Meeting Minutes

Wellhead Protection Presentation at Goshen Chamber of Commerce

Attendance: Dustin Sailor, City of Goshen
Laura Coyne, Elkhart County Planning
Allan Kauffman, City of Goshen
David Daugherty, Goshen Chamber of Commerce
Kent Holdren, City of Goshen (574-534-3900)
Robert McCoige, City of Goshen (574-534-2201)
Bob Watkins, Elkhart County Planning
Bill Morgan, IDEM (574-245-4882)
Doug Perry, City of Goshen (574-534-5701)
Barry Pharis, Brads-Ko Engineering & Surveying (574-533-9913)
Joseph Hauflaire, City of Goshen (574-534-3600)
Larry Barkes, City of Goshen Legal Council
Ken Jones, Wightman Petrie, Inc. (574-293-7762)
Carole Miracle, Cressy & Everett (574-215-1679)

Presentation

The attached presentation was reviewed with the group of people in attendance.

Norton Lake: Laura Coyne commented there is historical information that suggests the structures around this lake were demolished and pushed into the low area. This information may need to be included in future points of concern in the Utilities wellhead protection plan.

Elkhart County Private Well Ordinance: Bob Watkins mentioned the County has a goal to develop a private well ordinance to protect the sole source aquifer.

Urban Growth Area: To implement wellhead protection rules within the Urban Growth Area, the County will want one common ordinance to administer. Different rules in each community would be difficult to control and track. One person jokingly reference Uni-gov, but this is somewhat of the goal in this scenario.

Enabling Code: Larry Barkes commented that he has not yet been able to find the enabling code that requires local government to enforce the wellhead protection requirements. He asked Bill Morgan if he know where to find this language and Bill commented that he would pass this question on.

Issue Pertaining with Insite Development in Goshen

Based upon the discussion at the meeting, Dustin is to:

1.) Get a price to install a liner at the Insite parcel.
2.) Contact JF New and get a price on a bio retention filter.

Johnson Controls
Meeting Minutes
April 30, 2007

Bio-retention Filter: Ken Jones commented that he has a design for a bio-retention filter that his company has used in other jurisdictions, and he would be willing to share this design with others at the meeting.

Actions by the City

1.) Plan to provide notices to the parcel owners within the designated wellhead protection area.
2.) Prepare a wellhead protection ordinance. Preliminary timeline for this would be the end of 2007.
3.) Address the current development issue within the wellhead protection area.

Next Meeting: Inner Governmental Form (IGF) Meeting. The meeting will take place on June 27, 2007, at the Elkhart County Public Services building at 3:00 pm.

F:\Current Projects\Wellhead Protection Area Issues_2007-0026\Meeting Minutes\Minutes 6.13.07.doc

6/13/07

Sign-in

		Ph/email
Dustin K. Sailor	City of Goshen	~~539-3844~~
Laura Coyne	County Planning,	- lcoyne@elkhart...
Allan Kauffman	City of Goshen	
David Daugherty	Chamber	
Kent Holder	City of Goshen	
Bob McCoige	" " "	
Bob Watkins	Elk Co. Planning	
Bill Morgan	IDEM	574 245 4982
Doug Perry	City of Goshen	574-534-5701
Barry Pharis	Bkzsi-ko Engineering	574-533-991
Joe Hawthorne	City Planning	534-3600
Lory Barkes	City of Goshen	
K.H. Jones	NPI	293-7761
Carole Miracle	Cressy & Everett	215-1679

Goshen Chamber of Commerce
Wellhead Protection Area Presentation
June 13, 2007

Introduction

- Current issue(s)
- History of Wellhead Protection
- Current and future requirements related to the WHPP
- Identification of where Goshen's WHPA's are located.
- Known restrictions related to wellhead protection areas.
- Identify ways to resolve the current issues.
- General discussions about the current issues and perspectives.

City of Goshen Water Utility

Development within a Designated Wellhead Protection Area

Presented by:

City of Goshen Water Utility
308 N. 5th Street
Goshen, Indiana 46528

Goshen Chamber of Commerce
232 S. Main Street
Goshen, Indiana 46526

Current Issue

- Community public water supply systems have been mandated to protect their groundwater resources through planning, which includes management of the land around the developed groundwater source. The public water supply's management of land within and around the delineated wellhead protection area (WHPA) potentially diminishes the land use options or increases the cost to use the land.
- House Enrollment Act 1935 has permitted wellhead protection information to be designated as sensitive; therefore, not subject to public disclosure laws.
- Stormwater regulations for MS4 Communities further restricts typical stormwater management practices within the wellhead protection area.

Groundwater Protection Timeline

- 1986 – Ronald Reagan signed the 1986 Amendment to the Safe Drinking Water Act.
- 1989 – Indiana's Groundwater Quality Protection Act (IC 13-18-17-6)
- 1989 – Elkhart County adopts the County Groundwater Protection Ordinance. (Readopted every 5 years).
- 1997 – Indiana Administrative Code established requirements for wellhead protection for all community public water supply systems (327 IAC 8-4.1).
- 1999 – Goshen Water Utility - begins development of its Phase I wellhead protection plan.
- 2003 – The Goshen Water Utility's Phase I wellhead protection plan is approved by IDEM.
- 2005 – Greater Elkhart County Stormwater Partnership's Part C Submittal was approved.
- 2007 – The Goshen Water Utility begins evaluating requirements for its Phase 2 wellhead protection plan.

WHPP Phase 1 Requirements

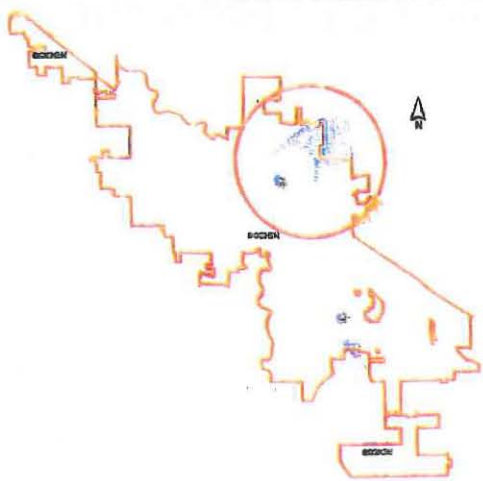
- Establish a planning team.
- Retain a certified professional geologist.
- Prepare and inventory of potential sources of contamination around the WHPA
- Preparation of a management plan to control land use.
- Preparation of a contingency plan to address emergencies related to the groundwater source.

WHPP Phase 2 Requirements

- To be completed 7 years after Phase I approval. (2010 renewal date for Goshen)
- Update the original Phase I WHPP submittal.
- Update the inventory of potential sources of contaminates.
- Identified results from the implementation of the Phase I management plan.
- Phase II contingency plan must show documentation of training given to local emergency responders.

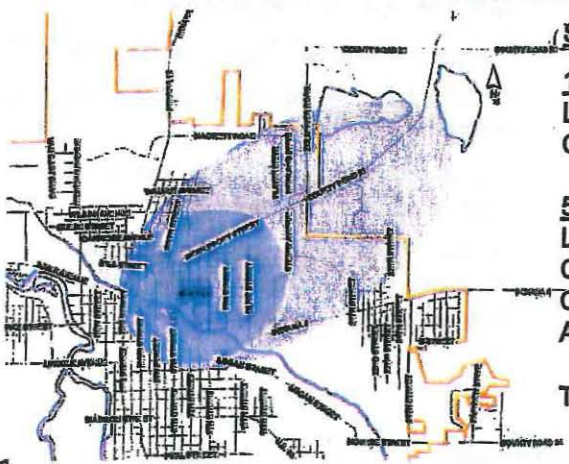
City of Goshen Water Utility
Development within a Designated Wellhead Protection Area

Goshen's Wellhead Protection Areas



City of Goshen Water Utility
Development within a Designated Wellhead Protection Area

North Water Plant Wellhead Protection Area



Statistics

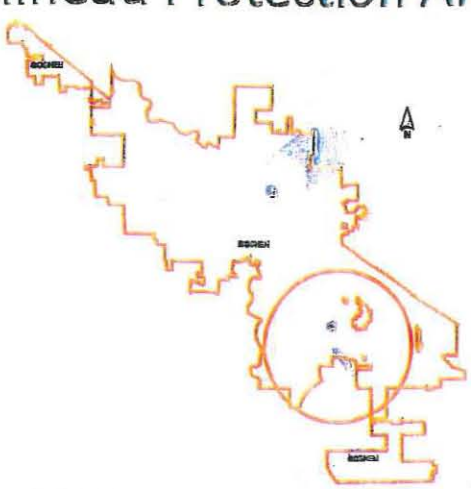
1 – Year Time of Travel
Location: City
Coverage Area: 300 ac.

5- Year Time of Travel
Location: City and County
Coverage Area: 634 ac.
Area in County: 301.28 ac.

Total Acreage: 934 +/-

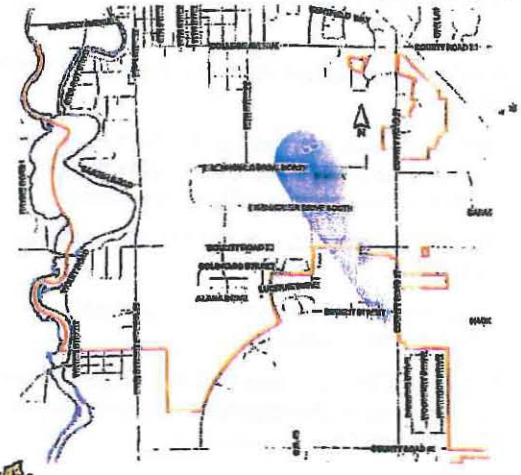
City of Goshen Water Utility
Development within a Designated Wellhead Protection Area

Goshen's Wellhead Protection Areas



City of Goshen Water Utility
Development within a Designated Wellhead Protection Area

Kercher Water Plant Wellhead Protection Area



Statistics

1 – Year Time of Travel
Location: City
Coverage Area: 69 ac.

5- Year Time of Travel
Location: City and County
Coverage Area: 83 ac.
Area in County: 42 ac.

Total Acreage: 152 +/-

City of Goshen Water Utility
Development within a Designated Wellhead Protection Area

Restrictions Related to the WHPA

- 327 IAC 8-3.4-9 - A 200' sanitary buffer must be maintained around community wells.
- 327 IAC 15-13-16(c)1. "Infiltration Practices shall not be allowed in the wellhead protection area."
- Land-use covenants for Goshen Industrial Park. *(Referenced in the WHPP)*

City of Goshen Water Utility
Development within a Designated Wellhead Protection Area

Issue Resolution

- Notify parties located within the wellhead protection area.
- Improve general awareness of what the wellhead protection areas are, and make the wellhead protection boundaries available for inspection.
- Develop a City Ordinance dealing with wellhead protection.
- Incorporate a wellhead protection proximity check at the planning review stage.
- Work with Elkhart County to establish guidelines for implementing wellhead protection requirements within Elkhart County's jurisdiction.

References

- Section 1428 of the Safe Drinking Water Act.
- Indiana Code 13-18-17-6 and 13-7-26-7.
- Wellhead Protection - Indiana Administrative Code 327-8-4.1.
- Indiana Wellhead Protection Guidance Document. (http://www.in.gov/idem/programs/water/swp/whpp/)
- Stormwater Post-Construction - Indiana Administrative Code 327-15-13-6 (c)-1.
- Elkhart County Groundwater Protection Ordinance. (http://www.elkhartcountyhealth.org/enviroHS.php?subcategory_id=20)
- City of Goshen Resolution Number 2001-14 - Importance of Wellhead Protection through Permits, Zoning, Subdivision and other Related Land Use Ordinances, Regulations or Decisions. (Clerk-Treasure's Office, 202 S. 5th Street, Goshen, IN)

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Elkhart County Wellhead Protection Plans

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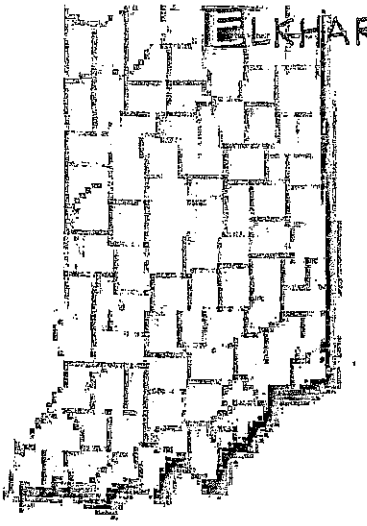
City of Goshen Water Utility
Development within a Designated Wellhead Protection Area



ELKHART COUNTY INTERGOVERNMENTAL FORUM

Wednesday, June 27, 2007
Public Services building, Goshen, Indiana

Moderator: Tom Byers, County Administrator

June topic:

Wellhead protection mandates
and opportunities to meet them
with intergovernmental cooperation

3:00 pm	Tom Byers:	Introductions
3:10	Dustin Sailor, PE, Assistant City Engineer	Overview
3:35	All	Discussion and Action Items

Excerpts from
ORDINANCE NO. 03-668
ELKHART COUNTY GROUND WATER PROTECTION ORDINANCE
May 1, 2004

...

WHEREAS the Board of Commissioners of the County of Elkhart, Indiana and the Elkhart County Board of Health find that it is in the public interest of Elkhart County to re-establish, reconfirm, and continue a ground water protection program;

WHEREAS it is desired that the ground water of Elkhart County be reasonably protected from the improper storage and discharge of toxic or hazardous substances;

WHEREAS the Elkhart County Board of Health is directed to enforce and observe all state laws and legally promulgated regulations pertaining to the preservation of health and is authorized to adopt such rules and regulations as may be deemed necessary or desirable to protect, promote, or improve public health...

WHEREAS the Board of Commissioners of the County of Elkhart, Indiana and the Elkhart County Board of Health desire to mutually administer and enforce the ground water protection program;

NOW, THEREFORE, be it ordained by the Board of Commissioners of the County of Elkhart, Indiana as follows:

Section 1. Title.

This Elkhart County Ordinance may be referred to as the "Elkhart County Ground Water Protection Ordinance.

Section 7. Wellhead Protection.

The Elkhart County Plan Commission shall study, establish, and submit recommended rules, regulations, policies, procedures, amendments to the comprehensive plan, and amendments to the zoning ordinance to the Commissioners for consideration that shall have the purpose and effect of protecting the public wellhead protection area.

The plan commissions of all municipalities in the County and all political subdivisions in the County with public wellhead protection areas should, and it is recommended that they also study, establish, and submit recommended rules, regulations, policies, procedures, amendments to comprehensive plans, and amendments to zoning ordinances to the appropriate elected officials for consideration which would have the purpose and effect of protecting the public wellhead protection area

Outline & Notes
Wellhead Protection Ordinance next steps
Wednesday, June 20, 2007

In attendance: Eric Kurtz (EK), Barry Pharis (BP), Dustin Sailor (DS), Mark Salee (MS), Sarah Hudson (Elkhart), Mark Kanney, Laura Coyne (LC), also Dawn Shell and Josh Owen from Maust Architectural firm, work with Barry.

In preparation for WHPP discussion at Intergovernmental Forum (Wed. June 27 3pm at Public Services) this was the June 20th meeting rundown:

I. Overview (Powerpoint) (DS)

II. Discussion areas (not in this sequence)

- ☐ A separate best practices manual (many communities) or put all that in the ordinance?

- ☐ Public information requirements. And how to make sure future property developers are aware.

- ☐ Accommodations to developers (transitional), including
1. free design concepts (courtesy Brads-Ko and Wightman Petrie)
2. alternative ways to meet ordinance,
3. performance benchmarks like the sewer matrix model,
4. incentives,
5. relief (permitting costs etc.)

- ☐ Interlocal coordination of requirements,
1. status of wellhead areas/communities re: ordinance, cooperation, planning, compliance.
2. coordination of ordinance language and provisions (ie developers have asked for uniformity

- ☐ Other issues:
1. When would this kick in for WJP area properties?
2. Are there different practices depending on 1 or 5 year area? What about models we've done for ten year traveling?

Notes from the discussion (LC)

1) Water, water everywhere
- ☐ We need a flowchart, maybe even an advisory board, that takes in all of the county's water regulations/initiatives and who is responsible for them.
- ☐ Or even bigger: outline the stewardship for the community's public water supply.
- ☐ MS4, post construction, rule 13 etc. How are they related. Where they overlap.
- ☐ How to avoid duplication in oversight. What makes sense in terms of leadership.

- ☐ MS: 80% of Elkhart's 3 wellfields are in the county.

- ☐ Need to use a baseline approach. Stabilize the current situation. Perhaps monitors in all WHPAs.

- ☐ Need to define 'infiltration' so we know what's not allowed. The basic requirement is just that... not very helpful. "In your post construction program you shall not allow infiltration..."

- ☐ We are sitting on the greatest natural aquifer in the world. We cannot take it for granted, we must take care of it. (BP):

- BF: The community should embrace the same practices county wide. Imagine if a developer could develop his parcel but the surrounding properties are prevented from development, that would be nirvana for him, but not an even playing field for the other guys.

- MS: The cities are behind in this. But we have said in our ordinances that we will work with the County.

- We also have more than 25 community wells, transient and non-transient, commercial and non commercial. Mobile home parks are non-transient, restaurants are transient.

- Consistency is a goal.

2) Who should enforce the WHPP…
may depend on how much discretion you can tolerate in its enforcement. There are other pros and cons to each, including staffing. Options could include a combination of some of these:

i. Plan Commission
   - Highly discretionary unless utility staff recommendations are followed.
   - Could treat WHPP as just one factor to consider
   - Commission members probably not qualified to evaluate compliance

ii. Zoning Districts with permitted / non permitted uses
   - But what if the plume model changes its location over time?
   - When would this kick in; with a change of ownership, or expansion?

iii. Board of Works (South Bend)
   - may treat proposals as ministerial (thumbs up or down based on the terms of the ordinance)

iv. Health Dept.
   - Consistent, countywide oversight
   - would handle all groundwater protection from within a single permitting framework to protect human health & the environment.

v. Performance matrix (certain score requires being on municipal supply).
   - We are ahead in terms of thinking through this concept, for as complicated as it seems.

3) The Intergovernmental Forum discussion.

- What is the intent? What do you want as an outcome? Possible messages:
  i. "We need your support to help populate a committee to manage this process together."
  ii. and/or "This is what we have. Tell us what you want us to do." (EK)

- The big question:
  i. The first thing they'll ask themselves is, "No matter how we do this, how are we going to pay for it? (BP)
  ii. Encourage the elected officials to work on an incentive program, rather than burden the developers. "They are fee'd out!" (BP)
  iii. There isn't enough money in the MS4 fund to handle this too.

----------end

IGF Presentation

6/27/07

Who: Community Public Water Supply Systems

Definition: A public water supply system that serves at least 15 service connections used by year around residents or regularly serves at least 25 year-round residents.

What:
- Talk about a wellhead
- WHPP are plans to sustain drinking water quality in ground waters that supply public water supply wells and wellfields.
- Talk about the 1-year and 5-year time of travel

When: In 2001, Indiana Community Public Water Supply Systems had to have their Phase I plans submitted.

Highlights: Phase I requirements required the a study group to be organized to determine the risks to ground water and then prepare a plan to mitigate the risks.

Benchmarks: Phase 2 plans are required to be complete within 7 to 10 years of the Phase I approval, depending on the service population.

- 15 plans are due between 2010 & 2015

Benchmarks (Cont.): Wellhead protection plan Phase 2 requirements require the Phase 1 plans to be updated and the implementation results must be documented

Where: 16 Community Public Water Systems have been identified in Elkhart County.

- 3 Cities,
- 4 Towns, &
- 9 Manufactured Home Communities

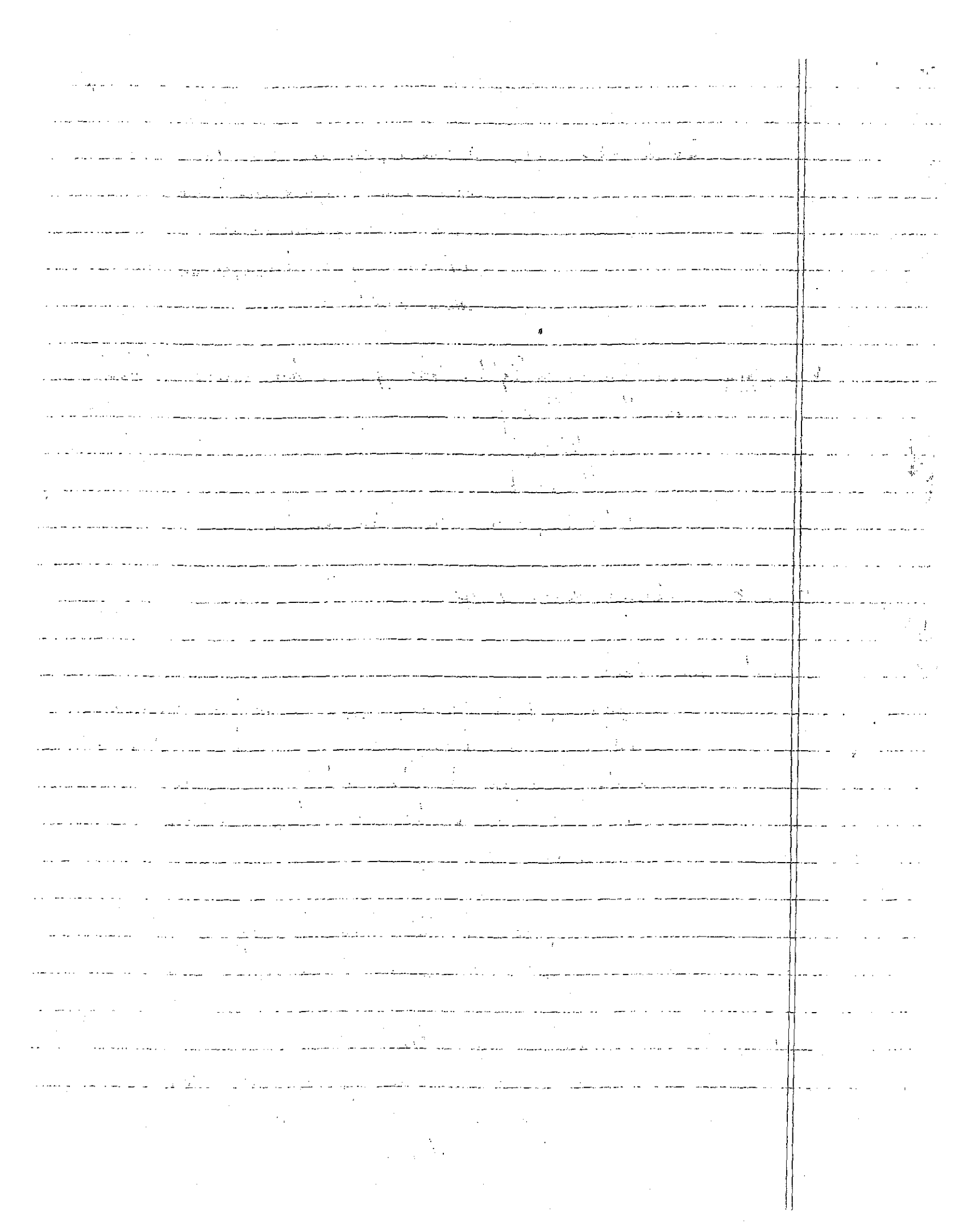
Elkhart County WHPA Map

Delineation Voodoo

- Community Public Water Systems are required to either define a fixed radius of 3,000' around the well(s) or develop a ground water model if they are significant water withdrawal facilities withdrawing more than 100,000 gal/day.

- 7 modeled wellhead protection areas
- 9 fixed radius wellhead protection areas.

- Modeling Considerations
  - Geology - Wisconsinan Glaciation period
  - Hydrology - flow rate, recharge, etc.
  - Seasonal changes.



▷ Wellhead Voodoo Images

- Unconfined groundwater
- Confined groundwater
  - ⇒ Windows in the confining layer.

▷ Water Provider Issues

1. Goal is to protect the groundwater resource
2. Providers need to implement better groundwater protection measures.
3. Implementation of protection measures across political boundaries.
4. State stormwater regulations restrict infiltration practices within wellhead protection areas.

▷ Development Issues

1. Disclosure
2. Infringements on land uses
3. Additional development costs.
4. Concern that these rules will start costing the public more
5. Development wants common rules and policies.

Government Cooperation

- Well head areas are non-jurisdictional
- Individual rules would be difficult to manage county wid
- County's groundwater protection ordinance

Cooperative Approaches

- Zoning Districts
- Groundwater protection ordinance.

Goals for Groundwater Protection in Elkhart County.

- Identify stakeholders
- Interlocal agreements?
- Planning Team / Requirement developers
- Develop a common protection plan
- Develop enforcement protocals
- Adopt a common protection plan.

Alternatives for Cooperative Approach

- Open discussion on approach.
  - Wellhead protection through zoning districts.
  - Groundwater protection ordinance.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Intergovernmental Goals

- Identification of stakeholders.
- Interlocal agreements?
- Establishment of a planning team.
- Development of a common protection plan.
- Development of enforcement protocol.
- Adoption of a common protection plan.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

County Wellhead Protection Plans

Water System	PWS ID No.	Approval Date	Model Type
City of Elkhart	5220008	6/16/2004	Modeled
City of Goshen	5220009	10/27/2003	Modeled
City of Nappanee	5220016	9/24/2003	Modeled
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Wellhead Protection Areas

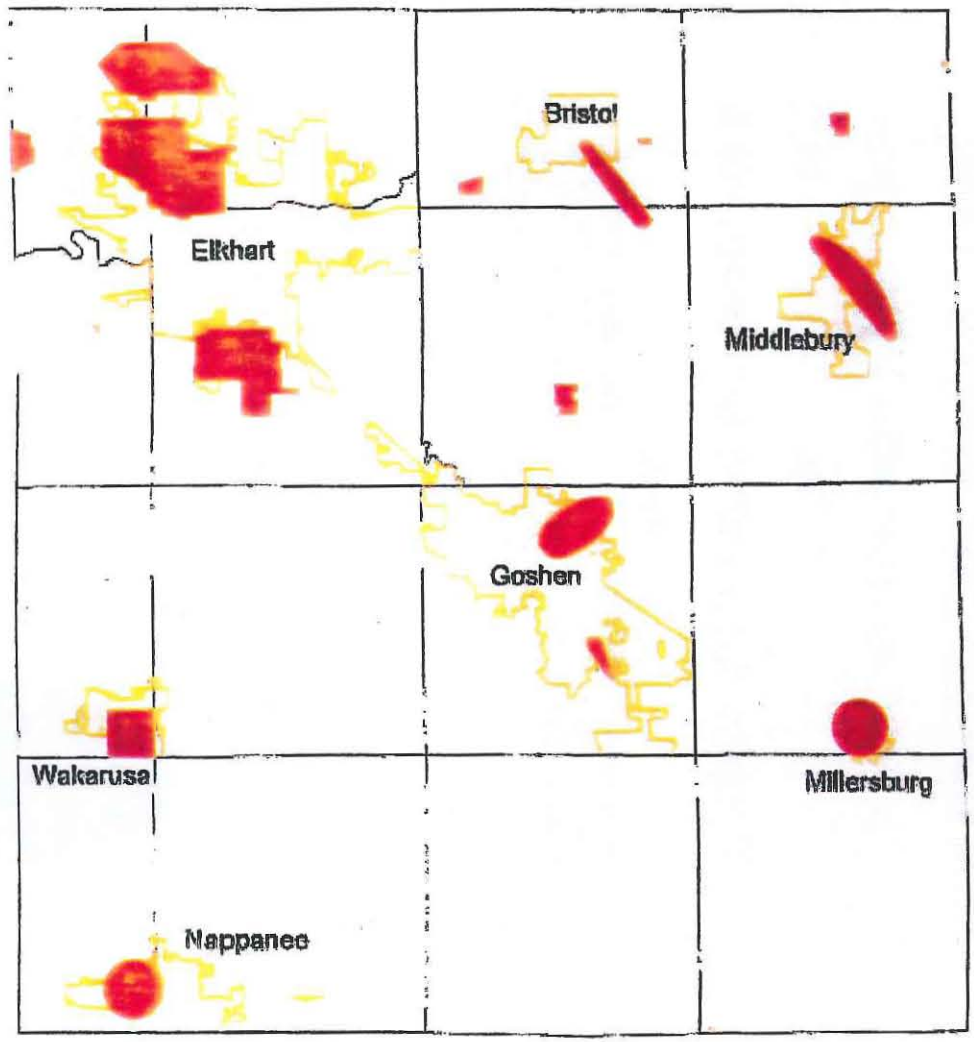


Image provided by:
Wightman Petrie, Inc.
Elkhart, Indiana

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Elkhart County Wellhead Protection

Intergovernmental Cooperation to Protect Groundwater Resources

Presented by:

City of Goshen Water Utility
308 N. 5th Street
Goshen, Indiana 46528

City of Elkhart Water Utility
1201 S. Nappanee Street
Elkhart, Indiana 46516

Presentation Goals

- Reintroduce wellhead protection.
- Elkhart Co. wellhead protection areas.
- Wellhead plans & delineation voodoo.
- Public & private wellhead protection issues.
- Intergovernmental cooperation needed.
- Alternatives for cooperative a approach.
- Intergovernmental goals.

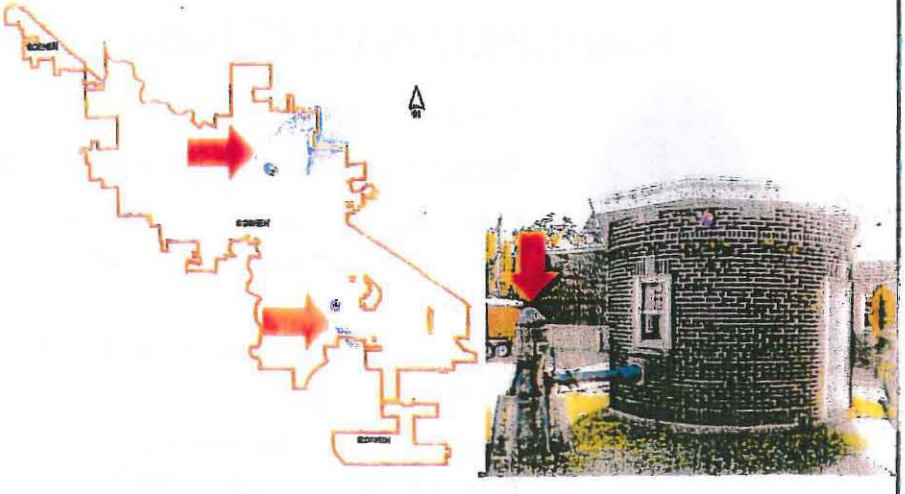
IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Protection

- Who is required to have a Wellhead Protection Plan?
- What is wellhead protection?
- When did it become a requirement and are there benchmark dates?
- Where are wellhead protection areas located?

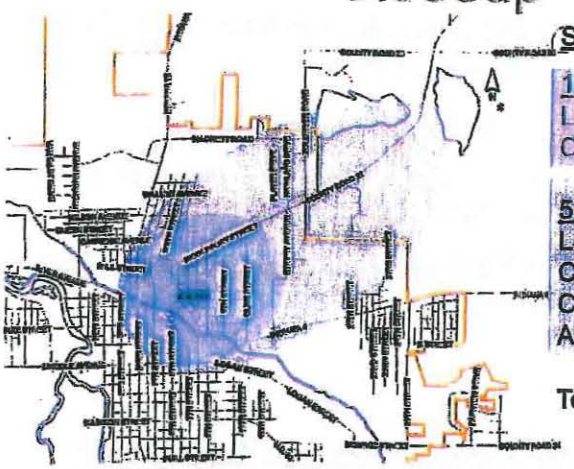
IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Protection Is...



IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Protection Area Closeup



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IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Protection Requirements (Phase 1)

- Establish a planning team.
- Retain a certified professional geologist.
- Prepare and inventory of potential sources of contamination around the WHPA.
- Preparation of a management plan to control land use.
- Preparation of a emergency contingency plan related to the groundwater source.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Protection Benchmarks (Phase 2)

- Phase 2 submittal required:
  - Large Water System – After Phase I approval.
  - Medium Water System – 7 years after Phase I approval.
  - Small Water System – 10 years after Phase 1 approval
- Update the original Phase I Wellhead Plan.
- Identified results from Phase 1 implementation of the management plan.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

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Intergovernmental Cooperation for Groundwater Protection

Wellhead Protection Areas

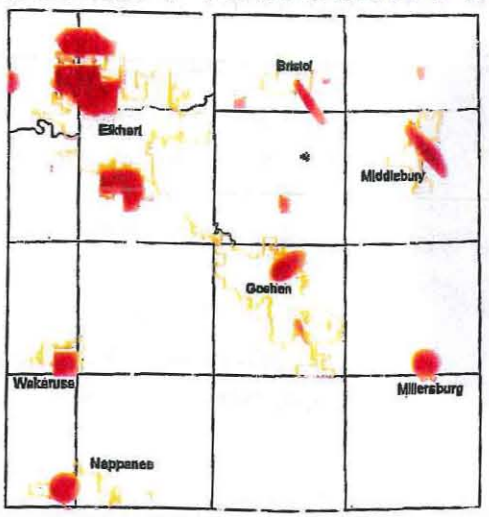

Image provided by:
Wightman Petrie, Inc.
Elkhart, Indiana

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Delineation Voodoo

- Delineation Methods:
  - 3,000' Fixed Radius (CPWSS<100,000 gpd)
  - Modeled (CPWSS>100,000 gpd)
  - 9 plans included a fixed radius delineation.
  - 7 plans included modeled delineation.
- Modeling considers:
  - Geology – Wisconsinan Glaciation period.
  - Hydrology.
  - Seasonal changes.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Wellhead Delineation Voodoo

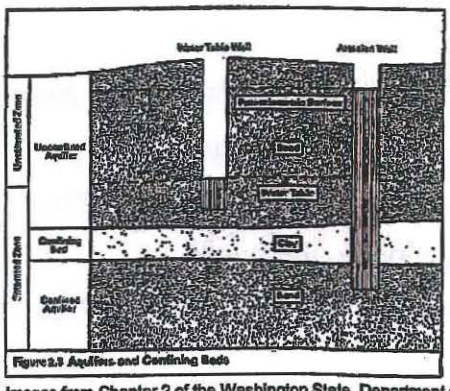

Figure 2.3 Aquifers and Confining Beds

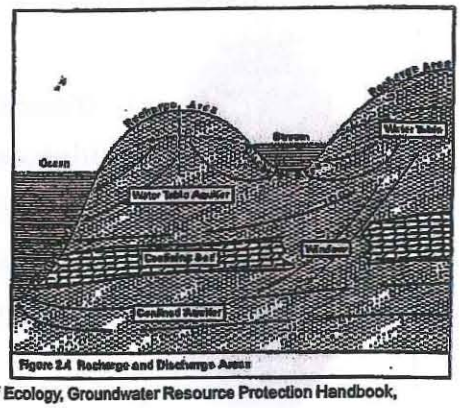

Figure 2.4 Recharge and Discharge Areas

Images from Chapter 2 of the Washington State, Department of Ecology, Groundwater Resource Protection Handbook, December 1986.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Public Issues Related to Wellhead Protection Plans

- Protection of the groundwater resource.
- Implementation of groundwater protection measures.
- Implementation of the protection measures within multiple jurisdictions.
- State stormwater regulations restrict infiltration practices within wellhead protection areas.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Private Issues Related to Wellhead Protection Plan

- Disclosure of Wellhead Protection Areas.
- Infringement on private land use.
- Additional cost to develop in a WHPA.
- Additional cost to the public.
- A need for common rules and policies.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Intergovernmental Cooperation

- Wellhead areas are non-jurisdictional.
- Individual rules would be difficult to manage County wide.
- Elkhart County has a Groundwater Protection Ordinance that could be tweaked to include wellhead protection.

IGF Elkhart County Community Public Water Supply Systems
Intergovernmental Cooperation for Groundwater Protection

Watershed Education

This 3rd grade presentation at Chamberlain Elementary in Mrs. Driver and Mrs. Rozelles' class of 20 students introduced the concepts of groundwater, stormwater, runoff, runoff pollution (non-point source), direct pollution (point source). The students became aware of differing groundwater availability and how it affects us as individuals and business. The watershed model demonstrated water flows as runoff and the pollutants that travel with it.

The teaching scenario was done around the concept of the class starting a new manufacturing business. After deciding what business they wanted, we looked for a place on the Indiana map that would have substantial groundwater to support a large manufacturing business. We could see that different places in Indiana had differing amounts of water available. We discussed what a watershed was and what our watershed looked like. Then using the watershed model we went through the process of our business site selection, construction, pollutants, effects of pollution on neighboring areas, and disasters (fire) and how it effects the environment. We also covered farmland pollutants, forest stripping, and roadway pollutions and disasters.

Watershed Education Program

School Chamberlain Elementary

Grade 3rd Grade Date 5/12/09, 12:30pm-1:30pm

Classroom Teachers Mrs. Rozelle & Mrs. Driver

Number of Students Served 20

Concepts Groundwater as a Resource, Stormwater, Runoff, Runoff Pollution (non-point source), Direct Pollution (point source), Aquifer, Erosion, Potable Water, Water Table

Presenter Theresa Sailor

Educational Aids Watershed Table, City of Goshen

Evaluation by Classroom Teachers

Was this program educational to your students _____

Was this program relevant to your coursework and classroom objectives _____

_____

Would you be interested in this program being provided to you next year? _____

_____

Would you check the watershed table out yourself and present the information without someone else bringing it in? _____

_____

Do you believe your students benefitted from this program? _____

_____

Comments: _____

_____

_____

Name of Person Filling out Form _____

IN5220009

Goshen Water Utility

2010 Consumer Confidence Report

Kent Holdren Water Superintendent (574) 534-5306 Prepared on: February 2, 2010

EN ESPANOL

Este informe contiene informacion muy importante sobre la calidad del agua potable que usted comsume. Por favor traduzcalo, o hable con alguien que lo entienda bien y pueda explicarle.

Is our water safe?

This brochure is a snapshot of the quality of the drinking water that we provided last year. Included as part of this report are details about where the water that you drink comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and Indiana standards. We are committed to provide you with all the information that you need to know about the quality of the water that you drink. You have the opportunity to ask questions about the decision and affects of the water quality at the Board of Works meeting every Monday at 2:00 PM located at 111 East Jefferson Street, Goshen, IN.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people who have undergone organ transplant, people with HIV/AIDS or other kind of immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA has set guidelines with appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants which are available from the Safe Drinking Water Hotline at (800) 426-4791.

Wellhead Protection Area

We have completed the Wellhead Protection Plan Phase I in 2003. We are in the process of preparing of Phase II. If you would like to see a copy of the draft, please contact our Water Department Office at 534-5306. After acceptance by IDEM, we will have it on our web site at www.goshenindiana.org

Where does our water come from?

The Goshen Water Department has two groundwater treatment plants. The North Plant (308 North Fifth Street) has six wells and four high-pressure pumps that can produce 5.9 million gallons of water a day. The Kercher Plant (1513 Eisenhower Drive) has three wells and three high-pressure pumps that can produce 5.1 million gallons a day. The City of Goshen is located on the Kankakee Outwash and Lacustrine Plain, which is in the Northern Moraine and Lake Region.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk or that it is not suitable for drinking. More information about contaminants and their potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap *and* bottled water) include rivers, lakes, streams, ponds. reservoirs, springs, and groundwater. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, or can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the raw, untreated water may include:

- ***Microbial Contaminants***, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ***Inorganic Contaminants,*** such as salts and metals, which can be naturally-occurring, or that result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, and mining or farming operations.
- ***Pesticides and Herbicides,*** which may come from a variety of sources, such as agriculture, stormwater runoff, and residential uses.
- ***Organic Chemical Contaminants,*** including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production operations, and can also result from gas stations, urban stormwater runoff, and septic systems.
- ***Radioactive Contaminants,*** which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants that may be present in the water provided by the public drinking water system. We are required to treat our water according to EPA's regulations. Moreover, FDA regulations establish limits for contaminants that may be present in bottled water, which must provide the same level of health protection for public health.

Water Quality Data

The table below lists all the contaminants that we detected during the 2009 calendar year. The presented of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise indicated, the data present in this table is from testing done between January 1 and December 31, 2009. The Indiana Department of Environmental Management (IDEM) requires us to monitor for certain contaminants at a frequency less than once per year because the concentrations of these contaminants are not expected to vary significantly from one year to another. Some of the data, although representative of the water quality, may be more than one year old.

Some of the terms and abbreviations used in this report are:

MCL:	Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water.
MCLG:	Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health.
MRDL:	Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.
MRDLG:	Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no known or expected risk to health.
AL:	Action Level, the concentration of a contaminant which, when exceeded, trigger treatment or other requirements or action which a system must follow.
TT:	Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.
NTU:	Nephelometric Turbidity Unit, a measure of the clarity (or Cloudiness) of water.
mg/l:	parts per million, a measure for concentration equivalent to milligrams per liter.
ug/l	parts per billion, a measure for concentration equivalent to micrograms per litter.
pCi/L:	picocuries per liter, a measure for radiation.
p*:	Potential violation, one that is likely to occur in the near future once the system have sampled for four quarters.
n/a:	either not available or not applicable.
ND:	Not Detected, the result was not detected at or above the analytical method detection level.

Section I – Contaminants Detected

Inorganic Contaminants

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
3/29/06	Barium	2	2	mg/l	0.44	0.15	0.73		No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Valid until 12/31/10	Copper (90th Percentile	1.3 (AL)	1.3	mg/l	0.03				No	Erosion of natural deposits; Leaching from wood preservatives, Corrosion of household plumbing systems
10/8/08	Fluoride	4	4	mg/l	0.05	ND	0.1		No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Valid until 12/31/10	Lead (90% Percentile	1.5 (AL)	1.5	mg/l	ND	ND	ND		ND	Corrosion of household plumbing

Disinfection Byproducts & Precursors

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
2008	Total Haloacetic Acids (haa5)	60		ug/l	4.93	ND	6.9		No	By-product of drinking water chlorination
2008	Total Trihalomethanes (tthm)	80		ug/l	17.84	5.0	22.1		No	By-product of drinking water chlorination

Organic Contaminants

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	AboveAL #/ Repeats	Violates	Likely Sources
2/6/09	Cis-1,2-dichloroethylene	70	70	ug/l	2.25	ND	4.5		No	Discharge from industrial chemical factories

Radiological Contaminants

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
9/11/08	Gross Alpha, Incldng Ra, Excid	15	0	pCi/l	1.3				No	Erosion of natural deposits
3/28/06	Gross Beta Particle Activity	50	0	pCi/l	2.4				No	Decay of natural and man-made deposits
3/28/06	Radium, Combined (223, 228)	5	0	pCi/l	0.92				No	Erosion of natural deposits
3/28/06	Radium - 226	5	0	pCi/l	0.46				No	Erosion of natural deposits
9/11/08	Radium - 228	5	0	pCi/l	0.2				No	Erosion of natural deposits
9/11/08	Uranium	30	0	ug/l	0.0005				No	Erosion of natural deposits

Unregulated Contaminants

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
2/6/09	Nickel	n/a	100	ug/l	0.75	ND	1.5		No	Erosion of natural deposits; Leaching
2/6/09	Sodium	n/a		mg/l	13.7	7.4	20		No	Erosion of natural deposits; Leaching

Special Note on Lead: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Our system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you many wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or a http://www.epa.gov/safewater/lead.

Special Note on Gross Beta: The MCL for Gross Beta is 4 mrem/year; however, EPA considers 50 pCi/l to be the level of concern for Beta particles.

Our Watershed Protection Efforts

Our water system is working with the community to increase awareness of better waste disposal practices to further protect the sources of our drinking water. We are also working with other agencies and with local watershed groups to educate the community on ways to keep our water safe. Household hazardous waste collections will be held 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 a.m. to 3 p.m. first Saturday of every month.

Public Involvement Opportunities

If you have any questions about the contents of this report, please contact Mr. Kent Holdren 574-534-5306. Or you can join us at Board of Works Meetings, which are regularly held every Monday in the City Court Room , 111 E. Jefferson, 2:00 PM. We encourage you to participate and to give us your feedback.

Please Share This Information

Large water volume customers (like apartment complexes, hospitals, schools, and/or industries) are encouraged to post extra copies of this report in conspicuous locations or to distribute them to your tenants, residents, patients, student, and/or employees. This "good faith" effort will allow non-billed customers to learn more about the quality of the water that they consume.

5220009

Goshen Water Utility

2009 Consumer Confidence Report

Kent Holdren Water/Sewer Superintendent (574) 534-5306 Prepared on: February 2, 2009

EN ESPANOL

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ppb:	parts per billion, a measure for concentration equivalent to micrograms per litter.
pCi/L:	picocuries per liter, a measure for radiation.
p*:	Potential violation, one that is likely to occur in the near future once the system have sampled for four quarters.
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Inorganic Contaminants

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Valid until 12/31/10	Copper (90th Percentile	1.3 (AL)	1.3	Mg/l	0.03				No	Erosion of natural deposits; Leaching from wood preservatives, Corrosion of household plumbing systems
10/8/08	Fluoride	4	4	mg/l	0.11				No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
3/16/08	Nitrate (as N)	10	10	mg/l	0.17	ND	2.89		No	Runoff from fertilizer use; Leaching from septic tanks, sewage Erosion of natural deposits

Disinfection Byproducts & Precursors

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
2008	Total Haloacetic Acids (haa5)	60		ug/l	5	1.4	7.6		No	By-product of drinking water chlorination
2008	Total Trihalomethanes (tthm)	80		ug/l	22	7.6	28		No	By-product of drinking water chlorination

Radiological Contaminants

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
3/28/08	Gross Alpha, Incldng Ra, Excid	15	0	1.3 pci/l	1.3				No	Erosion of natural deposits
3/28/08	Gross Beta Particle Activity	50	0	2.4 pci/l	2.4				No	Decay of natural and man-made deposits
3/28/06	Radium, Combined (223, 228)	5	0	pci/l	0.92				No	Erosion of natural deposits
3/28/06	Radium - 226	5	0	pci/l	0.46				No	Erosion of natural deposits
3/28/06	Radium - 228	5	0	pci/l	0.46				No	Erosion of natural deposits
3/28/08	Uranium	30	0	ug/l	0.5				No	Erosion of natural deposits

Other Contaminants

Date	Contaminant	MCL	MCLG	Units	Result	Min	Max	Above AL # Repeats	Violates	Likely Sources
2008	Chlorine Residual	4 MRDL		mg/l	0.6	0.5			No	Water additive (disinfectant) used to control microbiological organisms

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Special Note on Gross Beta: The MCL for Gross Beta is 4mrem/year; however, EPA considers 50 pCi/l to be the level of concern for Beta particles.

Availability of a Source Water Assessment (SWA)

A Source Water Assessment (SWA) has been prepared for our system. According to this assessment, our system has been categorized with a moderately high susceptibility risk. More information of this assessment can be obtained by contacting Mr. Kent Holdren at 574-534-5701 at your earliest convenience. You can also obtain additional information by contacting Ms. Stacy Jones of IDEM's Drinking Water Branch at (317) 308-3329.

Our Watershed Protection Efforts

Our water system is working with the community to increase awareness of better waste disposal practices to further protect the sources of our drinking water. We are also working with other agencies and with local watershed groups to educate the community on ways to keep our water safe.

Public Involvement Opportunities

If you have any questions about the contents of this report, please contact Mr. Kent Holdren 574-534-5701. Or you can join us at out Water Board Meetings, which are regularly held every Monday in the Police Department Court Room at 4:00 PM. We encourage you to participate and to give us your feedback.

Please Share This Information

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