

**Informational Flyer on Groundwater Contamination in the area of  
Hecker Road between Viebahn St. & Silver Creek Rd, CTH CR between  
Viebahn St. & Silver Creek Rd., Viebahn St. between CTH CR and S. 35<sup>th</sup> Street  
December 6, 2014**

**Brief History**

The City of Manitowoc owns the Newton Gravel Pit, located at 3130 Hecker Rd in the Town of Newton. In the 1960s and 70s, the Gravel Pit was used for waste disposal including discharge of liquid industrial wastes, including petroleum products and chlorinated solvents.

In the early 1990s, the WDNR became aware of the historic waste disposal practices at the Newton Gravel Pit, and began regulating this site for the protection of the environment and human health. The City of Manitowoc hired a consultant, AECOM, to investigate the contamination and define its extent. Soil borings and groundwater monitoring wells were installed to analyze soil and groundwater. The investigation regarding contamination will continue until all sources of the contamination are located.

Private well water testing conducted in November 2013 and January 2014 found that a few private wells were contaminated. Six of the seven impacted wells have been replaced. Recent well water testing confirmed eight new contaminated wells. Residents in homes with impacted wells are being provided with a clean water supply at the City's expense.

The City and its consultant, along with the WDNR Remediation & Redevelopment, Drinking & Groundwater, Water Resources, and Fisheries Programs, and County & State Health Departments are working together to protect residents' human health and the environment in the affected area.

The City and AECOM have sampled approximately 100 private wells in the last year. After considering several options including extending municipal water to serve the initial affected properties, the decision was made to install deeper drinking water wells at the properties that were originally impacted. The six new wells have been sampled and the water shows no detectable levels of contamination.

In order to continue investigating the extent and sources of contamination, 15 new monitoring wells were installed in four nested locations in late October and early November of 2014.

The City and its consultant, in cooperation with the WDNR, will continue sampling potable wells and conducting investigation activities. Appropriate actions will be taken based on the results of these activities and will be presented in the future.

Project information can be found at [www.manitowoc.org/gravelpit](http://www.manitowoc.org/gravelpit).

**Q&A**

**1) How do chemical contaminants move in soil and groundwater?**

When liquid chemicals are spilled accidentally or dumped into the environment, they can infiltrate and spread through soils or groundwater. The speed the chemical contaminants can move or spread at depends on the type of material it is moving through (quicker through sand & gravel, slower through silt and clay) and the characteristics of the chemical contaminants. When interacting with groundwater, chemical contaminants are dissolved in groundwater and follow the direction of groundwater flow.

**2) Is my property or private well vulnerable to contaminants moving from the Newton Gravel Pit?**

The impacted properties are to the east and southeast of the Newton Gravel Pit because chemical contaminants are moving in groundwater, which generally flows to the east and southeast. The chlorinated contaminants that are moving with groundwater are heavier than water, so they tend to move vertically and horizontally. This means that both shallow and deep wells are affected.

### 3) What is being done about the contaminated wells?

The WDNR Drinking and Groundwater Program is working with the City to protect the health of local residents whose homes are impacted. The homes that were identified with drinking water impacts above the WDNR Enforcement Standard have received a temporary clean alternative water source until a permanent solution is installed. A larger well survey has been conducted and the potable wells will continue to be monitored.

### 4) Is surface water in Silver Creek impacted by chemical contaminants from the Newton Gravel Pit?

The portion of Silver Creek near the Site is fed by groundwater, so it is exposed to the contaminants moving in groundwater. Based on surface water data collected to date, the chemical contaminant concentrations in Silver Creek are unlikely to cause long term exposure risks based on contact with the water or consumption of fish. Contaminant concentrations degrade naturally and are readily diluted as contaminants interact with more clean surface water flowing in the creek. Surface water will continue to be monitored to ensure there are no changes in the exposure risks.

### For More Information

Hard copies of site-related documents and data are being held in a repository at the Manitowoc City Attorney's Office, located at the Manitowoc City Hall.

If you have any information to provide about historic disposal activities or dumping of solvents in this area, please call the confidential WDNR Tipline at 1-800-TIP-WDNR (1-800-847-9367) or cell #367. If you have any additional questions or concerns regarding this contamination, please feel free to call the following departments:

City of Manitowoc	Kathleen McDaniel	(920) 686-6990
WDNR Remediation & Redevelopment Program	Tauren Beggs	(920) 662-5178
WDNR Drinking & Groundwater	Liz Heinen	(920) 993-7056
Wisconsin Department of Health Services	Liz Evans	(608) 266-3393
Manitowoc County Health Department	Jessica Wanserski	(920) 683-4155



## Open House Former Town of Newton Gravel Pit - December 6, 2014

### Groundwater & Potable Well Investigation Project Time Line

On April 29, 1944, the property known as the Newton Gravel Pit was purchased by the City of Manitowoc. The property has been under City ownership ever since.

The Gravel Pit was used for waste disposal, including discharge of liquid industrial wastes, in the 1960s and early 1970s. Past waste disposal activities are known to have occurred at an area along the westernmost boundary of the property. Environmental investigation activities began in 1991 and the City has been working cooperatively with the WDNR since that time.

A phased site investigation was initiated in December 1992 and completed in September 1994. Soil, groundwater, and surface water sampling, as well as backhoe excavation and a geophysical survey were used to characterize site stratigraphy, and evaluate soil and groundwater impacts. Remedial action alternatives have also been evaluated.

#### Environmental site investigation activities between 1996 and November 6, 2013 included:

- Non – aqueous phase liquid (NAPL) removal activities in 1997.
- Groundwater and surface water sampling activities annually since 1999.
- AECOM, the City's consultant, submitted a *Site Investigation Update and Remedial Action Plan Report* to the WDNR in June 2009.
- In April 2013, the WDNR requested the City install one additional monitoring well and conduct sampling of potable (residential) wells in the area. Potable wells were previously sampled in 1993 and 2008, with all results indicating no contamination detected.
- The additional monitoring well was installed in August 2013, and the potable wells were sampled in October 2013 along with the scheduled annual sampling of groundwater monitoring wells associated with this site.

#### Activities from November 6, 2013 to November 2014 include the following:

##### November 2013

- On November 6, AECOM received sample results indicating that six of the 13 potable wells sampled had been impacted by Volatile Organic Compounds (VOCs), with three of the wells having VOC levels above WDNR enforcement standards. AECOM notified the City and City staff met with the impacted property owners and provided them with bottled water.
- Confirmation sampling took place on November 7<sup>th</sup>, 8<sup>th</sup> and 12<sup>th</sup> on the 13 original wells along with two additional wells for a total of 15 samples.
- A bulk water tank was provided to a property where drinking water exceeded the WDNR's no contact threshold.
- WDNR requested that two residences be tested for Resource Conservation and Recovery Act (RCRA) metals and Polychlorinated Biphenyls (PCBs). These samples were conducted on November 22, 2013 and came back without any contaminants of concern.
- WDNR requested additional sampling of adjacent properties.

##### December 2013

- 16 additional wells were sampled, 14 by AECOM and two by the WDNR.
- An informational Open House was held on December 5 for residents in the area.
- The WDNR requested nine additional samples be taken at adjacent properties, along with a confirmation sample.
- The City worked with WDNR to establish specifications for replacement potable wells.
- The City sent out a Request for Proposal to WDNR licensed well drillers for the first well replacement, selected a driller, and entered an agreement with the selected driller for the potable well replacement.

##### January 2014

- January 3 – 6: AECOM conducted DNR-requested sampling of nine additional wells and a confirmation sample.
- The DNR also requested an additional 13 adjacent properties for testing and three confirmation samples for a total of 16 additional samples.
- Additional impacted properties were discovered on CTH CR. The City met with affected property owners and provided them with bottled water.

##### February 2014

- 15 of the 16 additional wells were sampled. One well was seasonal and shut off.
- The City's project team, along with the WDNR, conducted a daylong meeting to review project information and develop a long term potable well sampling plan, which included quarterly potable well sampling events.
- The City received additional long term monitoring requirements from the WDNR.

##### March 2014

- On March 11, construction of the first replacement potable well was completed.
- The first replacement potable well was sampled twice and no contamination was detected.

April 2014

- The City and AECOM submitted a long-term potable well sampling plan to the WDNR, which received approval.
- A third test conducted on the first replacement potable well showed no contamination.

May/June 2014

- The First Quarterly sampling of the potable wells took place May 28 – June 4.
- A total of 62 potable wells were sampled including 21 target zone wells, 17 sentinel zone wells, 15 data gap wells, and 9 historically sampled wells.
- A fourth test conducted on the first replacement potable well showed no contamination.
- A bulk water tank was provided to a property where drinking water exceeded the WDNR’s no contact threshold.

July 2014

- Two additional potable well samples were taken.
- Drilling specifications for six replacement potable wells were approved by the WDNR.

August 2014

- Invitations to quote were sent to WDNR licensed well drillers for the installation of six replacement potable wells. A driller was selected and entered into an agreement with the City.
- Team members, along with the WDNR warden, met on the site with three people who had witnessed dumping at the site in the 1960s to gather additional data for the site investigation.
- Second quarter potable well sampling took place between August 25<sup>th</sup> and 28<sup>th</sup>. A total of 25 target wells and six data gap wells were sampled.
- A fifth test conducted on the first replacement potable well showed no contamination.
- Landscape restoration at first well site was completed.

September 2014

- Drilling of the additional six replacement potable wells began on September 16.
- Silver Creek was sampled on September 30.

October 2014

- On October 27, installation began for 15 additional monitoring wells in four locations.
- Five additional potable wells were sampled on Viebahn St.

November 2014

- By November 1, five of the six replacement potable wells were completed. Each replacement potable well has been sampled twice showing no contamination detected.
- Third Quarter sampling was conducted of 29 target potable wells and five data gap wells between November 4 and November 19.
- Five potable well confirmation samples were also taken on November 7<sup>th</sup>.
- Scheduled annual groundwater sampling of 44 monitoring wells associated with the site was conducted.

**For More Information**

Hard copies of site-related documents and data are being held in a repository at the Manitowoc City Attorney’s Office, located at Manitowoc City Hall, 900 Quay Street, Manitowoc, Wisconsin.

If you have any information to provide about historic disposal activities or dumping of solvents in this area, please call the confidential DNR Tipline at 1-800-TIP-WDNR (1-800-847-9367) or cell #367.

If you have any additional questions or concerns regarding this contamination, please contact:

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# Former Town of Newton Gravel Pit

## Groundwater & Potable Well Investigation Updates

2014 Open House Presentation Provided to You by the:

- City of Manitowoc & AECOM
- Wisconsin Department of Natural Resources
- Manitowoc County Health Department
- Wisconsin Department of Health Services

Saturday, December 6, 2014



**AECOM**

# Presentation Summary

- Historical Information
- Potable Well Activities
- Continued Groundwater Investigation
- The City's Ongoing Response
- Going Forward
- Additional Information
- Questions or Concerns

# Historical Information

- 1944: The City of Manitowoc purchased the Former Town of Newton Gravel Pit.
- 1960s and early 1970s: Liquid industrial wastes such as petroleum products (benzene, diesel fuel, lubricating oils) and chlorinated solvents (cleaning solvents, paint thinners, and sludge) were disposed of in a pit along the western property line.
- 1992: Site investigation activities begin.
  - City begins investigation and review of remedial alternatives of the site in conjunction with the WDNR.
- 2013: Contaminants of concern discovered in residential potable well drinking water.

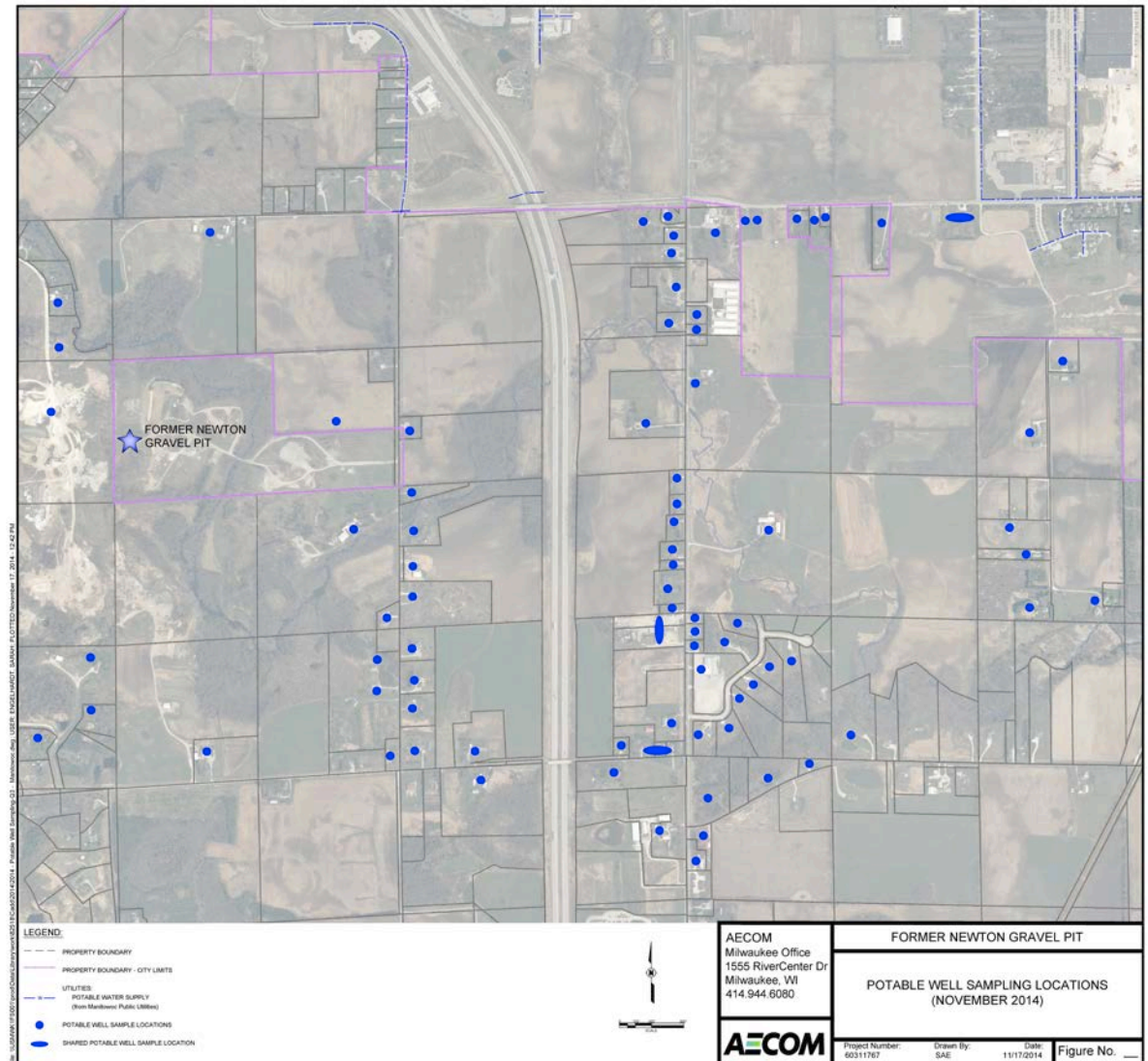
# Potable Well Activities

- 1993 and 2008: Residential potable well sampling events were conducted. No contaminants of concern were identified in drinking water at that time.
- 2013: WDNR requested a new potable well sampling event.
- October 2013: 13 wells were sampled along Hecker Road between Viebahn and Silver Creek Road. Six of the wells had volatile organic compound (VOC) impacts.
- This began an expanded investigation of groundwater contamination in the area.



# Potable Well Activities (cont.)

- As of November 2014, approximately 100 potable wells have been sampled.
  - 15 wells have impacts above Enforcement Standards.



# Potable Well Activities (cont.)

- The City of Manitowoc has provided replacement potable wells for six properties along Hecker Road and CTH CR.
- The replacement wells are drilled deeper into bedrock to provide a source of safe clean water.
- The City is evaluating options to provide permanent clean drinking water for impacted wells located along Viebahn Street.
- The City will continue to monitor potable wells.



# Continued Groundwater Investigation

- A new phase of groundwater investigation activities began with the October 2013 discovery of contaminants of concern in potable well water samples.
- The investigation focused on the area between the Former Newton Gravel Pit and Hecker Road.
- 15 additional groundwater monitoring wells were installed in four locations. The new wells monitor groundwater:
  - near the water table at approx. 10 feet below ground surface (bgs)
  - approximately 50 ft bgs
  - just above the bedrock at approximately 100 ft bgs
  - within bedrock near the top of bedrock

# Continued Groundwater Investigation (cont.)

- The groundwater investigation will help to determine how the contaminants of concern are traveling through the subsurface.
- Additionally, Silver Creek has been sampled from the Former Newton Gravel Pit east to the area of CTH CR.



# The City's Ongoing Response

- Between 1992 and October of 2013 the City has spent \$756,000 on site investigation, groundwater monitoring and potable well testing.
- From November 2013 to present the City has spent an additional \$378,000.
- Total spent for the project to date is \$1,134,000.
- Quarterly sampling of target zone potable wells will continue through 2015.
- Groundwater monitoring will continue annually.

# The City's Ongoing Response (cont.)

- Site investigation activities are continuing.
- The City is maintaining and updating information on their website [www.manitowoc.org/gravelpit](http://www.manitowoc.org/gravelpit) with current information about activities related to the Former Newton Gravel Pit.
- A repository of documents related to the Former Newton Gravel Pit are available for review in the City Attorney's office at 900 Quay Street, Manitowoc, WI.

# Going Forward

- Potable Wells
  - Provide clean, safe drinking water for properties with Enforcement Standard exceedances.
  - Continue monitoring drinking water wells.
- Site Investigation Activities
  - Continue groundwater monitoring at the Former Newton Gravel Pit.
  - Explore possible new sources for contaminants of concern.
- Remediation
  - Conduct a remedial action options review to determine the most appropriated remedial actions to take.
- Continue to keep the public informed.

# Additional Information

- Where Can I Find Additional Information?
  - During the open house please provide your address on a “Comment” card with your questions and put it in the comment box.
  - Visit the City of Manitowoc’s informational web site:
    - <http://www.manitowoc.org/gravelpit>
  - Call one of the contacts noted on the following slide.
- How Can I Provide Additional Information?
  - During the open house please fill out a “Comment” card to provide additional information and put it in the comment box.
  - Call one of the contacts noted on the following slide.
  - At any time call the confidential WDNR Tipline at:
    - 1-800-TIP-WDNR (1-800-847-9367) or cell #367



## Additional Information (cont.)

If you have any additional questions or concerns please feel free to call the following contacts:

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  - Kathleen McDaniel (920) 686-6990
- WDNR Remediation & Redevelopment Program:
  - Tauren Beggs (920) 662-5178
- WDNR Drinking & Groundwater Program:
  - Liz Heinen (920) 993-7056
- Wisconsin Department of Health Services:
  - Liz Evans (608) 266-3393
- Manitowoc County Health Department:
  - Jessica Wasnerski (920) 683-4155

# Thank you



City of Manitowoc



Wisconsin Department of  
Natural Resources



Manitowoc County  
Health Department



Wisconsin Department of  
Health Services