

## Executive Summary

### Background

The Goshen Water Department has a comprehensive Wellhead Protection Program to meet the Federal requirements of Section 1428 of the Safe Drinking Water Act and State of Indiana Codes 13-18-17-6 and 13-7-26-7. You may reference 3271AC 8-4.1-8 and 1AC 8-4.1-9 which are the WHP regulations within the state groundwater rule. The purpose of these laws is to help protect public water supply wells from contamination.

### Water Supply System

The City of Goshen owns and operates an Indiana Public Water Supply System with the designation number IN5220009 in Elkhart County, Indiana. The City supplies water to approximately 10,280 service connections and a population of 30,297. The Water Supply System's average production output is 3.5 million gallons per day, with a maximum production capacity of about 10 million gallons per day.

The Goshen Water Department obtains water from wells located in two well fields, commonly referred to as North and Kercher. North Well Field has 6 wells: 1A, 2, 3, 5A, 6A, 7A. The average daily pumping from these wells is 1.7 million gallons. The Kercher Well Field has 3 wells: 12, 13, and 14. The average daily pumping from these wells is 1.8 million gallons. The Kercher Well Field has a 750 kW stand-by generator capable of operating the entire well field to its full capacity of 5.1 million gallons per day. The North Well Field does not have a back-up generator, but Goshen Water Department has made arrangements with Peerless Midwest and Middlebury Electric (see page 35 and 39 of the contingency plan).

The North Well Field and Kercher Well Field treatment plants pump into a common distribution system with one 0.5 million gallon elevated storage tank (Clinton Tower), one 1.5 million gallon elevated storage tank (Sherck Tower) and one 0.5 million gallon ground storage tank that supports an independent pressure zone. The pressure zone is equipped with a 150 kW stand-by generator.

### Land Uses

The North Well Field is located near downtown Goshen, just north of the central business district. Adjacent to the well field sets a double railroad track operated by NorFolk and Southern that is heavily used by 100 or more trains per day transporting commerce between New York and Chicago, Illinois.

The land use within the North Wellhead Protection Area within the City of Goshen's corporate limits is residential and retail. To the northeast and within Elkhart County's jurisdiction, the land use within the Wellhead Protection Area is agricultural with sporadic residential and commercial uses.

The majority of the properties within the North Wellhead Protection Area within the City are served by municipal water and sewer service, but all of the occupied properties within the County are serviced by private well and septic systems.

Since the Phase I there has been only a zoning change to one property in the North Wellhead Protection Zone 324 Olive Street was changed from residential to industrial but there has been no change in activity on this property since Phase I. The city will continue to monitor activities at this location for future changes.

The Kercher Well Field is located southeast of downtown Goshen in a light industrial park. The wells are surrounded by undeveloped industrial land, used for agricultural, and a mix of industrial and residential land uses.

A majority of the Kercher Wellhead Protection Area is located within the City of Goshen's corporate limits with a smaller portion extending into the area under Elkhart County's jurisdiction. As with the North Wellhead Protection Area, properties within the City are predominately served with municipal water and sewer service and those properties outside the City are served by private well and septic.

Since Phase I there has not been any changes to land use in the Kercher WHPA.

#### Local Planning Team

In January 1999, the Goshen Water Department formed a Local Planning Team to assist it in the development and implementation of its Wellhead Protection Program. The first public meeting was held on January 18, 1999 at the Goshen Public Library. An article inviting public participation was published in the January 15th edition of the Goshen News, a newspaper of general circulation serving the citizens of Goshen and the Goshen Water Department customers. On February 25, 2009 the City of Goshen Water Department formed a new Local Planning Team for Phase II of the Wellhead Protection Plan and held its first meeting in the City of Goshen's Annex. Meetings held on March 18, 2009, April 5, 2009 and October 7, 2010 were published in the Goshen News inviting public participation.

#### Wellhead Protection Areas

The State of Indiana defines a WHPA as the surface and subsurface area, which contributes water to a CPWSS well or well field and through which

contaminates are likely to move through and reach the well within a five year time-of-travel. As part of the Phase I Wellhead Protection Plan, the Goshen Water Department retained the services of Peerless-Midwest, Inc. to delineate its well field's supply source by identifying the one and five year time-of-travel areas.

In 2009, IDEM evaluated the changes to the City's well fields and determined new wellhead delineations were unnecessary for Phase II (see Exhibit G, Section 2). The Indiana Department of Environmental Management has approved the delineations for both the North and Kercher Wellhead Protection areas. Exhibit G contains a copy of the approval letter for the delineations.

After review by the Phase I Local Planning Team, the well field delineations were accepted and formed the basis for the establishment of the Wellhead Protection Areas (one- and five-year time-of-travel area).

#### Potential Sources of Contamination

In 2010, a new search of Federal and State databases was conducted for all regulated sources of contamination located within the one- and five-year time-of-travel areas. Additionally, all time-of-travel areas were visited and non-regulated potential sources of contamination were inventoried.

Maps of the one- and five-year time-of-travel areas were prepared with the land uses and locations of the potential sources of contamination noted (See Exhibit C, Section 1).

Lists of the regulated and non-regulated potential sources of contamination were created in tabular form, which allows for cross-reference to the maps (See Exhibit C, Section 1).

### Local Ordinances and Regulations

The North and Kercher Wellhead Protection Areas are partially located within the city limits of the City of Goshen, and partially outside of the city limits. The Elkhart County Groundwater Protection Ordinance is applicable to the entire County and the designated Wellhead Protection Areas. The County opened their groundwater ordinance in 2009, and invited the City of Goshen to provide comment. A copy of Elkhart County's 2009 Groundwater Protection Ordinance can be found in Exhibit F, Section 1.

In June of 2010, the City of Goshen's Stormwater Utility completed a stormwater pollution prevention evaluation for the North Well Field and Central Garage Area. Classes were given to educate employees covering all aspects of the site specific stormwater pollution prevention plan. (SWPPP) (See Exhibit H, Section 1).

The Goshen Water Department is owned and operated by the City of Goshen. The controlling legislative body within the City of Goshen is the Goshen Common Council. The Local Planning Team feels that public education and outreach is an effective way of implementing Wellhead Protection. To obtain support in its efforts, the Local Planning Team will request the Goshen Common Council to adopt a resolution recognizing the importance of Wellhead Protection in local planning activities. A draft of the resolution is included in Exhibit E.

The Local Planning Team also believes that current state regulations, local health department regulations, and local building and zoning regulations are important tools for managing potential sources of contamination.

The Local Planning Team is currently working on a Draft overlay zoning district to present to the City of Goshen's Common Council. (See Exhibit F, Section 2).

The Local Planning Team will be reviewing 2 proposed ordinances; one for installation of Class 5 injection wells (i.e. Drywells, and Geo-thermal Heating Systems) within the WHPA and an overlay zoning ordinance covering the WHPA. These ordinances will need to be reviewed by the Local Planning Team, and then presented to both city and county officials for consideration.

#### Management Measures

The Goshen Water Department believes the management measures developed in its Wellhead Protection Plan are both sufficient and appropriate to meet the requirements of Indiana's Wellhead Protection Rule 327 IAC 8-4.1.

The Water Department also believes that its Wellhead Protection Plan must be dynamic and recognizes that changes to the well field or within the Wellhead Protection Areas may require modifications to this plan. The Water Department welcomes comments and suggestions concerning the plan and will consider appropriate recommendations.

## **Section 1.**

### **Public Outreach and Education**

#### Owners and Operators of Identified Potential Sources of Contamination

The Goshen Water Department's Wellhead Protection Plan will be made available to owners and operators of identified potential sources of contamination.

As part of its Wellhead Protection Program, the Goshen Water Department will notify owners and operators of their presence in a five year time-of-travel Wellhead Protection Area with letters delivered by mail or in person. The notification will include information about wellhead protection and the importance of preventing contamination of wells, and instructions for accessing the Water Department's Wellhead Protection Plan. A draft notification is provided on page 11.

A copy of the Wellhead Protection Plan will be available for review at the Goshen North Water Plant, 308 North Fifth Street, Goshen, IN 46528, and the Goshen Public Library, 601 South Fifth Street, Goshen, IN 46528 or the city website at: [www.goshenindiana.org](http://www.goshenindiana.org).

**Goshen Water Department**  
Wellhead Protection Program

Dear Neighbor:

This letter is to inform you that your property is located within a Wellhead Protection Area of the Goshen Water Department. We also understand that you may have materials that if improperly handled might present a potential source of contamination to one or more of our drinking water wells.

We are sending you this notification to meet the requirements of Indiana's Wellhead Protection Rule 327 IAC 8-4.1 and ask your voluntary cooperation in protecting our water supply from possible contamination.

Your observation of the following will be appreciated:

1. Using best management practices in the handling, application and storage of pesticides, chemicals and other potential contaminants
2. Properly storing and disposing of fuels and fuel additives
3. Notifying the Water Department and other proper authorities of any accidental spills.
4. Notifying the Water Department of significant changes in inventory.

A copy of the City's Wellhead Protection Plan is available for review at the Goshen North Water Plant, 308 North Fifth Street, Goshen, IN 46528, and the Goshen Public Library, 601 South Fifth Street, Goshen, IN 46528 or the City website at: [www.goshenindiana.org](http://www.goshenindiana.org).

Sincerely,

Water Superintendent



### General Public

The formation and ongoing activities of the Local Planning Team during 1999, 2000, 2001, 2007, 2009 and 2010 have raised the Goshen community's awareness of the importance of wellhead protection. Information concerning wellhead protection will be placed in the Goshen Water Department's annual Consumer Confidence Report (see Exhibit J). Additionally, residents located within the five year time-of-travel Wellhead Protection Areas will be notified of their presence within the area via U.S. Postal Service.

### Notification of Absentee Owners and Leaseholders

A Water Department representative will review county parcel records and interview neighbors residing within the five year time-of-travel Wellhead Protection Area to determine if there are absentee property owners and/or leaseholders of property within the Wellhead Protection Area. If such persons or entities are discovered, they will be sent a letter by mail to notify them of their property's presence within the Wellhead Protection Area and advising them how to access the water system's Wellhead Protection Plan.

### Education and Presentations

On June 13, 2007, a Powerpoint presentation was given by Dustin Sailor, City Utility Engineer, to the Goshen Chamber of Commerce (see presentation and meeting notes in Exhibit I).

On June 27, 2007, Dustin Sailor, City Utility Engineer, attended a meeting of the Elkhart County Intergovernmental Forum. The topic was wellhead protection mandates and opportunities to meet them with intergovernmental cooperation. (see presentation and meeting notes in Exhibit I).

On May 12, 2010, Theresa Sailor gave a presentation of the concepts of groundwater to Mrs. Driver and Mrs. Rozelle's 3rd grade classes (see pictures and information in Exhibit I).

#### Resources for Outreach and Education Communications

The Public Outreach and Education Committee of the Local Planning Team have identified and will implement methods for public outreach and education:

- Monitor and maintain signage that is placed on thoroughfares near the Wellhead Protection Areas.
- Newspaper articles in the Goshen News.
- Make available the Wellhead Protection Plan, maps and brochures at the Goshen Water Department's office.
- Make available the Wellhead Protection Plan, maps and brochures at the Goshen Public Library.
- City website at: [www.goshenindiana.org](http://www.goshenindiana.org)
- Publication of Wellhead Protection Area information in the Goshen Water Department's Consumer Confidence Report.
- Continuing education and presentations by Goshen Water Department personnel to local schools and at the local college (see Exhibit I).
- Reemphasize the date and place of Elkhart County's hazardous material collection:  
Household hazardous waste collection for 2010 is the first Saturday of every month at the Elkhart County Correctional Facility near the intersection of CR 7 and CR 26, enter off of CR 7. Hours of collections are 8:00 a.m. to 3:00 p.m.

All of the above outreach methods have been and will continue to be used to advise the general public about their part in wellhead protection.

Signage

Signage indicating the presence of a Wellhead Protection Area has been placed at the following locations:

**North Well Field**

<b>Main Street</b>	Northbound side on Main Street, just north of intersection with Lincoln Avenue
<b>Main Street</b>	Southbound on Main Street, just south of Wilden Avenue
<b>Zollinger Road</b>	Southbound on Zollinger Road, approximately 1,000 feet north of Hackett Road
<b>Middlebury Street</b>	Southbound on Middlebury Street, approximately 1,500 feet south of Elkhart County Road 28
<b>Lincoln Avenue</b>	Westbound on Lincoln Avenue, approximately 500 feet west of 21 <sup>st</sup> Street

**Kercher Well Field**

<b>Kercher Road</b>	Eastbound on CR 38, about 2,000 feet west of CR 27
<b>Kercher Road (CR 38)</b>	Westbound on Kercher Road about 700 feet west of CR 27
<b>County Road 27</b>	Northbound on CR 27, about 2,000 Feet south of CR 38.
<b>County Road 27</b>	Southbound on CR 27, about 1,500 Feet south of CR 38.

Signage (Continued)

<b>Messick Road</b>	Northbound on Messick Road, just
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north of CR 38.

**Eisenhower Dr. South**

Eastbound on Eisenhower Drive South, just east of Industrial Park Drive.

**Eisenhower Dr. South**

Westbound on Eisenhower Drive South, just west of CR 27.

**Eisenhower Dr. North**

Eastbound on Eisenhower Drive North, just west of 15<sup>th</sup> Street.

**Eisenhower Dr. North**

Westbound on Eisenhower Drive North, just west of CR 27.

## **Section 2.**

### **Wellhead Protection Area**

#### Phase I Wellhead Protection Activities

The State of Indiana requires community water supply systems to develop five year time of travel WHPA delineations and management plans for those delineated areas. The five year time-of-travel Wellhead Protection Areas for Goshen's well fields were delineated as part of the Phase I Wellhead Protection activities.

#### Location of one and five year time-of-travel Wellhead Protection Area

The Wellhead Protection Areas are inclusive of the one and five year time-of-travel. The Wellhead Protection Areas are shown on the maps in Exhibit C of this plan. More detailed maps of these areas also may be found in the Phase I Wellhead Protection Area Delineation Reports prepared by Peerless-Midwest, Inc.

On February 19, 2009, Mike Chapman, a Hydrogeologist with Peerless Midwest and a member of the City's local planning team, sent information to Travis Cole of IDEM, requesting a determination of whether or not the City of Goshen would be required to perform a re-delineation for its Phase II WHPP.

On February 26, 2009, Mike Chapman received an e-mail from Travis Cole stating, "based on the current information, the City of Goshen would not be required to re-delineate either well field." Please see Exhibit H, Section 2, for documentation.

### Management Measures

The Goshen Water Department will employ a variety of management measures to protect its drinking water supply wells from contamination.

These measures include:

1. Installation of new wells in accordance with Indiana Department of Environmental Management guidelines (see Management Plan Compliance in Section 3 of the Goshen Water Department Wellhead Protection Plan).
2. Ongoing monitoring of water from drinking water supply wells (see Contaminants Monitoring in this section of the Goshen Water Department Wellhead Protection Plan).
3. Maintenance of records (see Maintaining and Updating Records in this section of the Goshen Water Department Wellhead Protection Plan).
4. Effective emergency response and training of emergency responders (see the Wellhead Protection Emergency Contingency Plan in Section 4 of the Goshen Water Department Wellhead Protection Plan).
5. Maintenance of GIS layers in emergency responder's vehicles related to the Wellhead Protection Areas, which will allow them to access mapping to coordinate response activity.

6. Education of owners of Potential Contaminant Sources (see Owners and Operators of Identified Potential Sources of Contamination in Section 1 of the Goshen Water Department Wellhead Protection Plan).
7. Public outreach and education (see Resources for Public Outreach and Education Communications in Section 1 of the Goshen Water Department Wellhead Protection Plan).

#### Contaminants Monitoring

Both regulated and non-regulated potential sources of contamination in the City of Goshen's Wellhead Protection Areas were revealed through database searches and "windshield surveys." Of primary concern are underground storage tanks. Oils and fuel additives were identified as the most prevalent contaminants. Exhibit C has detailed information on specific sites and locations.

The Goshen Water Department follows a Standardized Monitoring Framework approved by the Indiana Department of Environmental Management for its water supply entry points (well fields). Included in the monitoring requirements are, among others, volatile organic compounds, and synthetic organic chemicals.

An evaluation of the potential sources of contamination within the Wellhead Protection Areas, which considered the locations and types of these potential sources as well as the hydrogeologic characteristics of the Wellhead Protection Areas (see the Phase I Delineation Report produced by Peerless-Midwest, Inc., which is a part of the Goshen Water Department Wellhead Protection Plan).

Based upon this evaluation, the Goshen Water Department believes its current monitoring practices are sufficient to detect future contamination.

The Goshen Water Department recognizes that additional monitoring may become desirable in the future as the body of environmental knowledge grows and/or regulations change. The Water Department will continue to evaluate its monitoring practices and will consider appropriate adjustments in the future, if warranted. The Standardized Monitoring Framework for the Water Department's well field may be found in Exhibit D.

#### Maintaining and Updating Records

Tracking changes in current pollution source inventories and locating new potential sources of contamination within the Wellhead Protection Area are necessary to Wellhead Protection Program.

The City of Goshen Water Department will maintain its windshield survey records by annually reviewing changes within the Wellhead Protection Areas. The Environmental Protection Agency's Envirofacts database also will be searched annually for changes and/or additions to the regulated contaminants database. All changes will be noted by hand on the Superintendent's Wellhead Protection Plan documents for formal update during the next phase of the City's Wellhead Protection Program. It is recognized that changes in the potential sources of contaminants inventory may dictate modification to the City's monitoring, management and outreach activities. Such need for change(s) will be addressed as appropriate.



The City of Goshen received an EPA grant in 2001 to identify Class 5 injection wells and their owners and to provide education concerning potential threats to the environment from such wells. All identifiable Class 5 injection wells in the City of Goshen were located, and are now mapped in a geographical information system (GIS ( See Exhibit C for maps)

#### Abandoned Wells

A search of the Indiana Department of Natural Resources database and windshield surveys did not indicate any improperly abandoned wells within the Water Department's Wellhead Protection Areas.

In its North Well Field the Water Department abandoned Well No. 1 in 1972, Well No. 6 in 1984, Well No. 5 in 2000, Well No. 7 in 2006 and Well No. 4 in 2008. A licensed well driller, using prescribed methods, was used to abandon the City's wells.

### **Section 3.**

## **Sanitary Setback Management Plan**

### Management Plan Compliance

The Goshen Water Department Sanitary Setback Management Plan is designed to be in compliance with Title 327 of Indiana Administrative Code, Article 8-3. The Water Department will obtain proper permits for the construction of any new water supply wells, and such wells will be designed in accordance with appropriate standards and employ approved materials and installation methods.

Based upon a review of the Water Department records, the installation of existing wells within the City's well fields were installed in accordance with applicable regulations and standards in effect at the time of installation.

All new wells will be properly spaced and constructed within 200-foot sanitary setbacks controlled by land title or easement. Any sanitary or storm water sewers will be a minimum of 50 feet of any well and be constructed in accordance with 327IAC 8-3.2-8, 327IAC 8-3.2-17(a), and 327IAC 8-3.2-17(b). No construction, other than that designed to contain a well, will be permitted over a well. The only roads or parking areas within 50 feet of a well will be those necessary for access to the well.

All wells will be installed in such a manner as to thwart vandalism and to provide security for the well, wellhead and controls.

The mixing or storage of non-water treatment chemicals within sanitary setback areas is managed by Goshen Water Department policy.

The sanitary setback areas of all existing wells have been visually surveyed and no significant sources of contamination were located around the wells at the Kercher Well Field. The City's Central Garage is co-located with the North Well Field. Central Garage maintains the City's vehicle and equipment fleet and in the course of doing business uses and stores measurable quantities of new and used oil. Smaller volumes of other automotive fluids are also stored on the property. This operation is located within the 200-foot sanitary setback for Well No. 2A, 3, 4 and 5A, and poses an operational concern. Additionally, there are records indicating 3 buried underground storage tanks on the property. Long term goals for the North Water Plant should include the relocation of the City's Central Garage and verification of the existence of the buried tanks. If the tanks are found to exist, the Water Utility will have the tanks removed.

The Goshen Water Department controls the 200-foot sanitary setbacks of all wells within the North Well Field by land title, except for Well 1A, which has a 200' setback that partially extends over onto Elkhart County's property to the east.

Well No. 1A in the North Well Field is approximately 230 feet northeast of a pair of railroad tracks. There is good drainage away from the well, and activity within the railroad corridor does not pose a concern under normal operation.

The Kercher Well Field is located within a light industrial park. Land for Wells No. 12 and No. 13 is owned by the Goshen Water Department. Well No. 14 is located within a utility easement granted by Northern

Indiana Public Service Company. The sanitary setbacks of the wells are effectively controlled by the land use covenants of the industrial park. (See Exhibit J for documentation regarding enforcement action that occurred in the sanitary setback area).

#### Prohibition of Chemical Storage or Mixing

As a matter of established practice and policy, the Goshen Water Department does not mix chemicals within the 200-foot sanitary setback areas. Storage of on-site chemicals is controlled by a Spill Prevention Control and Countermeasures (SPCC) Plan.

Farmers using land near the Kercher Well Field will be contacted and letters of understanding will be sent explaining the prohibition of the mixing of non-water treatment chemicals near the wells.

#### Stormwater Pollution Prevention Plan

In June of 2010, the City of Goshen's Stormwater Utility completed a Stormwater Pollution and Prevention Plan (SWPPP) for the North Well Field and Central Garage area. Classes were given to educate employees covering all aspects of the SWPPP (see Exhibit H, Section 1).

#### Pesticides

Pesticides are regulated by the Office of the Indiana State Chemist. Such chemicals must be certified in accordance with Indiana Codes 15-3-3.5 and 3.6.

The Goshen Water Department has prepared an inventory of locations where pesticides, herbicides and other similar contaminants are currently

stored within the Wellhead Protection Area. The inventory will be updated on an annual or on an as-needed basis.

Pesticide usage within the Wellhead Protection Area will be monitored and best management practice improvements in application methods will be made, if appropriate. Specifically, the City staff will be required to follow all label instructions and minimize usage of pesticides when practical. Personnel charged with grass maintenance will be trained in the proper use of chemicals and will be certified if required by IC 15-3-3.5 and 3.6.

No storage or mixing of pesticides, herbicides and other similar contaminants is permitted within the 200-foot sanitary setback area of any of the Goshen Water Department drinking water supply wells.

#### Transportation Routes

There are no public transportation routes within the 200-foot sanitary setbacks of either of the Water Department's wells.

#### Security

A security survey for all wells revealed the following conditions:

Both Kercher Well Field and North Well Field are located within fenced areas with video surveillance and door alarms that are tied to the City's system.

## Section 4.

### Emergency and Contingency Plan

#### Background

The City of Goshen believes that emergency and contingency planning are necessary for the proper operation of its water supply system. In accordance with this philosophy, the Water Department has developed numerous plans and contingencies to deal with a broad range of situations.

#### Agency Resources

The Local Planning Team and its Contingency and Emergency Committee reviewed and discussed area agencies' procedures and practices that might relate to wellhead protection and response to hazardous materials spills.

The Local Planning Team determined that the following agencies should be involved in contingency and emergency planning for wellhead protection:

- City of Goshen Water Department
- City of Goshen Fire Department
- Elkhart Township Fire Department
- City of Goshen Police Department
- City of Goshen Street Department
- Elkhart County Sheriff's Department
- Elkhart County Office of Emergency Management
- Elkhart County Health Department
- Elkhart County Highway Department
- Indiana Department of Environmental Management (IDEM)
- Indiana Department of Homeland Security (IDHS)

- Indiana State Police
- Indiana National Guard
- Northern Indiana Public Service Company (NIPSCO)
- EPA – Water Security Division
- Federal Emergency Management Agency (FEMA)
- IN-WARN

### Contingency Capacities

The City of Goshen has 9 wells, all of which are interconnected. This means all of the wells can provide water to the areas served by the other wells.

The Water Department's average daily water demand is 3.5 million gallons per day (MGD). The maximum combined capacity of both well fields is approximately 10 MGD.

The significance of these statistics is the Water Department can continue to supply water to its customers even with the loss of one or more of its wells, or the loss of a well field.

### Emergency Resources

While the Local Planning Team and the Contingency and Emergency Committee have assessed the likelihood of a large or system-wide water outage due to well field problems as being low, it is recognized that good planning requires the consideration of all possibilities. To that end, the Local Planning Team and the Contingency and Emergency Committee has located bottled water retailers in the Goshen area. Bottled water could be made available to the Goshen Community for short periods of time.

Citizens would be advised of the locations of bottled water retailers by news media announcements as soon as possible following the declared emergency.

### Partial List of Bottled Water Retailers

**Kroger Food Store**  
209 N. Chicago Ave.  
Goshen, IN 46526  
Phone: (574) 533-9949

**Meijer, Inc.**  
4522 Elkhart Road  
Goshen, IN 46528  
Phone: (574) 875-3006

**Sam's Club**  
4024 Elkhart Road  
Goshen, IN 46528  
Phone: (574) 875-7099

**Martin's Super Market**  
1527 Bashor Road  
Goshen, IN 46528  
Phone: (574) 537-0719

**Wal-Mart**  
2304 Lincolnway E  
Goshen, IN 46526  
Phone: (574) 534-4094

**Wal-Mart**  
22676 US Highway 33 #2  
Goshen, IN 46528  
Phone: (574) 875-6601

**Target**  
3938 Midway Road  
Goshen, IN 46528  
Phone: (574) 875-6400

**Save-A-Lot**  
1401 College Avenue  
Goshen, IN 46526  
Phone: (574) 534-2020

### Emergency Resources (continued)

The Indiana National Guard maintains a fleet of "water buffalo" portable water containers. National Guard personnel are trained in the proper use of this equipment, and the equipment and personnel can be made available to the City of Goshen should a water emergency be declared by appropriate authorities.



Indiana National Guard, Elkhart, IN  
D Co. 2nd 151st Infantry Battalion or 113<sup>th</sup> FSB  
(574) 293-8843 or (574) 294-8846

If distribution of water to the general public is required, National Guard tankers will be placed near Goshen City Hall, 202 South 5<sup>th</sup> Street, within 24-hours of the declared emergency. The tankers will be located out-of-doors, weather permitting, or within a nearby structure if needed.

Notification of General Public and Critical Water Users

In the event of a system-wide contamination of the Water Department's water supply, its customers will be notified of boil-water orders or non-use orders via local radio stations and newspaper. Water Department personnel will contact the media outlets by telephone. Notification to the media may be confirmed by facsimile alert as appropriate.

**List of Media to be Contacted in the Event of an Emergency**

<b>Media</b>	<b>Telephone Number</b>	<b>Facsimile</b>
<b><u>Radio Stations</u></b>		
WGCS 91.1 FM	(574) 535-7488	(574) 535-7660
WKAM 1460 AM	(574) 533-1460 or (574) 533-3330	(574) 534-3698
WTRC-1340	(574) 293-5611	(574) 295-2329

## Newspapers

Goshen News	(574) 533-2151	(574) 533-0839
South Bend Tribune	(574) 295-7000 or (800) 522-2795	
Elkhart Truth	(574) 294-1661 or (574) 294-3895 or (574) 533-8676	
El Puente	(574) 533-9082	(574) 537-0552
LaPrese Hispania	(574) 537-9640	(574) 522-1770

## Television

Channel 16 (WNDU)	(574) 293-1616	(574) 282-2916
Channel 22 (WSBT)	(574) 293-8148	(574) 289-0622
Fox 28 (WSJV)	(574) 293-8616	(574) 522-7609

In addition to notification of the general public in the event of a system-wide contamination of the Water Department's water supply, critical water users will be notified of boil-water orders or non-use orders by telephone. Notification to critical users may be confirmed by facsimile alert as appropriate. If telephone communications are unreliable or unsuccessful, the Water Superintendent will notify critical users in person by traveling to each critical user's location.

If a non-use order is issued by the Goshen Water Department, notifications to the general public and critical water users will contain information on alternative sources of water. Arrangements for alternative sources of water will be made in cooperation with the City of Goshen Water Department, the Elkhart County Office of Emergency Management, the Elkhart County Health Department and other agencies, as appropriate.

A more extensive list of Emergency phone numbers is available in  
Goshen's Water Emergency Response Plan.

### Priority Water Needs

Schools	Goshen College	535-7000	
	Goshen High School	533-8651	
	Goshen Middle School	533-0391	
	Chamberlain School	534-2691	
	Chandler School	533-5085	
	Model School	533-7677	
	Parkside School	533-7765	
	Waterford School	533-6811	
	West Goshen	533-7855	
	St. John's Catholic Church School	533-9484	
	Bethany Christian School	534-2567	
	Nursing Homes / Special Needs	Greencroft	534-4000
The Maple at Waterford Crossing		534-3920	
Courtyard Health Care Center		533-0351	
Hawthorn House (403 Hawthorn)		848-7451	
Goldenrod Mdc. (1610, 1520, 1514, 1510 College)		202-0165 / 533-9720	
Hospitals	Goshen General Hospital	533-2141	
	Oaklawn Hospital	533-1234	
	Fresenius - Dialysis Facility	294-4444 / 584-5415	
Hotels	Goshen Travel Lodge	533-9551	
	Best Western	533-0408	
	Courtyard by Marriott	534-3133	
	Super 8	642-9944	
	Holiday Inn Express	533-0200	
	Comfort Inn	533-0200	
	Hampton Inn	533-8800	
	Holiday Inn Express & Suites	535-9200	
Child Care / Day Care Centers	Brenneman Day Care Center	533-4388	
	Campus Center for Young Children	535-7298	
	Happy Kids Day Care	534-5071	
	Prairie View Day Care Ministry	533-5113	
	Walnut Hill Early Childhood	534-1884	
	Eighth Street Preschool	533-6720	
	Good Shepherd Nursery School	533-3773	

### Emergency Responders

The City of Goshen is fortunate to have a well-trained and well-equipped Fire Department. Specialized training in Wellhead Protection issues will be provided by the Goshen Water Department to better enable these responders to recognize potential threats to the public water supply.

As part of the Water Department's Contingency and Emergency Plan, the Goshen Fire Department will be informed whenever it is dispatched to a location within a Wellhead Protection Area. To accomplish appropriate notification, the Goshen Water Department has developed electronic mapping files of the Wellhead Protection Areas that has been loaded onto emergency responders mobile computers and into their Think GIS system.

Following approval of the City's Wellhead Protection Plan by the Indiana Department of Environmental Management, the Goshen Fire Department will receive training in the following areas relating to response to hazardous materials incidents within the Water Department's Wellhead Protection Area:

- Importance of Wellhead Protection
- Information concerning wellheads and the City of Goshen Water Distribution system
- Location of the Wellhead Protection Areas
- Location of Goshen wells
- Review of the Goshen Wellhead Protection Plan
- Overview of the Goshen Water Department's Emergency Contingency Plan
- Goshen Water Department operating personnel to be notified in event of an emergency

- Other officials and/or personnel to be notified in event of an emergency
- Distribution and discussion of emergency responder materials to be posted at their respective agencies' locations
- Goshen's Water Emergency Response Plan

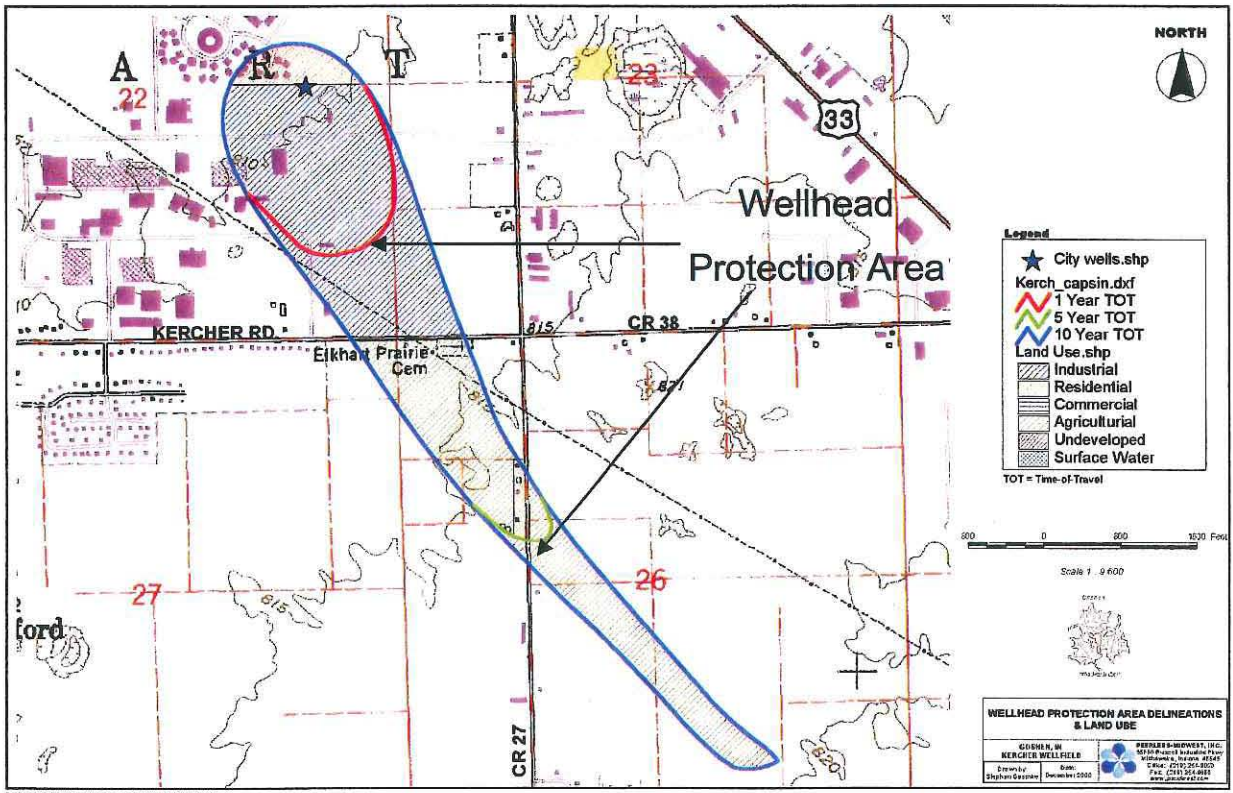
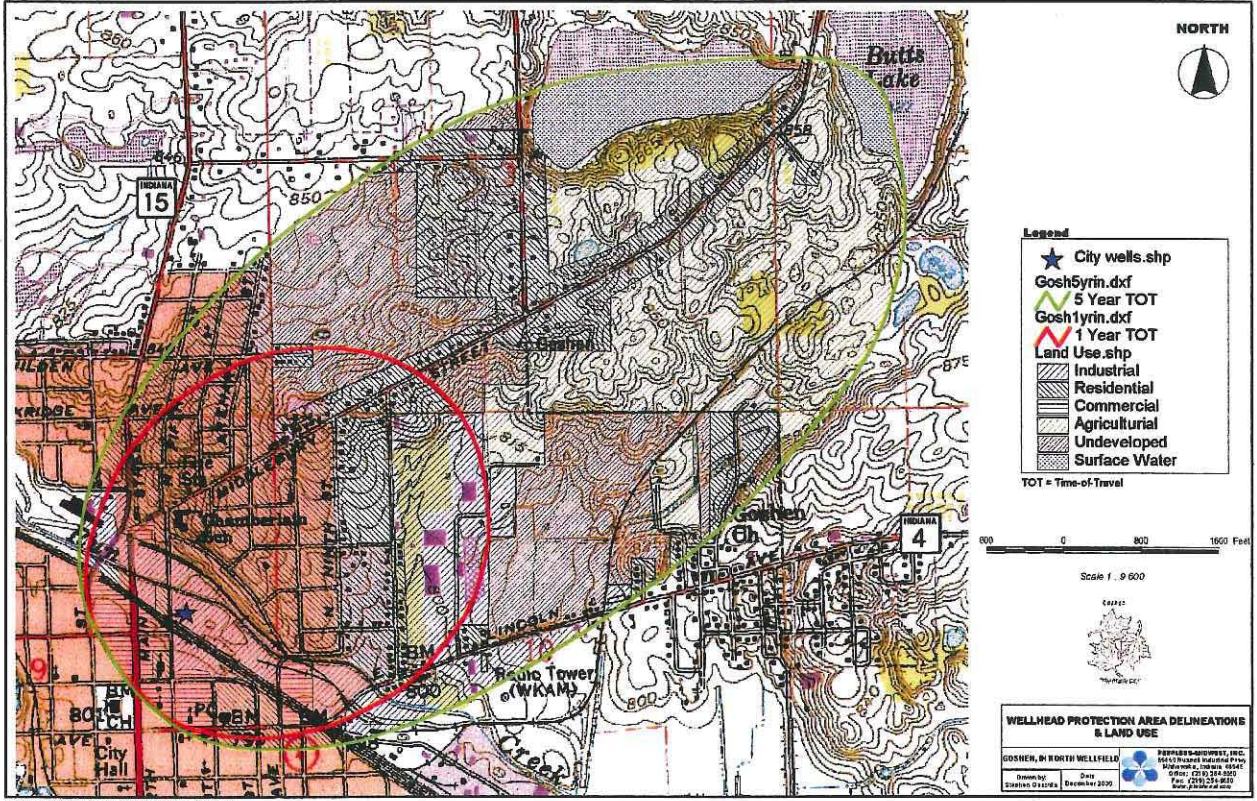
Training will be offered at the Fire Department or North Water Treatment Plant by the Water Department Representative on an annual basis, or as needed. The emergency contact list will be updated at this time.

Goshen Water Department

**Wellhead Protection  
Emergency Contingency Plan**

Part 1

Goshen Water Department Wellhead Protection Areas



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## 24-HOUR EMERGENCY TELEPHONE NUMBERS

Water Treatment Plant (North)	(574) 534-5306
Water Treatment Plant (North) After Hours	(Cell) (574) 238-0723
Water Treatment Plant (South)	(574) 533-9678
Water Superintendent .....Kent Holdren	(574) 534-5701 (Cell) (574) 361-0097
Distribution & Construction Supervisor...Donn Neff	(574) 534-3900 (Cell) (574) 536-9997
Water Production Manager..... Steve Cripe	(574) 534-5503 (Cell) (574) 596-0183
<b>Electrical/Back-up Generator</b>	
Phil Wogomen.....	(574) 825-5741
Peerless Midwest Jonathan Nussbaum	(Cell) (574) 536-8902
Jim Williams.....	(574) 254-9050 (Cell) (574) 286-7959
Goshen Police Department	911 or (574) 533-8661
County Sheriff's Department	911 or (574) 533-8644
Goshen Fire Department	911 or (574) 533-8686
Township Fire Department	911 or (574) 533-2320
County Emergency Management.....Jennifer Tobey	(574) 535-6590
County Environment Health Services ....John Hulewicz	(574) 875-3391
Goshen General Hospital	(574) 533-2141
<b><u>Well and Pump Service Contractors</u></b>	
Peerless-Midwest 7:00am to 4:00pm	(574) 254-9050
After Hours.....Jim Williams	(Cell) (574) 286-0455

**Chemical Suppliers**

Alexander Chemical (800) 348-8827  
Jones Chemical (317) 787-8382

**Chemical Pumping Equipment**

Living Waters Company.....Larry Hayes III (800) 382-4601  
(Cell) (317) 392-6476

National Response Center to Report a Spill (800) 424-8802

Indiana Emergency Response Section.....Rick Hackel (888) 233-7745

Indiana State Department of Health (317) 233-1325

Indiana State 24 hrs. Emergency Communication Center (888) 233-7745

Indiana Department of Environmental Mgmt. (IDEM) (800) 451-6027  
Field Inspection Section.....Bill Morgan (574) 245-4882

Northern Indiana Public Service Company (800) 464-7726  
Local Information.....Bob Wroblewski (574) 535-0218  
Industrial Customers.....Dispatcher (800) 322-2805

**Elevated Storage Tank Maintenance**

Tank Industry Consultants (317) 271-3100  
Dixon Engineering.....Jim Clevenger (Cell) (260) 740-1360

**Control Panel Maintenance**

Oudbier Instrument Company.....Ron Oudbier (616) 878-9324

**Laboratories**

**Underwriter (SB)** (800) 332-4345  
Dairy Farm Products Co. (574) 533-3141  
Sherry Labs (Fort Wayne) (260) 471-7000

**Telephone Line Repair**

GTE (800) 783-8793  
Sprint (574) 265-9817  
New Paris.....Tom (574) 831-2176  
(800) 222-5655

Consultants

Water Consultants, Inc.....Jim Garland (574) 491-2055  
Donohue.....Bob Neils (SCADA) (317) 267-8200

Norfolk and Southern-Elkhart Yard Office (574) 296-2233  
Terminal Superintendent's Office (574) 296-2265

## LOCATION OF MAPS FOR THE GOSHEN WATER SYSTEM

The Goshen Water Department system is recorded on a set of contiguous sectional water map drawn at a scale of 1" equals 100', the Goshen Water Department also has an emergency response plan which includes contingencies for WHPA. Both of these are at the following locations. Maps are also available on computer mapping software and on the Fire Departments Think GIS program which are on the computers in their trucks.

Goshen North Treatment Plant  
308 N. 5th Street  
Goshen, IN 46528  
(574) 534-5306

Kercher Treatment Plant  
1513 Eisenhower Drive  
Goshen, IN 46526  
(574) 533-9678

Engineering Department  
204 E. Jefferson Street, Suite 1  
Goshen, IN 46528  
(574) 534-2201

Utility Billing Office  
201 S. 5<sup>th</sup> Street  
Goshen, IN 46528  
(574) 534-9399

Water/Sewer Distribution Truck  
Call number 31 or Cell Phone number 574-238-2191  
Call number 32 or Cell Phone number 574-238-7562  
Call number 33 or Cell Phone number 574-536-6206  
Call number 34 or Cell Phone number 574-221-1368  
Call number 26 or Cell Phone number 574-265-6572  
Call number 27 or Cell Phone number 269-699-5445

Distribution/Construction Supervisor's Truck  
Call number 22 or Cell Phone Number 574-536-9997

Water Quality Manager Truck

Call number 24 or Cell Number 574-596-0183

Production Operator's Truck

Call numbers 28 or 29 or Cell Phone Number 574-238-0723

Locator's Truck

Call number 35 or Cell Phone Number 574-536-1100

### Water Reserves and Back-Up Power

In case of well-pumping failures, water main failures or forced power outages, the Goshen Water Department water system has the flexibility to maintain adequate water main pressure by any one or a combination of the following:

- Finished water reserves in the distribution water system are located in elevated water storage tanks and a ground water storage tank. The Goshen Water Department has two (2) elevated water storage tanks that hold a maximum of two (2) million gallons and one ground water storage tank that hold a maximum of one half (0.5) million gallons.
- The Kercher Water Plant has a diesel generator for power backup that allows for a total capacity water production of 3,600 gallons per minute or 5.1 million gallons per day.
- Hilltop booster station has a diesel generator for back-up power to meet full capacity production.
- Stand-by electrical power is available from Peerless Midwest and/or Middlebury Electric for the North Water Plant along with the option of right angle drive motors if needed to meet the water needs in case of a power outage.
- If for any reason, short or long term, that one water treatment plant is out of service, the other water treatment plant can supply the City's water needs.

- If the Hilltop booster station is out of service, there would be lower than normal water pressure for the water customers in this pressure zone. However, those water customers would still have water available but just at a lower pressure.
- Both water treatment plants, Hilltop booster station, and all water storage tanks are controlled by and monitored by a Supervisory Control and Data Acquisition (SCADA) system. Personnel will be immediately notified of any process or equipment failure. All failures or problems will be responded to in a timely manner and corrected when possible.

## **PLAN FOR WATER DEPARTMENT SITUATIONS ANDEMERGENCIES THAT WOULD REQUIRE EXTRAORDINARY RESPONSE**

### Short Term Power Outage – Two or More Hours

In case of a short term power outage, where the interruption of electrical power to any or all of the nine ( 9 ) City's wells and high service motors or chemical feed pumps at either treatment plant is less than two hours:

- Northern Indiana Public Service Company is contacted and the outage is reported, for either or both treatment plants.
- Ask the Electrical Department personnel for an estimated length of time the outage will last, so the operator can notify water department personnel.
- The Superintendent and Production Manager will be notified so that they can call the priority user.

### Extended Power Outage – Interruption for Six Hours or More

In case of an extend outage where interruption of power is estimated to be six hours or more. This could affect either one or both of the treatment plants, because the treatment plants are on two different grids. The following procedures are undertaken:

- When it has been determined that the outage will be six or more hours, the Water Superintendent and Production Manager are contacted
- The Kercher Treatment Plant has a 750 kW diesel generator that can run the entire treatment plant. This generator has an automatic switchover.
- Peerless-Midwest and or Middlebury Electric will be called to install a 350 kW diesel generator at the North Treatment Plant. This can run one or more wells and one high service pump and chemical treatment equipment under normal conditions.

- If there is not a diesel generator available at this time, Peerless-Midwest will be contacted to install a right angle drive motor to only one well at the North Treatment Plant. A small generator will be installed to run the chemical feed pumps.

#### Raw Water Well Pump or Motor Failure (Low Service)

In case of raw water well pump or motor failure, the following procedures will be undertaken:

- Switch to an alternate well, normal operating procedures are continued until pump or motor failure repairs are complete.
- Contact Peerless-Midwest to repair the well or motor, and put the equipment back in service as soon as possible.
- If there is more than one pump or motor failure, the other treatment plant can be switched over to take care of the City's needs under normal conditions.

#### Finished Water Pump or Motor Failure (High Service)

In case of pump or motor failure on the high-pressure pumps or motors, the following procedures are undertaken:

- Switch to alternate pump or pumps.
- Contact Peerless-Midwest to service or repair the pump or motor.
- Normal operating procedures are continued using alternate pumps to replace the lost pump.
- If there is more than one pump or motor failure, the other treatment plant can supply the City's needs under normal conditions.

#### Loss of Water From a Well

In case of loss of underground water source, the following procedures are undertaken:



- Shutdown that treatment plant and switch to the other treatment plant.
- If pump adjustments do not rectify the problem, then call Peerless-Midwest to correct the problem.
- Normal operating procedures are continued using wells to replace lost well or wells. This can be done under normal pumping conditions.

#### Purification Chemical Supply Shortage

In the event there would be a shortage of certain water purification chemicals, the Superintendent or the Production Manager will be contacted to call the regular suppliers. If there is no chemical available at this time, the Superintendent or Production Manager will contact the IDEM Field Inspector concerning the situation. Their help would be asked in locating an alternate source of these chemicals so that arrangements for deliveries can be made to keep the water department from exhausting its chemical supplies.

#### Chemical Storage or Usage Emergencies

Both of the Water Treatment Plants are equipped with MSA Self-Contained Breathing Apparatus and a spare thirty-minute bottle of oxygen. Training for the use of the equipment is provided by Bob Elliott, from Goshen Wastewater Treatment Plant. The Fire Department is the backup, if there is a chemical emergency.

In the event of an emergency the operator is to call 911 for backup. The operator is to notify the Production Manager. Information needs or assistance beyond what is locally available shall be obtained from Alexander Chemical or Jones Chemical, the chemical suppliers. A copy of the Emergency Chemical list is in the City of Goshen's Water Emergency Response Plan.

#### Catastrophic Events

In the case of an event resulting from acts of nature which cause catastrophic damage to the Goshen Water Department system, the

Superintendent or the Production Manager will notify IDEM of the situation as soon as information is available.

The action would be coordinated with the local emergency management director representative. The Superintendent will be contacted and will decide if IN-WARN should be contacted for assistance.

Major repairs to the damaged components of the distribution system would be handled by the Water Department's equipment and personnel, assisted by its various local and area contractors and suppliers. Restoration of electric power would be arranged through NIPSCO.

As repairs are made and water service is being restored, the procedures for restoring pressure to a de-pressurized water system will be done as outlined below.

#### Restoring Pressure to a De-Pressurized Water System

Loss of pressure due to a major breakdown of the system or extended power outage due to a storm will be handled as the following examples.

Example No 1 - In the event of a major or water main break, with accompanying water loss that exceed the pumping capacity of the water treatment plants and drains the elevated water storage tanks before the broken water main can be valved off and shutdown, the following procedures are to be followed:

- Once the broken section is valved off and shutdown, the Water Department notifies IDEM, if not already notified of the situation, and the City issues a boil order using the news media for all water used for human consumption.
- All the underground utilities are contacted to locate their facilities in the area of the broken water main. (1-800-382-5544)
- The water main leak is pinpointed and repaired.
- The water main in the section of the repair is flushed until the chlorine residuals are adequate, maintaining 0.5 ppm residual.

- The proper number of Total Coliform samples are taken. There needs to be two samples taken, present time and twenty-four hours later.
- The drinking water boil order will be lifted when safe consecutive samples are reported to Goshen Water Department and IDEM.

Example No. 2 - If major storm damage occurs that topples trees and breaks off power line poles and leaves the City without power to both of the treatment plants, the following steps will be taken:

- The Superintendent will notify IDEM of the situation. If power is restored before the system is depressurized, pumping will resume back to normal. If the water system is depressurized the City will go to a boil order for all water used for human consumption.
- After making any necessary repairs at the treatment plants and the power is restored, pumping would be resumed and the procedures for “restoring pressure to a depressurized water system” will be followed.

All emergency contingency plan activations and IDEM notifications by the City of Goshen will be followed up with a report, to be kept on file, within 15 days after the incident.

#### Hazardous Materials Response – Fire Department

All personnel shall be in full turn out gear upon leaving the station.

The officer in charge should note the type of call and location of incident given from dispatch.

The officer in charge shall identify the location of command and utilize the Incident Command System.

The officer in charge will notify dispatch to call the Water Department emergency numbers.

On arrival at the scene, all apparatus should be located uphill, upwind, and at a location where the officer in charge is able to investigate and observe

the incident. Do not commit personnel to direct scene involvement until the product has been identified.

The officer in charge should try to identify the product by UN number, ID number, MSDS or shipping papers, if possible. (Chemtrec may need to be notified by dispatch or by the rig cellular phone.)

Officer in charge should be able to use the emergency response guidebook for initial identification and evacuation distances for the immediate area of the incident.

Evacuation, if required will be done with teams of two or more firefighters in full turn out gear and SCBA's. The officer in charge will coordinate the evacuation plan with the police department after he has determined wind speed and wind direction. All personnel shall stay clear of all plumes, clouds, vapors, or any product on the ground.

If homes or businesses are involved directly in vapors, clouds, or plumes they shall be notified to protect themselves in place. The involved occupants shall seal up their home or building. The occupants will need to shut all windows and doors, turn off heating and ventilation systems, and seal all windows and doors with plastic tape. If the vapor density of the product is greater than 1.0, have them go to the second floor. If the vapor density of the product is less than 1.0, have them go to the lowest floor below the product.

Elkhart's Haz-Mat team shall be notified immediately (911), after size up has been completed.

If fire protection is required for exposures, personnel shall not be permitted into contaminated or dangerous area.

Officer in charge shall notify Elkhart Haz-Mat team of pre-arrival instructions and the approach to be used for the incident.

Haz-Mat teams will need assistance in setting up decontamination area before they can make entry into the incident.

If the incident escalates, the city, county, or state disaster plan may be needed.

During the incident, a safety officer will be assigned to a trained GFD officer by the incident commander.

Resources may be requested or advised from different agencies. Elkhart County Government, MSDS, Chemtrec, Fire Marshals Office, Health Department, Indiana Department of Environmental Management, Environmental Protection Agency, and shippers of the product are only several resources that could be utilized.

The incident shall be critiqued after completion by all agencies and personnel.

**REPORT OF EMERGENCY EVENT  
GOSHEN WATER DEPARTMENT  
*PWSID NUMBER 5220009***

DATE AND TIME OF  
EVENT \_\_\_\_\_

REPORTED  
BY \_\_\_\_\_

DESCRIPTION OF  
EVENT \_\_\_\_\_

DESCRIPTION OF REMEDIAL  
ACTION \_\_\_\_\_

FINAL COMPLETION  
STATUS \_\_\_\_\_

The following notice shall be placed at the Goshen Water Works:

## **Notice**

**The Goshen Water Department  
Wellhead Protection Emergency Contingency Plan  
is available at**

**The Goshen Water Treatment Plant  
Receptionist's Desk  
308 North 5<sup>th</sup> Street  
Goshen, IN 46528**

## **Section 5**

### **Definitions**

The following definitions shall apply throughout this Well Head  
Protection Plan

**“Above Ground Storage Tanks”** any one or combination of tanks (including piping connected thereto) that contain hazardous or regulated substances in a volume greater than the reportable quantity and which is more than 90% above the ground surface.

**“Aquifer”** means an underground geological formation that has the ability to receive, store, and transmit water in amounts sufficient for the satisfaction of any beneficial use.

**“Best management practices”** means schedules of activities, prohibitions of practice, treatment requirements, operation and maintenance procedures, use of containment facilities, and other management practices to prevent or reduce the pollution of waters of the state.

**“Brownfields”** are abandoned or underused industrial and commercial facilities available for re-use. Expansion or redevelopment of such a facility may be complicated by real or perceived environmental contaminations.

**“Licensed Professional Geologist”** means a person who is licensed as a geologist by the State of Indiana under IC 25-17.6-1-6.5.



**“Community public water supply system” or “CPWSS”** means a public water supply system that serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.

**“Construction”** includes building, erecting, moving, or any physical operations on the premises which are required for construction, excavation, fill, paving, and the like shall be considered part of construction.

**“Contaminate”** to have hazardous materials or regulated substances mixed into an aquifer formerly void of such substances.

**“Critical water users”** means water users whose immediate health or welfare would be affected in an adverse manner if water use is denied.

**“Customers”** means number of persons served by the public water supply system.

**“Delineation”** means a process used to define boundaries of the well head protection area.

**“Discharge”** the off-site release of any regulated substance or hazardous materials that are not immediately contained and cleaned up so that it poses no threat to the aquifer.

**“Dry Well”** any manmade structure beneath the ground surface designed or used for disposal or dissipation of waste including storm water. Disposal

of septic waste is excluded from the definition of a dry well for purposes of this Ordinance. A dry well is a form of an injection well.

**“Ground Water”** the water contained within the earth’s surface that has penetrated from precipitation and from infiltration by streams, ponds and lakes.

**“Ground Water Contamination”** presence of any substance designated by the U.S. EPA of the State of Indiana as a primary or secondary water quality parameter, in excess of the maximum allowable contaminant level (MCL) as defined by the National Primary Drinking Water Regulations.

**“Groundwater model”** means an investigative technique using a mathematical or physical representation of a system or theory that accounts for all or some of its known properties.

**“Hazardous Materials”** a material which is defined in one or more of the following categories:

- a) Ignitable: A liquid with a flashpoint of less than 140° F; a solid which may cause fires through friction, spontaneous chemical changes, or absorption of moisture; an oxidizer. Examples: gasoline, white phosphorous, peroxide.
- b) Carcinogenic: A gas, liquid, or solid which is normally considered to be cancer causing or mutagenic. Examples: PCBs 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 humans 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 humans. Examples: 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, phosphoric acid, lye.
- g) **Reactive:** A substance that reacts violently with water; forms potentially explosive mixtures with water; generates cyanide or sulfide fumes in quantities dangerous to human health; or is capable of detonation. Examples: sodium.

**“High Capacity Well”** a well, in accordance with 310 IAC 16-1-14, which has the capability of withdrawing one-hundred thousand (100,000) gallons of groundwater or more in one day.

**“IDEM”** means the Indiana Department of Environmental Management created under IC 13-13-2.

**“Large Capacity Cesspool”** a dry well or surface impoundment that receives untreated sanitary waste that is used by multiple dwellings, a community or regional system for the disposal of sanitary waste, or has the capacity to serve 20 or more people per day (for example: a rest stop,

restaurant, or church). The construction of new large capacity cesspools is not allowed in Indiana.

**“LUST”** means Leaking Underground Storage Tank.

**“Medium public water supply system”** means a public water supply system serving from three thousand three hundred one (3,301), up to and including, fifty thousand (50,000) customers.

**“Potable Water”** is water that is satisfactory for drinking, culinary, and domestic purposes, meeting current state and federal drinking water standards.

**“Potential source of contamination”** means a facility, site, practice, or activity that possesses the ability to contaminate ground water.

**“Public water supply system” or “PWSS”** means a public water supply for the provision to the public of piped water for human consumption if such a system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year.

**“Regulated Substance”** Any liquid or water soluble solid which had the potential to contaminate the aquifer.

**“Sanitary setback”** means a 200’ area established around a CPWSS production well to protect ground water from direct contamination.

**“Sanitary Sewers”** except where service is not currently available, all sewage disposal within the Districts must be through sanitary sewers and the publicly owned treatment works or holding tanks. Infiltration and leach field systems are prohibited. Sanitary sewer lines shall be inspected by the Richmond Sanitary District for exfiltration and/or infiltration at least once every five (5) years.

**“State chemist”** means the office of the Indiana state chemist authorized by IC 15-3-3.5 and IC 15-3-3.6 to administer the use, application, storage, mixing, loading, transportation, and disposal of pesticides in Indiana under those chapters.

**“Time of travel” or “TOT”** means the calculated length of time a particle of water takes to reach a CPWSS production well from a certain point.

**“Underground Storage Tank (UST)”** any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of hazardous substances or other regulated substances and the volume of which (including the volume of underground pipes connected thereto) is 10% or more beneath the surface of the ground.

**“Well Field”** a tract of land, either continuous or disjointed, which contains a number of existing or proposed wells for supplying water as specified in the well field protection maps.

**“Wellhead”** the specific location of a well (a hole or shaft dug or drilled to obtain water) and/or any structure built over or extending from a well.

**“Wellhead protection area” or “WHPA”** means the surface and subsurface area, delineated by fixed radius, hydrogeological mapping, analytical, semianalytical, or numerical flow/solute transport methods, which contributes water to a CPWSS production well or well field and through which contaminants are likely to move through and reach the well within a specified period.

**“Wellhead Protection Local Planning Team (LPT)”** individuals with interest in the protection of local groundwater resources who have participated in the development of the Wellhead Protection Plan.

**“Wellhead protection program” or “WHPP”** means a program to sustain drinking water quality in ground waters that supply public water supply wells and well fields. The program is mandated by the 1986 amendments to the Federal Safe Drinking Water Act, Title II, Section 205, Subsection 1428.

**“Wellhead Protection Zone”** means the land area encompassing a wellhead protection area established by Elkhart County.