

Resolution 2002-1

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 for on the attached Schedule.

NOW, THEREFORE, BE IT RESOLVED 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 19<sup>th</sup> day of February 2002.

Section 2. The attached Water Emergency Plan should be distributed as set forth on page 9, and implemented immediately.

PASSED AND APPROVED THIS 19<sup>th</sup> day of February, 2002.

CITY OF GOTHENBURG,  
DAWSON COUNTY, NEBRASKA

By Larry Frazzen  
Larry Frazzen, Mayor

ATTEST:

Connie Stull  
Connie Stull, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Steven P. Vinton  
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:**

Garry Dishman	Water Department Foreman	(308) 537-2027
City Office	(During Working Hours)	(308) 537-3668 or 537-3677
Police Dispatcher	(After Hours)	(308) 537-3608 or 537-3609
Shane Gruber	Administrative Assistant	(308) 537-2027 or 537-3942
Bruce Clymer	City Administrator	(308) 537-3677 or 537-3518
Department of Health		(402) 471-2541

The Water Department Foreman shall be responsible for notifying the Mayor, Council and/or the Nebraska Department of Health when necessary.

**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
Garry Dishman	Water Department Foreman	(308) 537-2027
Police Dispatcher	(After Hours)	(308) 537-3608 or 537-3609
Dick Parsons	Water/Sewer	(308) 537-3786
James Smith	Water/Sewer	(308) 537-8743
Roger Hood	City Mechanic	(308) 537-2330
Shane Gruber	Administrative Assistant	(308) 537-2027 or 537-3942
Bruce Clymer	City Administrator	(308) 537-3677 or 537-3518
Department of Health		(402) 471-2541

# 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):	303,000
Treatment Processes:	None
System Phone Number:	308-537-3668
Fax:	308-537-3609
E-mail:	<a href="mailto:bclymer@nebi.com">bclymer@nebi.com</a>
System's Designated Operator in Charge:	Garry Dishman
Backup Operators:	Shane Gruber Roger Hood Dick Parsons James Smith
HHSS-R&L Field Rep:	Doug WoodBeck (402) 535-8134
HHSS-R&L (Lincoln):	Scott Borman, Field Services (402) 471-0521 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
Water Foreman	Garry Dishman	308-537-2027	None	None	308-537-3609	308-537-2692
City Administrator	Bruce Clymer	308-537-3677	None	308-529-1161	308-537-3609	308-537-3518
Mayor	Larry Franzen	308-537-2455	Police Dispatch	None	None	308-537-3305
Administrative Assistant	Shane Gruber	308-537-3668	None	308-529-2481	308-537-3609	308-537-3942

### Local Officials Outside the Utility

Position	Name	Work	Pager	Cellular	Fax	Home
Council President	Joyce Hudson	308-537-7151	None	None	None	308-537-2773
Electrical Foreman	Mike Libich	308-537-2027	None	308-529-1129	308-537-2027	308-537-7425
Police Chief	Randy Olson	308-537-3608	800-393-9703	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	Dale Franzen	308-537-2455	Police Dispatch	308-529-0262	308-537-3608	308-3781
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 Stull	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	Doug Woodbeck	308-535-8134			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			308-784-4409
Gas Utility	KM Energy	800-563-0012	308-537-7554			
KRVN	Dave Shcroeder	308-324-2371				308-324-5902
KNOP	Jacque Harms	308-532-2222				
Culligan		308-784-2263				
Sargent Irrigation	Reece Miller	308-537-3625				308-537-3389
Sargent Irrigation	Garry McCracken	308-872-6451		308-870-2456		

## System Information

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Total Service Connections: 1,515      Residential Connections: 1,308  
 Commercial Connections: 127      Industrial Connections: 80

DWR Well Registration Number	DOH Well Registration Number	City Identification Number	Location	Pumping Capacity (GPM)	HP	Depth (Feet)
A-10615A	24702721	72-1	16 <sup>th</sup> and Ave. G	1,000	100	171
A-10615D	24702722	72-2	7 <sup>th</sup> and Cottonwood	1,000	100	186
G-72329	247002861	86-1	20 <sup>th</sup> and Ave. A	1,200	100	398
A-10615C	24702901	90-1	1100 22 <sup>nd</sup> Street	1,140	100	420

Range of Production: 4,000 GPM to 1,000 GPM  
 Average Summer Daily Demand: 705,000 MGD  
 Peak Daily Demand: 3,923,000 MGD  
 Average Winter Daily Demand: 229,000 MGD  
 System Total Storage Capacity: 500,000 MGD

Water Tower Location: 1100 22<sup>nd</sup> 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: 2001

## Priority of Service

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

## Possible Emergencies and Disasters

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### Chemical or Bacteriological Contamination:

1. Notify the Nebraska Department of Health (402-471-2541 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: 1-800-642-8434
3. If necessary, notify Water Foreman, Administrative Assistant 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:

- Dick Parsons - James Smith – Roger Hood

## 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

#### START UP:

1. Check the Gas Motor over: oil, water, and general condition.
2. Turn on Natural Gas Valve with Crescent Wrench.
3. Close water main valve slowly until shut off.
4. Turn the hand/off/auto switch on the electric well motor panel to OFF.
5. Turn main electrical disconnect handle to the OFF position.
6. Open the control panel on backup gas motor and turn test/off/auto toggle switch to AUTO.
7. Turn the gas motor start/stop contact toggle switch on the exterior of control panel to ON.
8. Gas motor should start and warm up for approximately 70 seconds. Green light in control panel should be on, engine running.
9. 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.
10. Slowly begin opening the main water valve until fully open and check the water meter for flow.

#### 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.
4. The clutch should then release after 8 to 10 seconds when the gas motor starts to slow down.
5. The gas motor should idle for 70 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 control panel.
8. Turn off natural gas valve with crescent wrench.
9. Turn the main electrical disconnect handle to the ON position.
10. Turn the hand/off/auto switch on the Electric Well Motor Panel to hand to start the electric motor.
11. Slowly begin opening the main water valve until fully open and check the water meter for flow.

## GMW 90-1

### START UP:

1. Check the gas motor over: oil, water, general condition, and open the control panel to see that the test/off/auto toggle switch is in the auto position. Close the control panel.
2. Turn on natural gas valve with crescent wrench.
3. If the electric well motor is not running, then proceed to # 4. If the electric well motor is running, proceed to #3.
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 #4.
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. Well operation will now work off of the Mercoid Pump Control.
8. If the water tower is calling for water on the Mercoid Pump Control setting, the gas motor will start and warm up for approximately 70 seconds.
9. After the warm up, the clutch should engage, the gas motor should start speeding up, and the Clay valve should start to open.
10. When the gas motor reaches 2000 RPM, the Clay valve should continue to open until it is completed, and the water meter is showing flow.
11. 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 10 seconds the clutch will release.
12. The gas motor will idle for approximately 70 seconds and the Clay valve should be closed.
13. The gas motor will shut off and be ready for start up if the water tower calls for water.

### 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.
2. If the well is not pumping and the gas motor is shut completely off, then proceed to #3.
3. Turn the main electrical disconnect handle on the electric motor panel to the ON position.
4. Turn the hand/off/auto switch on the electric motor panel to AUTO.
5. Turn off natural gas valve with the crescent wrench.
6. The well will now operate on the electric motor and the Tank Master Pump Control.

*If you have any problems contact Shane, Garry D., or Roger.*

## 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

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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.  
14243 "S" Street  
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

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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

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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

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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	Doug Woodbeck	308-535-8216	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 9 <sup>th</sup> Street	3
City of Gothenburg	Garry Dishman	308-537-2027	409 9 <sup>th</sup> Street	4
City of Gothenburg	Connie Stull	308-537-3677	409 9 <sup>th</sup> Street	5
City of Gothenburg	Shane Gruber	308-537-3668	409 9 <sup>th</sup> Street	6
Nebraska Rural Water	Craig Matulha Deputy Circuit Rider	800-842-8039	555 Commercial Park Dr. Wahoo, NE 68066-9750	7
Gothenburg Police Dept.	Randy Olson	308-537-3608	405 9 <sup>th</sup> Street Gothenburg, NE 69138	8
City Wells	Garry Dishman		All well locations	9,10,11,12

# City of Gothenburg

## Water System Inventory

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- 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
- 1,308 Residential Service Connections 370,926,000 Gallons
- 127 Commercial Service Connections 77,627,000 Gallons
- 80 Industrial Service Connections 43,802,000 Gallons
- 1,515 Total Service Connections 492,355,000 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 2001- \_\_\_\_\_ of the Gothenburg City Council.  
 Passed and approved on this day, November 6<sup>th</sup>, 2001.

Signed:

\_\_\_\_\_  
 Mayor Larry Franzen

Attest:

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 Connie Stull, City Clerk

## Attachments

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

## Annexes

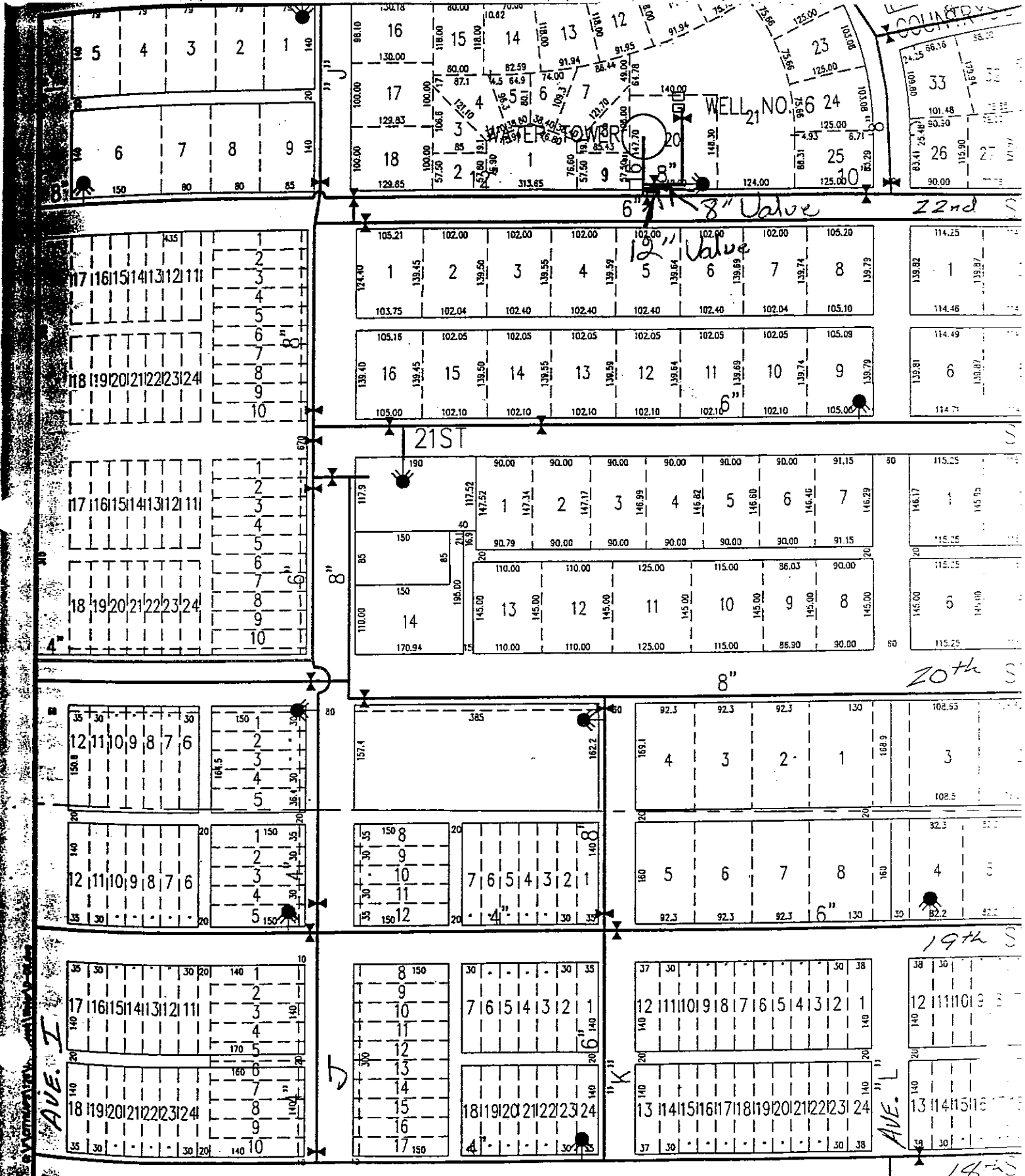
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Annex A-1	Conditions requiring that an emergency exists
Annex A-2	Public Drinking Water Supply Emergency Notification Form
Annex A-4	Preliminary Damage Assessment Form

## Appendices

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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



Ave. J

Ave. K

COUNTRY

WELL NO. 21

21ST

20th S

19th S

18th S

6" 8" Valve

12" Valve

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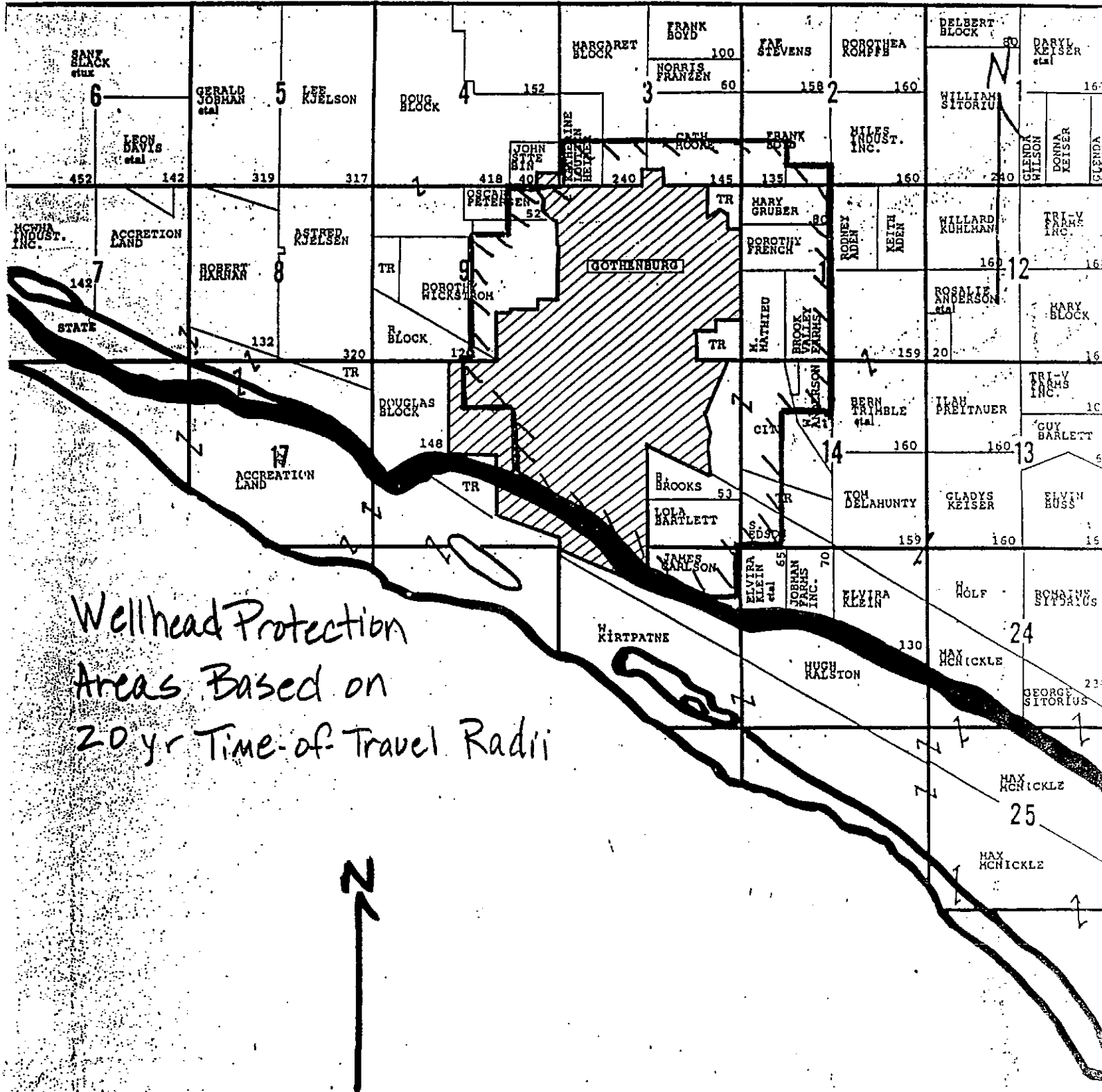
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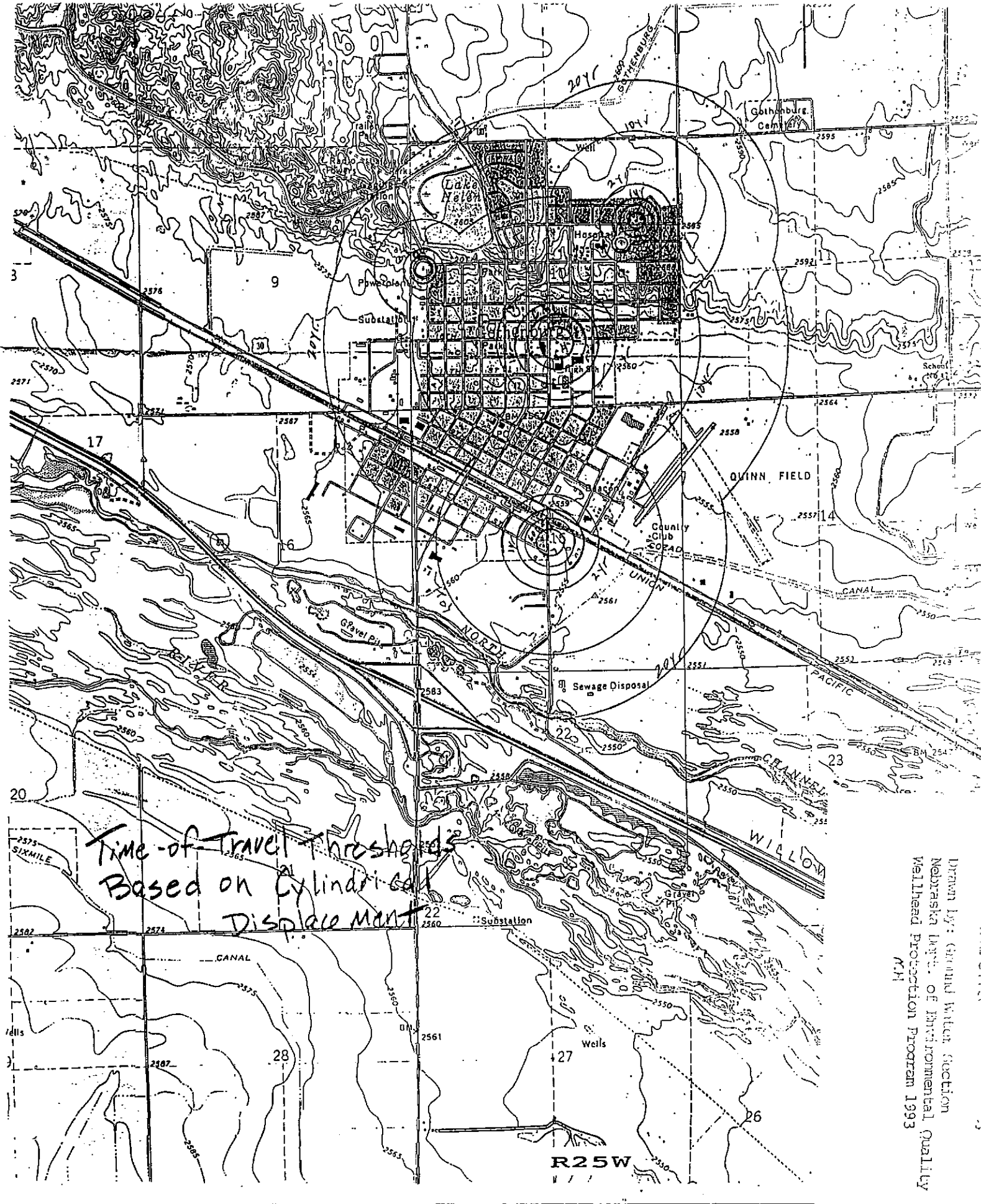
GOTHENBURG PLAT

R-25-W



Wellhead Protection  
 Areas Based on  
 20 yr Time-of-Travel Radii





Time of Travel Thresholds  
Based on Cylindrical  
Displacement

Drawn by: Ground Water Section  
Nebraska Dept. of Environmental Quality  
Wellhead Protection Program 1993  
M.H.