Village of Lawton, Van Buren County
July 2019

Prepared for:

Prepared by:

Michigan Rural Water Association

Original Plan Prepared April 27, 2000
Updated Plan Prepared July 2019

Disclaimer

This information is designed to provide the Village of Lawton with an assessment of their water system and provides recommendations on management strategies that may assist in the safeguarding of the public water supply system. This report is based on information provided by the Village of Lawton, local residents, Michigan Department of Environment, Great Lakes and Energy (EGLE), Michigan Rural Water Association (MRWA), Peerless Midwest, Wightman Environmental Inc. and others. MRWA makes recommendations; it is the Village's responsibility to implement these recommendations.

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Wellhead Protection Program
Village of Lawton, Michigan

July 2019

1.0 INTRODUCTION

In the United States, groundwater is the source of drinking water for half of the total population and 95% of the rural population. Groundwater is also used for raising livestock, agriculture, and industry. Within Michigan, approximately 50% of the population relies on groundwater to supply their drinking water needs. Community drinking water systems are at risk from many possible contamination sources and no community wants to face the loss of its drinking water.

In order to protect this valuable resource, 1986 amendments to the Federal Safe Drinking Water Act provided for the establishment of Wellhead Protection Programs (WHPPs). WHPPs develop long-term strategies that are aimed at protecting community drinking water supplies. Grant monies to be used in the implementation of WHPPs became available under the 1996 amendments to the Federal Safe Drinking Water Act. Realizing the importance of groundwater protection, the State of Michigan established a WHPP and a Wellhead Protection Grant Program. Michigan's WHPP is voluntary and designed to be locally initiated and implemented, with the Michigan Department of Environment, Great Lakes and Energy (EGLE) playing a supporting role. The Michigan Rural Water Association (MRWA) provides the expertise of their Source Water Protection Specialist to aid in the implementation of WHPPs.

A Wellhead Protection Area (WHPA) is defined as the surface and subsurface areas surrounding a water well or well field, which supplies a public water system, and through which contaminants are reasonably likely to move toward and reach the water well or well field within a 10-year time-of-travel (EGLE 1). The purpose of developing a WHPP is to identify the WHPA and take the necessary steps to safeguard the area from contaminants. The State of Michigan requires communities to identify seven elements to be included in the WHPP. These elements along with a brief description are below.

- **Roles and Responsibilities** – Identify individuals responsible for the development, implementation, and long-term maintenance of the local WHPP.
- **WHPA Delineation** – Determine that area which contributes groundwater to the public water supply wells.
- **Contaminant Source Inventory** – Identify known and potential sites of contamination within the WHPA and include in a contaminant source inventory list and map.
- **Management Strategies** – Provide mechanisms which will reduce the risk of existing and potential sources of contamination from reaching the public water supply wells or well field.
- **Contingency Planning** – Develop an effective contingency plan in case of a water supply emergency.

- **Siting of New Wells** – Provide information on existing groundwater availability, the ability of the PWSS to meet present and future demands and the vulnerability of the existing wells to contamination.
- **Public Education and Outreach** – Generate community awareness in the WHPP by focusing on public education and the dissemination of WHPP information.

1.1 Location and Village History

The Village of Lawton is located in Antwerp Township in southeastern Van Buren County, southeast of Paw Paw and northeast of Decatur. The Village is located on the southern boundary of Antwerp Township and borders Porter Township to the south. Highway M-40 is Main Street and runs from Interstate-94 to the north (Paw Paw) to US-12 to the south near Mottville. Lawton is also home to the second largest Welch's plant with approximately 75 workers that process grapes during harvest season and specialize in producing approximately 2.5 million cases of Sparkling Juice Cocktails annually. The Village of Lawton is a small, quiet community and covers approximately 2.3 square miles with a total population of approximately 1,800. Although the Village property is urbanized, the surrounding area is rural, consisting of agricultural land.

1.2 Description of the Public Water Supply

The Village of Lawton's public water supply system consists of four operating production wells that serve approximately 1,800 customers. There have been ten production wells installed for the Village's municipal system. Production Wells (PWs) 1, 2, 3, 5, 6 and 7 have been abandoned and properly plugged. PW-4, 8, 9 and 10 are located in Lewis Park on the south side of the Village. The production wells operate in alternate sequence to fill the water tower when called upon by the system. A detailed description of each well which contains each well's depth, casing diameter, capacity and treatment are outlined on Table 1.

The Village of Lawton monitors the production wells in accordance with state and federal regulations. An annual Consumer Confidence Report (CCR) is provided to the Village's water customers on an annual basis.

Table 1 Village of Lawton Production Well Information

Well	Screened Elevation (feet)	Casing Diameter (inches)	Capacity in Gallons Per Minute	Location	Installed Treatment
PW-4	110	12	500 GPM	Lewis Park East	None
PW-8	142	24X12	1000 GPM	Lewis Park West	None
PW-9	155	24X12	1,000 GPM	Lewis Park West	None
PW-10	137	24X12	1,000 GPM	Lewis Park West	None

WSSN	Population Served	Number of Service Connections	Average Daily Demand
3830	1,800	507	250,000

1.3 Local Geology

The following excerpt was taken directly from the Village of Lawton WHPP Contaminant Source Inventory that Wightman Environmental completed. The Village of Lawton is located in a transitional zone between low lying glacial outwash and till plains to the northwest and the Kalamazoo Moraine to the southeast. The origin of the drainageway outwash materials is glaciofluvial deposition. Meltwater streams from retreating glaciers discharged to the south between the ice front and the topographically higher moraines, leaving sand and gravel deposits. Occasional obstruction of drainageways caused lakes and ponds to form, leaving mostly clay and silt deposits. The Kalamazoo Moraine, known as a recessional moraine, formed when the Michigan Lobe of the glacial ice remained stationary for a period of time, resulting in a large buildup of rock debris. The moraine deposits vary from sandy till to poorly bedded sand with cobbles containing isolated pockets and lenses of sandy clay.

The thickness of the glacial deposits in the study area ranges from 250 feet northwest of Lawton to 500 feet southwest of Lawton. The greatest thickness of glacial deposits is in the Kalamazoo Moraine. Review of well logs and existing geologic reports indicates that, within the outwash material, the upper 200 feet of the glacial deposits consists of sand and gravel, with occasional lenses and discontinuous layers of clay. The Kalamazoo Moraine consists of sands and gravels with many more clay lenses. The underlying bedrock unit is the Mississippian Coldwater Shale.

1.4 Land Usage

Land usage can be divided into several categories. For this report, the following categories were used:

1. Agricultural – Area used primarily for agricultural purposes (cultivated fields, grazing, orchards, etc.).
2. Residential—Area consisting primarily of residential homes. Typically includes subdivisions or stretches of roadway dominated by residential properties.
3. Industrial—Facilities that manufacture, extract or process raw materials or whose goal is concerned with the output of a specified product or service. Sites would include manufacturing facilities or heavy commercial facilities.

4. Commercial – Area used for the sale of goods or services. Little to no manufacturing of products. Typical uses include car sales/service, antique shops, and miscellaneous sales.

The Wellhead Protection Area (WHPA) for PW-4, PW-8, PW-9 and PW-10 is primarily located within the Village limits. A small portion on the east side of 29th Street is located within Antwerp Township. A small portion to the southwest is zoned industrial while the middle portion includes residential homes. Oxley's farm (which consists of grape fields) is located east of Nursery Street and includes a large section of the WHPA.

1.5 Local Wellhead Protection Activities

On December 22, 1994, a report titled, "Wellhead Protection Area Delineation for the Village of Lawton, Michigan" was completed by Peerless Midwest. On February 6, 1995, the report was approved by the Michigan Department of Environment, Great Lakes and Energy (EGLE). On April 27, 2000, Wightman Environmental, Inc. completed the Lawton Wellhead Protection Plan. It was submitted and approved by the EGLE on June 21, 2000. The Village installed two additional wells, Production Well (PW) 9 was installed in 2005 and PW-10 was installed in 2010 in Lewis Park. In June of 2012, another report titled "Village of Lawton Wellhead Protection Area Delineation Lewis Park Well Field" was completed by Wightman Environmental. In September of 2012, Wightman Environmental Inc., completed another report titled, "Contaminant Source Inventory".

In 2018, the Village contacted the Source Water Protection Specialist from the MRWA to assist with the update and implementation of the local WHPP Plan. In May of 2018, the Village applied for a grant through the EGLE. A new team of people were identified to meet quarterly and discuss the implementation of the WHPP Plan. The first meeting was held on November 27, 2018 at the Village Office. The team discussed an overview of the WHPP and local goals and objectives. An overview of each element was briefly discussed along with land use and municipal boundaries within the Wellhead Protection Areas (WHPAs). At the second meeting, held January 22, 2019, team members reviewed the Contaminant Source Inventory and public education and outreach activities. At the third meeting, held April 16, 2019, the team further discussed planning and zoning options and agricultural programs and services offered through the Van Buren Conservation District. At the fourth meeting, the team will review the final WHPP Plan to be submitted to the EGLE.

After approval, the team should meet at least two times throughout the year to discuss the program's progress. In particular, management approaches and public education activities should be reviewed. Future meetings will be decided by the Village.

1.6 Local Wellhead Protection Goals and Objectives

During the 2018-2019 update of the WHPP Plan, the goals and objectives were reviewed, and the team decided on the following:

- Provide the local governmental framework, such as regulations and policies, to prevent groundwater contamination from occurring at businesses and industries which store, use or generate quantities of hazardous wastes in the WHPA.

- Provide for the protection of Lawton's drinking water supply through comprehensive planning provisions for the Village.

- Enhance communication and coordination between local and state agencies on pollution incidents to assure adequate cleanup for natural resource and public health protection.

- Work with local, state and federal agencies to ensure identified contamination sites do not impact groundwater resources.

- Implement a public education program to inform residents, businesses and farmers on the importance of groundwater protection and what they can do to protect their drinking water.

- Establish a WHPA based on the 10-year capture zone identified in the delineation process when new wells are developed (if necessary). Or, work with the EGLE to develop a provisional WHPA for new wells.

- Update the inventory and mapping of all potential sources of contamination within the WHPA every six years.

- Monitor existing and future activities within the WHPA that have been identified as potential sources of contamination.

- Maintain an up-to-date contingency plan for alternative drinking water supplies to help mitigate contamination of the current water supply.

- Site new wells properly to maximize yield and minimize potential contamination.

- Educate property owners within the WHPA to assure that land uses on their property do not threaten the drinking water supply.

Michigan

2.0 ROLES AND RESPONSIBILITIES

This section is intended to identify all individuals and agencies responsible for the development and implementation of the Wellhead Protection Program (WHPP). This WHPP Plan is intended to be a working document that details long-term activities aimed at protecting the Village of Lawton public water supply system (PWSS). In order to be effective, this document must be used and updated. Updates should occur every six years. The WHPP Plan was last updated by the Village in 2000.

The Village of Lawton Public Works Superintendent has agreed to update the WHPP Plan every six years to ensure accuracy. Each chapter of this Plan has been reviewed and discussed by the Village and the local WHPP Team. Contact information for team members and other organizations are below.

2.1 Lead Agency

The WHPP for the Village of Lawton will be implemented and updated by the Public Works Superintendent. Comments, questions, or concerns can be addressed to the following:

Village of Lawton
PO Box 367
Lawton, MI 49065
Phone: 269-251-0165
Contact Person: Todd Hackenberg

2.2 Federal, State and Local Agencies

U.S. Environmental Protection Agency - Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3507
http://www.epa.gov/region5/
Phone: (312) 353-2000
Fax: (312) 353-4135
Toll free within Region 5: (800) 621-8431

MEGLE
Drinking Water and Environmental Health Division
Environmental Health Section
Source Water Unit
Gaylord District Office
2100 West M-32
Gaylord, Michigan 49735-9282
Phone: (989) 705-3420
Contact: Jason Berndt

MEGLE
Drinking Water and Environmental Health Division
Environmental Health Section
Source Water Unit
P.O. Box 30241
Lansing, Michigan 48909-7741

Van Buren County Health Department
Environmental Health
57418 CR 681
Hartford, MI 49057
Phone: (269) 621-3143

2.3 Other Organizations

MRWA
Source Water Protection Specialist
2127 University Park Drive
Suite 340
Okemos, Michigan 48864
Phone: (517) 657-2601

MSU Extension Office-Van Buren
801 Hazen Street, Suite D
Paw Paw, Michigan 49079-1077
Email Address: msue.vanburen@county.msu.edu
Phone: (269) 657-8213
Fax: (269) 657-8212

Van Buren County Conservation District
1035 E Michigan Ave
Paw Paw, MI 49079
Phone: (269) 657-4030 Ext. 5

2.4 Wellhead Protection Committee Members

The WHPP Team has the responsibility of meeting quarterly and developing and implementing the WHPP. Below is a description of each WHPP team members' importance and responsibility.

Todd Hackenburg, Village of Lawton—Public Works Superintendent

The Public Works Superintendent will assist in the implementation of the WHPP Plan and will be responsible for updating the WHPP Plan every six years or as needed. This person will also work to implement the activities outlined in the Management Section and the Public Education Section. This person knows a great deal about the history of the Village and the specifics of the water

system. Consequently, this person will assist with items such as the Contaminant Source Inventory findings, new wells planning and emergency response plan. This person will follow up on sites that are a potential and existing concern and educate the businesses, residents and farmers within the WHPA about the importance of their actions.

Jim Stermer, Village of Lawton—Public Works Foreman

The Public Works Foreman knows a great deal about the Village and can provide knowledge about the daily operations of the Village. This person can assist with items such as the Contaminant Source Inventory, emergency response planning and the public education program.

Dan Bishop, Village of Lawton—Manager

The Village Manager will be responsible for providing support and guidance as the WHPP Plan is implemented. This person will also promote the importance of the WHPP to Village Council, administrators and other staff members. This person is also responsible for planning and zoning implementation within the Village. He will work with the Planning Commission to educate them about the local WHPP. In doing so, this person can ensure that the decisions made by the planning commission will not cause harm to the WHPA. He can also work to adopt the management recommendations identified in this Plan.

Kyle Mead, Van Buren County Conservation District—MAEAP Technician

The MAEAP Technician from the Van Buren County Conservation District can educate the WHPP Team about resources that are available for groundwater protection. This person can also assist with the public education and outreach component of the WHPP along with the management activities. He can also assist with agricultural programs available at the Conservation District and educate farmers within and outside the WHPA.

Tom Osborne, Village of Lawton—Fire Chief

Because Fire Department personnel are often aware of sites that are potential or existing threats, the Fire Chief can assist in the development of the Contaminant Source Inventory and the updating of it. This person can also ensure that there is a linkage between wellhead protection and hazardous waste storage, handling and spillage issues. In addition, this person can assist with linking drinking water protection with emergency response planning.

Laura Mead, Lawton Public Schools—High School Science Teacher

The Science Teacher serves primarily to help guide the public education efforts of the WHPP. Specifically, this representative can make suggestions and coordinate special events and educational efforts. Linking students, teachers, parents and source water protection is a key aspect in the success of the WHPP.

John Small, Village of Paw Paw—Director

The Village of Paw Paw Director will serve as a liaison between the Village of Paw Paw and the Village of Lawton. This person has a great deal of knowledge on the Village of Paw Paw source water protection efforts and can offer ideas and support as the program is implemented. Challenges emerge in all programs and this person has a long history of source water protection implementation efforts. The two communities may find it beneficial to coordinate drinking water protection initiatives.

Kelly Hon, MRWA—Specialist

The MRWA Specialist can assist the Village with the development of the WHPP Plan. In addition, this person can educate the Village about public education and outreach ideas and management approaches that have worked well within other communities. This person can also generate materials (i.e. brochures, placemats, etc.) that can be tailored to fit the Village's WHPP. In addition, this person serves as a liaison between the EGLE and the Village of Lawton. Finally, this person can assist the Village in applying for the Michigan Wellhead Protection Grant Program and updating the Plan.

Table 2 Wellhead Protection Program Committee

Name	Title	Organization	Address	Phone	Email
Todd Hackenberg	Public Works Superintendent	Village of Lawton	PO Box 367 Lawton, MI 49065	269-251-0165	hackenbergt@lawtonmi.gov
Jim Stermer	Public Works Foreman	Village of Lawton	PO Box 367 Lawton, MI 49065	269-624-6406	Jstermer1965@gmail.com
Dan Bishop	Village Manager	Village of Lawton	PO Box 367 Lawton, MI 49065	269-624-6407	bishopd@lawtonmi.gov
Kyle Mead	MAEAP Technician	Van Buren Conservation District	1035 E Michigan Ave Paw Paw, MI 49079	269-657-4030 Ext. 5	kyle.mead@mi.nacdnet.net
Tom Osborne	Fire Chief	Village of Lawton	PO Box 367 Lawton, MI 49065	269-365-6636	Ozzy51@live.com
Laura Cross	High School Science Teacher	Lawton Public Schools	101 Blue Pride Drive Lawton, MI 49065	517-375-1600	lcross@lawtoncs.org
John Small	Director	Village of Paw Paw	PO Box 179 Paw Paw, MI 49079	269-657-3169	j.small@pawpaw.net
Kelly Hon	Source Water Protection Specialist	MRWA	2127 University Park Drive Suite 340 Okemos, Michigan 48864	989-621-2361	khon@mrwa.net

3.0 WELLHEAD PROTECTION AREA DELINEATION

The State of Michigan WHPP requirements for the delineation of a WHPA necessitate completion of a hydrogeologic study. The hydrogeologic study must include an initial compiling of readily available information, the completion of field work to obtain a better understanding of the hydrogeologic system and ground water modeling to identify the WHPA.

The State of Michigan defines a WHPA as "the surface and subsurface areas surrounding a water well or well field, which supplies a public water supply system, and through which contaminants are reasonably likely to move toward and reach the water well or well field within a 10-year time-of-travel." Michigan has selected a minimum time of travel of ten (10) years as the threshold value. This value provides that the water at the edge of the WHPA will take ten years to reach the well. Longer times can be used if factors lead the system to believe that ten years does not provide adequate protection.

The Village of Lawton entered into an agreement with Peerless Midwest in 1994 to delineate the WHPA for PW-4, PW-5, PW-6, PW-7 and PW-8. The U.S. Wellhead Protection Area Code (Blanford & Huyakorn, 1991) using a General Particle Tracking (GPTRAC) Module was utilized for the WHPA delineation modeling. Three separate delineations were created. The WHPA for PW-5 and PW-6 was located on the northern side of the Village, the WHPA for PW-4 and PW-8 was located on the south end of Lawton and the WHPA for PW-7 was located on the eastern edge of the Village. The information was gathered into a report and submitted to the Michigan Department of Environment, Great Lakes and Energy (EGLE) and approved on December 22, 1994.

Updates since the Wellhead Protection Plan Approval (2000)

Since 2000, the Village has properly abandoned PW-1, PW-2, PW-3, PW-5, PW-6 and PW-7. PW-9 was installed in 2005 and PW-10 was installed in 2010. In addition to the new well installed in 2010, the Village also installed a new water tower, new watermain and meters. In June of 2012, the Village worked with Wightman Environmental, Inc. to update their WHPA. The public domain groundwater flow modeling system WhAEM was utilized to determine the WHPA for the Village of Lawton's water supply wells. WhAEM is specifically designed for the delineation of time-of-travel capture zones for wellhead and source water assessment programs. Numerous model scenarios were performed to account for variations in the parameters due to variations in precipitation, infiltration, recharge and aquifer materials and characteristics. The wellfield capture area extends from the wellfield in Lewis Park east and southeastward to include parts of Antwerp and Porter Townships. The WHPA covers an area of approximately 1,533 acres including a significant portion of the Village and portions of Antwerp and Porter Townships.

4.0 CONTAMINANT SOURCE INVENTORY

Because both surface and subsurface activities impact the public drinking water supply system, it is important to inventory potential and existing sites of contamination within the Wellhead Protection Area (WHPA). The State of Michigan identifies nine sites that must be reviewed when conducting the Contaminant Source Inventory (CSI) (EGLE 1). These include:

- Sites of Environmental Contamination (201 Sites)
- Underground Storage Tank Sites
- Leaking Underground Storage Tank Sites
- Oil and Gas Contamination Sites
- Hazardous Waste Generator Sites
- Groundwater Discharge Permit Sites
- Landfills and Solid Waste Disposal Sites
- Federal National Priorities List (CERCLA and Superfund)
- Other Sites of Concern
- Federal Permits for Class V Wells (Underground Injection Control Program) (Optional)

In addition to those sites identified by the State of Michigan, there are other common operations that pose considerable risk to the drinking water wells. Table 3 lists these common operations and the problems that they present if they are not properly managed (Environmental Permitting of Junkyards and Oregon Department of Environmental Quality).

TABLE 3 Operations That Pose Potential Risks to Groundwater

TYPE OF OPERATION	POLLUTION RISKS
All businesses	Sanitary sewage, parking lot runoff (fuels, oils)
Agricultural Operations (especially large-scale feeding operations)	Fertilizers, pesticides, animal waste, manure spreading, oils and fuels
Auto Service/Body Repair and Oil Changing Stations	Oil, antifreeze, solvents, fuels, paints, metal residues
Car Washes	Road salt, gasoline, antifreeze, cleaners, wash and rinse waters
Dry Cleaning	Solvents, filters
Furniture	Paints, solvents, varnishes, shellac

Repair/Manufacturing	
Gas Stations	Gasoline, oil, diesel fuel, kerosene
Industrial Facilities	Cooling water, grease, chemicals, by-products,
Junk/Scrap/Salvage Yards	Petroleum, crude oil, mercury, motor oil, antifreeze, wiper fluid, car batteries, brake fluid, gasoline, tires, carburetor cleaners, rags used to work with hazardous chemicals, and degreaser
Laundromats	Dirty wash water, detergents, laundry pre-wash solvents
Medical Facilities	Pharmaceuticals, medical waste, hazardous waste
Metal Plating/Finishing/Fabricating	Alkaline solutions, solvents, phosphate solutions, metal residues, rinse waters, oil and greases
Paint Mixing	Paints, solvents, pigments
Plastics/Synthetics Producers	Bisphenol A (BPA), phthalates, polybrominated diphenyl ethers, other hazardous chemicals
Photo Processing/Printing/Copy Services	Process chemicals, inks
Residential Properties	Septic systems, lawn fertilizers, pesticides, oils and fuel, household hazardous chemicals, paints, furniture strippers, fuel oil, swimming pool chemicals
Restaurants	Grease, cooling water, food scraps, salt
Wood/Pulp/Paper Processing and Mills	Scrap waste, chemicals

4.1 C.S.I. Search Methods

The Village of Lawton, assisted by Wightman Environmental, Inc., completed an updated Contaminant Source Inventory (CSI) in September of 2012. A listing of potential sources or avenues for groundwater contamination within the WHPA was compiled by reviewing various historical documents of the area such as aerial photographs, topographic maps and zoning maps. A review of State and Federal lists of known or potential sources of contamination was also performed. Pertinent individuals were interviewed, and a site

inspection/survey was performed. The CSI revealed nine potential sources or avenues for groundwater contamination. None of these sites are located within the WHPA. In 2019, the Village worked with the MRWA Source Water Protection (SWP) Specialist to update the CSI. Several types of searches occurred. First, the SWP Specialist reviewed the site lists provided by the MEGLE and the United States Environmental Protection Agency (U.S. EPA). Next, a map of potential and existing sources of contamination was reviewed by the WHPP team for error. Finally, team members indicated previous sites of contamination that were not revealed on any lists (i.e. previous establishments).

Contaminant Source Inventory maps are provided in Appendix B.

4.2 C.S.I. Search Results

This section includes the results from the CSI search. A list and map of the CSI are included in Appendix B.

Part 201 Sites of Environmental Contamination

There were no Part 201 sites of environmental contamination located within the WHPA.

Active Underground Storage Tank Sites

There were no active Underground Storage Tank (UST) sites within the WHPA. Outside of the WHPA there were two active UST sites:

- First Street Station, 110 E. 1st Street
- Lawson Self-Serve, 105 S. Main Street

Closed Underground Storage Tank Sites

There were no closed UST sites within the WHPA. Outside of the WHPA there were six closed UST sites:

- Lawton Bus Garage, 3rd Street
- Lawton Community Schools, 880 E. 2nd Street
- Lawton Department of Public Works, 200 James Street
- Reids Service, 119 N. Main Street
- Stearns-Stafford Inc., 240 N. Main Street
- White Oak Retirement Residence, 300 White Oak Road

Open Leaking Underground Storage Tank Sites

There were no open Leaking Underground Storage Tank (LUST) sites located within the WHPA. There was one open LUST site located outside the WHPA.

- Lawson Self-Serve, 105 S. Main Street

Closed Leaking Underground Storage Tank Sites

There were no closed LUST sites located within the WHPA. There was one closed LUST site located outside the WHPA.

- Reids Service, 119 N. Main Street

Oil and Gas Contamination Sites

There were no oil and gas sites located within the WHPA.

Hazardous Waste Generators/Landfills/Solid Waste Disposal Sites

There were two Hazardous Waste Generator sites located within the WHPA.

- Van Buren County Sheriff's Department, 409 S. Main Street
- U.S. Department of Justice, 510 E. Bitely Street

Groundwater Discharge Permit Sites

According to the EGLE MIWATERS Groundwater Permit Inventory List, there were no groundwater discharge permit facilities located within the WHPA.

Federal National Priority List Sites

There were no federal national priority list sites located within the WHPA.

Other Sites of Concern

There were two other sites of concern located within the WHPA. Honee Bear Canning Company is a packaging plant for cherries, baked beans and asparagus. They have a wastewater lagoon system and their own treatment for the packaging process. Oxley Farms is located in a large portion of the WHPA. This site goes from Oxley Farm Road to south Nursery Street and farms cherries and grapes. This is a spray facility and would use herbicides and pesticides. There are also sites outside of the WHPA that the Village wanted to include. First, the old Lawton Pickle Factory was closed in the 1980's. According to Duane Packer, it is not being monitored anymore because it was given a "clean" status. In the 2012 CSI Report, it was listed as an Environmental Protection

Agency "archive site" as of December 7, 1990. Previously, it was contaminated with brine. There is also an old dump located outside of the Village limits that had rubber and plastic disposed. The Village believes this site was cleaned up when a subdivision was built in this location.

4.3 C.S.I. Updates

The Village of Lawton will annually review and if necessary, update the CSI. The updated inventory will be examined, and the data will be evaluated to determine its effect on the WHPA. Should there be a future change in land usage status within the WHPA, an amendment will be made to the existing Wellhead Protection Program Plan.

5.0 MANAGEMENT APPROACHES

One of the most important aspects of the Wellhead Protection Program is the incorporation of management strategies. The following are typical management approaches that can be utilized:

1. REGULATORY
    - Land use controls; existing or adding additional protection
    - Impose agricultural chemical regulations and/or restrictions
    - Implement a Groundwater Protection Zoning Ordinance
        - Requirements for installing private wells
        - Requirements for plugging abandoned wells
        - Requirements for certain "designated uses" within the WHPA
        - Requirements for specified amounts of contaminants within the WHPA
        - Requirements that specific contaminants and/or structures be prohibited from the WHPA
        - Requirements for fines/penalties in the event that the ordinance is violated
    - Conduct site plan reviews (each proposed development is reviewed and compared with zoning ordinance standards)
    - Develop and implement an environmental permits checklist (alerts businesses to environmental permit requirements)
    - Transfer development rights from areas within the WHPA to areas outside of the WHPA
    - Incorporate other local management tools

2. HEALTH REGULATIONS
    - Monitor or ban underground fuel storage systems within the WHPA
    - Establish minimum setback requirements around public wells
    - Prohibit privately owned wastewater treatment plants within the WHPA
    - Prohibit the application of certain septic cleaners within the WHPA
    - Require that all septic systems be periodically inspected and upgraded

- Impose regulations that require proper handling and disposal of toxic and hazardous materials and waste

3. NON-REGULATORY
    - Search and plug abandoned wells
    - Educate and encourage Pollution Prevention (P2) Programs
    - Establish groundwater quality monitoring programs
    - Provide technical assistance
    - Develop intergovernmental agreements or contracts
    - Implement watershed management practices
        - Work with local watershed group to collaborate efforts
    - Implement storm water management practices
        - Install holding chambers and treatment areas
        - Utilize best management practices
        - Develop bio-retention rain gardens and other filters
        - Disperse storm water into vegetated swales and other "problematic" sites
        - Stencil storm drains to discourage littering and improper disposal of materials
    - Implement onsite wastewater management practices
        - Develop educational materials that can be given to local residents
        - Educate the public about signs of failing septic systems and proper maintenance
    - Implement business and industry management practices
        - Encourage P2 Programs (also mentioned above)
        - Promote brownfield redevelopment
        - Host workshops to educate businesses
        - Develop other education and outreach materials
    - Implement agricultural management programs and practices
        - Educate farmers about the following programs:
            - Michigan Clean Sweep
            - Michigan Emergency Tube/Emergency Planning
            - Farm A Syst
            - Field A Syst
            - P2 Programs
    - Implement residential management practices
        - Host a Household Hazardous Waste Collection Day
        - Educate residents about the Home A Syst Program
        - Host workshops/demonstrations on groundwater education and protection
        - Educate residents about the proper use/disposal of chemicals

4. LEGISLATIVE
    - Acquire land within the WHPA

- Develop Regional Wellhead Protection Area Districts (communities come together and establish districts with the same standards and ideals)

5.1 Local Management Approaches

The Village has a resolution and zoning ordinance for wellhead protection. Other items that the Village plans to pursue are outlined below.

Wellhead Protection in the Master Plan

The Village will include wellhead protection language in the Master Plan. A sample template is included in Appendix D.

Abandoned Well Management

It is strongly encouraged that the Village search and plug abandoned wells. First, the Village will search for wells. Funding is available (if applying outside of the Michigan Wellhead Protection Grant Program and then claiming invoices as a previous expenditure). The only requirements are that the wells must be in a WHPA and plugged by a licensed well driller.

Site Plan Review Criteria

The City has received an example site plan review that includes specific elements aimed at groundwater protection measures. They will compare this example with their current site plan review standards. They believe that additional measures can be added to ensure groundwater protection.

Environmental Permits Checklist

The MRWA provided an updated copy of the Environmental Permits Checklist to the City. It is the recommendation, that the Environmental Permits Checklist be used in conjunction with the site plan review standards. The Planning Commission will review the Environmental Permits Checklist, which includes the permits that a new business would need prior to receiving the building permit. The City is planning to incorporate the Environmental Permits Checklist into their current site plan review standards. Also included is an Environmental Permits Checklist for farmers.

Agricultural Management

Because the WHPA is primarily agricultural, the Village will work with the Van Buren Conservation District to target farming operations. The MAEAP Technician is an active team member. The Conservation District has the Clean Sweep Program (free pesticide recycling) and tire recycling. They also have a cost share program to plug abandoned

wells located on farms. The MAEAP Technician works with farming operations within Van Buren County and could target farming in and around the WHPA.

Examples of some of these management strategies are included in Appendix D.

TABLE 4 Management Activities and Implementation Dates

Management Activity	Implementation Date
Resolution	Done
Groundwater Ordinance	Implementing
WHP in Master Plan	2019-2020
Abandoned Well Management	Previously plugged wells; educate residents as needed.
Site Plan Review Criteria and Environmental Permits Checklist	2019-2020
Agricultural Management	Currently implementing

6.0 CONTINGENCY PLANNING

Developing an Emergency Response Plan to deal with emergency threats to groundwater is a key portion of the Wellhead Protection Program (WHPP). All community water systems are required by the Michigan Department of Environment, Great Lakes and Energy (EGLE) to have an Emergency Response Plan in place. Beefing up the Emergency Response Plan to include a response protocol in the event of a hazardous substance spill, an identified emergency water supplier (bottled, bulk, etc.) and policies and procedures related to water supply replacement are requirements of the WHPP.

6.1 Plan Testing, Review, and Update

This Emergency Response Plan's efficacy will be evaluated, reviewed, and updated using an annual review. The Water Superintendent will review any personnel or situational changes and make adjustments to the Plan at least annually. Since the WHPP Plan was last completed in 2000, the Village had one boil water notice for a bad bacteria sample in 2016. Otherwise, there have not been any other water supply emergencies within the Village.

6.2 Personnel Training

To be effective, Emergency Response Plans must rely on properly trained people operating within a well-organized and effective system with up-to-date information. County and state emergency responders have been professionally trained to deal with hazmat responses. Local personnel should also be trained in initial hazmat response since they could be the first to arrive on site. Police officers receive basic hazmat response training as part of their officer-training program. With a basic level of training, local personnel will also be able to adequately and appropriately identify and contain many hazardous materials. In responding to any incident, however, the Village relies on upper command to take control of the situation and follow the guidelines outlined in the Emergency Response Plan. The MRWA has discussed the importance of training new employees with the Village. Currently, the Village is in the process of creating a training schedule for new employees. The Public Works Superintendent indicated that he will ensure that new employees will be trained on the WHPP, WHPA and the Village's emergency response protocol.

6.3 Logistical and Financial Resources

The Village of Lawton should participate in an emergency response situation only to the extent of providing assistance and information regarding the water system and the particular needs of the community. Although containment may be appropriate, the Village should not attempt cleanup efforts alone. The responsible party is legally obligated to report and clean up chemical releases. Appropriate cleanup measures will be dependent on the type and quantity of chemical released. The Village may need to finance contamination cleanup and/or treatment if the responsible party is unknown or is the Village itself.

Potential funding sources include:

- Apply for State and Federal Emergency funds
- Increase Village cash reserves
- Create a surcharge on water bills
- Collect fines for violating water conservation standards
- Issue a bond measure for replacement, treatment, or cleanup needs

A copy of the Emergency Response Plan is included in Appendix C.

7.0 PLANNING FOR NEW WELLS

The purpose for developing a Wellhead Protection Program (WHPP) Plan is to afford protection for the community's drinking water supply for an indefinite period of time. These same principles will also be applied to the siting of new public water supply wells.

Over the next six years, the Village has enough capacity and does not need to drill a new production well. Previously, Welch's had a full production line and their water usage

was much higher. In recent years, however, they started to focus only on sparkling juice, so their water usage has gone down. In addition, the Village installed a new production well in 2005 and another in 2010. They also had work done to enlarge their water tower.

Because all of the wells are located in the same wellfield, it is recommended that the Village begin looking at alternative sites. In the event of contamination, the Village would explore all possibilities to treat and mitigate the contamination.

If this strategy were not possible, new wells would be sited in a location that would provide for the Village's needs in conformance with MEGLE regulations. Isolation distances from current and or future sources of contamination would also be considered.

Planning for a new well would incorporate the following:

1. Analysis of the Village's ability to protect future groundwater supplies.
2. Exploration of alternate public water supply options.
3. Consideration of surface water supply options.
4. Identification of future well sites.
5. Analysis and ranking of future well sites.
6. WHPP Plan proposed for new well sites.
7. Review and discussion of new well sites along with site plans for WHP with the community.

It is suggested that Lawton consider new well locations. Once any new wells are installed, the Village will look into having a new well delineated or work with the EGLE to "receive" a provisional delineation.

8.0 PUBLIC EDUCATION

Education of the community is a vital part of the WHPP. The residents of Lawton should have an opportunity to understand the importance of, and participate in, the protection of the ground water that supplies drinking water to the community. A successful WHPP includes assistance from all the members of a community to help keep the drinking water safe.

There are educational activities and paraphernalia that can be developed. The following are typical activities that can be done:

- Presentations to local schools, community employees, community events, council meetings, local officials and other organizations
- Poster Contests
- Media advertisements and interviews (television, cinema, radio)
- Teacher training camps on groundwater protection
- Children's water festivals

- WHPP booth at a local fair
- WHPP website
- Water taste testing contests

The following are typical WHPP paraphernalia that can be developed or purchased:

- Newsletters
- Newspaper articles
- Brochures
- Road signs
- Placemats
- Mugs
- Clothing with WHPP logo (shirts, coats, hats, etc.)
- Coloring books
- Pens/pencils
- Magnets
- Groundwater Models
- Software for WHPP and groundwater education (CD)
- Rulers
- Stickers
- PowerPoint presentations
- Posters
- Water conservation materials
- Factsheets
- Notepads

8.1 Local Public Education Strategies

The Village of Lawton had an active public education and outreach program for several years after the WHPP Plan was first implemented. Staffing changes occurred over the last couple years and have made implementation difficult. The MRWA created a variety of materials that can be mailed, handed out or placed at various locations. These are outlined below. The Village is committed to taking groundwater protection into the schools. In 2018, the Public Works Superintendent went into the 6th grade classes and demonstrated the groundwater model. Students also visited the wellhouse and water tower. Currently, they have a teacher from Lawton Schools on the WHPP committee and she is working to see where this program would best fit in the curriculum. This next year, the Village would like to purchase a groundwater model that can be used for school presentations and at various events. In addition to those items outlined above, below is an overview of potential activities to pursue.

Brochures

The MRWA developed a WHPP brochure and an abandoned well brochure that can be mailed to residents and placed on the website, at the Village Office or other locations.

Placemats

The MRWA developed WHPP placemats for the Village. These placemats can be distributed to local restaurants and handed out at various events.

Article Series for Source Water Protection

The Village received an article series for source water protection from the MRWA. Articles range in topics from proper disposal of pharmaceuticals to onsite septic maintenance. The Village can place these within the newspaper, newsletter, website, social media or other outlet.

Village Website

The Village will put information about the Wellhead Protection Program on their website.

Purchase and Demonstration of Groundwater Model/School Participation

The Village would like to purchase a groundwater model during the 2019-2020 calendar year. They have borrowed the Village of Paw Paw's model in the past and believe it would be a valuable tool for the local schools. The Lawton High School science teacher also participates on the WHPP team. She is working with the MRWA on eligible public education activities to pursue. She plans to work with the other teachers to decide what activities to pursue in what buildings based on curriculum and content. She would also like to incorporate activities into her science classes.

Tours

The Village has organized tours of the water operations. They could also look at organizing wastewater treatment plant tours. The groundwater model could also be on display during the tours.

Household Hazardous Waste Collection Day

Van Buren Conservation District also hosts several household hazardous waste collection days throughout the year where residents can take waste for free.

Other Activities

The Village would also like to purchase reusable water bottles for students. These could also be passed out to residents along with the drinking water vs. tap water factsheet

included in Appendix E. They may also turn this into a water bottle design contest with students and couple it with groundwater model presentations. Other drinking water protection contest rules for students are included in Appendix E (calendars/t-shirts/videos).

Examples of some of these items are included in Appendix E.

TABLE 5 Public Education Activities and Implementation Dates

Public Education Activity	Implementation Date
Groundwater Model Presentations/Tours	2018-??
Brochures	2019—developed 2020-2021—print and distribute
Placemats	2019—developed 2020-2021—print and distribute
Article Series for Source Water Protection	2019—?
Village Website	2020
Purchase and Demonstration of Groundwater Model/School Participation	2019-2020
Tours	Annually
Household Hazardous Waste Collection	Throughout the Year
Other Activities	2019—?

9.0 REFERENCES

Google Earth, Google. 2010. June 2019 <http://earth.google.com/>.

Environmental Permitting of Junkyards 2010, Toxics Action Center. January 2011 <http://cdn.publicinterestnetwork.org/assets/654936e12178eed88a1375adc2c8a2e4/Environmental-Permitting-of-Junkyards-long-version.pdf>.

Lawton, Michigan, Wikipedia. June 1, 2019. Acquired June 26, 2019. <http://en.wikipedia.org/wiki/Lawton,_Michigan>.

Michigan Environmental Mapper. Michigan Department of Environment, Great Lakes and Energy. January 2019 <Http://www.mcgi.state.mi.us/environmentalmapper/#SetIdentify>.

Michigan Hazardous Waste Treatment, Storage and Disposal Facilities Directory. Michigan Department of Environment, Great Lakes and Energy. January 2019 <http://www.deq.state.mi.us/tsd/>.

Michigan. Department of Environmental Quality. Potential Sources of Contamination Guidance for Developing a Wellhead Protection Program Plan. WHP 1-104, July 2003.

Michigan. Department of Environmental Quality. Wellhead Protection Program Overview. No date given.

National Priorities List. United States Environmental Protection Agency. January 2019 <http://www.epa.gov/superfund/sites/npl/index.htm>.

Oregon. Department of Environmental Quality. Table 3-3: Ranking the Potential Contaminant Sources. November 1996.

Peerless Midwest. Wellhead Protection Area Delineation for the Village of Lawton, Michigan. December 22, 1994.

WHMD WDS Web Inquiry System, Michigan Department of Environment, Great Lakes and Energy. January 2019 < http://www.deq.state.mi.us/wdspi/>.

Wightman Environmental, Inc. Contaminant Source Inventory Prepared for Village of Lawton, Michigan Wellhead Protection Plan. September 2012.

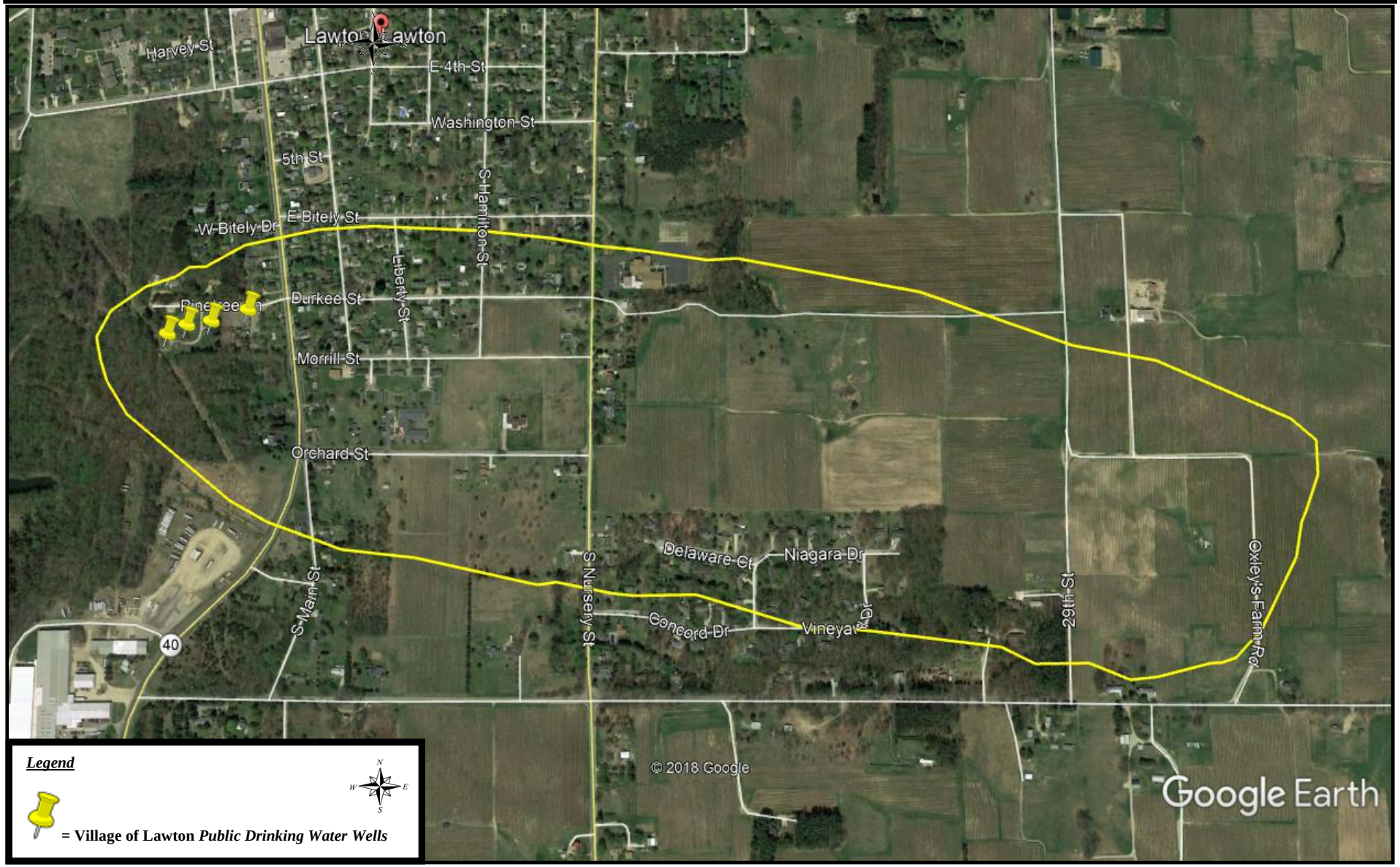
Wightman Environmental, Inc. Village of Lawton Wellhead Protection Area Delineation Lewis Park Well Field. June 2012.

Wightman Environmental, Inc. Wellhead Protection Plan Prepared for Village of Lawton. April 27, 2000.

Appendices

APPENDIX A
Wellhead Protection Area Maps, Correspondence and Public Well Information

Village of Lawton — *Wellhead Protection Area for PW-4, PW-8, PW-9 and PW-10*



APPENDIX B
Contaminant Source Inventory List and Maps

CONTAMINANT SOURCE INVENTORY SUMMARY LIST
WHPA for PW-4, PW-8, PW-9 and PW-10

Name of Site	Site Owner	Address	Potential Hazard	Comments
Honee Bear Canning Company		72100 M-40	Other Sites of Concern	This packaging plant (cherries, baked beans and asparagus) has a large pond in the back. They have a wastewater lagoon system and their own treatment for the packaging process.
Oxley Farms		Oxley Farm Road	Farming	This site, located up to S. Nursery Street, farms cherries and grapes. This is a spray facility that would use pesticides and fertilizers.
Van Buren County Sheriff's Department		409 S. Main Street	Hazardous Waste Generator Site	
U.S. Department of Justice		510 E. Bitely Street	Hazardous Waste Generator Site	

CONTAMINANT SOURCE INVENTORY SUMMARY LIST OUTSIDE THE WHPA

Name of Site	Site Owner	Address	Potential Hazard	Comments
First Street Station		110 E. 1st Street	Active Underground Storage Tank (UST) Site	
Lawton Bus Garage		3rd Street	Closed UST Site	This facility is a maintenance garage.
Lawton Community Schools		880 E. 2nd Street	Closed UST Site	
Lawton Department of Public Works		200 James Street	Closed UST Site	
Lawson Self-Serve		105 S. Main Street	Active Underground Storage Tanks (USTs); Open LUST Site	Two releases have been reported from this site. A gasoline release was reported on September 12, 2009. This site is still in operation.
Lawton Pickle Factory		301 W. 4th Street	Other Sites of Concern	This site was an old pickle factory and was closed in the 1980's. According to Duane Packer, it is not being monitored anymore because it was given a "clean" status. On the EPA site

				it is listed as an archive site as of December 7, 1990. Previously, it was contaminated with brine. It is located just outside of the WHPA to the northwest.
Old Dump		Off from 69th Street	Other Sites of Concern	There is an old dump that housed hard plastic and rubber located quite a distance northeast of the WHPA. The majority was taken out when a subdivision was put in.
Reids Service		119 N. Main Street	Closed UST Site; Closed LUST Site	This site was listed in the previous Plan as having an unknown substance released onsite on October 10, 1992. The release status was closed as of May 10, 1999. According to the Village this business has been closed.
Stearns-Stafford Inc.		240 N. Main Street	Closed UST Site	This business is no longer in operation.
Village of Lawton		Ewing Road	Wastewater Lagoons	The Village's wastewater plant is located outside of the WHPA to the northwest. The old wastewater lagoons are also located just south of the current plant.
White Oak Retirement Residence		300 White Oak Road	Closed UST Site	

Village of Lawton – Contaminant Source Inventory Map

= Production Wells

= Part 201 Sites

= Active UST Sites

= Closed UST Sites

= Open LUST Sites

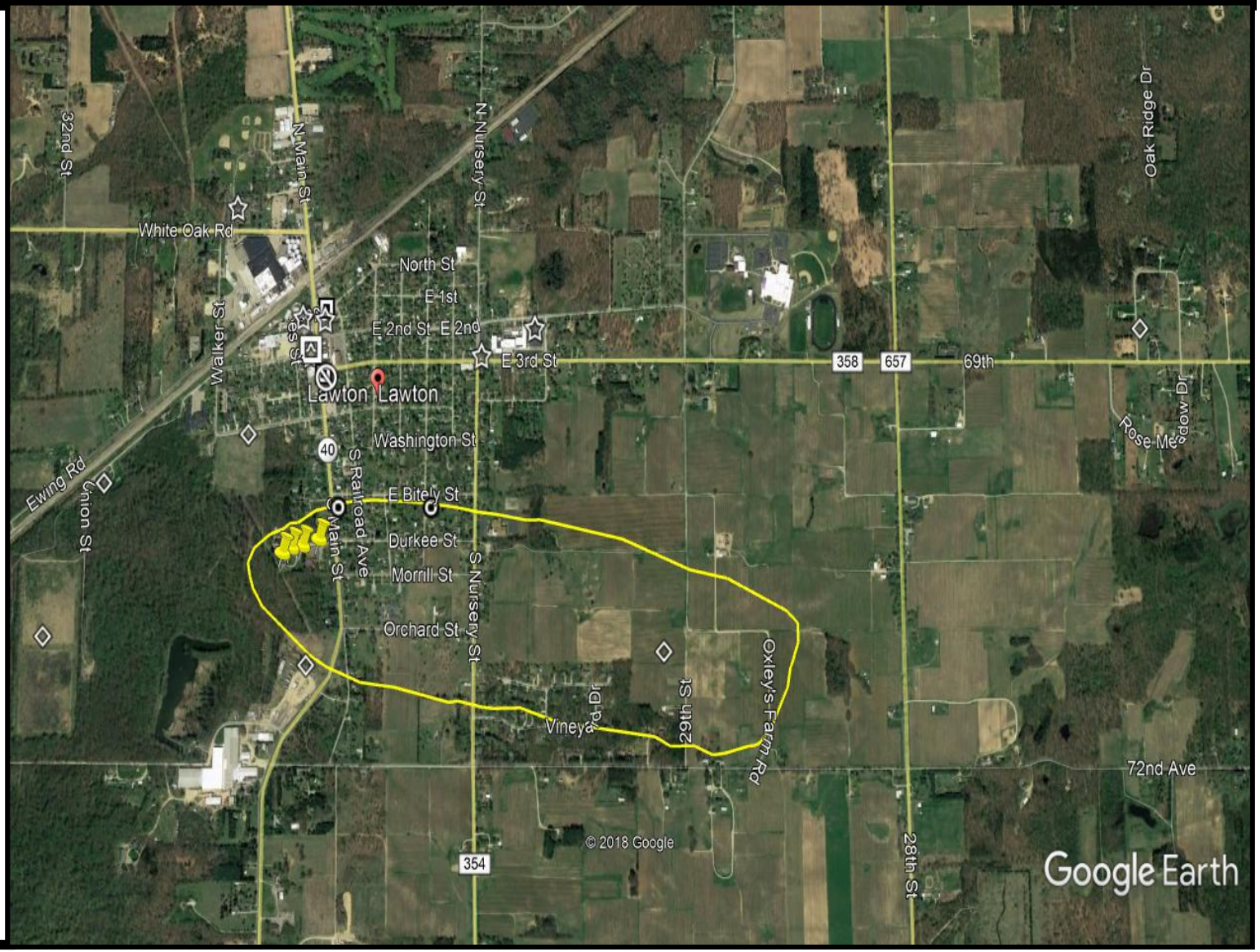
= Closed LUST Sites

= Hazardous Waste Generator Sites

= Oil and Gas Wells (Plugged)

= Groundwater Discharge Permit Sites

= Other Sites of Concern



APPENDIX C
Emergency Response Plan

EMERGENCY RESPONSE PLAN

VILLAGE OF LAWTON WATER SUPPLY SYSTEM

In case of emergency, contact the Michigan Department of Environment, Great Lakes and Energy as soon as possible.

CONSIDERATIONS: Loss of pressure, inadequate quantities of water available, contamination

GENERAL

1. DEPARTMENT OF PUBLIC WORKS PERSONNEL

Todd Hackenberg (Supt. of Public Works)	(O) 269-624-6406
	(C) 269-251-0165
DPW on call cell phone	(C) 269-251-0148
Chuck Donovan	(H) 269-624-2915
Jim Stermer	(H) 269-655-8073
Mike Karsen	(C) 269-364-1965

2. MISCELLANEOUS

The following is a list of telephone numbers and contacts that may be utilized during emergency situations.

a) Michigan Department of Environment, Great Lakes and Energy
Kalamazoo District Office
7953 Adobe Road
Kalamazoo, Michigan 49009-5026

General Office	269-567-3500
General Office Fax	269-567-9440
Environmental Quality Analyst	
Heather Bishop	269-216-1691
MEGLE Pollution Emergency & Drinking Water	800-292-4706

b) Appropriate Municipal Officials

Rick Reeves (Village President, Cell)	269-998-1331
Department of Public Works (Barn)	269-624-6406
Fax	269-624-6401

	Lawton Village Hall Phone	269-624-6407
	Fax	269-624-6408
c)	Van Buren/Cass County Health Department	
	57481 CR 681, Hartford, Michigan 49057	
	Phone	269-621-3143
	Fax	269-621-2725
d)	Department of Agriculture	
e)	Police	
	Lawton Police Department	269-624-2382
	Fax	269-624-1911
	Lawton Police Patrol Car (cell)	269-251-0057
	Police Chief Jeff Mack (home)	269-624-6414
	(cell)	269-251-0094
(C)		
	Van Buren County Sheriffs Dept. (Dispatch)	269-657-3101
	County Emergency Dispatch	**911**
	Michigan State Police (Paw Paw Post 51)	269-657-5551
f)	Fire Department	
	Lawton Fire Department	269-624-7470
	Fire Chief Tom Osborne	269-365-6636
(C)		
g)	Newspapers	
	Kalamazoo Gazette (daily paper)	269-345-3511
	Courier-Leader (weekly paper)	269-657-3072
h)	Radio and television stations:	
	WWMT TV Channel 3	
	Kalamazoo	269-388-3333
	WOOD TV Channel 8	
	Grand Rapids	616-456-8888
	WKZO AM Radio	
	Kalamazoo	269-345-7121
	COSY 98 FM-AM Radio	
	Benton Harbor	269-925-1111
	WRKR 107.7 FM Radio	269-344-0111

i) Nearby Water Utilities

Village of Paw Paw (Supt.'s Office) (John Small, Director DPW, cell: 269-806-2347)	269-657-3169
Village of Mattawan (Village Hall) (Tom Anthony, Supt. Of Public Works, cell: 269-217-4921)	269-668-2128
Village of Decatur (Village Hall) (DPW Barn) (Jim Eberling, Supt. of Public Works, cell: 269-436-0388)	269-423-6114 269-423-7360

g) Nearby Laboratories

Village of Paw Paw Laboratory 110 Harry L. Bush Blvd., Paw Paw	269-657-3169
KAR LABORATORIES 4425 Manchester, Kalamazoo	269-381-0176
EGLE DRINKING WATER LABORATORY 3350 N Martin Luther King Jr. Blvd. Lansing, MI	517-335-8184

h) Other useful phone numbers

Bronson Lakeview Hospital (Paw Paw)	269-657-3141
American Electric Power (24 hr emergency)	800-311-6424
Consumers Energy (24 hr emergency-gas/electric)	800-477-5050
Michigan Gas Utilities (24 hr gas emergency)	800-401-6451
Miss Dig System (24 hr emergency locating)	811 800-482-7171

3. CONTRACTORS

The following is a list of reputable contractors which may need to be utilized during emergencies

a) Excavators

Fred Welburn Excavating (Lawton)	269-624-2583

Lounsbury's Excavating Inc. (Paw Paw) 269-657-4446

b) Welders

Manning Enterprises (Paw Paw) 269-657-2346

c) Electricians

Bender Electric (Cassoplis) 269-445-3260
(Bender is good with pump controls)
Edison Electric (Paw Paw) 269-657-7828

d) Well Drillers

Peerless Midwest, Inc. (Mishawaka, IN) 574-254-9050
FAX 574-254-9650

SUPPLIERS

a) CHEMICAL SUPPLIERS (chlorine)

Elhorn Engineering
889 Eden Rd.
Mason, MI, 48854 517-676-3786
(Mike Enlow, sales rep. Home phone: 989-723-4945)

Haviland
421 Ann St., N.W.
Grand Rapids, Michigan 49504-2075 616-361-6691
Kalamazoo 269-342-9848

Chlorine bleach for emergency disinfection of the water system may be borrowed from either the Village of Paw Paw or the Village of Mattawan. They both chlorinate their water systems and have helped out in the past until a shipment can be obtained from a supplier.

b) PUMP SUPPLIERS

Peerless-Midwest, Inc.
55860 Russell Industrial Parkway
Mishawaka, Indiana 46545 574-254-9050

Peerless-Midwest
505 Apple Tree Drive
Ionia, Michigan 48846 616-527-0050

(Peerless-installed and programmed the pump control SCADA system)

c) Water Main Repair Appurtenances - Parts

Village of Lawton Water Dept. (DPW)

Ferguson Waterworks
2900 Millcork St.
Kalamazoo 269-383-1200

In an emergency repair parts may be obtained from neighboring communities such as Paw Paw, Mattawan, Decatur, Marcellus and Schoolcraft water departments.

CRITICAL CUSTOMERS

Following is a list of critical customers or users for whom the provision of continuous supply of safe water is most urgent.

- Welch Foods, White Oak Road 624-4141
- Lawton Community Schools, Second Street
  Superintendent's Office 624-4931
- Care Community Assisted Living
  (Nursing home)
  Brian Carey, President/CEO, Walker Street 269-420-0007
- White Oaks Assisted Living & Medical Center
  White Oak Road 624-4811

- Vintage Court Apartments
  (Senior citizen community) Orchard Street 624-1536

Method to supply critical customers with continuous supply of water

The pump control system is a radio operated control system. The main control computer and line pressure sensor are located in well house #9. The main computer interfaces with another computer and tower elevation sensor, located at the water tower. Well houses #9 & #10 have generator back up as does the water tower site. In the event of power failure these pumps and controls are able to keep the water system operational. In the case of a main break water may be re-routed to keep as many critical customers in water as possible. In the case of total system failure or contamination, arrangements could be made for a water hauler.

COMMUNICATIONS

Methods of communication available during power outages:

Mobile radio units are installed in most all Department of Public Works vehicles and equipment, DPW Barn, Police Department and Village Hall. The Village of Lawton has its own radio frequency which is installed in all radios including the Police and Fire departments, enabling good communication in emergency situations. Village Police and Public Works Departments both have cell phones for the Police Chief, DPW Superintendent and respective employees on duty or subject to call in each department.

Means of notifying public affected by emergency:

If emergency is in an isolated area, a telephone call or personal contact may be used to notify affected public. A major emergency may require broadcast announcements from television and/or radio stations. Contacts are listed on page 2 of this plan). If needed for immediate and eminent danger public address systems on police cruisers or fire trucks could possibly be utilized.

PLANS & AGREEMENTS

General Layout

The Village has an engineer's print of the entire water system. This print shows the water system layout, water main sizes, valve locations and approximate locations of fire hydrants. It is located at the Department of Public Works (DPW) Barn.

The Village also has a fire hydrant inventory giving each hydrant a number along with a corresponding street map of the Village showing each numbered location.

Personnel Safety Plans

MSDS (Material Safety Data Sheets) are all stored at the DPW Barn just inside the main service door in the safety shelving unit. Procedures for PPE (personal protective equipment), Confined Space Entry (including permit notebook, gas & oxygen monitor and retrieval tripod), power lockout tag out and Michigan Right to Know are all located at this same location.

Water Sampling and Monitoring Plans

Required bacteriological monitoring of the distribution system is completed monthly according to the sampling site plan that has been submitted to the EGLE (Michigan Department of Environment, Great Lakes and Energy). A copy of a Sampling Site Plan including sampling instructions, is included at the DPW Barn. Although not required

unless there is a positive sample result on the distribution system, all Village wells are also sampled monthly for bacteria as a precaution in order to keep an eye on the Village's raw water source. Bacteria samples are done at the Village of Paw Paw laboratory listed on page 3 of the plan. The Village of Paw Paw lab is capable of doing nitrate sampling also and in the past, they have run samples on an emergency basis including weekends.

Testing for suspected contamination of volatile organic chemicals or other unknown compounds would have to be performed by either the EGLE lab in Lansing, or by KAR Laboratories in Grand Rapids. The contact information for these laboratories is located on page 3 of this plan.

Bacteria sample bottles can be obtained at the Paw Paw lab, however, there are generally 8 to 10 bottles on hand at DPW. Bottles for testing other than bacteria will have to be obtained from either EGLE or KAR labs depending on which lab will be doing the testing. Sampling for various compounds and instructions for sampling procedures are most generally included with the paperwork provided with the sampling bottles.

Mutual aid agreements

There are no written agreements at this time. However, neighboring communities are most generally helpful during times of emergency with equipment, information, parts and supplies.

Emergency Supplies and Equipment Plans

The Public Works Department has many pieces of equipment needed for repair of the water system. Following is a list of equipment available: three pickup trucks (one of which is a designated water truck) carrying shut off wrenches, hand tools and smaller repair parts, one Back hoe, two yard end loader, bob cat loader, bucket truck for aerial work, three dump trucks, portable 2" pump and hydraulic unit and a small portable generator.

Replacement parts on hand at DPW include: 6", 8", 10" & 12" water main, repair clamps for ¾" pipe to 10" pipe, full seal clamps for 4" to 8" pipe, 1" service line and necessary brass fittings for service hook ups, tapping machine for water service and hydrant repair parts. Fittings and parts not on site at DPW may be borrowed from neighboring communities or purchased after hours from suppliers listed in the contacts section of this ERP.

First aid kits are located at the DPW and in the pickup trucks. More serious situations requiring a Quick response team or ambulance response may be obtained by dialing **911**. The local hospital is Bronson Lakeview Hospital located in Paw Paw. The hospital phone number is 269-657-3141 and is also listed in the contacts section of this ERP.

DETECTION OF A CONTAMINANT AT THE WELLHEAD

Response to the detection of a contaminant at the well depends on whether the substance reaches or exceeds the maximum contaminant level (MCL) measured during the monitoring process. The MCL is considered to be the maximum concentration that a contaminant can be in drinking water without posing a significant health risk.

The Michigan Department of Environment, Great Lakes and Energy (MEGLE) must be notified. If a contaminant is recorded as being at elevated levels, yet still is below the MCL for that substance, then additional monitoring should occur to track any changes in the contaminant level in the well and ensure that the contaminant remains below the MCL.

If the confirmed concentration exceeds the MCL, the following procedures should be followed by the Village of Lawton's Water Department:

- Shut down the contaminated well or wells.
- Determine if reservoir is contaminated.
- Implement conservation plan if necessary.
- Send news release to local media.
- Notify residents and businesses about conservation measures needed to be taken.
- Cooperate with agencies investigating the suspected contaminant.

Contamination from a Leaking Underground Fuel Storage Tank (LUST), Facility, or Roadway Chemical Spill:

1. Highway accidents involving tank trucks or spills are outlined in the Van Buren County Emergency Management Plan. This plan provides the contacts for all emergencies related to spill or tank truck accidents.

2. If a call is made to the Van Buren County Sheriff's Department (911), the police department will immediately notify the individuals below. Contact information for these individuals is on file at the Police Department and at Village Hall.

    - Water Superintendent
    - Chief of Police or designated supervisor
    - Village Manager
    - Fire Chief

3. If there is a possibility that the PWSS is contaminated, the well/s will be taken out of service immediately.
4. The intensity of the spill/contamination will be evaluated. Only trained persons should approach a fire or a spill.
    a. Avoid direct contact with the spilled material

b. Avoid inhalation of any gasses, fumes, vapors or smoke. All personnel should stay upwind (some gasses inhibit the sense of smell or may be dangerous at undetectable concentrations)
c. Move and keep people away from the incident scene
d. Attempt to determine and remove all ignition sources without unnecessarily endangering life
e. Assess the situation with regard to injuries

5. The first responsible authority on the scene should attempt to identify the material involved, hopefully with warning label information. For a transportation incident:
    a. Operator of the vehicle should provide name of shipper, consignee, and manufacturer and shipping papers. Shipping papers should be in cab of vehicle on the seat or in a holder on the inside of the door; if a railway incident, papers should be in possession of the conductor or in the engine.
    b. UN (United Nations) or NA (North America) material identification numbers. Black 4-digit ID numbers directly on warning placards or on individual orange panels. These numbers are hazard category codes that can be identified by contacting the National Response Center.
    c. In some instances, information on containers will identify their contents, in others the name, address of shipper consignee may be found, and these parties may then be contacted directly or through the National Response Center to identify contents. The shipping company should be able to identify contents of the vehicle from the vehicle ID numbers.
    d. If direct identification is impossible, contact the National Response Center with the following properties:
        a. Color of material
        b. Physical state (gas, liquid or solid)
        c. Odor
        d. Noticeable sound
        e. Abnormal or extreme heat
        f. Pressure leaks
        g. Color of flame (if present)
6. Owner/operator of the facility or activity from which the spill originated should then be located and notified immediately. It is appropriate and beneficial for local authorities to make this contact.
7. The owner/operator should be able to supply accurate information about the substance involved and to deploy initial spill countermeasures on short notice.
8. Necessary information for notification of State will be gathered (checklist attached for information needed).
9. Local Coordinator must then notify the Chemical Spill Emergency Management Division, Michigan State Police - The Emergency Management Division (EMD) is the lead state agency for responding to all hazard emergency and disaster incidents. The EMD is responsible for maintaining

and implementing the Michigan Emergency Management Plan. Determination should be made if necessary, to notify the National Response Center at (800) 424-8802 where trained and experienced personnel are available 24 hours a day.

10. Determine if it is necessary to notify the:
    a. Michigan Department of Environment, Great Lakes and Energy (MEGLE),
       Environmental Response Division at (800) 292-4706
    b. U.S. Environmental Protection Agency (EPA) (Region 5), Serves as the Federal on-scene coordinator for all inland environmental emergencies in Michigan. Phone: (312) 353-2000 or toll free within Region 5: (800) 621-8431.

Responsibility

Responsibility to determine if the cleanup and contaminant is adequate is the responsibility of the MEGLE on the State level and the U.S. EPA on the Federal level.

If the responsible party is unknown or not on-site, a local and/or state representative should take charge of on scene operations. During the critical initial phase of response, it is imperative that the local coordinator, ranking local law enforcement official, and ranking fire official be recognized.

If any person, company, or agency (or their appointed agent) responsible for the incident has arrived on-scene and has assumed responsibility for all contaminant and cleanup operations, this person should be in charge of on-scene operations. Local and State agencies on scene should volunteer their services and assistance. The MEGLE is responsible for monitoring all removal operations and coordinating all State activities. Release of information to the news media will be coordinated with the local coordinator, Chief of Police or designee, Water Superintendent, Village Manager and MEGLE.

Disaster Declaration

If a disaster has occurred or if the threat of disaster is imminent, a disaster declaration will be made by executive order or proclamation of the governor. Such an order activates the recovery and rehabilitation phase of the State of Michigan Emergency Management Plan.

Disposal

Disposal of hazardous waste substances will be in an environmentally safe manner consistent with applicable State and Federal Laws and Regulations.

REFERENCE LIST OF REPORT INFORMATION NEEDED PRIOR TO CALLING THE MICHIGAN EMERGENCY RESPONSE CENTER

List only information quickly and readily available

- Date and time of spill release
- Identify or chemical name of material released or spilled as well as whether the substance is an extremely hazardous substance
- If direct identification is impossible, provide the following:
    - Color of material
    - Physical state (gas, liquid or solid)
    - Odor
    - Noticeable sound
    - Abnormal or extreme heat
    - Pressure leaks
    - Color of flame (if present)
- An estimate of the quality of material released or spilled and the time or duration of the event
- The exact location of the spill, including name of well affected
- Source of release spill
- Name, address and telephone number of the party in charge of, or responsible for, the facility or activity associated with the spill
- The extent of the actual and potential water pollution
- The party responsible for the site (water superintendent)
- Steps being taken or proposed to contain and clean up the released or spilled material and any precautions taken to minimize impacts, including evacuation
- Extent of injuries, if any
- Any known or anticipated health risks associated with the incident and, where appropriate, advice regarding medical attention necessary for exposed individuals
- Possible hazards to the environment (air, soil, water, wildlife, etc.)
- Wind direction and approximate velocity, if this is a factor
- Identity of government and/or private sector representatives responding on scene

SOURCE

Master Meters

Master meters are located on each well at the well house as follows:

Well #4	6” meter
Well #8	8” meter
Well #9	8” meter
Well #10	8” meter

All well house meters record in 1000 gallons.

Groundwater Sources

Well #4 is a tubular Well
Wells #8, #9 & #10 are gravel pack wells

Well	Screened Elevation (feet)	Casing Diameter (inches)	Capacity in Gallons Per Minute	Location	Installed Treatment
PW-4	110	12	500 GPM	Lewis Park East	None
PW-8	142	24X12	1000 GPM	Lewis Park West	None
PW-9	155	24X12	1,000 GPM	Lewis Park West	None
PW-10	137	24X12	1,000 GPM	Lewis Park West	None

Method to operate wells automatically, manually and under line pressure with storage tank isolated:

Village wells operate on a SCADA (Supervisory Control and Data Acquisition) system. The main PLC (Programmable Logic Control) panel and line pressure sensor are located in well house #9. A tower elevation sensor and electronic controls are located inside the bottom of the elevated storage tank. A computer is located in the office at the DPW Barn and monitors pump operation and tower elevation. The DPW computer may also be used to make control changes remotely if needed. These computers send and receive commands and data by radio signal with a radio located at each location.

All pumps have control switches in the well house marked: **ON** (or hand)-**OFF**-**AUTO**. Under normal operations these control switches are all set in the **AUTO** position which lets the **SCADA** system operate the pumps automatically according to the level in the elevated storage tank.

Automatic Operation

As previously stated, all pump controls must be in the auto position with the SCADA system operating using the TOWER ELEVATION MODE and USING TOWER SENSOR. This will let the SCADA system turn the wells on and off according to the storage tank level and will also auto rotate the well pumping sequence in order to operate the wells daily and keep them fresh. This normal operation is monitored on the main screen at DPW (not shown) which has a pictured water storage tank and individual well controls on it. On this screen you can turn wells on or off, change the pumping sequence, check alarm status or generate a pumping report by clicking on the appropriate command. This screen will also show that the radio communications are working at both the tower and wellhouse and will flash green when radio signals are sent and received.

To make any control changes, click on the word LAWTON on the water tank and the next screen comes up (Figure #1). Click the SETPOINT CHANGES box to allow changes to be made from DPW, and then click the box for the change you want to make. The box will highlight in green, make your change on the keyboard and press enter, the change is complete. The Set Point Changes box will automatically change back to allow for changes at the wellhouse after about 10 minutes, allowing time for the radio to send changes to the wellhouse PLC.

Operation of the PLC at wellhouse #9 is all done by a touch pad screen. On the main screen (Figure #2) you can turn wells on or off and check alarm status by touching the appropriate command desired. This screen also monitors tower level and pressure, which wells are called for and or running and which rotated sequence is being used. To make changes from the PLC, touch the LAWTON box and the next screen comes up for a security code (Figure #3). The security code is **0** then **hit enter** and it will bring up the next screen for making changes (Figure #4). For on and off level changes, touch the desired box and the keypad will show (Figure #3), **enter the new numbers – press enter** and the change is made. If you touch USING TOWER SENSOR it will change to USING WELL SENSOR, if you touch TOWER ELEVATION MODE IS ON it will change to CONSTANT PRESSURE MODE (used only when the tower is out of service).

Manual Operation

All wells may be run manually at each wellhouse. Simply turn the control switch to **ON** (or **HAND**) and the pump will run on its own with no guidance from the SCADA system. If a pump is put in manual operation it will not shut off unless you go back to the wellhouse and shut it off. Pumps may also be run manually from either the DPW controls or WELL #9 PLC as long as the switches in the wellhouses are set to AUTO.
If manual operation is due to SCADA system and control failure, pumps may be run in manual at the wellhouses and water tank level may be monitored with a pressure gage.

80 psi = Full Tank - 71 psi = Approximately Half Full

Operating with line pressure when tank is out of service (isolated)

When running online pressure Well #9 will run all of the time and in the past has kept up with water demand and will rarely call for a second pump.

First, at 3 different hydrant locations you must install pressure relief valves AND THEN TURN THE HYDRANTS ON. These valves are stored away at the DPW Barn in the mezzanine area above the office. The relief valves should be preset to about 70 to 75 psi. These relief valves will blow off when there is a spike in pressure in order to keep from hammering the water mains. These relief valves are configured to drain down the gutter at the following locations:

Union Street and West Street

Third Street and Nursery Street

Orchard Street and South Nursery Street

Next set the well pumping sequence to 9-10-4-8, this will make Well #9 the lead pump and Well #10 as second. Turn wells #4 and #8 off in their well houses as they will not need to run online pressure. This is done because Wells 9 & 10 will pump enough water and they are both backed up by the generator at well #9. (If well #9 is for some reason out of service, well #10 can be set up to lead with well #4 as a backup.)
Set the VFD (Variable Frequency Drive) drives in wells 9 & 10 for high and low speed in order to run in constant pressure mode. High speed in well #9 is generally set at 50hz (950gpm), low speed should be set about 250 gpm (If you set it any lower it will throw a low-pressure alarm if it dips below 200gpm). Well #10 VFD high speed should be set at no more than 500gpm MAX. This is done so that if the well is called for it will not pump to full capacity and hammer the water system.

Next, go to the Water Tank site on N. Main Street and locate valves #1 & #2 (Figure #5) as these valves are the main valves to isolate the Storage Tank. Once these valves are located, uncovered and clear of any debris, have an employee stand by at valve #2 with communication either by Village 2-way radio or cell phone, etc.

Next, go to Wellhouse #9 to adjust the PLC into Line Pressure Mode. **MAKE SURE WELLS 9 & 10 ARE IN AUTO.** Hit Lawton on the main screen (figure #2) brings you to security screen (figure #3). Hit 0 + ENTER brings you to next screen (figure #4). Hit the box marked USING TOWER SENSOR and it will change to USING WELL SENSOR (in red letters). Then hit the box marked TOWER ELEVATION MODE IS ON and it will change to USING CONSTANT PRESSURE MODE. Depending on the line PSI, if the well was running it may shut off. Communicate with the employee at the tank site to shut the valve down **slowly.** As the line pressure drops when the valve is near closed, if not running the pump will start and settle out to the water demand on the water system.

If all is well, you will hear the pump running by the control of the VFD as it will run up and down between your high and low speed settings as water demand goes up and down. Monitor the pump operations for a while until you are sure the system is running smooth. If you need to adjust the constant pressure setpoint, hit the setpoint box on the screen, punch in the new number on the keypad and hit enter. The high and low alarm settings will move up and down with the new settings.

At the storage tank site, with valve #2 (figure #5) closed, the storage tank may be drained through the fire hydrant at the bottom of the tank. There are 6" fire hoses stored inside the bottom of the tank for hooking to the hydrant and running to the drain on the south side of the tank. Set your flow so not to flow out of the manhole and it will take at least 12 to 16 hours to drain it.

When the tank is empty, close valve #1 (figure #5) first, then open valve #2 (figure #5) and the fire hydrant will be live and ready to use if needed.

To switch back to fill and operate the storage tank, open valves 1 or 2 whichever is closed very slowly. When valve is open all the way, switch back to tower elevation mode and tower sensor at the well house. Put the rest of the pumps on automatic and they should turn off when the tower is full.

Auxiliary power available for pump operation

#8 WELL is equipped with a 4-cylinder Caterpillar diesel engine and right-angle drive for use during power outages. The following instructions must be followed in order to switch to the auxiliary unit.

The **FIRST** thing you **MUST** do to put auxiliary power in to use is to **SHUT OFF THE MAIN POWER PANEL** coming into the well house and **LOCK IT OUT.** This will ensure that when normal electric power is restored it cannot conflict with the auxiliary power that is in operation. Next you must remove the pump shaft guard just below the 100 hp electric well motor. There is a drive collar and woodruff key that is held to the electric motor shaft with an Allen head set screw. Loosen the set screw and let the collar and woodruff key slide down to the ratcheting device at the bottom of the shaft making sure the woodruff key is engaged in both the shaft and ratcheting drive. Bolt the collar to the ratcheting device with the 2 bolts that are laying inside the shaft housing. All tools needed should be in a plastic storage container in the pump house. With the collar securely in place you may now start the diesel motor.

Warm up the diesel motor for a bit and then you may ease the power take off into position to engage the clutch. At this point the pump should be pumping, check this by watching the in-line water meter for flow. If water is not flowing, recheck your previous steps to make sure you have not missed anything. Once water is pumping you must turn the water

valve on to the cooling line for the right-angle drive. This valve is located near the bottom of the pump on the left side and flows through a copper tube to the floor drain. This valve does not have to be turned on all the way just enough to cool the oil in the drive.

Operating at 1700 rpm this pump will produce about 1000 gpm or 1.4 million gallons over a 24-hour period.

Reverse the instructions in order to put the pump back into service with the normal electric supply.

Wells 9 & 10 are equipped with an onsite automatic generator and transfer switch, the controls are located in Well house #9. This generator will run both wells at once.

Cummins Generator - 275KW Model # DQDAB-5748691 Serial # BO60888286	Cummins Transfer Switch Model # OTPCC5747986 Serial # AO60875703

For repairs and support contact:

Wolverine Power Systems 3229 80th Avenue Zeeland, Mich. 49464	TX: 800-485-8068 Fax: 616-879-0045

A generator is located at the storage tank site and will operate automatically if the power goes out.

Generac - 10KW Model #005201 Serial # 5765573	For repairs and support contact: Wolverine Power Systems 3229 80th Avenue Zeeland, Mich. 49464 800-485-8068

TREATMENT

The Village of Lawton does not utilize any treatment on the water system.

Method to provide emergency chlorination:

The Village water department has a chemical feed pump that may be set up at any of the well houses. Each well house is wired with a 110-volt outlet that will energize when the pump comes on. This allows the chlorine pump to be calibrated to treat the amount of water the well pumps per minute when running. If power is out and a well is running on auxiliary power that has to be chlorinated a generator will have to be used for the chemical pump and coordinated with the operation of the well. Should more than one well need to be chlorinated another chemical pump will have to be purchased. A chemical

pump may also be borrowed from the Wastewater Treatment Plant, a neighboring community or the MEGLE.

DISTRIBUTION

Storage

The Village of Lawton has a 500,000-gallon capacity elevated storage tank. This storage tank is located on North Main Street (M-40). The storage tank was built and erected in 2010 by Phoenix Fabricators and Erectors Inc. and put into service in the middle of December that same year.

The procedure to bypass the storage tank is described in the SOURCE section of this document located on page 13.

1. Pumping Stations:

   The Village of Lawton does not have any pumping stations other than the wells themselves. All procedures for the wells are covered in the SOURCE section of this document.

2. Location and size of emergency interconnections with other supplies:

   There are no connections with other supplies.

3. Available water haulers:

   The closest **licensed** water haulers to Lawton, taken from the MEGLE list of licensed water haulers (revised 10/2007) are located in the Grand Rapids area.

   Mr. Larry Hughes
   Country Fresh Inc.
   2555 Buchanan, S.W.
   Grand Rapids, Mi 49518
   616-243-0173

   Mr. Jerry Hop
   J&H Oil Company
   2696 Chicago Drive
   P.O. Box 9464
   Grand Rapids, Mi 49509
   616-534-2181 or 800-203-9931

Locally, Packers Food Express could possibly be utilized as they haul food grade product but are not on the MEGLE licensed water hauler approved list.

A general plan of the water system is on file at the Lawton Village Hall office. A general plan of the water system along with many other pertinent records are also stored and on file in the Superintendent's office at the DPW Barn.

This Emergency Response Plan shall be located and distributed as necessary to assure effective use by all necessary waterworks personnel.

This plan shall be updated every 2 years or as necessary.

Updated May 3rd, 2019

Signature

Title Superintendent of Public Works

APPENDIX D
Management Approaches

Master Plan Policy Statement

Wellhead Protection

The Village of Lawton relies exclusively on groundwater for its drinking water source. In response to the concern over safety of public water supplies, the Village has instituted a Wellhead Protection Program (WHPP). WHPPs develop long-term strategies aimed at protecting community drinking water supplies. The purpose of developing a WHPP is to identify the Wellhead Protection Area (WHPA) and develop long-term strategies aimed at safeguarding the area from contamination. A WHPA is defined as the surface and subsurface areas surrounding a water well or well field, which supplies a public water system, and through which contaminants are reasonably likely to move toward and reach the water well or well field. The State of Michigan requires communities to identify seven elements to be included in the WHPP. These elements along with a brief description are below.

- **Roles and Responsibilities** – Identify individuals responsible for the development, implementation, and long-term maintenance of the local WHPP.
- **WHPA Delineation** – Determine that area which contributes groundwater to the public water supply wells.
- **Contaminant Source Inventory** – Identify known and potential sites of contamination within the WHPA and include in a contaminant source inventory list and map.
- **Management Strategies** – Provide mechanisms which will reduce the risk of existing and potential sources of contamination from reaching the public water supply wells or well field.
- **Contingency Planning** – Develop an effective contingency plan in case of a water supply emergency.
- **Siting of New Wells** – Provide information on existing groundwater availability, the ability of the PWSS to meet present and future demands and the vulnerability of the existing wells to contamination.
- **Public Education and Outreach** – Generate community awareness in the WHPP by focusing on public education and the dissemination of WHPP information.

It is the intent of this Master Plan to encourage protection of the Village's public water supply wells through the establishment of a Wellhead Protection Zoning Ordinance. Within the ordinance, zoning regulations will limit land uses and practices that may degrade groundwater quality within and outside the WHPA.

The most significant sources of water supply contamination are landfills, surface impoundment areas, subsurface percolation from septic tanks and cesspools, open dumps, uncapped or improperly capped abandoned wells, injection wells and underground storage tanks. These uses represent both *point* and *non-point* contamination sources. Point source is the term used to describe contaminants, which originate in the immediate area of the well or tap. All of the above, if located in close proximity to the water supply

source, are examples of potential point source polluters. Contaminants from these uses may seep directly down through the soil to the water source.

Non-point source contamination is much more difficult to control because the cause of the problem may actually be located a considerable distance from the well. This type of contamination is caused by pollutants that filter into an underground aquifer and then migrate slowly through the groundwater aquifer to off-site wells and water sources. Prevention of this type of contamination must involve a collective effort on the part of property owners and local officials from a large geographic area. It is the recommendation of this Plan that all existing and future wells be protected from both point and non-point source contamination to the greatest degree possible. It is also the intent of this Plan to recognize the importance of groundwater protection within the Village of Lawton.

LAWTON WHPA MAP HERE

Resolution No. 18-04

Village Of Lawton
Of Van Buren County, Michigan

SOURCE WATER PROTECTION POLICY AND ADMINISTRATIVE PROCEDURES

PREAMBLE:

Statement of Purpose

The purpose of this resolution is to set forth the policies and administrative procedures that will be used by the Village Of Lawton to protect the municipal water supply.

Background

Groundwater is an essential source of fresh water for the public water supply system of the Village Of Lawton.

Virtually any activity on the surface of the ground, which involves hazardous substances, may contaminate the groundwater. Once polluted, groundwater is difficult, and sometimes impossible, to clean. The natural microorganisms which help break down some pollutants on the surface of the ground and in the top soil layers are not present (or not present in sufficient quantities) in groundwater. The slow rates of groundwater flow, ranging from one foot per day to one foot in fifty years, limit dilution or dispersal of contaminants. Groundwater contaminated by today's land uses and activities may remain contaminated for hundreds of years.

The State Of Michigan (Department of Environmental Quality) Wellhead Protection Program is encouraging all public water suppliers to develop local Wellhead Protection Programs. A complete program submission includes the following key elements:

- Defining roles and duties of government units, water supply agencies and other key personnel.
- Delineating a Wellhead Protection Area for each water supply source.
- Identifying potential and existing contaminant sources within each Wellhead Protection Area.
- Utilizing management approaches for protection of the groundwater, including but not limited to education and regulatory approaches.
- Creating contingency plans for public water supply sources including the location of alternate drinking water sources.
- Assuring proper siting on new water sources to minimize potential contamination.
- Encouraging public participation.

As defined, the WHPA is "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or well field." In order to develop a Wellhead Protection Plan, each of the above-mentioned elements must be addressed.

The Michigan Department of Environmental Quality recognizes the importance of local leadership and commitment for effective Wellhead Protection Programs. A wide range of management strategies, including land use planning, zoning, subdivision controls, interagency cooperation and community education may be useful in a Wellhead Protection Program Plan.

It is the intent of the Village Of Lawton to alert persons applying for land use, building, or subdivision approvals about state requirements for environmental protection. Any land uses or activities which may pose a threat to the public water supply and groundwater shall be properly managed to minimize the possibility of contamination.

RESOLUTION:

WHEREAS, the Village Of Lawton recognizes the importance if its groundwater supply as a natural resource used for drinking; and

WHEREAS, it is within the responsibility of the Village Of Lawton, as a public water supplier, to consider the health, safety and welfare of its customers; and

WHEREAS, groundwater contamination can and does occur as a consequence of a variety of land use activities; and

WHEREAS, it is desirable to preserve and protect the quality and quantity of our groundwater resources to assure a continued safe, adequate, and useable supply both now and in the future; and

WHEREAS, the protection of current and potential future sources of groundwater used for drinking water is worthwhile from the standpoint of resource protection; and

WHEREAS, state, county and municipal laws and regulations require certain land uses to obtain permits and approvals for construction and operation; and

WHEREAS, state agencies are not always aware of new development proposals and the owners or developers of proposed new land uses are not always aware of state, county and municipal permit and approval requirements; and

WHEREAS, local government officials, through adopted zoning ordinances, have the legal authority to review and/or approve land uses for the purposes of meeting the needs of the state's residents for natural resource protection and public services, including public water supplies;

NOW THEREFORE BE IT RESOLVED that the Village Of Lawton does hereby agree to take action to: (1) protect the immediate Wellhead Protection Area and (2) take steps to update the zone of contribution to the wells or wellfield(s) in compliance with the State of Michigan Wellhead Protection Program; and

BE IT FURTHER RESOLVED that the Village Of Lawton requests the establishment of a "Budget Line Item" for wellhead protection in order to implement their Wellhead Protection Program Plan, at such time as funds become available; and

BE IT ALSO RESOLVED that the Village Of Lawton issue no land use permit, zoning permit, building or occupancy permit until such time that all required federal, state, county and/or local environmental permits or approvals have been obtained, and/or there is evidence that proper application to the responsible municipal, county, state or federal agencies has been made and significant issues affecting the Wellhead Protection Area have been addressed. An Environmental Permits Checklist will hereby be adopted for administrative use when new, changed or expanded land use activities are proposed.

Adopted this 10TH day of APRIL (MONTH), (YEAR) 2018.

VILLAGE MANAGER Dawn M
Title

4/10/18
Date

Resolution No. _____

ADJACENT COMMUNITY NAME
Of XXXX County, Michigan

WELLHEAD PROTECTION
AND
ADMINISTRATIVE PROCEDURES

PREAMBLE:

Statement of Purpose

The purpose of this resolution is to set forth the policy and administrative procedures that will be used by the Adjacent Community Name to protect the municipal water supply.

Background

Groundwater is an essential source of fresh water for the public water supply system of the Adjacent Community Name.

Virtually any activity on the surface of the ground, which involves hazardous substances, may contaminate the groundwater. Once polluted, groundwater is difficult, and sometimes impossible, to clean. The natural microorganisms which help break down some pollutants on the surface of the ground and in the topsoil, layers are not present (or not present in sufficient quantities) in groundwater. The slow rates of groundwater flow, ranging from one foot per day to one foot in fifty years, limit dilution or dispersal of contaminants. Groundwater contaminated by today's land uses and activities may remain contaminated for hundreds of years.

The State of Michigan (Department of Environmental Quality) Wellhead Protection Program is encouraging all public water suppliers to develop local Wellhead Protection Programs. A complete program submission includes the following key elements:

- Defining roles and duties of government units, water supply agencies and other key personnel.
- Delineating a Wellhead Protection Area for each water supply source.
- Identifying potential and existing contaminant sources within each Wellhead Protection Area.
- Utilizing management approaches for protection of the groundwater, including but not limited to education and regulatory approaches.
- Creating contingency plans for public water supply sources including the location of alternate drinking water sources.
- Assuring proper siting on new water sources to minimize potential contamination.
- Encouraging public participation.

As defined, the WHPA is "the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or well field." In order to develop a Wellhead Protection Plan, each of the above-mentioned elements must be addressed.

The Michigan Department of Environmental Quality recognizes the importance of local leadership and commitment for effective Wellhead Protection Programs. A wide range of management strategies, including land use planning, zoning, subdivision controls, interagency cooperation and community education may be useful in a Wellhead Protection Program Plan.

It is the intent of the Adjacent Community Name to alert persons applying for land use, building, or subdivision approvals about state requirements for environmental protection. Any land uses or activities

which may pose a threat to the public water supply and groundwater shall be properly managed to minimize the possibility of contamination.

RESOLUTION:

WHEREAS, the Adjacent Community Name recognizes the importance of its groundwater supply as a natural resource used for drinking; and

WHEREAS, it is within the responsibility of the System Name, working with the Adjacent Municipality Name as a public water supplier, to consider the health, safety and welfare of its customers; and

WHEREAS, groundwater contamination can and does occur as a consequence of a variety of land use activities; and

WHEREAS, it is desirable to preserve and protect the quality and quantity of our groundwater resources to assure a continued safe, adequate, and useable supply both now and in the future; and

WHEREAS, the protection of current and potential future sources of groundwater used for drinking water is worthwhile from the standpoint of resource protection; and

WHEREAS, state, county and municipal laws and regulations require certain land uses to obtain permits and approvals for construction and operation; and

WHEREAS, state agencies are not always aware of new development proposals and the owners or developers of proposed new land uses are not always aware of state, county and municipal permit and approval requirements; and

WHEREAS, local government officials, through adopted zoning ordinances, have the legal authority to review and/or approve land uses for the purposes of meeting the needs of the state's residents for natural resource protection and public services, including public water supplies;

NOW THEREFORE BE IT RESOLVED that the Adjacent Community Name support the System Name as they agree to take action to: (1) protect the immediate Wellhead Protection Area(s) and (2) take steps to update the zone of contribution to the wells or wellfield(s) in compliance with the State of Michigan Wellhead Protection Program; and

BE IT FURTHER RESOLVED that the Adjacent Community Name supports the System Name as it designates budgets for expenses accrued in determining and updating the zone of contribution of the wells or wellfield(s) and to implement and update their Wellhead Protection Program Plan at such time as funds become available; and;

BE IT ALSO RESOLVED that the Adjacent Community Name issue no land use permit, zoning permit, building or occupancy permit until such time that all required federal, state, county and/or local environmental permits or approvals have been obtained, and/or there is evidence that proper application to the responsible municipal, county, state or federal agencies has been made and significant issues affecting the Wellhead Protection Area have been addressed. An Environmental Permits Checklist will hereby be adopted for administrative use when new, changed or expanded land use activities are proposed.

Adopted this _____ day of ____(MONTH)___, ___(YEAR)___.

_____
Title

_____
Date

CHAPTER 0123

SITE PLAN REVIEW

0123.01 Purposes of Review

0123.02 Site Plan Required; Authority of Planning Commission

0123.03 Application Procedure

0123.04 Site Plan Contents

0123.05 Review by Planning Commission

0123.06 Amendments to Approved Site Plans

0123.07 Issuance of Zoning Permits

0123.08 Appeals

CROSS REFERENCES

Zoning and planning in home rule cities - see M.C.L.A. Sec. 0123.4i

Regulation of location of trades, buildings and uses by local authorities - see M.C.L.A. Sec. 012.345

Regulation of buildings; authority to zone - see M.C.L.A. Sec. 012.345

Regulation of congested areas - see M.C.L.A. Sec. 012.345

Uses of land or structures not conforming to ordinances; powers of legislative bodies; acquisition of property - see M.C.L.A. Sec. 012.345a

0123.01 PURPOSES OF REVIEW

The purposes of the site plan review are to determine compliance with the provisions of this Zoning Code; to promote the orderly development of the Village; to prevent the depreciation of land value because of uses or structures which do not give proper attention to siting or area protection; and to provide cooperation between applicants and the Planning Commission so that applicants may accomplish their objectives in the utilization of their land in conformity with the provisions of this Zoning Code.

(Ord. 123. Date Passed)

0123.02 SITE PLAN REQUIRED; AUTHORITY OF PLANNING COMMISSION

A site plan, prepared in accordance with the requirements of this chapter, shall be submitted to the Planning Commission. The Planning Commission will require a site plan for all land uses except the following:

(a) Single and two-family dwelling units on individual lots.

(b) Residential and agricultural accessory buildings.

(c) Nonresidential accessory buildings less than 832 square feet in area.

Uses with approved site plans or existing buildings which propose a change constituting ten percent or less of the building floor area or ten percent or less of the required parking spaces may be reviewed, approved and administrated by the Planning Commission.

(Ord. 0123. Date Passed)

0123.03 APPLICATION PROCEDURE

(1) An application for site plan review shall be made to the Zoning Administrator, along with a fee as required by resolution of Council. The application shall, at a minimum, contain the following information.

(a) The applicant's name, address and telephone number.

(b) Proof that the applicant is the owner of the property or has a legal or financial interest in the property, such as a purchase agreement.

(c) The name, address and telephone number of the owner(s) of record, if different from the applicant.

(d) The address and/or parcel number of the property.

(e) A project description, including the number of structures, dwelling units, square feet of the building, parking spaces and employees.

(f) Gross and net acreage of all parcels in the project.

(2) The Zoning Administrator shall review the plan with the applicant and attempt to resolve areas of noncompliance and concern.

(3) A copy of the site plan may be forwarded to the Police and/or Fire Department(s) for review as deemed appropriate by the Zoning Administrator.

(4) The Zoning Administrator shall forward the application and copies of the plan to the Planning Commission within thirty days of the receipt of the application.

(5) Fifteen copies of the site plan shall be submitted with the application for site plan review.

0123.04 SITE PLAN CONTENTS

The site plan shall be drawn at a scale which is appropriate to the development and which is easily readable. The site plan shall contain the following information, unless compliance is waived by the Zoning Administrator:

(a) A vicinity map illustrating the location of the site within the Community.

(b) Structures and lot lines within 100 feet of the boundaries of the site.

(c) The date the site plan was prepared.

(d) The name, address and professional seal of the preparer.

(e) A north arrow.

(f) Existing elevations at a minimum of two-foot intervals and the site's relationship to adjoining property.

(g) Property lines, dimensions and building setback distances.

(h) The location of existing and proposed buildings and their intended uses, as well as the length, width and height of each building.

(i) The location of abutting streets, rights of way, drives, curb cuts and access easements serving the site.

(j) Proposed elevations at two-foot intervals and the direction of drainage flow.

(k) The location and size of all water and sanitary sewer lines and storm drainage lines, as well as fire hydrants and catch basins.

(l) The location of all sidewalks, bike paths and other walkways.

(m) The location and size of any walls, fences or other screening provisions.

(n) The location of all proposed landscape materials, including the size and types of plantings.

(o) The location of all proposed accessory structures, including light poles, flag poles, storage sheds, transformers, dumpsters and signs.

(p) Proposed parking areas and access drives, showing the number and size of spaces and aisles.

(q) The location of utility easements.

(r) The location and type of significant existing vegetation.

(s) Watercourses and water bodies, including County and Community drains and man-made surface drainageways, floodplains and wetlands.

(t) Zoning on adjacent properties.

(u) Storage and containment areas, if the use of hazardous substances is involved.

(v) Other items as deemed necessary by the Planning Commission in order to ensure that the proposed development is in compliance with this Zoning Code and other local ordinances, as well as State and Federal statutes.

(Ord. 0123 Date Passed)

0123.05 REVIEW BY PLANNING COMMISSION

(1) The Planning Commission shall review the site plan for compliance with the requirements of this Zoning Code and conformity to the following general standards:

(a) All elements of the site plan shall be harmoniously and efficiently organized in relation to topography, the size and type of the lot, the character of adjoining property and the size and type of buildings. The site shall be developed so as not to impede the normal and orderly development or improvement of surrounding property for uses permitted in this Zoning Code.

(b) The landscape shall be preserved in its natural state, insofar as practical, by minimizing tree and soil removal and by topographic modifications which result in maximum harmony with adjacent areas.

(c) All storm water shall be detained on site for controlled release. Special attention shall be given to proper site drainage such that the controlled release of storm waters will not adversely affect neighboring properties.

(d) The site plan shall provide for reasonable visual and sound privacy for all dwelling units located on the site. Fences, walks, barriers and landscaping shall be used, as appropriate, for the protection and enhancement of property and for the privacy of its occupants.

(e) All buildings or groups of buildings shall be so arranged as to permit emergency access by some practical means to all sides.

(f) Every structure or dwelling unit shall have access to a public street, walkway or other area dedicated to common use.

(g) There shall be provided a pedestrian circulation system which is insulated, as completely as reasonably possible, from the vehicular circulation system.

(h) All loading and unloading areas and outside storage areas, including areas for the storage of trash, which face or are visible from Residential Districts or public thoroughfares, shall be screened by a vertical screen consisting of structural or plant materials no less than six feet in height.

(i) Exterior lighting shall be arranged so that it is deflected away from adjacent properties and so that it does not impede the vision of traffic along adjacent streets.

(j) With respect to vehicular and pedestrian circulation, including walkways, interior drives and parking, special attention shall be given to the location and number of access points, general interior circulation, the separation of pedestrian and vehicular traffic, and the arrangement of parking areas that are safe and convenient and that do not, insofar as practicable, detract from the design of the proposed buildings and structures and the neighboring properties.

(j) All streets shall be built in accordance with the requirements of the community.

(k) Site plans shall conform to all applicable requirements of State and Federal statutes, and approval may be conditioned on the applicant receiving necessary State and Federal permits before final site plan approval or an occupancy permit is granted. See the State and County Environmental Permits Checklist.

(l) Standards for groundwater/wellhead protection, as approved by the Michigan Department of Health and the Michigan Department of Natural Resources on October 7, 1994, and in accordance with the Community Name Wellhead Protection Program shall be as follows:

- The project and related improvements shall be designed to protect the natural environment, including lakes, ponds, streams, wetlands, floodplains, groundwater and steep slopes.

- General purpose floor drains shall be allowed only if they are connected to a public sewer system, an on-site holding tank, or a system authorized through a State groundwater discharge permit.

- Sites at which hazardous substances and polluting materials are stored, used or generated shall be designed to prevent spills and discharges to the air, to the surface of the ground, and to groundwater, lakes, streams, rivers or wetlands.

- State and Federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.

- Secondary containment for above-ground areas where hazardous substances and polluting materials are stored or used shall be provided. Secondary containment shall be sufficient to store the substance for the maximum anticipated period of time necessary for the recovery of any released substance.

- Outdoor storage of hazardous substances and polluting materials shall be prohibited except in product-tight containers which are protected from weather, leakage, accidental damage and vandalism.

- Secondary containment structures such as out-buildings, storage rooms, sheds and pole barns shall not have floor drains which outlet to soils, groundwater or nearby drains or rivers.

- Areas and facilities for loading or unloading of hazardous substances and polluting materials, as well as areas where such materials are handled and used, shall be designed and constructed to prevent discharge or runoff to floor drains, rivers, lakes, wetlands, groundwater or soils.

- Existing and new underground storage tanks shall be registered with the authorized State agency in accordance with requirements of the U.S. Environmental Protection Agency and the State Police Fire Marshal Division.

- Installation, operation, maintenance, closure and removal of underground storage tanks shall be in accordance with requirements of the State Police Fire Marshal Division. Leak detection, corrosion protection, spill prevention and overfill protection requirements shall be met. Records of monthly monitoring or inventory control must be retained and available for review by government officials.

- Out-of-service abandoned underground tanks shall be emptied and removed from the ground in accordance with the requirements of the

State Police Fire Marshal Division and the Michigan Department of Environment, Great Lakes and Energy.

- Site plans shall take into consideration the location and extent of any contaminated soils and/or groundwater on the site and the need to protect public health and the environment.

- Development shall not be allowed on or near contaminated areas of a site unless information from the Michigan Department of Environment, Great Lakes and Energy is available indicating that clean-up will proceed in a timely fashion.

- No above-ground storage of hazardous substances and related secondary containment facilities shall be located within fifty feet of any property line or 100 feet of any residentially zoned property.

- No underground storage tank shall be within thirty feet of any property line or fifty feet of any residentially zoned property.

(2) The Planning Commission shall notify the Zoning Administrator and the applicant of its decision within thirty days of the meeting at which the plan was reviewed. Failure to do so will cause the project to be approved unless the failure is beyond the ability of the Planning Commission to control. This requirement may be waived by the applicant.

(3) In compliance with the Zoning Enabling Act (M.C.L.A. 012.345e, as amended), the Planning Commission may require, upon staff recommendation, a performance bond, letter of credit, certified check or cash bond, in an amount equal to the estimated cost of the improvements associated with the project (as defined by M.C.L.A. 012.345e, as amended). Such performance guarantee shall be deposited with the Community Finance Director/Treasurer at the time of the issuance of the permit authorizing the activity or project to ensure faithful completion of the improvements indicated with the approved site plan. If not completed, said performance bond shall be forfeited. The Community shall rebate a proportional share of cash deposits only when requested by the depositor, based on the percentage of improvements completed, as attested to by the depositor and verified by the Zoning Administrator.

(4) A site plan approved under this section shall be valid for a period of one year. If construction has not commenced within this time period, the site plan shall become null and void. Upon a written request from the applicant, the Planning Commission may grant one extension of the site plan for a period not to exceed sixty days.

(5) The site plan shall be approved, denied or approved subject to any conditions that the Planning Commission may reasonably deem essential for the protection of the public health, safety and welfare of the community.

(Ord. 012. Date Passed; Ord. 012. Date Passed; Ord. 012. Date Passed)

0123.06 AMENDMENTS TO APPROVED SITE PLANS

Amendments to an approved site plan shall be made in accordance with the provisions of this chapter.

(Ord. 012. Date Passed)

0123.07 ISSUANCE OF ZONING PERMITS

The Zoning Administrator shall, upon approval of the final site plan and upon application by the applicant, issue a zoning permit, provided that all other applicable community ordinances and codes have been complied with.

(Ord. 012. Date Passed)

0123.08 APPEALS

Any person or party aggrieved by a decision of the Planning Commission under this chapter may appeal such decision to the Zoning Board of Appeals in accordance with the provisions of this Zoning Code. Such appeal shall be filed within ten days of the date of a final decision on the site plan by the Planning Commission.

ABANDONED WELL ORDINANCE

ORDINANCE XXXX

Section 18-26. OPERATION OF PUBLIC WATER SUPPLY SYSTEM.

The operation, maintenance, and management of the public water supply system (PWSS) of the COMMUNITY NAME shall be under the immediate supervision and control of the utilities department. (Order Number XXXX, DATE)

Section 18-27. DEFINITION

"Private Well" defined: exceptions. A private well is defined as an opening in the surface of the earth for the purpose of removing water through mechanical or non-mechanical means for any purpose except treatment of the groundwater, under a plan approved by the Michigan Department of Environment, Great Lakes and Energy. This exception applies only when all necessary permits for the well have been obtained.

Prohibitions; permits. No person shall install a private well, without first obtaining a permit from COMMUNITY NAME and the XXXX County Local Health Department. The intent of this Section is to promote public health and the general welfare and to facilitate the adequate provision of public water.

Section 18-28. MANDATORY CONNECTION TO THE COMMUNITY NAME WATER SYSTEM

(1) To insure the payment of the COMMUNITY TYPE (TOWNSHIP, VILLAGE, VILLAGE) obligations incurred relating to the creation, maintenance, and extension of the PWSS, and to insure the public health, safety and welfare, any new structure, not to include remodeling or additions, including residences, retail, office and industrial buildings for which a building permit is obtained after the effective date of this ordinance, that is to be used for human occupancy, employment, recreation, or other purposes shall be physically connected to said system and obtain its entire water supply for human consumption and sanitary purposes from said system if such structure is used for industrial purposes or is located within 200 feet of the COMMUNITY NAME water system.

(2) Existing structures for human occupancy, employment, recreation or other purposes that are served by a private well, are used for industrial purposes or are located within 200 feet of the COMMUNITY NAME water system, and that experience well failure shall be prohibited from drilling a new well. Such structures shall be required to connect to the COMMUNITY NAME water system.

(3) Any cost of extending the COMMUNITY NAME water system to comply with the connection requirements shall be the responsibility of the property owner unless otherwise determined and agreed to by the COMMUNITY NAME Board.

(Order Number XXXX, Date)

Section 18-29. CONNECTION TO THE WATER SYSTEM.

For the purposes of this ordinance, all connections to the COMMUNITY NAME water system shall be physically connected to the interior plumbing system of the structure within 30 days of the extension of the service line into the building, and, if applicable, the disconnection of a private well to the interior plumbing system. This requirement may be waived only at the discretion of the utilities director.
(Order Number XXXX, Date)

Section 18-30. MANDATORY WELL PLUGGING.

At the time of a connection to the COMMUNITY NAME water system, the existing well(s) on the premises must be abandoned and plugged. In those instances where the well is inaccessible, such as under a building/structure or covered by concrete/asphalt, the COMMUNITY NAME engineer shall determine if the mandatory well plugging can be waived. A licensed well driller retained and under the supervision of the COMMUNITY NAME Engineering Department, shall perform the plugging of the well.
(Order Number XXXX, Date)

Section 18-31. EXTENSIONS TO THE WATER SYSTEM.

Any extension to the COMMUNITY NAME water system shall be designed and constructed in accordance with the COMMUNITY TYPE (TOWNSHIP, VILLAGE, VILLAGE) water installation standards, as amended, and applicable under state law.

Section 18-32. FEES.

All users of the water system shall be responsible for the payment of user fees based on a fee schedule adopted by the COMMUNITY TYPE (TOWNSHIP, VILLAGE, VILLAGE). The fees shall be binding upon all users of the water system, as well as their successors in interest, assigns, estates and heirs.

NOTICE TO LAWTON RESIDENTS

If you own a home or business that was built prior to XXXX and are currently hooked to municipal water in the Village of Lawton, at one time you were served by a private well. State law requires that if the private well is not currently being used, it needs to be plugged by a registered well driller. Unplugged abandoned wells can threaten the quality of your drinking water. Plugging these abandoned wells protects Michigan's private and public water supply.

VILLAGE SEARCH OF ABANDONED WELLS

Because abandoned wells can pose a threat to the Village of Lawton water supply, Village staff will be doing a search of abandoned wells in the coming months. If you know of an abandoned well on your property or if you are unsure if you have an abandoned well, please contact the Village at XXXX. If your well has already been plugged, the records should be on file with the State of Michigan Department of Environment, Great Lakes and Energy. Please see the attached article for more information about abandoned water wells.

APPENDIX E
Public Education Activities