ride to Woodcreek where the station broadcast for 3 days



Local Television Broadcasts and Apps

Many of the local network affiliates, in addition to their broadcasts, have smartphone apps that give very up-to-date forecasts. Go to the Android or Apple App stores to download.

Cell Phones

Cell phones, and especially smartphones, can be incredibly useful during emergencies. They have internet browsers, text, online radio and TV and can take photographs. The main problem is that the phones and the cell towers have to have power. Some citizens said that even though they had power on their phones that the cell service (towers) were interrupted by power outages. If you have a cell phone that can be plugged into a power port on your car, it is a good way to charge it and to either warm up or cool down, depending upon the type of emergency -**DO NOT START YOUR CAR IN A CLOSED AREA.** You can also buy supplementary powerpacks that can power your cell phone. Many smartphones also allow you to use them as a **wireless (WIFI) hotspot**. This way, if your internet provider (Spectrum, Frontier, Grande) goes down, this is a way to stay online. Go into settings and turn it on. It will give you a password that is required to link to it.

New Communication Methods

Neighbor-to-Neighbor

As mentioned before, the **Neighbor to Neighbor** program that the city is starting creates "nodes" or "blocks" of neighbors with a block captain who helps organize and connect the group. The exchange of email addresses, phone numbers and other pertinent information will help people within short walking distance of each other share resources and information in the event of an



emergency. Either sign up as a block captain or find out who your block captain is by contacting councilmember Bob Hambrick via email - bob.hambrick@woodcreektx.gov

Warning System-

Many Texas cities of Woodcreek's population and physical size have a siren system to alert citizens of imminent severe weather, such as a tornado or hailstorm and other events including a chemical spill. Ten minutes of warning for a hailstorm blowing in might save people or property and wake folks up in the middle of the night to seek shelter from a tornado.

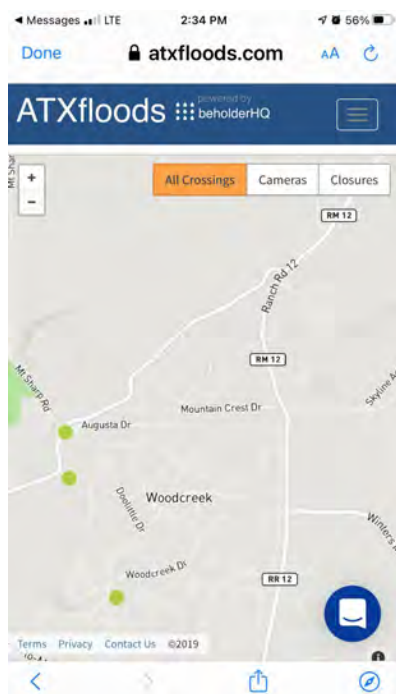


Direct Telephone Call

Systems such as Dialmycalls:

<https://www.dialmycalls.com/emergency-notification/weather-alerts>

Can in a very brief period notify all citizens that sign up of an impending emergency. We recommend the City investigate using this or a similar system.



ATXFloods.com

In the Austin and Central Texas area ATXFloods maintains a website which shows what areas have flooded. The Wimberley Valley is included in this as you can see on the right. During a severe weather event you can refer to this website to help plan your route out of Woodcreek and away from the area. Other sites such as Waze and Google Maps also sometimes have this information.

6 Preparation

Emergencies arise from natural and man-made causes, they can happen at any time, anywhere, and involve anything. The best possible way to handle an emergency is to be prepared for it. The key to surviving a major crisis is individual preparation. A **72 Hour Preparedness Kit** will give you a good start in being prepared, and you may be surprised to find some things you never thought of. The location of items for a kit should be memorized so that little time is lost trying to acquire them. Unprepared citizens pose a burden on neighbors who are struggling with their own circumstances. You can create this kit on your own or buy premade kits as shown below.





72 Hour Preparedness Kits

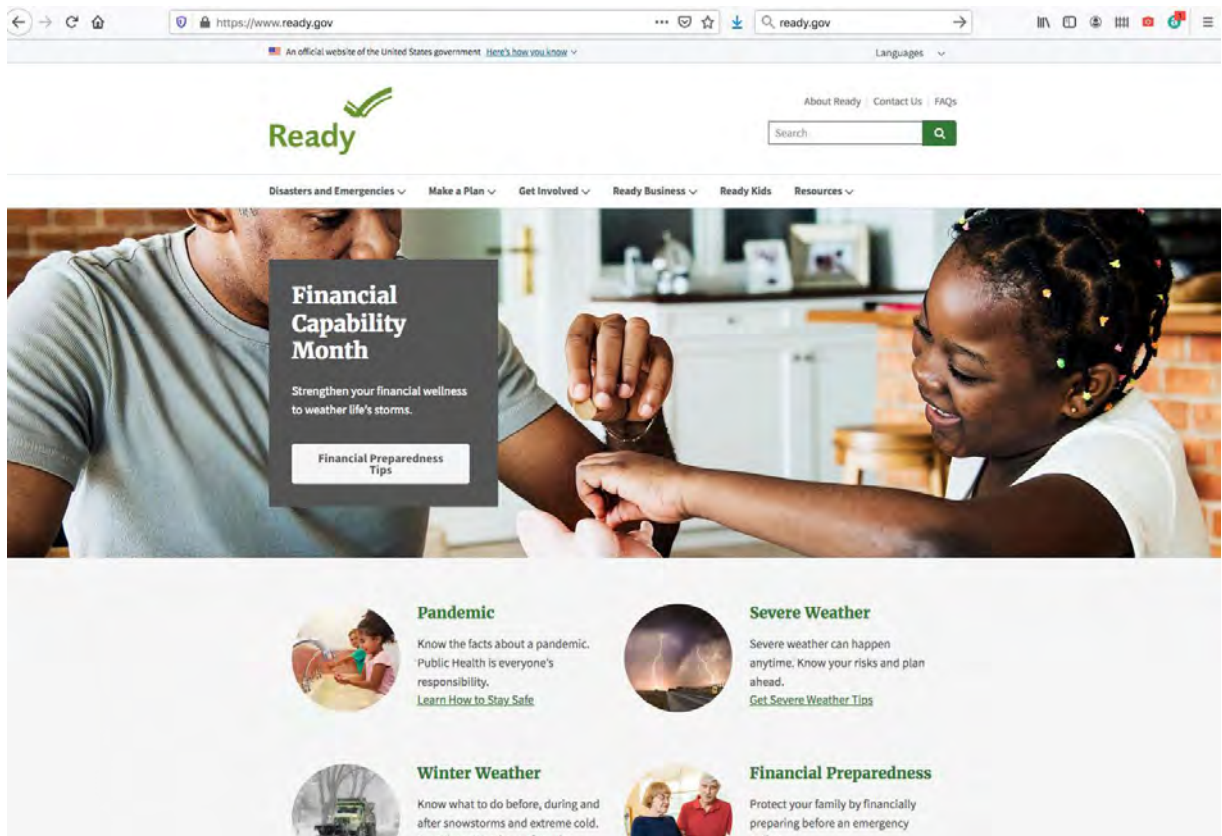
- Prepare a family disaster/survival kit
- Maintain a list of emergency telephone numbers
- Keep a number of a non-local family member you can contact that can notify other family members of your status (It helps to keep telephone calls to a minimum in an emergency)
- Three-day (72 hours) supply of drinking water
- Canned or non perishable food
- Manual can opener
- One change of clothing and footwear per person
- One blanket or sleeping bag per person
- First aid kit that includes critical family member prescription medications
- Flashlight with extra batteries
- Battery operated radio/hand crank radio
- Special items for infant, elderly, or disabled family members
- Sanitation supplies
- Cash or traveler's checks
- Extra set keys

Preparedness Checklist

- Show family members how to turn off water, gas, and electricity in the case of an emergency
- Teach family members how to use your home fire extinguisher
- Check on elderly/disabled neighbors
- Agree upon a meeting place for your household
- Put important papers in a secure plastic bag
- Charge your phone - have an extra car charger
- Move your car under cover if possible
- Secure your outdoor furniture before severe storms.
- Bring your pets indoors before imminent danger.
- Identify the safest room in the house away from windows
- Close your blinds
- Know exactly what your insurance policies do and don't cover
- Fill bath tub for toilet flushing and other uses
- Have sufficient cash because banks and ATM machines may be inoperative
- Firewood

Ready.gov

Launched in February 2003, Ready is a National public service campaign designed to educate and empower the American people to prepare for, respond to and mitigate emergencies, including natural and man-made disasters. The goal of the campaign is to promote preparedness through public involvement.



Ready and its Spanish language version Listo ask individuals to do four key things:

- (1) stay informed about the different types of emergencies that could occur and their appropriate responses
- (2) make a family emergency plan and
- (3) build an emergency supply kit, and
- (4) get involved in your community by taking action to prepare for emergencies.

What is my shelter place?

Camp Young Judaea (CYJ) recently contacted the city to offer their facilities to accommodate, with bedding, 400 to 500 people, including food supplies for several days. In the future the city will notify citizens when the (CYJ) facilities are available. During the February weather event, no power was lost at the Camp, but that is no assurance that it will not occur in the future. If power is lost, shelter would occur in the main and dining rooms but a generator is required.

What is my evacuation plan/route?

Familiarize yourself with the main arteries that feed out of Woodcreek and think about how they might be impacted by the event. Flooding will definitely cut off the Cypress Falls route out of the city.

Traffic apps like Waze, or Google maps are available for your smartphone, can give you guidance on the best routes on a minute-minute basis:

<https://www.waze.com/>



<https://www.google.com/maps/>

Your car radio, tuned to a local station, is also a great source for local traffic information during an emergency.

What is my family/household communication plan?

Coordinate with all members of your household on how you intend to communicate, whether cell phone, email, text, etc. Often, during an emergency, cell phone networks are either damaged or overloaded. Texts use much less bandwidth than voice and will send more easily over a weak network. Agree on a central location in the house where you will post notes on your plans or status. This way, if someone in your family comes in to look for you, they will know your condition and won't waste time trying to find out the information. Check in!

7 Utilities

Aqua Texas (Now Essential Utilities)

Aqua Texas, a private company, provides potable and hydrant water and a wastewater treatment facility to the city through a network of company owned pipes, two wells, a water tower and a wastewater treatment plant. The tower which is located adjacent to the city's office on Champion Circle, provides water to meters located within the City limits and several adjacent areas. The wastewater treatment plant, located on FM 2325, provides treatment for both the City of Woodcreek and Woodcreek North as well as other Wimberley areas.



In event of an electrical power loss, the tower, which holds 125,000 gallons of water, may provide, under normal usage, water for approximately 24 hours before the system is depleted and a water recharge is necessary. Depending upon which supply well is selected, the recharge may take 3 to 10 hours before adequate water flow is obtained. As specified in Texas Commission on Environmental Quality (TCEQ) document RG-195, Rev 12/2019, Rules and Regulations for Public Water Systems, water systems are characterized as either non-elevated or elevated. Those that are elevated do not require emergency or standby power, if they meet certain requirements, because they will offer, through gravity, enough water pressure and flow for a typical 24 hour water usage. Non-elevated water storage must have emergency power if the system does not offer gravity flow. For example, Wimberley has six wells and storage water facilities (1.2 million gallons) and of the six, five are gravity flows from high locations within the Wimberley valley. A water tower is considered elevated if it is at least 80 feet above the highest water tap. The Woodcreek water tower, at a height of 137 feet, permits a gravity pressure of 60 pounds per square inch (PSI) at its base. The TCEQ RG-195, §290.45(b)(1)(D)(iv)(Appendices B) and §290.45(b)(1)(D)(v)(Appendices B) specifies that if an elevated tower holds enough gallons of water to accommodate the sum product of 100 gallons times the number of water taps, then emergency or standby power is

not required. The Aqua Texas elevated tower meets this requirement, therefore standby generator power is not required.

To enhance the city's water storage, Aqua Texas has firm plans, within the next year, to replace the 22,000 gallon water storage at well#1, located at the end of Doolittle Street, with a 125,000 gallon storage tank.

Hydrant Water

The functional water hydrants located throughout the city, support both line flushing and firefighting and should provide at least a minimum flow of 250 gallons per minute (GPM). Most hydrants will fall in the range of 800 to 1000 GPM. The hydrants are tested and flushed every year by Aqua Texas. They are painted black because they do not technically meet all of the requirements of a fire flow system, such as 1000 GPM for two hours. This requirement alone would drain the entire water storage in the tower. If the hydrant GPM flow is too low during a firefighting event, water will be extracted from the hydrant and passed through the fire truck's booster pump. A memorandum of understanding (MOU) between Aqua Texas and the Wimberley Fire and Rescue (WFR) states that WFR will accept whatever pressure and flow exists at a hydrant. This is a common legal arrangement between Texas private water systems and volunteer fire departments. A fire department annex is located within 2 miles of the city and the fire department's Public Protection Classification is a 5, which is a good rating.

Wastewater Treatment Facility


The wastewater treatment facility holds 21 million gallons of processed wastewater and an average of about 155,000 gallons of effluent water is sprayed daily on to the Woodcreek golf course and other acreage. As required by TCEQ, a standby generator was on site, but the combination of low temperatures and rolling blackouts caused some system components to freeze, however, no safety measures were compromised.

Big Freeze Effect

The weather event of February 2021, coupled with electrical rolling blackouts proved devastating to Aqua Texas. During the initial ice/snow days, Aqua Texas made several attempts to relocate standby generators to the water tower, but the road conditions were impassable. As a last resort, Aqua Texas moved a standby generator from their wastewater treatment facility to the water tower, but it took several hours for an electrical technician from San Marcos to hook up the generator to the tower electrical panel. Following about 8 hours the generator became inoperative and the electrical disconnect took an additional several hours. When the National Weather Service and



local Austin TV station meteorologists began alerting the public about severe weather conditions days before the beginning of the cold weather, Aqua Texas applied additional insulation and electrical wrap cords to the most critical piping, valves and pumps. But the rolling power blackouts caused a series of cascading events which led to some frozen and ruptured pipes and frozen valves and pumps.



Aqua Texas attempts to issue a boiling water notice several hours before adequate water pressure is obtained. This is a judgement call because they don't want to issue it too far in advance as it could lead a customer to think that adequate water flow is imminent. Thus, a customer may receive a Robo boiling notice even though no water is flowing through the system. When citizens attempted to call Aqua Texas for status, many calls were routed to call centers that were not even aware of the Texas weather event. In addition, calls were dropped out leading to further frustration.

Some cities and master planned communities such as Wimberley, Round Rock and Steiner Ranch, which had rolling blackouts, experienced less water flow interruption because they have vastly different water distribution systems than Woodcreek. Those include massive non-elevated gravity flow storage facilities, large backup generators in the million dollar class and real time PEC circuit dedication. Woodcreek's water outage was experienced by approximately 530 water systems in 153 Texas counties.

Pedernales Electric Cooperative (PEC)

PEC had to comply with the Electric Reliability Council of Texas (ERCOT) directive to implement service interruptions to ensure stability across the entire statewide power grid. Some grid feeders are exempt from power interruption if they are on a Critical Load Program (CLP) registry. These feeders serve critical infrastructure and critical safety and health operations. Since Aqua Texas is a private company, the City cannot make a direct request to PEC for inclusion in the CLP registry; the request must come first from Aqua Texas and then can be supported by the City.

The rotating power outage, commonly called a rolling blackout, is usually a "20-40 minutes" event, but the cold weather required longer outages and more frequency. PEC was not immune to outages because some of their operations were lost to internet services, phone service and SmartHub functionality. The extremely large increase in reported outages overwhelmed the Outage Tracker map, causing PEC to remove the map so that customers could receive timely and accurate information by email, PEC's website and social media. But many customers became confused as to where to look and what to believe and calls to PEC proved of little value.

A dialogue has been established with PEC and the Committee is hopeful that they will provide the following:

- 1) Can you reveal what happened in the Woodcreek area, 2) Why did some citizens experienced rolling blackouts while others either experienced total power loss or no power interruption, 3) Has Aqua Texas submitted to PEC a request for dedicated power circuits and 4) What is your forecast of improvements to minimize future power outages.

PEC may be limited to their ability to provide detailed replies because of US Homeland Security restrictions.



8 Wimberley Valley Resources

Stores- All of the stores quickly ran out of water and other supplies during the freeze as their resupply trucks weren't able to navigate the icy hills leading into the valley. Anticipate what you will need and stock up on drinking water.

Wimberley EMS had extended response times to all calls during the freeze. They also utilized 4 wheel drive vehicles and had chains on one of our ambulances.

Wimberley Fire and Rescue- the trucks had chains and were able to make calls.

Hays County Sheriff's Department - the following was posted on their twitter account during the freeze:

Instructions for Stranded Motorists in Hays County. The Hays County Sheriff's Office and local first responders are pleading with the citizens of Hays County to NOT DRIVE during this weather event. We are receiving reports of stranded motorists who cannot be reached by either fire, EMS, or deputies due to the hazardous roadways. Every effort is being made to reach the motorists but, in some cases, it may be impossible due to the ice on the roadway. If you must drive due to extenuating circumstances and become stranded, Hays County dispatch will be asking the following questions:

- *What is your vehicle description?*
- *How many occupants are with you?*
- *How much gas does your vehicle have?*
- *Do you have access to a cell phone charger?*

They will dispatch first responders to you but there is no guarantee that they can reach you. If you choose to abandon your vehicle, try to get it off the roadway as best as possible and remove all your personal belongings. Call dispatch back to let them know that you are leaving your vehicle. Do not ask dispatch whether you should abandon your vehicle. The decision must be made by you. Please do not drive until the conditions have been deemed safe. Continue monitoring local media, the Hays County Sheriff's App, or the Hays Informed website for updates.

Download the Hays County Sheriff's App here: <https://www.haysinformed.com/>

Hays County Sheriff's Office dispatch: 512.393.7896

Sheriff Gary Cutler wants everyone to do whatever it takes to stay safe; this includes checking up on our neighbors. If you have an elderly family living next door, give them a call just to make sure they are okay. We must rely on each other until we can get a break from this extreme winter storm.



9 Citizen Response

Many of our citizens were left without water and electricity for several days. It varied by location. A few homes in the lower portions of Woodcreek still had some water, but most did without. As you can see from the timeline water was delivered on several occasions, but not in large amounts. As the stores were out of water as well, Aqua Texas had difficulty finding sufficient amounts.

As batteries on cell phones ran down, and cell towers failed for either cold or rolling blackouts, people became more isolated and ran out of resources. Those that did have mobility, whether it be 4 wheel drive vehicles or UTVs helped transport food, water and firewood to those in need.

The **Nextdoor** app on cell phones and computers became a lifeline between neighbors and enabled those in need to appeal for help. Even if the families didn't have electricity, often a neighbor would have a functioning cell phone that they could use to share their situation. This situation functioned in a very similar manner to Woodcreek's **Neighbor to Neighbor (NTN)** . Council person Bob Hambrick is coordinating this effort and can be emailed at Bob.Hambrick@woodcreektx.gov. Each NTN "captain" is charged with forming an informal network of approximately 10 neighbors that can help each other out during emergencies or otherwise. Please consider becoming a NTN "captain" by contacting Bob at the address above. Many of you may already be informally acting as a captain.


The stories of neighbors helping neighbors on social media were too numerous to capture and many helped without folks hearing about it online. Woodcreek is fortunate to have had an informal Neighbor to Neighbor program for many years. Our neighborhood is a very special place where most people look for opportunities to volunteer and help others. The Neighbor to Neighbor program will just help us all fill the gaps and give us some additional ability to get the word out in times of need. **Please sign up as a block Captain!**

10 Recommendations

City

1. This emergency advisory board strongly urges the Mayor and Council to appoint Brenton B. Lewis, city manager, as our Emergency Management Coordinator. This will enable the city to have two resources, being Hays County and also direct access to the State of Texas Emergency Management.
2. A propane fueled generator of adequate size (20 to 25 kw) to provide electrical power to the city office should be permanently located on site. This will provide a “Command Post” environment for the city staff, council members and advisors during times of electrical interruptions.
3. A siren(s) of sufficient size to reach all boundaries of Woodcreek, Including Tulley Court, should be procured to provide a warning system for severe weather and other events that are harmful to the citizens. Sirens can be controlled by many means such as radio, ethernet, cellular, satellite, manually, etc and automated for NOAA alerts or mass notifications. Many sirens were discarded in the 90's due to maintenance costs, but the technology is now vastly improved which has significantly reduced recurring costs.
4. Acquire extended hand held radios and supplementary batteries for key personnel (Mayor, City Manager, City Staff, and City Council Members). Keep these radios charged and available at key personnel's residences. During the recent freeze cell phones either had network issues or dead batteries
5. Request from FEMA or other Government funding sources an appropriate propane fueled generator to provide backup power to Camp Judaea's main and dining rooms. Camp Judaea is a non profit organization.
6. Identify the citizens who do not have internet capability so that other informative communication means may be provided.
7. In the event of total communication failures, have a bull horn of sufficient power that can be used from a vehicle to warn or instruct citizens.
8. Install reflective water hydrant road markers that are missing on some City streets.
9. Systems such as Dialmycalls:
<https://www.dialmycalls.com/emergency-notification/weather-alerts> can in a very brief






period notify all citizens that sign up of an impending emergency. We recommend the city investigate using this or a similar system.

10. Citizens with personal vehicles that are willing to volunteer could register them for planning purposes. Quarterly, that registry can be updated via auto-email reminder.
11. The city should consider using their Nextdoor account for both emergencies and general information. When posting, the comments should be turned off to avoid conflicts with the Open Meetings Act. Content from the email blast can be quickly copied and pasted into these accounts in order to minimize impact on staff during emergencies. This will improve access by all citizens to critical information. At the end of these posts you could also provide a link to the City website's email signup in order to get more citizens connected..

Utilities

AQUA TEXAS

1. While a few hours of inadequate water flow, due to power interruptions, may be an inconvenience to residents, the lack of water and sewage treatment for a prolonged period may present both serious health and waste water disposal issues. Therefore, the Committee recommends that Aqua Texas submit to the Texas Public Commission (PUC) an application for dedicated electrical circuits.
2. Aqua Texas is not required to provide either emergency or standby power because they meet specified conditions for an elevated tower. While City Ordinance §52.02 (Appendices C) states that Aqua Texas must provide standby electrical power at the tower location, the ordinance should be revised to reflect current conditions. Weather extremes will most likely lead to future cold and hot spells and possible rolling blackouts. Additionally, hazardous road conditions caused by ice/snow or high winds will impact the transport of a generator. Therefore, Aqua Texas is strongly encouraged to permanently locate a standby generator at a selected well site.
3. The Committee analyzed an option whereby the city would purchase, for Aqua Texas's use, a generator for permanent location at a well site, but the costs (About \$70,000 for a 125kw generator turn key installation), yearly maintenance and the legal and contract issues involving the use of city owned equipment by a profit making company did not warrant further consideration.
4. The transfer of electrical power from a standby generator to a well site should be dramatically reduced from several hours.
5. Portions of both Aqua Texas's potable water and wastewater treatment systems failed due to extremely low temperatures which restricted the continuous flow of water.



Aqua Texas is encouraged to implement hardened devices to minimize the failure of components due to cold temperatures.

6. City Ordinance §51.01 (appendices D) should be revised to only reflect that Aqua Texas must properly maintain and yearly flow test all city hydrants.
7. Aqua Texas should provide a contact phone number that is manned by a knowledgeable operator that can provide up to date system status. Additionally, Aqua Texas should place timely Robo calls to alert citizens of system status and boiling water instructions.
8. As Aqua Texas is responsible for supplying bottled potable water during a water outage, Aqua Texas should provide a 5 gallon collapsible container to each residence. These containers can be filled in anticipation of a prolonged outage caused by a major regional or statewide freeze. If the freeze is local to Woodcreek, Aqua Texas can provide bottled water as the local stores can provide the resources.

PEC

1. PEC should be informed that their Website Outage Tracker must reflect both current outage information and an estimated time for the power to resume.
2. PEC should provide a contact phone number that is manned by a knowledgeable operator and place Robo calls to alert citizens of system status.
3. PEC and Aqua Texas should jointly agree to establish dedicated power circuits for both potable water distribution and wastewater processing.

Citizens

1. Create a **72 Hour Preparedness Kit** (see section 6 Preparation).
2. Citizens should maintain **3 days of water** storage (2 cases) in their homes with supplemental from Aqua Texas. The storage of large quantities of potable water on city property is not recommended because a separate environmentally controlled building is required. The current city shed will only store about eight cases. Adequate storage at Camp Judaea is not available.
3. Locate your **Neighbor to Neighbor Block Captain** and exchange contact information.
4. Make sure you always have at least **half a tank of fuel** in your vehicle.

- 
5. Sign up for **robo calls from Utilities (Aqua, PEC)**.

<https://www.aquaamerica.com/customer-service-center/watersmart-alerts/watersmart-alerts-verification.aspx>

6. Sign up for **City emails and eblasts**.
7. **Sign up for Nextdoor** in order to be able to quickly network with neighbors. Access to Nextdoor during the freeze enabled families to access much needed food, water, firewood, and information.
8. For those that have disabilities and need assistance, **signup for State of Texas Emergency Assistance Registry (STEAR)**.
9. **Signup through Hays County Office of Emergency Management**, to attend a course to learn about Community Emergency Response Team (CERT). This course outlines how to volunteer for disaster preparedness, fire suppression, disaster medical aid and light search and rescue.

11 Appendices

A. Important Contact Information- Phone Numbers, Websites, Addresses

FROM:

<https://www.woodcreektx.gov/community/page/useful-links>

Water/Sewer	Aqua Texas Online	877-987-2782
Cable	Spectrum	855-243-8892
Trash & Recycling	Waste Connections	210-658-0487
Electric - Pedernales Electric Coop	<p>PEC For outages, call this number--></p> <p>To speak to a rep, call this number--></p>	<p>888-883-3379</p> <p>888-554-4732</p>
Wimberley Post Office	111 Joe Wimberley Blvd.	512-847-2623
Wimberley View	<p>Weekly newspaper</p> <p>www.wimberleyview.com</p>	512-847-2202
Hays County Sheriff's Office	Emergency	911
Regional Notification System Signup	<p>Sign up for emergency notifications at: www.WarnCentralTexas.org or call (866)-939-0911</p>	



B. Texas Commission on Environmental Quality (TCEQ): Rules and Regulations for Public Water Systems (RG-195 Rev 12/2019)

§ 290.45(b)(1)(D) for more than 250 connections, the system must meet the following requirements:

§ 290.45(b)(1)(D)(iv) an elevated storage capacity of 100 gallons per connection or a pressure tank capacity of 20 gallons per connection.

§ 290.45(b)(1)(D)(v) emergency power for systems which serve more than 250 Connections and do not meet the elevated storage requirement.

C. Woodcreek Ordinance Chapter 52.- Minimum Standards for Water Service

§ 52.02(E) Backup power must be available at all times in order to instantaneously, or as close to instantaneously as possible, restore service in the event of power outage or interruption.

D. Woodcreek Ordinance Chapter 51- Fire Hydrants

§ 51.01(C) Minimum requirements. A utility providing service in a residential area located in the City of Woodcreek or the City's ETJ must maintain a minimum sufficient water flow and pressure to fire hydrants. In addition to a utility's maximum daily demand, the utility must provide , for purposes of emergency fire suppression.

§ 51.01(C)(1) a minimum sufficient water flow of at least 250 gallons per minute for at least two hours; and

§ 51.01(C)(2) a minimum sufficient water pressure of at least 20 psi.


E. CITY ORDINANCE ON EMERGENCY MANAGEMENT

- CHAPTER 34: - EMERGENCY MANAGEMENT
- § 34.01 - ORGANIZATION.

(A) There exists the Office of Emergency Management Director of the City, which shall be held by the Mayor in accordance with state law.

(B) An Emergency Management Coordinator may be appointed by and serve at the pleasure of the Director.


(C) The Director shall be responsible for a program of comprehensive emergency management within the City and for carrying out the duties and responsibilities set forth in this chapter. He or she may delegate authority for execution of these duties to



the Coordinator, but ultimate responsibility for such execution shall remain with the Director.

(D) The Operational Emergency Management Organization of the City shall consist of the officers and employees of the City so designated by the Director in the Emergency Management Plan, as well as organized volunteer groups. The functions and duties of this organization shall be distributed among such officers and employees in accordance with the terms of the Emergency Management Plan.
(Ord. 89-31A, 8-23-2000)

- § 34.02 - EMERGENCY MANAGEMENT DIRECTOR; POWERS AND DUTIES.
- The duties and responsibilities of the Emergency Management Director shall include the following:
 - (A) Conduct an on-going survey of actual or potential hazards which threaten life and property within the City and an on-going program of identifying and requiring or recommending the implementation of measures which would tend to prevent the occurrence or reduce the impact of such hazards if a disaster did occur;
 - (B) Supervision of the development and approval of an Emergency Management Plan for the City, and shall recommend for adoption by the City Council all mutual aid arrangements deemed necessary for the implementation of such plan;
 - (C) Authority to declare a local state of disaster. The declaration may not be continued or renewed for a period in excess of seven days, except by or with the consent of the City Council. Any order or proclamation declaring, continuing or terminating a local state; of disaster shall be given prompt and general publicity and shall be filed promptly with the City Secretary;
 - (D) Issuance of necessary proclamations, regulations or directives which are necessary for carrying out the purposes of this chapter. Such proclamations, regulations or directives shall be disseminated promptly by means calculated to bring its contents to the attention of the general public and, unless circumstances attendant on the disaster prevent or impede, promptly filed with the City Secretary;
 - (E) Direction and control of the operations of the City Emergency Management Organization as well as the training of emergency management personnel;
 - (F) Determination of all questions of authority and responsibility that may arise within the Emergency Management Organization of the City;



(G) Maintenance of liaison with other municipal, county, district, state, regional or federal emergency management organizations;

(H) Marshaling of all necessary personnel, equipment or supplies from any department of the City to aid in carrying out of the provisions of the Emergency Management Plan;

(I) Supervision of the drafting and execution of mutual aid agreements, in cooperation with the representatives of the state and of other local political subdivisions of the state, and the drafting and execution, if deemed desirable, of an agreement with the county in which said City is located and with other municipalities within the county, for the county-wide coordination of emergency management efforts;

(J) Supervision of, and final authorization for the procurement of all necessary supplies and equipment, including acceptance of private contributions which may be offered for the purpose of improving emergency management within the City;

(K) Authorizing of agreements after approval by the City Attorney, for use of private public shelter and other purposes;

(L) Survey of the availability of existing personnel, equipment, supplies and services which could be used during a disaster, as provided for herein; and

(M) Other requirements as specified in State Disaster Act 1975 (Tex. Gov't. Code § 418.001 et seq.).

(Ord. 89-31A, 8-23-2000)


- § 34.03 - INTERJURISDICTIONAL PROGRAM.

The Mayor is hereby authorized to join with the County Judge and the mayors of the other cities in said county in the formation of an Emergency Management Council for the county and shall have the authority to cooperate in the preparation of a joint Emergency Management Plan and in the appointment of a joint Emergency Management Coordinator, as well as all powers necessary to participate in a county-wide program of emergency management insofar as said program may affect the City.

(Ord. 89-31A, 8-23-2000)

- § 34.04 - OVERRIDE.

At all times when the orders, rules and regulations made and promulgated pursuant to this chapter shall be in effect, they shall supersede and override all existing ordinances,



orders, rules and regulations insofar as the latter may be inconsistent therewith.
(Ord. 89-31A, 8-23-2000)

- § 34.05 - LIABILITY.

(A) This chapter is an exercise by the City of its governmental functions for the protection of the public peace, health and safety and neither the City, the agents and representatives of said City, nor any individual, receiver, firm, partnership, corporation, association or trustee, nor any of the agents thereof, in good faith carrying out, complying with or attempting to comply with, any order, rule or regulation promulgated pursuant to the provisions of this chapter shall be liable for any damage sustained to persons as the result of said activity.

(B) Any person owning or controlling real estate or other premises who voluntarily and without compensation grants to the City a license of privilege, or otherwise permits the City to inspect, designate and use the whole or any part or parts of such real estate or premises for the purpose of sheltering persons during an actual, impending or practice enemy attack or natural or human-made disaster shall, together with his or her successors in interest, if any, not be civilly liable for the death of, or injury to, any person on or about such real estate or premises under such license, privilege or other permission or for loss of, or damage to, the property of such person.

(Ord. 89-31A, 8-23-2000)

- § 34.06 - COMMITMENT OF FUNDS.


No person shall have the right to expend any public funds of the City in carrying out any emergency management activity authorized by this chapter without prior approval by the City Council, nor shall any person have any right to bind the City by contract, agreement or otherwise without prior specific approval of the City Council unless during a declared disaster. During a declared disaster, the Mayor may expend and/or commit public funds of the City when deemed prudent and necessary for the protection of health, life or property.

(Ord. 89-31A, 8-23-2000)

- § 34.07 - LIMITATIONS.

This chapter shall not be construed so as to conflict with any state or federal statute or with any military or naval order, rule or regulation.

(Ord. 89-31A, 8-23-2000)



- § 34.99 - PENALTY.

(A) It shall be unlawful for any person willfully to obstruct, hinder or delay any member of the Emergency Management Organization in the enforcement of any rule or regulation issued pursuant to this chapter, or to do anything forbidden by any rule or regulation issued pursuant to the authority contained in this chapter.

(B) It shall likewise be unlawful for any person to wear, carry or display any emblem, insignia or any other means of identification as a member of the Emergency Management Organization of the City, unless authority to do so has been granted to such person by the proper officials.

(C) Any unauthorized person who shall operate a siren or other device so as to simulate a warning signal, or the termination of a warning, shall be deemed guilty of a violation of this chapter and shall be subject to the penalties imposed by this chapter.

(D) Convictions for violations of the provisions of this chapter shall be punishable by fine not to exceed \$100.00.

(Ord. 89-31A, 8-23-2000)