Source Water Protection Program

Water System User's Guide

February 2017

NORTH DAKOTA DEPARTMENT *of* HEALTH

north dakota groundwater
a resource to protect

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Introduction

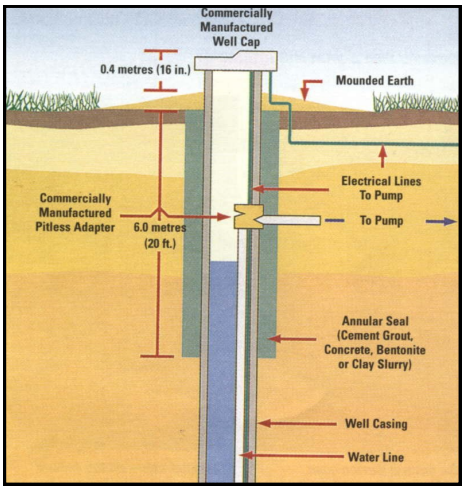
The purpose of this Water System User's Guide is to assist public water systems in implementing the voluntary elements of the Source Water Protection Program. The Source Water Protection Program began as the Wellhead Protection Program, which was created by the Safe Drinking Water Act amendments of 1986. The original role of the North Dakota Department of Health (NDDoH) was to guide development of wellhead protection programs and provide education to public groundwater systems in implementing system elements. The local government or public water system board of directors is responsible for the implementation of the voluntary elements.

Further amendments to the Safe Drinking Water Act in 1996 required a source water assessment for all public water systems that obtain source water from surface water intakes or groundwater wells. The NDDoH developed the Source Water Assessment Strategic Plan that was approved by the U.S. Environmental Protection Agency (EPA) in 1999 to obtain primacy of the program. The NDDoH completes the mandatory elements of the Source Water Protection Program: the delineation of the source water protection area, a potential contaminant source inventory and a susceptibility analysis of the system. Although the NDDoH completes these mandatory elements for the public water system, the voluntary elements are still the heart of the program: management strategies, contingency plan, new wells and public participation. This user's guide provides information to public water system personnel on how to implement the voluntary items of the Source Water Protection Program. Each program element, whether mandatory or voluntary, will be addressed to explain its purpose and how it can be implemented. More information on North Dakota water quality protection can be found in Appendix A.

North Dakota Department of Health
Mandatory Elements

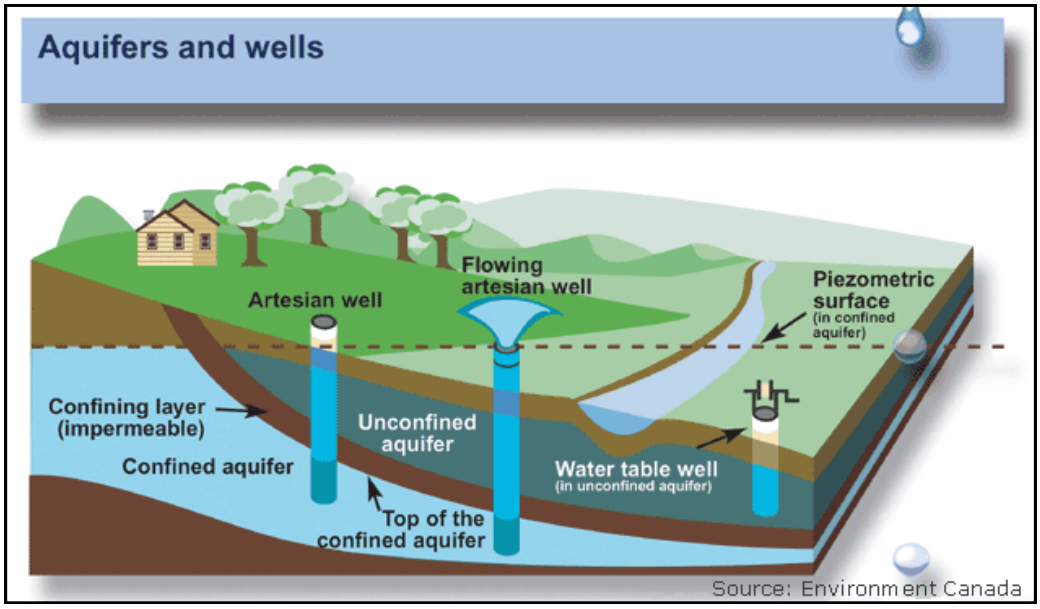
Source Water Area Delineation

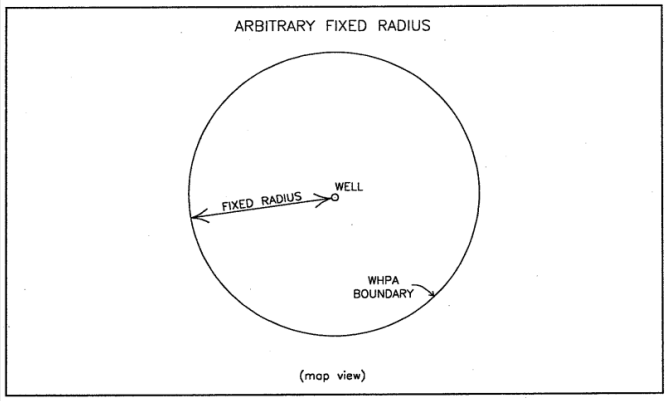
A source water delineation area is defined as the surface and subsurface area surrounding a groundwater well or surface water intake which supplies a public water system and through which contaminants are likely to move toward and reach the groundwater well or intake. Each public water system is unique, so the methods used to delineate the source water areas will vary. The selection of a delineation method will be made after assessing the type of water supply source and the hydrogeologic data available. In some cases the methods may be combined to provide a hybrid delineation.



Groundwater Source Area Delineation Methods

- Arbitrary Fixed Radius
- Calculated Fixed Radius
- Zone of Contribution
- Hydrogeologic Mapping



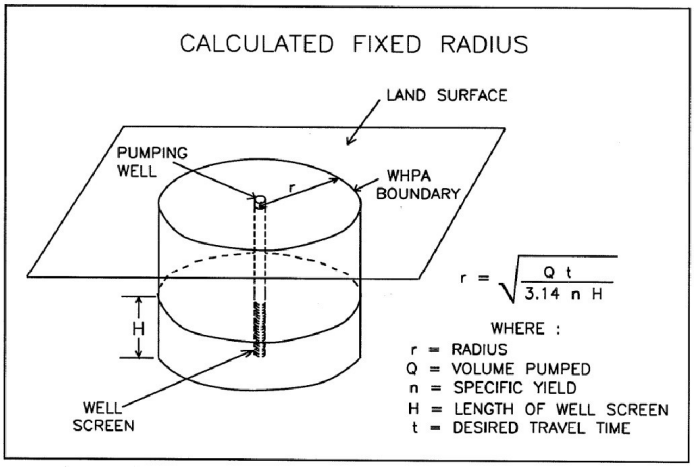


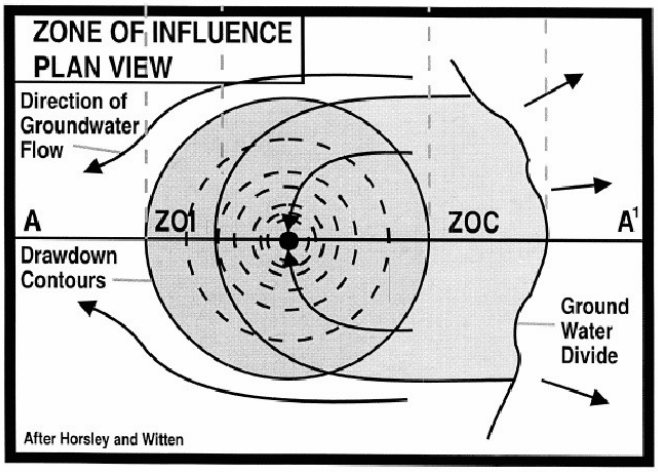
Arbitrary Fixed Radius

The simplest delineation method is the arbitrary fixed radius method. This delineation defines a protective circular area, with a given radius, around a specific public water system wellhead. A minimum radius of 1,200 feet is typically used.

Calculated Fixed Radius

To use the calculated fixed radius method, site-specific information about the aquifer and well is needed. The aquifer specific yield or porosity is needed as well as the volume pumped out of the well and the well screen length. The time of travel used is a minimum of 10 years.



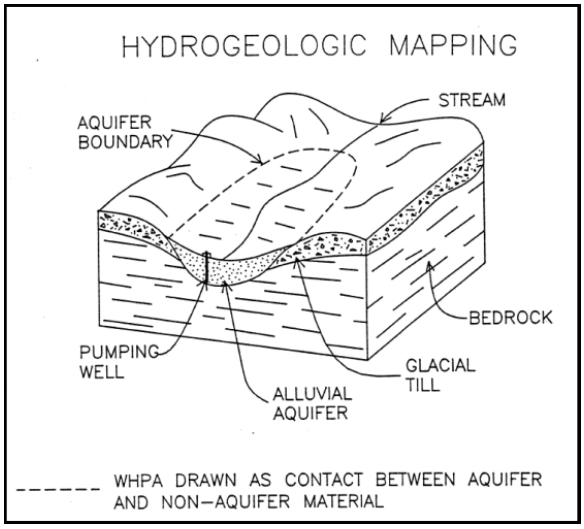


Zone of Contribution

This is a uniform flow analytical method that attempts to approximate the actual aquifer area that contributes water to the well. Data required to apply this method include well pumping rates, specific yield or effective porosity, saturated aquifer thickness, hydraulic conductivity and hydraulic gradient of the aquifer. In the case of numerous wells, a envelope is drawn around all zones of contributions.

Hydrogeologic Mapping

There are several elements of the local environment that can act as groundwater divides and impact groundwater flow direction in that area. These include natural boundaries such as impermeable strata and rivers, and man-made boundaries such as dams and pumping wells. The hydrogeologic mapping method takes into account these natural boundaries.



North Dakota Department of Health
Mandatory Elements

Source Water Area Delineation

Surface Water Source Area Delineations

- Surface water from natural lakes or man-made reservoirs
- Surface water from rivers and streams

Surface water from natural lakes or man-made reservoirs

A critical buffer zone of 1,000 feet from the high water elevation is delineated for areas around natural lakes or man made reservoirs. However, there are a few exceptions for specific water bodies in the state of North Dakota.

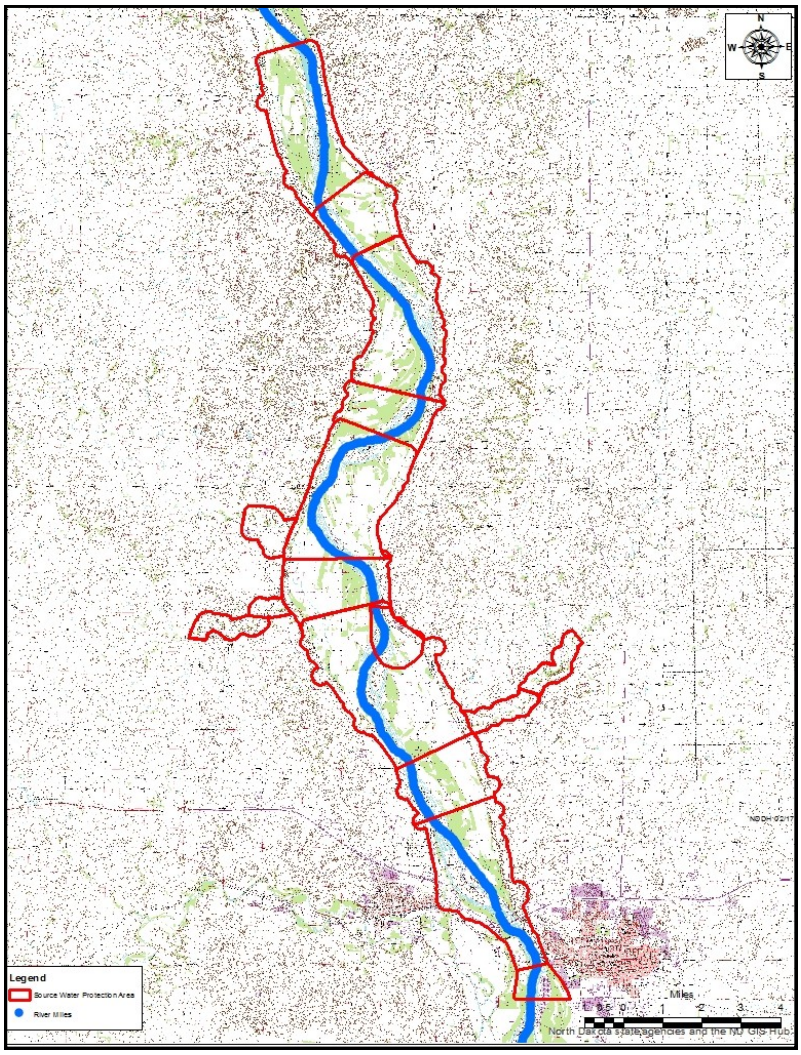
Specific delineation methods were used for the man-made reservoirs of Mulberry Creek Reservoir and Mt. Carmel Dam. Due to the lack of specific point sources of contamination and large volumes of water, a default critical zone of 1,000 feet was included around the entire water body of each reservoir, as measured from the highest recorded water elevation established by the U.S. Geological Survey. Distances less than 1,000 feet will be considered where natural topography/geology, width of the alluvial aquifer system, or proximity of contaminants justify a decrease in the critical zone.

An alternative method was also implemented for Lake Sakakawea, which encompasses 368,231 acres and has 1,600 miles of shoreline. The large size of Lake Sakakawea makes the delineation of the entire lake unmanageable when attempting to implement source water assessment provisions. A 1,000-foot critical zone as measured from the highest recorded lake elevation will be extended a minimum distance of 3 miles on either side of the public water system intake structure. Due to the natural size of the lake, dilution is expected to occur in the case of catastrophic release of contaminant into the lake.

Source water from rivers and streams

The primary source water area delineation method for rivers and streams in North Dakota is referred to as the default stream/critical zone method. This method will be applied to stream/river systems from which limited or no applicable site-specific information is available. This method includes the identification of a stream stretch bounded on each side by a buffer or critical zone area. Using this method, the default stream assessment area for a stream segment using this method is defined as a fixed distance starting from the public water system intake and ending at a predetermined point upstream of the intake. For river/stream systems in North Dakota, a minimum delineated distance of 15 valley miles upstream of the intake source is used. Other inputs into the main surface water supply, such as natural named tributaries will be delineated with a minimum distance of 15 valley miles as measured from the public water system intake structure. The critical zone assessment component is defined as a horizontal distance perpendicular from the bank full elevation stage. This horizontal distance will be a minimum of 1,000 feet on both sides of the river/stream. A distance less than 1,000 feet may be considered where the natural topography/geology, width of the alluvial aquifer system or proximity of contaminants of concern justify a decreased critical zone size.

The second source water area delineation method for stream/river systems utilizes site-specific historical information for the stream/river. Data obtained from routine stream gaging completed by the U.S. Geological Survey, provides the long-term information on stream/river flow for the major surface water systems in North Dakota. With a given stream velocity and a chosen response time, an assessment area for a stream segment can be determined. To identify a source water area delineation size, the NDDoH will use streamflow data consistent with the bank full stage at a specific stream gaging station. The NDDoH typically uses a data collected from a gauging station located as near upstream of the public water system intake as possible. This data is used in combination with a 12-hour response time to define the upstream boundary of the critical assessment area. The stream/river segment will also have a critical zone of 1,000 feet, measured from the bank full elevation, on both sides of the stream to the full length of the delineation. Once again, named tributaries will be delineated with a minimum distance of 15 valley miles upstream as measured from the public water system intake.



North Dakota Department of Health
Mandatory Elements

Contaminant Source Inventory

An essential component of a comprehensive source water assessment is the identification of potential threats to water quality. The objective of the contaminant source inventory is to obtain site-specific information concerning past and present activities that have a potential to impact groundwater quality within the source water protection area. These potential sources are both point source and nonpoint source. A point source is defined as any single identifiable source of pollution from which pollutants are discharged. A nonpoint source is diffused pollution that occurs over a wide area. The most common contaminants of concern fall into four categories: agricultural, commercial/industrial, residential, and public water system owner. The table on the next page shows the most common activities under those four categories.

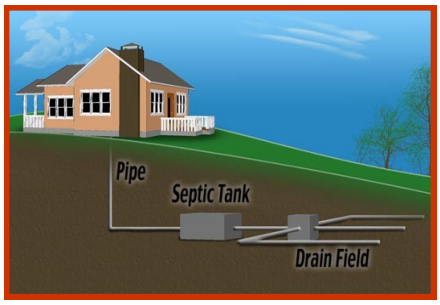
Categories of Sources and Activities that may Impact Water Quality

Agricultural

- Feedlots
- Manure piles
- Chemical application/ storage
- Fertilizer application/ storage

Residential

- Septic tanks/drainfields
- Domestic wells
- Storage tanks
- Chemical storage
- Abandoned wells



Commercial/Industrial

- Gas/service stations/auto repair
- Truck terminals
- Rust proofers
- Small engine repair
- Machine shops
- Auto body shops
- Auto/chemical supplies
- Dry cleaners
- Printers
- Metal platers
- Painters/finishers
- Furniture strippers
- Wood preservers
- Heat treaters/smelters
- Annealers/descalers
- Laundromats
- Car washes
- Beauty salons
- Medical/dental/veterinary offices
- Mortuaries/funeral homes
- Research laboratories
- Photo processers
- Painting supplies
- Junk/salvage yards
- Nurseries
- Grain elevators
- Food processors
- Slaughterhouses

- Oil pipelines/reserve pits
- Mines: coal/sand/ gravel
- Coal gasification plant
- Concrete/asphalt/tar plants
- Fuel oil distributors
- Injection wells
- Oil wells
- Geothermal wells
- Water supply wells
- Exploration wells
- Abandoned wells
- Seismic shot holes
- Monitoring wells

- Herbicide wholesalers/ retailers
- Pesticide wholesalers/ retailers
- Fertilizer wholesalers/ retailers

Public Water Systems

- Storm sewer impoundment/ discharge
- Sanitary sewer
- Lift stations
- Water/wastewater treatment
- Industrial waste disposal
- Landfills (active and inactive)
- Hazardous waste sites

- Salts and piles
- Snow cleanups
- Urban runoff
- Golf course/parks
- Cemeteries
- Animal burial
- Roads
- Railroads
- Airports

North Dakota Department of Health
Mandatory Elements

Susceptibility Analysis

Susceptibility of a system is defined as the likelihood of a drinking water contaminant occurring or being detected at the water intake structure. Certain physical events must occur in such a sequence that the source water of a public water system contains levels of a contaminant that would pose a concern for the public water system operators and the public. First, a release of the contaminant of concern must occur. Second, the contaminant must follow a pathway between the point of release and the source water intake. Third, the concentration of the contaminant in the source water depends upon the quantity released, the ability to attenuate, and the dilution and depletion of the contaminant along the pathway. The following elements are considered in a susceptibility determination: the structural integrity of the source water intake, the environment governing the transport of contaminants to the intake, and the results of the contaminant source inventory.

Groundwater Susceptibility Worksheet

PWS XXXXX **Number** XXXXXX

Well Integrity Matrix: (2 yes answers = low integrity, 2 no answers = high integrity)

	Yes	No
Chronic bacteriological violations		X
Constructed prior to 1971 or does not meet the requirements of NDAC 33-18	X	
Identification of well structural or operational problems during sanitary survey		X

RANKING = High Integrity

Aquifer Vulnerability Matrix:

Drastic Score Aquifer/Score	WHP Factor*	Drastic Score-WHP Factor = Groundwater Vulnerability
Knife River Aquifer/131	- 25	131 – 25 = 106

*WHP Factor is a default site specific hydrogeologic Drastic Score

High/moderate vulnerability ranking > or equals 100, low vulnerability < 100

RANKING = High/Moderate Vulnerability

Potential Vulnerability Ranking = Well Integrity + Aquifer Vulnerability Ranking:

Well Integrity Ranking	High/Moderate Aquifer Vulnerability	Low Aquifer Vulnerability
Low	High Potential Vulnerability	Moderate Potential Vulnerability
High	Moderate Potential Vulnerability	Low Potential Vulnerability

RANKING = Moderate Potential Vulnerability

Susceptibility Ranking:

Potential Vulnerability Ranking	Potential Contaminant Concern – High Risk	Potential Contamminant Concern –Low Risk
High Potential	Susceptible	Susceptible
Moderate Potential	Susceptible	Moderately Susceptible
Low Potential	Moderately Susceptible	Not Likely Susceptible

PWS Susceptibility = Moderately Susceptible

Surface Water Susceptibility Worksheet

PWS XXXXXX **Number** XXXXXXX

Beneficial Use of Drinking Water

	Class
Fully Supporting-For each human health contaminant, more than 50 percent of the samples had concentrations lower than the water quality standard, and there are no drinking water complaints on record.	X
Fully Supported but Threatened-For each contaminant, more than 50 percent of the samples had concentrations lower than the water quality standard; however, taste and odor or treatment costs have been associated with pollutants.	
Partially Supporting-For at least one contaminant, more than 50 percent of the samples exceed the human health standard, and/or frequent taste and odor complaints are on record.	
Not Supporting-Drinking water supply closure has occurred within the last five years.	

Potential Sources of Contamination (PSC)

High Concern-compounds with documented unauthorized or accidental release, storage or handling of which do not comply with applicable state/federal permits or regulations, or which have been detected in the source water supply during routine monitoring.	
Low Concern-compounds which are present within a source water assessment area, but have not been released to the environment, the storage or handling comply with applicable requirements, or have not been detected in source water.	X

Surface Water Susceptibility

305(b) Classification	High Concern PSCs	Low Concern PSCs
Fully Supporting	Moderately Susceptible	Moderately Susceptible
Fully Supporting but threatened	Moderately Susceptible	Moderately Susceptible
Partially Supporting	Susceptible	Moderately Susceptible
Not Supporting	Susceptible	Susceptible

PWS Susceptibility = Moderately Susceptible

Public Water System Voluntary Elements

Management Strategy

A management strategy is a document outlining the actions the public water system can initiate to protect the quality of the water in the delineated source water protection area. The purpose of the Source Water Protection Program is to protect water quality. The degree of protection provided will depend on the management methods employed. North Dakota Century Code Section 40-05-01 states that municipalities have the power to protect a public water supply within 1 mile of the limits of the municipality. This law gives municipalities the authority to protect any existing water supply within their jurisdiction. The responsibilities of the water resource districts with respect to water quality protection are described in North Dakota Century Code Section 61-16.1-09. North Dakota Century Code Section 61-16.1 gives water resource boards clear authority to adopt rules to protect water supplies within their jurisdictions. More information on these regulations is included in Appendix A and example documents are in Appendix B. Public water systems may request the help of the NDDoH or ND Rural Water to assist with developing management strategies.

Management Strategy Actions-Municipality

- Rezone undeveloped areas within the source water protection area. For example, an area zoned industrial may be rezoned residential prior to development to limit industries from locating within the source water protection area.
- Purchase the land within the source water protection area for maximum control of activities.
- Implement rules relating to the possible future annexation of property currently outside city limits but inside a protection area. Avoid zoning these areas as industrial or commercial. The municipality still retains the right to allow industrial facilities within the protection area if it so chooses.
- Require newly constructed or existing non-sewered facilities located within the protection area and the boundaries of the municipal utilities be connected to the sanitary sewer collection system.
- Keep on file a complete and current list of active and abandoned USTs or wells.
- Consider moratoria on underground storage tanks (USTs), septic systems, or other specific land uses known to impact water quality.
- Monitor groundwater in areas down-gradient from particular potential contaminant sources for early detection of a leak or accident.
- Require any new developers to provide complete assessments of the hydrogeology at construction sites (at their own expense) and require specific design/construction standards if they intend to conduct potentially hazardous activities within the source water protection area.

Management Strategy

Management Strategy Actions-Public

- Install highway signs to identify the source water protection area. The design for these signs has been established by the NDDoH and the Department of Transportation. The color of the sign background is green, and the foreground is reflective white. These signs are to be purchased, installed, and maintained by the public water system owner. Signs can be ordered through Rough Rider Industries.
- Establish conservancy zones. Conservancy zones protect one or a number of sensitive environmental lands. In these zones, only light uses such as recreation or conservation are permitted.
- Have agreements or memorandums of understanding with private landholders within the source water protection area, to ensure discussion before any development or activities take place on private land.
- Conduct a household hazardous waste collection days campaign, sponsored by a local organization.
- Report spills or suspicious activity within the source water protection area. You can contact State Radio at 701.328.9921 or Emergency Spill Response at 1.800.472.2121 or 701.328.2121.

Chapter XX

WELL HEAD PROTECTION DISTRICT

CITY of XXX, ND ORDINANCES

As adopted by City Commissioners 1992

PURPOSE AND INTENT

The City Commission recognizes (1) that residents of the City of XXX rely exclusively on ground water for a safe drinking water supply and (2) that certain land uses in McHenry County can contaminate ground water particularly in shallow/surficial aquifers.

The purpose of the Wellhead Protection District is to protect public health and safety by minimizing contamination of the shallow/surficial aquifers of XXX County. It is the intent to accomplish this, as much as possible, by public education and securing public cooperation.

Appropriate land use regulations will be imposed, however, which are in addition to these imposed in the underlying zoning districts or in other county regulations. It is not the intent to grandfather in existing land uses which pose a serious threat to public health through potential contamination of public water supply wellheads areas.

Section 20.0101 DEFINITIONS

1. AQUIFER
   A geological formation, group of formations, or part of a formation capable of storing and yielding ground water to wells and springs.
2. BEST MANAGEMENT PRACTICES
   Measures, either managerial or structural, that are determined to be the most effective, practical means of preventing or reducing pollution inputs from nonpoint sources to water bodies.
3. BUFFER ZONE
   An area outside and adjacent to Zone A that has been delineated to account for possible changes in the boundaries of Zone A due to effects of irrigation pumping.
4. CHEMIGATION
   The process of applying agricultural chemicals (fertilizer or pesticides) using an irrigation system by injecting the chemicals into the water.
5. CONTAMINATION
   The process of making impure, unclean, inferior, or unfit for use by introduction of undesirable elements.
6. CONTINGENCY PLANS
   Detailed plans for control, containment, recovery, and clean-up of hazardous materials released during fires, equipment failures, leaks, and spills.
7. DEVELOPMENT
   The carrying out of any construction, reconstruction, alteration of surface or structure or change of land use or intensity of use.

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ROCKETLAWYER Sample

Memorandum of Understanding

This Memorandum of Understanding (the Memorandum) is made on this May 09, 2012, by and between RL Electronics, Inc, of 440 Montgomery St., San Francisco, California 94103, hereinafter referred to as RL Electronics and Eazy Software, Inc, of 123 Main St., Mill Valley, California 94941 hereinafter referred to as Eazy Software for the purpose of achieving the various aims and objectives relating to the RL 5 Desktop Computer Project (the Project).

WHEREAS RL Electronics and Eazy Software desire to enter into an agreement in which RL Electronics and Eazy Software will work together to complete the Project;

AND WHEREAS RL Electronics and Eazy Software are desirous to enter into a Memorandum of Understanding between them, setting out the working arrangements that each of the partners agree are necessary to complete the Project;

Purpose
The purpose of this Memorandum is to provide the framework for any future binding contract regarding the RL 5 Desktop Computer Project between RL Electronics and Eazy Software.

Obligations of the Partners
The Partners acknowledge that no contractual relationship is created between them by this Memorandum, but agree to work together in the true spirit of partnership to ensure that there is a united visible and responsive leadership of the Project and to demonstrate financial, administrative and managerial commitment to the Project by means of the following individual services.

Cooperation
The activities and services for the Project shall include, but not limited to:

a. Services to be rendered by RL Electronics include:

   Develop and produce all hardware components for RL 5 Desktop Computer System including hard drive, memory chips, processor, motherboard, display, keyboard UI, cooling subsystem, GPU, sound subsystem, power supply, DVD/CD ROM drives, and all other required hardware components.

b. Services to be rendered by Eazy Software include:

   Develop all software components for RL 5 Desktop Computer System, including OS and any/all applications that come with purchase of system, per RL Electronics' wishes.

Resources
The Partners will endeavor to have final approval and secure any financing necessary to fulfill their individual financial contributions at the start of the Project and for the development of the Project.

Create this document with step-by-step instructions at RocketLawyer.com

Public Water System Voluntary Elements

Contingency Plan

What would you do if your water supply was interrupted or threatened by contamination? Proper planning can help to prevent this type of event from creating a disaster. Public water systems should develop a contingency plan to remain on file for use during an emergency. This plan should include site-specific information about your public water system, including short- and long-term solutions to the temporary or permanent loss of you public water supply source. An example can be found in Appendix B. The NDDoH and ND Rural Water can provide assistance in creating a contingency plan for you system

Contingency Plan Elements

- Information such as population, number of service connections, fire hydrants, average daily water usage, and the names and contact information of the water system operator(s), fire chief, and chief of police. Other site-specific information to include are well numbers or names, location, depth, diameter, status, and maximum pumping rate.
- A list of potential contaminant sources and their locations.
- A description of the local hydrogeology, geography, geology and source water protection area.
- Fire-fighting plans for specific sites. If your source inventory lists specific facilities which store substances posing an extraordinary threat to water quality, fire-fighting plans should be developed for particular sites and included in the contingency plan. The fire department should be aware of the contingency plan and locations of the substances of concern.
- A list of equipment and supplies needed during an emergency, along with their storage locations.
- Short-term emergency water supply options.
- Long-term alternative water supply options, including sources of funding for replacement.
- Become a member of NDWARN. NDWARN is a statewide Water/Wastewater Agency Response Network (WARN) of utilities helping utilities to prepare for the next natural or human-caused emergency. http://www.ndwarn.org/

Public Water System Voluntary Elements

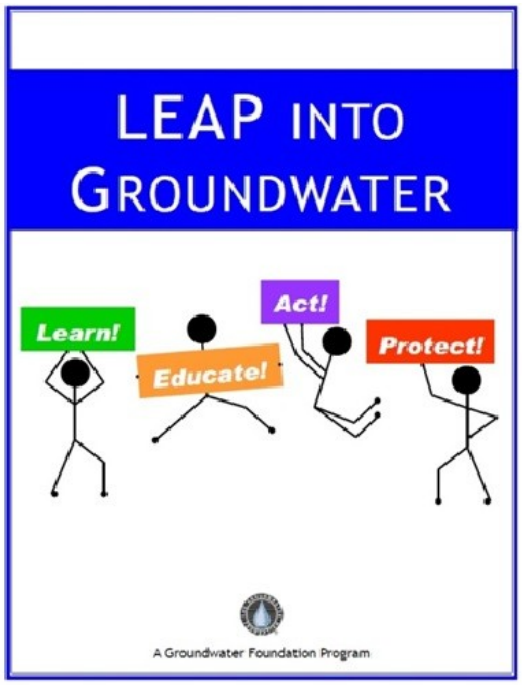
New Groundwater Wells or Surface Water Intakes

Administrative Code Article 33-17 (Public Water Supply Systems of the State of North Dakota) requires that the locating of new wells (Section 33-17-01-16) be conducted so as to limit the potential for contamination of the water supply. This issue is also addressed in Administrative Code Article 33-18 (Water Well Construction and Water Pump Installation); in Sections 33-18-01-04 and 33-18-01-05 describe water well location and protection of groundwater sources are described. All public water systems planning to construct a new well or intake should implement the appropriate source water protection procedures prior to initiation of any well drilling activities. More information can be found in Appendix A.

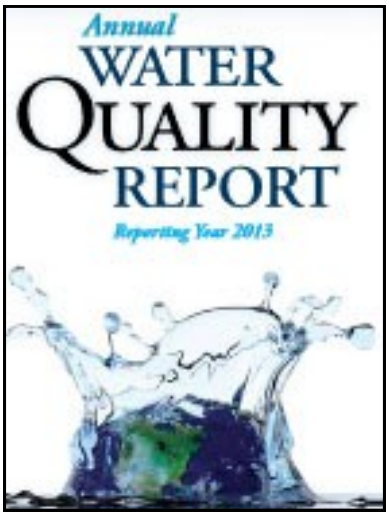
Plans and specifications must be submitted to the NDDoH - Division of Municipal Facilities for review and approval, prior to construction of a new public water supply well.

Public Participation

Successful source water protection area programs are driven by public participation. Keep the consumers informed and encourage public interest and involvement. One way to inform the consumers is through the media. The goal is to inform citizens in your community about their drinking water sources and how their activities can affect drinking water quality.



Consumer Confidence Report



Contact Information

North Dakota Department of Health
Division of Water Quality
Source Water Protection
918 East Divide Ave-4th Floor
Bismarck, ND 58501-1947
701-328-5210
www.ndhealth.gov/WQ/GW/sourcewater.htm

North Dakota Department of Health
Division of Municipal Facilities
918 East Divide Ave-3rd Floor
Bismarck, ND 58501-1947
701-328-5211
www.ndhealth.gov/MF/

North Dakota Rural Water Systems Association
2718 Gateway Ave
Suite #201
Bismarck, ND 58503-0585
701-258-9249
www.ndrw.org

NORTH DAKOTA DEPARTMENT of HEALTH

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Appendix A

North Dakota Law and Source Water Protection

Current Water Quality Protection Programs

The existing North Dakota water quality protection programs are source orientated and are designed to control potential sources of contamination. This control is accomplished by contaminant source permit programs, effluent limitations, performance and design standards, and best management practices for nonpoint contaminant sources. Since water can be contaminated by a wide variety of sources, the water quality protection programs in North Dakota involve many federal and state agencies, each with legislative authority and rules to protect water quality.

Although all federal water quality protection regulations are applicable in North Dakota, the state has retained primacy regulatory control of most contaminant sources. Authority for enforcement of most of the federal laws has been delegated to the state by incorporation of federal statutory requirements into state law and through memorandums of agreement between the state and the Environmental Protection Agency (EPA).

Federal Legislation and Programs

The federal government oversees a broad range of water quality protection programs primarily through the EPA and secondarily, through the Department of Interior, the Department of Agriculture, and other federal agencies. These federal programs provide research, technical assistance, funding and regulation for a number of water quality protection programs. Although, the federal programs do not provide a comprehensive approach to water quality protection, they do make a number of resources available to strengthen North Dakota's Protection activities.

The EPA administers six federal programs which provide the bulk of the federal water quality protection legislation. These include the Safe Drinking Water Act (SDWA), Resource Conservation and Liability Act (RCRA), Comprehensive Environmental Response Compensation and Liability Act (CERCLA, usually called Superfund), Clean Water Act (CWA), Toxic Substance Control Act (TSCA) and Federal Insecticide, Fungicide and Rodenticide Act (FIRFA).

State Legislation and Programs

The State of North Dakota has primacy of a number of the federal programs listed above. The following table is a summary of North Dakota water quality protection statues, which includes federal programs as well as state rules and programs.

Relevant North Dakota Laws for Public Water Systems

North Dakota Century Code (NDCC)

Ground Water Protection NDCC 23-33

Municipal Government NDCC 40-05

- 40-05-01.61

Operation of Water Resource Districts NDCC 61-16.1

- 61-16.1-09

North Dakota Administrative Code (NDAC)

Public Water Supply Systems NDAC 33-17

- 33-17-01-16
- 33-17-01-17
- 33-17-01-19

Water Well Contractors NDAC 33-18

- 33-18-01-04
- 33-18-01-05

General Performance Standards NDAC 33-20-04.1

Appendix B

Public Water System Example Documents and Guides

Chapter XX

WELL HEAD PROTECTION DISTRICT

CITY of XXX, ND ORDINANCES

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The City Commission recognizes (1) that residents of the City of XXX rely exclusively on ground water for a safe drinking water supply and (2) that certain land uses in McHenry County can contaminate ground water particularly in shallow/surficial aquifers.

The purpose of the Wellhead Protection District is to protect public health and safety by minimizing contamination of the shallow/surficial aquifers of XXX County. It is the intent to accomplish this, as much as possible, by public education and securing public cooperation.

Appropriate land use regulations will be imposed, however, which are in addition to these imposed in the underlying zoning districts or in other county regulations. It is not the intent to grandfather in existing land uses which pose a serious threat to public health through potential contamination of public water supply wellheads areas.

Section 20.0101 DEFINITIONS

1. AQUIFER
   A geological formation, group of formations, or part of a formation capable of storing and yielding ground water to wells and springs.

2. BEST MANAGEMENT PRACTICES
   Measures, either managerial or structural, that are determined to be the most effective, practical means of preventing or reducing pollution inputs from nonpoint sources to water bodies.

3. BUFFER ZONE
   An area outside and adjacent to Zone A that has been delineated to account for possible changes in the boundaries of Zone A due to effects of irrigation pumping.

4. CHEMIGATION
   The process of applying agricultural chemicals (fertilizer or pesticides) using an irrigation system by injecting the chemicals into the water.

5. CONTAMINATION
   The process of making impure, unclean, inferior, or unfit for use by introduction of undesirable
   elements.

6. CONTINGENCY PLANS
   Detailed plans for control, containment, recovery, and clean-up of hazardous materials released during fires, equipment failures, leaks, and spills.

7. DEVELOPMENT
   The carrying out of any construction, reconstruction, alteration of surface or structure or change of land use or intensity of use.

8. FACILITY

Something that is built, installed, or established for a particular purpose.

9. FEEDLOT

A parcel of land whereon there is contained an operation of feeding or raising animals in excess of one hundred (100) animal units per acre or in excess of five hundred (500) animal units per parcel of land. One animal unit is equivalent to one beef cow, steer, feeder or fat beef animal; one horse; 0.7 airy cow; 1.7 swine; 6.7 sheep; 33 hens, cockerels, capons, broiler or ducks; and 10 geese or turkeys.

10. GRAY WATER

All domestic wastewater except toilet discharge water.

11. HAZARDOUS MATERIAL

A material which is defined in one or more of the following categories:

(a) Ignitable: A gas, liquid or solid which may cause fires through friction, absorption of moisture, or which has low flash points. Examples: white phosphorus and gasoline.

(b) Carcinogenic: A gas, liquid or solid which is normally considered to be cancer causing or mutagenic. Examples: PCB's in some waste oils.

(c) Explosive: A reactive gas, liquid or solid which will vigorously and energetically react uncontrollably if exposed to heat, shock, pressure or combinations thereof. Examples: dynamite, organic peroxides and ammonium nitrate.

(d) Highly Toxic: A gas, liquid, or solid so dangerous to man as to afford an unusual hazard to life. Examples: parathion and chlorine gas.

(e) Moderately Toxic: A gas, liquid or solid which through repeated exposure or in a single large dose can be hazardous to man. Example: atrazine.

(f) Corrosive: Any material, whether acid or alkaline, which will cause severe damage to human tissue, or in case of leakage might damage or destroy other containers of hazardous materials and cause the release of their contents. Examples: battery acid and phosphoric acid.

12. MANURE STORAGE AREA

An area for the containment of animal manure in excess of 8,000 pounds or 1,000 gallons.

13. LEAKS AND SPILLS

Any unplanned or improper discharge of a potential contaminant including any discharge of a hazardous material.

14. PASTURE

A field that provides continuous forage to animals without depletion of forage matter.

15. PRIMARY CONTAINMENT FACILITY

A tank, pit, container, pipe or vessel of first containment of a liquid or chemical.

16. SECONDARY CONTAINMENT FACILITY

A second tank, catchment pit, pipe, or vessel that limits and contains liquid or chemical leaking or leaching from a primary containment area; monitoring and recovery are required.

17. SHALLOW/SURFICIAL AQUIFER
An aquifer in which the permeable media (sand and gravel) starts at the land surface or immediately below the soil profile.

18. TEN YEAR TIME OF TRAVEL DISTANCE
The distance that ground water will travel in ten years. This distance is a function of the permeability and slope of the aquifer.

19. ZONE OF CONTRIBUTION
The entire area around a well or well field that is recharging or contributing water to the well or well field.

Section 20.0201 ZONES

1. ZONE A - AQUIFER CRITICAL IMPACT ZONES
Zone A, the wellhead protection area, is the zone of contribution mapped around all public water supply wells or well fields and includes land up gradient to the ten year time of travel boundary plus contributing drainage areas.

(a) Permitted uses provided they meet appropriate performance standards outlined for aquifer protection overlay zones:
1. Agriculture
2. Horticulture
3. Park, greenways or publicly owned recreational areas
4. Necessary public utilities/facilities designed so as to prevent contamination of ground water.

(b) Special exceptions: The following uses are permitted only under the terms of a special exception and must conform to provisions of the underlying zoning district and meet the Performance Standards outlined for the Aquifer Protection Overlay Zones.
1. Expansion of existing nonconforming uses to the extent allowed by the underlining district. The Commission shall not grant approval unless it finds such expansion does not pose greater potential contamination to ground water than the existing use.

(c) Prohibited uses:
1. New feedlots installed after adoption of this ordinance;
2. Disposal of solid waste except spreading of manure;
3. Outside unenclosed storage of road salt;
4. Disposal of snow containing deicing chemicals;
5. Processing and storage of PCB containing oils;
6. Car washes;
7. Auto service, repair or painting facilities and junk or salvage yards;
8. Disposal of radioactive waste;
9. Graveyards or animal burial sites;
10. Open burning and detonation sites;
11. All other facilities involving the collection, handling, manufacture, use, storage, transfer or disposal of any solid or liquid material or waste having potentially harmful impact on ground water quality;
12. All uses not permitted or not permitted as special exceptions;
13. Fall application of nitrogen fertilizer except spreading of manure;
14. Weed sprays used must conform to county standards.
15. Disposal of waste oil, oil filters, tires and all other petroleum products.

2. ZONE B - Zone B is established as the remainder of the shallow/surficial aquifer not included in Zone A.

(a) Permitted uses:

1. All uses permitted in the underlying zoning districts provided that they can meet the Performance Standards as outlined for the Aquifer Protection Overlay Zones.

(b) Special exceptions:

1. All special exceptions allowed in underlying districts may be approved by the City Commission provided they can meet Performance Standards outlined for the Aquifer Protection Overlay Zones.

(c) Prohibited uses:

1. Fall application of nitrogen fertilizer except spreading of manure.
2. Weed Sprays that do not conform to county standards.

(d) Performance standards:

The following standards shall apply to land uses in Zone A and B of the Aquifer Protection Overlay Districts:

1. New or replacement septic tanks and associated drain fields for containment of human or animal wastes must conform with regulations established by the North Dakota State Department of Health.
2. Any Facility involving the collection, handling, manufacture, use, storage, transfer or disposal of any solid or liquid material or wastes, except for spreading of manure, in excess of 1000 pounds and or 100 gallons which has the potential to contaminate ground water must have a secondary containment system which are easily inspected and whose purpose is to intercept any leak or discharge from the primary containment vessel or structure. Underground tanks or buried pipes carrying such materials must have double walls and inspectable sumps. Pipes installed to carry diluted chemicals for chemigation are exempted and storage of liquid fertilizer for chemigation is allowed as long as a secondary containment system is used. Secondary containment for tanks used for chemigation must be in place by July 1, 1990.
3. Open liquid ponds containing materials referred to in (2) above will not be permitted without a secondary containment system except for community wastewater lagoons. Agricultural waste storage ponds are permitted under certain conditions as approved by the City Commission.
4. Storage of petroleum products in quantities exceeding fifty-five (55) gallons at one locality in one tank or series of tanks must be in elevated tanks; such tanks must have a secondary containment system noted in (2) above where it is deemed necessary by the City Commission.
5. Discharge of industrial process water on site is prohibited without City Commission approval.
6. Owners/operators of active or abandoned feedlots shall handle and dispose of manure in accordance with regulations set by the City Commission.
7. Auto service, repair, or painting facilities and junk or salvage yards in Zone B shall meet all Federal and State standards for storage, handling and disposal of petroleum products and shall properly dispose of all potentially hazardous waste materials.

8. An acceptable contingency plan for all permitted facilities must be prepared and on file in the City Auditor's office for preventing hazardous materials from contaminating the shallow/surficial aquifer should flood, fire and other natural catastrophes or equipment failure occur:

   1. For flood control, all underground facilities shall include but not be limited to a monitoring system and secondary standpipe above the 100 year flood control level, for monitoring and recovery. For above ground facilities, an impervious, dike, above the 100 year flood level and capable of containing 100 percent of the largest volume of storage will be provided with an overflow recovery catchment area (sump).

   2. For fire control, plans shall include but not be limited to a Safe fire fighting procedure, a fire retardant system, and provide for dealing safely with both health and technical hazards that may be encountered by disaster control personnel in combating fire. Hazards to be considered are overhead and buried electrical lines, pipes, liquids, chemicals or open flames in the immediate vicinity.

   3. For equipment failures, plans shall include but not be limited to:
      (a) Below ground level, removal and replacement of leaking parts, a leak detection system with monitoring, and an overflow protection system.
      (b) Above ground level, liquid and leaching monitoring of primary containment systems, their replacement or repair and cleanup and/or repair of the impervious surface.

   4. For any other natural or man-caused disasters occurring, the owner and or operator shall report all incidents involving liquid or chemical material in an endangerment of the health and /or safety of either disaster personnel and/or public in general. Agricultural operations are exempted from this section unless they store chemicals that are on the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) extremely hazardous substance list over the threshold planning quantity at anyone time. The City Inspector shall be informed within 24 hours of all leaks and spills of materials that might potentially contaminate the water.

9. Since it is known that improperly abandoned wells can become a direct conduit for contamination of ground water by surface water, all abandoned wells should be plugged.

<u>Section 20.0301 SCOPE</u>

The provisions of this article shall apply to all wells or other openings greater than fifteen (15) feet in depth. Furthermore, the owner of any proposed well shall be required to apply and receive from the City Commission a permit to construct such a well or opening, the application for which shall supply all the information required under Section 20.0501, and for such permit the Council shall charge and receive the fee hereinafter provided for.

Section 20.0401 PERMIT

1. A permit shall be granted when the City Inspector has examined the application and determined that the proposed use, activity, or development meets the performance standards.

2. In securing a use permit, the owner/developer must make future improvements which may become necessary to prevent contamination of shallow/surficial aquifers and the owner/developer must allow City personnel to inspect any improvements to verify they meet the performance standards.

3. Whenever any person has obtained a permit and thereafter desires alteration of the authorized us, such persons shall apply for a new permit. The owner may appeal a City Inspector's decision to modify or deny a requested permit.

4. It shall be unlawful for any person to drill or otherwise construct, repair, correct, abandon or plug a well, or to engage upon such work, within the limits of the area, or to employ anyone else to engage in such work, without first applying for and securing a permit from the City Commission or a duly authorized agent thereof. Such permit may be granted with the approval of the City Commission the application hereinafter required, and complies with all other provisions of this article applicable to him.

Section 20.501 APPLICATION

1. Every application for a permit for the drilling, construction, repair and correction, abandonment of plugging of a well, shall state the name and address of the owner thereof, the purpose for which the permit is desired, which shall be done or more of the acts above-mentioned; the definite location of the well or proposed well; its approximate depth; and if the permit for the drilling or construction or repair and correction of a water well, the estimated amount of water to be, or which is pumped daily, monthly or annually, and the use or uses for which the water will be or is required; if for a permit for the drilling or construction or or the repair and correction of a well, the proposed method of drilling or construction, or the proposed method of repair and correction, and the kind of equipment to be used, and in all cases, the name of the contractor(s), and the license number issued by the City Commission, if done through a contractor, whom the owner desires to drill or construct, repair and correct, or do the work pursuant to an abandonment of a well in compliance with this article.

Section 20.0601 CITY LIABILITY

1. Nothing in this ordinance shall be construed to imply that the XXX City Commission, by issuing a permit, has accepted any of an owner/developer's liability if a permitted development contaminates. water in shallow/superficial aquifers.

SECTION 20.0701 ENFORCEMENT

1. CIVIL ENFORCEMENT:
   (a) Any person may submit to the city a verbal or written complaint alleging a violation of this ordinance.

   (b) Upon receipt of a complaint, the city shall conduct an investigation of the substances of the complaint. The investigation shall include a meeting with the landowner involved and an inspection of the animal feedlot and/or manure storage area to which the complaint pertains.

(c) Based upon the determination that there is a violation of this ordinance, the City shall conduct an informal reconciliation with the violator. As part of such informal reconciliation, the city shall;

1. Notify the violator by mail of the violation of this ordinance and a desire of the city to correct the violation through informal reconciliation. The statement shall also indicate that should the violator refuse to follow the recommended corrective actions within the time set forth by the city, the city may take action to correct the violation and bill the violator for the cost of taking the corrective action.
2. Make a good faith effort to meet with the violator and resolve the correction of the violation.

(d) If after taking the steps above and after a period of ninety (90) days following the mailing of the notice of the violation, the city in good faith determines that the violator is unwilling to participate in informal reconciliation and take the corrective action ns prescribed, the city shall notify the violator by mail of the termination of the informal reconciliation.

(e) The city make take the corrective action prescribed above following thirty (30) days after notifying violator by mail of the notice of termination of the informal reconciliation, and bill the violator for the reasonable cost of such action.

2. CRIMINAL ENFORCEMENT:

(a) In lieu of proceeding under Section 2D.070l, a person who is alleged to have violated Sections (c) and (d) may be prosecuted for the commission of a crime Violation of Section (c) and (d) is a misdemeanor and may be punished by imprisonment of not more than ninety (90) days or imposition of a fine of not more than $700.00 or both.

SECTION 20.0801 SAVING CLAUSE

1. Should any section or provision of this ordinance be declared invalid, such decision shall not affect the validity of the ordinance as a whole or any other part thereof.

CITY OF TUTTLE
KIDDER COUNTY, NORTH DAKOTA

MANAGEMENT - CONTINGENCY PLANS
NORTH DKOTA WELLHEAD PROTECTION PROGRAM

I. - MANAGEMENT PLAN

- Statement of Policy

II. - CONTINGENCY PLAN

- Short Term Emergency Water Supply Options
- Long Term Alternative Water Supply Options
- Existing Potential Ground-Water Contamination Sources
- Zoning Requirements
- Emergency Procedures
- ND Environmental Emergency Response Contact List
- National Emergency Telephone Response Guide

III. - PUBLIC AWARENESS MATERIALS

CITY OF TUTTLE
WELLHEAD PROTECTION PROGRAM
MANAGEMENT PLAN - STATEMENT OF POLICY

1. The Tuttle city council recognizes that residents of the city of Tuttle rely on groundwater for a safe drinking water supply and that certain land uses within, and bounding, the delineated wellhead protection area can contaminate the groundwater.

2. The purpose of the Wellhead Protection Program is to protect public health and safety by minimizing contamination of the shallow sand and deep bedrock aquifers supplying drinking water to the city of Tuttle.

3. Tuttle is a community of approximately 160 residents; thus, the city council chooses <u>not</u> to enact additional city ordinances to protect our groundwater-derived municipal water supply at the present time. It is the intent to accomplish this, as much as possible, through existing ordinances and by public education and securing public cooperation.

4. At least once each year, a brief city program will be conducted to address proper handling and disposal of all potentially hazardous material generally found in the area.

5. The city will, every six months, prepare a public service announcement which can be aired on radio or newspapers, reminding residents of the importance of public cooperation. An example is:

NOTICE TO AREA RESIDENTS

Groundwater contamination is a serious matter. All residents are asked to help maintain Tuttle's drinking water supply. Don't dump or spill anything outside if it may cause harm to the environment.

Help protect Tuttle's groundwater supply. It's all there is!

WELLHEAD PROTECTION PROGRAM
CONTINGENCY PLAN

CITY OF TUTTLE
KIDDER COUNTY, NORTH DAKOTA

GENERAL INFORMATION:

Population - 160
Water Service Connections -
Fire Hydrants -
Average Daily Use -

Total Water Usage in 1992 -
Storage Capacity - _____ gallons(cistern)
Treatment - _____

SHORT TERM EMERGENCY WATER SUPPLY OPTIONS:

1. - Acquire water from adjacent cities.

2. - Rural water system could provide normal potable consumption requirements.

LONG TERM ALTERNATIVE WATER SUPPLY OPTIONS:

1. - Development of new well or wellfield in a hydraulically distinct aquifer.

2. - Construction of a more technical treatment facility which may remove contaminant.

3. - Connection to rural water system.

EXISTING POTENTIAL GROUND-WATER CONTAMINATION SOURCES:

1. - Underground storage tanks. All known underground fuel storage tanks are identified on the attached General Layout Map. All newly buried and existing tanks must meet State and Federal regulations.

2. - Above ground storage tanks (locations on attached map). All above ground storage tanks must be protected from leaks or accidental spills.

3. - Abandoned water wells (locations on attached map). These wells should be properly abandoned.

4. - Runoff from land-applied herbicides, pesticides, and fertilizers. Can be controlled through Best Management Practices (BMP's) as

recommended by local Soil Conservation Services.

5. - Bacterial seepage from the municipal sewer system or from abandoned septic tanks. Control sewer system through routine, scheduled public works maintenance. Abandoned, private septic tanks are unregulated but can be cleaned and filled with sand.

6. - Gravel pits. Access can be controlled and the gravel pits can be posted no dumping.

7. - Commercial waste seepage from any one or more of the following:
   - used motor oil
   - solvents
   - accidental fuel spills
   - paint and paint thinner spills
   - weed killers
   - fertilizers
   - asphalt
   - antifreeze
   - lubricants
   - pesticides
   - anhydrous ammonia

ZONING REQUIREMENTS:

All existing ordinances shall apply.

EMERGENCY PROCEDURES:

Notify immediately:

Mayor -
Public Works Superintendent -
Fire -
Police -

North Dakota Division of Emergency Management - 1-800-472-2121
EPA - 1-800-424-8802

Attached is the National Emergency Telephone Response Guide.

Decide what immediate action is required.

1. - Notification of residents.
2. - Evacuation of residents, if necessary.
3. - Determination of severity of problem causing emergency.
4. - Public notification.
5. - What special emergency equipment will be required?
6. - Determine what, if any, public works is affected.
7. - Organize a designated group (i.e., Fire, Police, etc.) to oversee the emergency operations.

North Dakota State Department of Health & Consolidated Laboratories

Environmental Emergency Response Contacts List

PRIMARY CONTACTS

WATER POLLUTION
oil spills

Jeff Hauge
Work phone no.: 221-5210
Home phone no.: 663-0191

Dave Glatt
Work phone no.: 221-5210
Home phone no.: 255-6391

Gary Reed
Work phone no.: 221-5210
Home phone no.: 255-4707

Dennis Fewless
Work phone no.: 221-5210
Home phone no.: 223-9399

AIR POLLUTION
gases, vapors

Terry O'Clair
Work phone no.: 221-5188
Home phone no.: 258-1574

Lee Huber
Work phone no.: 221-5188
Home phone no.: 223-0895

Tom Bachman
Work phone no.: 221-5188
Home phone no.: 222-3849

Gary Helbling
Work phone no.: 221-5188
Home phone no.: 663-5202

RADIATION
radioactive materials

James Killingbeck
Work phone no.: 221-5188
Home phone no.: 224-0053

Ken Wangler
Work phone no.: 221-5188
Home phone no.: 223-3290

Greg Krause
Work phone no.: 221-5188
Home phone no.: 224-0665

Warren Freier
Work phone no.: 221-5188
Home phone no.: 222-8275

TOXIC & HAZARDOUS MATERIALS
pesticides, insecticides

Curt Erickson
Work phone no.: 221-5166
Home phone no.: 224-0708

Neil Knatterud
Work phone no.: 221-5166
Home phone no.: 258-3479

Steven Tillotson
Work phone no.: 221-5166
Home phone no.: 224-0096

Chris Roob
Work phone no.: 221-5166
Home phone no.: 258-1418

1st Alternative Contact
Jeff Burgess
Work phone no.: 221-5150
Home phone no.: 223-4204

2nd Alternative Contact
Dana Mount
Work phone no.: 221-5188
Home phone no.: 223-6735

3rd Alternative Contact
Francis Schwindt
Work phone no.: 221-5150
Home phone no.: 258-7206

Approved by: Jeff Burgess
Emergency Response Coordinator

Date: April 1, 1993

Approved by: [illegible]
Chief, Environmental Health Section

Date: April 1, 1993

North Dakota State Department of Health & Consolidated Laboratories
Environmental Health Section
1200 Missouri Avenue
P.O. Box 5520
Bismarck, ND 58502-5520

April 1, 1993

State Radio: 1-800-472-2121

EMERGENCY TELEPHONE RESPONSE GUIDE

North Dakota State Radio 1-800-472-2121

Bureau of Explosives, Association of American Railroads 24-hour EMERGENCY number: 1-202-639-2222

Assistance for hazardous materials incidents involving railroads; often contacted through CHEMTREC.

CHEMTREC: 1-800-424-9300

24-hour EMERGENCY phone to the Chemical Transportation Emergency Center operated as a public service by the Chemical Manufacturers Association. Identification of unknown chemicals, advice on proper initial response methods and procedures for specific chemicals and situations, assistance in establishing contact with shippers/carriers/Manufacturers/special product response teams such as CHLOREP or the Pesticide Safety Team Network as necessary and appropriate.

D.O.T. HOTLINE: 1-202-366-4488

(Provides informational assistance pertaining to the federal regulations for transportation of hazardous materials, CFR-49.)

Texas Tech University Pesticide HOTLINE: 1-800-858-7378

The National Pesticide Telecommunications Network provides information on pesticide-related health/toxicity/minor cleanup to physicians, veterinarians, fire departments, government agency personnel and the general public.

E.P.A. Chemical Emergency Preparedness Program HOTLINE: 1-800-535-0202

For communities to call to obtain 140-page interim guidelines regarding "Acutely Toxic Chemicals" which cover Organizing A Community, Developing A Chemical Contingency Plan, Gathering Site-Specific Information; also provided is a list of 400-plus "Acutely Toxic Chemicals." Guideline document may be used to obtain Material Safety Data Sheets for such chemicals.

E.P.A. RCRA HOTLINE: 1-800-424-9346

To respond to any citizen's request for specific information, and to clear up confusion, regarding RCRA and "Superfund" regulations; also, to respond to requests for certain documents printed in the Federal Register for which this telephone number is given as a contact point. In addition, in response to policy questions from the regulated communities and state/local governments, personnel will attempt to seek out correct person to provide guidance.

E.P.A. Small Business HOTLINE: 1-800-368-5888

To respond with advice and information to problems encountered by small quantity generators of hazardous waste.)

Hazardous Materials Newsletter INFORMATION LINE: 1-802-479-2307

To respond to any first responder — public safety agency, industrial, commercial who needs to obtain information/advice relative to hazardous materials tools/equipment/materials, planning, protocols, methods, strategies, tactics, training and research sources and resources.

National Animal Poison Control Center of the University of Illinois: 1-217-333-3611

Provides 24-hour consultation in diagnosis and treatment of suspected or actual animal poisonings or chemical contamination, staffs an emergency response team to rapidly investigate such incidents in North America, and performs laboratory analysis of feeds/animal specimens/environmental materials for toxicants and chemical contaminants.

In the event of any of the following, call the DOT at **1-800-424-8802** immediately:

1. **A person is killed**
2. **A person is hospitalized**
3. **Property Damage in excess of $50,000**
4. **Any location where a continuing danger exists**
5. **Any release of radioactive materials**

In the event of an accidental or intentional release of "Hazardous Substance" in a "REPORTABLE QUANTITY" amount the person in charge of the releases or incident shall immediately notify:

U.S. COAST GUARD
NATIONAL RESPONSE CENTER
800-424-8802
(District of Columbia - 202-426-2675)

§

911 EMERGENCY/POLICE TELEPHONE NETWORK OR LOCAL OPERATOR

When Biological Materials are accidentally released, notify:
Director, CDC. Atlanta, GA 404-633-5313

In the event of a loss or theft of the explosives listed on pages 25 - 27, notify the following agency or its replacement:
BUREAU OF ALCOHOL, TOBACCO & FIREARMS
Toll Free - 800-424-9555

WHEN A SARA/TITLE III REGULATED "RQ" DISCHARGE TAKES PLACE IN TRANSPORTATION OR ON-SITE, FACILITIES ARE REQUIRED TO NOTIFY STATE AND LOCAL EMERGENCY PLANNING COMMITTEES, WHILE CARRIERS/TRANSPORTERS ARE REQUIRED TO NOTIFY THE EMERGENCY SYSTEM 911 OR LOCAL FIRE/POLICE DEPARTMENT. THIS REQUIREMENT TO NOTIFY UNDER SARA/TITLE III DOES NOT MITIGATE ADDITIONAL REPORTING REQUIREMENTS UNDER STATE AND FEDERAL REGULATIONS.

HAZARDOUS WASTE SPILLS

Notify **NATIONAL RESPONSE CENTER** at **800-424-8802** if a hazardous waste discharge from a facility threatens human health or the environment, outside the facility.

Solid and Hazardous Waste (RCRA) and Superfund
Hotline (800) 424-9346
(202) 382-3000

Chemical Emergency Preparedness Program (including Community Right-To-Know, Title III Sections 311, 312, and 313) information on reporting hazardous substances for community planning purposes
Hotline (800) 535-0202
(202) 479-2449

Toxic Substance Control Act (TSCA) Program
Hotline (202) 554-1404

Asbestos Technical Information and Referral (including bulk asbestos identification sampling, analysis, and regulation program)
Hotline (202) 554-1404

Safe Drinking Water (Public Water Supply Program, Safe Drinking Water Act, Policy, Technical, and Regulatory questions)
Hotline (800) 426-4791
(202) 382-5533

National Pesticide Telecommunications Network (NPTN) for information concerning pesticides (spill handling, disposal, clean-up, and health effects)
Hotline (800) 858-7378

Interagency Assistance: National Response Center (for reporting spills and hazardous substance's releases)
Hotline (800) 424-8802
(202) 267-2675

Office of Hazardous Materials Transportation Research and Special Programs Administration
U. S. Department of Transportation
400 7th Street S.W.
Washington, D.C. 20590

Office of the Director
Alan I. Robert, Director (202) 366-0656

Deputy Director
Elaine Economides (202) 366-0656

Bureau of Explosives, Association of American Railroads 24-hour Emergency number (202) 639-2222

Assistance for hazardous materials incidents involving railroads; often contacted through CHEMTREC.
CHEMTREC (800) 424-9300

24-hour emergency phone to the Chemical Transportation Emergency Center operated as a public service by the Chemical Manufacturers Association. Identification of unknown chemicals, advice on proper initial response methods and procedures for specific chemicals and situations, assistance in establishing contact with shippers/carriers/manufacturers/special product response teams such as CHLOREP or the Pesticide Safety Team Network as necessary and appropriate.

DOT INFORMATION
Regulations & Standards (202) 366-4488
Exemptions (202) 366-4535
Technical Department (202) 366-4545

EPA & DOT INFORMATION LINE
Washington, D.C. (800) PLAN-FOR

Provides informational assistance pertaining to the federal regulations for transportation of hazardous materials, (CFR-49).

Texas Tech University Pesticide Hotline (800) 858-7378

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Help protect Tuttle's ground-water supply.
It's all there is!

NORTH DAKOTA
WELLHEAD PROTECTION