

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.