RESOLUTION 2009-4

WHEREAS, the availability of a safe and pure source of water for the citizens of the City of Gothenburg is of vital importance; and

WHEREAS, the Nebraska Legislature has promulgated regulations requiring that cities formulate a water emergency plan, at Title 179, Chapter 2, Section 008.01 (C); and

WHEREAS, the City Council of Gothenburg has reviewed the Water Emergency Plan set forth on the attached Schedule.

NOW, THEREFORE, BE IT RESOLCED BY THE MAYOR AND COUNCIL OF THE CITY OF GOTHENBURG, DAWSON COUNTY, NEBRASKA, as follows:

Section 1: The City of Gothenburg Water Emergency Plan, set forth on the schedule attached hereto, and incorporated herein by this reference, is hereby adopted and shall be in full force and effect from and after the 3rd day of March, 2009.

Section 2: The attached Water Emergency Plan should be distributed as set forth on page 11, and implemented immediately.

PASSED AND APPROVED THIS 3rd day of March, 2009.

CITY OF GOTHENBURG,
DAWSON COUNTY, NEBRASKA

By Joyce E Hudson
Joyce Hudson, Mayor

ATTEST:

Connie L. Dalrymple
Connie Dalrymple, City Clerk

APPROVED AS TO FORM:

_____
Michael Bacon, City Attorney

# City of Gothenburg
# Water Emergency Plan

Water is our most vital resource. As such, the City of Gothenburg has formulated an emergency plan to protect that resource. This plan has been prepared as required by Title 179, Chapter 2, 008.01C of the Nebraska State Statutes.

**Any health related contamination or any issues that may affect the public water supply system of the City of Gothenburg should be reported immediately to the following personnel in order of listing:**

| | | |
|---|---|---|
| Shane Gruber | City Services Director | (308) 537-2027 or 537-3942 |
| Bruce Clymer | City Administrator | (308) 537-3677 or 537-3518 |
| City Office | (During Working Hours) | (308) 537-3668 or 537-3677 |
| Police Dispatcher | (After Hours) | (308) 537-3608 |
| Department of Health | 24-hour Emergency Number | (402) 499-6922 |

The City Services Director shall be responsible for notifying the City Administrator; and the Nebraska Department of Health when necessary. If the City Administrator cannot be reached, the Director shall then contact the Mayor.

The City Administrator shall contact the Mayor, City Council, Clerk and City Attorney.

**Any issues in regard to the supply system of the City of Gothenburg such as wells, water tower, water mains, fire hydrants or valves should be contact the following personnel in order of listing:**

| | | |
|---|---|---|
| City Office | (During Working Hours) | (308) 537-3668 or 537-3677 |
| Police Dispatcher | (After Hours) | (308) 537-3608 |
| Shane Gruber | City Services Director | (308) 537-2027 or 537-3942 |
| Bruce Clymer | City Administrator | (308) 537-3677 or 537-3518 |
| Tim Lauer | Parks Manager | (308) 529-3384 |
| Ralph Ogier | Water/Sewer | (308) 537-3863 |
| Corey Cooper | Water/Sewer | (308) 537-4222 |
| Ryan McManus | Water/Sewer | (308) 529-0979 |
| Dick Parsons | Utility Worker | (308) 537-3786 |
| Nolan Golter | Mechanic | (308) 529-2573 |

# Water Supply General Information Sheet

| | | |
|---|---|---|
| Utility Name: | | City of Gothenburg |
| Public Water Supply ID Number (PWSID): | | NE3104702 |
| Water Source: | | Groundwater |
| Population Served: | | 3619 |
| Water Storage Tank Capacity: | | 500,000 Gallons |
| Average Daily Pumpage (Gallons per Day): | | 1,077,463 |
| Treatment Processes: | | None |
| System Phone Number: | | 308-537-3668 |
| Fax: | | 308-537-3609 |
| E-mail: | | bclymer@cityofgothenburg.org |
| System's Designated Operator in Charge: | | Shane Gruber |
| Backup Operators: | | Tim Lauer |
| | | Corey Cooper |
| | | Ralph Ogier |
| | | Dick Parsons |
| | | Ryan McManus |
| HHSS-R&L Field Rep: | Tony Martinez | (308) 535-8387 or (308) 530-4651 |
| HHSS-R&L (Lincoln): | Doug Woodbeck, Field Services | (402) 471-0521 |
| | Emergency – 24 hours | (402) 499-6922 |
| | Howard Isaacs, Compliance | (402) 471-0930 |
| | Jack Daniel, Administrator | (402) 471-0510 |

Emergency Telephone Notification Listing

Basic Emergency Response Team

| Position | Name | Work | Pager | Cellular | Fax | Home |
|---|---|---|---|---|---|---|
| City Services Director | Shane Gruber | 308-537-2027 | None | 308-529-2481 | 308-537-3609 | 308-537-3942 |
| City Administrator | Bruce Clymer | 308-537-3677 | None | 308-529-1161 | 308-537-3609 | 308-537-3518 |
| Mayor | Joyce Hudson | 308-537-7151 | None | 308-529-1522 | None | 308-537-2773 |

Local Officials Outside the Utility

| Position | Name | Work | Pager | Cellular | Fax | Home |
|---|---|---|---|---|---|---|
| Council President | Jeff Kennedy | 308-537-7810 | None | None | None | 308-930-0212 |
| Electrical Foreman | Mike Libich | 308-537-2027 | None | 308-529-1129 | 308-537-2027 | 308-529-1129 |
| Police Chief | Randy Olson | 308-537-3608 | None | 308-529-1160 | 308-537-3609 | 308-537-4414 |

Local Officials Outside the Utility (Continued)

| Position | Name | Work | Pager | Cellular | Fax | Home |
|---|---|---|---|---|---|---|
| City Physician | Dr. Craig Bartruff | 308-537-3673 | None | None | None | 308-537-7528 |
| County Emg. Coordinator | Brian Woldt | 308-324-2070 | 800-403-3760 | 308-325-0932 | None | 308-784-4430 |
| Fire Chief | Mark Ballmer | 308-537-7141 | Police Dispatch | None | 308-537-3608 | 308-2576 |
| City Attorney | Mike Bacon | 308-537-7161 | None | 308-529-1429 | 308-537-7162 | 308-537-7461 |
| Engineer | Reed Miller | 800-658-4206 | None | 308-380-6994 | 308-234-1146 | 308-237-7406 |
| City Clerk | Connie Dalrymple | 308-537-3677 | None | | 308-537-3609 | 308-537-3920 |
| School Superintendent | Michael Teahon | 308-537-3651 | None | None | 308-537-3963 | 308-537-4493 |

Other Contacts

| Position | Name | Work | Pager | Cellular | Fax | Home |
|---|---|---|---|---|---|---|
| State Health Department | Tony Martinez | 308-535-8387 | | 308-530-4651 | 308-535-8175 | |
| Nebraska Rural Water | Randy Hellbusch | 402-461-2525 | | 402-443-5353 | | |
| League of Municipalities | Lash Chafin | 402-476-2829 | | | | |
| Midwest Assisstance Program | Tim Rutledge | 402-862-3227 | | 402-239-8392 | | |
| Red Cross | Kay Grinde | 308-784-4343 | 800-689-8595 | 308-325-3137 | | 308-784-4409 |
| Gas Utility | Source Gas | 800-563-0012 | 308-537-7554 | | | |
| KRVN | Dave Shcroeder | 308-324-2371 | | | | 308-324-5902 |
| KNOP | Jacque Harms | 308-532-2222 | | | | |
| Culligan | | 308-784-2222 | | | | |
| Sargent Irrigation | Garry McCracken | 308-872-6451 | | 308-870-2456 | | |

# System Information

Total Service Connections: 1,515 Residential Connections: 1,321
Commercial Connections: 184 Industrial Connections: 10

| DWR Well Registration Number | DOH Well Registration Number | City Identification Number | Location | Pumping Capacity (GPM) | HP | Depth (Feet) |
|---|---|---|---|---|---|---|
| A-10615A | 24702721 | 72-1 | 16th and Ave. G | 1,000 | 100 | 175 |
| A-10615D | 24702722 | 72-2 | 7th and Cottonwood | 1,000 | 100 | 186 |
| G-72329 | 247002861 | 86-1 | 20th and Ave. A | 1,200 | 100 | 398 |
| A-10615C | 24702901 | 90-1 | 1100 22nd Street | 1,140 | 100 | 420 |

Range of Production: 4,000 GPM to 1,000 GPM
Average Summer Daily Demand: 2.8 MGD
Peak Daily Demand: 3.7 MGD
Average Winter Daily Demand: 0.626 MGD
System Total Storage Capacity: 0.5 MGD

Water Tower Location: 1100 22nd Street
Manufacturer: Pittsburgh – Des Moines Steel Company
Capacity: 500,000 gallons
Water Level Settings: High-500,000 Gal. 100% Low-200,000 Gal 40%
Sensor Elevation: 2734 feet
Sensor Location: GMV 90-1 Well House
Overflow Elevation: 2734.5 feet
Date Built: 1969
Last Date Inspected: 2005

# Priority of Service

- Fire Protection
- Hospitals and nursing homes
- Domestic (for limited use during the emergency)
- Commercial
- Industrial

# Possible Emergencies and Disasters

## Chemical or Bacteriological Contamination:

1. Notify the Nebraska Department of Health (402-499-6922 or names on emergency contact information sheet).
2. Locate, identify and isolate the source of contamination.
3. Notify all residents that are affected through radio, bank sign, newspaper and/or door-to-door communication. **If an MCL violation poses an acute (immediate) health risk, KRVN and KNOP TV must be notified within 72 hours.**
4. Call NDOH for sample bottles.
5. Flush and Disinfect.
6. When clear, notify all residents through proper communication such as radios and newspaper.

## Taking the Water Tower Out of Service:

1. Put PSI relief valve on fire hydrant at Ave. F and Northhaven Drive
2. Turn on wells: 72-1 and 72-2
3. Turn off wells: 90-1 and 86-1
4. Turn off 8" valve west of fire hydrant to main (Attachment 1)
5. Turn off 12" valve south of one in pit (Attachment 1)

## Water Main or Service Line Breaks/Construction Accidents

1. Locate Leak
2. Call Emergency Locate: 1-800-331-5666 I.D. #482
3. If necessary, notify City Services Director or City Administrator in order of listing for damage assessment and/or coordination of repairs.
4. Check size and/or location on water map.
5. Put out signs and barricades, if necessary.
6. If possible, inform customers of the problem, that the water will be shut off, and the expected time of when the problem will be resolved.
7. Isolate leak using system valves; dig up; and repair and/or replace pipe.
8. Flush out pipe and if necessary chlorinate pipe.
9. Return water line to service.

Personnel trained in confined space entry and trench safety:

- Tim Lauer, Ralph Ogier, Corey Cooper, Ryan McManus, Dick Parsons and Nolan Golter

# Power Failure:

In the event of a power failure, the following actions should be followed:

1. Check with Gothenburg Dispatch and/or the electrical department to determine the possible length of time the outage will be.
2. If it is determined that there is a need for emergency backup of the well system, the natural gas driven motors at wells 72-2 and 90-1 shall be turned on.
3. Once power has been restored, these wells shall be returned to their normal operating mode.

Procedures for using the natural gas driven motors shall be as follows:

**GMW 72-2 BACK-UP MOTOR OPERATING PROCEDURE**

**START UP**:

1. Check the Gas Motor over: oil, water, and general condition.
2. **Turn the main disconnect switch to ON on the gauge panel.**
3. **Turn on Natural Gas Valve with crescent Wrench.**
4. Close **water main valve** slowly until shut off.
5. Turn the **hand/off/auto** switch on the electric well motor panel to **OFF**.
6. Turn **main electrical disconnect** handle to the **OFF** position.
7. Open the red control panel on gas motor and turn **test/off/auto** toggle switch to **AUTO**.
8. Turn the gas motor **start/stop contact** toggle switch on the exterior of control panel to **ON**.
9. Gas motor should start and warm up for approximately **110** seconds. Green light in control panel should be on, **engine running**.
10. After warm up, the gas motor should engage the clutch and start the well, increasing its speed to **2,000** RPM. Close the control panel.
11. Slowly begin opening the **main water valve** until fully open and check the water meter for flow.

***If you have any problems, contact Shane Gruber or Tim Lauer.***

**SHUT DOWN**:

1. Close the **water main valve** slowly.
2. Turn gas motor **start/stop contact** toggle switch on the exterior of the Gas Motor Control Panel to **OFF**.
3. The gas motor should start to slow down to idle.
4. The clutch should then release after **42** seconds when the Gas Motor is idling.
5. The gas motor should idle for approximately **110** seconds to cool down and then shut off.
6. Open the gas motor control panel and turn the **test/off/auto** toggle switch to **OFF**.
7. Close the red control panel.
8. **Turn off natural gas valve with crescent wrench.**
9. **Turn the main disconnect to OFF on the gauge panel.**
10. Turn the **main electrical disconnect** handle to the **ON** position.
11. Turn the **hand/off/auto** switch on the Electric Well Motor Panel to **hand** to start the electric motor.
12. Slowly begin opening the **main water valve** until fully open and check the water meter for flow.

***If you have any problems, contact Shane Gruber or Tim Lauer.***

## GMW 90-1 BACK-UP MOTOR OPERATING PROCEDURE

**START UP**:

1. Check the gas motor over: oil, water, and overall condition.
2. **Turn on natural gas valve with crescent wrench.**
3. If the electric well motor is not running, then proceed to # **5**. If the electric well motor is running, proceed to # **4**.
4. With the electric well motor running, place the **tank master pump control** gauge into its **stop delay mode**. This allows the Clay valve and the electric motor to run through their cycle and shut down. Once the electric motor and Clay valve are off, proceed to #**5**.
5. Turn the **hand/off/auto** switch on the electric motor panel to **OFF**.
6. Turn the **main electrical disconnect** handle on the electric motor panel to the **OFF** position.
7. Go back to the gas motor and open the red control panel to switch the **TEST/OFF/AUTO** toggle switch to the **AUTO** position. Close the panel door.
8. Well operation will now work off of the **MERCOID PUMP CONTROL** in the well house. Approximate settings for it are ***START-50 psi – STOP – 58 psi.***
9. If the Water Tower is calling for water on the **MERCOID PUMP CONTROL** setting, the Gas Motor will start and warm up for approximately **110** seconds.
10. After the warm up, the clutch should engage, the Gas Motor should start speeding up, and the Clay Valve should start to open.
11. When the Gas Motor reaches approximately **2000** RPM, the Clay Valve should continue to open until it is completed, and the Water Meter is showing flow.
12. When the Water Tower stops calling for water on the **MERCOID PUMP CONTROL** setting, the Gas Motor will start to slow down, the Clay Valve will start to close and after approximately **125** seconds the clutch will release.
13. The Gas Motor will idle for approximately **150** seconds and the Clay Valve should be closed.
14. The Gas Motor will shut off and be ready for start up if the Water Tower calls for water.

***If you have any problems, contact Shane Gruber or Tim Lauer.***

**SHUT DOWN**:

1. If the well is pumping and the gas motor is running, let them finish filling the Water Tower and proceed to #**3** when the gas motor is shut completely off.
2. If the well is not pumping and the gas motor is shut completely off, then proceed to #**3**.
3. Open the red control panel on the gas motor and switch the **TEST/OFF/AUTO** toggle switch to the **OFF** positions. Close the panel door.
4. **Turn off Natural Gas Valve with the Crescent Wrench.**
5. Turn the **MAIN ELECTRICAL DISCONNET** handle on the Electric Motor Panel to the **ON** postition
6. Turn the **HAND/OFF/AUTO** switch on the Electric Motor Panel to **AUTO.**
7. The Well will now operate on the **Electric Motor** and the **TANK MASTER PUMP CONTROL.**

***If you have any problems, contact Shane Gruber or Tim Lauer.***

# ***ATTENTION!***

Normal operation requires that **GMW 86-1** and/or **GMW 90-1** to be running when the Water Tower is at **50% of capacity or less.** If the Water Tower is down to **30%** and the two above wells are not running or they are not keeping up with the demand for water, immediately contact the Water/Sewer Utility Person ON-CALL

or contact

***Shane Gruber, 537-3942 or 529-2481,***

***Or Tim Lauer, 529-3384.***

## Natural Disasters

Use a combination of the above procedures as needed depending upon the type of disaster and what parts of the system are affected.

## Chemical Pumps

The City has installed chemical pumps in all of the wells. These pumps may be used to inject chorine into the water system if required by the presence of bacteriological contamination. Rules of injection shall be as follows:

1. Receive notification from the HHS of the need to chlorinate the system due to contamination.
2. Work with HHS representative to insure proper injection of chlorine into the system.

| | |
|---|---|
| Chemical Pump Locations: | Well Houses 72-1, 72-2, 86-1, 90-1 |
| Vendor: | Raines and Associates, Inc.<br>14243 "S" Street<br>Omaha, NE 68137 |
| Phone: | 1-402-895-6336 |
| Fax: | 1-402-895-5324 |
| Type of Pumps: | LMI A771-150FS Metering Pump |
| Capacity of Pump: | 0.0 to 0.42 Gallons/Hour at 140 PSI |
| Analog to Digital Converter: | LMI MP-100 |
| Corpotation Stop and Nozzle Assembly: | LMI #10998 |
| Wall Mount Bracket: | #34643 |

## Water Shortage

In the case of a water shortage, the following shall occur:

1. Normal procedure of the city is to inform and to ask all residents of the community to conserve water during the months of June, July and August. All residents will be asked to not water during the hours of 1:00 PM to 7:00 PM on Monday through Friday.
2. If a water shortage is occurring, an immediate notification to all consumers that all use of water shall be immediately curtailed, except for sanitary and drinking purposes.

3. If the problem persists, personnel shall isolate different areas within the community to have a rolling shutdown of different areas. Each area shall be turned off for a period not to exceed 8 hours. Personnel shall remain on duty in order to turn on any water needed for fire or emergency purposes.
4. If in the extreme instance that the water tower is drained, city personnel shall inform, and consult with, the Nebraska Department of Health regarding recovery procedures.

## Reporting Requirements

Any Condition that requires reporting than an emergency exists shall refer to Annex A-1, Annex A-2 and Annex A-4 of this plan.

## Appendices

Attached under the appendices are various amounts of information to be used for reference is the City of Gothenburg is faced with a water emergency.

## Location of Emergency Plan Copies

| Agency | Person | Phone | Location | Copy # |
|---|---|---|---|---|
| DHHS | Tony Martinez | 308-535-8387 | 200 S. Silber North Platte, NE 69101 | 1 |
| County Emergency Coordinator | Brian Woldt | 308-324-2070 | 709 N. Grant Lexington, NE 68850 | 2 |
| City of Gothenburg | Bruce Clymer | 308-537-3677 | 409 9th Street | 3 |
| City of Gothenburg | Shane Gruber | 308-537-2027 | 1112 Avenue L | 4 |
| City of Gothenburg | Connie Dalrymple | 308-537-3677 | 409 9th Street | 5 |
| Nebraska Rural Water | Craig Matulha Deputy Circuit Rider | 800-842-8039 | 555 Commercial Park Dr. Wahoo, NE 68066-9750 | 6 |
| Gothenburg Police Dept. | Randy Olson | 308-537-3608 | 405 9th Street Gothenburg, NE 69138 | 7 |
| City Wells | Shane Gruber | | All well locations | 8, 9, 10, 11 |

# City of Gothenburg
# Water System Inventory

- Well 72-1
- Well 72-2
- Well 86-1
- Well 90-1
- 500,000 Gallon Elevated Storage Tank
- 194 Blocks Cast-iron Water Main = 67,900 Ft. = 13 Miles
- 90 Blocks Transit Water Main = 31,500 Ft. = 6 Miles
- 55 Blocks PVC Water Main = 19,250 Ft. = 4 Miles
- 170 Fire Hydrants
- 294 Water Main Valves
- 1,321 Residential Service Connections 389,048,160 Gallons
- 184 Commercial Service Connections 54,190,290 Gallons
- 10 Industrial Service Connections 2,945,550 Gallons
- 1,515 Total Service Connections 446,184,000 Gallons
- 4 - Electronic Metering Pumps
- 1 – Fischer XLT-20 CE Leak Detector
- Trench Shoring
- Backhoe
- Tapping Machine
- Loader
- 2 – Five Yard Dump Trucks
- 3 – Water Service Pickups
- 1 - Diesel Generator for lighting and or backup power
- 2 - Backup Natural Gas Power Units
- Assortment of many hand tools

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This plan has been approved by Resolution _____ of the Gothenburg City Council.
Passed and approved on this day _____, 2009.

Signed: _____
Mayor Joyce Hudson

Attest: _____
Connie Dalrymple, City Clerk

## Attachments

| | |
|---|---|
| Attachment 1 | Map for taking water tower out of service |
| Attachment 2 | City of Gothenburg Wellhead Protection Maps |

## Annexes

| | |
|---|---|
| Annex A-1 | Conditions requiring that an emergency exists |
| Annex A-2 | Public Drinking Water Supply Emergency Notification Form |
| Annex A-4 | Preliminary Damage Assessment Form |

## Appendices

| | |
|---|---|
| Appendix A-3.2 | Nebraska Natural Resource District Boundaries |
| Appendix A-3.3 | Nebraska Department of Roads Districts |
| Appendix A-3.4 | County Emergency Coordinators |
| Appendix B-1.1 | American Red Cross |
| Appendix B-1.2 | Nebraska Rural Electric Association Phone Listings |
| Appendix C-1 | Chemical Suppliers |
| Appendix C-2 | Bottled Water |
| Appendix C-3 | Commercial Ice Suppliers |
| Appendix D-1 | Air Compressors |
| Appendix D-2 | Chemical Feed Equipment |
| Appendix D-3 | Portable Generators |
| Appendix D-6 | Pipe & Water System Equipment |
| Appendix D-8 | Sandbags |
| Appendix E-1 | Consulting Engineers |
| Appendix E-2 | Heavy Equipment |
| Appendix E-3 | Laboratories – Testing (Drinking Water) |
| Appendix E-4 | Electric Motor Repair Contractors |
| Appendix E-6 | Pumps – Service & Repair Contractors |
| Appendix E-7 | Trucks & Bulk Water Trucks |
| Appendix E-9 | Well Drillers |
| Appendix G-1 | Transportation Resources |
| Appendix H-1/6 | Radio and TV Stations |
| Appendix H-2/2 | Nebraska Newspapers |