



**WELLHEAD PROTECTION PLAN
CITY OF PORTAGE, MICHIGAN
UPDATED APRIL 2015**

PREPARED FOR:

CITY OF PORTAGE, MICHIGAN

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LIST OF ABBREVIATIONS/ACRONYMS

AHC	American Hydrogeology Corporation
AST	aboveground storage tank
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
City	City
CSI	contaminant source inventory
DRT	Development Review Team
EDR	Environmental Data Resources
FTCH	Fishbeck, Thompson, Carr & Huber, Inc.
gpm	gallons per minute
IC	incident commander
KCHMT	Kalamazoo County Haz Mat Response Team
KSWWG	Kalamazoo Storm Water Working Group
LUST	leaking underground storage tank
MDEQ	Michigan Department of Environmental Quality
MDOT	Michigan Department of Transportation
MDSP	Michigan Department of State Police (Fire Marshal Division)
MDMB	Michigan Department of Management and Budget
msl	mean sea level
MSU	Michigan State University
NFRAP	No Further Remedial Action Planned
NPL	National Priorities List
PEAS	Pollution Emergency Alerting System
RCRA	Resource Conservation and Recovery Act
WHP	Wellhead Protection
WHPA	Wellhead Protection Area
WHPP	Wellhead Protection Plan
SDWA	Federal Safe Drinking Water Act
TOT	time of travel
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UST	underground storage tank
ZOC	zone of contribution

1.0 INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

This report is an updated Wellhead Protection Plan (WHPP) for the City of Portage (the City), Kalamazoo County, Michigan. The WHPP was updated in 2014 to reflect changes that have occurred since the original WHPP was prepared in September 2000 (Earth Tech, Inc). Michigan's Wellhead Protection Program contains seven elements; all seven elements were reviewed for revisions as needed. The most substantial revisions for this update include revisions to the Wellhead Protection Area Delineations (Element 2) based on changes to the wellfields and pumping rates, and revisions to the Contaminant Source Inventory (Element 3) based on changes to the potential sources of contamination.

The purpose of this Plan is to establish specific criteria for protection of the City's public water supply wells and groundwater resources including management strategies to maintain a high quality water supply, free of contamination.

In general, wellhead protection (WHP) involves formulating and implementing a set of activities and management practices to protect public water supply systems from potential sources of groundwater contamination. The term, "wellhead," refers to the physical structure (well) at the land surface through which groundwater is withdrawn from a subsurface water-bearing formation (aquifer). A Wellhead Protection Area (WHPA) is defined by federal law as "the surface and subsurface area surrounding a water well or wellfield, through which contaminants are reasonably likely to move toward and reach such water well or wellfield."

WHP planning and implementation involves the voluntary participation of local agencies and private citizens, county, regional, and state agencies. The primary goal of WHP planning is to protect water supply systems from contamination and thereby protect people who obtain their water supply from those systems.

A proactive approach to WHP planning in the City will help minimize and hopefully prevent contamination of aquifers and drinking water supplies. There are many economic and health benefits to be gained by developing and implementing a WHPP. These benefits include: public health protection, protection of groundwater and drinking water resources, protection of the community investment in public water supply systems, protection of property values by maintaining availability of clean drinking water, protection of community image, and avoidance of costly environmental cleanups. Wells are expensive to construct, and contaminated groundwater is costly to treat. Of even greater concern is the fact that groundwater contamination can be relatively permanent and irreversible and may take hundreds of years to flush from

an aquifer. Preventing groundwater contamination is far less costly than cleaning up groundwater after contamination has taken place. WHP planning is truly in everyone's interest.

This WHPP was prepared in accordance with the guidelines of the Michigan WHP Program.

1.2 MICHIGAN'S WHP PROGRAM

Michigan's WHP Program is voluntary and was developed in response to 1986 amendments to the federal Safe Drinking Water Act (SDWA). The 1986 amendments to the federal SDWA mandate that each state develop a WHP program. Accordingly, the State of Michigan prepared a program which was submitted to the U.S. Environmental Protection Agency and approved in 1994. The State of Michigan's WHP Program defines the approach to be used for the development of local WHP programs. Local programs are to be developed by public agencies that operate public water supply systems (i.e., the City).

The State of Michigan's WHP Program was prepared to meet the requirements set forth in the Federal SDWA. In accordance with these requirements, Michigan's WHP Program contains the following elements:

1. Definition of the roles and responsibilities of state and local governments and public water supplies with respect to development and implementation of a WHP Program.
2. Guidance and criteria for delineation of WHPAs for each wellhead, based on reasonably available hydrogeologic and other information.
3. Information and requirements pertaining to the identification of potential sources of contamination within each WHPA, including all potential sources that may represent a threat to the public water supply system.
4. A management plan describing approaches to be used to manage actual and potential sources of contamination identified in WHPAs to prevent the contaminants from reaching the aquifer.
5. Guidance for developing contingency plans for protection of a public water supply system and isolating portions of the supply system and/or providing water from an alternative source.
6. Guidance for developing a mechanism for incorporating new wells or wellfields into the local WHP program.
7. Guidance for public education, information, and participation in WHP planning and implementation.

1.3 LOCAL WHP PROGRAMS

More than 400 local public water systems utilize groundwater in Michigan. Therefore, the ultimate success of Michigan's WHP Program is dependent upon development and implementation of WHP programs at the local level.

Currently, local participation in WHP is voluntary. The economic, health, and environmental benefits from developing a WHPP were previously discussed. In addition to the general benefits, the State of Michigan's WHP Program identifies specific incentives for local participation in WHP.

One of the primary economic incentives identified in the State's WHP Program is a reduction in chemical monitoring costs for water supply wells. At present, many public water supply systems are required to monitor supply wells for a large number of chemical contaminants. Reportedly, the cost to complete this monitoring can exceed several thousand dollars per year for each well where contaminant monitoring is required. The Michigan Department of Environmental Quality (MDEQ) may grant a waiver of monitoring requirements for public water supply systems with an approved WHPP.

Additional incentives for development of local WHPPs include:

- Priority ranking and scoring by the state for sites of environmental contamination within a WHPA. Sites of environmental contamination located within a WHPA will be considered a higher priority for investigation and remediation activities.
- Priority for state and county inspection and surveillance programs. WHPAs define one type of environmentally sensitive area. Delineation of the WHPA provides local governments with a tool for requesting priority attention from government agencies with environmental inspection and enforcement responsibilities.

Local public water supply systems that elect to participate in WHP must submit their program to the MDEQ for review and approval. To be approved, these programs must contain specific elements set forth in the federal SDWA and included in Michigan's program.

2.0 DESCRIPTION OF AREA AND WATER SUPPLY WELLS

2.1 PHYSICAL SETTING

The City is located within Kalamazoo County in southwest Michigan. The City encompasses an area of approximately 36 square miles and is located along the divide between the Kalamazoo and St. Joseph River basins. Nearly the entire City is located on a broad outwash plain of sand and gravel deposited by glacial meltwater. Figure 1 shows the general location of the City.

Topographically, the City is situated between highlands which generally bound the east and west sides of the County. The general relief is between 860 feet above mean sea level (msl) rising to 900 feet above msl along the northwest part of the City as shown by the topographic map on Figure 2.

The City is located along the divide between the Kalamazoo and St. Joseph River basins. The divide bisects the southern third of the City and lies generally along the Gourdneck Creek, West Lake, Austin Lake, and Long Lake Complex. Several smaller streams and related sub-basins which converge on the larger regional rivers also exist within the City. A map in Appendix 1 shows the major drainage and sub-basin divides.

2.2 SOILS

Soils in the vicinity of the City supply wells vary considerably and consist of sand, silt, clay peat, and muck soils. The materials range from loose to cohesive tight soils. Some of the soils appear to be well drained with rapid permeability. Other soils appear to be moist to wet with slow permeability.

2.3 GEOLOGY

Near surface formations beneath the City consist of glacial outwash, lake deposits, and a few dune type deposits. Outwash was deposited on the preexisting ground surface by proglacial meltwater streams during retreat of the most recent continental glacier. Outwash deposits consist primarily of fine to coarse sand, gravelly sand, and sandy gravel. The outwash deposits form what is now known as the Galesburg-Vicksburg outwash plain. The Galesburg-Vicksburg outwash plain extends over one-half of Kalamazoo County and all but a relatively small portion in the northeast corner of the City. Thickness of outwash deposits range from approximately 150 feet in the southeast corner of the City to more than 350 feet along a narrow, northwest-southeast trending belt in the northeast part of the City. A map in Appendix 2 shows the thickness of glacial materials in the area.

Lake deposits consisting primarily of silt, clay, and organic rich materials were deposited above outwash deposits in the northeast corner of the City and in low lying areas throughout the City. Windblown dune deposits derived from outwash materials are located in a thin belt along the southern end of the City. The dune deposits consist of well-sorted, fine- to medium-grained sand.

2.4 HYDROLOGY AND HYDROGEOLOGY

The City is located along the divide between the Kalamazoo and St. Joseph River basins. The divide bisects the southern third of the City and lies generally along the Gourneck Creek, West Lake, Austin Lake, and Long Lake Complex. The headwaters of Portage Creek and a portion of West Fork Portage Creek lie within the City and drain to the Kalamazoo River. A short reach of Davis Creek flows across the extreme northeast part of the City and also drains to the Kalamazoo River. The Gourneck Creek Complex, which is closely associated with the West Lake, Austin Lake, and Long Lakes, lies within the St. Joseph River basin.

Sugarloaf Lake, West Lake, Austin Lake, and Long Lake are hydraulically connected by the regulating effects of manmade channels and Gourneck Creek. In 1936, a canal system was built that interconnected the three lakes with Gourneck Creek. Also, a dam was constructed ½ mile downstream from Sugarloaf Lake to provide the additional hydraulic head needed for the creek water to reach the lakes (WW Engineering & Science, 1992).

The streams and lakes in the City are hydraulically connected to the groundwater system. Some of the lakes are kettle lakes and are in direct connection with the groundwater system.

In the Portage area, two distinct sand and gravel aquifers are observed in most areas: an upper, unconfined aquifer, and a lower, semi-confined aquifer. The aquifers are separated by variable thickness layers of sandy silty clay. In some areas, such as the Amberly and Rolling Hill Wellfields, the silty clay layer(s) is not observed, and the formation consists entirely of sand and gravel from top to bottom.

The upper unconfined aquifer occurs in shallow sand and gravel deposits and is in hydraulic connection with streams and lakes. The aquifer is under atmospheric pressure (water table conditions), and water levels rise and lower in the aquifer depending on recharge and discharge events. Recharge to the aquifer is primarily from infiltration of precipitation.

The lower semi-confined aquifer is hydraulically connected to the unconfined aquifer, and groundwater moves between the two aquifers through the silty clay layers. The lower semi-confined aquifer is recharged from infiltration from the overlying aquifer and from horizontal underflow from other areas.

A map in Appendix 3 shows the water table distribution from the State of Michigan Groundwater Interactive Map (MDEQ / U.S. Geological Survey [USGS] / Michigan State University [MSU], 2005). In general, groundwater flows from topographically high to lower areas. This coincides with a regional gradient generally from the west, south, and east, which turns northward and ultimately converges upon the Kalamazoo River. Locally, groundwater converges and discharges to streams and some lakes. The groundwater flow system coincides roughly with the surface water divide between the Kalamazoo and St. Joseph River basins, which bisects the southern third of the City. North of West Lake and Austin Lake, groundwater flows north and northwest toward Portage Creek. In the northwest part of the City, groundwater flows east and northeast toward Portage Creek and the West Fork Portage Creek. In the extreme southwest part of the City near Shuman and Rolling Hill Wellfields, groundwater flow is generally east and southeast. The Shuman and Rolling Hill Wellfields are in a different groundwater basin compared to the other City wellfields.

The average annual precipitation rate in the City area is 36 inches per year (National Oceanic and Atmospheric Association climate records). Allen et al. (1972) and Rheaume (1990) estimated that approximately 9 inches per year of water recharges the aquifer in the Portage area.

Estimates of hydraulic characteristics of aquifers in the Portage area are described in the USGS Scientific Investigations Report 2004-5054 for simulation of groundwater flow in Kalamazoo County (Luukkonen, et al., 2004).

2.5 WATER SUPPLY WELLS AND WELLFIELDS

The City is served by a municipally owned water utility under the direction of the Transportation and Utilities Department. The water system serving the City has been in existence since 1959. A large portion of the City is served by municipal water. The municipal water supply is obtained from 20 high-capacity wells, in 10 wellfields. Since the original WHPA Delineation (Earth Tech, 2000), one new supply well was activated (Garden Lane 4), and one wellfield consisting of two supply wells are no longer in service (Lexington Green 1 and 2). The population served by the City's water system as of 2012 was approximately 43,000 persons (Water System Reliability Study, FTCH, 2013). Approximately 10 percent of the residents of the City have private water supply wells.

Municipal wells pump water into a network of transmission and distribution water mains and into two elevated towers with storage capacities of 0.75 and 1.5 million gallons, which serve a single pressure zone. Figure 3 shows the water distribution system and the location of the public water supply wells.

The City municipal water supply wells are completed in the sand and gravel aquifer at depths ranging from 84 to 184 feet. Well yields are reported to range from approximately 400 gallons per minute (gpm) to as high as 4,000 gpm at Shuman Well 2.

Table 1 summarizes well data for the Utility's supply wells. Additional information about each well and wellfield is summarized in Appendix 4.

3.0 CITY WHP PROGRAM

The State of Michigan's WHP Program was prepared to meet the requirements set forth in the federal SDWA. In accordance with these requirements, Michigan's WHP Program contains seven elements. The City WHPP also contains these elements, which are described in this section.

3.1 ELEMENT 1 – ROLES AND RESPONSIBILITIES

The City established a planning team for their WHP program that consists of individuals representing the City, Kalamazoo County, and Pharmacia & Upjohn. The team members have planning and organizational skills and all have a vested interest in protecting the City's groundwater resources. The WHP planning team for the City includes the following:

- Chairperson, Utilities Engineer, Transportation & Utilities Department
- Utility Contract Administrator Water Supply Engineer, Transportation & Utilities Department
- Deputy Director of Planning, Development & Neighborhood Services – Department of Community Development
- Fire Marshal, City
- Director, Transportation & Utilities Department
- Kalamazoo County Human Services Department
- Environmental Representative, Pfizer
- United Water – Project Manager

The local planning team is supported in the WHP Program by state agencies including:

- Michigan Department of Public Health
- MDEQ
- Michigan Department of State Police (Fire Marshal Division)
- Michigan Department of Agriculture
- Michigan Department of Management and Budget
- Michigan Department of Treasury

Early on, a meeting was held to define goals and objectives of the WHPP and team member goals and responsibilities. The primary goal of the WHPP is to protect the water resources of the City used for water supply. Each team member has goals which support the primary goal. Table 2 summarizes the team members, roles and responsibilities, goals, and implementation schedule.

3.2 ELEMENT 2 – DELINEATION OF WHPAs

The WHPA Delineations for the City wells were updated using a groundwater flow model developed by the USGS for the Kalamazoo County area (Luukkonen, et al., 2004). The original WHPAs for the City's wells were delineated using a groundwater flow model developed in 1992 and updated in 1994. Since that time, additional hydrogeological data and a greater understanding of the aquifers in Kalamazoo County have been achieved. Groundwater flow was modeled using a three-dimensional finite-difference model (MODFLOW, Harbaugh et al., 2000). The USGS groundwater flow model covers nearly all of Kalamazoo County and portions of each of the surrounding counties. FTCH obtained the USGS model files and updated the pumping rates for each well based on pumping data provided by the City. The model was also updated to include the new well (Garden Lane #4) and remove the two supply wells of the Lexington Green wellfield which has been removed from the distribution system. The pumping rates simulated in the model represent the average daily rate of the peak month as recommended in Michigan's Wellhead Protection guidelines. These peak month rates provide a conservative (larger) estimate of the long-term contribution areas for each wellhead. Details regarding the model setup and modifications can be found in Luukkonen et al. (2004) and the Wellhead Delineation Report (FTCH, August 2014). The WHPA Delineation report was approved by the MDEQ on December 19, 2014 (received December 29, 2014).

Figure 4 shows the WHPAs for the 1-, 5-, and 10-year time-of-travel (TOT) zones for each of the City's wells. The WHPAs were defined using reverse particle tracking with MODPATH (Pollack, 1989). These TOT zones were used to score potential threats from sites of known or potential contamination for Element 3 (Section 3.3). As shown on Figure 4, the combinations of 10-year WHPAs for wells in the northern part of the City leave only a small area between WHPAs that is not within a 10-year TOT; therefore, the City decided to combine the northern WHPAs into one large WHPA as shown on Figure 5.

3.3 ELEMENT 3 – POTENTIAL SOURCES OF CONTAMINATION

A contaminant source inventory (CSI) was conducted for the City to identify existing and potential contamination sources located within the WHPAs shown on Figure 5. As described in the MDEQ's WHP Guidelines, the goal of the CSI is to identify existing and potential sources of contamination within the WHPAs which might represent a threat to the public water supply system. To accomplish the study objectives, the following tasks were performed:

- A. Researched available information regarding known or potential contamination sources within each delineated recharge area equivalent to a 10-year TOT to a well including federal and state databases.
- B. Performed a field reconnaissance windshield survey of selected sites within the WHPAs that were thought to warrant additional inspection.

- C. Prepared contaminant source inventory maps and summaries of potential and existing contamination sources and estimates of the threat of potential contamination sources to supply wells.

The CSI included a search and evaluation of the following sources of information:

- federal and state data bases for records of sites of actual or potential contamination,
- the City's stormwater structure locations relative to each wellfield,
- salt storage facility locations relative to each wellfield, and
- land use in the vicinity of each wellfield.

The following summarizes the findings and conclusions:

3.3.1 REVIEW OF GOVERNMENT RECORDS AND SCORING SYSTEM

Relevant federal and state data bases were searched to identify sites of known, suspected, or potential contamination. The data base search was conducted by Environmental Data Resources (EDR). The list of data bases searched is included in Appendix 5. To simplify data handling and reporting, the EDR searches were broken up into the three 10-year TOT WHPAs as shown on Figure 5: the Shuman/Rolling Hill areas, the Pershing wellfield area, and the North Area wellfields which includes the combined 10-year WHPAs of the remaining wellfields plus some land in between as described in Section 3.2.

A summary of the EDR results associated with each wellfield is provided in Table 3. The map IDs in Table 3 correspond to site locations on the maps of the three areas which are included in Appendix 6. The executive summary of the EDR reports are also included in Appendix 6; the full reports have not been included due to large size (>1,000 pages), but are available for review upon request at the City offices.

Table 3 contains an estimated threat level to the supply wells for each site of existing, potential, or former contamination. These threat levels were estimated using a two-phase scoring system. First, each site was initially scored based on its location relative to the 1-, 5-, and 10-year WHPAs. That is, it was assumed that existing, potential, and former sources located within a well recharge area, equivalent to the 1-year TOT, are of high concern, sites within the 5-year TOT are of moderate concern, and sites located within the 10-year TOT are of low concern. These initial scores were then augmented with the estimated potential for actual contamination. If a site was listed as having confirmed contamination and still considered an active site from a regulatory perspective, the initial site score would be raised by one level. For example, if a site was located within the 5-year TOT it would initially be scored as "moderate," but if that same site was known to have actual contamination (such as an active leaking underground storage tank [LUST] site), its threat level would be raised by one to "high." Similarly, if a site was initially scored as

“low” because it was within the 10-year TOT, but had a relatively low potential for contamination (e.g. RCRA non-Gen), its threat level would be reduced by one to “very low.”

The EDR search included a search of the data bases or government sources listed in the Table in Appendix 5. This table also includes a threat level of high, medium, or low based on the type of site listing and its relative level of concern that was used to modify the initial scoring based on each site’s location relative to the 1-, 5-, or 10-year WHPA. Details regarding the site type abbreviations can be found in Appendix 6.

In addition to the data bases queried by the EDR report, additional information sources not covered by the EDR report were reviewed to evaluate any changes since the original CSI was completed. Additional sources reviewed included Oil & Gas Contamination sites (<http://ww2.deq.state.mi.us/Geowebface>), Groundwater Discharge Permits (MDEQ Groundwater Permits Unit, Water Resources Division), and the MDEQ’s Environmental Mapper (<http://www.mcgi.state.mi.us/environmentalmapper/>). These data sources did not identify any additional sites other than those that were already identified by the EDR report.

3.3.2 STORMWATER STRUCTURES

The location of existing and proposed stormwater structures in the City are shown on a map in Appendix 7. Table 4 summarizes the type of existing or proposed stormwater structures, approximate distance from supply wells, location relative to time related well capture zones and/or within mile of supply wells, status, and estimated threat to supply wells.

Since the original WHPP was completed, most of the proposed stormwater structures from that time have been completed as shown in Table 4. Estimated threat to supply wells was made primarily on the basis of location relative to time-related capture zones, and distance of the stormwater structure to supply wells. Stormwater structures located within the 1-year TOT capture zone for a supply well were judged to be a significant threat to supply wells.

3.3.3 SALT STORAGE STRUCTURES AND APPLICATION

The Michigan Department of Transportation (MDOT), Kalamazoo County Road Commission, and City Transportation & Utilities Department were contacted regarding the location of salt storage sheds that may be in the well recharge areas. MDOT reported that they have no salt storage sheds in the Portage area.

Kalamazoo County Road Commission has a salt storage shed located in the City of Kalamazoo, northwest of the intersection of Kilgore and Sprinkle Roads. This location is far from any of the wellfields.

The City salt storage shed is located at 7719 South Westnedge in the City. The City has a salt storage pollution prevention plan and monitors water quality in monitoring wells and stormwater detention ponds. The storage facility is covered, and salt is stored on an impermeable surface. Loading of salt onto trucks is performed in a covered area. Runoff from the parking lot flows into the lined stormwater basin. The City purchases approximately 4,400 tons of salt per year for application on the local streets. The salt is mixed with sand. Application rates are monitored and recorded for each street and truck. Alternative products have been used by the City for ice control including "Iceban" (a liquid, biodegradable derivative from corn) and calcium magnesium acetate "CMA" (a granular, biodegradable compound).

3.3.4 RECONNAISSANCE SURVEYS

The purpose of the reconnaissance surveys were to observe existing land uses, existing and potential sources of contamination, identify activities within well recharge areas that might result in groundwater pollution, and verify locations of potential contamination sources listed in governmental records. Reconnaissance Surveys of supply well capture zones were conducted during the month of August 2014. Initially, surveys were conducted of the locations listed in the WHPP 2000 report in order to identify and update the existing status of the original land uses. Subsequent surveys were conducted within the discretized 1, 5, and 10 year TOTs for each wellfield. These surveys were mainly performed from roadways, right-of-ways, sidewalks, public and business parking lots, or utilizing public properties. Locations that were within the supply well capture zones and that were not listed on the EDR report were recorded if there were any observable potential or existing contamination. Additionally, sites that were listed in the EDR report and pose high risk for groundwater contamination were surveyed to record any further conclusions. In some cases, sites that were surveyed did not match the description noted in the EDR, and the current description was modified to the list shown in Appendix 6 and summarized in Table 3.

3.3.5 EXISTING LAND USES IN VICINITY OF WELLFIELDS

3.3.5.1 AMBERLY WELLFIELD

Topography in the vicinity of the Amberly Wellfield is gently rolling hills. Primary land use is residential. Residences are mostly single family, which appear to range in age from approximately 1- to 30-years old. There is a large grass recreation area and wooded area south of Romence Road on the north side of the Portage West Middle School as well as a large wetland area on the west side of the inspection area between the western edge and U.S.-131. The Amberly wells are located east of Amberly Elementary School in brick structures in the grass and recreational area.

3.3.5.2 GARDEN LANE WELLFIELDS 1, 2, 3, 4, AND 5

Topography in the vicinity of the Garden Lane Wellfields is slightly rolling hills. Land use is approximately 25 percent wooded lowland, 50 percent commercial (especially in the vicinity of Westnedge Avenue, Schuring Road, Centre Avenue, and Romence Road Parkway), and approximately 25 percent is residential. Large areas of woods and pastureland exist approximately ½ mile southeast of the wellfield location.

3.3.5.3 LEXINGTON GREEN WELLFIELD

The Lexington Green Wellfield is no longer in use and was removed from the distribution system in 2011. The two Lexington Green supply wells and associated test wells were abandoned in 2012 in accordance with State of Michigan guidelines.

3.3.5.4 WEST MILHAM WELLFIELD

The topography in the vicinity of the West Milham Wellfield is rolling hills with no ravines leading to the West Fork Portage Creek which is north of I-94. The area south of I-94 is primarily residential and is commercial along South Westnedge Avenue and the major transportation arteries. The area north of I-94 is primarily residential or wooded open land in the vicinity of West Fork Portage Creek. The West Milham Wellfield is located in the northern portion of the Portage Northern High School grounds adjacent to the south side of I-94. The High School grounds are primarily grass recreation areas with some wooded areas.

3.3.5.5 SHUMAN WELLFIELD

Topography in the vicinity of the Shuman Wellfield is gently rolling. Land use is predominantly occupied by the Gourneck State Game Area to the west of the wellfield. Approximately 15 percent of the land use is residential, with light commercial along the main thoroughfares. Approximately 40 percent is vacant land.

3.3.5.6 PERSHING WELLFIELD

Topography in the area of the Pershing Wellfield is relatively flat. Land use to the south and north of the wellfield is primarily vacant or agricultural. Pharmacia & Upjohn owns the northwest quadrant of the wellfield. There is some light commercial activity in the vicinity of Sprinkle Road. East of Sprinkle Road, land use is primarily residential. The rail line south of East Centre Avenue no longer exists, and the rail line north of East Centre Avenue is no longer used on the Pharmacia & Upjohn property.

3.3.5.7 PORTAGE CREEK WELLFIELD

Topography in the vicinity of the Portage Creek Wellfield is relatively flat. Land use to the west of the wellfield is primarily commercial along South Westnedge Avenue, and residential between the railroad tracks and South Westnedge. Land use along Portage Creek is recreational, lowland woods, and wetlands. Land use along Lovers Lane is light commercial and industrial. Areas east of Lovers Lane are primarily vacant.

3.3.5.8 ROLLING HILL WELLFIELD

Topography in the vicinity of the Rolling Hill Wellfield is gently rolling. Land use is predominantly occupied by the Gourdneck State Game Area to the west of the wellfield. Approximately 15 percent of the land use is residential, with light commercial along the main thoroughfares. Approximately 40 percent is vacant land.

3.3.5.9 WEDGEWOOD WELLFIELD

The area in the vicinity of Wedgewood Wellfield is primarily residential to the north, south, and southeast. Areas of vacant land exist north of Vincent Avenue and along the watershed of the West Fork Portage Creek. The area bordered by West Milham Road and Angling Road south of I-94 is currently under development for residential purposes.

3.3.5.10 WESTFIELD WELLFIELD

Topography in the vicinity of the Westfield Wellfield is primarily rolling hills with steeper topography in the vicinity of West Fork Portage Creek. The area north and west of the wellfield is primarily residential. The area south of the wellfield east of 12th Street is sparsely populated residential with large areas of lowland and vacant land. The area west of 12th Street is sparsely populated with steeper topography and has large areas of former agricultural fields and wooded areas. The area east of U.S.-131 to the subdivisions west of Angling Road is primarily wooded lowland, and vacant.

3.3.5.11 WINTER FOREST WELLFIELD

Topography in the vicinity of Winter Forest Wellfield is rolling hills. Land use is primarily residential with wooded areas found east of Oakland Drive, just south and east of the wellfield for approximately ¼ mile. Large greenhouse operations are located east and southeast of the wellfield for approximately ½ mile. Small wooded areas exist south of Schuring Road and east of Oakland Drive and in the vicinity of Ravenswood Drive. The area approximately ½ mile northeast of the wellfield is being commercially developed.

3.3.6 RESIDENTIAL AND PARK LAND USE - FERTILIZER APPLICATION

During the site reconnaissance surveys, it was observed that many properties in well recharge areas are residential land use and park areas. There are also cemeteries, ball field, and other grass covered areas. These land uses are of concern in areas where lawns and yards are fertilized.

Lawn fertilization can be a significant source of nitrate-nitrogen loading in sewered residential and park areas. Loading variables include the percentage of residential lot owners who apply fertilizers, the number of applications per year, the amount of nitrogen per application, lot size, the percentage of the property in turf, and the nitrogen leaching rate. Also of concern in residential and park areas is the application of pesticides and herbicides.

3.4 ELEMENT 4 – WHP AREA MANAGEMENT

A primary goal of the management plan of the City WHPP is to specify how existing and potential sources of contamination found in WHPAs will be managed to prevent the sources from impacting the supply wells. This section describes management strategies that have been implemented by the City to proactively protect the water supply wells. Figure 5 shows the WHPAs. WHPAs encompass the 10-year TOT capture zones.

Existing and potential contamination sources identified within well recharge areas, or in close proximity, include the following:

- USTs and aboveground storage tanks (ASTs)
- LUSTs
- Users, manufacturers, and generators of hazardous materials
- Application of fertilizers, pesticides, and herbicides (residential and agricultural)
- Spill and leak (pipeline) sites
- Improperly constructed or unused, non-abandoned wells
- Cemeteries
- Dumps
- Known Contamination Sites (RCRA, CERCLA, etc.)

Other potential contamination sources that could be located in well capture zones include private sewage disposal systems, floor drains to septic systems, and cisterns.

3.4.1 ALTERNATIVE MANAGEMENT STRATEGIES

Alternative management strategies have been developed to address potential and existing contamination sources located in WHPAs. The various strategies (activities) can be grouped into five principal categories as follows:

- A. Existing programs
- B. Intergovernmental coordination
- C. Monitoring
- D. Land use protection and options
- E. Education and public information/awareness

Table 5 summarizes key elements of a management plan developed for City Wellfields. Several activities were identified for resource management within the delineated WHPAs.

All landowners in the City rely on groundwater resources for water supply, and many residents maintain private water supply/irrigation wells. Emphasis has been placed on management activities that provide a mutual benefit to the City residents and other property owners (Texas and Pavilion Townships) located within the WHPAs.

3.4.2 CATEGORY 1 – EXISTING PROGRAMS

3.4.2.1 DEVELOPMENT REVIEW TEAM PROCEDURES

The City has a Development Review Team (DRT) that evaluates every proposed new development and redevelopment within the City. The DRT reviews Fire Department Chemical Survey Forms (described in Section 3.4.3.2) and Site/Final Plan checklist (described in Section 3.4.5.2) to ensure that proposed development complies with local zoning and environmental regulations and that applicable County, State, and Federal permits have been secured. The DRT considers the relationship between new developments and WHPAs including stormwater management, spill containment, and hazardous materials handling and storage. The DRT includes the following:

- Utilities Engineer
- Director of Transportation and Utilities
- Planning and Zoning representative
- Fire Marshal
- City Utility Contract Administrator
- Water Utility Contract Operations Manager

The team meets weekly and provides a timely response to developers. DRT members are keenly aware of WHP planning issues. All team members serve on the WHP planning team.

3.4.2.2 STORMWATER DESIGN CRITERIA MANUAL

The City developed a Stormwater Design Criteria Manual (FTCH, 1994), that established specific design criteria and basis of design for stormwater management. The City has taken a proactive approach to protecting groundwater and surface water resources. The manual emphasizes that the quality of water resources in the City depends, in large part, on the management of stormwater runoff. The current manual was adopted in 2003 (FTCH, 2003).

The design criteria was developed with the intent of maximizing infiltration of stormwater to promote groundwater recharge, but only in areas where soils are permeable, groundwater is at adequate depth, there are no existing contamination (LUST sites), and outside sensitive municipal well recharge areas. The City is divided into three risk zones. Zone A is the area located within the five-year TOT limits for municipal wells. Zone B is the area located within the general zone of contribution (ZOC) of municipal wellfields. Zone C is the area located outside the zone of municipal wellfields.

Zoning districts throughout the City have been rated as high or low risk for groundwater contamination depending on land uses allowed in the zoning districts. A high risk designation is assigned to zoning districts typically allowing activities that include the use and disposal of hazardous substances in quantities exceeding 100 kilogram per month. Specific operations include:

- Pesticide application services, stores, and retailers
- Chemical, paint, and plastics manufacturing
- Laundries and dry cleaners
- Furniture manufacturing
- Printing facilities
- Analytical and clinical laboratories
- Vehicle maintenance facilities (transportation/contractors/automotive dealers, car rental, service stations, automotive repair, rust proofers)
- Photographic development
- Equipment repair
- Junk and salvage yards
- Pulp and paper industry
- Wood preserving and treatment, furniture strippers, finishers, painters
- Metal manufacturing (metal plating)
- Other manufacturing (textiles, rubber, glass)
- Commercial and government transportation fleets
- Airport maintenance and fueling
- Gas stations
- Auto washes
- Concrete, asphalt, coal, tar storage, and manufacturing
- Landfills, dumps, and transfer stations

- Fuel oil distributors and stores
- Above and underground petroleum pipelines
- Salt storage piles
- Mining operations and injection wells
- Boat builders and refinishers
- Food processors, meat packers, slaughter houses
- Heating oil storage (nonresidential consumptive use)

The stormwater management strategies discussed in the Stormwater Design Criteria Manual differ depending on risk zone designation, land use, zoning, size of site, proximity to surface water, and the physical characteristics of the site. Tables 1 and 2 in Appendix 7 summarize minimum stormwater management strategies and minimum stormwater management practices, respectively. Appendix 7 also contains a map showing risk Zones A, B, and C.

In Zone A, the primary stormwater management strategy is storage, treatment, and surface water discharge; and the secondary strategy is treatment and infiltration. Infiltration and surface water discharge without treatment are not allowed in Zone A.

In Zone B high-risk areas, the primary stormwater management strategy is storage, treatment, and surface water discharge; and the secondary strategy is treatment and infiltration. Infiltration and surface water discharge without treatment are not allowed in Zone B high-risk areas. Infiltration is the primary stormwater management strategy in Zone B low-risk areas.

In Zone C high-risk areas, the primary stormwater management strategy is treatment and infiltration. In Zone C low-risk areas, the primary stormwater management strategy is infiltration. Treatment cells described in the Stormwater Design Criteria Manual consist of impermeable structures to capture oil, grease, and other floatables, and to contain sediments.

The locations of future stormwater detention and infiltration basins were selected relative to the location of delineated WHPAs. A map in Appendix 7 shows proposed and existing infiltration and detention basins. Table 4 summarizes the status of stormwater detention and infiltration structures throughout the City.

The Stormwater Design Criteria Manual encourages use of solid wall pipes that discharge to specific infiltration areas, rather than the use of perforated pipes that allow uncontrolled infiltration of stormwater. The use of grassed waterways is encouraged in low risk areas for conveyance of stormwater runoff. The vegetation in the waterways filters sediments and absorbs pollutants, prior to infiltration or discharge to surface waters.

3.4.2.3 HAZARDOUS WASTE COLLECTION/DISPOSAL

The Kalamazoo County Human Services Department sponsors a Household Hazardous Waste Collection Program and Red Med Box Program. The two programs involve collection and disposal of residential hazardous waste for all Kalamazoo County residents. The program does not accept wastes from schools, businesses, institutions, and non-profit organizations. However the household hazardous waste collection program, as a regional clean sweep facility, will accept mercury, pesticides, and fertilizers from any operation, private or public. City residents and the majority of Kalamazoo County residents can dispose of many of their hazardous wastes free of charge at the Household Hazardous Waste Center, located at 1301 Lamont Avenue, Kalamazoo, Michigan.

Collections are held three times per week at the Household Hazardous Waste Center. Hours are Tuesday and Friday, 8:00 a.m. to 1:00 p.m.; Wednesday, noon to 6:00 p.m. Information about services can be obtained by calling 269.373.5211.

The Red Med Box has a variety of locations in Kalamazoo County for residents to dispose of their unused medications properly, one location in the City is at the Portage Police Department, 7810 Shaver Road, Portage, Michigan.

Wastes accepted for disposal include oil-based paints, paint thinners, solvents, pesticides, aerosols, corrosives, car chemicals, motor oil, oil filters, car and household batteries, antifreeze, mercury, swimming pool chemicals, and electronics. Items not accepted include latex paints, Freon-containing appliances, smoke detectors, asbestos-containing materials, fire extinguishers, and wastes in 55-gallon drums. A complete list of accepted and not accepted items, and other important information can be found on their website: <http://www.kalcounty.com/hhw>. A brochure describing the Household Hazardous Waste Collection and the Red Med Box Program is in Appendix 8.

The household hazardous waste collection program has been coupled with WHP planning purposes for the City. All property owners in the City receive a semiannual mailing to encourage their participation in the program. Public informational activities will be coordinated with the Kalamazoo County Human Services Department.

3.4.2.4 ONSITE SEWAGE DISPOSAL SYSTEMS

Approximately 10 percent of City residents have private sewage disposal (septic) systems, and 90 percent of the residents are served by municipal sewer. Areas located within WHPAs are generally sewered, other than the WHPA around the Pershing Wellfield and WHPAs located within Texas and Pavilion Townships. Private sewage disposal systems are of concern to both public and private water

supply wells because of the loading to the groundwater of bacteria, viruses, nitrate-nitrogen, cleaning compounds, and other chemicals (motor oil, solvents, antifreeze, paint thinners, etc.) that may be disposed of in the systems. City residents are required by ordinance to connect to the sanitary sewer system as it is extended into new areas.

The Kalamazoo County Human Services Department has regulatory authority over the siting and design of private, residential sewage disposal systems with wastewater flows less than 10,000 gallons per day.

Sewage disposal systems with flows greater than 10,000 gallons per day are regulated by the MDEQ Waste Management Division. The rules used by Kalamazoo County for approving the location and design of sewage disposal systems are contained in the Kalamazoo County Sanitary Code which is included in Appendix 9. The Human Services Department staff members also utilize a document entitled "Michigan Criteria for Subsurface Sewage Disposal" for systems serving more than two family units.

The code requires that a permit be obtained to construct, alter, extend, or replace a sewage disposal system in Kalamazoo County. A site evaluation must be performed before a permit is issued, and the Health Officer may require groundwater data for determination. The Health Officer may condemn a failing sewage disposal system or when a system endangers a public or private water supply, or creates a public nuisance.

WHP management strategies that are performed in conjunction with this activity include:

- The City will provide Kalamazoo County with a copy of the map showing delineated capture zones for supply wells.
- The City will continue to evaluate direction of groundwater flow and enforce minimum setback of 50 feet from all private wells prior to issuing permits for sewage disposal systems.
- The City requests that Kalamazoo County provide the City quarterly, a list of recently approved sewage disposal permits so that the City can update their database and provide WHP information to owners of the sewage disposal systems.
- The City requests that Kalamazoo County Human Services Department send a brochure titled, "A Home Owner's Guide to Onsite Sewage Treatment Systems," to owners that have filed a permit for a septic system. The brochure summarizes the benefits of proper maintenance, provides recommendations regarding proper maintenance intervals, information about how to conduct maintenance, and the types of waste that should not be disposed of to a septic system. A copy of the brochure is in Appendix 10. The City continues to ask Texas and Pavilion Townships to support this WHP effort.

3.4.2.5 PRIVATE WELL CONSTRUCTION AND ABANDONMENT

Approximately 10 percent of City residents have private water supply wells. The remainder of the residents is served by the municipal water supply system. It is important for wells to be constructed properly with required seals around casings and sanitary seals at the ground surface so wells do not provide a direct conduit for contaminants to enter the aquifer. It is also extremely important that unused wells, contaminated wells, and defective wells (holes in casing, unsealed) be properly abandoned.

The Kalamazoo County Human Services Department has regulatory authority for issuing permits for private water supply wells and Types II and III public water supply wells (such as duplexes, gas stations, and churches). The County and MDEQ Department of Drinking Water and Radiological Protection have the responsibility to implement the provisions of Part 127 of the administrative rules of the Michigan Public Health Codes and Act 399, which include regulations for well construction and abandonment. The rules used by Kalamazoo County for permitting water supply systems are in a document titled, *Kalamazoo County Sanitary Code*. A copy of the regulations is in Appendix 9.

The code requires that a permit be obtained from the County Health Officer for construction of a proposed potable water supply well. The Health Officer may deny a permit for a supply well when the proposed location of the well is in an area where the MDEQ has issued an advisory against the use of water supply wells, or in areas where the County has knowledge of groundwater contamination, or areas likely to be contaminated. It is believed that these measures provide WHP, provided wells are properly constructed.

WHP management strategies that will be performed in conjunction with this activity include:

- Identify the location of abandoned wells in WHPAs in the City. Communicate to the public through the media and the City newsletter about the importance of finding and plugging abandoned wells.
- Develop a private well inventory for WHPAs. The City requests that Kalamazoo County provide the City, a list of recently approved well construction permits so that the City can update their database and provide WHP information to owners of the water supply systems.
- Continue to provide information to owners of abandoned wells about proper closure of the wells.
- Make available to residents a brochure, prepared by the Kalamazoo County Human Services Department and titled, "Water Well Abandonment." A copy of this brochure is in Appendix 11.
- At the time that property owners connect to the City municipal water system, the City and Kalamazoo County Human Services Department will require the property owner to abandon unused wells on the property.
- The City will require all applicants for demolition permits to provide a copy of the well abandonment forms verifying the closure of all wells, if any.

- Inform the Kalamazoo County Human Services Department about the location of abandoned wells so that the department can oversee the proper closure of the wells.

3.4.3 CATEGORY 2 – INTERGOVERNMENTAL COORDINATION

Intergovernmental coordination involves communicating and working with other units of government to encourage WHP planning activities. Opportunities for intergovernmental coordination described in the previous section include:

- Work with the Kalamazoo County Human Services Department to promote the Household Hazardous Waste Collection Program and Red Med Box Program.
- Provide the Kalamazoo County Human Services Department with a copy of the delineated capture zone maps, prioritize sanitary sewer extension in WHPAs, and request quarterly listing of new permits from information provided by Kalamazoo County.
- Request listing of new well construction permits from information provided by Kalamazoo County.
- Request that the resident provide a copy of well abandonment form(s) for closure of wells on properties proposed for demolition.
- Inform the Kalamazoo County Human Services Department about the location of abandoned wells that the City locates.
- Utilize the County's brochures about sewage disposal systems and plugging abandoned water wells.

Other opportunities for intergovernmental coordination are summarized in Tables 3 and 4 and described in the following sections.

3.4.3.1 PROVIDE REVIEW COPIES OF WHPP

The capture zones for two of the City wellfields (Westfield and Pershing) extend into the adjoining Townships of Texas and Pavilion, respectively. The City has notified the townships about the WHPAs and the City's strategies to protect them. They have also provided copies of this report to the townships for their consideration.

The City has provided copies of the WHPP report to the Kalamazoo County Human Services Department for awareness and use in supporting WHP measures in the City.

3.4.3.2 FIRE DEPARTMENT PREVENTION AND EMERGENCY RESPONSE ACTIVITIES

The City Fire Department will help manage the users, generators, and manufacturers of hazardous materials covered by the RCRA who are located within WHPAs. RCRA facilities may include:

- Chemical, paint, pharmaceuticals manufacturing
- Automobile repair and service
- Laundries and dry cleaners
- Metal plating
- Electronics manufacturing
- Manufacturing and service businesses that use, store, or dispose of oils, greases, and solvents
- Junk and salvage yards

Fire departments have the legal authority to inspect RCRA facilities and to survey the types and quantities of hazardous materials used, stored, or manufactured at a site.

WHP management strategies that will be performed in conjunction with this activity include:

- Continue to conduct Fire Department Chemical surveys at facilities located within WHPAs. Obtain information about the type, quantity of hazardous materials used, stored, manufactured, and disposed onsite. Surveys have been completed at all facilities in 2000, and repeated every two years. New facilities located in WHPAs will be surveyed at the time of permit approval and startup as part of building permit certificate of occupancy. The Fire Department requests that the Chemical Survey be completed for all facilities located in WHPAs and can be completed on the City's website.
- Continue inspections of facilities located within WHPAs to ensure that facilities are in compliance with fire codes, fire prevention safe guards, and storage of hazardous materials. Inspections will be ongoing and will be performed every three years or as follow-up is needed if violations are observed.
- Provide educational materials for the proper storage, handling, and disposal of hazardous materials.
- Also provide a copy of the City's WHP brochure and inform them about their location relative to water supply wells and the well recharge area. Information will be provided to facilities at the time that inspections are performed.
- Coordinate with local, state, and federal government agencies about violations and existing or potential environmental contamination sites. Immediately inform the City Transportation and Utility Department about spills, or other environmental concerns. Provide copies of Chemical surveys (Tier 2

reports) and facility inspection reports to the City so they can prepare and maintain a database on hazardous materials used, stored, manufactured, and disposed of in WHPAs.

The City will provide the resources needed to complete these management activities completed by the Fire Department.

3.4.3.3 REPORTING AND FOLLOW-UP PROCEDURES

The City has developed Administrative Order No. 6.10 that is titled Unknown Substance/Hazardous Materials Incidents and Investigations. A copy of the Administrative Order is in Appendix 12. The order, which is contained in the City-wide Emergency Preparedness Response Plan, authorizes the City Fire Department to respond to and investigate suspected contamination sites in the City. If conditions at the site require it, the fire division Incident Commander (IC) informs MDEQ Pollution Emergency Alerting System (PEAS) and all other City departments about existing or potential hazards at the sites, where the responsible party is unknown. The IC will request a response by the Kalamazoo County Haz Mat Response Team (KCHMT), and is responsible for control efforts. The City follows up with KCHMT about the status of existing and potential contamination sources in the WHPAs, investigations regarding the nature and extent of releases, and the status of cleanup activities. This program allows the City to be intimately aware of potential threats to wellfields and ensures that threats are being addressed.

The City will coordinate with MDEQ and Department of Licensing and Regulatory Affairs, Storage Tank Division about the location of storage tanks, leaking storage tanks, and spill sites in the City. The City will update their database annually to help the City manage these potential contamination sources in the WHPAs.

3.4.3.4 JOINT CITY/TOWNSHIP/COUNTY MEETINGS

The City will continue membership and participation in the Kalamazoo Storm Water Working Group (KSWWG). The KSWWG group is "an organization of municipal water supplies, state, township and county officials interested in protecting water resources, promoting good land use management and educating citizens."

Once the renewal of the WHPP is approved, the City will provide a copy of the WHPP to KSWWG, and to continue with educating decision makers about the extent of capture zones and WHPAs for the City, and advocate for partnerships to protect the groundwater. Groundwater knows no boundaries, and it will take a cooperative partnership effort of surrounding governments to protect the City's groundwater resources. Likewise, the City can help protect the groundwater resources of adjacent communities. The WHPAs for

the City supply wells are located primarily within the City, but portions of the WHPAs for Pershing and Westfield Wellfields lie within Pavilion and Texas Townships, respectively.

3.4.4 CATEGORY 3 – MONITORING

3.4.4.1 CSI MAINTENANCE

As part of this study, a CSI was conducted within the delineated WHPAs. It will be important to maintain current knowledge of land use and potential contamination source activities within the WHPAs in the future. The City will update the CSI by conducting windshield surveys and state and federal database checks on an interval of once every six years.

3.4.4.2 WATER LEVEL MONITORING

It is important that the City monitor water levels in wells, streams, and lakes to ensure that WHPAs and ZOCs are not significantly skewed or altered. Declining water levels can also cause changes in water quality. The City will continue to monitor water levels in supply wells, observation wells, and surface waters in conjunction with ongoing study with the City of Kalamazoo, Pfizer, Kalamazoo County Human Services Department, and the USGS.

Static and pumping water level data are also very useful for assessing whether declines in yield are the result of aquifer, well, or pump problems. Currently, static and pumping water levels in supply wells are measured and recorded weekly.

3.4.4.3 WATER QUALITY MONITORING

The City will perform water quality monitoring as required by state and federal requirements to ensure safe drinking water for the City. Results will be summarized and reviewed for conformance with regulatory drinking water standards, for comparison with current water quality results, and to identify any potential trends in contaminant concentrations.

3.4.5 CATEGORY 4 – LAND USE PROTECTION OPTIONS

3.4.5.1 EXISTING ZONING

The City and Kalamazoo County have land subdivision and zoning ordinances to control and direct development. Land subdivision and zoning ordinances are used to safeguard flood plains, wetlands, shore lands, highway access, air quality, surface water, and other concerns. Existing zoning regulations will be enforced to help protect municipal well recharge areas and groundwater.

The City will provide Kalamazoo County and the Townships of Texas and Pavilion with WHPA maps and a copy of the City's Stormwater Design Criteria Manual with a list of high risk land uses and their management in WHPAs.

The City Department of Community Development will ensure that development complies with separation distances required between municipal water supply wells and potential contamination sources (Water Well Construction and Pump Installation Codes, Part 127-Act368-R325).

Table 6 summarizes existing zoning in the vicinity of City wellfields. The majority of the wellfields is in or surrounded by land that is zoned single family residential, park/conservancy, or general business. These zones are believed to be compatible with WHP purposes. Some properties in the vicinity of the Pershing wellfield are zoned light and heavy industry. These zones are not compatible with WHP. Future well siting should consider existing and historical zoning.

3.4.5.2 SITE BUILDING PLAN REVIEW

The City will continue site building plan review standards through the DRT to help protect WHPAs. The goal of the standards will be to "block pathways to groundwater and surface water contamination" (MSU Fact Sheet 6, 1998).

Primary objectives of site building plan review standards are to:

- Educate people about applicable City, county and state permit requirements.
- Ensure conformance to local and state requirements.
- Support the local fire department's prevention and emergency response activities.
- Promote awareness about handling, storage, and disposal of hazardous materials, preventing leaks and spills of hazardous substances and the associated liabilities.

The City has developed Site/Final Plan Information, Land Divisions with Public Improvements, Residential Plot/Building Plan Approval, and Surety for Public Infrastructure Projects Checklists for public improvements. The checklists help ensure compliance with local, county, and state permits. The checklists are contained in Appendix 13. A summary of the Development Review and Approval Process is also in Appendix 13.

The City continues with the Fire Department Chemical Survey form for site plan review. The form is completed and provided to the City as part of the site plan submittal. A copy of the form is in Appendix 14.

The City will provide a copy of the WHPA map to developers and property owners and require that the person indicate on the Environmental Permits Checklist and hazardous substances reporting form whether the proposed development is in a WHPA.

3.4.5.3 OVERLAY ZONING

The City is using the Risk Zone Designation Map from the City's Stormwater Design Criteria Manual for management of high risk land uses in WHPAs and protection of groundwater resources. A copy of the map is in Appendix 7. The Stormwater Criteria maps will be updated to match the new WHPP. The map and associated Risk Zones A through C are described in Section 3.4.2.2 of this report.

3.4.6 CATEGORY 5 – EDUCATION AND PUBLIC INFORMATION AWARENESS

Community-wide education programs including education targeted to household hazardous waste reduction and other home practices are useful WHP Program elements. The City has implemented an education program to inform area residents of the need to protect water resources and water supply wells. Education is an effective way to help people understand that activities on the land and in the atmosphere influence the quality of groundwater resources. The public education program will consist of the following:

- A. Distribution of information materials through the annual City of Portage Portager Newsletter
- B. Public informational meetings held every two years and upon request
- C. WHPP brochures are available
- D. Land use and contamination source awareness through the City's website
- E. School and public education every year or as requested
- F. Fire Department Hazardous chemicals surveys

3.4.6.1 INFORMATIONAL MATERIALS

Informational materials will be prepared and will be available to all property owners and residents. The purpose of the information materials (brochures, fliers, and inserts) will be to educate and inform property owners about various topics such as WHP planning activities and best waste management procedures. A list of the materials are as follows:

- A. WHP brochure and fact sheet
- B. Information describing the proper use and application of lawn fertilizers and pesticides
- C. Information about private sewage disposal systems, "A Home Owner's Guide to Onsite Sewage Treatment System"

- D. Information about storage tanks and potential threats to supply wells
- E. Other materials or fact sheets as appropriate

The City has developed a WHP brochure that describes the water cycle, WHP planning, potential contamination sources, and things local residents can do to protect their water resources. A copy of the brochure "Wellhead Protection - Protecting Our Valuable Resource" is in Appendix 15.

A copy of "A Home Owner's Guide to Septic Systems" is in Appendix 10. As new sewer lines are constructed in the City, residents and businesses are required to connect within 18 months of notification of availability. Details regarding the City's mandatory sewer connection program are included in Appendix 16.

3.4.6.2 PUBLIC INFORMATIONAL MEETINGS

The City will continue to conduct as part of the plan, a Public Informational Meeting. The purpose of the Public Informational Meeting will be to inform residents of the WHPP, and provide an opportunity for public education and awareness. Maps, fliers, and fact sheets will be available at the meeting. Public informational meetings will be held every two years.

3.4.6.3 AVAILABILITY OF WHPP

Copies of the WHPP will be made available for review by the public at City Hall and the Portage Public Library. The availability of the plan will be communicated to the public through meeting announcements and newspaper and radio releases.

3.4.6.4 SCHOOL AND PUBLIC EDUCATION

The City participates in school and public education programs. Transportation and Utilities Department staff members visit local Schools to present on concepts related to protecting our groundwater and treatment processes several times a year. Schools are informed by the City about the availability of tours at water supply facilities or schools may request tours at any time. During tours, people are exposed to important concepts related to groundwater and WHP.

News releases will be provided on an as-needed basis to the local newspaper to elevate public awareness, educate the public on the need for WHP, and provide examples of prudent WHP measures.

3.4.6.5 HAZARDOUS CHEMICALS SURVEYS

As described in Section 3.4.3.2, the City Fire Department will:

- Conduct Fire Department Chemical surveys at facilities located within WHPAs.
- Obtain information about the type, quantity of hazardous materials used, stored, manufactured, and disposed onsite.
- Distribute educational materials for the proper storage, handling, and disposal of hazardous materials
- Provide a copy of the City's WHP brochure and inform property owners about a property's location relative to water supply wells and well recharge areas.
- Provide copies of chemical surveys (Tier 2 reports) and facility inspection reports to the City WHPP administrator for preparation of a database on hazardous materials used, stored, manufactured, and disposed of in WHPAs.

3.5 ELEMENT 5 – CONTINGENCY PLAN

The purpose of contingency planning is to develop emergency response procedures and water replacement options. Accidents and spills may occur at any time. Preparing for these incidents makes contingency planning an important step in WHP. Contingency planning for WHP can be coordinated with the water supply contingency plan currently required by the MDEQ, as mandated by the Michigan Safe Drinking Water Act. The City's Emergency Preparedness Plan SOPs are included in Appendix 12.

3.5.1 SHORT-TERM EMERGENCY RESPONSE

The City's Emergency Preparedness Plan relies on communication with first responders and a plan of action in the event of a water system emergency. The City has contracted a spill response team that will be used for spill responses. Depending on the nature and amount of chemical spilled, the City will report the incident to the MDEQ PEAS line and Kalamazoo County Emergency Response Divisions. In accordance with the City's Emergency Preparedness Plan, the respondent will prepare and transmit to appropriate officials, a report of the incident within the next regular working day. Table 7 summarizes emergency contact numbers and emergency SOPs are included in Appendix 12.

As described in Section 3.4.3.3, the City has developed Administrative Order No. 6.10 for Site Investigation Procedure of Unknown Substance/Hazardous Materials. A copy of the Administrative Order is in Appendix 12. The order, which is contained in the City-wide Emergency Preparedness Plan, authorizes the City Fire Department to respond to and investigate suspected contamination sites in the City. If conditions at the site require it, the City Environmental Specialist informs the MDEQ Environmental Response Division about existing or potential hazards at sites. The MDEQ responds to the responsible

party. The City follows up with the MDEQ about the status of existing and potential contamination sources in the WHPAs, investigations regarding the nature and extent of releases, and the status of cleanup activities. This program allows the City to be intimately aware of potential threats to wellfields and ensures that threats are being addressed.

First responders, such as the Fire/Ambulance Departments and City, County, and State Police, have been requested to notify the City if there is an occurrence that may impact the safety of the water supply at the City's supply wells.

The City water supply wells are scattered throughout the City and have different recharge areas, therefore, it is unlikely that more than one well or wellfield will be impacted at the same time. Should a well be impacted, initial response action will involve isolation of the well from the water distribution system. The well will be locked out and valves closed to ensure that no additional water is pumped from the well. The distribution system is interconnected throughout the City, and other well sources would be pumped to replace the lost capacity. If portions of the distribution system require isolation, bottled water will be distributed to affected households.

Bottled water is provided by the state to residents impacted by a contaminated water source. The water source must have contamination levels which exceed those identified as Maximum Contaminant Levels by federal and state Safe Drinking Water Acts and the Natural Resources and Environmental Protection Code, Part 201.

In the event of power loss, the City has emergency power supplies in five well site areas (Milham Wells 1, 2, and 3; Shuman Well; Westfield; Portage Creek Well 1; and Garden Lane Wells 2, 3, and 4). The maximum total supply capacity available with emergency power is approximately 15.3 million gallons per day (MGD). The City average day demand or use is 5.86 MGD (FTCH, 2013). It appears that the available supply capacity and elevated storage capacity of 2.25 MG should provide for average day use and fire flow if there were a total loss of power.

3.5.2 LONG-TERM EMERGENCY RESPONSE

Cleanup may take years to complete in the event that a well or wellfield becomes contaminated. New water sources must be located and developed to avoid a crisis situation. City managers of public water supply systems should know where replacement water supplies will originate prior to a crisis. In some cases, acquisition of a wellfield or easements will be needed. Described below is a summary of the recommendations resulting from a *Water Exploration Report* developed for the City by American Hydrogeology Corporation (AHC, 2003) for potential alternate water sources within the City.

- A. Four sites were identified and selected for testing:
 - 1. Buckalew Property – south of Osterhout Road, in SW ¼ of section 33, T3S, R11W (City)
 - 2. Wiley Property – in SW ¼ of section 4, T4S, R11W (Schoolcraft Township)
 - 3. Guilford Property – in SW ¼ of section 1, T4S, R11W (Schoolcraft Township)
 - 4. Johnson Property (Avtech Labs) – north of Bishop Avenue (P Avenue) in SW ¼ of section 12, T3S, R11W (City)
- B. During the initial investigations, particular attention was given to topographic features that influences groundwater flow patterns for determining test sites.
- C. Soil borings were done for each testing site to determine aquifer characteristics, and this was drilled by Pronsonic, Inc.
- D. Water quality testing was completed in order to determine what actions need to be taken to meet the Michigan Department of Environmental Quality regulations.
- E. The Buckallew site is recommended to be a good candidate for consideration because it had the thickest upper aquifer section out of the four test sites. This site is also located on a large parcel and is bounded on several sites by wetland complexes that would lessen the chances of future development. Iron and manganese treatment will be required for this site.

3.6 ELEMENT 6 – SITING NEW WELLS

A WHPP should identify the potential need for the construction of new wells. If new wells are needed, the City Protection Program should evaluate all potential contaminants within the WHPA of the new well site. Site selection must satisfy the County and MDEQ requirements.

The City Transportation and Utility Department coordinates wellfield site and production well location determinations with the Department of Community Development to ensure appropriate consideration of engineering, planning, and environmental factors.

Studies have been conducted to identify potential new wellfield sites. Four sites were identified and selected for testing in 2003 by drilling of 23 test borings. Due to the high iron levels detected at all sites, modeling the distribution system to include the test well sites was not completed. The alternative suggested by AHC is to identify sites that have a thick upper aquifer unit along with large isolation distances from potential sources of contamination. AHC concluded that the Buckallew site appeared to meet these criteria, and further investigation for water quality would be recommended for this option. The City has acquired property suitable for construction of a water treatment plant for iron removal should it become necessary in the future. The water treatment plant, if ever needed, would be located at the current Shuman and Rolling Hills wellfields.

MDEQ requirements are based on the Michigan Safe Drinking Water Act, which establishes requirements for the isolation and construction of a new well. These rules are designed to ensure that new wells provide a continuous, adequate quantity of water that meets state drinking water standards. The following environmental factors, production capabilities, and community development factors have been included to guide decisions regarding new well locations.

3.6.1 ENVIRONMENTAL FACTORS

- A. Conduct an onsite environmental assessment of the property being considered for a well site to assess any adverse environmental conditions at the site.
- B. Conduct an environmental review of adjacent properties surrounding the proposed wellfield or well site(s) to evaluate environmental conditions.
- C. Review data collected in conjunction with 40 CPR Subpart J (Chemical Survey) program regarding adjacent developed properties. Developments next to the property under consideration for a wellfield or production well site should be reviewed for potential environmental impacts.
- D. Well site dimensions should be large enough to provide absolute control of a minimum 200-foot radius around a well, per MDEQ requirements.
- E. Wellfields and supply wells should not be located where known or potential sources of contamination lie within the estimated 10-year TOT.
- F. Major transportation routes increase the potential of contamination from hazardous materials spills that could result from accidents. Contamination from salt application may also occur in the vicinity of roadways. Locating wells adjacent to major transportation routes will be avoided, where practical.
- G. An environmental review, including a site visit by an MDEQ representative, is required by the MDEQ.

3.6.2 PRODUCTION CAPABILITIES

- A. An aquifer performance test to determine the quantity of water available and the effect of long-term pumping on the aquifer should be conducted by a qualified hydrogeologist, as required by the MDEQ, and should meet MDEQ testing specifications.
- B. Conduct groundwater sampling for inorganic compounds, metals, and volatile organic compounds to determine the quality of the water source.

3.6.3 COMMUNITY DEVELOPMENT FACTORS

- A. Wellfield and production well sites will be located in areas with sufficient access to ensure that operational and maintenance needs and future equipment reliability requirements are met.
- B. Titles, tax records, and other available documentation will be reviewed for proposed well site properties to protect against the acquisition of properties that may have environmental concern.

- C. The location of conservation or other environmentally sensitive areas will be considered during well siting. The impacts on these areas will be minimized to the extent possible.
- D. The City Comprehensive Plan should be reviewed to determine future land use recommendations for the proposed wellfield or production well site and adjacent properties.

3.7 ELEMENT 7 – PUBLIC PARTICIPATION

The goal of this element is to promote public involvement by those who live and conduct business in the WHPAs in the development and implementation of the program (MDEQ, 1999). The City has encouraged public participation throughout the development of the WHPP and will continue to seek public input as management strategies are implemented. The schedule of implementation for public education and awareness are shown on pages 7 and 8 of Table 5.

The following summarizes management strategies previously described that will require public involvement:

- A. Household hazardous waste collection program. The City residents are encouraged to participate in this program to safely dispose of their hazardous wastes. Information about services can be obtained by calling 269.373.5211.
- B. The City provides brochures, prepared by the Kalamazoo County Human Services Department and titled, "A Home Owner's Guide to Onsite Sewage Treatment System," to owners of sewage disposal systems who live within or in close proximity to WHPAs. Texas and Pavilion Townships continue to support this WHHP.
- C. Residents will be asked to provide information about the location of abandoned wells in WHPAs in the City. A brochure, prepared by the Kalamazoo County Human Services Department and titled, "Plugging Abandoned Water Wells" will be provided to residents.
- D. The Fire Department continues to conduct chemical surveys at RCRA facilities located in WHPAs and request their input to and implementation of WHPP strategies.
- E. The City continues to hold public meetings to discuss the WHPP. Public participation will be accomplished at the City level through the City Manager, with review and discussion at public meetings. The City will encourage input from all citizens and property owners.
- F. The City has an environmental board that meets once a month that consists of local professionals, and advises the City Council on matters pertaining to the protection of groundwater recourses.
- G. Residents are welcomed to attend City Council and environmental board meetings to provide their input on the WHPP.
- H. The City continues participate in school and public education programs. Presentations and tours of the City's water systems and treatment process are given every year. Schools are informed by the City about the availability of tours at water supply facilities, and schools can request a tour or presentation at any time.

- I. News releases will be provided on an as-needed basis to the local newspaper to elevate public awareness, educate the public on the need for WHP, and provide examples of prudent WHP measures.

The more involved businesses and homeowners are, the more successful the WHPP will be. Public education and involvement will likely be the most important tools for protecting groundwater resources in the City.

4.0 REFERENCES

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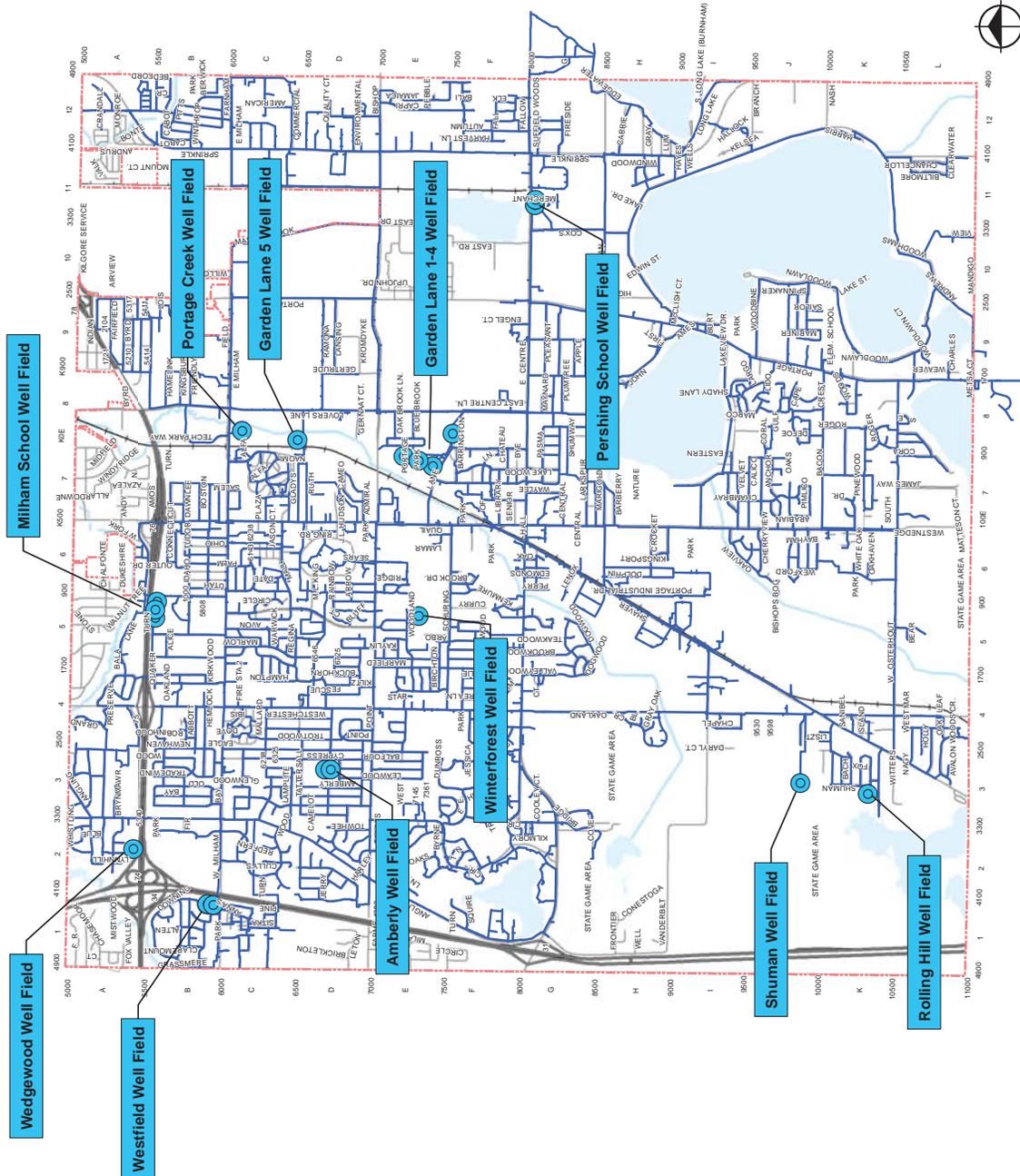
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Figures

LEGEND

- City of Portage Supply Wells
- Existing Water Mains



NORTH 0 2,000 4,000 FEET

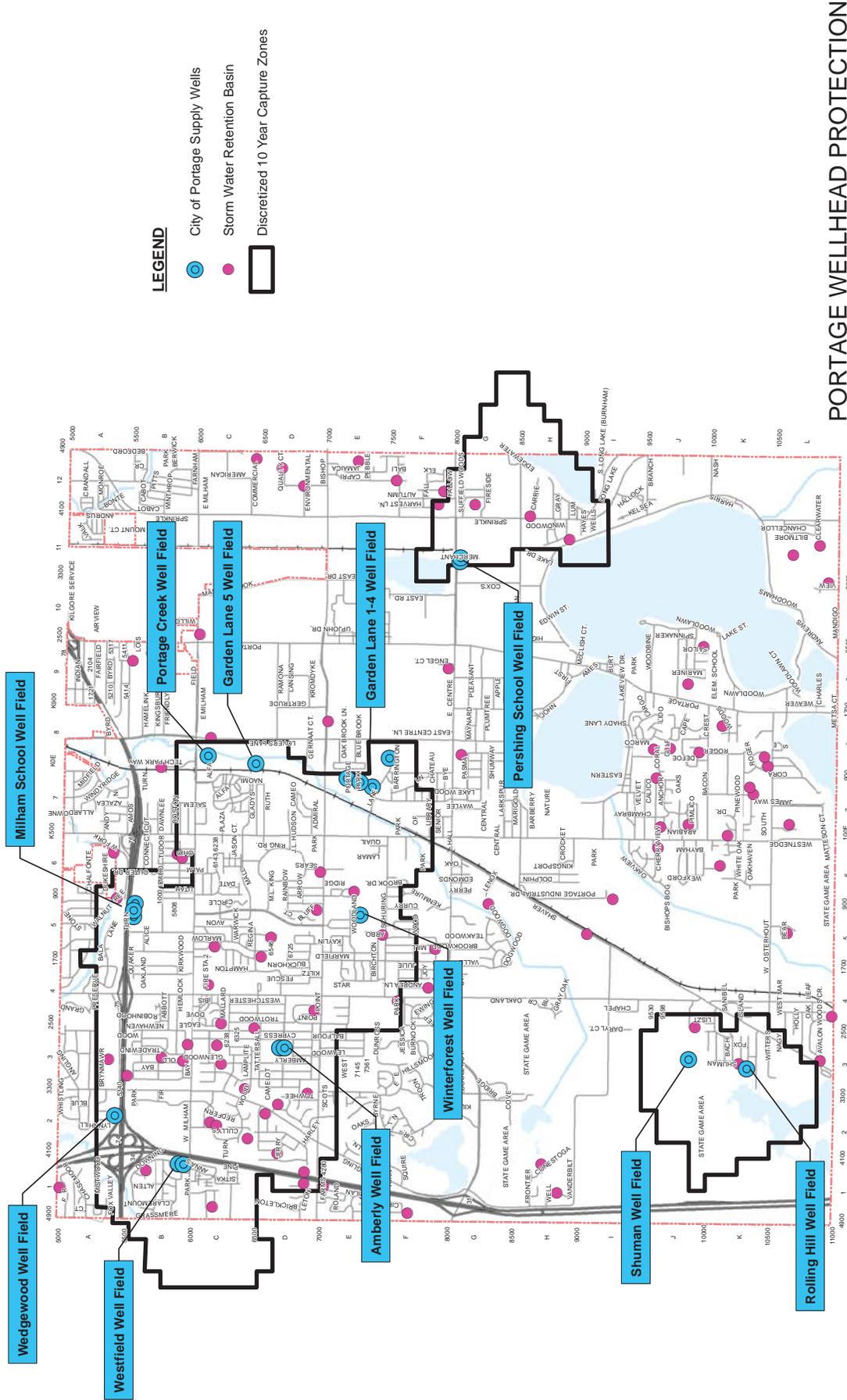
**PUBLIC WATER SUPPLY WELLS
AND DISTRIBUTION SYSTEM**

- LEGEND**
- City of Portage Supply Wells
 - 1 Year Capture Zones
 - 5 Year Capture Zones
 - 10 Year Capture Zones
 - Discretized 10 year Capture Zones



**PORTAGE WELLHEAD PROTECTION
1, 5, AND 10 YEAR CAPTURE ZONE ANALYSIS**





LEGEND

- City of Portage Supply Wells
- Storm Water Retention Basin
- Discretized 10 Year Capture Zones

**PORTAGE WELLHEAD PROTECTION
AREA DELINEATION**



Tables

Table 1 - Summary of Well Data

City of Portage, Michigan

Wellhead Protection Plan Update

Well	Year Constructed	Depth (feet)	Screen Interval (feet)	Diameter (inches)	Static Water Level (feet)	Pumping Rate (GPM)	Pump Setting (feet)	Screen Slot Size (inches)
Milham 1	NR	180	NR	12	25	800	135.5	NR
Milham 2	1959	148	103 - 148	12	35	1,000	96	0.018 - 0.040
Milham 3	NR	135	NR	12	26	900	85.67	NR
Amberly 1	1959	139	109 - 142	12	44	1,000	104.5	0.015
Amberly 2	1959	94	72 - 92	12	44	400	68.77	0.050
Winterforest	1960	114	84 - 114	12	0	800	74	0.015
Pershing 1	1959	178	NR	12	20	600	81.58	NR
Pershing 2	NR	167.83	NR	12	24	600	96	NR
Westfield 1	NR	146	NR	12	46	650	146.5	NR
Westfield 2	1961	147	115 - 146	12	39	550	104.92	0.012 - 0.022
Wedgewood	NR	112	NR	12	55	400	87	NR
Rolling Hill 1	1963	94	59 - 94	12	9	900	60	0.020 - 0.030
Garden Lane 1	1965	119	86 - 119	12	7	850	80.83	0.035
Garden Lane 2	NR	177	NR	16	8	1,200	156	NR
Garden Lane 3	NR	143	NR	16	6	900	99	NR
Garden Lane 4	2009	175	142 - 175	16	7	1,200	104.5	0.050
Garden Lane 5	NR	161	NR	16	10	640	135.5	NR
Lexington Green 1	1959	180	135 - 180	Abandoned	13	Abandoned	Abandoned	Abandoned
Lexington Green 2	1960	179	(103 - 141) (164 - 176)	Abandoned	13	Abandoned	Abandoned	Abandoned
Shuman 1	NR	99	NR	16	9	1,000	69.67	NR
Shuman 2	NR	84	NR	13 feet ¹	0	2 at 2,000	80	NR
Portage Creek 1	NR	142	NR	16	8	1,100	106.75	NR

Footnotes/Abbreviations:

GPM = gallons per minute

NR = not reported

¹Horizontal collector well**Stand-by Wells****No longer in service: Lexington Green 1 & 2 have been removed from the distribution system.**

Table 2 - Roles and Responsibilities

City of Portage, Michigan

Wellhead Protection Plan Update

Team Members	Roles and Responsibilities	Goals	Implementation Schedule	
Local	1. Utilities Engineer	Overall program implementation and maintenance.	<ul style="list-style-type: none"> Organize/schedule WHP planning meetings Contact team members Request stewardship reports Follow-up stewardship reports Establish funding source or strategy Update the WHP program Intergovernmental coordination Update team members with WHP/emergency information Intergovernmental coordination 	<ul style="list-style-type: none"> Annual Monthly or as needed Annual Annual Annual Every 6 years As needed As needed Continuous - Ongoing
	2. Municipal Water Supply Officials (Split between United Water Project Manager and City of Portage Utility Contract Administrator)	Maintain wells and facilities. Assist with public and school education.	<ul style="list-style-type: none"> Develop WHP related fact sheets for Consumer Confidence Report Maintain contingency plan - water supply (Transportation & Utilities Department) Hold open house at well facility (United Water) Continue well/facility maintenance plan (Transportation & Utilities Department) Prepare and submit stewardship report 	<ul style="list-style-type: none"> Ongoing Ongoing Every 3 years Ongoing Annual
	3. Planning/Zoning Official (Deputy Director of Planning, Development & Neighborhood Services)	Administer zoning ordinance.	<ul style="list-style-type: none"> Enforce existing zoning Enforce storm water ordinance Review Zoning and Land Use Ordinances. Develop site building plan review standards. Strengthen administrative procedures in Section 1280.06 of the Zoning Code for WHP purposes Enforce overlay zoning (use Stormwater Risk Mapping) Prepare and submit stewardship report 	<ul style="list-style-type: none"> Ongoing 2016 2016 Ongoing Annual
	4. Fire Marshal	Administer emergency response. Conduct annual fire safety inspections/hazardous materials surveys. Perform initial response to investigate suspected contamination sites per Administrative Order 6.10.	<ul style="list-style-type: none"> Notify Direct of T&U about all incidents in WHPAs and changes in hazardous materials storage and use Provide updated lists of storage tanks status (by MDEQ) Send hazardous chemicals survey forms to all businesses in WHPAs (Fire Fighter Right-to-Know) Prepare and submit stewardship report 	<ul style="list-style-type: none"> Immediately Annual As Required Annual
	5. Department of Transportation & Utilities	Education Program. Locate future wellfield and production well sites.	<ul style="list-style-type: none"> Develop budget for WHP program Implement public education and awareness programs Enforce Sanitary Sewer Extension/Street Reconstruction Policy Perform evaluation and testing of future well sites - purchase land and implement WHP measures as required Prepare and submit stewardship report 	<ul style="list-style-type: none"> Annual During 2015 Ongoing Ongoing Annual
	6. Streets & Equipment	Control application of road salt.	<ul style="list-style-type: none"> Continue monitoring application of road salt in WHPAs Prepare and submit stewardship report 	<ul style="list-style-type: none"> Ongoing Annual
	7. Kalamazoo County Environmental Health & Laboratory Services, Bureau of the Human Services	Administer sewage permits. Administer drinking water well permits. Maintain countywide groundwater database.	<ul style="list-style-type: none"> Notify Director of T&U about all incidents in WHPAs Include all private sewage systems in database Develop WHP fact sheets Continue groundwater database Administer Household Hazardous Waste Collection Program Prepare and submit stewardship report 	<ul style="list-style-type: none"> Immediately During 2016 Ongoing Ongoing 4 times per year Annual

Table 2 - Roles and Responsibilities

City of Portage, Michigan

Wellhead Protection Plan Update

Team Members	Roles and Responsibilities	Goals	Implementation Schedule	
State	1. MDEQ Safe Drinking Water Act (Act 399, P.A. 1976)	Guidance, review, approval, and assistance with siting, permitting, monitoring, and regulating public water supply systems. Guidance, review, approval, and assistance in preparation and implementation of groundwater protection programs.	Ongoing	
	2. MDEQ Storage Tank Division (STD)	Regulate underground and aboveground storage tank systems.	<ul style="list-style-type: none"> • Maintain listing of storage tanks to City of Portage 	• Annual
	3. MDEQ Environmental Response Division (ERD)	Spills reporting.	<ul style="list-style-type: none"> • Maintain listing of spills to City of Portage 	• Annual
	4. Michigan Department of Agriculture (MDOA)	Regulate pesticide and fertilizer storage and use practices.	<ul style="list-style-type: none"> • Maintain listing of pesticide and fertilizer storage and mixing areas 	• Annual
	5. Michigan Department of Treasury	Provide financial assistance to the owners of underground storage tanks for remedial investigations and cleanups.		• Ongoing

Table 3 - Contaminant Source Inventory Summary
City of Portage, Michigan
Wellhead Protection Plan Update

Map Reference No.	Database Site Name or Owner	Site Address	GIS Coordinates	Database or Reference Source	Existing, Potential, or Former Contamination Sources	Reported Regulatory Status	Current Owner/Operator (if different than database)	Approximate Distance to Supply Well(s) (feet)	Located within Capture Zone	Estimated Threat to Supply Wells
AMBERLY WELL FIELD										
74	Portage Schools	6637 Amberly St	(42.2198, -85.641104)	RCRA NonGen/NLR FINDS WDS	Potential for contamination due to this site being within close proximity to the supply well(s).	Active	Same as Database Name	500	1 year TOT	Moderate
90	4280 Romance Rd	Same as Database Address	(42.216363, -85.641104)	EDR US Hist Auto Stat	Formerly Automotive Systems & Solutions in 2009. Potential contamination associated with auto repair facility, oils, fuels, and solvents.	Closed	Residential	5,300	10 year TOT	Very Low
PORTAGE CREEK WELL FIELD										
	S5 Car Wash	351 W. Milham Ave.	(42.229914, -85.592729)	Visual Inspection	Potential contamination associated with commercial vehicle washing.	N/A	N/A	4,140	10 year TOT	Low
33	Westnedge (6012) Avenue Former Gilgo	6012 South Westnedge Ave.	(42.229773, -85.589731)	INVENTORY (BEA)	Potential contamination associated with fueling stations.	Closed	Fannie May Candies (Active)	3,425	5 year TOT	High
EDR Orphan Summary	Ohio & Van Housen	Same as Database Address	(42.231941, -85.592823)	Brownfields	ERNE ID #: 3900368	Active	N/A	4,348	10 year TOT	Moderate
23	Performance Plus Quick Oil Change Centers, Inc.	5812 South Westnedge Ave.	(42.232758, -85.58969)	EDR US Hist Auto Stat WDS RCRA NonGen/NLR FINDS	Potential contamination associated with auto repair facility, fuels, and solvents.	Active	Same as Database Name (Active)	3,752	10 year TOT	Moderate
24	Pharmacia-Upjohn Milham Rd Distribution	701 East Milham Rd	(42.23129, -85.58135)	INVENTORY (BEA)	Potential contamination associated with storing and transporting chemicals.	Active	Same as Database Name (Active)	1,650	1 year TOT	Very High
25	Former S.M. Sergeant	901 East Milham Rd	(42.230547, -85.578769)	INVENTORY (BEA) FINDS	Potential contamination associated with storing and transporting fuels.	Closed	First Community Federal Credit Union (Active)	740	1 year TOT	High
27	Portage Carriage Cleaners	5905 South Westnedge Ave.	(42.231212, -85.589246)	WDS RCRA NonGen/NLR FINDS	Potential contamination regarding dry cleaning solvents.	Closed	Hoffman's Party Store & World of Spices (Active)	3,200	10 year TOT	Medium
27	Miles Service	5910 South Westnedge Ave.	(42.23121, -85.58961)	UST EDR US Hist Auto Stat INVENTORY (BEA) RCRA NonGen/NLR FINDS, WDS, BEA	One 3,000 gallon diesel and two 4,000 gallon gasoline USTs removed in 1999. And one 500 gallon used oil UST removed in 1999.	Closed	Address not Found (Closed)	3,400	10 year TOT	Low
30	Pharmacia & Upjohn Building 212	701 East Milham Ave.	(42.229722, -85.582222)	RMP FINDS	Risk Management Program, EDR lists 45,000 lbs of Propane, and 178,000 lbs of Isobutene.	Active	Same as Database Name	1,400	1 year TOT	High
32	Taylor Rental	212 West Milham Ave.	(42.2299870, -85.587620)	AST Visual Inspection	No visible above ground storage tank at site.	Closed	Wright & Filippis (Active)	3,810	10 year TOT	Low
32	204 West Milham Ave.	Same as Database Address	(42.230309, -85.590959)	EDR US Hist Cleaners	Formerly Sheldon Cleaners. Potential contamination associated with dry cleaning solvents.	Closed	Sheldon Cleaners & Shirt Laundry (Closed)	3,705	10 year TOT	Low
33	Westnedge & Milham, Commercial Property	5933 South Westnedge Ave.	(42.230329, -85.589091)	INVENTORY (BEA)	Petition Determination: Affirmed Category: Different Hazardous Substance(s) Submitter name: Walgreens Company	Active	Walgreens (Active)	3,184	5 year TOT	High
33	6011 South Westnedge	6005 South Westnedge Ave.	(42.229658, -85.589077)	SPILLS	Incident Date: 8/11/2003 Abandon fuel oil tank got water in it from rainstorm. Water and fuel mix, spilled out into the soil.	Closed	Little Cesar's (Active)	3,156	5 year TOT	High
33	One Hour Martinizing	6040 South Westnedge Avenue	(42.228982, -85.589829)	WDS, RCRA NonGen/NLR, FINDS	Facility no longer exists. Potential contamination regarding dry cleaning solvents.	Closed	No longer exists. Currently Mall driveway.	3,300	5 year TOT	Low
37	Neighborhood Cleaners	425 West Milham Ave.	(42.229909, -85.59334)	WDS, DRYCLEANERS RCRA-SQG, FINDS EDR US Hist Cleaners	Potential contamination regarding dry cleaning solvents.	Active	Same as Database Name (Active)	4,300	10 year TOT	Moderate
38	Speedway LLC. #8827	507 West Milham Ave.	(42.22983, -85.59413)	RCRA-CESQG, FINDS INVENTORY WDS, LUST, UST RGA LUST	Leak ID: C-1251-85 LUST investigation closed on 4/25/2008. Six USTs were removed; four 15,000 gallon gasoline, two 6,000 gallon diesel removed in 1991. Currently, three USTs containing gasoline, diesel, and kerosene are in use. (10,000, 20,000 and 8,000 gallons respectively)	Closed	Same as Database Name (Active)	4,610	10 year TOT	Moderate
38	Total Retail #2702	507 W. Milham	(42.22983, -85.59413)	RGA LUST	Archive list of LUST incidents that are from historical databases and that no longer appear in current lists.	Closed	Speedway LLC. (Active)	4,610	10 year TOT	Low
38	EDS Refinery Station #24	507 West Milham Ave.	(42.22983, -85.59413)	RGA HWS	Archive list of SHWS incidents that are from historical databases and that no longer appear in current lists.	Closed	Speedway LLC. (Active)	4,610	10 year TOT	Moderate
38	Total Station #2702	507 West Milham Ave.	(42.22983, -85.59413)	AUL Part 213 EDR US Hist Auto Stat	Site has commercial li and li land restrictions; site specific restrictions; groundwater consumption restrictions; special building restrictions; excavation and soil movement restrictions.	Active	Speedway LLC. (Active)	4,610	10 year TOT	Moderate
41	605 Sunbright	Same as Database Address	(42.229085, -85.595674)	ERNS, SPILLS	Consumers Energy reported snow storm knocked transformer to ground. Mineral oil (unknown if contains PCBs) discharged from transformer to surrounding soil.	Closed	N/A	4,967	10 year TOT	Moderate
43	Lentz USA Mufflers and Brakes	6103 South Westnedge Ave.	(42.228513, -85.588878)	EDR US Hist Auto Stat	Potential contamination associated with auto repair facility, oils, fuels, and solvents.	Active	Same as Database Name (Active)	3,070	5 year TOT	High
46	Uncle Eds Oil Shoppe	6236 South Westnedge Avenue	(42.22695, -85.58959)	RCRA NonGen/NLR FINDS, UST, WDS	One 3,000 gallon new oil, one 1,500 gallon used oil, and one 550 gallon new oil UST(s) removed in 1997. Potential contamination with auto repair facility, oils, fuels, and solvents.	Active	Same as Database Name (Active)	3,480	5 year TOT	Moderate
48	6224 Peachtree Street	Same as Database Address	(42.226716, -85.598776)	EDR Hist Cleaners	Formerly Eberts Carpet Cleaning	Closed	Residential	5,912	10 year TOT	Moderate
49	Village Green Dry Cleaners	6278 South Westnedge Ave.	(42.225949, -85.589714)	RCRA-CESQG FINDS EDR US Hist Cleaners WDS	Potential contamination associated with dry cleaning solvents.	Active	Vitamin Shoppe (Active)	3,561	5 year TOT	High
49	Belle Tire Distributors, Inc.	6283 South Westnedge Ave.	(42.226047, -85.58915)	RCRA-CESQG, FINDS	Potential contamination associated with auto repair facility, oils, fuels, and solvents.	Active	Same as Database Name (Active)	3,024	5 year TOT	Low
50/58	KMART Corporation	6355 South Westnedge Ave.	(42.22426, -85.58921)	FINDS UST WDS RCRA NonGen/NLR	One 1,000 gallon used oil UST removed in 1988.	Closed	Dick's Sporting Goods (Active)	2,700	5 year TOT	Low
55	Newport Road & East Milham Road	East Milham Road	(42.22541, -85.58392)	INVENTORY SHWS	Source: Nonclassifiable Establishments. Pollutants: PCE, TCE	Interim Response in Progress.	N/A	1,300	5 year TOT	High
57	6322 Peachtree Street	Same as Database Address	(42.225014, -85.598725)	EDR US Hist Auto Stat	Difference Engine	Closed	Residential	6,016	10 year TOT	Low
60	325 Mall Drive	325 Mall Drive	(42.224476, -85.591877)	SPILLS	Incident Date: 9/01/2001 Consumers reported Transformer electrical fire. Slow oil leak was reported. Oil spilled onto asphalt and surrounding soil.	Active	Dollar Tree (Active)	4,361	10 year TOT	Moderate
EDR Orphan Summary	Bicentennial Park Site	910 W. Milham	(42.229864, -85.578457)	MI DEL SHWS	Chlorinated organics. May have originated from release from a pipeline at New Port Road and East Milham Road.	Delisted - no longer meets criteria specified in rules.	N/A	500	1 year TOT	Moderate
GARDEN LANE 5 WELL FIELD										
55	Newport Road & East Milham Road	East Milham Road	(42.22541, -85.58392)	INVENTORY SHWS	Source: Nonclassifiable Establishments. Pollutants: PCE, TCE	Interim Response in Progress.	N/A	1,216	10 year TOT	Moderate

Table 3 - Contaminant Source Inventory Summary
 City of Portage, Michigan
 Wellhead Protection Plan Update

Map Reference No.	Database Site Name or Owner	Site Address	GIS Coordinates	Database or Reference Source	Existing, Potential, or Former Contamination Sources	Reported Regulatory Status	Current Owner/Operator (if different than database)	Approximate Distance to Supply Well(s) (feet)	Located within Capture Zone	Estimated Threat to Supply Wells
63	United 6265 Former Emro Marketing	6513 South Westnedge Ave.	(42.22298, -85.58921)	WDS, BEA, Inventory RCRA NonGen/NLR FINDS, AUL, INVENTORY, LUST, UST, AUL RGA LUST	LUST investigation closed on 1/9/1999. Substance Released: Unknown Two 10,152 gallon gasoline, one 4,000 gallon diesel and one 1,000 gallon kerosene USTs. All removed in 1995.	Closed	Men's Wearhouse (Active)	2,800	10 year TOT	Moderate
63	6480 South Westnedge Avenue	Same as Database Address	Unknown	SPILLS	Incident Date: 8/30/2000 Consumers Energy. Approximately 500 gallons of Non PCB mineral oil spilled. Spilled onto substation.	Active	Unable to Locate	3,088	10 year TOT	Moderate
64	605 Della Street	Same as Database Address	(42.22327, -85.583241)	EDR US Hist Auto Stat	Tae Shell Cl & Accessories	Active	Residential	1,313	5 year TOT	Moderate
65	219 Della Street	Same as Database Address	(42.22328, -85.587412)	US CDL	Potential contamination associated with illicit drug labs	Active	Residential	2,460	5 year TOT	High
67	Wilkins Auto Body	6529 Naomi Str.	(42.222614, -85.581561)	RCRA NonGen/NLR FINDS, WDS EDR US Hist Auto Stat	Formerly Portage Car Clinic in 2009. Possible contamination associated with vehicle salvage, auto repair, fuels, and solvents.	Closed	Great Lakes Self Storage (Active)	700	1 year TOT	High
68	JC Penney Company	6580 South Westnedge Ave.	(42.22163, -85.58958)	WDS, UST, RCRA-SQG FINDS	One 550 gallon used oil UST closed in ground in 1988. One 250 gallon diesel UST removed in 1994.	Closed	Same as Database Name (Active)	3,088	5 year TOT	Moderate
68	Sears Roebuck & Co Store #1110	6780 South Westnedge Ave.	(42.21886, -85.58957)	UST WDS EDR US Hist Auto Stat	One 1,000 gallon used oil UST removed in 1993.	Closed	Same as Database Name (Active)	3,428	5 year TOT	Moderate
68	Cole Century Buick Pontiac GMC Cadillac Nissan, Inc.	6600 South Westnedge Ave.	(42.221003, -85.589759)	RCRA-SQG FINDS WDS EDR US Hist Auto Stat	Potential contamination associated with auto repair facility, oils, fuels, and solvents.	Active	Same as Database Name (Active)	3,203	5 year TOT	Moderate
71	International Transmission Company, LLC	524 Ruth Street 522 Ruth Street	(42.222299, -85.583779)	WDS FINDS RCRA-CESQG	Unable to locate 524 Ruth Street, however consumers energy company owns land at 522 Ruth Street.	Active	Consumers Energy (Active)	1,514	5 year TOT	Low
72	Firestone Stores	6620 South Westnedge Ave.	(42.220773, -85.589909)	ERD US Hist Auto WDS	Potential contamination associated with auto repair facility, oils, fuels, and solvents.	Active	Same as Database Name (Active)	3,266	10 year TOT	Moderate
73	Dayton-Hudson Portage 6666 South Westnedge Avenue	6666 South Westnedge Ave.	(42.22022, -85.58957)	RGA LUST RGA HWS FINDS WDS, LUST, UST	LUST Investigation closed on 7/30/1997 Substance Released: Diesel One 500 gallon diesel UST removed in 1996.	Closed	Same as Database Name (Active)	3,246	10 year TOT	Moderate
82	Portrait Innovations, Inc.	6800 South Westnedge Ave.	(42.217912, -85.590007)	RCRA-CESQG WDS FINDS	Potential contamination associated with printing, inks and dyes.	Active	Same as Database Name (Active)	3,723	10 year TOT	Very Low
83	6841 South Westnedge Avenue	Same as Database Address	(42.21727, -85.589185)	EDR US Hist Auto Stat	Possible contamination associated with auto repair facility, fuels, and solvents.	Active	Merlin's Muffler (Active)	3,686	10 year TOT	Moderate
GARDEN LANE WELL FIELDS 1-4										
	City of Portage Central Cemetery Adjoining south side City of Portage Municipal Garage.	7719 S. Westnedge Ave.	(42.20422, -85.589083)	Visual Inspection	Potential contamination associated with cemeteries. Cemetery established in 1894. Potential exists for contamination from fertilizers and pesticides.	Active	City of Portage	3,100 to Well 1 2,500 to Well 2	10 year TOT	Very Low
EDR Orphan Summary	Center Street	Railroad crossing at Centre	(42.201019, -85.591445)	ERNS	Incident Date: 3/13/2008 Vehicle collided with a freight train, and resulted in a spill of materials from the locomotive. Released material name: oil, diesel	Active	City of Portage	3,868 to Well 1 3,332 to Well 2	10 year TOT	Moderate
101	Emro Marketing (Checker #7479)	7122 S. Westnedge Ave.	(42.21309, -85.58954)	INVENTORY (BEA) RGA LUST WDS, LUST, AUL, BEA	LUST investigation closed on 8/8/2012. No longer at this address.	Closed	Legacy Building, LLC	2,350 to Well 3	5 year TOT	High
101	Speedway SuperAmerica, LLC.	7122 S. Westnedge Ave.	(42.21309, -85.58954)	RCRA NonGen/NLR FINDS	No longer at this address.	Closed	Legacy Building, LLC	2,350 to Well 3	5 year TOT	Low
106	Portage Cleaners and Laundry	7337 S. Westnedge Ave.	(42.209983, -85.588462)	RCRA NonGen/NLR FINDS EDR US Hist Cleaners MI WDS	Facility closed, no longer at this address.	Closed	Wings Etc. Pub (Active)	1,840 to Well 2 2,066 Well 3	5 year TOT	High
108	Autozone, Inc.	7400 S. Westnedge Ave.	(42.20955, -85.589691)	RCRA-CESQG MI WDS, FINDS	Potential contamination associated with auto repair and service facilities, fuels and oils.	Active	Same as Database Name (Active)	2,160 to Well 2 2,400 to Well 3	5 year TOT	Low
108	Portage Automotive Supply	7418 S. Westnedge Ave.	(42.209217, -85.589639)	MI WDS EDR US Hist Auto Stat	Potential contamination associated with auto repair and service facilities, fuels and oils.	Active	Campbell Auto Supply Inc. (Active)	2,210 to Well 2	5 year TOT	Moderate
108	Westnedge (7421) Avenue, South	7421 S. Westnedge Ave.	(42.209423, -85.589111)	MI INVENTORY MI BEA	Currently, Gordon Food Store.	Active	GFS Marketplace (Active)	2,000 to Well 2	5 year TOT	High
108	MV Pets	7429 S. Westnedge Ave.	(42.208811, -85.589227)	ICIS FINDS MI BEA MI INVENTORY	Enforcement Action Type: FIFRA 14A Action For Penalty	Active	Same as Database Name (Active)	2,000 to Well 2	5 year TOT	High
108	Sunoco, Inc.	7441 S. Westnedge Ave.	(42.20797, -85.58913)	MI INVENTORY MI WDS MI LUST MI BEA	Leak ID: C-1261-85, Open investigation, on LUST List - unknown substance. Potential contamination associated with auto repair and service facilities, fuels and oils.	Active	Boer's Auto Service First Choice Auto Glass 10 Min Oil Change (Active)	1,900 to Well 2	5 year TOT	High
108	Performance Auto Center	7441 S. Westnedge Ave.	(42.20797, -85.58913)	MI INVENTORY (BEA) EDR US Hist Auto Stat RGA LUST	Potential contamination associated with auto repair and service facilities, fuels and oils.	Active	Boer's Auto Service First Choice Auto Glass 10 Min Oil Change (Active)	1,900 to Well 2	5 year TOT	High
111	Clark Oil Co.	7480 S. Westnedge Ave.	(42.208478, -85.589673)	MI WDS RCRA NonGen/NLR FINDS EDR US Hist Auto Stat MI RGA LUST RGA LUST	Potential contamination from fueling stations. Currently, Clark Oil, Co.	Active	Same as Database Name (Active)	2,100 to Well 2	5 year TOT	High
111	C A H Inc.	7480 S. Westnedge Ave.	(42.208478, -85.589673)	MI INVENTORY, MI WDS, MI LUST, MI UST, MI BEA, MI RGA LUST	Leak ID: C-2097-92, LUST investigation open. Substance released: gasoline Four 8,000 gallon gasoline USTs removed in 1992. Two 12,000 gallon gasoline USTs currently in use. Installed in 1992.	Active	Clark Oil, Co. (Active)	2,100 to Well 2	5 year TOT	High
111	Westnedge Fuel & Food, Inc.	7480 S. Westnedge Ave.	(42.208478, -85.589673)	MI RGA LUST	Potential contamination associated with fueling stations. Currently, Clark Oil, Co.	Closed	Clark Oil, Co. (Active)	2,100 to Well 2	5 year TOT	Moderate
113	619 Schuring Rd Apt 3	Same as Database Address	(42.208224, -85.59569)	US Hist CDL US CDL	Potential contamination associated with illicit drug labs	Closed	Residential	3,796 to Well 2	10 year TOT	Moderate
114	G. Hoeksema & Sons	513 Schuring Road	(42.208128, -85.594348)	MI UST	One 500 gallon gasoline and one 1000 gallon diesel USTs, both removed in 1989. Potential exists for contamination from fertilizers and pesticides.	Active	Same as Database Name (Active)	3,580 to Well 2	10 year TOT	Low
115	Westnedge (7540) Avenue, South	7540 S. Westnedge Ave.	(42.207195, -85.590004)	MI BEA MI INVENTORY	Site inactive.	Active	MS Westnedge, LLC	2,390 to Well 2 3,300 to Well 1	5 year TOT	High
116	7528 Lakewood Dr.	Same as Database Address	Unknown	US CDL	Potential contamination associated with illicit drug labs	Active	Unable to Locate	Unknown	5 year TOT	High
117	Hoekstra Meats	7548 Garden Lane	(42.206906, -85.579911)	MI WDS	Not at this address.	Unknown	Residential	1,200 to Well 2 850 to Well 1	1 year TOT	Moderate
118	Westnedge (7612) Avenue, South	7612 S. Westnedge Ave.	(42.206621, -85.589613)	MI BEA MI INVENTORY Visual Inspection	Found well that has not been properly abandoned on site.	Active	MS Westnedge, LLC	2,436 to Well 2 3,330 to Well 1	10 year TOT	Moderate
118	Taylor Rental	7612 S. Westnedge Ave.	(42.206621, -85.589613)	MI AUST Visual Inspection	Found well that has not been properly abandoned on site.	Active	MS Westnedge, LLC	2,436 to Well 2 3,330 to Well 1	10 year TOT	Moderate
118	City of Portage	7619 S. Westnedge Ave.	(42.20638, -85.58916)	FINDS RCRA NonGen / NLR	City owned property, storm water detention pond.	Active	City of Portage (Active)	1,950 to Well 2	10 year TOT	Very Low

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118	Admiral Lock & Key	7619 S. Westnedge Ave.	(42.20638, -85.58916)	MI RGA LUST MI INVENTORY MI WDS, MI LUST, MI UST, MI BEA	Investigation closed for LUSTs. Released substance was gasoline and diesel, release status closed on 8/22/2006. Total of 6 USTs removed (1,000 - 4,000 gallons) of gasoline, diesel, and fuel oil.	Closed	City of Portage (Active)	1,950 to Well 2	10 year TOT	Very Low
118	Portage Printing	7616 S. Westnedge Ave.	(42.206316, -85.589687)	RCRA NonGen / NLR FINDS MI WDS	Facility no longer at this location. Potential contamination exists in commercial printing facilities from inks, dyes, and solvents.	Active	Commercial Center, LLC (Active)	2,200 to Well 2	10 year TOT	Very Low
118	Portage Distributing Co.	7647 S. Westnedge Ave.	(42.20561, -85.58905)	MI RGA LUST MI INVENTORY (BEA) MI LUST MI UST	Leak ID: C-0346-04, LUST investigation open. Released substance: Gasoline. Currently, a storm water management for South Westnedge. Three 1,000 gallon gasoline USTs removed in 2004.	Active	City of Portage (Active)	2,454 to Well 2 3,210 to Well 1	10 year TOT	Moderate
118	Peterman Mobile Concrete	7600 S. Westnedge Ave.	(42.20596, -85.59173)	MI WDS	Potential contamination associated with concrete materials.	Active	Same as Database Name (Active)	2,800 to Well 2	10 year TOT	Very Low
120	Peterman Concrete Company	333 Peterman Lane	(42.20596, -85.59173)	MI UST	One 3,000 gallon diesel UST removed in 1992. One 10,000 diesel UST currently in use, installed in 1996.	Active	Same as Database Name (Active)	2,800 to Well 2	10 year TOT	Low
121	Burton Run Apartments	7640 Whispering Brook Dr	(42.208066, -85.597118)	MI WDS	Site are apartment complexes.	Active	Same as Database Name (Active)	4,210 to Well 2	10 year TOT	Very Low
122	Taylor Rental	7672 S. Westnedge Ave.	(41.8449770, -85.670652)	MI AST	Located at 7612 S. Westnedge Ave.	Active	Not at this location.	Unknown	10 year TOT	Very Low
123	City of Portage Dept. of Public Services	7719 S. Westnedge Ave.	(42.20462, -85.58910)	RCRA NonGen / NLR MI RGA LUST MI WDS, MI LUST, MI UST RCRA-CESQG, FINDS MI RGA HWS	Case closed for LUST. Four tanks (275 - 12,000 gal) were removed that held gasoline (2 tanks), diesel, and used oil in 1989. Two 12,000 gal USTs are in use currently - gasoline, diesel. Installed 1/1/1989.	Active	Same as Database Name (Active)	2,200 to Well 2	10 year TOT	Low
123	Earth Tech	7719 S. Westnedge Ave.	(42.20462, -85.58910)	MI SPILLS	Incident Date: 3/21/2008 Sewer back-up caused by City of Portage DPW.	Active	City of Portage Dept. of Public Services	2,200 to Well 2	10 year TOT	Moderate
125	Shaver (7844) Road	7844 Shaver Road	(42.202247, -85.590995)	INVENTORY MI BEA	Not able to locate address.	Active	Address not found	3,810 to Well 2	10 year TOT	Moderate
MILHAM SCHOOL WELL FIELD										
EDR Orphan Summary	City of Portage	Corner of Milham and Constitutional Blvd	(42.230018, -85.601594)	SPILLS FINDS	Incident Date: 9/6/2002 Hydraulic hose from truck cracked and leaked hydraulic oil onto asphalt. The crew used oil dry to clean up the spill.	Active	City of Portage	2,615	10 year TOT	Low
EDR Orphan Summary	5528 Deerfield	Same as Database Address	(42.2366, -85.609804)	US CDL	Seizure Date: 6/19/2013 Date updated: 4/14/2014 Potential contamination associated with illicit drug labs	Closed	Residential	2,100	5 year TOT	High
EDR Orphan Summary	Gertsen	194 @ Oakland Drive	(42.237871, -85.613998)	SPILLS	Incident Date: 5/11/2008 Incident Description: Semi hit the barrier walls in a construction site, punctured the saddle tanks; fuel spill.	Active	194 / Oakland	3,185	5 year TOT	High
9	Kalamazoo Valley Enforcement Team	1722 Quaker Ave.	(42.236985, -85.609872)	US CDL SPILLS	Incident Date: 3/4/2008 Meth Lab Clean-up.	Active	Residential	2,070	5 year TOT	High
11	First Assembly of God/Kalamazoo	5512 Oakland Drive	(42.23757, -85.61420)	UST	One 800 gallon gasoline UST removed in 1988.	Closed	Same as Database Name (Active)	3,200	5 year TOT	Low
13	City of Kalamazoo	5603 Monticella Ave	(42.235843, -85.604519)	FINDS SPILLS RCRA NonGen/NLR, WDS	Incident Date: 5/7/2008 Meth Lab Clean-up.	Active	Residential	1,415	1 year TOT	Very High
18	Portage Schools	1000 Idaho Ave.	(42.23387, -85.60058)	RGALUST FINDS RCRA-CESQG INVENTORY (BEA) WDS LUST UST	Leak ID: C-1397-90, C-1438-90 LUST investigation open. Release substance not reported. Two 65 and 500 gallon USTs removed in 1990.	Active	Same as Database Name (Active)	950	1 year TOT	Very High
22	Portage Schools	5808 Oregon Ave.	(42.23247, -85.59951)	RCRA-NonGen/NLR WDS, FINDS, UST	One 20,000 gallon fuel oil for consumption removed in 1990.	Closed	Same as Database Name (Active)	1,665	5 year TOT	Low
34	Portage Community Education Center	1010 W. Milham Ave.	(42.23026, -85.60066)	UST, RGA LUST	One 10,500 gallon fuel oil UST removed in 1990.	Closed	Same as Database Name (Active)	2,300	10 year TOT	Very Low
35	Dairy Mart #9618	1800 W. Milham Ave.	(42.23026, -85.61032)	RGALUST WDS, LUST, UST	LUST investigation closed in 1997. Substance Released: not reported One 4,000 gallon kerosene UST removed in 1996.	Closed	Circle K (Active)	3,270	5 year TOT	Low
35	Stop 'N Go 1027	1800 W. Milham Ave.	(42.23026, -85.61032)	RGALUST	Potential contamination associated with LUST.	Closed	Circle K (Active)	3,270	5 year TOT	Low
35	Sunoco, Inc.	1800 W. Milham Ave.	(42.23026, -85.61032)	RCRA-CESQG FINDS	Currently a small business plaza. Circle K, State Farmers Insurance, and Dominos Pizza	Closed	Circle K (Active)	3,270	5 year TOT	Low
40	Portage Main Post Office	1151 W. Milham Ave.	(42.22999, -85.60247)	RGALUST RCRA-CESQG FINDS WDS, LUST, UST	Investigation for LUST closed on 9/17/2001. Substance released was gasoline. One 12,000 gallon gasoline UST removed in 1997.	Closed	Same as Database Name (Active)	2,500	10 year TOT	Very Low
44	Portage Fire Station #2	6101 Oakland Drive	(42.22863, -85.61370)	UST	One 1,500 gallon diesel UST removed in 1990.	Closed	Same as Database Name (Active)	4,410	10 year TOT	Very Low
PERSHING SCHOOL WELL FIELD										
EDR Orphan Summary	Winwood Street	Same as Database Address	(42.188439, -85.541738)	Brownfields	ERNIE ID #: 39000171	Active	City of Portage	4,270	5 year TOT	Moderate
EDR Orphan Summary	Upjohn Pond	Same as Database Address	(42.205494, -85.549113)	SPILLS	Incident Date: 2/27/2002 Coil break, small amount of fermentation beer was released. Some captured in the retention basin.	Active	City of Portage	445	1 year TOT	High
EDR Orphan Summary	BLDG 225	Upjohn Pond	(42.205494, -85.549113)	ERNS	Incident Date: 12/11/1988 Methanol spill, reported total 100 gallons.	Active	Unknown	445	5 year TOT	High
EDR Orphan Summary	South Austin Lake	Same as Database Address	(42.181076, -85.550129)	MI DEL SHWS	Site delisted. The available documentation for the site does not support it's listing.	Delisted	Same as Database Name.	3,700	10 year TOT	Very Low
2	D & S Auto, Inc.	8003 S. Sprinkle Rd	(42.200675, -85.540339)	MI UST MI WDS EDR US Hist Auto Stat	Three 3,000 gallon gasoline USTs were removed on 8/01/1990. Potential contamination associated with automobile repair, fuels, and solvents.	Closed	Same as Database Name (Active)	1,600	10 year TOT	Moderate
	Orkin Pest Control	4123 E. Centre Ave.	(42.201195, -85.539505)	MI LUST	Release Status is closed on 6/25/1992. Potential contamination from insecticides and pesticides.	Closed	Same as Database Name (Active)	1,915	5 year TOT	Moderate
	Booze Barn Site Name: Amoco Service Station	7940 S. Sprinkle Rd	(42.201558, -85.540872)	MI RGA LUST RGA LUST MI WDS, MI LUST, MI UST, MI Brownfields	One 200 gallon gasoline UST removed in 1993. LUST found in 1998, and release closed date is 1/1/2004. Currently one tank in use. Brownfield Ernie ID: 39000465	Closed	Gentry Auto Sales (Active)	1,500	1 year TOT	Very High
	Amoco Oil Co.	7940 S. Sprinkle Rd	(42.201558, -85.540872)	FINDS RCRA-CESQG INVENTORY (BEA)	Potential contamination associated with auto repair and service facilities, fuels and oils.	Closed	Gentry Auto Sales (Active)	1,500	5 year TOT	High
2	7910 S. Sprinkle Rd	7910 S. Sprinkle Rd 7926 S. Sprinkle Rd	(42.20235, -85.540745) (42.201903, -85.540781)	MI SHWS MI INVENTORY (BEA) RCRA-SQG FINDS WI Manifest EDR US Hist Auto Stat RGA HWS	Violation of Part 201 in May of 1995. Pollutants: PCE. October 1988 Report - Class 502 injection well (storm water drainage well). According to EDR 2014 - no underground injection activity. Potential contamination associated with automobile repair, fuels, and solvents.	Active	D&A Autobody Pienta Enterprises, Inc.	1,600	10 year TOT	Moderate

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2	7880 S. Sprinkle Rd	Same as Database Address	(42.202734, -85.54076)	EDR US Hist Auto Stat	Formerly known as G&J Auto Detailing, Inc. Potential contamination associated with automobile repair, fuels, and solvents.	Active	Classic Auto Glass (Active)	1,625	10 year TOT	Moderate
2	7860 S. Sprinkle Rd	Same as Database Address	(42.203068, -85.540755)	EDR US Hist Auto Stat	Potential contamination associated with automobile repair, fuels, and solvents.	Active	Carr Craft Automotive (Active)	1,700	5 year TOT	High
2	Fuller Communications	7804 S. Sprinkle Rd	(42.20373, -85.54066)	MI LUST MI UST MI BEA	LUST investigation closed in 1994. Release substance diesel. Two 1,000 gallon gasoline USTs and one 1,000 gallon diesel UST removed in 1994.	Closed	Facility Abandoned	2,000	5 year TOT	Moderate
4	Black Berry Systems	4211 E. Centre Ave.	(42.201224, -85.53886)	MI UST	One 1,000 gallon diesel UST removed on 10/25/1991.	Closed	Home of the Funny Taco Corporate Office (Active)	2,000	5 year TOT	Moderate
4	Pete Van Meekeren	4203 E. Centre Ave.	(42.201255, -85.53916)	MI UST	One 1,000 gallon gasoline UST removed on 8/1/1989.	Closed	Abandoned Building	1,800	5 year TOT	Low
5	Pro Services, Inc.	8132 Merchant PL	(42.199302, -85.547025)	RCRA-CESQG FINDS MI WDS	Potential for contamination from specialized maintenance operations.	Active	Pro Services, Inc. (Active)	470	1 year TOT	Moderate
5	Kalamazoo Stripping and Derusting Co.	3921 E. Centre Ave.	(42.201215, -85.541632)	RCRA-LQG MI WDS MI AIRS FINDS (US EPA TRIS) SPILLS 2008	Violations reported August 1993 and January 1997. Enforcement action Sept 1993 and Jan 1997. Action was written informal administrative action. Sulfuric, hydrochloric, and dichloromethane releases reported 1987 to 1994. Primarily fugitive and stack air releases. In 2008, it was reported that some type of hydrogen gas released to the air.	Active	Same as Database Name. (Active)	1,200	1 year TOT	Very High
5 & 6	AGA Gas, INC	3615 E. Centre Ave.	(42.20106, -85.54639)	MI UST CERC-NFRAP RCRA NonGen/NLR	Archive site. One 6,000 gallon diesel UST removed on 1/22/1988, and one 250 gallon used oil UST removed on 4/1/1987. AGA Gas Inc. no longer at this site.	Closed	Lot owned by Pharmacia & Upjohn (Active)	400	1 year TOT	High
7	Stryker Corporation Stryker Medical	3800 E. Centre Ave.	(42.198713, -85.542366)	RCRA-SQG MI WDS FINDS MI NPDES	Potential for contamination associated with medical and equipment manufacturing.	Active	Same as Database Name. (Active)	600	5 year TOT	Low
9	5213 Deep Point Drive	Same as Database Address	(42.194993, -85.52596)	MI SPILLS	Incident Date: 5/3/2003 Incident Description: Draining water from the lake with hose connected to their truck.	Active	Residential	5,840	10 year TOT	Moderate
12	Windwood Street	8813 Windwood (& 3930 Pomparo)	(42.188439, -85.618738)	MI SHWS MI DEL SHWS	Pollutants: PCE Status: Deleted - available documentation does not support listing.	Delisted	Residential	4,270	5 year TOT	Moderate
13	Bestire Inc.	8927 S. Sprinkle Rd	(42.18722, -85.54028)	MI RGA LUST MI Inventory (BEA) MI WDS MI UST MI UST	Open investigation. Release substance gasoline in 1990. Two 5,000 gallon and one 6,000 gallon UST removed of unknown substances. Three (500, 1000 and 1960 gallons) UST of gasoline removed in 1989 and 1997. Possible contamination associated with auto repair, fuels, and solvents.	Active	Same as Database Name. (Active)	5,200	10 year TOT	Moderate
SHUMAN WELL FIELD										
No Sites Identified										
ROLLING HILL WELL FIELD										
11	Trading Post	10418 Shaver Rd	(42.16587, -85.618668)	UST	One 1,000 gallon gasoline UST, one 2,000 gallon gasoline UST, and one 300 gallon diesel UST removed on 8/21/1989. Currently operates as DN's Super Market.	Closed	DN's Super Market (Active)	1,600	10 year TOT	Low
14	2819 Witters Court	Same as Database Address	(42.164611, -85.624377)	US HIST CDL SPILLS, FINDS, RCRA NonGen/NLR WDS, CDL	Possible contamination from clandestine drug labs.	Closed	Residential	730	5 year TOT	High
15	David Rice Auto Sales	10509 Shaver Rd 2419 West Osterhout Ave.	(42.164272, -85.619202) (42.16458, -85.618196)	WDS, BEA, EDR US Hist Auto Stat	Potential contamination associated with automobile sales and repair facility. Formerly known as Dent Repair.	Closed	Abandoned Building	2,100	10 year TOT	Low
WEDGEWOOD WELL FIELD										
EDR Orphan Summary	MI Dept/Transportation	I94 EB and WB Over US 131 SB I94 EB and WB over US 131 NB	(42.238053, -85.637936)	FINDS	Date Updated: 1/5/11	Active	N/A	1,500	1 year TOT	Moderate
EDR Orphan Summary	I94 WB Just East of 131 NB	I94 WB Just East of 131 NB	(42.238053, -85.637936)	SPILLS	Incident Date: 6/8/2001 Incident Description: Pickup truck is fully engulfed and leaking gas on to the highway.	Active	N/A	1,500	1 year TOT	Very High
EDR Orphan Summary	Thomas W. Durston/CITI Capital Commercial	I-94 Eastbound @ 74 Mile Marker	(42.238053, -85.637936)	SPILLS	Incident Date: 3/8/2007 Semi hit cement wall on passenger side; saddle tank erupted causing spill onto highway. Taplin environmental was called to site.	Active	N/A	1,500	1 year TOT	Very High
EDR Orphan Summary	I94 WB Just East of 74 mile marker	I94 WB Just East of 74 mile marker	(42.238053, -85.637936)	SPILLS	Incident Date: 1/6/2010 Incident Description: Semi went into cement wall/ripped saddle tank/spill to ground	Active	N/A	1,500	1 year TOT	Very High
WESTFIELD WELL FIELD										
EDR Orphan Summary	MI Dept/Transportation	US 131 Under O Ave (Milham)	(42.23034, -85.638838)	FINDS	Date Updated: 1/5/11	Active	Same as Database (Active)	420	1 year TOT	Moderate
	Wedel's Nursery, Florist, and Garden Center	5020 Texas Drive	(42.23034, -85.649227)	Visual Inspection	Potential contamination associated with greenhouses, fertilizers, and pesticides.	N/A	Same as Database (Active)	2,700	1 year TOT	High
28	Moore's Auto Sales & Services, Inc.	4824 West Milham Ave.	(42.23013, -85.53173)	WDS, LUST, UST RGA LUST EDR US Hist Auto Stat	LUST investigation closed in 1993. Released Substance: gasoline One 500 gallon diesel and one 500 gallon gasoline UST removed in 1993.	Closed	Sunny Mart (Active)	2,000	5 year TOT	Moderate
52	4284 Bristlecone Drive	Same as Database Address	(42.225861, -85.64105)	US CDL	Seizure Date: 1/25/2004 Possible contamination from clandestine drug labs.	Closed	Residential	1,930	5 year TOT	High
WINTERFOREST WELL FIELD										
EDR Orphan Summary	North of 7633 Julie Drive	North of 7633 Julie Drive	(42.205792, -85.609624)	ERNS	Incident Date: 7/16/2011 Caller reporting that there was oil discovered in a catch basin. There was a spill from a downed transformer due to a storm that spilled Non-PCB mineral oil onto a residential driveway and into the street last week. The spill was cleaned up on Thursday. It was previously unknown that material reached the catch basin that possibly leads to Portage Creek.	Active	Residential	2,430	10 year TOT	Moderate
98	7037 Oakland Drive	Same as Database Address	(42.21453, -85.613744)	EDR US Hist Auto Stat	Former Downtown Amoco Potential contamination associated with auto repair and service facilities, fuels and oils.	Closed	Residential	3,425	10 year TOT	Low
112	Frank Peterman Company, Inc.	1028 Schuring Rd	(42.208425, -85.601057)	MI UST	One 2,000 gallon gasoline UST removed in 1990. Large scale greenhouse operation. Potential contamination associated with fertilizers and pesticides.	Closed	Facility Closed	1,100	5 year TOT	Moderate

Table 4 - Stormwater Structures Inventory

City of Portage, Michigan
Wellhead Protection Plan Update

Stormwater Structure Number and Description	Distance from Well (feet)	Status	Location	Map Number
6 - Detention Basin	953 Portage Creek	Existing	5930 Tech Park Way	
7 - Infiltration Pond	800 West Milham	Existing	850 Trade Centre Way	69
9 - Infiltration Basin	2,917 West Milham	Existing	312 W. Van Hoesen Blvd	6
12- Infiltration Basin	1,600 Wedgewood	Existing	Access 2917 Brynmawr	29
15 - Treatment Cell Surface Water Discharge	2,000 Westfield	Surface Water Discharge	North of Briarhill Drive, South of I-94.	
16 - Treatment Cell for Infiltration	1,800 Westfield		New development since 2000, treatment cell has been moved.	
18- Infiltration Basin	2,200 Amberly	Existing	3312 Romance Rd	11
21- Infiltration Basin	2,600 Amberly	Existing	6220 Oakland Drive	
22 - Infiltration Basin	2,300 Amberly	Existing	3210 Coachlite Ave	9
23 - Infiltration Basin	1,500 Amberly	Existing	6475 Evergreen St	12
28 - Treatment Cell Surface Water Discharge	800 Portage Creek	Existing	6101 Newport Rd	
29 - Detention Basin	500 Garden Lane Well #5	Existing	6301 Newport Rd	
30 - Detention Basin	1,000 Garden Lane Well #5	Existing	6604 Lovers Ln	
36 - Infiltration Basin	1,500 Garden Lane		Not at this location	
38 - Treatment Cell Surface Water Discharge	2,400 Garden Lane	Surface Water Discharge	7000 S. Westnedge	
41 - Treatment Cell Infiltration	2,200 Amberly	Existing	7145 Moorsbridge Rd (NW Corner)	
50 - Infiltration Basin	1,000 Winter Forest	Existing	1326 Schuring Rd	26
57 - Treatment Cell Surface Water Discharge	3,200 Shuman	Existing	9801 Shaver Rd	
58 - Treatment Cell Surface Water Discharge	1,400 Rolling Hill	Existing	10418 Shaver Rd	
70 - Infiltration Basin	500 Rolling Hill	Existing	10270 Shuman St	39

Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
1. Existing Programs	a. Development Review Team Procedures	<ul style="list-style-type: none"> Evaluates every proposed new development and redevelopment within the City of Portage to ensure compliance with local, State, and Federal environmental regulations. 	<ul style="list-style-type: none"> City of Portage Dept. of Community Development Dept. of Transportation & Utilities Building Dept. Fire Dept. 	<ul style="list-style-type: none"> Ongoing Ongoing 	<ul style="list-style-type: none"> Continue to review new developments with regard to local, State, and Federal environmental regulations. Evaluate new development with regard to potential for groundwater and surface water contamination.
	b. Stormwater Master Plan	<ul style="list-style-type: none"> Stormwater Design Criteria Manual describes relationship between stormwater borne pollutants and wellhead protection areas. Strategy for stormwater management. 	<ul style="list-style-type: none"> City of Portage Depts. of Community Development and Transportation & Utilities 	<ul style="list-style-type: none"> Immediate Ongoing 	<ul style="list-style-type: none"> Implement recommendations as new development proceeds. Update Stormwater Design Criteria Manual.
	c. Household Hazardous Waste Collection	<ul style="list-style-type: none"> Hazardous waste collection and disposal. Residential homeowner general hazardous waste. City residents no fee. Open Tuesdays & Fridays, 9 a.m. - 12 noon, Wednesdays, 12 Noon - 6 p.m. Collections at Household Hazardous Waste Center, 1301 Lamont Avenue, Kalamazoo, MI 49048 	<ul style="list-style-type: none"> Kalamazoo County Human Services Dept. 	<ul style="list-style-type: none"> Semiannually with the <i>Portager</i> 	<ul style="list-style-type: none"> Send information to property owners throughout the City of Portage to advertise program.
		<ul style="list-style-type: none"> Target local property owners and residents to participate 	<ul style="list-style-type: none"> City of Portage 		<ul style="list-style-type: none"> Provide Kalamazoo County Human Services Dept. brochure to residents "Plugging Abandoned Water Wells."

Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan
Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
1. Existing Programs (continued)	d. Onsite Sewage Disposal System (Septic) Construction and Maintenance	<ul style="list-style-type: none"> Permit required to construct, alter, extend, or replace a sewage disposal system. Site evaluation must be performed before permit is issued. Health Officer may require groundwater data for determination. Health Officer may condemn failing sewage disposal system or when a system endangers a public or private water supply, or creates a public nuisance. 	<ul style="list-style-type: none"> Kalamazoo County Human Services Dept. City of Portage Development Review Team 	<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> City provide Kalamazoo County with a copy of the map showing delineated capture zones for supply wells.
				<ul style="list-style-type: none"> Every permit application 	<ul style="list-style-type: none"> The City will continue to evaluate direction of groundwater flow and enforce minimum setback of 50 feet from all private wells prior to issuing permits for sewage disposal systems.
				<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> City prepare database of sewage disposal system owners in WHPAs. Update annually using information provided by Kalamazoo County
				<ul style="list-style-type: none"> As requested 	<ul style="list-style-type: none"> Send sewage disposal system information to system owners in WHPAs.

Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
1. Existing Programs (continued)	e. Private Well Construction and Abandonment	<ul style="list-style-type: none"> County familiarize with locations of groundwater contamination Permit required from Health Officer for construction of new water supply well. Familiarize with Michigan Water Well Construction and Pump Installation Codes. 	<ul style="list-style-type: none"> Kalamazoo County Human Services Dept. City of Portage 	Ongoing	<ul style="list-style-type: none"> Identify the location of abandoned wells in WHPAs in the City of Portage.
				Ongoing	<ul style="list-style-type: none"> Communicate to the public through the media and the City newsletter about the importance of finding and plugging abandoned wells.
				Ongoing/Annually	<ul style="list-style-type: none"> Develop and update private well inventory as records are provided by County.
				Ongoing	<ul style="list-style-type: none"> Provide Kalamazoo County Human Services Dept. brochure to residents "Plugging Abandoned Water Wells."
				As needed	<ul style="list-style-type: none"> Inform the Kalamazoo County Human Services Dept. about the location of abandoned wells.



Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
2. Intergovernmental Coordination	a. Provide Review Copies of WHPP Report	<ul style="list-style-type: none"> Provide copies to Local Government Officials (Townships of Texas and Pavilion, Kalamazoo County Human Services Dept., and Kalamazoo County Board of Commissioners). 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. 	<ul style="list-style-type: none"> Every 6 years with update 	<ul style="list-style-type: none"> Provide copies of WHP Plan.
	b. Fire Dept. Prevention and Emergency Response Activities	<ul style="list-style-type: none"> City of Portage Fire Dept. conducts Firefighter Right-to-Know surveys, inspections, emergency spill response, dissemination of information and educational materials, and coordinates with local, State and Federal government agencies as needed. 	<ul style="list-style-type: none"> Fire Marshal - City of Portage 	<ul style="list-style-type: none"> Ongoing with new development, then every 2 years Every 3 years (ongoing) At time of facility inspections 	<ul style="list-style-type: none"> Continue to conduct Chemical Surveys of all RCRA sites in WHPAs. Continue inspections at all RCRA sites in WHPAs. Provide educational materials for proper handling, storage, and disposal of hazardous materials. Also provide City prepared WHP brochure.
		<ul style="list-style-type: none"> Provides program resources. 	<ul style="list-style-type: none"> City of Portage 	<ul style="list-style-type: none"> Immediately after each occurrence 	<ul style="list-style-type: none"> Inform the City of Portage Transportation & Utilities Dept. about violations and existing or potential environmental contamination sites.



Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
2. Intergovernmental Coordination (continued)	d. Reporting and Follow-up Procedure	<ul style="list-style-type: none"> Local officials respond to and investigate suspected contamination sites. If necessary, the Fire Division Incident Commander (IC) informs MI DNRE Pollution Emergency Alerting System (PEAS) about potential hazards at site(s). Contained in Administrative Order 6.10 and City-wide Emergency Preparedness Plan. 	<ul style="list-style-type: none"> Fire Dept. City of Portage Director of Transportation & Utilities Dept. 	Ongoing	<ul style="list-style-type: none"> Review level of activity, effectiveness and efficiency. Evaluate status of existing and potential contamination sources in WHPAs and determine if action is needed or underway.
				Anually	<ul style="list-style-type: none"> City updates database of storage tanks and leaking underground storage tanks in WHPAs
				Anually	<ul style="list-style-type: none"> City updates database of spill sites in WHPAs
3. Monitoring	a. CSI Maintenance	<ul style="list-style-type: none"> Update the Contamination Source Inventory and conduct windshield survey every 4 Years. 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. 	Every 4 years	<ul style="list-style-type: none"> Update CSI as part of updating of WHPP.
				Weekly	<ul style="list-style-type: none"> Measure and tabulate well water levels
	b. Water Level Monitoring	<ul style="list-style-type: none"> Monitor water levels in water supply wells, observation wells, area lakes, stream stage, and flow. 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. Cooperative involvement from City of Kalamazoo, and Pfizer, Inc. Kalamazoo County Human Services Dept., and U.S. Geological Survey 	Monthly	<ul style="list-style-type: none"> Measure and tabulate observation well water levels
				Monthly	<ul style="list-style-type: none"> Measure and tabulate lake storage
				Monthly	<ul style="list-style-type: none"> Measure and tabulate stream stage and discharge
	c. Water Quality Monitoring	<ul style="list-style-type: none"> Perform water quality monitoring as required by State and Federal requirements to ensure safe drinking water. 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. 	As required	<ul style="list-style-type: none"> Obtain and analyze water samples from wells as required.

Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
4. Land Use Protection	a. Existing Zoning	<ul style="list-style-type: none"> Enforce existing zoning Discourage conditional uses or zoning changes that increase risk 	<ul style="list-style-type: none"> City of Portage Dept. of Community Development Kalamazoo County 	<ul style="list-style-type: none"> 3 years with update 	<ul style="list-style-type: none"> Provide Kalamazoo County and Townships of Texas and Pavilion with WHPA maps and copy of the City's Stormwater Master Plan with a list of high risk land uses and their management in WHPAs.
	b. Site Building Plan Review	<ul style="list-style-type: none"> Continue site plan review standards to help protect WHPAs. Review documents and drawings of proposed new developments or additions to or major remodeling of existing development to ensure conformance to regulations. 	<ul style="list-style-type: none"> City of Portage Planning Commission City Council Development Review Team 	<ul style="list-style-type: none"> Ongoing Ongoing Ongoing Ongoing Ongoing Ongoing 	<ul style="list-style-type: none"> Keep appraised of development in WHPAs. Ensure development complies with separation distances between the well and potential contamination sources as required by Michigan Water Well Construction and Pump Installation Codes, Part 127, Act 368-R325. Strengthen Administrative Procedures in Section 1280.06 of the Zoning Code. Continue use of Environmental Permits Checklist and Preconstruction Checklist for Site Plan Review. Continue use of Hazardous Substances Reporting Form For Site Plan Review. Provide WHPAs maps to developers and property owners (upon request). Provide on checklist whether proposed development is in WHPA.



Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
4. Land Use Protection (continued)	c. Overlay Zoning	<ul style="list-style-type: none"> An overlay zone is a specific geographic area that is subject to special regulations in addition to any of an underlying zone (the basic zoning district). 	<ul style="list-style-type: none"> City of Portage Kalamazoo County 	<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> City of Portage using Stormwater Risk Mapping for management of high risk land uses in WHPAs and protection of Water Resources
	a. Informational Materials Distributed to City of Portage Residents	<ul style="list-style-type: none"> Send brochures, fliers, and/or inserts with water bills and/or annual Consumer Confidence Report to property owners. Target owners of existing and potential contamination sources with specific information (general homeowners, agricultural owners, sewage disposal system owners, and storage tank owners). 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. Michigan DEQ and DPH Portager 	<ul style="list-style-type: none"> Annually with Consumer Confidence Report Annually Ongoing Every 2 years Ongoing 	<ul style="list-style-type: none"> Prepare and make available WHP brochure and fact sheets for all property owners and residents. Make available to all residents, materials about proper use and application of fertilizers/pesticides. Make available to all residents, the brochure, "A Home Owner's Guide to Septic Systems." Make available to all property owners, brochures about storage tanks, and potential threats to water supply wells. Make available, other public educational brochures from State agencies for general distribution.
5. Education and Public Information/Awareness	b. Public Informational Meetings	<ul style="list-style-type: none"> Hold meeting to describe the WHPP, describe recharge areas, basic groundwater hydrology, and discuss management strategies. Provide maps, fliers, and fact sheets. Solicit public participation. 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. United Water 	<ul style="list-style-type: none"> With WHPP Approval Every 2 years or upon request 	<ul style="list-style-type: none"> Hold public informational meeting to present Wellhead Protection Plan and proposed management strategies. Informational meetings, as appropriate.



Table 5 - Summary of Management Approaches for Wellhead Protection (Element 4)

City of Portage, Michigan

Wellhead Protection Plan Update

Program Category	Activity	Description	Responsible Units of Governmental/Team Member	Implementation Schedule	
				Date	Milestone
5. Education and Public Information/Awareness (continued)	c. Provide Review Copies of WHPP Plan	<ul style="list-style-type: none"> Provide copies of WHPP plan to Public Library and City Hall. 	<ul style="list-style-type: none"> City of Portage Transportation & Utilities Dept. 	<ul style="list-style-type: none"> Annually and with website. 	<ul style="list-style-type: none"> Provide copies of WHPP Plan.
	d. School and Public Education	<ul style="list-style-type: none"> Participate in school and public education. 	<ul style="list-style-type: none"> City of Portage Dept. of Transportation & Utilities 	<ul style="list-style-type: none"> Annual or as Requested 	<ul style="list-style-type: none"> Provide well tour and incorporate WHP topics in education program. Sponsor videos or demonstration projects. Provide groundwater message in local school newspapers.
	e. Hazardous Chemicals Survey	<ul style="list-style-type: none"> State law requires that all businesses submit to the local fire dept., information about hazardous substances stored and used at the business site. 	<ul style="list-style-type: none"> City of Portage Fire Dept. 	<ul style="list-style-type: none"> Annual or as Requested Every 3 years. 	<ul style="list-style-type: none"> Send hazardous chemicals survey forms to businesses in WHPAs. Report uses of hazardous materials in WHPAs to WHPP administrator. Send mailers to businesses informing them of their location relative to supply wells and reemphasize good handling and housekeeping practices.

Table 6 - Summary of Zoning in Vicinity of Supply Wells

City of Portage, Michigan

Wellhead Protection Plan Update

Wellfield	Local Zoning
Amberly	One Family Residential R-1B
Garden Lane	One Family Residential R-1B
Lexington Green	General Business B-3 Local Business B-1 Light Industry I-1 Office Service OS-1 One Family Residential R-1A
Milham	One Family Residential R-1A
Pershing	Light Industry 1-1 Heavy Industry 1-2
Portage Creek Garden Lane	One Family Residential R-1B
Shuman Collector Rolling Hills	One Family Residential R-1C
Wedgewood	One Family Residential R-1C
Westfield	One Family Residential R-1A/R-1B
Winter Forest	One Family Residential R-1B

Reference: City of Portage Zoning District Map

No longer in service: Lexington Green 1 & 2 have been removed from the distribution system.

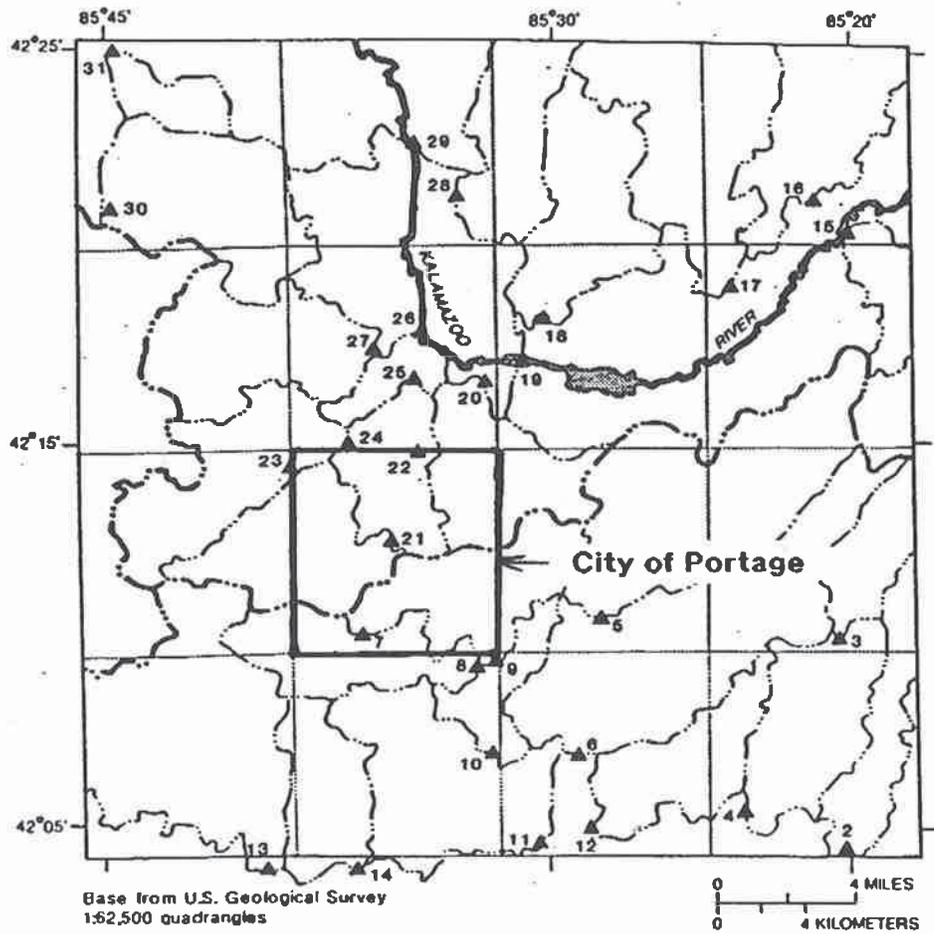
Table 7 - Emergency Contact Numbers

City of Portage, Michigan

Wellhead Protection Plan Update

Contact	Name	Phone No.
Director of Transportation & Utilities	W. Christopher Barnes, P.E.	Office: (269) 324-9256 Cellular: (269) 217-6717
Utilities Engineer	Kendra Gwin, P.E.	Office: (269) 329-4442 Cellular: (269) 217-5546
United Water Operations Supervisor	Harry Wesaw	Office: (269) 324-9235 After Hours: (269) 324-9235, Option 5
Mayor	Peter J. Strazdas	Office: (269) 329-4400
City Manager	Laurence Shaffer	Office: (269) 329-4400
City Clerk	James Hudson	Office: (269) 329-4511
Kalamazoo County Emergency Management Director	Pat Wright	Office: (269) 385-6137
Portage Police Department Senior Deputy Police Chief - Operations	Nick Arnold	Office: (269) 329-4567
Portage Fire Department Fire Marshal	Derek Henson	Office: (269) 329-4488
Local - DEQ Water Supply Contact Person	Wood Chooi, P.E.	Office: (269) 567-3611
Well Drillers/Pump Installers	Peerless Midwest	Office: (574) 254-9050

Appendix 1



EXPLANATION

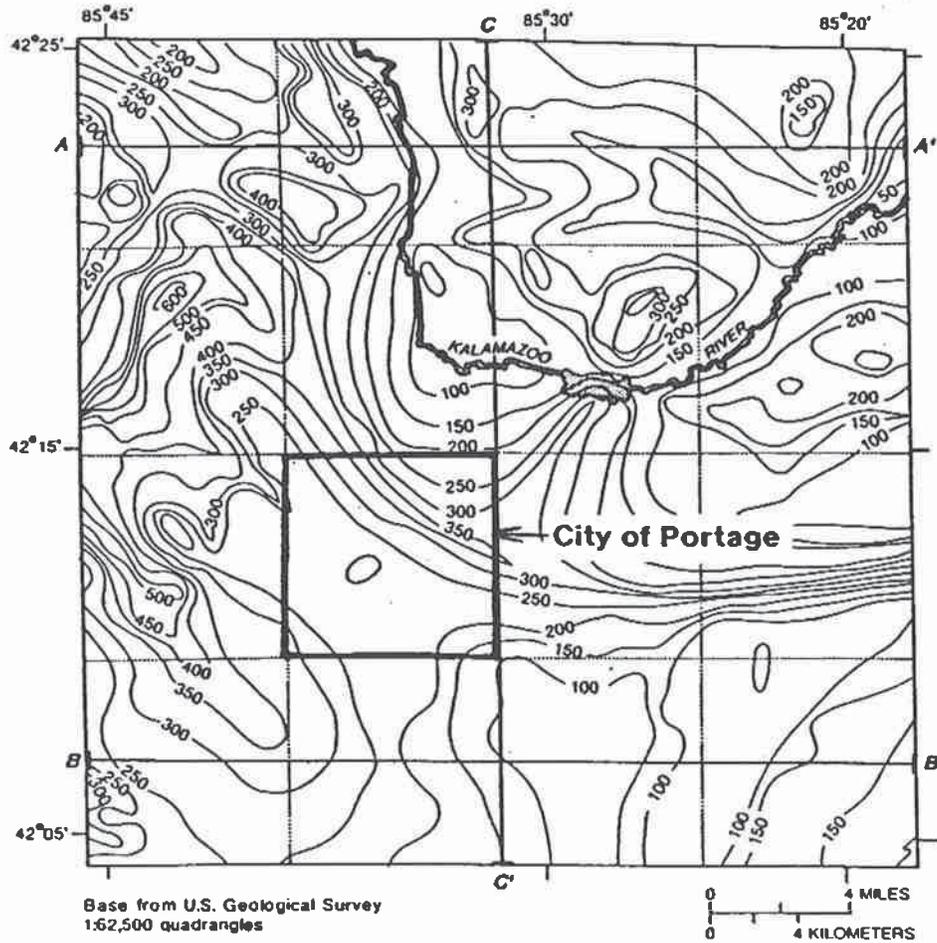
— · · — MAJOR BASIN BOUNDARY

— · · — SUBBASIN BOUNDARY

▲
12
STREAMFLOW MEASUREMENT SITE--
Location and number

FIGURE 3. MAJOR DRAINAGE and SUB-BASIN DIVIDES
after RHEAUME (1990)

Appendix 2



Modified from D. Forst. County Geologic
Map Series-Kalamazoo, 1983

EXPLANATION

- 200— LINE OF EQUAL THICKNESS OF GLACIAL DEPOSITS--
Interval 50 feet
- A A' LINE OF GEOLOGIC SECTION

FIGURE 2. THICKNESS of GLACIAL DRIFT
after RHEAUME (1990)

Appendix 3

Appendix 4

Water Production Site: Milham Wellfield

Description: Water production system with three wells and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to Well #1 building. Well #2 and Well #3 are in separate buildings, as is the emergency power generator.

Address: 1010 West Milham Ave.

Summary of Facilities:

	Well #1	Well #2	Well #3	Treatment
Type	Tubular	Tubular	Tubular	
Diameter (inches)	12	12	12	
Depth (ft)	180	148	135	
Pump Bowl Setting (ft)	135.5	96	85.67	
Capacity (GPM)	800	1,000	900	
Total Dynamic Head (ft)	282	307	208	
Manufacturer	Ingersol Rand/Deming	Layne	Pomona	
Motor Horsepower	100	100	75	
Chlorine Feed System				Stenner SVP4 40 gpd
Fluoride Feed System				Stenner SVP4 17 gpd
Phosphate Feed System				Pulsafeeder 120 gpd

Water Production Site: Amberly Wellfield

Description: Water production system with two wells and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to Well #1 building.

Address: 6637 Amberly Street

Summary of Facilities:

	Well #1	Well #2	Treatment
Type	Tubular	Tubular	
Diameter (inches)	12	12	
Depth (ft)	139	94	
Pump Bowl Setting (ft)	104.5	68.77	
Capacity (GPM)	1,000	400	
Total Dynamic Head (ft)	248	220	
Manufacturer	Layne	Layne	
Motor Horsepower	75	30	
Chlorine Feed System			Stenner SVP4 40 gpd
Fluoride Feed System			Stenner SVP4 17 gpd
Phosphate Feed System			Stenner SVP4 17 gpd

Water Production Site: Winterforest Wellfield

Description: Water production system consists of one stand-by well and chemical feed system for disinfection, iron sequestration and fluoride treatment. Chemical feed building is adjacent to well building.

Address: 1123 Woodland Drive

Summary of Facilities:

	Well #1	Treatment
Type	Tubular	
Diameter (inches)	12	
Depth (ft)	114	
Pump Bowl Setting (ft)	74	
Capacity (GPM)	800	
Total Dynamic Head (ft)	240	
Manufacturer	Layne	
Motor Horsepower	60	
Chlorine Feed System		<i>None</i>
Fluoride Feed System		<i>None</i>
Phosphate Feed System		<i>None</i>

Water Production Site: Pershing Wellfield

Description: Water production system with two wells and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration, and fluoride feed for dental hygiene. Chemical feed building is adjacent to Well #1 building.

Address: 8065 Merchant Place

Summary of Facilities:

	Well #1	Well #2	Treatment
Type	Tubular	Tubular	
Diameter (inches)	12	12	
Depth (ft)	178	167.83	
Pump Bowl Setting (ft)	81.58	96	
Capacity (GPM)	600	600	
Total Dynamic Head (ft)	255	255	
Manufacturer	Peerless	Peerless	
Motor Horsepower	50	50	
Chlorine Feed System			Stenner SVP4 40 gpd
Fluoride Feed System			Stenner SVP4 17 gpd
Phosphate Feed System			Pulsafeeder 120 gpd

Water Production Site: Westfield Wellfield

Description: Water production system with two wells and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to Well #1 building.

Address: 4204 West Milham Avenue

Summary of Facilities:

	Well #1	Well #2	Treatment
Type	Tubular	Tubular	
Diameter (inches)	12	12	
Depth (ft)	146	147	
Pump Bowl Setting (ft)	146.5	104.92	
Capacity (GPM)	650	550	
Total Dynamic Head (ft)	269.5	260	
Manufacturer	Worthington	Peerless	
Motor Horsepower	50	50	
Chlorine Feed System			Stenner SVP4 40 gpd
Fluoride Feed System			Stenner SVP4 17 gpd
Phosphate Feed System			Pulsafeeder 120 gpd

Water Production Site: Wedgewood Wellfield

Description: Water production system with one well and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to well building.

Address: 5340 Angling Road

Summary of Facilities:

	Well #1	Treatment
Type	Tubular	
Diameter (inches)	12	
Depth (ft)	112	
Pump Bowl Setting (ft)	87	
Capacity (GPM)	400	
Total Dynamic Head (ft)	240	
Manufacturer	Worthington	
Motor Horsepower	40	
Chlorine Feed System		Stenner SVP1 40 gpd
Fluoride Feed System		Stenner SVP4 17 gpd
Phosphate Feed System		Stenner SVP1 40 gpd

Water Production Site: Rolling Hill Wellfield

Description: Water production system with one well and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to well building.

Address: 10322 Shuman Street

Summary of Facilities:

	Well #1	Treatment
Type	Tubular	
Diameter (inches)	12	
Depth (ft)	94	
Pump Bowl Setting (ft)	60	
Capacity (GPM)	900	
Total Dynamic Head (ft)	208	
Manufacturer	Pomona	
Motor Horsepower	60	
Chlorine Feed System		Stenner SVP4 40 gpd
Fluoride Feed System		Stenner SVP4 17 gpd
Phosphate Feed System		Pulsafeeder 120 gpd

Water Production Site: Shuman Wellfield

Description: Water production system with three wells (one conventional vertical turbine pump in a tubular well, and two vertical turbine pumps in a horizontal collector well and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to Well #1 building. Well pumps #2 and #3 are enclosed in building 2. The generator is enclosed in a separate building.

Address: 9860 Oakland Drive

Summary of Facilities:

	Well #1	Well #2	Treatment
Type	Tubular	Horizontal Collector	
Diameter (inches)	16	13	
Depth (ft)	99	84	
Pump Bowl Setting (ft)	69.67	80	
Capacity (GPM)	1,000	2 at 2,000	
Total Dynamic Head (ft)	213.8	243	
Manufacturer	Peerless	Western Land	
Motor Horsepower	75	150	
Chlorine Feed System			Stenner SVP4 40 gpd
Fluoride Feed System			Stenner SVP4 17 gpd
Phosphate Feed System			Stenner SVP1 40 gpd

Water Production Site: Portage Creek Wellfield

Description: Water production system consists of one stand-by well and chemical feed system for disinfection, iron sequestration and fluoride treatment. Chemical feed building is adjacent to well building.

Address: 910 East Milham Avenue

Summary of Facilities:

	Well #1	Treatment
Type	Tubular	
Diameter (inches)	16	
Depth (ft)	142	
Pump Bowl Setting (ft)	106.75	
Capacity (GPM)	1,100	
Total Dynamic Head (ft)	242	
Manufacturer	Layne/Floway	
Motor Horsepower	100	
Chlorine Feed System		<i>None</i>
Fluoride Feed System		<i>None</i>
Phosphate Feed System		<i>None</i>

Water Production Site: Garden Lane 1-4 Wellfield

Description: Water production system with four wells and a water treatment facility. The treatment facility uses pressure filtration to remove arsenic, manganese, and iron from the water. The treatment plant consists of chemical feed system of chlorine for disinfection, and fluoride feed for dental hygiene. Each well are in separate buildings with separate emergency power generators.

Address: 7451 Garden Lane

Summary of Facilities:

	Well #1	Well #2	Well #3	Well #4	Treatment
Type	Tubular	Tubular	Tubular	Tubular	
Diameter (inches)	12	16	16	16	
Depth (ft)	119	177	143	175	
Pump Bowl Setting (ft)	80.83	156	99	104.5	
Capacity (GPM)	850	1,200	900	1,200	
Total Dynamic Head (ft)	282	355	230	295	
Manufacturer	Layne	Peerless	Peerless	Floway	
Motor Horsepower	75	150	75	125	
Chlorine Feed System					WTP
Fluoride Feed System					WTP
Phosphate Feed System					WTP

Water Production Site: Garden Lane 5

Description: Water production system with one well and chemical feed system consisting of chlorine feed for disinfection and distribution system residual, polyphosphate dosage for iron sequestration and fluoride feed for dental hygiene. Chemical feed building is adjacent to well building.

Address: 910 East Milham Avenue

Summary of Facilities:

	Well #1	Treatment
Type	Tubular	
Diameter (inches)	16	
Depth (ft)	161	
Pump Bowl Setting (ft)	135.5	
Capacity (GPM)	640	
Total Dynamic Head (ft)	295	
Manufacturer	Layne	
Motor Horsepower	75	
Chlorine Feed System		Stenner SVP1 40 gpd
Fluoride Feed System		Stenner SVP4 17 gpd
Phosphate Feed System		Stenner SVP1 40 gpd

Appendix 5

**Appendix 5 – Database List and Estimated Level of Concern
City of Portage, Michigan
Wellhead Protection Plan Update**

<u>Database Name</u>	<u>Estimated Level of Concern</u>
CERC-NFRAP	Medium
CORRACTS	High
RCRA-TSDF	High
RCRA-LQG	Medium
RCRA-SQG	Low
RCRA-CESQG	Low
RCRA NonGen / NLR	Low
ERNS	High
HMIRS	High
US CDL	High
TRIS	Low
FTTS	High
HIST FTTS	High
ICIS	Low
PADS	Low
FINDS	Disregard. If in FINDS database, they are listed in one of the other databases.
RMP	Low
US AIRS	Low
2020 COR Action	High
US HIST CDL	High
MI SHWS	High
MI INVENTORY	Medium to High
MI DEL SHWS	Low
MI WDS	Low
MI LUST	High if open. Medium if closed.
MI UST	Medium
MI AST	Medium
NY Manifest	Low
WI Manifest	Low
MI Spills	High
MI AUL	High
MI Dry Cleaners	High
MI Brownfields	High
MI NPDES	Low
MI AIRS	Low
MI BEA	High
MI RGA HWS	High
MI RGA LUST	High if open. Medium if closed.
EDR US Hist Auto Stat	Medium
EDR US Hist Cleaners	High

Appendix 6

Pershing School Well Field
Portage, MI 49002

Inquiry Number: 4001634.2s
July 11, 2014

EDR DataMap™ Area Study

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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TARGET PROPERTY INFORMATION

ADDRESS

PORTAGE, MI 49002
PORTAGE, MI 49002

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL.....	National Priority List
Proposed NPL.....	Proposed National Priority List Sites
Delisted NPL.....	National Priority List Deletions
NPL LIENS.....	Federal Superfund Liens
CERCLIS.....	Comprehensive Environmental Response, Compensation, and Liability Information System
LIENS 2.....	CERCLA Lien Information
US ENG CONTROLS.....	Engineering Controls Sites List
US INST CONTROL.....	Sites with Institutional Controls
ERNS.....	Emergency Response Notification System
HMIRS.....	Hazardous Materials Information Reporting System
DOT OPS.....	Incident and Accident Data
US CDL.....	Clandestine Drug Labs
US BROWNFIELDS.....	A Listing of Brownfields Sites
DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
LUCIS.....	Land Use Control Information System
CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
ODI.....	Open Dump Inventory
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
US MINES.....	Mines Master Index File
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems
ICIS.....	Integrated Compliance Information System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
RAATS.....	RCRA Administrative Action Tracking System
RMP.....	Risk Management Plans
PRP.....	Potentially Responsible Parties
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST.....	EPA WATCH LIST

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LEAD SMELTERS.....	Lead Smelter Sites
US HIST CDL.....	National Clandestine Laboratory Register
PCB TRANSFORMER.....	PCB Transformer Registration Database
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
FEMA UST.....	Underground Storage Tank Listing
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
FEDERAL FACILITY.....	Federal Facility Site Information listing
COAL ASH DOE.....	Steam-Electric Plant Operation Data
US FIN ASSUR.....	Financial Assurance Information

STATE AND LOCAL RECORDS

MI SWF/LF.....	Solid Waste Facilities Database
MI UIC.....	Underground Injection Wells Database
MI SWRCY.....	Recycling Facilities
MI HIST LF.....	Inactive Solid Waste Facilities
MI AST.....	Aboveground Tanks
MI AUL.....	Engineering and Institutional Controls
MI DRYCLEANERS.....	Drycleaning Establishments
MI CDL.....	Clandestine Drug Lab Listing
MI RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
MI RGA LF.....	Recovered Government Archive Solid Waste Facilities List
MI COAL ASH.....	Coal Ash Disposal Sites

TRIBAL RECORDS

INDIAN RESERV.....	Indian Reservations
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST.....	Leaking Underground Storage Tanks on Indian Land
INDIAN UST.....	Underground Storage Tanks on Indian Land
INDIAN VCP.....	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners.....	EDR Exclusive Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard

EXECUTIVE SUMMARY

associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there are 2 CERC-NFRAP sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PHARMACIA & UPJOHN COMPANY</i>	<i>7171 PORTAGE ROAD</i>	<i>1</i>	<i>4</i>
<i>AGA INCORPORATED</i>	<i>3615 EAST CENTRE STREET</i>	<i>6</i>	<i>91</i>

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/11/2014 has revealed that there is 1 CORRACTS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PHARMACIA & UPJOHN COMPANY</i>	<i>7171 PORTAGE ROAD</i>	<i>1</i>	<i>4</i>

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 03/11/2014 has revealed that there is 1 RCRA-TSDF site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PHARMACIA & UPJOHN COMPANY</i>	<i>7171 PORTAGE ROAD</i>	<i>1</i>	<i>4</i>

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/11/2014 has revealed that there are 2 RCRA-LQG sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PHARMACIA & UPJOHN COMPANY</i>	<i>7171 PORTAGE ROAD</i>	<i>1</i>	<i>4</i>
<i>KALAMAZOO STRIPPING AND DERUST</i>	<i>3921 E CENTRE AVE</i>	<i>5</i>	<i>84</i>

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RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/11/2014 has revealed that there are 2 RCRA-SQG sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PIENTA ENTERPRISES INC</i>	<i>7910 S SPRINKLE RD</i>	<i>2</i>	<i>67</i>
STRYKER CORPORATION	3800 E CENTRE AVE	7	93

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 03/11/2014 has revealed that there are 2 RCRA-CESQG sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
AMOCO OIL CO	7940 S SPRINKLE RD	2	61
PRO SERVICES INC	8132 MERCHANT PL	5	79

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/11/2014 has revealed that there are 4 RCRA NonGen / NLR sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>KALAMAZOO STRIPPING & DERUSTIN</i>	<i>7912 S SPRINKLE RD</i>	<i>2</i>	<i>65</i>
<i>TRIP TS</i>	<i>5369 E Q AVE</i>	<i>3</i>	<i>76</i>
<i>AGA INCORPORATED</i>	<i>3615 EAST CENTRE STREET</i>	<i>6</i>	<i>91</i>
MI DEPT/STATE POLICE	8629 COX DR	11	97

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

A review of the TRIS list, as provided by EDR, and dated 12/31/2011 has revealed that there is 1 TRIS

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site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	1	4

PADS: The PCB Activity Database identifies generators, transporters, commercial storers and/or brokers and disposers of PCBs who are required to notify the United States Environmental Protection Agency of such activities. The source of this database is the U.S. EPA.

A review of the PADS list, as provided by EDR, and dated 06/01/2013 has revealed that there is 1 PADS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	1	4

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 11/18/2013 has revealed that there are 6 FINDS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
AMOCO OIL CO	7940 S SPRINKLE RD	2	60
KALAMAZOO STRIPPING & DERUSTIN	7912 S SPRINKLE RD	2	65
PIENTA ENTERPRISES INC	7910 S SPRINKLE RD	2	67
TRIP TS	5369 E Q AVE	3	76
PRO SERVICES INC	8132 MERCHANT PL	5	83
STRYKER CORPORATION	3800 E CENTRE AVE	7	96

2020 COR ACTION: The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

A review of the 2020 COR ACTION list, as provided by EDR, and dated 11/11/2011 has revealed that there is 1 2020 COR ACTION site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	1	4

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STATE AND LOCAL RECORDS

MI SHWS: The Contaminated Sites List database, also known as the Part 201 database, maintained by the Michigan Department of Environmental Quality (MDEQ), provides information about sites at which a release of a hazardous substance in excess of the Part 201 residential criteria has occurred, and where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the MDEQ about the sites and can pursue cleanup independently. A deleted site has been removed from the Part 201 List because information known to the MDEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations that meet or are below the criteria for unrestricted residential use. The list does not include the sites of contamination regulated under Part 213, Leaking Underground Storage Tanks.

A review of the MI SHWS list, as provided by EDR, and dated 10/01/2013 has revealed that there are 4 MI SHWS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
D&A AUTOBODY Facility Status: Interim Response in progress	7910 SPRINKLE	2	64
PORTAGE ST & ZYLMAN AVE RES WE Facility Status: Deleted - available documentation does not support listing	PORTAGE & ZYLMAN	10	97
WINDWOOD STREET Facility Status: Deleted - available documentation does not support listing	8813 WINDWOOD (& 3930 P	12	99
WILLARD CLARK/BUD'S AUTO REPAI Facility Status: See Leaking Underground Storage Tank Site Database	9008 PORTAGE RD	14	102

MI INVENTORY: The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the MI INVENTORY list, as provided by EDR, and dated 04/28/2014 has revealed that there are 5 MI INVENTORY sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
AIRCO INDUSTRIAL GASES	7171 PORTAGE RD	1	3
D&A AUTOBODY	7910 SPRINKLE	2	64
ZELLERBACH	8132 MERCHANT PLACE	5	83

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<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
BESTIRE INC	8927 S SPRINKLE RD	13	99
WILLARD CLARK/BUD'S AUTO REPAI	9008 PORTAGE RD	14	102

MI DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

A review of the MI DEL SHWS list, as provided by EDR, and dated 08/01/2013 has revealed that there are 3 MI DEL SHWS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
AIRCO INDUSTRIAL GASES	7171 PORTAGE RD	1	3
PORTAGE ST & ZYLMAN AVE RES WE	PORTAGE & ZYLMAN	10	97
WINDWOOD STREET	8813 WINDWOOD (& 3930 P	12	99

MI WDS: The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

A review of the MI WDS list, as provided by EDR, and dated 05/30/2014 has revealed that there are 10 MI WDS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
AIRCO INDUSTRIAL GASES	7171 PORTAGE RD	1	3
D & S AUTO INC	8003 S SPRINKLE RD	2	58
THE BOOZE BARN	7940 S SPRINKLE RD	2	62
KALAMAZOO STRIPPING & DERUSTIN	7912 S SPRINKLE RD	2	66
PIENTA ENTERPRISES INC	7910 S SPRINKLE RD	2	73
PRO SERVICES INC	8132 MERCHANT PL	5	83
KALAMAZOO STRIPPING & DERUST	3921 E CENTRE AVE	5	89
STRYKER CORPORATION	3800 E CENTRE AVE	7	95
BESTIRE INC	8927 S SPRINKLE RD	13	99
WILLARD CLARK/BUD'S AUTO REPAI	9008 PORTAGE RD	14	102

MI LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the MI LUST list, as provided by EDR, and dated 05/05/2014 has revealed that there are 5 MI LUST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
ORKIN PEST CONTROL Facility Status: Closed	4123 E CENTER	2	59
THE BOOZE BARN Facility Status: Closed	7940 S SPRINKLE RD	2	62
FULLER COMMUNICATIONS Facility Status: Closed	7804 SPRINKLE RD	2	74
BESTIRE INC Facility Status: Open	8927 S SPRINKLE RD	13	99

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
WILLARD CLARK/BUD'S AUTO REPAI Facility Status: Open	9008 PORTAGE RD	14	102

MI UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the MI UST list, as provided by EDR, and dated 05/05/2014 has revealed that there are 7 MI UST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
D & S AUTO INC	8003 S SPRINKLE RD	2	58
THE BOOZE BARN	7940 S SPRINKLE RD	2	62
FULLER COMMUNICATIONS	7804 SPRINKLE RD	2	74
BLACK BERRY SYSTEMS	4211 E CENTRE AVE	4	78
PETE VAN MEEKEREN	4203 E CENTRE AVE	4	79
AGA GAS, INC	3615 E CENTERE	5	90
BESTIRE INC	8927 S SPRINKLE RD	13	99

MI LIENS: An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

A review of the MI LIENS list, as provided by EDR, and dated 01/24/2014 has revealed that there is 1 MI LIENS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
WILLARD CLARK/BUD'S AUTO REPAI	9008 PORTAGE RD	14	102

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, has revealed that there is 1 NY MANIFEST site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	1	4

EXECUTIVE SUMMARY

WI MANIFEST: Hazardous waste manifest information.

A review of the WI MANIFEST list, as provided by EDR, has revealed that there are 2 WI MANIFEST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PHARMACIA & UPJOHN COMPANY</i>	<i>7171 PORTAGE ROAD</i>	<i>1</i>	<i>4</i>
<i>PIENTA ENTERPRISES INC</i>	<i>7910 S SPRINKLE RD</i>	<i>2</i>	<i>67</i>

MI SPILLS: Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

A review of the MI SPILLS list, as provided by EDR, and dated 05/02/2014 has revealed that there are 2 MI SPILLS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>AIRCO INDUSTRIAL GASES</i>	<i>7171 PORTAGE RD</i>	<i>1</i>	<i>3</i>
Not reported	5213 DEEP POINT DR	9	97

MI BROWNFIELDS: Brownfields and USTfield Site Database.

A review of the MI BROWNFIELDS list, as provided by EDR, and dated 07/27/2012 has revealed that there are 2 MI BROWNFIELDS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>THE BOOZE BARN</i>	<i>7940 S SPRINKLE RD</i>	<i>2</i>	<i>62</i>
<i>WILLARD CLARK/BUD'S AUTO REPAI</i>	<i>9008 PORTAGE RD</i>	<i>14</i>	<i>102</i>

MI NPDES: General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

A review of the MI NPDES list, as provided by EDR, and dated 04/08/2014 has revealed that there is 1 MI NPDES site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
STRYKER MEDICAL	3800 EAST CENTRE AVENUE	7	95

MI AIRS: Permit and emissions inventory data.

A review of the MI AIRS list, as provided by EDR, and dated 04/01/2014 has revealed that there is 1 MI AIRS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>KALAMAZOO STRIPPING & DERUST</i>	<i>3921 E CENTRE AVE</i>	<i>5</i>	<i>89</i>

EXECUTIVE SUMMARY

MI BEA: A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the MI BEA list, as provided by EDR, and dated 08/21/2013 has revealed that there is 1 MI BEA site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
FULLER COMMUNICATION	7804 SOUTH SPRINKLE ROA	2	76

MI RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

A review of the MI RGA LUST list, as provided by EDR, has revealed that there are 2 MI RGA LUST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
THE BOOZE BARN	7940 S SPRINKLE RD	2	60
BESTIRE INC	8927 S SPRINKLE RD	13	99

EDR PROPRIETARY RECORDS

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 8 EDR US Hist Auto Stat sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
Not reported	8003 SPRINKLE RD	2	57
Not reported	8003 S SPRINKLE RD	2	57
Not reported	7910 S SPRINKLE RD	2	66
Not reported	7910 SPRINKLE RD	2	67
Not reported	7880 S SPRINKLE RD	2	73
Not reported	7860 S SPRINKLE RD	2	74
Not reported	7860 SPRINKLE RD	2	74
Not reported	3300 E CENTRE AVE	8	96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: N/A
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: N/A
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: N/A
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2014
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2014
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/11/2014	Source: EPA
Date Data Arrived at EDR: 03/13/2014	Telephone: 800-424-9346
Date Made Active in Reports: 04/09/2014	Last EDR Contact: 07/02/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/17/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2014	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 06/05/2014
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/17/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2014	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 06/05/2014
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 10/01/2013	Telephone: 202-267-2180
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 07/03/2014
Number of Days to Update: 66	Next Scheduled EDR Contact: 07/14/2014
	Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2013	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/03/2014	Telephone: 202-366-4555
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 52	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 05/06/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/18/2014
	Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/04/2014
Date Data Arrived at EDR: 03/06/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 103

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/04/2014
Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/20/2014
Date Data Arrived at EDR: 03/20/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 07/03/2014
Next Scheduled EDR Contact: 10/06/2014
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/18/2014
Next Scheduled EDR Contact: 07/28/2014
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 55

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/04/2014
Next Scheduled EDR Contact: 09/22/2014
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2014
Date Data Arrived at EDR: 05/30/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 18

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/19/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/30/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 06/10/2014
Number of Days to Update: 74	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 02/25/2014
Number of Days to Update: 146	Next Scheduled EDR Contact: 06/09/2014
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 04/28/2014
Number of Days to Update: 137	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: No Update Planned

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/05/2013	Telephone: 303-231-5959
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 06/06/2014
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/15/2014
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011	Source: EPA
Date Data Arrived at EDR: 07/31/2013	Telephone: 202-566-0250
Date Made Active in Reports: 09/13/2013	Last EDR Contact: 05/30/2014
Number of Days to Update: 44	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 06/25/2014
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/06/2014
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/22/2014
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/22/2014
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 04/29/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 05/06/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/16/2014	Telephone: 202-564-5088
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 10/09/2014
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/27/2014
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013	Source: EPA
Date Data Arrived at EDR: 07/17/2013	Telephone: 202-566-0500
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 04/18/2014
Number of Days to Update: 107	Next Scheduled EDR Contact: 07/28/2014
	Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 08/02/2013	Telephone: 301-415-7169
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 06/05/2014
Number of Days to Update: 91	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/08/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/09/2014	Telephone: 202-343-9775
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/10/2014
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 02/27/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 13

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 06/13/2014
Next Scheduled EDR Contact: 09/22/2014
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/01/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 33

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/30/2014
Next Scheduled EDR Contact: 09/08/2014
Data Release Frequency: Biennially

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/16/2014
Next Scheduled EDR Contact: 08/25/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/14/2013	Telephone: 703-603-8787
Date Made Active in Reports: 02/27/2013	Last EDR Contact: 07/01/2014
Number of Days to Update: 13	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013	Source: EPA
Date Data Arrived at EDR: 07/03/2013	Telephone: 202-564-6023
Date Made Active in Reports: 09/13/2013	Last EDR Contact: 07/01/2014
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Quarterly

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/04/2014	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/06/2014	Telephone: 202-307-1000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 06/04/2014
Number of Days to Update: 103	Next Scheduled EDR Contact: 09/15/2014
	Data Release Frequency: No Update Planned

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 05/02/2014
Number of Days to Update: 83	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 04/21/2014
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/04/2014
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 07/08/2014
Number of Days to Update: 55	Next Scheduled EDR Contact: 10/27/2014
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/03/2011	Telephone: N/A
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 06/11/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/31/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/08/2013	Telephone: 703-603-8704
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 07/08/2014
Number of Days to Update: 151	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 04/18/2014
Number of Days to Update: 76	Next Scheduled EDR Contact: 07/28/2014
	Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/23/2013	Source: EPA
Date Data Arrived at EDR: 11/06/2013	Telephone: 202-564-5962
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 06/25/2014
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/23/2013	Source: EPA
Date Data Arrived at EDR: 11/06/2013	Telephone: 202-564-5962
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 06/25/2014
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 02/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2014	Telephone: 202-566-1917
Date Made Active in Reports: 04/09/2014	Last EDR Contact: 05/16/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/16/2014
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/25/2014
	Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

SHWS: Contaminated Sites

The Contaminated Sites List database, also known as the Part 201 database, maintained by the Michigan Department of Environmental Quality (MDEQ), provides information about sites at which a release of a hazardous substance in excess of the Part 201 residential criteria has occurred, and where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the MDEQ about the sites and can pursue cleanup independently. A deleted site has been removed from the Part 201 List because information known to the MDEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations that meet or are below the criteria for unrestricted residential use. The list does not include the sites of contamination regulated under Part 213, Leaking Underground Storage Tanks.

Date of Government Version: 10/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 10/31/2013	Telephone: 517-284-5103
Date Made Active in Reports: 11/20/2013	Last EDR Contact: 04/28/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 04/28/2014	Source: Department of Environmental Quality
Date Data Arrived at EDR: 04/30/2014	Telephone: 517-284-5136
Date Made Active in Reports: 05/15/2014	Last EDR Contact: 04/30/2014
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support its listing or the site no longer meets criteria specified in rules.

Date of Government Version: 08/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/01/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/11/2013	Last EDR Contact: 04/28/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/31/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/01/2014	Telephone: 517-335-4035
Date Made Active in Reports: 05/05/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Semi-Annually

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 05/30/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/30/2014	Telephone: 517-284-6562
Date Made Active in Reports: 06/24/2014	Last EDR Contact: 05/27/2014
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 11/18/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 11/19/2013	Telephone: 517-241-1515
Date Made Active in Reports: 11/26/2013	Last EDR Contact: 04/18/2014
Number of Days to Update: 7	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Dept of Environmental Quality
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 06/18/2014
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 06/26/2014
Number of Days to Update: 6

Source: Dept of Environmental Quality
Telephone: 517-241-5719
Last EDR Contact: 06/30/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/05/2014
Date Data Arrived at EDR: 05/21/2014
Date Made Active in Reports: 06/03/2014
Number of Days to Update: 13

Source: Dept of Environmental Quality
Telephone: 517-373-9837
Last EDR Contact: 05/21/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Annually

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/05/2014
Date Data Arrived at EDR: 05/21/2014
Date Made Active in Reports: 06/03/2014
Number of Days to Update: 13

Source: Dept of Environmental Quality
Telephone: 517-335-4035
Last EDR Contact: 05/21/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Annually

UST 2: Underground Storage Tank Listing

A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 04/25/2014
Date Data Arrived at EDR: 04/29/2014
Date Made Active in Reports: 06/02/2014
Number of Days to Update: 34

Source: Dept of Environmental Quality
Telephone: 517-335-7211
Last EDR Contact: 04/21/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 05/27/2014
Date Data Arrived at EDR: 05/28/2014
Date Made Active in Reports: 06/24/2014
Number of Days to Update: 27

Source: Dept of Environmental Quality
Telephone: 517-373-8168
Last EDR Contact: 05/19/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: No Update Planned

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/24/2014
Date Data Arrived at EDR: 01/28/2014
Date Made Active in Reports: 03/26/2014
Number of Days to Update: 57

Source: Dept of Environmental Quality
Telephone: 517-241-7603
Last EDR Contact: 04/25/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Varies

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 05/02/2014
Date Data Arrived at EDR: 05/02/2014
Date Made Active in Reports: 06/09/2014
Number of Days to Update: 38

Source: Dept of Environmental Quality
Telephone: 517-373-8427
Last EDR Contact: 05/02/2014
Next Scheduled EDR Contact: 09/22/2014
Data Release Frequency: Quarterly

AUL: Engineering and Institutional Controls

A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/04/2014
Date Data Arrived at EDR: 03/06/2014
Date Made Active in Reports: 03/27/2014
Number of Days to Update: 21

Source: Dept of Environmental Quality
Telephone: 517-373-4828
Last EDR Contact: 06/02/2014
Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/28/2014
Date Data Arrived at EDR: 04/29/2014
Date Made Active in Reports: 05/14/2014
Number of Days to Update: 15

Source: Dept of Environmental Quality
Telephone: 517-335-4586
Last EDR Contact: 04/21/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Annually

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 07/27/2012
Date Data Arrived at EDR: 07/31/2012
Date Made Active in Reports: 09/20/2012
Number of Days to Update: 51

Source: Dept of Environmental Quality
Telephone: 517-373-4805
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 05/01/2007
Number of Days to Update: 21

Source: Economic Development Corporation
Telephone: 888-522-0103
Last EDR Contact: 06/02/2014
Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008
Date Data Arrived at EDR: 11/18/2008
Date Made Active in Reports: 11/21/2008
Number of Days to Update: 3

Source: Department of Community Health
Telephone: 517-373-3740
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 04/08/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/09/2014	Telephone: 517-241-1300
Date Made Active in Reports: 05/06/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 04/01/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/03/2014	Telephone: 517-373-7074
Date Made Active in Reports: 05/05/2014	Last EDR Contact: 06/19/2014
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/06/2014
	Data Release Frequency: Varies

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/21/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/23/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/12/2013	Last EDR Contact: 05/16/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: No Update Planned

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 07/12/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/12/2013	Telephone: 586-753-3754
Date Made Active in Reports: 08/01/2013	Last EDR Contact: 07/02/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/24/2013
Number of Days to Update: 176

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/18/2014
Next Scheduled EDR Contact: 07/28/2014
Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/02/2014
Next Scheduled EDR Contact: 08/18/2014
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011
Date Data Arrived at EDR: 09/13/2011
Date Made Active in Reports: 11/11/2011
Number of Days to Update: 59

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 02/21/2014
Next Scheduled EDR Contact: 05/12/2014
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/24/2014
Date Data Arrived at EDR: 04/25/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 53

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/22/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 05/02/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/01/2013 Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2013 Telephone: 415-972-3372
Date Made Active in Reports: 04/12/2013 Last EDR Contact: 04/28/2014
Number of Days to Update: 42 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012 Source: EPA Region 8
Date Data Arrived at EDR: 08/28/2012 Telephone: 303-312-6271
Date Made Active in Reports: 10/16/2012 Last EDR Contact: 04/28/2014
Number of Days to Update: 49 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/28/2014 Source: EPA Region 7
Date Data Arrived at EDR: 05/01/2014 Telephone: 913-551-7003
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 47 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 05/12/2014 Source: EPA, Region 5
Date Data Arrived at EDR: 05/12/2014 Telephone: 312-886-7439
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 36 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/06/2013 Source: EPA Region 10
Date Data Arrived at EDR: 11/07/2013 Telephone: 206-553-2857
Date Made Active in Reports: 12/06/2013 Last EDR Contact: 04/28/2014
Number of Days to Update: 29 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013 Source: EPA, Region 1
Date Data Arrived at EDR: 05/01/2013 Telephone: 617-918-1313
Date Made Active in Reports: 01/27/2014 Last EDR Contact: 05/02/2014
Number of Days to Update: 271 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 05/12/2014 Source: EPA Region 5
Date Data Arrived at EDR: 05/12/2014 Telephone: 312-886-6136
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 36 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2014	Source: EPA Region 6
Date Data Arrived at EDR: 05/15/2014	Telephone: 214-665-7591
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 01/27/2014
Number of Days to Update: 33	Next Scheduled EDR Contact: 05/12/2014
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/28/2014	Source: EPA Region 7
Date Data Arrived at EDR: 05/01/2014	Telephone: 913-551-7003
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 47	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/04/2014	Source: EPA Region 10
Date Data Arrived at EDR: 04/08/2014	Telephone: 206-553-2857
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 70	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/07/2014	Source: EPA Region 8
Date Data Arrived at EDR: 05/09/2014	Telephone: 303-312-6137
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 39	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/12/2014	Source: EPA Region 9
Date Data Arrived at EDR: 05/14/2014	Telephone: 415-972-3368
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations).

Date of Government Version: 04/24/2014	Source: EPA Region 4
Date Data Arrived at EDR: 04/25/2014	Telephone: 404-562-9424
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/22/2014
Number of Days to Update: 53	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 03/20/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 04/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/23/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/18/2014
Next Scheduled EDR Contact: 07/28/2014
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2014
Date Data Arrived at EDR: 05/07/2014
Date Made Active in Reports: 06/10/2014
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/07/2014
Next Scheduled EDR Contact: 08/18/2014
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/21/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/27/2014
Next Scheduled EDR Contact: 09/08/2014
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012

Date Data Arrived at EDR: 08/09/2013

Date Made Active in Reports: 09/27/2013

Number of Days to Update: 49

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/16/2014

Next Scheduled EDR Contact: 09/29/2014

Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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Shuman/Rolling Hill Well Field
Portage, MI 49024

Inquiry Number: 4001619.2s
July 11, 2014

EDR DataMap™ Area Study

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

PORTAGE, MI 49024
PORTAGE, MI 49024

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL.....	National Priority List
Proposed NPL.....	Proposed National Priority List Sites
Delisted NPL.....	National Priority List Deletions
NPL LIENS.....	Federal Superfund Liens
CERCLIS.....	Comprehensive Environmental Response, Compensation, and Liability Information System
LIENS 2.....	CERCLA Lien Information
CORRACTS.....	Corrective Action Report
RCRA-TSDF.....	RCRA - Treatment, Storage and Disposal
US ENG CONTROLS.....	Engineering Controls Sites List
US INST CONTROL.....	Sites with Institutional Controls
ERNS.....	Emergency Response Notification System
HMIRS.....	Hazardous Materials Information Reporting System
DOT OPS.....	Incident and Accident Data
US CDL.....	Clandestine Drug Labs
US BROWNFIELDS.....	A Listing of Brownfields Sites
DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
LUCIS.....	Land Use Control Information System
CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
ODI.....	Open Dump Inventory
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
US MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems
ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
RAATS.....	RCRA Administrative Action Tracking System

EXECUTIVE SUMMARY

RMP.....	Risk Management Plans
PRP.....	Potentially Responsible Parties
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
LEAD SMELTERS.....	Lead Smelter Sites
PCB TRANSFORMER.....	PCB Transformer Registration Database
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
FEMA UST.....	Underground Storage Tank Listing
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
FEDERAL FACILITY.....	Federal Facility Site Information listing
COAL ASH DOE.....	Steam-Electric Plant Operation Data
US FIN ASSUR.....	Financial Assurance Information

STATE AND LOCAL RECORDS

DEL SHWS.....	Delisted List of Contaminated Sites
SWF/LF.....	Solid Waste Facilities Database
UIC.....	Underground Injection Wells Database
SWRCY.....	Recycling Facilities
HIST LF.....	Inactive Solid Waste Facilities
LIENS.....	Lien List
AUL.....	Engineering and Institutional Controls
NPDES.....	List of Active NPDES Permits
AIRS.....	Permit and Emissions Inventory Data
RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF.....	Recovered Government Archive Solid Waste Facilities List
COAL ASH.....	Coal Ash Disposal Sites

TRIBAL RECORDS

INDIAN RESERV.....	Indian Reservations
INDIAN ODI.....	Report on the Status of Open Dumps on Indian Lands
INDIAN LUST.....	Leaking Underground Storage Tanks on Indian Land
INDIAN UST.....	Underground Storage Tanks on Indian Land
INDIAN VCP.....	Voluntary Cleanup Priority Listing

EDR PROPRIETARY RECORDS

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners.....	EDR Exclusive Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

FEDERAL RECORDS

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PLASTIC ENGINEERING	1821 VANDERBILT RD	3	8

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/11/2014 has revealed that there is 1 RCRA-LQG site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PLASTIC ENGINEERING	1821 VANDERBILT RD	3	8

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/11/2014 has revealed that there is 1 RCRA-SQG site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
BOUMA BETTEN CONSTRUCTION CO	9750 SHAVER RD	6	24

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 03/11/2014 has revealed that there are

EXECUTIVE SUMMARY

4 RCRA-CESQG sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
KALCLEAN INC	1811 VANDERBILT AVE	3	6
CHARLES RIVER LABS	9801 SHAVER RD	6	20
EXCEL TECHNICAL MACHINE REPAIR	9920 OAKLAND DR	8	31
PIFERS COUNTRY MOTORS INC	10028 SHAVER RD	9	33

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/11/2014 has revealed that there are 6 RCRA NonGen / NLR sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
MI DEPT/STATE POLICE	1950 VANDERBILT AVE	2	3
LOIS NEWCOMER	9416 SHAVER RD	5	16
PORTAGE POLICE DEPARTMENT	9800 OAKLAND DR	7	28
MI DEPT/STATE POLICE	2819 WITTERS CT	14	39
MI DEPT/STATE POLICE	10800 SHAVER RD	16	43
CITY OF PORTAGE/POLICE	11000 SHAVER RD	18	44

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 11/18/2013 has revealed that there are 8 FINDS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
KALCLEAN INC	1811 VANDERBILT AVE	3	6
CHARLES RIVER LABS	9801 SHAVER RD	6	20
BOUMA BETTEN CONSTRUCTION CO	9750 SHAVER RD	6	24
PORTAGE POLICE DEPARTMENT	9800 OAKLAND DR	7	29
EXCEL TECHNICAL MACHINE REPAIR	9920 OAKLAND DR	8	31
PIFERS COUNTRY MOTORS INC	10028 SHAVER RD	9	33
MI DEPT/STATE POLICE	2819 WITTERS CT	14	39
MI DEPT/STATE POLICE	10800 SHAVER RD	16	44

EXECUTIVE SUMMARY

US HIST CDL: A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

A review of the US HIST CDL list, as provided by EDR, and dated 02/04/2014 has revealed that there is 1 US HIST CDL site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
2819 WITTERS COURT	2819 WITTERS COURT	14	38

STATE AND LOCAL RECORDS

SHWS: The Contaminated Sites List database, also known as the Part 201 database, maintained by the Michigan Department of Environmental Quality (MDEQ), provides information about sites at which a release of a hazardous substance in excess of the Part 201 residential criteria has occurred, and where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the MDEQ about the sites and can pursue cleanup independently. A deleted site has been removed from the Part 201 List because information known to the MDEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations that meet or are below the criteria for unrestricted residential use. The list does not include the sites of contamination regulated under Part 213, Leaking Underground Storage Tanks.

A review of the SHWS list, as provided by EDR, and dated 10/01/2013 has revealed that there are 3 SHWS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PLASTIC ENGINEERING VANDERBILT Facility Status: Interim Response conducted - No further activities anticipated	1821 VANDERBILT RD	3	4
OAKLAND & VANDERBILT RES WELL Facility Status: Interim Response conducted - No further activities anticipated	9247 OAKLAND DR	4	15
LLOY STREET Facility Status: Interim Response conducted - No further activities anticipated	10412 AND 10443 LLOY ST	12	37

INVENTORY: The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities

EXECUTIVE SUMMARY

and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the INVENTORY list, as provided by EDR, and dated 04/28/2014 has revealed that there are 6 INVENTORY sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PLASTIC ENGINEERING VANDERBILT	1821 VANDERBILT RD	3	4
PLASTIC ENGINEERING	1821 VANDERBILT AVENUE	3	15
PLASTIC ENGINEERING VANDERBILT	1821 VANDERBILT AVENUE	3	15
OAKLAND & VANDERBILT RES WELL	9247 OAKLAND DR	4	15
LLOY STREET	10412 AND 10443 LLOY ST	12	37
SHAVER (10509) ROAD	10509 SHAVER ROAD	15	41

WDS: The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

A review of the WDS list, as provided by EDR, and dated 05/30/2014 has revealed that there are 15 WDS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
PLASTIC ENGINEERING VANDERBILT	1821 VANDERBILT RD	3	4
PARIS CLEANERS & LAUNDRY	1811 VANDERBILT	3	8
THE SITE IS CURRENTLY VACANT	9416 SHAVER RD	5	17
CHARLES RIVER LABS INC	9801 SHAVER RD	6	23
SELECT PRODUCTS	9770 SHAVER RD	6	24
BOUMA BETTEN CONSTRUCTION CO	9750 SHAVER RD	6	27
PORTAGE POLICE DEPARTMENT	9800 OAKLAND DR	7	27
KAL DRAKE PRIDE MART	9950 SHAVER RD	8	30
EXCEL TECHNICAL MACHINE REPAIR	9920 OAKLAND DR	8	30
PIFERS COUNTRY MOTORS INC	10028 SHAVER RD	9	33
DEVRIES SALES INC	10170 SHAVER RD	10	35
MI DEPT/STATE POLICE	2819 WITTERS CT	14	40
EQUINOX	10535 SHAVER RD	15	41
DAVID RICE AUTO SALES	10509 SHAVER RD	15	41
MI DEPT/STATE POLICE	10800 SHAVER RD	16	42

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 05/05/2014 has revealed that there are 3 LUST sites within the searched area.

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
LUMBERMANS INC Facility Status: Closed	1723 VANDERBILT AVE	3	5
THE SITE IS CURRENTLY VACANT Facility Status: Closed	9416 SHAVER RD	5	17
CHARLES RIVER LABS INC Facility Status: Closed	9801 SHAVER RD	6	23

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 05/05/2014 has revealed that there are 4 UST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
THE SITE IS CURRENTLY VACANT	9416 SHAVER RD	5	17
CHARLES RIVER LABS INC	9801 SHAVER RD	6	23
KAL-DRAKE INC/PRIDE MART	9950 SHAVER RD	8	29
TRADING POST	10418 SHAVER RD	11	35

AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Natural Resources' Michigan AST database.

A review of the AST list, as provided by EDR, and dated 05/27/2014 has revealed that there is 1 AST site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
CHARLES RIVER LABORATORIES INC	9801 SHAVER RD	6	22

SPILLS: Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

A review of the SPILLS list, as provided by EDR, and dated 05/02/2014 has revealed that there is 1 SPILLS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
Not reported	2819 WITTERS COURT, POR	14	38

EXECUTIVE SUMMARY

DRYCLEANERS: A listing of drycleaning facilities in Michigan.

A review of the DRYCLEANERS list, as provided by EDR, and dated 04/28/2014 has revealed that there is 1 DRYCLEANERS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PARIS CLEANERS & LAUNDRY</i>	<i>1811 VANDERBILT</i>	<i>3</i>	<i>8</i>

BROWNFIELDS: Brownfields and USTfield Site Database.

A review of the BROWNFIELDS list, as provided by EDR, and dated 07/27/2012 has revealed that there is 1 BROWNFIELDS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>OAKLAND DR & KATIE CT</i>	<i>OAKLAND DR & KATIE CT</i>	<i>1</i>	<i>3</i>

CDL: A listing of clandestine drug lab locations.

A review of the CDL list, as provided by EDR, and dated 10/20/2008 has revealed that there is 1 CDL site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>MI DEPT/STATE POLICE</i>	<i>2819 WITTERS CT</i>	<i>14</i>	<i>40</i>

BEA: A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the BEA list, as provided by EDR, and dated 08/21/2013 has revealed that there are 2 BEA sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>PLASTIC ENGINEERING VANDERBILT</i>	<i>1821 VANDERBILT RD</i>	<i>3</i>	<i>4</i>
<i>DAVID RICE AUTO SALES</i>	<i>10509 SHAVER RD</i>	<i>15</i>	<i>41</i>

RGA LUST: The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

A review of the RGA LUST list, as provided by EDR, has revealed that there is 1 RGA LUST site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
<i>CHARLES RIVER LABS INC</i>	<i>9801 SHAVER RD</i>	<i>6</i>	<i>22</i>

EXECUTIVE SUMMARY

EDR PROPRIETARY RECORDS

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 7 EDR US Hist Auto Stat sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>	<u>Page</u>
Not reported	9850 SHAVER RD	6	19
Not reported	10028 SHAVER RD	9	33
Not reported	1903 W OSTERHOUT AVE	13	37
Not reported	1909 W OSTERHOUT AVE	13	38
Not reported	10509 SHAVER RD	15	42
Not reported	2419 W OSTERHOUT AVE	15	42
Not reported	2475 AVALON WOODS DR	17	44

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: N/A
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: N/A
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: N/A
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 78	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2014
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2014
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/11/2014	Source: EPA
Date Data Arrived at EDR: 03/13/2014	Telephone: 800-424-9346
Date Made Active in Reports: 04/09/2014	Last EDR Contact: 07/02/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/11/2014
Date Data Arrived at EDR: 03/13/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 27

Source: Environmental Protection Agency
Telephone: 312-886-6186
Last EDR Contact: 07/02/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/17/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2014	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 06/05/2014
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/17/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2014	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 06/05/2014
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 10/01/2013	Telephone: 202-267-2180
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 07/03/2014
Number of Days to Update: 66	Next Scheduled EDR Contact: 07/14/2014
	Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2013	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/03/2014	Telephone: 202-366-4555
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 52	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 05/06/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/18/2014
	Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/04/2014
Date Data Arrived at EDR: 03/06/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 103

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/04/2014
Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/20/2014
Date Data Arrived at EDR: 03/20/2014
Date Made Active in Reports: 04/09/2014
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 07/03/2014
Next Scheduled EDR Contact: 10/06/2014
Data Release Frequency: Semi-Annually

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/18/2014
Next Scheduled EDR Contact: 07/28/2014
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 02/28/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 55

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 06/04/2014
Next Scheduled EDR Contact: 09/22/2014
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2014
Date Data Arrived at EDR: 05/30/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 18

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/19/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/30/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 06/10/2014
Number of Days to Update: 74	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 02/25/2014
Number of Days to Update: 146	Next Scheduled EDR Contact: 06/09/2014
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 04/28/2014
Number of Days to Update: 137	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: No Update Planned

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/05/2013	Telephone: 303-231-5959
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 06/06/2014
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/15/2014
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011	Source: EPA
Date Data Arrived at EDR: 07/31/2013	Telephone: 202-566-0250
Date Made Active in Reports: 09/13/2013	Last EDR Contact: 05/30/2014
Number of Days to Update: 44	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 06/25/2014
Number of Days to Update: 64	Next Scheduled EDR Contact: 10/06/2014
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/22/2014
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 05/22/2014
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 04/29/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 05/06/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/16/2014	Telephone: 202-564-5088
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 10/09/2014
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/27/2014
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013	Source: EPA
Date Data Arrived at EDR: 07/17/2013	Telephone: 202-566-0500
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 04/18/2014
Number of Days to Update: 107	Next Scheduled EDR Contact: 07/28/2014
	Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 08/02/2013	Telephone: 301-415-7169
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 06/05/2014
Number of Days to Update: 91	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/08/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/09/2014	Telephone: 202-343-9775
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/10/2014
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 02/27/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 13

Source: EPA
Telephone: (312) 353-2000
Last EDR Contact: 06/13/2014
Next Scheduled EDR Contact: 09/22/2014
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/01/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/30/2014
Next Scheduled EDR Contact: 09/08/2014
Data Release Frequency: Biennially

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/16/2014
Next Scheduled EDR Contact: 08/25/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013
Date Data Arrived at EDR: 02/14/2013
Date Made Active in Reports: 02/27/2013
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/01/2014
Next Scheduled EDR Contact: 10/20/2014
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 07/03/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 72

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 07/01/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Quarterly

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/04/2014
Date Data Arrived at EDR: 03/06/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 103

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 06/04/2014
Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: No Update Planned

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 05/02/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 04/21/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 07/08/2014
Number of Days to Update: 55	Next Scheduled EDR Contact: 10/27/2014
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/03/2011	Telephone: N/A
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 06/11/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/31/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/08/2013	Telephone: 703-603-8704
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 07/08/2014
Number of Days to Update: 151	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 08/07/2009	Telephone: 202-586-8719
Date Made Active in Reports: 10/22/2009	Last EDR Contact: 04/18/2014
Number of Days to Update: 76	Next Scheduled EDR Contact: 07/28/2014
	Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/23/2013	Source: EPA
Date Data Arrived at EDR: 11/06/2013	Telephone: 202-564-5962
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 06/25/2014
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/23/2013	Source: EPA
Date Data Arrived at EDR: 11/06/2013	Telephone: 202-564-5962
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 06/25/2014
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 02/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2014	Telephone: 202-566-1917
Date Made Active in Reports: 04/09/2014	Last EDR Contact: 05/16/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/16/2014
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/25/2014
	Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

SHWS: Contaminated Sites

The Contaminated Sites List database, also known as the Part 201 database, maintained by the Michigan Department of Environmental Quality (MDEQ), provides information about sites at which a release of a hazardous substance in excess of the Part 201 residential criteria has occurred, and where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the MDEQ about the sites and can pursue cleanup independently. A delisted site has been removed from the Part 201 List because information known to the MDEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations that meet or are below the criteria for unrestricted residential use. The list does not include the sites of contamination regulated under Part 213, Leaking Underground Storage Tanks.

Date of Government Version: 10/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 10/31/2013	Telephone: 517-284-5103
Date Made Active in Reports: 11/20/2013	Last EDR Contact: 04/28/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

The Inventory of Facilities has three data sources: Facilities under Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA) identified through state funded or private party response activities (Projects); Facilities under Part 213, Leaking Underground Storage Tanks of the NREPA; and Facilities identified through submittals of Baseline Environmental Assessments (BEA) submitted pursuant to Part 201 or Part 213 of the NREPA. The Part 201 Projects Inventory does not include all of the facilities that are subject to regulation under Part 201 because owners are not required to inform the Department of Environmental Quality (DEQ) about the facilities and can pursue cleanup independently. Facilities that are not known to DEQ are not on the Inventory, nor are locations with releases that resulted in low environmental impact. Part 213 facilities listed here may have more than one release; a list of releases for which corrective actions have been completed and list of releases for which corrective action has not been completed is located on the Leaking Underground Storage Tanks Site Search webpage. The DEQ may or may not have reviewed and concurred with the conclusion that the corrective actions described in a closure report meets criteria. A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 04/28/2014	Source: Department of Environmental Quality
Date Data Arrived at EDR: 04/30/2014	Telephone: 517-284-5136
Date Made Active in Reports: 05/15/2014	Last EDR Contact: 04/30/2014
Number of Days to Update: 15	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

DEL SHWS: Delisted List of Contaminated Sites

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does not support its listing or the site no longer meets criteria specified in rules.

Date of Government Version: 08/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/01/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/11/2013	Last EDR Contact: 04/28/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

SWF/LF: Solid Waste Facilities Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 03/31/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/01/2014	Telephone: 517-335-4035
Date Made Active in Reports: 05/05/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Semi-Annually

WDS: Waste Data System

The Waste Data System (WDS) tracks activities at facilities regulated by the Solid Waste, Scrap Tire, Hazardous Waste, and Liquid Industrial Waste programs.

Date of Government Version: 05/30/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/30/2014	Telephone: 517-284-6562
Date Made Active in Reports: 06/24/2014	Last EDR Contact: 05/27/2014
Number of Days to Update: 25	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

UIC: Underground Injection Wells Database

A listing of underground injection well locations. The UIC Program is responsible for regulating the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal.

Date of Government Version: 11/18/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 11/19/2013	Telephone: 517-241-1515
Date Made Active in Reports: 11/26/2013	Last EDR Contact: 04/18/2014
Number of Days to Update: 7	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 02/28/2003	Telephone: 517-335-4034
Date Made Active in Reports: 03/06/2003	Last EDR Contact: 02/28/2003
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 06/18/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 06/20/2014	Telephone: 517-241-5719
Date Made Active in Reports: 06/26/2014	Last EDR Contact: 06/30/2014
Number of Days to Update: 6	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/05/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/21/2014	Telephone: 517-373-9837
Date Made Active in Reports: 06/03/2014	Last EDR Contact: 05/21/2014
Number of Days to Update: 13	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: Annually

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/05/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/21/2014	Telephone: 517-335-4035
Date Made Active in Reports: 06/03/2014	Last EDR Contact: 05/21/2014
Number of Days to Update: 13	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: Annually

UST 2: Underground Storage Tank Listing

A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 04/25/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/29/2014	Telephone: 517-335-7211
Date Made Active in Reports: 06/02/2014	Last EDR Contact: 04/21/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/04/2014
	Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 05/27/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/28/2014	Telephone: 517-373-8168
Date Made Active in Reports: 06/24/2014	Last EDR Contact: 05/19/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: No Update Planned

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/24/2014 Source: Dept of Environmental Quality
Date Data Arrived at EDR: 01/28/2014 Telephone: 517-241-7603
Date Made Active in Reports: 03/26/2014 Last EDR Contact: 04/25/2014
Number of Days to Update: 57 Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Varies

PEAS: Pollution Emergency Alerting System

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 05/02/2014 Source: Dept of Environmental Quality
Date Data Arrived at EDR: 05/02/2014 Telephone: 517-373-8427
Date Made Active in Reports: 06/09/2014 Last EDR Contact: 05/02/2014
Number of Days to Update: 38 Next Scheduled EDR Contact: 09/22/2014
Data Release Frequency: Quarterly

AUL: Engineering and Institutional Controls

A listing of sites with institutional and/or engineering controls in place.

Date of Government Version: 03/04/2014 Source: Dept of Environmental Quality
Date Data Arrived at EDR: 03/06/2014 Telephone: 517-373-4828
Date Made Active in Reports: 03/27/2014 Last EDR Contact: 06/02/2014
Number of Days to Update: 21 Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Establishments

A listing of drycleaning facilities in Michigan.

Date of Government Version: 04/28/2014 Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/29/2014 Telephone: 517-335-4586
Date Made Active in Reports: 05/14/2014 Last EDR Contact: 04/21/2014
Number of Days to Update: 15 Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Annually

BROWNFIELDS: Brownfields and USTfield Site Database

All state funded Part 201 and 213 sites, as well as LUST sites that have been redeveloped by private entities using the BEA process. Be aware that this is not a list of all of the potential brownfield sites in Michigan.

Date of Government Version: 07/27/2012 Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/31/2012 Telephone: 517-373-4805
Date Made Active in Reports: 09/20/2012 Last EDR Contact: 04/28/2014
Number of Days to Update: 51 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

BROWNFIELDS 2: Brownfields Building and Land Site Locations

A listing of brownfield building and land site locations. The listing is a collaborative effort of Michigan Economic Development Corporation, Michigan Economic Developers Association, Detroit Edison, Detroit Area Commercial Board of Realtors

Date of Government Version: 04/09/2007 Source: Economic Development Corporation
Date Data Arrived at EDR: 04/10/2007 Telephone: 888-522-0103
Date Made Active in Reports: 05/01/2007 Last EDR Contact: 06/02/2014
Number of Days to Update: 21 Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Varies

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab locations.

Date of Government Version: 10/20/2008 Source: Department of Community Health
Date Data Arrived at EDR: 11/18/2008 Telephone: 517-373-3740
Date Made Active in Reports: 11/21/2008 Last EDR Contact: 04/28/2014
Number of Days to Update: 3 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 04/08/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/09/2014	Telephone: 517-241-1300
Date Made Active in Reports: 05/06/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 04/01/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/03/2014	Telephone: 517-373-7074
Date Made Active in Reports: 05/05/2014	Last EDR Contact: 06/19/2014
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/06/2014
	Data Release Frequency: Varies

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/21/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/23/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/12/2013	Last EDR Contact: 05/16/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: No Update Planned

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 07/12/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/12/2013	Telephone: 586-753-3754
Date Made Active in Reports: 08/01/2013	Last EDR Contact: 07/02/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 04/18/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 07/28/2014
	Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 05/02/2014
Number of Days to Update: 52	Next Scheduled EDR Contact: 08/18/2014
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011	Source: EPA Region 6
Date Data Arrived at EDR: 09/13/2011	Telephone: 214-665-6597
Date Made Active in Reports: 11/11/2011	Last EDR Contact: 02/21/2014
Number of Days to Update: 59	Next Scheduled EDR Contact: 05/12/2014
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/24/2014	Source: EPA Region 4
Date Data Arrived at EDR: 04/25/2014	Telephone: 404-562-8677
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/22/2014
Number of Days to Update: 53	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013	Source: EPA Region 1
Date Data Arrived at EDR: 05/01/2013	Telephone: 617-918-1313
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 05/02/2014
Number of Days to Update: 184	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/01/2013 Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2013 Telephone: 415-972-3372
Date Made Active in Reports: 04/12/2013 Last EDR Contact: 04/28/2014
Number of Days to Update: 42 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012 Source: EPA Region 8
Date Data Arrived at EDR: 08/28/2012 Telephone: 303-312-6271
Date Made Active in Reports: 10/16/2012 Last EDR Contact: 04/28/2014
Number of Days to Update: 49 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/28/2014 Source: EPA Region 7
Date Data Arrived at EDR: 05/01/2014 Telephone: 913-551-7003
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 47 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 05/12/2014 Source: EPA, Region 5
Date Data Arrived at EDR: 05/12/2014 Telephone: 312-886-7439
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 36 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/06/2013 Source: EPA Region 10
Date Data Arrived at EDR: 11/07/2013 Telephone: 206-553-2857
Date Made Active in Reports: 12/06/2013 Last EDR Contact: 04/28/2014
Number of Days to Update: 29 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013 Source: EPA, Region 1
Date Data Arrived at EDR: 05/01/2013 Telephone: 617-918-1313
Date Made Active in Reports: 01/27/2014 Last EDR Contact: 05/02/2014
Number of Days to Update: 271 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 05/12/2014 Source: EPA Region 5
Date Data Arrived at EDR: 05/12/2014 Telephone: 312-886-6136
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 36 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/14/2014	Source: EPA Region 6
Date Data Arrived at EDR: 05/15/2014	Telephone: 214-665-7591
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 01/27/2014
Number of Days to Update: 33	Next Scheduled EDR Contact: 05/12/2014
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 05/28/2014	Source: EPA Region 7
Date Data Arrived at EDR: 05/01/2014	Telephone: 913-551-7003
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 47	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/04/2014	Source: EPA Region 10
Date Data Arrived at EDR: 04/08/2014	Telephone: 206-553-2857
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 70	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/07/2014	Source: EPA Region 8
Date Data Arrived at EDR: 05/09/2014	Telephone: 303-312-6137
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 39	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/12/2014	Source: EPA Region 9
Date Data Arrived at EDR: 05/14/2014	Telephone: 415-972-3368
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/24/2014	Source: EPA Region 4
Date Data Arrived at EDR: 04/25/2014	Telephone: 404-562-9424
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 04/22/2014
Number of Days to Update: 53	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 03/20/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 04/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/23/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/18/2014
Next Scheduled EDR Contact: 07/28/2014
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 05/01/2014
Date Data Arrived at EDR: 05/07/2014
Date Made Active in Reports: 06/10/2014
Number of Days to Update: 34

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/07/2014
Next Scheduled EDR Contact: 08/18/2014
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/24/2013
Date Made Active in Reports: 08/19/2013
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/21/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 06/21/2013
Date Made Active in Reports: 08/05/2013
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/27/2014
Next Scheduled EDR Contact: 09/08/2014
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012

Date Data Arrived at EDR: 08/09/2013

Date Made Active in Reports: 09/27/2013

Number of Days to Update: 49

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/16/2014

Next Scheduled EDR Contact: 09/29/2014

Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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City of Portage
Kalamazoo, MI

Inquiry Number: 4001599.1s
July 11, 2014

EDR DataMap™ Environmental Atlas™

FOCUS MAP SUMMARY

<u>Database</u>	<u>Total Plotted</u>
<u>FEDERAL RECORDS</u>	
NPL	0
Proposed NPL	0
Delisted NPL	0
NPL LIENS	0
CERCLIS	0
CERC-NFRAP	3
LIENS 2	0
CORRACTS	2
RCRA-TSDF	2
RCRA-LQG	1
RCRA-SQG	7
RCRA-CESQG	42
RCRA NonGen / NLR	61
US ENG CONTROLS	0
US INST CONTROL	0
ERNS	2
HMIRS	1
DOT OPS	0
US CDL	6
US BROWNFIELDS	0
DOD	0
FUDS	0
LUCIS	0
CONSENT	0
ROD	0
UMTRA	0
ODI	0
DEBRIS REGION 9	0
US MINES	0
TRIS	1
TSCA	0
FTTS	1
HIST FTTS	1
SSTS	0
ICIS	2
PADS	1
MLTS	0
RADINFO	0
FINDS	94
RAATS	0
RMP	1
PRP	0
US AIRS	1
EPA WATCH LIST	0
2020 COR ACTION	1
LEAD SMELTERS	0
US HIST CDL	1
PCB TRANSFORMER	0

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

KALAMAZOO, MI
PORTAGE, MI 49024

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records within the requested search area for the following databases:

FEDERAL RECORDS

NPL.....	National Priority List
Proposed NPL.....	Proposed National Priority List Sites
Delisted NPL.....	National Priority List Deletions
NPL LIENS.....	Federal Superfund Liens
CERCLIS.....	Comprehensive Environmental Response, Compensation, and Liability Information System
LIENS 2.....	CERCLA Lien Information
US ENG CONTROLS.....	Engineering Controls Sites List
US INST CONTROL.....	Sites with Institutional Controls
DOT OPS.....	Incident and Accident Data
US BROWNFIELDS.....	A Listing of Brownfields Sites
DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
LUCIS.....	Land Use Control Information System
CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
ODI.....	Open Dump Inventory
DEBRIS REGION 9.....	Torres Martinez Reservation Illegal Dump Site Locations
US MINES.....	Mines Master Index File
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
EPA WATCH LIST.....	EPA WATCH LIST
LEAD SMELTERS.....	Lead Smelter Sites
PCB TRANSFORMER.....	PCB Transformer Registration Database
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
FEMA UST.....	Underground Storage Tank Listing
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
FEDERAL FACILITY.....	Federal Facility Site Information listing
COAL ASH DOE.....	Steam-Electric Plant Operation Data
US FIN ASSUR.....	Financial Assurance Information

STATE AND LOCAL RECORDS

MI SWF/LF..... Solid Waste Facilities Database

EXECUTIVE SUMMARY

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/11/2014 has revealed that there are 2 CORRACTS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
UPJOHN KAL WAREHOUSE & DISTRIB PHARMACIA & UPJOHN COMPANY	701 EAST MILHAM ROAD 7171 PORTAGE ROAD	19-10 105-18,25

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 03/11/2014 has revealed that there are 2 RCRA-TSDF sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
UPJOHN KAL WAREHOUSE & DISTRIB PHARMACIA & UPJOHN COMPANY	701 EAST MILHAM ROAD 7171 PORTAGE ROAD	19-10 105-18,25

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 03/11/2014 has revealed that there is 1 RCRA-LQG site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	105-18,25

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/11/2014 has revealed that there are 7 RCRA-SQG sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
MEIJER INC	5121 S WESTNEDGE AVE	4-10

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
PORTAGE PHARMACY INC	1256 E CENTRE AVE	137-25
METROPOLITAN INDUSTRIAL LITHOG	1116 W CENTRE AVE	138-25
SANITOR MANUFACTURING	1221 W CENTRE AVE	139-24
PORTAGE SCHOOLS	8135 S WESTNEDGE AVE	147-24
THE W-L MOLDING CO	8212 S SHAVER RD	154-24
WMH FLUID POWER INC	862 LENOX AVE	155-24
LAROS EQUIPMENT CO INC	8278 SHAVER RD	157-24

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/11/2014 has revealed that there are 61 RCRA NonGen / NLR sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
PORTAGE SCHOOLS	5340 ANGLING RD	3-8,9
ADMIRAL PETROLEUM CO	5340 S WESTNEDGE AVE	6-10
MI DEPT/STATE POLICE	5340 S WESTNEDGE AVE	6-10
ACTION AUTO STORE	5342 S WESTNEDGE AVE	6-10
MI DEPT/STATE POLICE	OAKLAND DR & I 94	8-9
MI DEPT/TRANSPORTATION	I 94 OVER WESTNEDGE AVE	10-10
CITY OF KALAMAZOO	528 CONNECTICUT DR	12-10
CITY OF KALAMAZOO	5603 MONTICELLA AVE	13-9,10
CLARK OIL CO	5441 S WESTNEDGE AVE	14-10
PORTAGE POLICE DEPARTMENT	5540 S WESTNEDGE AVE	15-10
PORTAGE POLICE DEPARTMENT	5540 S WESTNEDGE AVE	15-10
MI DEPT/STATE POLICE	5540 S WESTNEDGE AVE	15-10
UPJOHN KAL WAREHOUSE & DISTRIB	701 EAST MILHAM ROAD	19-10
ONE HOUR MARTINIZING OF KALAMA	5721 S WESTNEDGE AVE	20-10
MI DEPT/STATE POLICE	5824 MOUNT VERNON AVE	21-9
PORTAGE SCHOOLS	5808 OREGON AVE	22-10
PERFORMANCE PLUS QUICK OIL CHA	5812 S WESTNEDGE AVE	23-10
CARRIAGE CLEANERS	5905 S WESTNEDGE AVE	27-10,17
MILES SERVICE STATION	5910 S WESTNEDGE AVE	27-10,17
ONE HOUR MARTINIZING	6040 S WESTNEDGE AVE	33-17
CITY OF KALAMAZOO	W MILHAM & CONSTITUTION	36-10,17
UNCLE EDS OIL SHOPPE	6236 S WESTNEDGE AVE	46-17
ONE HOUR MARTINIZING	6274 S WESTNEDGE AVE	49-17
KMART CORPORATION	6355 S WESTNEDGE AVE	58-17
SAMS EAST INC	665 MALL DR	62-17
UNITED 6265	6513 S WESTNEDGE AVE	63-17
WILKINS AUTO BODY	6529 NAOMI ST	67-17
TARGET CORPORATION	6666 S WESTNEDGE AVE	73-17
PORTAGE SCHOOLS	6637 AMBERLY ST	74-16
PORTAGE SCHOOLS	1710 HAVERHILL AVE	78-16
MERVYNS LLC	6720 RING RD	80-17
AUTOMOTIVE CONCEPTS CARSTAR	6736 LOVERS LN	81-18
RATHCO SAFETY SUPPLY INC	6742 LOVERS LN	81-18
PGAR LLC	1176 GERNAAT CT	86-18
200 ADMIRAL LLC	200 ADMIRAL AVE	88-17

EXECUTIVE SUMMARY

US CDL: A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

A review of the US CDL list, as provided by EDR, and dated 03/04/2014 has revealed that there are 6 US CDL sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
1722 QUAKER AVENUE	1722 QUAKER AVENUE	9-9
528 CONNECTICUT DRIVE	528 CONNECTICUT DRIVE	12-10
4284 BRISTLECONE DR	4284 BRISTLECONE DR	52-15
219 DELLA ST	219 DELLA ST	65-17
619 SCHURING RD 3	619 SCHURING RD 3	113-24
7528 LAKEWOOD DR	7528 LAKEWOOD DR	116-24

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313. The source of this database is the U.S. EPA.

A review of the TRIS list, as provided by EDR, and dated 12/31/2011 has revealed that there is 1 TRIS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	105-18,25

FTTS: FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act) over the previous five years. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS list, as provided by EDR, and dated 04/09/2009 has revealed that there is 1 FTTS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
OAKLAND ACADEMY	6325 OAKLAND DRIVE	54-16

HIST FTTS: A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

A review of the HIST FTTS list, as provided by EDR, and dated 10/19/2006 has revealed that there is 1

EXECUTIVE SUMMARY

Site	Address	Map ID
BRIARGATE APARTMENTS	316 TUDOR CIRCLE	17-10
PORTAGE SCHOOLS	1000 IDAHO AVE	18-10
ONE HOUR MARTINIZING OF KALAMA	5721 S WESTNEDGE AVE	20-10
MI DEPT/STATE POLICE	5824 MOUNT VERNON AVE	21-9
PORTAGE SCHOOLS	5808 OREGON AVE	22-10
PERFORMANCE PLUS QUICK OIL CHA	5812 S WESTNEDGE AVE	23-10
CARRIAGE CLEANERS	5905 S WESTNEDGE AVE	27-10,17
MILES SERVICE STATION	5910 S WESTNEDGE AVE	27-10,17
BED BATH AND BEYOND #0520	5930 S WESTNEDGE AVE	27-10,17
ONE HOUR MARTINIZING	6040 S WESTNEDGE AVE	33-17
SUNOCO INC	1800 W MILHAM AVE	35-9,16
NEIGHBORHOOD CLEANERS	425 W MILHAM AVE	37-10,17
SPEEDWAY LLC	507 W MILHAM AVE	38-10,17
US POSTAL SERVICE	1151 W MILHAM RD	40-10,17
EDWARD ROSE AND SONS - BOB VAN	6101 NEWPORT ROAD, P.O.	42-17
AMERICAN SPEEDY PRINTING	6136 LOVERS LN	45-18
UNCLE EDS OIL SHOPPE	6236 S WESTNEDGE AVE	46-17
SILVA TRAILER MANUFACTURING	6230 LOVERS LN	47-18
ONE HOUR MARTINIZING	6274 S WESTNEDGE AVE	49-17
VILLAGE GREEN DRY CLEANERS	6278 S WESTNEDGE AVE	49-17
BELLE TIRE DISTRIBUTORS INC	6283 S WESTNEDGE AVE	49-17
KMART CORPORATION	6355 S WESTNEDGE AVE	50-17
VILLAS OF SOUTHLAND	6285 IVYWOOD DRIVE	51-17
OAKLAND ACADEMY	6325 OAKLAND DRIVE	54-16
SAMS EAST INC	665 MALL DR	61-17
UNITED 6265	6513 S WESTNEDGE AVE	63-17
ART VAN FURNITURE	550 RING RD	66-17
WILKINS AUTO BODY	6529 NAOMI ST	67-17
J C PENNEY CO	6580 S WESTNEDGE AVE	68-17
COLE CENTURY BUICK PONTIAC GMC	6600 S WESTNEDGE AVE	68-17
MICHAELS STORES INC	6601 S WESTNEDGE AVE	68-17
INTERNATIONAL TRANSMISSION COM	524 RUTH STREET	71-17
TARGET CORPORATION	6666 S WESTNEDGE AVE	73-17
MACYS NORTH	6666 S WESTNEDGE AVE	73-17
AMBERLY SCHOOL	6637 AMBERLY ST	74-16
HOME DEPOT USA INC	6685 S WESTNEDGE AVE	75-17
ABERCROMBIE & FITCH STORES INC	6650 S WESTNEDGE AVE	76-17
JM HOLLISTER LLC	6650 S WESTNEDGE AVE	76-17
PORTAGE SCHOOLS	1710 HAVERHILL AVE	78-16
SEARS ROEBUCK AND CO	6710 S WESTNEDGE AVE	79-17
MERVYNS LLC	6720 RING RD	80-17
AUTOMOTIVE CONCEPTS CARSTAR	6725 LOVERS LN	81-18
AUTOMOTIVE CONCEPTS CARSTAR	6736 LOVERS LN	81-18
RATHCO SAFETY SUPPLY INC	6742 LOVERS LN	81-18
PORTRAIT INNOVATIONS INC	6800 S WESTNEDGE AVE	82-17
TARGET CORPORATION	6839 S WESTNEDGE AVE	83-17
200 ADMIRAL LLC	200 ADMIRAL AVE	88-17
CITY OF PORTAGE	ROMENCE RD & CONSTITUTI	91-17
A 1 AUTO BODY SHOP INC	416 ROMENCE RD	93-17
WDS VENTURES LLC	7000 S WESTNEDGE AVE	94-17
SAMS EAST INC	7021 S WESTNEDGE AVE	94-17
BIO KLEEN PROD	7043 LEAWOOD ST	97-16
MI DEPT/STATE POLICE	7102 WRENBURY ST	100-16
SPEEDWAY SUPERAMERICA LLC	7122 S WESTNEDGE AVE	101-17
PORTAGE SCHOOLS	7145 MOORS BRIDGE RD	102-15,16
PORTAGE SCHOOLS	1401 WOODLAND DR	104-16,23

EXECUTIVE SUMMARY

US AIRS: The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

A review of the US AIRS list, as provided by EDR, and dated 10/23/2013 has revealed that there is 1 US AIRS site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
<i>AUTOMOTIVE CONCEPTS CARSTAR</i>	<i>6736 LOVERS LN</i>	<i>81-18</i>

2020 COR ACTION: The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

A review of the 2020 COR ACTION list, as provided by EDR, and dated 11/11/2011 has revealed that there is 1 2020 COR ACTION site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
<i>PHARMACIA & UPJOHN COMPANY</i>	<i>7171 PORTAGE ROAD</i>	<i>105-18,25</i>

US HIST CDL: A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

A review of the US HIST CDL list, as provided by EDR, and dated 02/04/2014 has revealed that there is 1 US HIST CDL site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
619 SCHURING RD APT 3	619 SCHURING RD APT 3	113-24

STATE AND LOCAL RECORDS

MI SHWS: The Contaminated Sites List database, also known as the Part 201 database, maintained by the Michigan Department of Environmental Quality (MDEQ), provides information about sites at which a release of a hazardous substance in excess of the Part 201 residential criteria has occurred, and where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted

EXECUTIVE SUMMARY

are 46 MI INVENTORY sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
HOWARDS MOBIL	5003 S WESTNEDGE AVE	1-10
WESTNEDGE (5024) AVENUE, SOUTH	5024 SOUTH WESTNEDGE AV	1-10
MEIJER INC	5121 S WESTNEDGE AVE	4-10
LOVERS (5260) LANE	5260 LOVERS LANE	5-11
ADMIRAL PETROLEUM CO #26	5342 S WESTNEDGE AVE	6-10
SUPER DUPER GAS STATION	5441 S WESTNEDGE	14-10
GATEWAY SHELL	5600 S WESTNEDGE AVE	16-10
NORTHERN HIGH SCHOOL	1000 IDAHO AVE	18-10
PHARMACIA-UPJOHN MILHAM RD DIS	701 E. MILLER ROAD	24-10
FORMER E. M. SERGEANT	901 E. MILHAM	25-11
ANDY'S ZEPHYR SERVICE	5942 LOVERS LANE	26-11,18
KALAMAZOO HOT TUB	5942 LOVERS LN	26-11,18
WESTNEDGE (5910) AVENUE, SOUTH	5910 S. WESTNEDGE AVENU	27-10,17
PHARMACIA-UPJOHN MILHAM RD DIS	701 E. MILHAM AVENUE	30-10,17
SPEEDWAY #8827	507 W MILHAM AVE	38-10,17
LOVERS (6230) LANE	6230 LOVERS LANE	47-18
NEWPORT RD & EAST MILHAM RD	MILHAM ROAD	55-17
6513 S. WESTNEDGE	6513 S. WESTNEDGE	63-17
UNITED UNIT # 6265	6513 SWESTNEDGE	63-17
PORTAGE RD AND BISHOP ST CONTA		89-18
SOUTH WESTNEDGE SHELL		94-17
PHARMACIA & UPJOHN CO LLC SUBS	7000 S WESTNEDGE/ROMANC	95-18
WESTNEDGE (7090) AVENUE, SOUTH	7000 PORTAGE RD	99-17
EMRO MARKETING (CHEKER #7479)	7090 SOUTH WESTNEDGE AV	101-17
EMRO MARKETING (CHEKER #7479)	7122 S. WESTNEDGE AVENU	101-17
CHECKER STATION 7479	7122 S WESTNEDGE AVENUE	101-17
AIRCO INDUSTRIAL GASES	7171 PORTAGE RD	105-18,25
WESTNEDGE (7421) AVENUE, SOUTH	7421 SOUTH WESTNEDGE AV	108-24
WESTNEDGE (7421) AVENUE, SOUTH	7421 S. WESTNEDGE AVENU	108-24
WESTNEDGE (7429) AVENUE, SOUTH	7429 SOUTH WESTNEDGE AV	108-24
SUNOCO INC	7441 S WESTNEDGE AVE	108-24
PERFORMANCE AUTO CENTER	7441 S. WESTNEDGE AVENU	108-24
C A H INC	7480 S WESTNEDGE AVE	111-24
WESTNEDGE (7540) AVENUE, SOUTH	7540 SOUTH WESTNEDGE AV	115-24
WESTNEDGE (7612) AVENUE, SOUTH	7612 SOUTH WESTNEDGE AV	118-24
ADMIRAL LOCK AND KEY	7619 S. WESTNEDGE AVENU	118-24
PORTAGE DISTRIBUTING CO	7647 S WESTNEDGE AVE	118-24
CENTRE AVE SHAVER RD (LEASEWAY	W CENTRE ST SHAVER RD	128-24
PORTAGE STEEL FABRICATING	275 W CENTRE STREET	128-24
CHICKEN COOP	109 W CENTRE AVE	140-24
1028G	330 E CENTRE AVE	141-24
PORTAGE STEEL	275 WEST CENTRE AVENUE	145-24
TRANSPORTATION-ADMIN BLDG	8111 S WESTNEDGE AVE	147-24
PORTAGE STEEL	271 W CENTRE 275 W CENT	151-24
ROSEDALE SUBDIVISION PORTAGE	ROSEDALE SUBDIVISION	152-24
PORTAGE CITY LF (CROCKETT)	8740 S WESTNEDGE	160-29

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
UNCLE EDS OIL SHOPPE	6236 S WESTNEDGE AVE	46-17
SILVA TRAILER MANUFACTURING	6230 LOVERS LN	47-18
ONE HOUR MARTINIZING	6274 S WESTNEDGE AVE	49-17
VILLAGE GREEN DRY CLEANERS	6278 S WESTNEDGE AVE	49-17
PETCO STORE #1975	6280 S. WESTNEDGE AVENU	49-17
BELLE TIRE DISTRIBUTORS INC	6283 S WESTNEDGE AVE	49-17
KMART CORPORATION	6355 S WESTNEDGE AVE	58-17
CROSSROADS CAR WASH	375 MALL DR	59-17
SAMS EAST INC	665 MALL DR	62-17
UNITED 6265	6513 S WESTNEDGE AVE	63-17
ART VAN FURNITURE	550 RING RD	66-17
WILKINS AUTO BODY	6529 NAOMI ST	67-17
J C PENNEY CO	6580 S WESTNEDGE AVE	68-17
SEARS ROEBUCK AND CO	6780 S WESTNEDGE AVE	68-17
COLE CENTURY BUICK PONTIAC GMC	6600 S WESTNEDGE AVE	68-17
MICHAELS STORES INC	6601 S WESTNEDGE AVE	68-17
INTERNATIONAL TRANSMISSION COM	524 RUTH ST	71-17
FIRESTONE STORES	6620 S WESTNEDGE AVE	72-17
DAYTON-HUDSON PORTAGE	6666 S WESTNEDGE AVE	73-17
PORTAGE SCHOOLS	6637 AMBERLY ST	74-16
HOME DEPOT USA INC	6685 S WESTNEDGE AVE	75-17
JM HOLLISTER LLC	6650 S WESTNEDGE AVE	76-17
ABERCROMBIE & FITCH STORES INC	6650 S WESTNEDGE AVE	76-17
FEMA INC	6666 LOVERS LN	77-18
PORTAGE SCHOOLS	1710 HAVERHILL AVE	78-16
SEARS ROEBUCK AND CO	6710 S WESTNEDGE AVE	79-17
MERVYNS LLC	6720 RING RD	80-17
AUTOMOTIVE CONCEPTS CARSTAR	6725 LOVERS LN	81-18
AUTOMOTIVE CONCEPTS CARSTAR	6736 LOVERS LN	81-18
ZWARTS AUTO	6738 LOVERS LN	81-18
RATHCO SAFETY SUPPLY INC	6742 LOVERS LN	81-18
PORTRAIT INNOVATIONS INC	6800 S WESTNEDGE AVE	82-17
TARGET CORPORATION	6839 S WESTNEDGE AVE	83-17
PGAR LLC	1176 GERNAAT CT	86-18
200 ADMIRAL LLC	200 ADMIRAL AVE	88-17
THE UPJOHN COMPANY BLDG #73	7000 PORTAGE ROAD	89-18
CITY OF PORTAGE	ROMENCE RD & CONSTITUTI	91-17
A 1 AUTO BODY SHOP INC	416 ROMENCE RD	93-17
WDS VENTURES LLC	7000 S WESTNEDGE AVE	94-17
SAMS EAST INC	7021 S WESTNEDGE AVE	94-17
TUFFY MUFFLER	7027 S WESTNEDGE AVE	94-17
EQUILON ENTERPRISES LLC	7060 S WESTNEDGE AVE	94-17
L & M DEVELOPMENTAL	217 ROMENCE RD	96-17
MI DEPT/STATE POLICE	7102 WRENBURY ST	100-16
CHECKER STATION 7479	7122 S WESTNEDGE AVE	101-17
PORTAGE SCHOOLS	7145 MOORS BRIDGE RD	102-15,16
PORTAGE SCHOOLS	1401 WOODLAND DR	104-16,23
AIRCO INDUSTRIAL GASES	7171 PORTAGE RD	105-18,25
PORTAGE CLEANERS AND LAUNDRY	7337 S WESTNEDGE AVE	106-24
WOODBIDGE LIMITED PARTNERSHIP	7452 MOORS BRIDGE	107-22,23
AUTOZONE INC	7400 S WESTNEDGE AVE	108-24
PORTAGE AUTOMOTIVE SUPPLY	7418 S WESTNEDGE AVE	108-24
SUNOCO INC	7441 S WESTNEDGE AVE	108-24
CITY OF PORTAGE/POLICE	1432 REDSTOCK AVE	110-23
C A H INC	7480 S WESTNEDGE AVE	111-24
CLARK OIL CO	7480 S WESTNEDGE AVE	111-24

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
KALAMAZOO HOT TUB Facility Status: Closed	5942 LOVERS LN	26-11,18
MOORES AUTO SALES & SERVICE IN Facility Status: Closed	4824 W MILHAM AVE	28-8,15
AVIS RENT A CAR SYSTEM INC Facility Status: Closed	2229 E MILHAM AVE	29-11,18
DAIRY MART #9618 Facility Status: Closed	1800 W MILHAM AVE	35-9,16
SPEEDWAY #8827 Facility Status: Closed	507 W MILHAM AVE	38-10,17
PORTAGE MAIN POST OFFICE Facility Status: Closed	1151 W MILHAM AVE	40-10,17
UNITED UNIT # 6265 Facility Status: Closed	6513 SWESTNEDGE	63-17
DAYTON-HUDSON PORTAGE Facility Status: Closed	6666 S WESTNEDGE AVE	73-17
SOUTH WESTNEDGE SHELL Facility Status: Open	7000 S WESTNEDGE/ROMANC	94-17
PHARMACIA & UPJOHN CO LLC SUBS Facility Status: Closed Facility Status: Open	7000 PORTAGE RD	95-18
WARREN SPORTS Facility Status: Closed	185 ROMENCE RD	96-17
CHECKER STATION 7479 Facility Status: Closed	7122 S WESTNEDGE AVE	101-17
SUNOCO INC Facility Status: Open	7441 S WESTNEDGE AVE	108-24
C A H INC Facility Status: Open	7480 S WESTNEDGE AVE	111-24
ADMIRAL LOCK & KEY Facility Status: Closed	7619 S WESTNEDGE AVE	118-24
PORTAGE DISTRIBUTING CO Facility Status: Open	7647 S WESTNEDGE AVE	118-24
DEPT OF PUBLIC SERVICE Facility Status: Closed	7719 S WESTNEDGE AVE	123-24
PORTAGE BP Facility Status: Closed	7938 OAKLAND DR	126-23
MARATHON FOOD MART Facility Status: Closed	2019 W CENTRE AVE	129-23
CHICKEN COOP Facility Status: Open	109 W CENTRE AVE	140-24
1028G Facility Status: Open	330 E CENTRE AVE	141-24
TRANSPORTATION-ADMIN BLDG Facility Status: Closed	8111 S WESTNEDGE AVE	147-24
PORTAGE STEEL Facility Status: Open	271 W CENTRE 275 W CENT	151-24

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
CENTRAL HIGH SCHOOL	8135 S WESTNEDGE AVE	147-24
PORTAGE STEEL	271 W CENTRE 275 W CENT	151-24
BEL-AIRE HEATING & AIR CONDITI	1200 LENNOX RD	153-24
CENTRAL MIDDLE SCHOOL	8305 S WESTNEDGE AVE	156-24
KALAMAZOO ROOF & TRUSS MANUFAC	8600 SHAVER RD	158-24,29

MI AST: The Aboveground Storage Tank database contains registered ASTs. The data come from the Department of Natural Resources' Michigan AST database.

A review of the MI AST list, as provided by EDR, and dated 05/27/2014 has revealed that there are 3 MI AST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
TAYLOR RENTAL	212 W MILHAM AVE	32-10,17
TAYLOR RENTAL	7612 SOUTH WESTNEDGE	118-24
TAYLOR RENTAL	7672 S WESTNADGE	122-24

NY MANIFEST: Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

A review of the NY MANIFEST list, as provided by EDR, has revealed that there is 1 NY MANIFEST site within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	105-18,25

WI MANIFEST: Hazardous waste manifest information.

A review of the WI MANIFEST list, as provided by EDR, has revealed that there are 3 WI MANIFEST sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
AUTOMOTIVE CONCEPTS CARSTAR	6736 LOVERS LN	81-18
PHARMACIA & UPJOHN COMPANY	7171 PORTAGE ROAD	105-18,25
THE W-L MOLDING CO	8212 S SHAVER RD	154-24

MI SPILLS: Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents, pipeline breaks, and release of reportable quantities of hazardous substances.

A review of the MI SPILLS list, as provided by EDR, and dated 05/02/2014 has revealed that there are 13 MI SPILLS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
KALAMAZOO VALLEY ENFORCEMENT T	1722 QUAKER ST., KALAMA	9-9

EXECUTIVE SUMMARY

MI NPDES: General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

A review of the MI NPDES list, as provided by EDR, and dated 04/08/2014 has revealed that there are 3 MI NPDES sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
PHARMACIA & UPJOHN COMPANY LLC	701 EAST MILHAM ROAD	19-10
THE UPJOHN COMPANY BLDG #73	7000 PORTAGE ROAD	89-18
CITY OF PORTAGE	7900 SOUTH WESTNEDGE AV	124-24

MI AIRS: Permit and emissions inventory data.

A review of the MI AIRS list, as provided by EDR, and dated 04/01/2014 has revealed that there are 2 MI AIRS sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
THE UPJOHN COMPANY BLDG #73	7000 PORTAGE ROAD	89-18
PORTAGE AUTOMOTIVE SUPPLY CORP	250 E CENTRE AVE	142-24

MI BEA: A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

A review of the MI BEA list, as provided by EDR, and dated 08/21/2013 has revealed that there are 31 MI BEA sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
WESTNEDGE (5024) AVENUE, SOUTH	5024 SOUTH WESTNEDGE AV	1-10
LOVERS (5260) LANE	5260 LOVERS LANE	5-11
FORMER SUPER DUPER	5441 S. WESTNEDGE	14-10
GATEWAY SHELL	5600 S WESTNEDGE AVE	16-10
PHARMACIA-UPJOHN MILHAM RD DIS	701 E. MILHAM AVENUE	19-10
KALAMAZOO HOT TUB	5942 LOVERS LANE	26-11,18
MILES SERVICE STATION	5910 S WESTNEDGE AVE	27-10,17
FORMER E. M. SERGEANT	901 E. MILHAM	31-10,17
WESTNEDGE & MILHAM, COMMERCIAL	WESTNEDGE & MILHAM	33-10,17
WESTNEDGE (6012) AVENUE, SOUTH	6012 S. WESTNEDGE AVENU	33-17
SILVA TRAILER MANUFACTURING	6230 LOVERS LN	47-18
UNITED 6265	6513 S WESTNEDGE AVE	63-17
PGAR LLC	1176 GERNAAT CT	86-18
ROMENCE (401) ROAD	401 ROMENCE ROAD	93-17
EQUILON ENTERPRISES LLC	7060 S WESTNEDGE AVE	94-17
WESTNEDGE (7090) AVENUE, SOUTH	7090 SOUTH WESTNEDGE AV	99-17
CHECKER STATION 7479	7122 S WESTNEDGE AVE	101-17
WESTNEDGE (7421) AVENUE, SOUTH	7421 S. WESTNEDGE AVENU	108-24
WESTNEDGE (7421) AVENUE, SOUTH	7421 SOUTH WESTNEDGE AV	108-24
WESTNEDGE (7429) AVENUE, SOUTH	7429 SOUTH WESTNEDGE AV	108-24
SUNOCO INC	7441 S WESTNEDGE AVE	108-24
C A H INC	7480 S WESTNEDGE AVE	111-24
WESTNEDGE (7540) AVENUE, SOUTH	7540 SOUTH WESTNEDGE AV	115-24

EXECUTIVE SUMMARY

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
DEPT OF PUBLIC SERVICE	7719 S WESTNEDGE AVE	123-24
PORTAGE AMOCO	7938 OAKLAND DR	126-23
MARATHON FOOD MART	2019 W CENTRE AVE	129-23
1028G	330 E CENTRE AVE	141-24
TRANSPORTATION-ADMIN BLDG	8111 S WESTNEDGE AVE	147-24

EDR PROPRIETARY RECORDS

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 43 EDR US Hist Auto Stat sites within the searched area.

<u>Site</u>	<u>Address</u>	<u>Map ID</u>
Not reported	5342 S WESTNEDGE AVE	6-10
Not reported	5441 S WESTNEDGE AVE	14-10
Not reported	5630 S WESTNEDGE AVE	16-10
Not reported	5812 S WESTNEDGE AVE	23-10
Not reported	5910 S WESTNEDGE AVE	27-10,17
Not reported	4824 W MILHAM AVE	28-8,15
Not reported	507 W MILHAM AVE	38-10,17
Not reported	6103 S WESTNEDGE AVE	43-17
Not reported	6310 IVYWOOD DR	51-17
Not reported	6324 LOVERS LN	56-18
Not reported	6322 PEACHTREE ST	57-17
Not reported	375 MALL DR	59-17
Not reported	605 DELLA ST	64-17
Not reported	6529 NAOMI ST	67-17
Not reported	6780 S WESTNEDGE AVE	68-17
Not reported	6600 S WESTNEDGE AVE	68-17
Not reported	3960 ARBUTUS TRL	69-15
Not reported	6620 S WESTNEDGE AVE	72-17
Not reported	6725 LOVERS LN	81-18
Not reported	6736 LOVERS LN	81-18
Not reported	6841 S WESTNEDGE AVE	83-17
Not reported	6816 OAKLAND DR	84-16
Not reported	6840 CORNELL ST	85-17
Not reported	1176 GERNAAT CT	86-18
Not reported	6902 LOVERS LN	87-18
Not reported	4280 ROMENCE RD	90-15
Not reported	576 ROMENCE RD	92-17
Not reported	416 ROMENCE RD	93-17
Not reported	7017 S WESTNEDGE AVE	94-17
Not reported	7027 S WESTNEDGE AVE	94-17

EXECUTIVE SUMMARY

Please refer to the end of the findings report for unmapped orphan sites due to poor or inadequate address information.

Section 5

**Databases Searched and
Update Dates**

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 08/15/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2014
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time.

This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 05/29/2014
Number of Days to Update: 94	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Quarterly

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 04/28/2014
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/11/2014	Source: EPA
Date Data Arrived at EDR: 03/13/2014	Telephone: 800-424-9346
Date Made Active in Reports: 04/09/2014	Last EDR Contact: 07/02/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Quarterly

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/17/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2014	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 06/05/2014
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/17/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2014	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2014	Last EDR Contact: 06/05/2014
Number of Days to Update: 14	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Varies

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 10/01/2013	Telephone: 202-267-2180
Date Made Active in Reports: 12/06/2013	Last EDR Contact: 07/03/2014
Number of Days to Update: 66	Next Scheduled EDR Contact: 07/14/2014
	Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2013	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/03/2014	Telephone: 202-366-4555
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 52	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Annually

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 05/06/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/18/2014
	Data Release Frequency: Varies

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013	Source: EPA
Date Data Arrived at EDR: 12/12/2013	Telephone: 703-416-0223
Date Made Active in Reports: 02/24/2014	Last EDR Contact: 06/10/2014
Number of Days to Update: 74	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/07/2011	Telephone: 505-845-0011
Date Made Active in Reports: 03/01/2012	Last EDR Contact: 02/25/2014
Number of Days to Update: 146	Next Scheduled EDR Contact: 06/09/2014
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 04/28/2014
Number of Days to Update: 137	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: No Update Planned

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/05/2013	Telephone: 303-231-5959
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 06/06/2014
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/15/2014
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011	Source: EPA
Date Data Arrived at EDR: 07/31/2013	Telephone: 202-566-0250
Date Made Active in Reports: 09/13/2013	Last EDR Contact: 05/30/2014
Number of Days to Update: 44	Next Scheduled EDR Contact: 09/08/2014
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 04/29/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 05/06/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/16/2014	Telephone: 202-564-5088
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 10/09/2014
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/27/2014
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013	Source: EPA
Date Data Arrived at EDR: 07/17/2013	Telephone: 202-566-0500
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 04/18/2014
Number of Days to Update: 107	Next Scheduled EDR Contact: 07/28/2014
	Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 08/02/2013	Telephone: 301-415-7169
Date Made Active in Reports: 11/01/2013	Last EDR Contact: 06/05/2014
Number of Days to Update: 91	Next Scheduled EDR Contact: 09/22/2014
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/08/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/09/2014	Telephone: 202-343-9775
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/10/2014
Number of Days to Update: 69	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/14/2013	Telephone: 703-603-8787
Date Made Active in Reports: 02/27/2013	Last EDR Contact: 07/01/2014
Number of Days to Update: 13	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013	Source: EPA
Date Data Arrived at EDR: 07/03/2013	Telephone: 202-564-6023
Date Made Active in Reports: 09/13/2013	Last EDR Contact: 07/01/2014
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Quarterly

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/04/2014	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 03/06/2014	Telephone: 202-307-1000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 06/04/2014
Number of Days to Update: 103	Next Scheduled EDR Contact: 09/15/2014
	Data Release Frequency: No Update Planned

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 05/02/2014
Number of Days to Update: 83	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: Varies

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 04/21/2014
Number of Days to Update: 54	Next Scheduled EDR Contact: 08/04/2014
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 02/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/27/2014	Telephone: 202-566-1917
Date Made Active in Reports: 04/09/2014	Last EDR Contact: 05/16/2014
Number of Days to Update: 41	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 05/16/2014
Number of Days to Update: 88	Next Scheduled EDR Contact: 08/25/2014
	Data Release Frequency: Quarterly

STATE AND LOCAL RECORDS

SHWS: Contaminated Sites

The Contaminated Sites List database, also known as the Part 201 database, maintained by the Michigan Department of Environmental Quality (MDEQ), provides information about sites at which a release of a hazardous substance in excess of the Part 201 residential criteria has occurred, and where corrective actions have not been completed under Part 201 to meet the applicable cleanup criteria for unrestricted residential use. The Part 201 List does not include all of the sites of contamination that are subject to regulation under Part 201 because owners are not required to inform the MDEQ about the sites and can pursue cleanup independently. A deleted site has been removed from the Part 201 List because information known to the MDEQ at the time of the evaluation does not support inclusion on the Part 201 List. This designation is often applied to sites where changes in cleanup criteria resulted in a determination that the site no longer exceeds any applicable cleanup criterion. A delisted site has been removed from the Part 201 List because response actions have reduced the levels of contaminants to concentrations that meet or are below the criteria for unrestricted residential use. The list does not include the sites of contamination regulated under Part 213, Leaking Underground Storage Tanks.

Date of Government Version: 10/01/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 10/31/2013	Telephone: 517-284-5103
Date Made Active in Reports: 11/20/2013	Last EDR Contact: 04/28/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 08/11/2014
	Data Release Frequency: No Update Planned

INVENTORY: Inventory of Facilities

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LF: Inactive Solid Waste Facilities

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/1997
Date Data Arrived at EDR: 02/28/2003
Date Made Active in Reports: 03/06/2003
Number of Days to Update: 6

Source: Dept of Environmental Quality
Telephone: 517-335-4034
Last EDR Contact: 02/28/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycling Facilities

A listing of recycling center locations.

Date of Government Version: 06/18/2014
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 06/26/2014
Number of Days to Update: 6

Source: Dept of Environmental Quality
Telephone: 517-241-5719
Last EDR Contact: 06/30/2014
Next Scheduled EDR Contact: 10/13/2014
Data Release Frequency: Varies

LUST: Leaking Underground Storage Tank Sites

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 05/05/2014
Date Data Arrived at EDR: 05/21/2014
Date Made Active in Reports: 06/03/2014
Number of Days to Update: 13

Source: Dept of Environmental Quality
Telephone: 517-373-9837
Last EDR Contact: 05/21/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Annually

UST: Underground Storage Tank Facility List

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 05/05/2014
Date Data Arrived at EDR: 05/21/2014
Date Made Active in Reports: 06/03/2014
Number of Days to Update: 13

Source: Dept of Environmental Quality
Telephone: 517-335-4035
Last EDR Contact: 05/21/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: Annually

UST 2: Underground Storage Tank Listing

A listing of underground storage tank site locations that have unknown owner information.

Date of Government Version: 04/25/2014
Date Data Arrived at EDR: 04/29/2014
Date Made Active in Reports: 06/02/2014
Number of Days to Update: 34

Source: Dept of Environmental Quality
Telephone: 517-335-7211
Last EDR Contact: 04/21/2014
Next Scheduled EDR Contact: 08/04/2014
Data Release Frequency: Annually

AST: Aboveground Tanks

Registered Aboveground Storage Tanks.

Date of Government Version: 05/27/2014
Date Data Arrived at EDR: 05/28/2014
Date Made Active in Reports: 06/24/2014
Number of Days to Update: 27

Source: Dept of Environmental Quality
Telephone: 517-373-8168
Last EDR Contact: 05/19/2014
Next Scheduled EDR Contact: 09/01/2014
Data Release Frequency: No Update Planned

LIENS: Lien List

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC * 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPDES: List of Active NPDES Permits

General information regarding NPDES (National Pollutant Discharge Elimination System) permits and NPDES Storm Water permits.

Date of Government Version: 04/08/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/09/2014	Telephone: 517-241-1300
Date Made Active in Reports: 05/06/2014	Last EDR Contact: 07/08/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

AIRS: Permit and Emissions Inventory Data

Permit and emissions inventory data.

Date of Government Version: 04/01/2014	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 04/03/2014	Telephone: 517-373-7074
Date Made Active in Reports: 05/05/2014	Last EDR Contact: 06/19/2014
Number of Days to Update: 32	Next Scheduled EDR Contact: 10/06/2014
	Data Release Frequency: Varies

BEA: Baseline Environmental Assessment Database

A BEA is a document that new or prospective property owners/operations disclose to the DEQ identifying the property as a facility pursuant to Part 201 and Part 213. The Inventory of BEA Facilities overlaps in part with the Part 201 Projects facilities and Part 213 facilities. There may be more than one BEA for each facility.

Date of Government Version: 08/21/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 08/23/2013	Telephone: 517-373-9541
Date Made Active in Reports: 09/12/2013	Last EDR Contact: 05/16/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 09/01/2014
	Data Release Frequency: No Update Planned

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/13/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 196	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

COAL ASH: Coal Ash Disposal Sites

Coal fired power plants in Southeast Michigan that have coal ash handling on site.

Date of Government Version: 07/12/2013	Source: Dept of Environmental Quality
Date Data Arrived at EDR: 07/12/2013	Telephone: 586-753-3754
Date Made Active in Reports: 08/01/2013	Last EDR Contact: 07/02/2014
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/20/2014
	Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Michigan.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 12/24/2013	Last EDR Contact: 06/01/2012
Number of Days to Update: 176	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/01/2013 Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2013 Telephone: 415-972-3372
Date Made Active in Reports: 04/12/2013 Last EDR Contact: 04/28/2014
Number of Days to Update: 42 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012 Source: EPA Region 8
Date Data Arrived at EDR: 08/28/2012 Telephone: 303-312-6271
Date Made Active in Reports: 10/16/2012 Last EDR Contact: 04/28/2014
Number of Days to Update: 49 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/28/2014 Source: EPA Region 7
Date Data Arrived at EDR: 05/01/2014 Telephone: 913-551-7003
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 47 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 05/12/2014 Source: EPA, Region 5
Date Data Arrived at EDR: 05/12/2014 Telephone: 312-886-7439
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 36 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/06/2013 Source: EPA Region 10
Date Data Arrived at EDR: 11/07/2013 Telephone: 206-553-2857
Date Made Active in Reports: 12/06/2013 Last EDR Contact: 04/28/2014
Number of Days to Update: 29 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013 Source: EPA, Region 1
Date Data Arrived at EDR: 05/01/2013 Telephone: 617-918-1313
Date Made Active in Reports: 01/27/2014 Last EDR Contact: 05/02/2014
Number of Days to Update: 271 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 05/12/2014 Source: EPA Region 5
Date Data Arrived at EDR: 05/12/2014 Telephone: 312-886-6136
Date Made Active in Reports: 06/17/2014 Last EDR Contact: 04/28/2014
Number of Days to Update: 36 Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 03/20/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 04/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 07/01/2014
Number of Days to Update: 77	Next Scheduled EDR Contact: 10/13/2014
	Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012

Date Data Arrived at EDR: 08/09/2013

Date Made Active in Reports: 09/27/2013

Number of Days to Update: 49

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 06/16/2014

Next Scheduled EDR Contact: 09/29/2014

Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Department of Natural Resources

Telephone: 517-241-2254

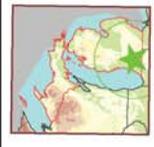
Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

EDR DataMap® Area Study

Pershing School Well Field

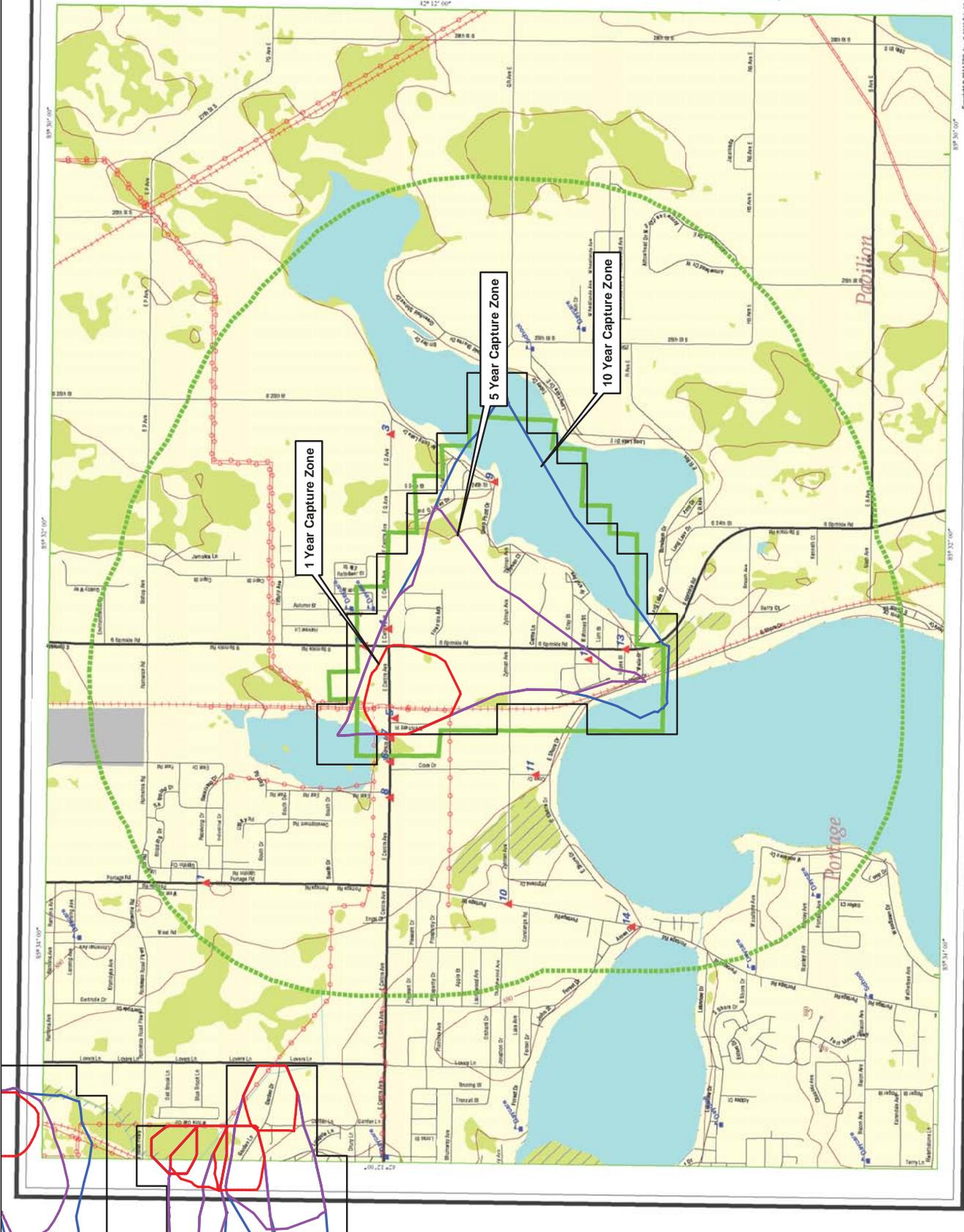
- Listed Sites
- Earthquake Epicenters (Richter 5 or greater)
- Search Boundary
- Roads
- Major Roads
- Waterways
- Railroads
- Contour Lines
- Pipelines
- Powerlines
- Fault Lines
- Water
- Superfund Sites
- Federal DOD Sites
- Indian Reservations BIA
- 100-Yr Flood Zones
- National Wetland Inventory

- 1 Year Capture Zones (FTCH)
- 5 Year Capture Zones (FTCH)
- 10 Year Capture Zones (FTCH)
- Discretized 10 Year Capture Zones



EDR Environmental Data Resources, Inc.

Portage, MI 49781-1148, MI



EDR DataMap® Area Study

Shuman/Rolling Hill Well Field

-  Listed Sites
-  Earthquake Epicenters (Richter 5 or greater)
-  Search Boundary
-  Roads
-  Major Roads
-  Waterways
-  Railroads
-  Contour Lines
-  Pipelines
-  Powerlines
-  Fault Lines
-  Water
-  Superfund Sites
-  Federal DOD Sites
-  Indian Reservations BIA
-  100-Yr Flood Zones
-  National Wetland Inventory

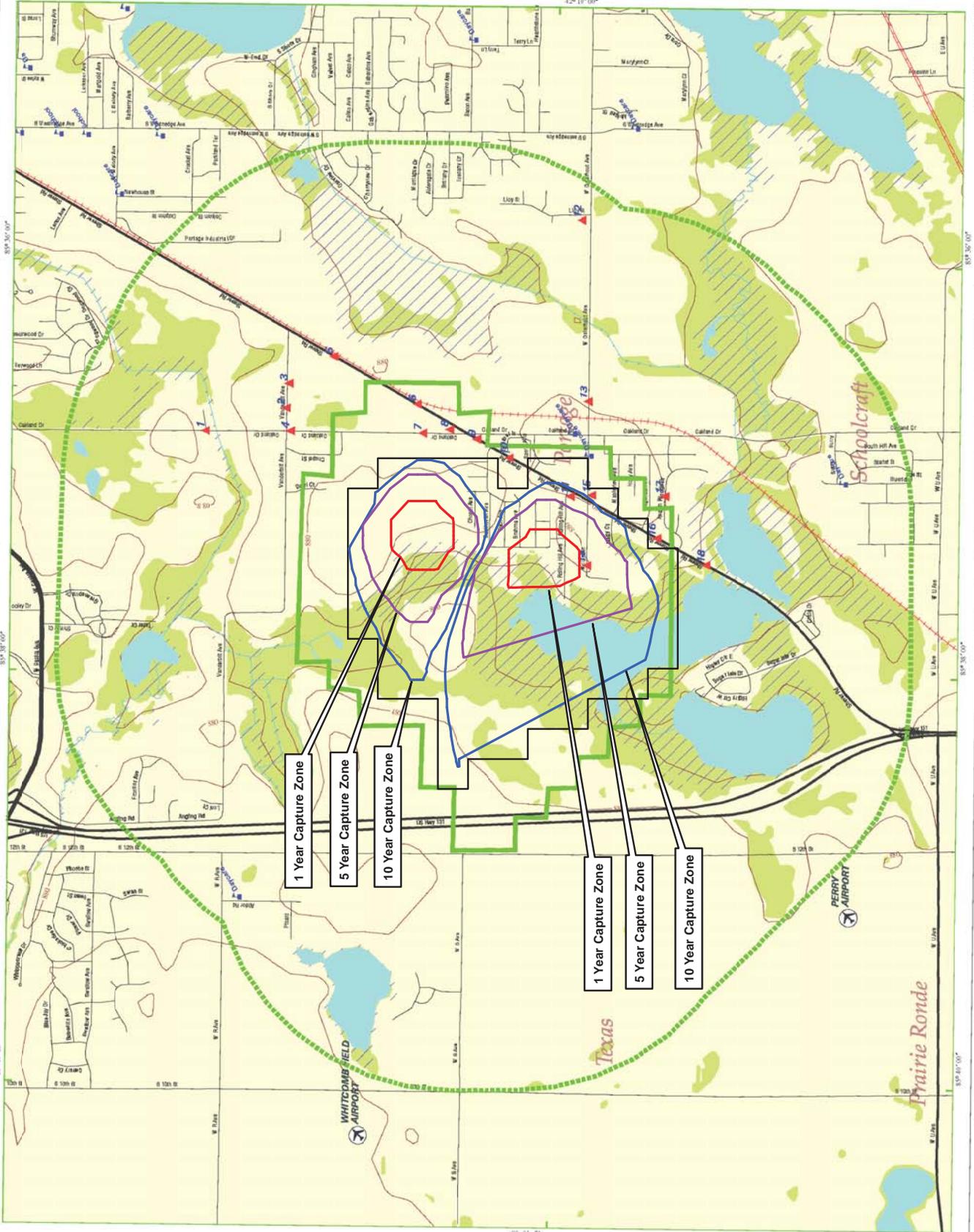
-  1 Year Capture Zones (FTCH)
-  5 Year Capture Zones (FTCH)
-  10 Year Capture Zones (FTCH)
-  Discretized 10 Year Capture Zones



Portage, MI



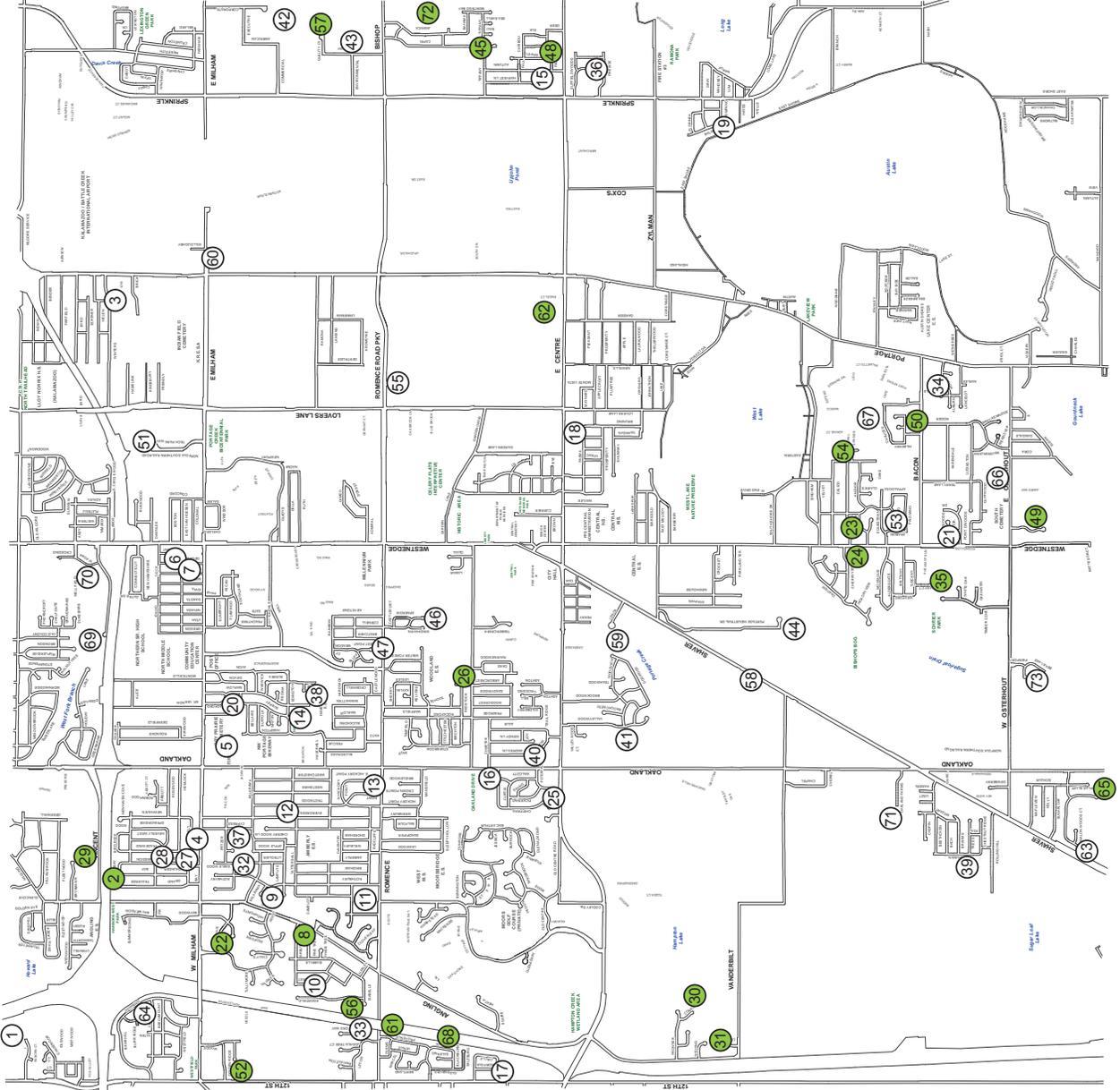
Scale in Miles



Appendix 7

City of Portage Infiltration Basins / Retention Ponds

Basin #	Basin ID	Address/Acces	Property Owner
1	Profire	Fourier North of Cul-de-sac	City of Portage
2	Stratton Bay	Between Stratton Bay and 134	City of Portage
3	Winners Drive	7220 Winners Drive	City of Portage
4	Wendover	Wendover	City of Portage
5	Oakland Dr.	5101 Oakland, Behind Fire Station	City of Portage
6	Ohio	NE Corner Ohio/VanHousen	City of Portage
7	Ohio	SW Corner Ohio/VanHousen	City of Portage
8	Angling Rd	6600 Angling Rd. S. Arcadis Trail	Timothy Albrecht
9	Coachville	3210 Coachville - By Lift Station	City of Portage
10	Sunburst	5000 Sunburst	City of Portage
11	Compton	Compton	City of Portage
12	Compton	Compton	City of Portage
13	Hickory Point	3217 Hickory Point	City of Portage
14	Hawenhill	5577 Hampton-Hawenhill Park	City of Portage
15	Autumn	4221 E. Centre	City of Portage
16	Oakland Dr.	7550 Oakland Dr. - Park	City of Portage
17	Northfork Cir	7699 S. 12th St	City of Portage
18	Plasma	1205 E. Centre-greenhouses	City of Portage
19	Marlow	1500 Marlow	City of Portage
20	Marlow	6140 Marlow, Milham Woods	City of Portage
21	Point-O-Woods Gr	S. Westwedge	City of Portage
22	Westwedge	3605 Westwedge	Stickney/Dauidhoff
23	Gabardine/Traillgar	Access 2.4 Gabardine	Remi Harrington
24	Cherry View	Access School View	Country Brook Estates #2
25	Chippewa	7950 Chippewa	City of Portage
26	Chippewa	7950 Chippewa	City of Portage
27	Old Mission	Access 2317 Birch Bay	City of Portage
28	Old Mission	Old Mission/Beacon Harbor	City of Portage
29	Evynstar	Access 2317 Evynstar	Not owned by City
30	Conestoga	Access 8709 Conestoga	David Peterson
31	Leat	Access 8805 Leat	Hull
32	Lost Pine Way	Lost Pine Way	City of Portage
33	Brickleton Woods	6928 Shawlford Way	City of Portage
34	Lawrence Woods	6928 Lawrence Woods	City of Portage
35	Lawrence Woods	6928 Lawrence Woods	City of Portage
36	Sprinkle Woods	8160 Black Forest	City of Portage
37	Pfitzer	Access 2719 Pfitzer	Krasch/Dulany
38	Sussex	6608 Sussex	City of Portage
39	Fox Valley	10270 Shuman	City of Portage
40	Andrea Lane	W. of Cul-de-sac	City of Portage
41	Villagewood Ln	S. of Cul-de-sac	City of Portage
42	Quail Way	6725 Quail Way	City of Portage
43	Quail Way	6725 Quail Way	City of Portage
44	Portage Industrial	S. of Cul-de-sac	City of Portage
45	Holly Village	7665 Tiffany	WTM, Inc.
46	Romance Ridge	7250 Bolingbrook	City of Portage
47	Meadows at Constitution	6935 Crest Point	City of Portage
48	Deer Crossing	7919 Wright	Sky King Development
49	Blue Haven Estates	6667 Wright	Blue Haven Estates LTD
50	Teeth Parkway	5030 Teeth Parkway	City of Portage
51	Teeth Parkway	5030 Teeth Parkway	City of Portage
52	Avalon Woods	4731 Avalon Woods	AEG Development LLC
53	Steeple Chase	Pimlico Cul-de-sac	City of Portage
54	Southern Oaks	Gabardine/Gordray	Southern Oaks LLC
55	Romance Parkway	7600 East of Lovers Lane	City of Portage
56	Ashton Farms	4250 Isabelle	AEG Development LLC
57	Shaver Rd	9107 Shaver Rd	City of Portage
58	Shaver Rd	9107 Shaver Rd	City of Portage
59	Shaver Rd	9107 Shaver Rd	City of Portage
60	E. Milham	W. of Portage Rd	City of Portage
61	Ashton Farms West	7041 Providence	AEG Development LLC
62	Engle Ct	N. of E. Centre	City of Portage
63	Avalon Woods	2819 Avalon Woods	Centre Street Village LLC
64	Bramble Ct	5700 Bramble Ct	City of Portage
65	Jonathan Woods	680 Cliffwood	City of Portage
66	Jonathan Woods	680 Cliffwood	City of Portage
67	PineView Water Tower	N. of Stormwater Basin	City of Portage
68	Ashton Farms West	7255 Milan	AEG Development LLC
69	Trade Center	850 Trade Center	City of Portage
70	Trade Center/West Fork	N.W. Corner	City of Portage
71	Oakland Farms Trail	2451 Oakland Farms (dead end)	City of Portage
72	Stratton Bay	Stratton Bay	City of Portage
73	Beet Lake	Four Lake Trail	City of Portage



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Benton Harbor, MI 49022
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F 269.927.1017

Monksies, MI
South Haven, MI
South Bend, IN
Portage, IN

CITY OWNED
 CITY EASEMENT

Table No. 1 – Risk Designations
 Storm Water Design Criteria Manual
 City of Portage

Groundwater Travel Time Regional Areas	High-Risk Zoning Districts	Low-Risk Zoning Districts
Area A	All zoning districts	None
Areas B and C	<p>Commercial (B-2, B-3, PD, and CPD).</p> <p>Industrial (I-1, I-2, and PD).</p> <p>Multi-family residential (RM-1, RM-2, and PD with greater than 30 residential units).</p> <p>Community facilities (including public services, service centers, schools, fire and police departments, public transportation facilities, vocational shops, and landfills).</p> <p>Office and local business (OS-1, PD, and B-1 with greater than 20,000 square feet of paved area).</p> <p>Research/office parks (OTR and PD).</p> <p>Parking (P-1 with greater than 20,000 square feet of paved area).</p> <p>Transportation corridors (including state truckline, major arterial and minor arterial roadways, and collector roadways).</p>	<p>*Single and two-family residential (R-1A, R-1B, R-1C, R-1D, R-1E, R-1T, and PD).</p> <p>*Multi-family residential (RM-1, RM-2, and PD with 30 residential units or less).</p> <p>*Recreation/open space (including parks and cemeteries).</p> <p>*Office and local business (OS-1, PD, and B-1 with 20,000 square feet or less of paved area).</p> <p>*Community facilities (including churches, city hall, and library).</p> <p>*Parking (P-1 with 20,000 square feet or less of paved area).</p> <p>*Transportation corridors (including city local roadways).</p>

*See Table 2 for high-risk land uses to determine the associated risk designation.

Table No. 2 – High-Risk Land-Use Activities that Pose Potential Threats to Groundwater (Hot Spots)

Storm Water Design Criteria Manual
City of Portage

Commercial
Analytical and clinical laboratories
Auto rustproofers/engine repair
Auto washes
Boat builders/refinishers
Car rental and service stations/automotive repair
Commercial establishments with fleets of trucks and cars
Concrete/asphalt/coal/tar companies
Equipment repair
Food processors/meat packers/slaughter houses
Fuel oil distributors/stores
Furniture strippers/finishers/painters
Gas stations
Junkyards
Laundries and dry cleaners
Pesticide application services/pesticide storers/retailers
Petroleum bulk storage (wholesale)
Photographic development
Printing
Salvage yards/impoundment lots
Wood preserving and treatment
Industrial
Analytical and clinical laboratories
Governmental agencies with fleets of trucks and cars
Salt piles/sand-salt piles
Vehicle maintenance operations (transportation/trucking, contractors/construction, auto dealers)
Manufacturing
Chemical, paint, and plastics manufacturing
Furniture manufacturing
Metal manufacturing (including metal plating)
Mining operations/injection wells
Other manufacturing (textiles, rubber, glass, etc.)
Pulp and paper industry
Transportation
Airport maintenance/fueling areas
Salt piles/sand-salt piles
Vehicle maintenance operations (transportation/trucking, contractors/construction, auto dealers)
Utilities
Aboveground oil pipelines
Electric power generation substations
Waste Disposal
Landfills/dumps/transfer stations

Appendix 8



RECYCLE *it*
PROTECTS *our*
EARTH!

A Free Service to Rid
Your Home of Household
Chemicals and Electronics

373-5211 & www.kalcounty.com/hhw **INFO HOTLINE**

MATERIAL ACCEPTED

BATTERIES • COMPUTERS • CLEANERS • GASOLINE • MERCURY
OIL-BASED PAINTS • GARDEN CHEMICALS • USED MOTOR OIL • TELEVISIONS

BUSINESS WASTE *by appointment and for a FEE*

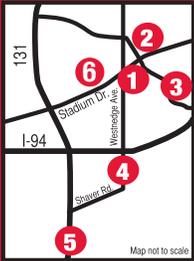
NOT ACCEPTED

LATEX PAINT

FREE DISPOSAL



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FAST—FREE—SECURE
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www.kalcounty.com/hhw



NEW LOCATION

- #1 — KOPS
150 E. Crosstown Pkwy.
Kalamazoo | 269.337.8101
8:00 AM – 4:00 PM
- #2 — Township Police
1720 Riverview Dr.
Kalamazoo | 269.343.0551
8:00 AM – 4:30 PM
- #3 — Sheriff's Office
1500 Lamont Ave.
Kalamazoo | 269.383.8821
7:00 AM – 4:00 PM
- #4 — Portage Police
7810 Shaver Rd.
Portage | 269.329.4567
24 Hours - 7 Days a week
- #5 — Schoolcraft Police
442 N. Grand St./US 131
Schoolcraft | 269.679.5600
8:00 AM – 4:00 PM
- #6 — WMU Public Safety
511 Monroe St.
Kalamazoo | 269.387-5555
Lobby hours: 24/7

NEW HHW HOURS

Tuesday, Friday
8:00 a.m. - 1:00 p.m.

Wednesday
12:00 noon - 6:00 p.m.

No Saturday Hours

Open Year Round

1301 Lamont Ave.
Kalamazoo, MI 49048
(Next to the Fairgrounds)

Appendix 9

Kalamazoo County Sanitary Code



Kalamazoo County

Health & Community Services

**KALAMAZOO COUNTY SANITARY CODE
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KALAMAZOO COUNTY SANITARY CODE

ARTICLE I: PURPOSE, GENERAL PROVISIONS AND DEFINITIONS

CHAPTER 1: PURPOSE

The Kalamazoo County Sanitary Code, herein referred to as the Code, is a codification of the existing rules, regulations and policies, which govern the conditions that affect the environmental health of Kalamazoo County residents and protect the health, safety and welfare of the public.

CHAPTER 2: GENERAL PROVISIONS

SECTION 2.01: AUTHORITY

The Kalamazoo County Board of Commissioners hereby adopts the revised Kalamazoo County Sanitary Code pursuant to provisions of Part 127 and Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12701-333.12771 and Sections 333.2441-333.2442 of the Michigan Compiled Laws; and the “Thomas J. Anderson, Gordon Rockwell Environmental Protection Act of 1970”, Act 127 of the Public Acts of 1970, as amended, being Sections 324.11701-324.11719 of the Michigan Compiled Laws. The Kalamazoo County Board of Commissioners hereby adopts the addition of ARTICLE X: Body Art pursuant to Act 2010 Public Acts 375; MCL 333.13101, as amended. [Revised 2013]

The Kalamazoo County Board of Commissioners hereby adopts the revised Onsite Sewage Treatment and revised Clean Up of Methamphetamine Laboratories Regulations contained in this Code pursuant to the provisions of Part 127 and Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12701-333.12771 and Sections 333.2441-333.2442 of the Michigan Compiled Laws; and the “Thomas J. Anderson, Gordon Rockwell Environmental Protection Act of 1970”, Act 127 of the Public Acts of 1970, as amended, being Sections 324.11701-324.11719 of the Michigan Compiled Laws. [Revised 2007]

The Kalamazoo County Board of Commissioners hereby adopts the Sewage Disposal, Water Supply and Housing Regulations, contained in this Code pursuant to the provisions of Part 127 and Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12701-333.12771 and Sections 333.2441-333.2442 of the Michigan Compiled Laws; and the “Thomas J. Anderson, Gordon Rockwell Environmental Protection Act of 1970”, Act 127 of the Public Acts of 1970, as amended, being Sections 324.11701-324.11719 of the Michigan Compiled Laws.

The Kalamazoo County Board of Commissioners hereby adopts the Food Protection Enforcement Policy contained in this Code pursuant to the provisions of the Michigan Food Law of 2000, Act 92 of the Public Acts of 2000.

The Kalamazoo County Board of Commissioners hereby adopts the Noncommunity Water Supply Regulations contained in this Code pursuant to the provisions of Act 399 of the Public Acts of 1976, as amended, being Sections 325.1001-325.1023 of the Michigan Compiled Laws; and pursuant to the provisions of the Administrative Procedures Act, Act 306 of the Public Acts of 1969, as amended, being Sections 24.201-24.313 of the Michigan Compiled Laws.

KALAMAZOO COUNTY SANITARY CODE

The Kalamazoo County Board of Commissioners hereby adopts the Public Swimming Pool Water Quality Testing Regulations contained in this Code pursuant to the provisions in Part 24 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.2441-333.2442 of the Michigan Compiled Laws; and Part 125 of the Michigan Public Health Code, being Act 368 of the Public Acts of 1978, as amended, located at Sections 333.12501-333.12563 of the Michigan Compiled Laws.

SECTION 2.02: JURISDICTION

The Department shall administer and enforce this Code throughout all of Kalamazoo County except for those areas within the territorial boundaries of a governmental unit that has lawfully adopted and enforces regulations equal to or more stringent than those contained in this Code.

SECTION 2.03: RIGHT OF ENTRY AND INSPECTION

The Department may inspect or investigate any dwelling, property, issue, thing, premise, person, record, vehicle, incident or event, in order to administer and enforce this Code.

No person shall refuse to allow the Department, or the Department's designated representative, after proper identification, to inspect any premise at reasonable hours of the day, nor shall any person unlawfully hinder, oppose or resist the Department, or the Department's authorized representative, in the discharge of the Department's duty and the protection of the public health. Sections 2241-2247 of Act 368 of the Public Acts of 1978, as amended, being sections 333.2441-333.2447 of the Michigan Compiled laws, apply to an inspection or investigation made by the Department or his/her authorized representative.

SECTION 2.04: INTERFERENCE WITH NOTICES

No person shall remove, mutilate or conceal any notice or placard posted by the Department except by written permission of the Department.

SECTION 2.05: ABATEMENT OF PUBLIC HEALTH NUISANCES

Nothing stated in this Code shall limit the power of the Department's legal authority to order the immediate and complete abatement of a public health nuisance that is harmful to the environment or a menace to the public's health, safety or welfare.

SECTION 2.06: FEE SCHEDULE

The Kalamazoo County Board of Commissioners shall establish the fees charged for services and registration/permit applications identified in this Code by adopting a written Fee Schedule at a regular or special meeting of the Board of Commissioners. The Kalamazoo County Board of Commissioners may revise the Fee Schedule by adopting a written amendment to the Fee Schedule at a special or regular meeting of the Board of Commissioners.

KALAMAZOO COUNTY SANITARY CODE

SECTION 2.07: VALIDITY AND SEVERABILITY

The County of Kalamazoo declares that the requirements and the various parts, sections, and clauses of this Code are valid. If a court of competent jurisdiction determines that any part, sentence, paragraph, section or clause is unconstitutional or invalid, the remaining parts, portions and provisions of this Code shall remain in full force and effect.

SECTION 2.08: OTHER LAWS AND REGULATIONS

This Code supplements the rules and regulations duly enacted by the Michigan Department of Agriculture and Rural Development (MDARD), Michigan Department of Environmental Quality (MDEQ) and the Michigan Department of Community Health (MDCH); laws of the State of Michigan relating to public health; and federal laws relating to public health. This Code supersedes inconsistent or conflicting local regulations or ordinances.

SECTION 2.09: EFFECTIVE DATE

This Code shall take effect 45 days after the Kalamazoo County Board of Commissioners adopts the Code at a regular or special meeting of the Board of Commissioners unless the Board of Commissioners specifically provides for the Code to take effect on a date more than 45 days after the Board of Commissioners adopts the Code.

SECTION 2.10: REPEAL OF OTHER REGULATIONS

Subject to the provisions of SECTION 2.11 of this Code, all other Codes, Ordinances and Regulations and parts of Codes, Ordinances and Regulations, which conflict with the provisions of this Code, are repealed.

SECTION 2.11: PRE-EXISTING VIOLATIONS

Any act, situation or condition of premises or things which, when created or first allowed to exist, violated any provision of the existing Kalamazoo County Sanitary Code, shall continue to be a violation of this Code if a similar section or provision is a part of this Code. Any action, issuance of permit, or maintenance of a condition that was mandatory, under the provisions of the chapters now repealed, shall continue to be required if the same or similar provision is contained in this Code.

SECTION 2.12: INJUNCTIVE PROCEEDING

Notwithstanding the existence or pursuit of any other remedy, the Department, without posting bond, may maintain an action in a court of competent jurisdiction for the entry of an injunction or other process against any person to restrain, prevent, or correct violations of this regulation.

KALAMAZOO COUNTY SANITARY CODE

CHAPTER 3: DEFINITIONS

SECTION 3.01: ALTERNATIVE ONSITE TREATMENT SYSTEM

“Alternative Onsite Treatment System” means any onsite sewage treatment system other than the following: a holding tank, septic tank with soil absorption tile trenches or drainbeds, stoneless chamber or tubing, mound system, dry wells or other system as approved by the Department.

SECTION 3.02: ALTERNATOR VALVE

“Alternator Valve” means a watertight device that switches effluent flow from one soil absorption system to another separate soil absorption system and allows alternate periods of loading and resting.

SECTION 3.03: APPEAL

“Appeal” means a request for a hearing to review facts and/or actions in connection with the public enforcement of this Code.

SECTION 3.04: APPROVED

“Approved” means the Department, based on duly promulgated public health rules, regulations and technical data, has determined that a mechanical device, system or piece of equipment is acceptable for its intended use at the time of inspection.

SECTION 3.05: AVAILABLE PUBLIC SANITARY SEWER SYSTEM

“Available Public Sanitary Sewer System” means a public or municipal sanitary sewer system located in a right-of-way, easement, highway, street or public way which crosses; adjoins or abuts upon a property and which is located within 200 feet, at the nearest point of a dwelling in which sanitary sewage originates.

SECTION 3.06: BAFFLE

“Baffle” means a component of septic tanks which prevent damage to the soil absorption system by reducing effluent agitation as sewage enters the septic tank, and by preventing solids from flowing out of the tank to the soil absorption system; a concrete baffle, sanitary tee, vented elbow, and an effluent filter are forms of baffles.

SECTION 3.07: BASEMENT

“Basement” means the portion of a building that is located partly underground and at least half of its clear floor-to-ceiling height is below the average grade of the adjoining ground surface.

SECTION 3.08: BEDROOM

“Bedroom” means a room designed primarily for sleeping or a room expected to routinely provide sleeping accommodations for occupants. A bedroom may or may not contain a closet.

KALAMAZOO COUNTY SANITARY CODE

SECTION 3.09: BLACKWATER

“Blackwater” means all solids and liquids emanating from a toilet, urinal, or bidet.

SECTION 3.10: BUILDING

“Building” means any structure or portion thereof used, in whole or in part, as a home, residence or work place.

SECTION 3.11: CHECK VALVE

“Check Valve” is a mechanical device that only allows liquid to flow in one direction.

SECTION 3.12: CONTINUING EDUCATION

“Continuing Education” means a form of ongoing learning and/or informational exchanges to promote professional development on a specific topic as approved by the Department.

SECTION 3.13: CONTINUING EDUCATION UNIT (CEU)

“Continuing Education Unit (CEU)” means a measurement of one CEU is equivalent to one hour of education unless otherwise approved by the Department.

SECTION 3.14: CHRONIC VIOLATION

“Chronic Violation” as used in ARTICLE VI of this Code, means a specific violation that is observed during a routine inspection, is documented, is corrected, and recurs on three out of five consecutive routine inspections, but the violation is corrected after each inspection.

SECTION 3.15: CONTINUOUS VIOLATION

“Continuous Violation” as used in ARTICLE VI of this Code, means a specific violation that is observed during a routine inspection, is documented, and persists on the next two follow up inspections without correction (Example- routine/follow-up/follow-up.).

SECTION 3.16: CUT AND FILL OR FILL SOIL ABSORPTION SYSTEM

“Cut and Fill” or “Fill Soil Absorption System” means a type of soil absorption system where soils or materials may be removed to a specific depth and replaced to a specific level with approved fill material prior to installing the soil absorption system.

SECTION 3.17: DEPARTMENT OR HEALTH OFFICER

“Department” or “Health Officer” means the director or acting director of the Kalamazoo County Health and Community Services Department and/or his or her authorized representative.

KALAMAZOO COUNTY SANITARY CODE

SECTION 3.18: DETENTION BASIN

“Detention Basin” means a reservoir, which temporarily contains storm water runoff and releases it gradually into a watercourse or storm water facility.

SECTION 3.19: DEVIATION

“Deviation” means written or verbal approval to alter from the onsite sewage treatment system permitting criteria contained in ARTICLE II of this code.

SECTION 3.20: DOSING TANK OR PUMP CHAMBER

“Dosing Tank” or “Pump Chamber” means a watertight manufactured container which retains the overflow to or effluent from a septic tank until discharged to a selected point by a pump.

SECTION 3.21: DRAINBED

“Drainbed” means a soil absorption system consisting of a distribution system of perforated sewer pipes that lie over six inches layer of stone.

SECTION 3.22: DRY WELL OR BLOCK TRENCH

“Dry Well” or “Block Trench” means an underground enclosure connected to the outlet of a septic tank constructed of concrete blocks, bricks, pre-cast material or similar material, loosely laid with open joints and surrounded with stone to allow the surrounding soil to directly absorb septic tank effluent.

SECTION 3.23: DWELLING OR DWELLING UNIT

“Dwelling” or “Dwelling Unit” means any house, building, structure, shelter, or portion thereof used, in whole or in part, as a home, residence, or living and sleeping place for one or more human beings.

SECTION 3.24: EFFLUENT

“Effluent” means sewage, water, or other liquid, partially or completely treated or in its natural state, flowing out of a septic tank, soil absorption system, or other treatment system or system component.

SECTION 3.25: EFFLUENT FILTER

“Effluent Filter” means a device designed for installation at the outlet pipe of a septic tank or dosing chamber that serves to filter out solids and limit the amount of suspended solids that may otherwise reach the soil absorption system.

SECTION 3.26: ENGINEERED SYSTEM

“Engineered System” means an onsite sewage treatment system which has stringent specifications and is typically designed by an engineer or other qualified designer and may or may not be alternative sewage treatment systems. A pressure-dosed system is an example of an engineered system.

KALAMAZOO COUNTY SANITARY CODE

SECTION 3.27: EXTERMINATION

“Extermination” means the control and elimination of insects, rodents, or other pests by eliminating their harborage places; by removing, or making inaccessible, materials that may serve as their food; by poisoning, spraying, fumigating or trapping; or by any other recognized and legal elimination method approved by the Department.

SECTION 3.28: FAILURE

“Failure” means a condition existing within an onsite sewage treatment system which prohibits the system from functioning in a sanitary manner which may include, but is not limited to, the discharge of effluent onto the ground surface, into surface water, into groundwater or backing up into the dwelling or premise.

SECTION 3.29: FILL SAND

“Fill Sand” means the type of material to be used when creating a mounded or cut and fill or fill soil absorption system. Fill sand shall meet Michigan Department of Transportation 2NS specifications or be otherwise approved by the Department.

SECTION 3.30: FILTER FABRIC

“Filter Fabric” means textile of relatively small mesh or pore size material used to allow water to pass through while keeping sediment out.

SECTION 3.31: GARBAGE

“Garbage” means all animal, fruit, or vegetable waste matter connected with the preparation, use, cooking, or storing of food. Garbage also means any can, container or wrapper waste connected with the preparation, use, cooking, or storing of food. Garbage also means any kitchen and table wastes of every kind, except waste water; and all other refuse or waste matter of any nature or kind, mixed, handled or included therewith.

SECTION 3.32: GARBAGE CONTAINER

“Garbage Container” means a reasonably weather tight and watertight container used to temporarily store garbage and which prevents access by vermin and rodents.

SECTION 3.33: GRAY WATER

“Gray Water” means all domestic water except blackwater. Gray water includes, but is not limited to, waste water from laundry, bathing, cooking, cleaning, sink waste and dish washing activities.

SECTION 3.34: HABITABLE BUILDING

“Habitable Building” means any building, or other dwelling, suitable for human residency, occupation or use.

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SECTION 3.35: HABITABLE ROOM

“Habitable Room” means a room or enclosed floor space suitable for human living, sleeping, cooking, or eating purposes. A habitable room does not include bathrooms, water closet compartments, laundries, pantries, foyers, or communicating corridors, closets and storage spaces.

SECTION 3.36: HEADER PIPE

“Header Pipe” means a sewer pipe that is typically perpendicular to lateral piping (down the length of a trench or drainbed).

SECTION 3.37: HEALTH DEPARTMENT

“Health Department” means the Kalamazoo County Health and Community Services Department.

SECTION 3.38: HEALTH AND COMMUNITY SERVICES DEPARTMENT

“Health and Community Services Department” means the Kalamazoo County Health and Community Services Department.

SECTION 3.39: HIGH GROUNDWATER

“High Groundwater” means the elevation that water is found at or where there is evidence of long-term saturation in the soil material when performing a site evaluation. High groundwater may be determined by the presence of redoximorphic features, otherwise known as mottling.

SECTION 3.40: HOLDING TANK

“Holding Tank” means a watertight manufactured container without a discharge outlet; equipped with an alarm device; and used solely for temporarily holding waste water.

SECTION 3.41: IMMINENT HAZARD OR SUBSTANTIAL HAZARD

“Imminent Hazard” or “Substantial Hazard” as used in ARTICLE VI of this Code, means a condition that constitutes an immediate threat to public health including, but not limited to, a food establishment’s loss of power; a food establishment’s loss of its water supply; the backup of sewage wastes into the building; severe structural damage to the food service establishment building; an ongoing foodborne illness caused by the conditions in the food establishment; a severe vermin infestation that threatens the integrity of the establishment’s food supply; or any other condition which, in the Department’s opinion, constitutes an immediate threat to the public’s health. Also see, Michigan Administrative Code Rule 325.101(1)(f).

SECTION 3.42: INFESTATION

“Infestation” means the presence, within or around a dwelling, of vermin, rodents or other pests.

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SECTION 3.43: MOTTLING

“Mottling” means a condition found in soil profiles that consist of irregular spots of varying color number and/or size. Mottling indicates water is seasonally present or has been historically present at the elevation where the features are found. Mottling can also be an indication of poor aeration and impeded drainage.

SECTION 3.44: MOUND SYSTEM

“Mound System” means a soil absorption system constructed at a prescribed location and elevation above the surrounding ground surface in a prepared area of acceptable material.

SECTION 3.45: MULTIPLE DWELLING

“Multiple Dwelling” means any building or structure, which contains two or more dwelling units.

SECTION 3.46: NATIVE SOIL

“Native Soil” means the top layer of the earth's surface, consisting of rock and mineral particles, often mixed with organic matter and unaltered by mechanical processes (excluding accepted agricultural practices).

SECTION 3.47: NEW CONSTRUCTION SITE

“New Construction Site” is a vacant site where a new dwelling or business is being constructed. This can also be a site that previously had a dwelling or business that has been completely rebuilt, including the foundation. The local building authority may also make a determination that a re-construction is deemed new rather than remodeling or renovation.

SECTION 3.48: NUISANCE

“Nuisance” means any annoying, obnoxious or unpleasant condition, which results from a violation of any provision of this Code.

SECTION 3.49: ONSITE SEWAGE TREATMENT SYSTEM (OSTS) OR SEWAGE DISPOSAL SYSTEM

“Onsite Sewage Treatment System” or “Sewage Disposal System” means the methods and devices including septic tanks, holding tanks, pump chambers, piping, pumps, vents, distribution systems and soil absorption systems used to treat and/or dispose of sewage emanating from a dwelling or premise.

SECTION 3.50: OPERATION AND MAINTENANCE

“Operation and Maintenance” means a process to insure an onsite sewage treatment system is maintained and functional in the manner it was intended so that it remains protective of the environment and human health, safety and welfare.

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SECTION 3.51: OPERATOR

“Operator” means any person who owns or has charge, care or control of a building, or part thereof, in which dwelling units are rented.

“Operator” as used in ARTICLE IIIa of this code means any person who owns or has charge, care or control of a public swimming pool.

SECTION 3.52: OWNER AND OCCUPANT

“Owner” means the owner of title or record of any property, premise or business. “Occupant” means any person(s) occupying or in possession of any property or premise. Financial institutions holding titles of foreclosed properties are considered to be the “Owner”.

SECTION 3.53: PERMEABILITY

“Permeability” means the characteristic that enables soil to transmit water or air, measured as the number of inches per hour that water moves through the soil. Terms describing permeability are very slow, slow, moderately slow, moderate, moderately rapid, rapid and very rapid.

SECTION 3.54: PERSON

“Person” means an individual, firm, partnership, co-partnership, cooperative, party, public or private corporation, personal representative, society, association, receiver, trustee, assignee, club, joint venture, estate, trust, governmental unit or agency and/or any other group or combination acting as a unit, and the individuals constituting such group or unit or any other legal entity.

SECTION 3.55: PLUMBING

“Plumbing” means the pipes, fixtures or other apparatus in a dwelling which transport water, gas or sewage.

SECTION 3.56: PREMISE

“Premise” means any tract or parcel of land where persons may reside, are employed or congregate and includes any other dwellings, structures, buildings or accessory structures located on the parcel.

SECTION 3.57: PRIORITY FOUNDATION ITEM

“Priority Foundation Item” means a provision in the Michigan Food Law, Act 92, of the Public Acts of 2000, as amended, whose application supports, facilitates or enables one or more priority items.

SECTION 3.58: PRIORITY ITEM

“Priority Item” means a provision in the Michigan Food Law, Act 92, of the Public Acts of 2000, as amended, whose application contributes directly to the elimination, prevention or reduction to an acceptable level, hazards associated with foodborne illness or injury and there is no other provision that more directly controls the hazard.

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SECTION 3.59: PRIVY OR OUTHOUSE

“Privy” or “Outhouse” means a building or other dwelling not connected to a public sewer system or a properly installed and operating onsite sewage treatment system, and is used for the temporary or permanent reception, disposition, or storage of human excrement. A self-contained portable, temporary restroom facility is not a privy or an outhouse.

SECTION 3.60: PROPERTY

“Property” means anything that may be the subject of ownership or possession, including, but not limited to, land, buildings, structures, recreational vehicles (motorized and non-motorized campers, trailers, motor homes), and personal belongings.

SECTION 3.61: PUBLIC SWIMMING POOL

“Public Swimming Pool” means an artificial body of water used collectively by a number of individuals primarily for the purpose of swimming, wading, recreation, or instruction and includes equipment, dressing, locker, showers and toilet rooms. Public swimming pools include those which are for parks, schools, motels, camps, resorts, apartments, clubs, hotels, mobile home parks, subdivisions, and the like. A pool or portable pool located on the same premises with a one, two, three or four family dwelling and for the benefit of the occupants and their guests, a natural bathing area such as a stream, lake, river, or man-made lake, an exhibitor’s swimming pool built as a model at the site of the seller and in which swimming by the public is not permitted, or a pool serving not more than four motel units is not a public swimming pool.

SECTION 3.62: PUMP AND HAUL

“Pump and Haul” means a method of sewage collection and disposal for sewage generated at a dwelling or premise, which utilizes onsite storage in a holding tank. The stored sewage is pumped as necessary by an approved tanker vehicle and transported to an approved offsite-receiving facility for final disposal.

SECTION 3.63: REDOXIMORPHIC FEATURES

“Redoximorphic Features” means a type of mottling that is associated with periodic moisture in a soil.

SECTION 3.64: REPLACEMENT ONSITE SEWAGE TREATMENT SYSTEM

“Replacement Onsite Sewage Treatment System” means new construction, expansion or modification of an onsite sewage treatment system at a property that previously contained an onsite sewage treatment system.

SECTION 3.65: RESERVE AREA

“Reserve Area” means a designated location of sufficient area to install a replacement onsite sewage treatment system on a piece of property.

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SECTION 3.66: RETENTION BASIN

“Retention Basin” means a storm water management basin that captures storm water runoff and does not discharge directly to a surface water body. The water is "discharged" by infiltration or evaporation.

SECTION 3.67: RUBBISH

“Rubbish” means waste materials, except garbage. Rubbish includes, but is not limited to, paper, rags, cartons, boxes, wood excelsior, rubber, leather, tree branches, yard trimmings, tin cans, metals, mineral matter, glass crockery, plastics and the residue from the burning of wood, coal, coke, and other combustible material.

SECTION 3.68 SANITARY TEE OR TEE

“Sanitary Tee” or “Tee” means a “T” shaped fitting that allows sewage to flow into the horizontal outlet pipe by entering through the lower end of a vertical pipe. A sanitary tee is a form of a baffle.

SECTION 3.69: SEPTIC TANK

“Septic Tank” means a watertight manufactured container used to receive and store sewage emanating from a dwelling or premise, which biologically treats the organic matter and discharges the resulting clarified liquids.

SECTION 3.70: SEWAGE

“Sewage” means a combination of all domestic and/or organic waste from any dwelling or premise where persons reside, are employed or congregate. Sewage includes, but is not limited to, gray and blackwaters. Sewage does not include discharge water from water softeners; backwash from swimming pool or spa filters; or run-off from roofs, footings or storm drains.

SECTION 3.71: SEWER OR SEWER PIPE

“Sewer” or “Sewer Pipe” means a watertight conduit for carrying sewage.

SECTION 3.72: SOIL ABSORPTION SYSTEM

“Soil Absorption System” means that part of an onsite sewage treatment system that distributes septic tank effluent through an arrangement of tile trenches, drainbeds, dry wells or other approved method(s) by the Department and which allows the surrounding soil to absorb and treat the effluent.

SECTION 3.73: SOIL EVALUATION

“Soil Evaluation” means a process to determine and evaluate soil properties. Soil evaluations are used to estimate percolation rates and to identify absorption capabilities of the soil.

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SECTION 3.74: SOIL LOADING RATE

“Soil Loading Rate” means the volume of effluent in gallons per square feet that is applied to a soil surface and is dependent on soil texture, structure, and effluent quality.

SECTION 3.75: STONE

“Stone” means natural, washed and graded stone, aggregate, crushed stone or crushed rock used as filter material in a soil absorption system approved by the Department.

SECTION 3.76: STONELESS CHAMBER OR STONELESS TUBING

“Stoneless Chamber” or “Stoneless Tubing” means a soil absorption system of chambers or tubing that is installed directly in an excavation of open soil and does not use stone. Stoneless soil absorption systems consist of two or three feet wide chambers or eight or ten inch diameter tubing covered with filter fabric laid in trenches that are generally two feet to three feet in width.

SECTION 3.77: STRUCTURE

“Structure” means any built or constructed item attached to the ground.

SECTION 3.78: TRENCH

“Trench” means a soil absorption system consisting of individual distribution systems of perforated sewer pipe that lies over a minimum of six inches to a maximum of 24 inches of stone. Trenches are generally two feet to three feet in width.

SECTION 3.79: UL

“UL” means Underwriter Laboratory.

SECTION 3.80: UNACCEPTABLE WATER QUALITY

“Unacceptable Water Quality” means public swimming pool water, which contains a detectable presence of Coliform bacteria or pathogenic organisms.

SECTION 3.81: UNSANITARY CONDITIONS

“Unsanitary Conditions” as used in ARTICLE VI of this Code means conditions which constitute a violation(s) of Act 92, of the Public Acts of 2000, as amended at the time of an inspection but do not constitute priority item or priority foundation item but which are violations.

SECTION 3.82: VARIATION

“Variation” means approved modification(s) of required conditions of this Code.

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SECTION 3.83: VENTED ELBOW

“Vented Elbow” means an inverted “L” shaped fitting that allows sewage into the horizontal outlet pipe by entering through the lower end of “L” shaped pipe. The elbow is vented at the top so as not to act as a siphon. Vented elbow is an example of a baffle.

SECTION 3.84: VIOLATION

“Violation” means a violation of the food code which the MDARD has determined is more likely than other violations to contribute to food contamination, illness to humans, or environmental health hazard, as per SECTION 1105 (g) of Act 92, of the Public Acts of 2000 as amended, Michigan’s Food Law of 2000 as amended.

SECTION 3.85: WATER SUPPLY WELL

“Water Supply Well” means a well used to provide potable water for drinking or domestic purposes.

SECTION 3.86: WELL

“Well” means an opening in the surface of the earth for the purpose of removing fresh water for a drinking water well, test well, irrigation well, recharge well, waste disposal well or a well used temporarily for dewatering purposes during construction through non-mechanical or mechanical means for any purpose other than a public emergency or conducting response actions that are consistent with the Michigan Natural Resources and Environmental Protection Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Resource Conservation and Recovery Act, or other applicable statute.

CHAPTER 4: RULES OF CONSTRUCTION

The following rules of construction and guidelines apply to the administration, enforcement and interpretation of the provisions of this Code.

SECTION 4.01: INTERPRETATION

- a. When consistent with the context in which they appear in the text of this Code:
 - i. Words used in the present tense include the future; and,
 - ii. Words in the singular number include the plural number; and,
 - iii. Words in the plural number include the singular number.
- b. The word “shall” is always mandatory, and not merely directory.
- c. “He” shall also mean “she” or “it” and “she” shall also mean “he” or “it”.
- d. Words importing the singular number may be extended to embrace the plural number, and words importing the plural number may be applied and limited to the singular number.

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- e. Words and terms not defined in this Code shall be interpreted in accordance with their commonly understood meaning.
- f. If any provision of this Code is susceptible to more than one meaning, it shall be construed or interpreted so as to provide the greatest protection to the health, safety and welfare of the public.
- g. The regulations in this Code, and any future amendments of those regulations, are intended to be consistent with applicable Federal and State laws and shall be construed, when necessary, to achieve that consistency. If any provision of this code is susceptible to more than one meaning, it shall be construed or interpreted so as to be consistent with Federal and State laws.

SECTION 4.02: HEADINGS

The Headings of the ARTICLES, CHAPTERS and SECTIONS of this Code are provided for reference purposes only. If any discrepancy or disagreement exists between a Heading and the text of an ARTICLE, CHAPTER or SECTION, the text shall control.

SECTION 4.03: MEANING OF CERTAIN WORDS

Whenever the words “dwelling”, “dwelling unit”, or “premises” appear in this Code, they shall be construed as though they were followed by the words “or any part thereof.”

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ARTICLE II: ONSITE SEWAGE TREATMENT REGULATIONS

CHAPTER 5: PURPOSE AND APPLICABILITY

SECTION 5.01: SINGLE FAMILY DWELLINGS, DUPLEXES AND OUTBUILDINGS

ARTICLE II of the Code pertains to: 1) the installation of onsite sewage treatment systems for single family dwellings, duplexes and outbuildings in areas where public, municipal or community sanitary sewer facilities are unavailable; 2) establishing the minimum criteria pertaining to onsite sewage treatment system design, permit issuance and installation approval of onsite sewage treatment systems and; 3) the operation and maintenance of such onsite sewage treatment systems.

SECTION 5.02: PUBLIC AND SEMI-PUBLIC ONSITE SEWAGE TREATMENT SYSTEMS

Onsite sewage treatment systems for dwellings other than single family homes, duplexes or outbuildings serviced with sanitary facilities shall comply with the design, construction and use specifications contained in the MDEQ document entitled “Michigan Criteria for On-site Wastewater Treatment”.

SECTION 5.03: CONSTRUCTION AND MAINTENANCE OF PRIVIES AND SIMILAR TOILET DEVICES

- a. A person shall construct and maintain all privies and other toilets in accordance with Act 368 of the Public Acts of 1978, as amended.
- b. No person shall maintain, construct or move a privy onto any premise where a public sanitary sewer is available, or if state or local ordinances prohibit the use of a privy on the premise.
- c. Location of privies in relation to other dwellings and property lines: a privy shall serve only one dwelling; it shall be located at least 100 feet from all dwellings other than the dwelling it serves; and it shall be at least ten feet from any property line.
- d. A privy is not considered a sewage treatment system.

SECTION 5.04: PUMPING OF SEPTAGE

A person engaged in the business of pumping sewage and/or effluent shall obtain the appropriate license. The licensing and handling of domestic Septage is regulated under the 2004 Public Act 381, which amended Part 117, Septage Waste Servicers, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The MDEQ administers the Septage program.

CHAPTER 6: ONSITE SEWAGE TREATMENT SYSTEM PERMITTING CRITERIA

SECTION 6.01: CONNECTIONS REQUIRED

All toilets, urinals, lavatories, sinks, bathtubs, showers, laundry washing facilities and any other premise plumbing fixture from which sewage emanates, must be connected to an approved onsite sewage treatment system, or to a public sanitary sewer.

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SECTION 6.02: PERMITS

An owner or owner's designated representative shall obtain a permit from the Department before constructing or replacing any onsite sewage treatment system or part thereof as required.

SECTION 6.03: APPLICATION FOR PERMIT

- a. An application for a permit to construct or replace an onsite sewage treatment system shall be completed in full and signed by the owner or the owner's designated representative.
- b. The submittal must include the required fee as specified in the current Fee Schedule as approved by the Kalamazoo County Board of Commissioners.
- c. The Department shall review the application and conduct a site evaluation before issuing a permit. The Department may also require the property owner or the property owners' designated representative to submit substantiating data including, but not limited to: engineering drawings, soil analysis, soil borings, soil loading rates, groundwater and flow elevations, existing or proposed well locations and detailed plans for the proposed onsite sewage treatment system.
- d. A permit shall not be required for servicing or replacing with similar mechanical or electrical parts to an approved existing onsite sewage treatment system, for pumping of the septic or holding tank contents, the installation of an approved outlet filter device or alternator valve where the soil absorption area is not disturbed, replacement of a broken lid or addition of a riser to any tank. The applicant should contact the Department to determine if other servicing requires a permit.

SECTION 6.04: PRIORITY OVER BUILDING PERMITS

No municipality, township or other agency shall issue a building permit for a building with plumbing, or allow commencement of construction on land where public sewers are unavailable unless the Department has issued a permit to construct an onsite sewage treatment system on that land.

SECTION 6.05: TERM OF PERMITS, RENEWAL

A permit to construct or replace an onsite sewage treatment system is valid for a one year period beginning on the date of issuance. No construction shall continue after the permit expires. Upon written request, the Department may extend the permit, at no additional charge, for an additional six months.

SECTION 6.06: VOID PERMITS

The Department may declare a permit to construct or replace an onsite sewage treatment system void and terminated if:

- a. The applicant did not provide accurate information on the permit application; or,

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- b. If major filling, excavating, paving or flooding has disturbed the area designated for the soil absorption system; or,
- c. Public sanitary sewer becomes available after the issuance of the permit, or a renewal of the permit; or,
- d. A water supply well, or other feature that may impact the onsite sewage treatment system, encroaches on any required isolation distance; or,
- e. The property owner, or the property owner's designated representative changes or increases the scope of the authorized project without first securing the Department's approval of the change or increase in scope; or,
- f. The conditions on the permit are not followed.

SECTION 6.07: TRANSFER OF PERMITS

If a property owner transfers title of the property to another person prior to the expiration of a permit to construct or replace an onsite sewage treatment system on the property, the Department may transfer the permit to the new owner of the property if the new owner submits a written request to the Department for the transfer. The new owner must also agree, in writing, not to change the scope of the project without the Department's approval. If the Department authorizes the transfer of a permit, the act of transferring the permit does not change the permit's expiration date.

SECTION 6.08: DENIAL OF PERMITS

- a. The Department may deny an application for a permit to construct or replace an onsite sewage treatment system if the Department determines that one or more of the following conditions exist:
 - i. Where a public sewer is available to the property, as defined by Act 368, P.A. of 1978 as amended and this Code; or,
 - ii. Where the proposed location of a septic tank would render the septic tank inaccessible for cleaning or inspection purposes; or,
 - iii. Where the property to be served by the onsite sewage treatment system is too small to allow for proper isolation distances between the onsite sewage treatment system which includes the replacement area and any existing or proposed water wells, or surface waters; or,
 - iv. Where the property lacks sufficient drainage area and/or replacement area; or,
 - v. Where the property's high groundwater and/or mottling is 24 inches or less of the natural ground surface elevation for installation of an onsite sewage treatment system on new construction sites; or,

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- vi. Where the Department determines that the property's soil characteristic and/or physical conditions are unsatisfactory for the treatment of sewage effluent; or,
 - vii. Where conditions exist upon the property, or may occur upon the property, which may endanger the public health or the environment; or,
 - viii. Where the proposed site is subject to flooding and/or is included within the 100-year flood plain.
- b. If the Department denies an application for a permit to construct or replace an onsite sewage treatment system, the Department shall provide the applicant with a written explanation of the reasons why the Department denied the application. The denial shall include options for filing an appeal and/or processes for appealing professional disagreements on soil classification, high groundwater, and mottling in the soil.

SECTION 6.09: BUILDING SITE ACCEPTANCE CRITERIA

The Department shall consider the following information to determine whether a property provides a suitable location for the construction of an onsite sewage treatment system:

- a. Soil Survey: The United States Department of Agriculture, Soil Conservation Service, soil classification and interpretations for the property, including any use limitations pertaining to the soil classification.
- b. Soil Evaluation: The Department may conduct soil borings or require excavations within the area proposed for the onsite sewage treatment system to determine if high groundwater and/or mottling and soil formations comply with this Code. Additionally, in order to inspect and evaluate the property's soil conditions and type, the Department may direct the property owner or the owner's designated representative to conduct soil borings or excavations.
- c. High Groundwater and soil classification for new onsite sewage treatment system installations shall meet the following requirements:
 - i. The property's high groundwater or mottling shall be greater than 24 inches below the natural ground surface; and,
 - ii. The soil classification shall be acceptable within 20 feet of the ground surface and a cut and fill or fill soil absorption system can be designed; and,
 - iii. Four feet of vertical isolation to high groundwater or mottling can be maintained.
- d. High Groundwater and soil classification for replacement onsite sewage treatment system installations shall meet the following requirements:
 - i. The property's high groundwater or mottling is below the ground surface; and,
 - ii. The soil classification is acceptable or a cut and fill or fill soil absorption system can be designed; and,

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- iii. Four feet of vertical isolation to high groundwater or mottling can be maintained.
- e. Filled Ground: The Department may approve the use of filled ground or “made land” as the site for an onsite sewage treatment system. The Department may require mechanical compaction of the filled ground as a condition of approval of the use of filled ground or “made land” as the site for an onsite sewage treatment system. In no event shall the Department allow filled ground or “made land” to be located over unstable soil, peat, muck or organic material. All fill below the absorption area shall meet the requirements of SECTION 7.07 of ARTICLE II.
- f. Replacement Area for New Construction Sites: A portion of the property shall be set aside or put on reserve for the installation of a future replacement onsite sewage treatment system. The replacement area shall:
 - i. Meet other site acceptance criteria contained in SECTION 6.09 of ARTICLE II;
 - ii. Be located in an area that will be accessible in the future; and,
 - iii. Meet all setback and sizing requirements of ARTICLE II.
- g. Slopes: If the property’s slopes exceed 12%, the Department shall not issue a permit to construct or replace an onsite sewage treatment system until the property owner or the property owner’s designated representative reduces the slopes in the location proposed for the absorption system to an acceptable level through the use of “land balancing” and maintains an adequate area for final grading to deter surface water from ponding. The Department may choose to issue a permit with land balancing requirements as a condition of the permit.

SECTION 6.10: INSPECTION AND VERIFICATION REQUIRED

- a. After completing the installation of all septic tanks, dosing tanks, sewer pipes, and soil absorption system, and before covering any portion of the onsite sewage treatment system or placing any portion of the onsite sewage treatment system into operation, the permit holder or the permit holder’s designated representative shall request that the Department inspect the onsite sewage treatment system.
- b. If the Department approves the onsite sewage treatment system (OSTS), the permit holder or the permit holder’s designated representative shall cover the OSTs within 72 hours of the approval unless the Department requires the permit holder or the permit holder’s designated representative to cover the OSTs sooner. If the OSTs is not properly covered within 72 hours or the time specified by the Department, OSTs approval may be withheld or withdrawn.
- c. The Department may waive the requirements for a final inspection if the permit holder or the permit holder’s designated representative provides the Department with proper verification that the permit holder or the permit holder’s designated representative installed the onsite sewage treatment system in accordance with the conditions of the permit. Proper verification may include an affidavit from a registered onsite sewage treatment system installer that he or she installed the onsite sewage treatment system in accordance with the conditions of the

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permit. Approval of a final inspection waiver must be granted before system is covered.

SECTION 6.11: PREMISE OCCUPANCY

- a. No person shall occupy, offer for occupancy, or allow the occupancy of any premise, which does not have an adequate onsite sewage treatment system, which treats all forms of sewage and/or effluent in a sanitary manner.
- b. All onsite sewage treatment systems permitted after the effective date of this Code shall be in accordance with the provisions of this Code.
- c. No owner or occupant of a premise shall cause or allow the discharge or deposit of sewage and/or effluent upon the surface of the ground, or into any lake, river, county drain, retention or detention basin, storm sewer or stream, or any other body of water.

SECTION 6.12: CONDEMNATION OF EXISTING INSTALLATIONS

The Department may declare any premise constructed or maintained in violation of any provision of ARTICLE II of this Code as unfit for human habitation; order the vacating of the premise and post placard on the dwellings exterior walls which declare the premise unfit for human habitation. The Department may condemn any premise where sewage or effluent emanates when:

- a. Sewage or effluent is exposed to, or drains onto, the surface of the ground; or,
- b. Sewage or effluent drains into any lake, river, county drain, retention or detention basin, storm sewer or stream, or any other body of water; or,
- c. Sewage or effluent seepage may endanger a public or private water supply; or,
- d. An improperly constructed, located or maintained onsite sewage treatment system creates a nuisance.

SECTION 6.13: CONNECTION TO PUBLICLY OPERATED SANITARY SEWER SYSTEM

Pursuant to Act 368 of the Public Acts of 1978, as amended, a local city, village or township can require an existing premise to connect to available public sanitary sewers. Availability is declared as a matter of legislative determination by the governing local city, village, or township. Available public sanitary sewer system means a public sanitary sewer system located in a right of way, easement, highway, street, or public way which crosses, adjoins, or abuts upon the property and passing not more than 200 feet at the nearest point from a dwelling in which sanitary sewage originates. Additionally, the Department shall require a premise to connect to available public sewer if the premise's onsite sewage treatment system creates a public health problem. Public health problems shall include, but not be limited to, the discharge of sewage and/or effluent onto the surface of the ground and/or sewage backing up into a premise. If a premise's onsite sewage treatment system creates a public health problem, the Department may issue a written order directing the owner of the premise to pump the sewage and/or effluent immediately and/or to immediately connect to the public sewer, but in any case the premise's owner must connect to the public sanitary sewer within 18

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months of the issuance of the Department's order to connect to the public sanitary sewer. After the premise connects to the public sanitary sewer, the Department may require the premise's owner to pump out the septic tank and dry well/block trench and then fill the empty septic tank and dry well/block trench with sand or other suitable materials. Pumping and filling of discontinued onsite sewage treatment system components serves the public interest by preventing ground collapse.

SECTION 6.14: DEVIATIONS

The Department shall thoroughly consider the physical limitations of the property; the protection of the public health, the environment; and the prevention of any nuisance, before approving the construction of an individual onsite sewage treatment system.

The Department may permit, upon receipt of a written request, a deviation from the application of the requirements of ARTICLE II, of this Code when the physical size or shape of a premise renders the application of the permit requirements. The Department is also authorized to issue a deviation at time of permit issuance or at final onsite sewage treatment system inspection without a written request if deemed necessary.

The Department may approve other methods of sewage treatment than the minimum requirements established in this Code upon submission and approval by the Appeals Board. The Department shall keep a written record of applications for deviations; the granting or denial of the application; and any conditions imposed upon the construction or use of an individual onsite sewage treatment system.

CHAPTER 7: REQUIREMENTS FOR THE CONSTRUCTION AND MAINTENANCE OF INDIVIDUAL ONSITE SEWAGE TREATMENT SYSTEMS

The requirements set forth in this section establish minimum criteria and shall be met unless the Department determines that more restrictive requirements are needed or when other laws and regulations would be violated.

SECTION 7.01: SEWER PIPE

- a. Material: All sewer pipes used in the construction and operation of an individual onsite sewage treatment system shall meet the requirements of the Michigan Plumbing Code or other nationally recognized uniform plumbing code.
- b. Sewer lines shall meet the following:
 - i. All sewer lines located under any drive, parking area or utility right of way (i.e. overhead lines) must be double cased with schedule 40 PVC, SDR 35 PVC or similar materials as approved by the Department.
 - ii. Any buried gravity sewer pipe shall be located at least ten feet from any well, spring, or potable water line.
 - iii. Any buried pressure sewer pipe shall be located at least 50 feet from any non-public well, spring, or potable water line or 75 feet from a Type III well.

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- iv. Inlet and outlet sewer lines to the septic tank shall be constructed of cast-iron soil pipe with sealed joints, schedule 40 PVC, SDR 35 PVC or similar materials approved by the Department.
- c. Size: Sewer pipes more than four feet from the outside wall of any premise shall be four inch diameter pipe.
- d. Grade: The sewer pipe from the dwelling to a septic tank shall be at a grade of at least one eighth inch per foot but not more than one half inch per foot unless the Department approves of a different grade. If a major change in grade is necessary from the elevation that the sewer line exits the dwelling and enters the septic tank, the grade of one eighth inch per foot but not more than one half inch per foot shall be installed a minimum of ten linear feet immediately prior to the septic tank.

SECTION 7.02: SEPTIC TANKS

- a. Location:
 - i. A septic tank shall be located in an area that allows access to the septic tank for cleaning or inspection purposes.
 - ii. No dwelling or structure shall be placed over a septic tank if the dwelling or structure makes the septic tank inaccessible for cleaning and inspection purposes.
 - iii. The septic tank shall be placed in a level position, on a firm base, and backfilled so that settling is minimized.
- b. Inspection Port, Riser and Cover:
 - i. Septic tanks with more than a 500-gallon capacity shall contain two inspection ports, one located at the tank's outlet and one located at the tank's inlet.
 - ii. Septic tanks with a 500-gallon capacity, or less, shall contain at least one inspection port.
 - iii. When a new or replacement onsite sewage treatment system permit is issued, it shall be required to install a riser on one inspection port per compartment for both the existing and/or new septic tanks. The construction of the inspection port and riser for all installations shall meet the following minimum requirements:
 - (1) The inspection port to the tank shall be a minimum of 15 inches in diameter; and,
 - (2) The riser and cover shall be of watertight construction; and,
 - (3) The cover shall have acceptable protection with a padlock, a twist lock or other cover requiring a special tool for removal, a weight of 60 pounds or a similar tamper resistant, childproof type device approved by the Department; and,

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- (4) The cover shall be within three inches of the finished grade.
- c. Inlets and Outlets:
- i. All septic tank sewer pipe connections shall be watertight and sturdy.
 - ii. The bottom of the septic tank inlet line shall be at least two inches above the operating water level of the septic tank.
 - iii. The septic tank inlet pipe must permit gas above the liquid level to pass through the inlet pipe and out the vent pipe, which serves the sewer pipe and leads to the septic tank.
 - iv. The septic tank outlet shall permit withdrawal of liquid from the middle third of the septic tank and prevent the escape of floating or settled solids with use of an approved sanitary tee or baffle, constructed of schedule 40 PVC, SDR 35 PVC or similar materials as approved by the Department.
 - v. The septic tank outlet must have a minimum scum clearance of eight inches.
- d. Construction material:
- i. Septic tank(s) shall be constructed of sound and durable materials, which do not excessively corrode or decay, and which are structurally capable of supporting the stress to which they will be subjected.
 - ii. Septic tank(s) shall be watertight and the materials used to construct the septic tank shall prevent water from surrounding soils from flowing into the septic tank. Acceptable materials include reinforced concrete, cement blocks, or similar materials approved by the Department.
- e. Number and Capacities: Septic tanks installed for premises after the effective date of this Code shall have a liquid capacity equal to, or greater than, the average volume of sewage flowing into it during any 24 hour period; or 1000 gallons, whichever is larger.
- f. Flow is based on 200 gallons per day per bedroom. A home with three bedrooms or less shall require 1000 minimum gallon capacity and an additional 500 gallons for each bedroom up to five bedrooms. Each bedroom over five in a dwelling shall require an additional 250 gallons. In all cases, a home with a garbage disposal requires an additional 500 gallons of capacity.

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SEPTIC TANK SIZES FOR SINGLE AND TWO FAMILY DWELLINGS

Total Number of Bedrooms (Flow in Gallons Per Day)	Minimum Septic Tank Capacity (Without Garbage Grinder) (Gallons)	Minimum Septic Tank Capacity (With Garbage Grinder) (Gallons)
0-3 (600 or less)	1000	* 1500
4 (601 – 800)	* 1500	* 2000
5 (801 and greater) or more	* 2000 for 5 bedrooms, plus 250 for each bedroom over 5	* 2500 for 5 bedrooms, plus 250 for each bedroom over 5

* Flows of 800 gallons or more per day and/or dwellings with a garbage disposal must use multiple or compartmental septic tanks for new construction. The outlet of all compartments and septic tanks shall have a baffle which allows for the drawing of liquid from the middle 1/3rd of the septic tank. In compartmental septic tanks, the first compartment must equal 2/3rds of the total capacity of the septic tank. In multiple tank settings, larger tanks and compartments must precede smaller tanks and compartments.

- g. Existing Septic Tanks: When a replacement onsite sewage treatment system permit is issued, the existing septic tank shall be brought into compliance as set forth in this Code. If an existing 1500 gallon tank is not compartmentalized and is in sound condition and meets isolation requirements, it may be used, but risers and other appurtenances must be updated.

SECTION 7.03: DOSING TANK, ALTERNATOR VALVE AND PUMPS

- a. Onsite sewage treatment systems with flow and soil conditions requiring greater than 1200 square feet (1201 square feet and greater) of soil absorption system for a drainbed or trench shall include the following:
- i. Dosing tanks and/or pumping chambers equipped with a riser, which comply with provisions of SECTION 7.02.b. of ARTICLE II.
 - ii. An effluent filter installed prior to the pump, following manufactures installation requirements.
- b. Alternator Valve: The Department may require the installation of an alternator valve. If the Department requires the installation of an alternator valve, the following criteria shall be met:
- i. The construction and design must be watertight, schedule 40 PVC or similar materials as approved by the Department. Paddle valves shall be prohibited.
 - ii. A riser to grade shall be installed over the alternator valve to allow future access.
 - iii. If an alternator valve will be installed and the onsite sewage treatment system includes a pump, the pressure line from the pump shall be connected to a minimum of ten feet of four inch schedule 40 PVC or SDR 35 PVC piping that will be installed prior to the valve unless pressure rated gate valves are utilized. This ten feet section of pipe shall be installed from the pump chamber pressure line to the alternator valve to attain gravity feed in and out of the alternator valve.

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- iv. When entering and exiting an approved alternator valve, the sewer line exiting an alternator valve shall be a minimum of two feet in length; this pipe can then be connected to an approved crush pipe or a header pipe leading to the absorption area which must be isolated three feet from the alternator valve.
- c. Effluent Pumps: If the Department requires the installation of a pump, then following criteria shall be met:
 - i. Effluent pump shafts and the pump's fasteners shall be constructed of corrosion proof material such as stainless steel or PVC. An effluent pump shall meet system design requirements and have a minimum pumping capability that permits the discharge of 25% of estimated daily flow in 20 minutes.
 - ii. The pump shall be UL approved.
 - iii. The effluent pump discharge line shall have an acceptable union that allows for the easy removal of the pump from the dosing chamber.
 - iv. All effluent pump connections shall be watertight.
 - v. All effluent pump electrical connections shall be enclosed in conduit and meet applicable electrical codes.
 - vi. A check valve shall be installed on the discharge line unless otherwise permitted by the Department.

SECTION 7.04: SOIL ABSORPTION SYSTEMS

- a. Location: A soil absorption system shall not be constructed under any drive, parking area, paved surface, building, or in an area subject to surface water collection.
- b. Trenches shall be the preferred soil absorption system design over drainbeds. Drainbeds may be used in lieu of trenches based upon topographical and space constraints on a property. Trenches and drainbeds shall be designed to achieve maximum distribution and minimize depth. Drainbed shall be designed to achieve maximum length and shall not be designed to exceed 30 feet in width.
- c. Distribution System: The soil absorption system shall be constructed of perforated sewer and drainpipe or other materials certified as complying with MDEQ standards. Soil absorption system stone shall be covered with filter fabric prior to the placement of final soil cover.

SECTION 7.05: STONE REQUIREMENTS

Stone used in a soil absorption system shall meet Michigan Department of Transportation (MDOT) 6A requirements or equivalent and be approved by the Department. When in the opinion of the Department the stone installed does not meet MDOT 6A requirements, a sieve analysis may be required by the Department at the cost of the contractor installing the onsite sewage treatment system. Float stone and limestone shall be prohibited.

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SECTION 7.06: MINIMUM REQUIRED ISOLATION DISTANCES IN FEET

Specific Land Division, Subdivision and/or Site Condominium isolation requirements in accordance with Section 105(g), Act 288 of 1967, as amended and/or with Section 71a of Act 59, Public Acts of 1978, as amended may be more stringent. Additionally, distances to non-residential wells and water supplies must meet applicable laws and rules.

From	To Septic Tank (Horizontal Feet)	To Soil Absorption System (Horizontal Feet from Edge of Stone)
Well *	50	50
Property Line	5	5
Basement Wall/Crawl Space Below Grade	10	15
Walkout/Crawl Space Above Grade/Slab	5	5
Water Line *	10	10
Dry Well	5	5
Bank/Drop Off	10	20
Lake/Stream	50	50
High Groundwater and Mottling	--	4 (Vertical)
In ground Swimming Pools	10	15
Septic Tank	--	5
Closed Storm Drain	10	10
Open Storm Drain or Storm Drywell	25	25
Retention Basin/Detention Basin/County Drain	50	50
Alternator Valve	3	3

* See SECTION 7.01b for isolation of gravity and pressurized sewer lines to residential wells, spring or potable water line

SECTION 7.07: CRITERIA FOR FILL SAND

- a. To ensure both the performance and longevity of an onsite sewage treatment system, fill sand that will be approved for the soil absorption system must meet the following criteria:
 - i. MDOT 2NS gradation or equivalent and approved by the Department.
 - ii. Placement of fill sand shall be done in manner that will eliminate or minimize soil compaction within the prescribed soil absorption area.
- b. When in the opinion of the Department the fill sand does not meet MDOT 2NS requirements or equivalent, a test may be required by the Department at the cost of the contractor who installed the onsite sewage treatment system.

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SECTION 7.08: CRITERIA FOR CUT AND FILL OR FILL SOIL ABSORPTION SYSTEMS

- a. A cut and fill or fill soil absorption system may be required when:
 - i. Unacceptable soils (clay, silt, mottled clay, mottled silt, marl) are within 20 feet of the ground surface and a minimum of 1 foot of consecutive native permeable soils found below the impermeable soil layer; and/or,
 - ii. Removal of heavier permeable soils (loam, sandy clay loam, silty clay loam) is deemed necessary by the Department.

- b. When a cut and fill or fill soil absorption system design is necessary the following criteria must be met:
 - i. Removal of the impermeable soils to the permeable soils level will be required and approved fill sand shall be placed down to the permeable soil as needed to allow soil absorption system installation.
 - ii. The sizing of the soil absorption system area for these types of site conditions will be based upon the application rate for the most restrictive consecutive native permeable soils within four feet of the bottom of the soil absorption system however, the minimum size for a soil absorption system will be no less than 900 square feet for a drainbed or trench soil absorption system or 600 square feet for a drywell soil disposal system.

SECTION 7.09: CRITERIA FOR MOUND/RAISED DRAINBED SYSTEMS

- a. A mound/raised drainbed system may be required when:
 - i. Impermeable soils are observed for a replacement system.
 - ii. High groundwater or mottling restricts the system from being installed below grade.
 - iii. A mound/raised drainbed system is deemed necessary by the Department.

- b. When a mound/raised drainbed system design is necessary the following criteria must be met:
 - i. Bottom of the absorption system must be isolated a minimum of four feet from mottling.
 - ii. The sizing of the soil absorption system area for these types of site conditions will be based upon the application rate for the most restrictive permeable soils within four feet of the bottom of the soil absorption system however, the minimum size for a soil absorption system will be no less than 900 square feet for a drainbed or trench soil sewage treatment system.
 - iii. Soil cover/taper must be loam or lighter material.
 - iv. Side slope must be at least four to one taper; the existing grade below the side slope area

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must be cleared of trees and structures prior to installation.

SECTION 7.10a: TRENCH CONSTRUCTION SPECIFICATIONS

Permit conditions may be more stringent. These specifications are for traditional gravity-fed systems, not engineered or pressure-dosed systems.

Item	Minimum	Maximum
Number of Trenches	2	--
Pipe Size (Non-pressurized)	4 Inches	--
Pipe Size (Pressurized)	1.5 Inches	--
Length of Trench	--	100 Feet
Width of Trench	18 Inches	36 Inches
Space Between Trenches (Stone to Stone)	4 Feet	--
Amount of Soil Cover Over Filter Fabric	6 Inches	24 Inches
Slope of Pipe	Level	2 Inches per 100 Feet
Stone Under Pipe Trench	6 Inches	24 Inches
Stone Over Pipe and Level Across Trench	2 Inches	--

SECTION 7.10b: SIZING CRITERIA FOR TRENCHES

Standard sizing for trenches is based on flow of 200 gallons per bedroom. The soil loading rate falls within the ranges for moderate to strong soil structure presented in United States Environmental Protection Agency (USEPA) Onsite Wastewater Treatment Systems Manual for residential strength waste. Soil loading rate should be further evaluated for alternative and engineered systems.

Type of Soil	Soil Loading Rate (Gallons Per Day Per Square Feet)	Size of Tile Trench (Square Feet Per Bedroom)
Sand, Gravel or Loamy Sand	1.0	200
Sandy Loam	0.80	250
Loam	0.67	300
Sandy or Silty Clay Loam	0.57	350
Clay Loam, Clay and Silt	--	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

- a. All trench soil absorption systems must be at least 600 square feet in size.
- b. Loam, Sandy Clay Loam, Silty Clay Loam, soils may be required to be removed from the soil absorption system area as a permit requirement. See SECTION 7.08.

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SECTION 7.11a: DRAINBED CONSTRUCTION SPECIFICATIONS

Permit conditions may be more stringent. These specifications are for traditional gravity-fed systems, not engineered or pressure-dosed systems.

Item	Minimum	Maximum
Distance Between Lines (On Center)	--	36 Inches
Distance Between Lines and Earth Wall (edge to edge)	--	18 Inches
Pipe Diameter (Non-pressurized)	4 Inches	--
Pipe Diameter (Pressurized)	1.5 Inches	--
Slope of Pipe	Level	2 Inches per 100 Feet
Stone Under Pipe in Bed	6 Inches	6 Inches
Stone Over Pipe and Level Across Bed	2 Inches	--
Space Between Drainbeds (Stone to Stone)	4 Feet	--
Amount of Soil Cover Over Filter Fabric	6 Inches	24 Inches

SECTION 7.11b: SIZING CRITERIA FOR DRAINBEDS

Standard sizing for drainbeds is based on a flow of 200 gallons per bedroom. The soil loading rate falls within the ranges for moderate to strong soil structure presented in USEPA Onsite Wastewater Treatment Systems Manual for residential strength waste. Soil loading rate should be further evaluated for alternative and engineered systems.

Type of Soil	Soil Loading Rate (Gallons Per Day Per Square Feet)	Size of Drainbed (Square Feet Per Bedroom)
Sand, Gravel or Loamy Sand	0.80	250
Sandy Loam	0.67	300
Loam	0.57	350
Sandy or Silty Clay Loam	0.50	400
Clay Loam, Clay and Silt	--	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

- a. All drainbed soil absorption systems must be at least 800 square feet in size.
- b. Removal of Loam, Sandy Clay Loam and Silty Clay Loam soils may be required from the soil absorption system area as a permit requirement. See SECTION 7.08, ARTICLE II.

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SECTION 7.12: STONELESS CHAMBERS OR STONELESS TUBING

The installation of stoneless chambers or stoneless tubing soil absorption systems may be considered by the Department based upon site limitations such as access to the property with large equipment, soil conditions, slopes or other site factors. The Department will also consider requests for stoneless chambers or tubing from a property owner. Prior to installing a stoneless chamber soil absorption system, a Kalamazoo County registered sewage contractor must first obtain a certification from the manufacturer to install the specific stoneless product. Manufacturer Certification is not required to install a stoneless tubing soil absorption system. The contractor or product manufacturer must supply the certification information to the Department. All stoneless system shall be installed as per manufacturer's instructions.

SECTION 7.13a: STONELESS CHAMBER OR STONELESS TUBING CONSTRUCTION SPECIFICATIONS

Permit conditions may be more stringent.

Item	Minimum	Maximum
Number of Stoneless Trenches	2	--
Length of Stoneless Trenches	--	100 Feet
Space Between Stoneless Trenches	4 Feet	--
Amount of Soil Cover	18 Inches	24 Inches
Slope of Chamber or Tubing	Level	2 Inches per 100 Feet
Risers	Two - 4 Inch risers to grade (1 at each end on each stoneless trench)	--

SECTION 7.13b: SIZING CRITERIA FOR STONELESS CHAMBERS OR STONELESS TUBING

Type of Soil	Soil Loading Rate (Gallons Per Day Per Square Feet)	Size of Stoneless Chamber/Tubing (Square Feet Per Bedroom)
Sand, Gravel or Loamy Sand	0.80	250
Sandy Loam	0.67	300
Loam	--	Unacceptable
Sandy or Silty Clay Loam	--	Unacceptable
Clay Loam, Clay and Silt	--	Unacceptable
Mottled Silt, Mottled Clay, Marl	--	Unacceptable

- a. The sizing allowance for stoneless soil absorption systems will be specifically as follows:
 - i. Three square feet of soil absorption system area per linear foot of a three feet wide chamber; or,

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- ii. Two square feet of soil absorption system area per linear foot of a two feet wide chamber; or,
- iii. Two square feet of soil absorption system area per linear foot of a eight inch or ten inch diameter tubing.

SECTION 7.14: BACKFILLING OF SOIL ABSORPTION SYSTEMS

Soil absorption systems other than drywells shall be backfilled after installation and approval with loam soil texture or material otherwise approved by the Department. Backfilling with soils heavier than loam shall be prohibited.

SECTION 7.15: DRY WELL PERMITTING AND CONSTRUCTION SPECIFICATIONS

- a. New Construction Dry Wells: The use of dry wells for onsite sewage treatment system installations for new construction sites will not be allowed.
- b. Replacement Dry Wells: The use of dry wells for a replacement onsite sewage disposal system installation shall be acceptable if there is insufficient area on a property or other atypical site constraints with an existing dwelling to install a trench or drained soil absorption system.
- c. Prior to issuing a deviation permitting the installation of dry wells the Department shall consider factors such as, but not limited to, the following:
 - i. Whether an impermeable barrier or sufficient isolation exists between the installation area and any aquifer; and/or,
 - ii. Drinking water quality in the surrounding area; and/or,
 - iii. Any other factors relating to the protection of groundwater, such as soil texture, residential density and down gradient water use.
- d. Construction Materials:
 - i. Materials utilized for the construction of a dry well shall be durable and shall possess sufficient structural strength to prevent collapse or cave in of the excavation. Acceptable materials include cement blocks, pre-cast concrete or similar materials if approved by the Department.
 - ii. Materials must allow free passage of sewage effluent to surrounding infiltrative surfaces while preventing stone or soil from entering the drywell.
 - iii. Stone used in the installation of a drywell sewage treatment system shall meet the requirements as stated in SECTION 7.05 of ARTICLE II and as outlined on the permit.

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- e. Inspection Port:
 - i. Inspection port shall be located on the top of the dry well in order to facilitate inspection.
 - ii. Inspection port shall be made out of material with strength and durability equivalent to that of reinforced concrete and shall be a minimum diameter of 12 inches.
- f. Construction Limitations: eight feet is the maximum permissible distance between the ground surface and the bottom of a drywell unless the Department issues a deviation.
- g. Dry Well Sizes:

Type of Soil	Size Including Bottom and Side Wall Area (Square Feet Per Bedroom)
Sand & Gravel, Loamy Sand	140
Sandy Loam	175
Loam	210
Sandy or Silty Clay Loam	Unacceptable
Clay and Silt	Unacceptable
Mottled Silt, Mottled Clay, Marl	Unacceptable

- h. All dry wells must have at least 420 square feet of soil absorption system area, and the sizing allowance will be specifically as follows:
 - i. 172 square feet for a 3 feet by 10 feet drywell
 - ii. 267 square feet for a 6 feet by 10 feet drywell
 - iii. 125 square feet for a 3 feet by 8 feet drywell
 - iv. 200 square feet for a 6 feet by 8 feet drywell
- i. Pumped onsite sewage treatment systems must have an even number of dry wells if an alternator valve is required.

SECTION 7.16: PROTECTION OF INFILTRATION SURFACES

- a. The Department may stop the installation of a soil absorption system when the soils in the installation area are in a wet or saturated condition. The Department may also require allowable specific installation times based upon weather conditions on the permit.
- b. As a condition of issuing a permit for the installation of an individual onsite sewage treatment system, the Department shall require the permit holder and installer to exercise precautions when excavating, moving machinery or walking in the proposed or permitted soil absorption area, so as to minimize the smearing or compaction or sealing of infiltrative surfaces.

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Excessive compaction or smearing of soil may be cause for a permit to be voided and rescinded.

SECTION 7.17: OPERATION AND MAINTENANCE

The owner of a premise, which utilizes an onsite sewage treatment system, shall maintain the onsite sewage treatment system in a satisfactory operating condition at all times. The Department may require additional conditions on a construction permit or require deed restrictions pertaining to required operation and maintenance work that may be necessary by the owner of the property for an existing or newly permitted onsite sewage treatment system. It shall be the owner's responsibility to inform future owners that operation and maintenance requirements exist.

CHAPTER 8: ONSITE SEWAGE TREATMENT SYSTEM INSTALLER REGISTRATION REQUIREMENTS

SECTION 8.01: REQUIRED REGISTRATION AND CONTINUING EDUCATION

- a. Any person engaging in the business of installing onsite sewage treatment systems, or any parts thereof, within Kalamazoo County, must first secure a certificate of registration from the Department.
- b. A certificate of registration shall be valid from January 1 until December 31 of the current year.
- c. Before the Department issues a person his/her initial certificate of registration, the business owner must achieve a minimum score of 70% on a written examination. The written examination is based on the contents of ARTICLE I and ARTICLE II of this Code. An applicant can retake the test as many times as necessary to achieve the minimum score. A minimum of 24 hours duration is required between taking the test and retaking the test and any subsequent retakes.
- d. After completion of the examination with a passing score and the initial paid registration for a one year period, proof of completion of a minimum of eight continuing education units (CEU's) related to sewage treatment must be submitted to the Department and approved prior to the Department issuing a renewing certificate of registration. A minimum of four CEU's shall be obtained by the business owner and four may be obtained by one or more of the owner's employees. In the case of the owner being the sole operator of the business, all eight CEU's will be earned by the owner.
 - i. Four CEU's shall be available per person by attendance at the Department sponsored annual educational half-day seminar.
 - ii. CEU's are also available by attendance at any sewage related State education training session. It shall be the responsibility of the applicant to submit proof of CEU's to the Department when applying to renew their onsite sewage treatment system installer's registration.
 - iii. Failure to obtain and submit the required eight CEU's after initial registration will result

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in an onsite sewage treatment system installer's registration not being re-issued until such time the eight CEU's are obtained, submitted and approved by the Department. Retaking the test will not negate the requirement for eight CEU's to be earned prior to re-registration.

- e. A homeowner may install an onsite sewage treatment for their own primary residence and is exempt from the testing and registration requirements.

SECTION 8.02: SUSPENSION OF REGISTRATION

- a. The Department may suspend the certificate of registration of any installer who engages in practices that violate the provisions of ARTICLE II of this Code.
- b. An installer who receives a notice of intended suspension shall have the right to an Informal Hearing, conducted in accordance with ARTICLE VII of this Code, to review the validity of the suspension. The installer must submit a written request for an Informal Hearing to the Department within 30 days of the date the Department mailed the notice of suspension.
- c. If the Department determines an installer's certificate of registration must be suspended, the Department shall provide the installer with a written notice of the suspension; the reason(s) for the suspension; the length of the suspension; and how the installer can request an Informal Hearing to have their registration reinstated.

CHAPTER 9: APPEALS

- a. A permit holder, applicant or designated representative directly affected by the Department's implementation, interpretation and/or enforcement of this Code may file an appeal with the Appeals Board.
- b. An Appeals Board shall exist to provide interpretations and/or exceptions of the provisions of the regulations contained in ARTICLE II of this Code. The Appeals Board shall consist of three members who shall be recommended by the Kalamazoo County Health & Community Services Department to the Kalamazoo County Board of Commissioners for appointment to the Appeals Board. The three members shall consist of: 1) an onsite sewage treatment installer registered in accordance with these regulations; 2) an active builder and member of the Home Builders Association of Greater Kalamazoo; and 3) a resident of Kalamazoo County. The term of office of a Board member shall be three years. The Board of Appeals shall hear any appeal presented in accordance with the rules of procedure established by the Board of Appeals. The Board of Appeals shall furnish the applicant with a written report of its findings and decisions.
- c. Appeals shall be submitted in writing and must be accompanied by the appropriate fee. Appeals shall be addressed to the Kalamazoo County Health & Community Services Department, Environmental Health Manager. Within 60 days of the appeal being submitted, the Board of Appeals shall hold a hearing. The Board of Appeals may grant individual deviations from the requirements of ARTICLE II of the Code for onsite sewage treatment systems for single family residences and duplexes including alternative onsite treatment systems, when the Board of Appeals has adequately determined that all of the following

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conditions exist: 1) no substantial health hazard or nuisance is likely to occur; 2) compliance with the regulations requirements would result in unnecessary or unreasonable hardship; 3) no state statute or other applicable laws would be violated under such deviation; and, 4) the proposed deviation would provide essentially equivalent protection of the public interest.

- d. In reaching its decision, the Board of Appeals may utilize the hearing procedures set forth for Informal Hearings or Formal Hearings in ARTICLE VII of this Code and the Board of Appeals shall act as the Hearing Officer.

CHAPTER 10-12: RESERVED FOR FUTURE USE

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ARTICLE III: WATER SUPPLY REGULATIONS

CHAPTER 13: PURPOSE

ARTICLE III of the Code seeks to assure that all private, Type II and Type III Non-Community Water Supply Systems provide a safe and adequate water supply for users.

CHAPTER 14: GENERAL PROVISIONS

SECTION 14.01: FACILITIES REQUIRED

Every building used for human habitation must have an approved water supply system. The Department shall have the duty and responsibility of approving, upon application, water supply systems.

SECTION 14.02: WELL CONSTRUCTION

The construction of water wells and the installation of water well pumps shall comply with the requirements set forth in the Groundwater Quality Control Rules, Part 127 of Act 368 of the Public Acts of 1978, as amended, being MCL 333.12701-333.12771; Act 399 of the Public Acts of 1976, as amended, being MCL 325.101 et. seq; and/or Part 201 of Act 451 of the public Acts of 1994, as amended, being MCL 324.20101-324.20142.

SECTION 14.03: PERMIT FOR WATER SUPPLY SYSTEMS

From and after the effective date of this Code, no person shall construct any new water supply system within the County of Kalamazoo unless the owner of the water supply system, or his/her/its representative, obtains a water supply system construction permit from the Department.

SECTION 14.04: PRIORITY OVER BUILDING PERMITS

No municipality, township or other agency shall issue a building permit or otherwise allow commencement of construction on any land which requires the installation of a water supply system unless the Department has issued a water supply system construction permit for that land.

SECTION 14.05: APPLICATION, PERMIT AND FEES

The Department shall prepare and provide, to all applicants, a standard water supply system construction permit application. Any person who wants to construct a water supply system must submit a signed and completed application, with the fee contained in the Schedule of Fees, to the Department.

SECTION 14.06: DENIAL OF PERMITS

After reviewing an application for a water supply system construction permit, the Department may deny the application or issue a restricted construction permit if the Department determines that one or more of the following conditions exist:

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- a. The applicant provided incomplete, inaccurate or false information; or,
- b. The proposed water supply system or water supply well will not comply with Part 127 of Act 368 of the Public Acts of 1978, as amended, or Act 399 of the Public Acts of 1976, as amended; or,
- c. Where the proposed location of the proposed water supply system or water supply well is in an area where the MDEQ has issued an advisory against the use of water supply wells in the area or if the location is within a service area defined by the MDEQ pursuant to R299.5409 as amended unless special well construction techniques or screening of a well at a depth not affected by contamination would allow the well to be isolated from the contamination which resulted in the issuance of an advisory to the establishment of a service area by the MDEQ; or,
- d. Where a water supply system or water supply well is proposed to be served by groundwater which the Department has knowledge is contaminated or likely to be contaminated by hazardous substance in excess of the residential drinking water criteria unless special well construction techniques or screening of a well at a depth not affected by contamination would allow the well to be isolated from the contamination. Hazardous substance and residential drinking water criteria have the same meaning as when those terms are used in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, as amended, being MCL 324.20101 et seq. When the Department has made such a determination, the Department shall make available to the public, upon request, a map of the area affected by this determination.

SECTION 14.07: VOID PERMITS

The Department may declare a previously issued water supply construction permit to be null and void for any of the following reasons:

- a. False, inaccurate, or incomplete information was supplied by the permit applicant, permit holder, or their representative; or,
- b. A change in the plans of the permit holder affects the water supply design, location or use; or,
- c. Current facts, data, or conditions which affect the previously issued permit in a manner that now prevents compliance with this Code or may endanger public health, or degrade groundwater quality; or,
- d. Isolation distances required by this Code cannot be satisfied.

SECTION 14.08: TERMINATION OF PERMITS; RENEWAL

A permit issued pursuant to the requirements of the preceding sections shall be valid for one year from the date of issuance. No construction shall continue after the permit expires. Upon written request, the Department may extend the permit, at no additional charge, for an additional six months.

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SECTION 14.09: TRANSFER OF PERMITS

If a property owner transfers title of the property to another person prior to the expiration of a water supply system or water well construction permit, the Department may transfer the permit to the new owner of the property if the new owner submits a written request to the Department for the transfer. The new owner must also agree, in writing, not to change the scope of the project without the Department's approval. Both the original permit holder and the new owner of the land must sign the request to transfer the permit. If the Department authorizes the transfer of a permit, the act of transferring the permit does not change the permit's expiration date.

SECTION 14.10: INSPECTION AND APPROVAL

The Department shall inspect all new water supply system installations to determine if the construction complies with the provisions of this Code.

SECTION 14.11: NOTICE TO THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

The Department shall provide MDEQ with written notice of any modification to, or revocation of, the provisions of ARTICLE III of this Code. No modification or revocation shall take effect until 30 days after the MDEQ receives the notice of the modification or revocation.

CHAPTER 15: VARIATIONS AND APPEALS

SECTION 15.01: VARIATIONS

- a. The Department may grant a variation in the tests, standards, or general requirements contained in ARTICLE III of this Code if the Department receives a written application for a variation and the Department determines:
 - i. The strict application of these rules/regulations will result in unnecessary or unreasonable hardship; and,
 - ii. The Department can place conditions upon the variation which will adequately protect the public's health, safety and welfare; and,
 - iii. That the action/inaction of the applicant, or any of the applicant's predecessors in interest, did not cause the need for the variation (e.g. that condition necessitating the variation is not a self-created hardship).
- b. If the Department issues a variance, the Department shall record the variation in writing and include a description of the actual variation; the section of the Code from which the variation was granted; the reasons for granting the variation; and any time limit imposed upon the variation.
- c. Under no circumstances may the Department grant a variation which may jeopardize the public health, safety, or welfare, or which violates any local, state or federal law.

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SECTION 15.02: APPEALS

A person may appeal the Department's denial/suspension of a permit or the denial of an application for a variation under this ARTICLE of the Code pursuant to the provisions contained in ARTICLE VII of this Code. A person may also appeal from the decision contained in a Declaratory Ruling from the Department. Appeals from Declaratory Rulings shall also be conducted in accordance with the provisions of ARTICLE VII of this Code.

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ARTICLE IIIa: PUBLIC SWIMMING POOL WATER QUALITY TESTING

CHAPTER 16a: WEEKLY TESTING; QUARTERLY TESTING; AND UNACCEPTABLE WATER QUALITY

SECTION 16.01a: WEEKLY TESTING

All persons, firms, companies or corporations who own, operate or maintain a public swimming pool shall collect water samples from the public swimming pool on a weekly basis unless the public swimming pool qualifies for quarterly testing pursuant to SECTION 16.03a of ARTICLE IIIa. The samples shall be analyzed for total Coliform bacteria levels at the Kalamazoo County Health and Community Services Department Laboratory or a laboratory certified to analyze drinking water by the MDEQ or the USEPA.

SECTION 16.02a: REPORTING SAMPLE RESULTS

If the public swimming pool operator and/or owner have the water samples tested at a laboratory other than the Kalamazoo County Health and Community Services Department Laboratory, the operator and/or owner shall provide the Department with the results of the water analysis within two business days of the completion of the analysis.

SECTION 16.03a: REDUCED POOL/SPA WATER TESTING FREQUENCY

Any person, who owns, operates or maintains a public swimming pool may apply to the Department for authorization to reduce the frequency of water sample collection to a quarterly (once every three months) basis. The Department shall permit the person to collect samples on a quarterly basis if the following conditions are met:

- a. The person responsible for operating and maintaining the public swimming pool must maintain a current, valid, Certified Pool Operators Certificate issued by a nationally recognized governing body; or attend an annual training session sponsored by the Department.
- b. The water samples from the public swimming pool for the four weeks immediately preceding the application were negative for total Coliform bacteria.
- c. The public swimming pool is in compliance with all other laws, regulations and rules applicable to the operation of a public swimming pool.
- d. The person responsible for operating and maintaining the public swimming pool must submit a Monthly Pool/Spa Report to the Department. The Monthly Pool/Spa Report must be submitted within ten calendar days after the end of the month to which the report pertains.
- e. If the owner or operator of a public swimming pool has been authorized to reduce the frequency of water sample collection and fails to comply with the conditions set forth in SECTION 16.03a, then the owner or operator shall be informed that weekly water samples in accordance with SECTION 16.01a of this ARTICLE IIIa must be reinstated.

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ARTICLE IIIb: WATER SUPPLY REGULATIONS - RESTRICTED ZONES

CHAPTER 17b: PURPOSE

The County of Kalamazoo has determined that the use of certain groundwater wells and the water supplies from such wells, for human consumption or other purposes may constitute a public health risk and endanger the safety of the residents of the County. These identified public health risks affect premises that are located on or in the vicinity of sites that are the source, or location, of Contaminated Groundwater, or where there is a known threat from Contaminated Groundwater. The County has determined it is in the best interests of the public health, safety and welfare to prohibit certain uses of groundwater from wells at properties located in the vicinity of such contaminated sites.

CHAPTER 18b: DEFINITIONS SPECIFIC TO ARTICLE IIIb

SECTION 18b.01: AFFECTED PREMISES

“Affected Premises” means a parcel of property, which is located within a Restricted Zone.

SECTION 18b.02: APPLICANT

“Applicant” means a person who applies for the establishment of a Restricted Zone.

SECTION 18b.03: CONTAMINATED GROUNDWATER

“Contaminated Groundwater” means groundwater that contains concentrations of materials in excess of the residential drinking water criteria established by the MDEQ in operational memoranda or rules promulgated pursuant to Part 201, Environmental Remediation (MCL 324.20101 et seq.), or Part 213, Leaking Underground Storage Tanks (MCL 324.21301a et seq.) of the Natural Resources and Environmental Protection Act, 1994 PA 45 1, as amended, MCL 3 24. 1 01 et seq.

SECTION 18b.04: GROUNDWATER

“Groundwater” means underground water within the zone of saturation.

SECTION 18b.05: RESTRICTED ZONE

“Restricted Zone” means an area or areas described in CHAPTER 19b and 19c of this Code.

SECTION 18b.06: WATER DIVISION

“Water Division” means the Water Division, or its successor, of the MDEQ.

CHAPTER 19b: RESTRICTED ZONES

Established Restricted Zones: The following described areas in the County shall be Restricted Zones under this CHAPTER. They may be referred to by reference to the names provided in the caption preceding their descriptions. A map of each Restricted Zone will be located in an appendix to the Kalamazoo County Sanitary Code when applicable.

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SECTION 19b.01: GOODWILL COMPANY/MEIJER INC. APPROVED BY KALAMAZOO COUNTY BOARD OF COMMISSIONERS FEBRUARY 2014

The Restricted Zone affects approximately 42 properties within the City of Kalamazoo. The Restricted Zone is generally bound by Douglas Street on the west, Cadillac Street on the south, Hawley Street on the east and the southern edge of the Christian Life Center parking lot on the north.

SECTION 19b.02: SUMMARY OF GROUNDWATER CONTAMINATION AND ZONE

Groundwater in the Restricted Zone contains gasoline-related contaminants in concentrations exceeding residential drinking water criteria developed by the Michigan Department of Environmental Quality (MDEQ). The sources of these contaminants are underground storage tanks at two gas station locations near Douglas and Alamo Avenue. The gas station on the northeast corner of this intersection was closed in 1976.

Work has been done in cooperation with the MDEQ since 1996 to investigate the proposed Restricted Zone and determine the most appropriate manner in which to remediate this area. Based on the nature and extent of the ground water impact and the number of affected properties, the MDEQ generally agrees that the most technically and economically feasible closure scenario would rely on the creation of a Restricted Zone to restrict water well installation in the impacted area.

The properties within the Restricted Zone have been provided with municipal water service since the 1930's. Therefore, residents have not been exposed to the impacted ground water through their drinking water. Furthermore, ground water quality will continue to be monitored to confirm that the contaminant plume is stable or shrinking due to natural attenuation and the delineation of the Restricted Zone is sufficient. In the event that ground water monitoring shows that the plume is expanding, the MDEQ and County would be notified accordingly.

SECTION 19b.03: LEGAL DESCRIPTION OF RESTRICTED ZONE

Description: Part of the Northwest $\frac{1}{4}$ and the Northeast $\frac{1}{4}$ of Section 16, Town 2 South, Range 11 West, City of Kalamazoo, Kalamazoo County, Michigan, described as: Commencing at the North $\frac{1}{4}$ corner of said Section South 01 degrees 00 minutes 50 seconds East 33 feet along the North-South $\frac{1}{4}$ line of said Section to the South line of West Paterson Street and the Point of Beginning; thence North 89 degrees 59 minutes 38 seconds West 761.91 feet along said South line; thence South 12 degrees 45 minutes 13 seconds West 60.08 feet to a point on the Easterly line of Douglas Avenue, which is 64 feet from its intersection with the South line of West Paterson Street; thence South 23 degrees 42 minutes 43 seconds East 205.97 feet along said Easterly line of Douglas Avenue; thence South 89 degrees 59 minutes 38 seconds East parallel with the North line of said Section, 153.96 feet; thence South 01 degrees 01 minutes 36 seconds East 78.0 feet; thence North 89 degrees 59 minutes 38 seconds West, 121.1 feet to the Easterly line of Douglas Avenue; thence South 23 degrees 42 minutes 43 seconds East along said Easterly line, 1578.61 feet to the Northwest corner of Lot 61, Brown and Hoekstra's Addition, as recorded in Liber 8 of Plats, Page 30; thence North 89 degrees 08 minutes 23 seconds East 46.77 feet along the North line of said Lot to the North-South $\frac{1}{4}$ line of said Section; thence continuing North 89 degrees 08 minutes 23 seconds East 168.7 feet along the North line of Lots 60 and 61 to the Northeast corner of Lot 60 of said Addition; thence North 01 degrees 07 minutes 46 seconds West 132.0 feet to the Southeast corner of Lot 67 of said Addition; thence continuing North 01

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degrees 07 minutes 46 seconds West 329.99 feet; thence North 89 degrees 08 minutes 17 seconds East 102.19 feet to the West line of Hawley Street; thence North 01 degrees 00 minutes 50 seconds West, parallel with the North-South $\frac{1}{4}$ line of said Section, 181.50 feet; thence North 89 degrees 08 minutes 17 seconds East 16.50 feet; thence North 01 degrees 00 minutes 50 seconds West, parallel with the North-South $\frac{1}{4}$ line of said Section, 471.17 feet; thence North 01 degrees 01 minutes 36 seconds West 274.01 feet to the Southerly Right-of-Way line of the former Michigan Central Railroad; thence North 36 degrees 34 minutes 54 seconds West 469.45 feet along said Southerly line to the South line of West Paterson Street; thence North 89 degrees 59 minutes 38 seconds West 5.51 feet along said South line to the Point of Beginning. Also including all of Cadillac and Mason Streets and a portion of Conant Street, described as: Commencing at the intersection of the South line of West Paterson Street and Douglas Avenue; thence South 23 degrees 42 minutes 43 seconds East along the Easterly line of Douglas Avenue, 1432.45 feet to the Point of Beginning; thence North 89 degrees 08 minutes 17 seconds East 407.99 feet; thence South 01 degrees 07 minutes 46 seconds East 50.0 feet; thence South 89 degrees 08 minutes 17 seconds West 387.15 feet to the Easterly line of Douglas Avenue; thence North 23 degrees 42 minutes 43 seconds West 54.26 feet along said Easterly line to the Point of Beginning.

SECTION 19b.04: STREET ADDRESSES WITHIN RESTRICTED ZONE

Cadillac Street: 1109, 1112, 1113, 1116, 1117, 1122

Conant Street: 1102, 1106, 1109, 1110, 1113, 1117, 1128, 1132, 1135, 1136

Douglas Avenue: 732, 736, 740, 744, 748, 802, 806, 810, 814, 904, 912, 1004, 1100, 1114

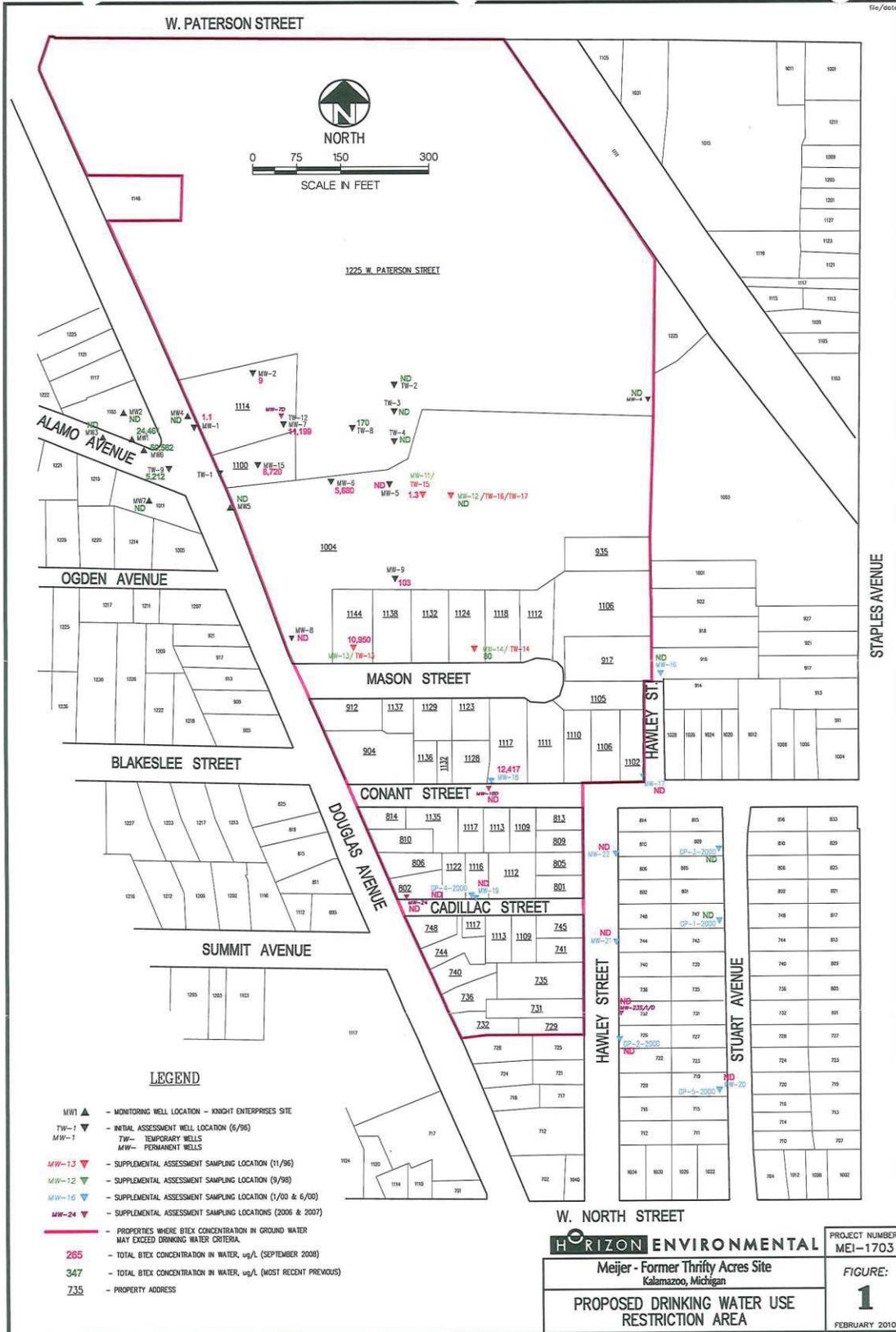
Hawley Street: 729, 731, 735, 741, 745, 801, 805, 809, 813, 917, 935

Mason Street: 1105, 1106, 1111, 1112, 1117, 1118, 1123, 1124, 1129, 1132, 1137, 1138, 1144

West Patterson Street: 1225

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SECTION 19b.05: MAP OF RESTRICTED ZONE



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SECTION 19c.01: PNEUMO ABEX APPROVED BY KALAMAZOO COUNTY BOARD OF COMMISSIONERS FEBRUARY 2014

SECTION 19c.02: SUMMARY OF GROUNDWATER CONTAMINATION AND ZONE

Chlorinated solvents are present in soil and light non-aqueous phase liquid (LNAPL) beneath the Parker Facility at 2220 Palmer Avenue, Kalamazoo, Michigan. Parker acquired the Facility from Pneumo Abex LLC (Pneumo Abex) in 1996. Pneumo Abex used industrial oils, lubricants, and solvents (including chlorinated solvents that contain perchloroethene [PCE], 1,1,1-trichloroethane [TCA], and trichloroethene [TCE]) for their industrial operations. The following contaminants of concern (COC) are determined to have migrated off-Site at concentrations that exceed the Michigan Department of Environmental Protection (MDEQ) Part 201 Generic Residential Drinking Water Clean-up Criteria: chloroethane (CA); 1,1-dichloroethane (1,1-DCA); 1,2-DCA; 1,1-dichloroethene (1,1-DCE); cis-1,2-DCE; TCA; TCE; and vinyl chloride (VC).

Pneumo Abex has conducted several soil and groundwater remediation activities at the Facility under the supervision and to the satisfaction of the MDEQ. The contaminant source abatement activities include soil excavations, LNAPL recovery, soil vapor extraction, enhanced in-situ bioremediation, and addition of backfill amendments for enhanced degradation of residual COCs.

In addition, several natural attenuation processes have been identified at the Site that have reduced COC concentrations and are expected to continue to reduce COC concentrations, restrict the migration of dissolved COCs, and eliminate toxicity by degrading COCs to ethene and ethane. Pneumo Abex has demonstrated to the satisfaction of MDEQ that these natural microbiological mechanisms are active at the Facility and are expected to continue to restrict the migration of dissolved contaminants, reduce concentrations, and eliminate toxicity.

The GURZ will serve as an institutional control until the remediation is completed. Groundwater within the GURZ cannot be used for human consumption until the COC concentrations are attenuated to levels that meet the applicable MDEQ Part 201 criteria. The GURZ comprises approximately 398 parcels in the southeastern portion of Kalamazoo Charter Township and the eastern portion of the City of Kalamazoo.

SECTION 19c.03: LEGAL DESCRIPTION OF RESTRICTED ZONE

PART OF THE EAST HALF OF SECTION 23, PART OF THE WEST HALF OF SECTION 24, PART OF THE SOUTHEAST QUARTER OF SECTION 24, PART OF THE NORTH HALF OF SECTION 25, AND PART OF THE EAST HALF OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 11 WEST, IN THE CITY OF KALAMAZOO AND KALAMAZOO TOWNSHIP, KALAMAZOO COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 26; THENCE SOUTH 00 49' 21" WEST 33.01 FEET TO THE SOUTH RIGHT OF WAY LINE OF MILLER ROAD AND THE POINT OF BEGINNING OF THE LAND HEREIN DESCRIBED: THENCE NORTH 89°19'33" WEST ON SAID SOUTH RIGHT OF WAY LINE AND PARALLEL WITH THE EAST AND WEST QUARTER LINE OF SAID SECTION 26 A DISTANCE OF 824.68 FEET; THENCE NORTH 00°49'21" EAST 1123.59 FEET TO THE SOUTH RIGHT OF WAY LINE OF PALMER AVENUE; THENCE NORTH 89°13'33" WEST ON SAID SOUTH RIGHT OF WAY LINE 582.43 FEET TO THE WEST RIGHT OF WAY LINE OF FACTORY STREET; THENCE NORTH 00°48'40" EAST

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ON SAID WEST RIGHT OF WAY LINE 861.00 FEET TO THE SOUTH RIGHT OF WAY LINE OF LANE BOULEVARD; THENCE NORTH 89°13'28" WEST ON SAID SOUTH RIGHT OF WAY LINE 226.77 FEET TO THE WEST RIGHT OF WAY LINE OF SAID FACTORY STREET; THENCE NORTH 00°52'47" EAST ON SAID WEST RIGHT OF WAY LINE 732.51 FEET TO THE NORTH RIGHT OF WAY LINE OF REED STREET; THENCE SOUTH 89°10'56" EAST ON SAID NORTH RIGHT OF WAY LINE 743.97 FEET TO THE SOUTHERLY EXTENSION OF THE WEST RIGHT OF WAY LINE OF SCHUSTER AVENUE; THENCE NORTH 00°58'05" EAST ON SAID WEST RIGHT OF WAY LINE EXTENDED AND ON SAID WEST RIGHT OF WAY LINE 1206.01 FEET; THENCE NORTH 00°41'49" EAST ON SAID WEST RIGHT OF WAY LINE 1040.88 FEET TO THE NORTH RIGHT OF WAY LINE OF LAKE STREET; THENCE SOUTH 81°10'48" EAST ON SAID NORTH RIGHT OF WAY LINE 186.71 FEET TO THE WESTERLY RIGHT OF WAY LINE OF AMVET PARKWAY (BUSINESS LOOP 1-94); THENCE NORTH 01°24'38" EAST ON SAID WESTERLY RIGHT OF WAY LINE 39.79 FEET; THENCE NORTHWESTERLY 733.09 FEET ON SAID WESTERLY RIGHT OF WAY LINE AND ON A 2161.83 FOOT RADIUS CURVE TO THE LEFT WHOSE CHORD BEARS NORTH 08°18'15" WEST 729.58 FEET TO THE EAST RIGHT OF WAY LINE OF SAID SCHUSTER AVENUE; THENCE NORTH 01°27'16" EAST AND ON SAID EAST RIGHT OF WAY LINE EXTENDED 1034.83 FEET TO THE NORTH RIGHT OF WAY LINE OF KING HIGHWAY; THENCE SOUTH 85°18'06" EAST ON SAID NORTH RIGHT OF WAY LINE 77.86 FEET TO MEANDER CORNER "A"; THENCE SOUTH 0L"04'25" WEST ON A MEANDER LINE ALONG THE SOUTHWESTERLY BANK OF THE KALAMAZOO RIVER 295.51 FEET TO A MEANDER CORNER; THENCE SOUTH 28°12'55" EAST ON SAID MEANDER LINE 387.54 FEET TO A MEANDER CORNER; THENCE SOUTH 5L"19'37" EAST ON SAID MEANDER LINE 585.13 FEET TO A MEANDER CORNER; THENCE NORTH 84°56'27" EAST ON SAID MEANDER LINE 2458.08 FEET TO A MEANDER CORNER ALONG THE SOUTHWESTERLY BANK OF THE KALAMAZOO RIVER AND ALONG THE WESTERLY BANK OF DAVIS CREEK; THENCE SOUTH 00°50'34" EAST ON A MEANDER LINE ALONG THE WESTERLY BANK OF SAID DAVIS CREEK 1262.47 FEET TO A MEANDER CORNER; THENCE SOUTH 77°53'13" EAST ON SAID MEANDER LINE 424.79 FEET TO A MEANDER CORNER; THENCE SOUTH 04°19'01" EAST ON SAID MEANDER LINE 195.71 FEET TO A MEANDER CORNER; THENCE SOUTH 60°58'12" EAST ON SAID MEANDER LINE 144.35 FEET TO A MEANDER CORNER; THENCE SOUTH 04°31'43" WEST ON SAID MEANDER LINE 290.69 FEET TO A MEANDER CORNER; THENCE SOUTH 86°11'23" EAST ON SAID MEANDER LINE 312.21 FEET TO A MEANDER CORNER; THENCE SOUTH 01°33'10" EAST ON SAID MEANDER LINE 297.01 FEET TO A MEANDER CORNER; THENCE SOUTH 63°45'13" WEST ON SAID MEANDER LINE 169.55 FEET TO A MEANDER CORNER; THENCE SOUTH 55°31'07" EAST ON SAID MEANDER LINE 151.53 FEET TO A MEANDER CORNER; THENCE SOUTH 41°38'12" WEST ON SAID MEANDER LINE 353.44 FEET TO A MEANDER CORNER; THENCE SOUTH 29°10'09" EAST ON SAID MEANDER LINE 695.61 FEET TO A MEANDER CORNER; THENCE SOUTH 55°33'59" WEST ON SAID MEANDER LINE 176.80 FEET TO A MEANDER CORNER; THENCE SOUTH 88°30'36" WEST ON SAID MEANDER LINE 530.85 FEET TO A MEANDER CORNER; THENCE SOUTH 03°39'41" WEST ON SAID MEANDER LINE 478.20 FEET TO A MEANDER CORNER; THENCE SOUTH 51°52'37" WEST ON SAID MEANDER LINE 365.28 FEET TO A MEANDER CORNER; THENCE SOUTH 29°03'07" WEST ON SAID MEANDER LINE 2065.40 FEET TO A MEANDER CORNER; THENCE SOUTH 00°59'23" WEST ON SAID MEANDER LINE 146.60 FEET TO MEANDER CORNER "B" AND THE SOUTH RIGHT OF WAY LINE OF MILLER ROAD; THENCE NORTH 89°00'37" WEST ON SAID SOUTH RIGHT OF WAY LINE AND PARALLEL WITH THE EAST

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AND WEST QUARTER LINE OF SAID SECTION 25 A DISTANCE OF 1403.42 FEET TO THE POINT OF BEGINNING. ALSO ALL THAT LAND LYING BETWEEN THE MEANDER LINE. ALONG THE SOUTHWESTERLY BANK OF THE KALAMAZOO RIVER, THE SOUTHWESTERLY BANK OF THE KALAMAZOO RIVER, AND A LINE RUNNING SOUTH 85° 18' 06" EAST FROM SAID MEANDER CORNER "A". ALSO ALL THAT LAND LYING BETWEEN THE MEANDER LINE ALONG THE WESTERLY BANK OF SAID DAVIS CREEK, THE CENTERLINE OF SAID DAVIS CREEK, AND A LINE RUNNING SOUTH 89 DEGREES 00' 37" EAST FROM SAID MEANDER CORNER "B". CONTAINING 500.99 ACRES MORE OR LESS. SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD OR OTHERWISE. SUBJECT TO ANY FACTS WHICH MAY BE DISCLOSED IN A FULL AND ACCURATE TITLE SEARCH. SUBJECT TO THE RIGHTS OF THE PUBLIC AND OF ANY GOVERNMENTAL UNIT IN ANY PART THEREOF TAKEN, USED OR DEEDED FOR STREET, ROAD, OR HIGHWAY PURPOSES.

SECTION 19c.04: STREET ADDRESSES WITHIN RESTRICTED ZONE

<u>Street No.</u>	<u>Street Name</u>	<u>City State Zip</u>	<u>Parcel No.</u>
BL - I94		Kalamazoo, MI 49048	06-24-365-010
1231	Boardman St.	Kalamazoo, MI 49001	06-23-440-090
1239	Boardman St.	Kalamazoo, MI 49001	06-23-440-210
1245	Boardman St.	Kalamazoo, MI 49048	06-23-440-220
1105	Bronson Ave.	Kalamazoo, MI 49048	06-24-305-050
1111	Bronson Ave.	Kalamazoo, MI 49048	06-24-305-041
1116	Bronson Ave.	Kalamazoo, MI 49048	06-24-306-790
1119	Bronson Ave.	Kalamazoo, MI 49048	06-24-305-021
1119	Bronson Ave.	Kalamazoo, MI 49048	06-90-080-275
3214	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-492
3214	Brookfield Ave.	Kalamazoo, MI 49048	06-90-040-040
3227	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-562
3308	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-440
	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-470
	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-480
	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-563
	Brookfield Ave.	Kalamazoo, MI 49048	06-24-405-450
2305	Carleton Ave.	Kalamazoo, MI 49048	06-23-430-020
2337	Carleton Ave.	Kalamazoo, MI 49048	06-24-306-020
	Carleton Ave.	Kalamazoo, MI 49048	06-24-306-010
	Carleton Ave.	Kalamazoo, MI 49048	06-24-306-030
2409	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-780
2505	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-730
2511	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-720
2517	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-702
2523	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-701
2607	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-560
2615	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-550
2621	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-540
2622	Carleton Ave.	Kalamazoo, MI 49048	06-24-306-430
2713	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-260

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2721	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-270
2805	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-230
2819	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-200
	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-210
	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-220
2825	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-191
2905	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-170
2909	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-160
2915	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-150
	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-130
2920	Carleton Ave.	Kalamazoo, MI 49048	06-24-306-771
2929	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-121
3005	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-110
3011	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-100
3015	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-090
3019	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-082
3105	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-072
3111	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-060
	Carleton Ave.	Kalamazoo, MI 49048	06-24-305-770
2026	Clinton Dr.	Kalamazoo, MI 49001	06-23-480-160
2112	Clinton Dr.	Kalamazoo, MI 49001	06-23-480-180
			06-23-480-170
932	Dupont Ave.	Kalamazoo, MI 49048	06-24-305-890
1001	Dupont Ave.	Kalamazoo, MI 49048	06-24-305-801
1002	Dupont Ave.	Kalamazoo, MI 49048	06-24-305-870
1010	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-040
1108	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-130
	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-050
	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-120
1115	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-150
	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-140
1120	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-110
	Dupont Ave.	Kalamazoo, MI 49048	06-24-305-880
	Dupont Ave.	Kalamazoo, MI 49048	06-24-306-160
2110	E. Vine St.	Kalamazoo, MI 49048	06-23-282-001
2108	Egleston	Kalamazoo, MI 49001	06-23-436-020
2112	Egleston	Kalamazoo, MI 49001	06-26-436-010
	Egleston	Kalamazoo, MI 49001	06-23-445-130
	Egleston	Kalamazoo, MI 49001	06-23-445-140
1801	Factory St.	Kalamazoo, MI 49001	06-26-204-001
1801	Factory St.	Kalamazoo, MI 49001	06-91-056-495
1801	Factory St.	Kalamazoo, MI 49001	06-91-056-496
1801	Factory St.	Kalamazoo, MI 49001	06-91-056-497
1801	Factory St.	Kalamazoo, MI 49001	06-91-057-097
1811	Factory St.	Kalamazoo, MI 49007	06-91-021-960
1811	Factory St.	Kalamazoo, MI 49001	06-26-204-002
1901	Factory St.	Kalamazoo, MI 49001	06-26-204-003
1915	Factory St.	Kalamazoo, MI 49001	06-26-209-001

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1919	Factory St.	Kalamazoo, MI 49001	06-26-230-001
2005	Factory St.	Kalamazoo, MI 49001	06-26-240-002
2025	Factory St.	Kalamazoo, MI 49001	06-26-247-001
900	Field Ave.	Kalamazoo, MI 49001	06-23-293-001
939	Field Ave.	Kalamazoo, MI 49001	06-24-305-970
	Field Ave.	Kalamazoo, MI 49001	06-24-305-960
1002	Field Ave.	Kalamazoo, MI 49001	06-23-430-030
1115	Field Ave.	Kalamazoo, MI 49001	06-24-306-060
1120	Field Ave.	Kalamazoo, MI 49001	06-23-430-040
	Field Ave.	Kalamazoo, MI 49001	06-24-305-940
	Field Ave.	Kalamazoo, MI 49001	06-24-305-950
2000	Glendenning Rd.	Kalamazoo, MI 49048	06-26-234-001
2000	Glendenning Rd.	Kalamazoo, MI 49048	06-91-015-540
2004	Glendenning Rd.	Kalamazoo, MI 49048	06-25-110-001
2005	Glendenning Rd.	Kalamazoo, MI 49048	06-25-116-001
2019	Glendenning Rd.	Kalamazoo, MI 49001	06-25-123-001
2019	Glendenning Rd.	Kalamazoo, MI 49001	06-91-021-812
2036	Glendenning Rd.	Kalamazoo, MI 49048	06-25-121-001
2105	Glendenning Rd.	Kalamazoo, MI 49001	06-25-153-001
2105	Glendenning Rd.	Kalamazoo, MI 49001	06-91-034-714
2105	Glendenning Rd.	Kalamazoo, MI 49001	06-91-057-625
2222	Glendenning Rd.	Kalamazoo, MI 49001	06-25-157-002
2222	Glendenning Rd.	Kalamazoo, MI 49001	06-91-057-527
2222	Glendenning Rd.	Kalamazoo, MI 49001	06-91-057-526
2222	Glendenning Rd. #11	Kalamazoo, MI 49001	06-91-051-920
2222	Glendenning Rd. #12	Kalamazoo, MI 49007	06-91-050-728
2222	Glendenning Rd. #2	Kalamazoo, MI 49001	06-91-054-205
2222	Glendenning Rd. #3	Kalamazoo, MI 49001	06-91-052-602
2222	Glendenning Rd. #3	Kalamazoo, MI 49001	06-91-056-852
2222	Glendenning Rd. #5	Kalamazoo, MI 49001	06-91-055-261
2225	Glendenning Rd.	Kalamazoo, MI 49048	06-25-158-002
2230	Glendenning Rd.	Kalamazoo, MI 49001	06-25-162-002
2230	Glendenning Rd.	Kalamazoo, MI 49001	06-91-009-270
2230	Glendenning Rd.	Kalamazoo, MI 49001	06-91-052-161
2300	Glendenning Rd.	Kalamazoo, MI 49001	06-25-167-001
	Healy St.	Kalamazoo, MI 49048	06-23-440-100
1201	Healy St.	Kalamazoo, MI 49001	06-23-445-020
1224	Healy St.	Kalamazoo, MI 49001	06-23-440-110
1228	Healy St.	Kalamazoo, MI 49048	06-23-440-120
1233	Healy St.	Kalamazoo, MI 49001	06-23-445-030
1240	Healy St.	Kalamazoo, MI 49001	06-23-440-250
1241	Healy St.	Kalamazoo, MI 49001	06-23-445-040
1305	Healy St.	Kalamazoo, MI 49001	06-23-445-070
1305	Healy St.	Kalamazoo, MI 49048	06-90-070-180
1311	Healy St.	Kalamazoo, MI 49048	06-23-445-083
1315	Healy St.	Kalamazoo, MI 49048	06-23-445-082
1315	Healy St.	Kalamazoo, MI 49048	06-90-120-547
1330	Healy St.	Kalamazoo, MI 49001	06-23-445-100

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1330	Healy St.	Kalamazoo, MI 49001	06-90-030-782
1330	Healy St.	Kalamazoo, MI 49048	06-90-200-520
1339	Healy St.	Kalamazoo, MI 49001	06-23-445-110
1339	Healy St.	Kalamazoo, MI 49001	06-90-010-280
1421	King Hwy.	Kalamazoo, MI 49001	06-23-445-120
	King Hwy.	Kalamazoo, MI 49001	06-24-195-010
2110	Lake St.	Kalamazoo, MI 49001	06-23-435-010
2110	Lake St.	Kalamazoo, MI 49001	
2110	Lake St.	Kalamazoo, MI 49001	
	Lake St.	Kalamazoo, MI 49001	06-23-435-160
	Lake St.	Kalamazoo, MI 49001	06-23-430-051
2200	Lake St.	Kalamazoo, MI 49048	06-23-440-061
2200	Lake St.	Kalamazoo, MI 49048	
2200	Lake St.	Kalamazoo, MI 49048	
2200	Lake St.	Kalamazoo, MI 49048	06-90-010-153
2207	Lake St.	Kalamazoo, MI 49048	06-23-430-010 and 06-90-140-410
2222	Lake St.	Kalamazoo, MI 49001	06-23-440-070
2222	Lake St.	Kalamazoo, MI 49001	06-90-170-185
2310	Lake St.	Kalamazoo, MI 49048	06-23-445-010
2311	Lake St.	Kalamazoo, MI 49048	06-23-430-061
2311	Lake St.	Kalamazoo, MI 49048	
2311	Lake St.	Kalamazoo, MI 49048	
	Lake St.	Kalamazoo, MI 49048	06-23-430-070
2328	Lake St.	Kalamazoo, MI 49048	06-24-315-011
2335	Lake St.	Kalamazoo, MI 49048	06-24-306-081
2337	Lake St.	Kalamazoo, MI 49048	06-90-020-185
2341	Lake St.	Kalamazoo, MI 49048	06-24-306-090
2345	Lake St.	Kalamazoo, MI 49048	06-24-306-100
2405	Lake St.	Kalamazoo, MI 49048	06-24-306-170
2419	Lake St.	Kalamazoo, MI 49048	06-24-306-180
2505	Lake St.	Kalamazoo, MI 49048	06-24-306-280
2509	Lake St.	Kalamazoo, MI 49048	06-24-306-290
2513	Lake St.	Kalamazoo, MI 49048	06-24-306-300
2519	Lake St.	Kalamazoo, MI 49048	06-24-306-310
2605	Lake St.	Kalamazoo, MI 49048	06-24-306-400
2615	Lake St.	Kalamazoo, MI 49048	06-24-306-410
2625	Lake St.	Kalamazoo, MI 49048	06-24-306-420
2725	Lake St.	Kalamazoo, MI 49048	06-24-306-500
2805	Lake St.	Kalamazoo, MI 49048	06-24-306-580
2809	Lake St.	Kalamazoo, MI 49048	06-24-306-590
2815	Lake St.	Kalamazoo, MI 49048	06-24-306-600
2819	Lake St.	Kalamazoo, MI 49048	06-24-306-610
2825	Lake St.	Kalamazoo, MI 49048	06-24-306-620
2900	Lake St.	Kalamazoo, MI 49048	06-24-320-011
2903	Lake St.	Kalamazoo, MI 49048	06-24-306-690
2909	Lake St.	Kalamazoo, MI 49048	06-24-306-701
2915	Lake St.	Kalamazoo, MI 49048	06-24-306-711

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2925	Lake St.	Kalamazoo, MI 49048	06-24-306-720
3005	Lake St.	Kalamazoo, MI 49048	06-24-306-810
3015	Lake St.	Kalamazoo, MI 49048	06-24-306-831
3100	Lake St.	Kalamazoo, MI 49048	06-24-345-010
3100	Lake St.	Kalamazoo, MI 49048	06-24-345-020
3100	Lake St.	Kalamazoo, MI 49048	06-24-345-030
3103	Lake St.	Kalamazoo, MI 49048	06-24-340-023
3111	Lake St.	Kalamazoo, MI 49048	06-24-340-022
3122	Lake St.	Kalamazoo, MI 49048	06-24-345-040
	Lake St.	Kalamazoo, MI 49001	06-24-315-030
	Lake St.	Kalamazoo, MI 49001	06-24-315-040
	Lake St.	Kalamazoo, MI 49048	06-24-306-190
	Lake St.	Kalamazoo, MI 49048	06-24-340-021
938	Lamont Ave.	Kalamazoo, MI 49048	06-24-305-820
941	Lamont Ave.	Kalamazoo, MI 49048	06-24-305-660
941	Lamont Ave.	Kalamazoo, MI 49048	
1005	Lamont Ave.	Kalamazoo, MI 49048	06-24-305-740
1010	Lamont Ave.	Kalamazoo, MI 49048	06-24-305-750
1115	Lamont Ave.	Kalamazoo, MI 49048	06-24-306-261
1116	Lamont Ave.	Kalamazoo, MI 49048	06-24-306-200
1500	Lamont Ave.	Kalamazoo, MI 49001	06-24-356-001
1500	Lamont Ave.	Kalamazoo, MI 49001	06-91-057-077
	Lamont Ave.	Kalamazoo, MI 49048	06-24-306-210
	Lamont Ave.	Kalamazoo, MI 49048	06-24-306-220
	Lamont Ave.	Kalamazoo, MI 49048	06-24-306-230
	Lamont Ave.	Kalamazoo, MI 49048	06-24-306-270
2002	Lane Blvd.	Kalamazoo, MI 49001	06-26-240-001
2042	Lane Blvd.	Kalamazoo, MI 49001	06-26-242-001
2042	Lane Blvd.	Kalamazoo, MI 49001	06-91-045-905
2117	Lane Blvd.	Kalamazoo, MI 49001	06-91-047-346
2220	Lane Blvd.	Kalamazoo, MI 49001	06-26-243-001
3227	Market St.	Kalamazoo, MI 49048	06-24-405-030
3228	Market St.	Kalamazoo, MI 49048	06-24-460-020
3233	Market St.	Kalamazoo, MI 49048	06-24-405-040
3302	Market St.	Kalamazoo, MI 49048	06-24-460-030
3303	Market St.	Kalamazoo, MI 49048	06-24-405-051
3306	Market St.	Kalamazoo, MI 49048	06-24-460-040
3310	Market St.	Kalamazoo, MI 49001	06-24-460-050
3310	Market St.	Kalamazoo, MI 49001	
3314	Market St.	Kalamazoo, MI 49048	06-24-460-060
3314	Market St.	Kalamazoo, MI 49048	
3314	Market St.	Kalamazoo, MI 49048	
3315	Market St.	Kalamazoo, MI 49048	06-24-405-080
3322	Market St.	Kalamazoo, MI 49048	06-24-460-080
3327	Market St.	Kalamazoo, MI 49048	06-24-405-100
3414	Market St.	Kalamazoo, MI 49048	06-24-460-095
	Market St.	Kalamazoo, MI 49048	06-24-460-070
	Market St.	Kalamazoo, MI 49048	06-24-460-120

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	Market St.	Kalamazoo, MI 49048	06-24-405-070
1022	Melrose Ave.	Kalamazoo, MI 49048	06-24-305-310
1023	Melrose Ave.	Kalamazoo, MI 49048	06-24-305-240
1106	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-530
1110	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-520
1121	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-570
	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-540
	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-550
	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-560
1130	Melrose Ave.	Kalamazoo, MI 49048	06-24-306-510
2205	Miller Rd.	Kalamazoo, MI 49001	06-26-287-001
2211	Miller Rd.	Kalamazoo, MI 49001	06-26-293-001
2225	Miller Rd.	Kalamazoo, MI 49001	06-26-294-001
2315	Miller Rd.	Kalamazoo, MI 49001	06-25-160-001
2315	Miller Rd.	Kalamazoo, MI 49001	06-91-019-840
2315	Miller Rd.	Kalamazoo, MI 49001	06-91-054-871
2315	Miller Rd.	Kalamazoo, MI 49003	06-91-056-253
2315	Miller Rd.	Kalamazoo, MI 49003	06-99-004-307
2525	Miller Rd.	Kalamazoo, MI 49001	06-25-172-001
2525	Miller Rd.	Kalamazoo, MI 49001	06-91-051-041
2525	Miller Rd.	Kalamazoo, MI 49001	06-91-052-277
2525	Miller Rd.	Kalamazoo, MI 49001	06-25-901-001
2619	Miller Rd.	Kalamazoo, MI 49001	06-25-168-001
2619	Miller Rd.	Kalamazoo, MI 49001	06-91-037-630
2631	Miller Rd.	Kalamazoo, MI 49001	06-25-169-001
2715	Miller Rd.	Kalamazoo, MI 49001	06-25-178-002
2715	Miller Rd.	Kalamazoo, MI 49001	06-91-000-368
2715	Miller Rd.	Kalamazoo, MI 49001	06-91-000-920
2715	Miller Rd.	Kalamazoo, MI 49001	06-88-006-125
2715	Miller Rd.	Kalamazoo, MI 49001	06-99-006-125
1135	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-533
1211	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-511
1215	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-501
1223	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-260
1307	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-240
1311	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-230
1315	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-220
1319	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-020
1323	Olmstead Rd.	Kalamazoo, MI 49048	06-24-407-020
1329	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-010
1403	Olmstead Rd.	Kalamazoo, MI 49048	06-24-460-010
			06-24-460-100
1408	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-010
1419	Olmstead Rd.	Kalamazoo, MI 49001	06-24-460-110
1420	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-020
1421	Olmstead Rd.	Kalamazoo, MI 49001	06-24-460-130
1424	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-030
1429	Olmstead Rd.	Kalamazoo, MI 49048	06-24-460-141

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1434	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-050
1442	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-060
1502	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-070
1503	Olmstead Rd.	Kalamazoo, MI 49001	06-24-465-010
1519	Olmstead Rd.	Kalamazoo, MI 49001	06-24-470-010
1622	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-120
1701	Olmstead Rd.	Kalamazoo, MI 49048	06-24-470-021
1710	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-130
1722	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-140
1910	Olmstead Rd.	Kalamazoo, MI 49048	06-25-201-001
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-407-030
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-407-010
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-040
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-080
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-090
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-100
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-455-110
	Olmstead Rd.	Kalamazoo, MI 49048	06-24-405-532
2031	Palmer Ave.	Kalamazoo, MI 49001	06-91-055-540
2037	Palmer Ave.	Kalamazoo, MI 49007	06-91-050-981
2101	Palmer Ave.	Kalamazoo, MI 49007	06-91-051-046
2103	Palmer Ave.	Kalamazoo, MI 49007	06-91-055-189
2107	Palmer Ave.	Kalamazoo, MI 49001	06-91-057-219
2109	Palmer Ave.	Kalamazoo, MI 49001	06-91-055-541
2201	Palmer Ave.	Kalamazoo, MI 49001	06-91-055-814
2215	Palmer Ave.	Kalamazoo, MI 49001	06-91-051-050
2220	Palmer Ave.	Kalamazoo, MI 49001	06-26-288-001
2220	Palmer Ave.	Kalamazoo, MI 49001	06-91-000-179
2220	Palmer Ave.	Kalamazoo, MI 49001	06-99-005-491
2235	Palmer Ave.	Kalamazoo, MI 49001	06-26-279-001
2245	Palmer Ave.	Kalamazoo, MI 49001	06-25-150-001
2245	Palmer Ave.	Kalamazoo, MI 49001	06-91-032-400
1940	Reed Ave.	Kalamazoo, MI 49001	06-26-225-001
2005	Reed Ave.	Kalamazoo, MI 49001	06-23-495-001
938	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-490
939	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-401
1003	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-390
1006	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-500
1014	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-510
1017	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-350
1105	Riverside Ave.	Kalamazoo, MI 49048	06-24-306-440
1109	Riverside Ave.	Kalamazoo, MI 49048	06-24-306-450
1115	Riverside Ave.	Kalamazoo, MI 49048	06-24-306-460
1119	Riverside Ave.	Kalamazoo, MI 49048	06-24-306-470
1133	Riverside Ave.	Kalamazoo, MI 49048	06-24-306-490
	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-420
	Riverside Ave.	Kalamazoo, MI 49048	06-24-305-430
	Riverside Ave.	Kalamazoo, MI 49048	06-24-306-480

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1110	Roy Ave.	Kalamazoo, MI 49048	06-24-306-641
1120	Roy Ave.	Kalamazoo, MI 49048	06-24-306-630
	Roy Ave.	Kalamazoo, MI 49048	06-24-306-660
	Roy Ave.	Kalamazoo, MI 49048	06-24-306-670
	Roy Ave.	Kalamazoo, MI 49048	06-24-306-681
	Roy Ave.	Kalamazoo, MI 49048	06-24-306-682
1343	Schuster St.	Kalamazoo, MI 49001	06-23-435-721
1419	Schuster St.	Kalamazoo, MI 49048	06-23-435-901
vacant	Schuster St.	Kalamazoo, MI 49001	06-23-435-750
1431	Schuster St.	Kalamazoo, MI 49001	06-23-435-920
1523	Schuster St.	Kalamazoo, MI 49001	06-23-480-130
1533	Schuster St.	Kalamazoo, MI 49001	06-23-480-140
	Schuster St.	Kalamazoo, MI 49001	06-23-435-170
	Schuster St.	Kalamazoo, MI 49001	06-23-435-240
	Schuster St.	Kalamazoo, MI 49001	06-23-435-250
	Schuster St.	Kalamazoo, MI 49001	06-23-435-480
	Schuster St.	Kalamazoo, MI 49001	06-23-435-570
	Schuster St.	Kalamazoo, MI 49001	06-23-480-120
	Schuster St.	Kalamazoo, MI 49001	06-23-435-910
	Schuster St.	Kalamazoo, MI 49001	06-23-280-010
	Schuster St.	Kalamazoo, MI 49001	06-23-435-330
	Schuster St.	Kalamazoo, MI 49001	06-23-435-410
3223	Springfield Ave.	Kalamazoo, MI 49001	06-24-405-280
3224	Springfield Ave.	Kalamazoo, MI 49001	06-24-405-210
3225	Springfield Ave.	Kalamazoo, MI 49001	06-24-405-300
3230	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-190
3233	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-310
	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-320
3311	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-341
3312	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-160
3316	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-150
3324	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-131
3330	Springfield Ave.	Kalamazoo, MI 49048	06-24-405-120
2716	St. Joe Ave.	Kalamazoo, MI 49048	06-24-305-330
2723	St. Joe Ave.	Kalamazoo, MI 49048	06-24-305-370
	St. Joe Ave.	Kalamazoo, MI 49048	06-24-305-360
	St. Joe Ave.	Kalamazoo, MI 49048	06-24-305-340
3330	Stewart	Kalamazoo, MI 49048	06-24-465-020
	Stewart	Kalamazoo, MI 49048	06-24-460-142
1109	Surprise Ave.	Kalamazoo, MI 49048	06-24-306-780
1116	Surprise Ave.	Kalamazoo, MI 49048	06-24-306-750
1120	Surprise Ave.	Kalamazoo, MI 49048	06-24-306-740
	Surprise Ave.	Kalamazoo, MI 49048	06-24-306-800
2215	Washington Ave.	Kalamazoo, MI 49048	06-23-440-230
2222	Washington Ave.	Kalamazoo, MI 49048	06-23-445-090
2222	Washington Ave.	Kalamazoo, MI 49048	06-90-060-150
2222	Washington Ave.	Kalamazoo, MI 49048	06-90-070-005
2303	Washington Ave.	Kalamazoo, MI 49001	06-23-445-050

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2303	Washington Ave.	Kalamazoo, MI 49048	06-90-120-390
2305	Washington Ave.	Kalamazoo, MI 49001	06-23-445-060
931	Willis Ave.	Kalamazoo, MI 49048	06-24-305-470
1001	Willis Ave.	Kalamazoo, MI 49048	06-24-305-600
1005	Willis Ave.	Kalamazoo, MI 49048	06-24-305-580
1010	Willis Ave.	Kalamazoo, MI 49048	06-24-305-670
1105	Willis Ave.	Kalamazoo, MI 49048	06-24-306-350
1106	Willis Ave.	Kalamazoo, MI 49048	06-24-306-340
1109	Willis Ave.	Kalamazoo, MI 49048	06-24-306-360
1110	Willis Ave.	Kalamazoo, MI 49048	06-24-306-330
1115	Willis Ave.	Kalamazoo, MI 49048	06-24-306-370
1118	Willis Ave.	Kalamazoo, MI 49048	06-24-306-320
1127	Willis Ave.	Kalamazoo, MI 49048	06-24-306-390
	Willis Ave.	Kalamazoo, MI 49048	06-24-305-690
	Willis Ave.	Kalamazoo, MI 49048	06-24-306-240
	Willis Ave.	Kalamazoo, MI 49048	06-24-306-380
	Willow Blvd	Kalamazoo, MI 49001	06-24-306-980
2336	Willow Blvd	Kalamazoo, MI 49048	06-24-305-921
2418	Willow Blvd	Kalamazoo, MI 49048	06-24-305-840
2510	Willow Blvd	Kalamazoo, MI 49048	06-24-305-651
2526	Willow Blvd	Kalamazoo, MI 49048	06-24-305-621
	Willow Blvd	Kalamazoo, MI 49048	06-24-305-440
	Willow Blvd	Kalamazoo, MI 49048	06-24-305-450
	Willow Blvd	Kalamazoo, MI 49048	06-24-305-460
	Willow Blvd	Kalamazoo, MI 49048	06-24-305-830
	Willow Blvd	Kalamazoo, MI 49048	06-24-305-901
		Kalamazoo, MI	RR-25-112-001
		Kalamazoo, MI	RR-25-120-001
		Kalamazoo, MI	06-23-480-GAP
		Kalamazoo, MI	06-24-315-GAP
		Kalamazoo, MI	06-23-440-GAP
		Kalamazoo, MI	06-24-305-GAP

SECTION 19c.05: WATER USE EXCEPTIONS

The Kalamazoo County Jail Well is approved to remain in place by the MDEQ. This well was determined to be necessary as a secondary/emergency water supply to provide water for flushing toilets. This well cannot be approved at any time as a potable water supply as it is documented to be contaminated with 1,1-dichloroethene (DCE), cis 1,2 DCE and vinyl chloride in excess of the Part 201 MDEQ drinking water criteria. Additionally, the Sheriff of Kalamazoo County has agreed to the following in the event the well must be placed into service:

1. An emergency message will be posted on all video screens in addition to verbal and written notification to staff and inmates of the water restrictions.
2. The County and MDEQ will be notified by telephone or other method that the well is being placed into use.
3. Necessary restrictions will be documented in jail policy.

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SECTION 19c.06: MAP OF RESTRICTED ZONE



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CHAPTER 20b: ADDING NEW RESTRICTED ZONES; PRELIMINARY CONSIDERATION

The County Board of Commissioners may amend this Code to add new Restricted Zones in accordance with the following procedure.

SECTION 20b.01: A Person seeking the establishment of a Restricted Zone shall first file with the County Administrator a request that the County establish a Restricted Zone pursuant to this Code. The Request must include a written Notice that identifies the proposed general boundaries of the Restricted Zone, the reason for establishing the Restricted Zone, a preliminary map of the Restricted Zone, and the proposed time schedule for implementing the Restricted Zone. The Person submitting the request to the County Administrator shall also provide a copy of the Notice to the local unit of government (city, township and/or village) having jurisdiction over the proposed Restricted Zone. When the proposed Restricted Zone is located with/in more than one local unit of government, the Person shall provide copies of the Notice to all of the local units of government.

SECTION 20b.02: The County Administrator shall notify the County Board of Commissioners of the receipt of the Request for the Establishment of a Restricted Zone by the Board of Commissioners' first regularly scheduled meeting after the Administrator receives the Request.

SECTION 20b.03: The County Board of Commissioners shall not consider establishing a Restricted Zone unless the Person submitting the Request demonstrates that creation of the Restricted Zone would eliminate the need to impose environmental restrictive covenants on property or would otherwise provide a tangible or quantifiable benefit.

SECTION 20b.04: The County Board of Commissioners shall not consider establishing a Restricted Zone unless the Person requesting the establishment of the Restricted Zone guarantees and provides for municipal water service, unless the Board of Commissioners determines that providing municipal water service is technically unreasonable from an engineering perspective, or is otherwise impractical.

SECTION 20b.05: The County Board of Commissioners shall not consider establishing a Restricted Zone unless the Applicant guarantees, and provides the County Board of Commissioners with the identification or location of all non-conforming wells on any affected premises, and provides for the proper abandoning and plugging of all nonconforming wells on any Affected Premises without cost to the owners or occupants, other than the person requesting the establishment of the Restricted Zone, of the Affected Premises and in compliance with CHAPTER 26b "Water Sources for Human Consumption" of this Code. To meet this guarantee, the Person shall either provide the County Administrator with written Proof of the provision of such service and the plugging/abandonment of such wells; or establish an escrow account, letter of credit, performance bond, or other acceptable form of financial assurance, in an amount and form acceptable to the County Board of Commissioners, to ensure that the Person making the Request will provide such service and the plugging/abandonment of such wells.

SECTION 20b.06: If, after reviewing the Person's request for consideration of the establishment of a Restricted Zone and considering the standards set forth in SECTIONS 20b.01-20b.05, and after taking into consideration whether the establishment of a Restricted Zone will benefit the health safety and/or welfare of the residents of Kalamazoo County, the County Board of Commissioners is willing to consider the request for the establishment of a Restricted Zone, the Administrator shall provide the

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Person making the request with a written, preliminary, and non-binding, indication of the County's willingness to consider the Application.

CHAPTER 21b: ADDING NEW RESTRICTED ZONES; FORMAL CONSIDERATION AND APPROVAL

SECTION 21b.01: After receiving the County's preliminary indication of its willingness to consider the establishment of a Restricted Zone, a Person may submit an application for the formal establishment of a Restricted Zone to the County Administrator. The formal application can be in the form of a proposed remedial action plan or other appropriate documentation if appropriate cross-references are made for ease of reference.

SECTION 21b.02: The application for the formal establishment of a Restricted Zone shall include, at a minimum, the following information, together with any escrow deposit as required under this SECTION.

- a. The name, address, and phone number of the Applicant, as well as each person having an interest as owner, tenant easement holder or mortgagee of record in the real property which is the source or site of the contaminated groundwater, if known.
- b. The street address and legal description of the real property which is the source or site of the contaminated groundwater, if known, and the nature of the Applicant's relationship to that property and involvement concerning the contaminated groundwater.
- c. The nature and extent of the groundwater contamination and the substances causing the contamination, both in summary form and in plain English. These disclosures should also include a description in detail and in technical terms, stating the types and concentrations of contaminants', a map or survey showing the contaminants' current location- a statement of the contaminants' likely or anticipated impact on groundwater and the nature of the risks presented by the use of the groundwater, as well as the likely or anticipated path of the contaminants' migration if not remediated or corrected and a detailed statement of any plan to remediate, correct and/or contain the contamination.
- d. A detailed map and legal description of the proposed Restricted Zone.
- e. The street addresses and general description of the proposed Restricted Zone.
- f. The names, addresses (mailing and street), and phone numbers (if readily available) of all persons with an interest as owner, tenant, easement holder, or mortgagee of record in any of the Affected Premises.
- g. The location, current status, and usage characteristics of all existing groundwater wells within the proposed Restricted Zone.
- h. The MDEQ's or USEPA's (as appropriate) written approval of the proposed Restricted Zone as an alternative to imposing restrictive covenants on property on which no release has occurred; and,

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- i. A copy of the information submitted to the MDEQ or USEPA concerning the proposed Restricted Zone, along with a written statement from an MDEQ or USEPA representative with approval authority stating that the proposed Restricted Zone and use regulations have received MDEQ or USEPA approval as part of the response actions for the groundwater contamination. The MDEQ or USEPA approval may be contingent upon the County's establishment of the proposed Restricted Zone pursuant to this CHAPTER.
- j. Applicant shall provide a detailed statement or description of any contemplated exemptions from the prohibitions contained in this Code concerning the use of existing and future wells within the Restricted Zone.
- k. A description and time schedule for any actions the Applicant will take to implement any remediation plan, to mitigate the adverse impact of the implementation of the Restricted Zone (e.g. providing substitute water service), and to properly close and abandon any existing wells subject to the use prohibition within the proposed Restricted Zone.
- l. Copies of the notices provided to the owners of Affected Property within the Restricted Zone, together with a sworn statement that such notices were provided to all such owners with details of the manner in which such notices were provided. At a minimum, the notice must:
 - i. Identify the sender of the notice including the sender's name, address, contact person and telephone number.
 - ii. Identify the owner of the property which is the source of the contamination or who is seeking the creation of the Restricted Zone including the owner's name and property address.
 - iii. State what the effects of the Restricted Zone will be, i.e. how use of the groundwater will be restricted.
 - iv. Identify the Person who can be contacted at the County, the MDEQ or USEPA, and the Applicant for more information.
 - v. A description of the groundwater plume and a brief description of the nature of the contamination, and
 - vi. Any other information reasonably requested by the County Administrator.

SECTION 21b.03: In addition to the formal application provided for in SECTION 18b.01-18b.02, the Applicant shall also submit a written statement to the County Administrator in which Applicant agrees to pay all costs incurred by the County in the establishment of the proposed Restricted Zone, including without limitation, reimbursement for staff time, the fees of environmental consultants and legal counsel, the cost of publication, any per them or other amounts paid to public officials for attending any special meetings, etc. This statement shall also consent to the placement of a lien on the Applicant's premises if the amounts due under this SECTION are not timely paid (i.e. paid within 30 days of the issuance by the County of an invoice). That statement shall be in a form acceptable to the County's legal counsel and shall be in a form so as to be recordable in the records of the Kalamazoo County Register of Deeds.

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SECTION 21b.04: Along with the Application, the Applicant shall pay a deposit, or create an escrow account, in an amount equal to the costs the County Administrator estimates the County will incur in establishing the Restricted Zone, including without limitation, reimbursement for staff time, the fees of environmental consultants and legal counsel, the cost of publication, any per them or other amounts paid to public officials for attending any special meetings, etc. The deposit shall not bear interest and the County may use the funds pay for costs as they are incurred. If the Applicant elects to establish an escrow account, the Applicant shall continuously maintain a minimum balance of \$500.00 in that escrow account. If the Applicant fails to maintain the escrow as required by this provision, the County may, but is not required to, discontinue its processing of the request to establish a Restricted Zone and the County is authorized to file a lien against the premises of the Applicant.

SECTION 21b.05: Once the County Administrator or his or her designee determines that the application is complete, the County Administrator shall present the completed Application to the Board of County Commissioners at a regular or special meeting of the Board and request that the Board set a time, date, and place to hold a public hearing on the application.

SECTION 21b.06: After the Board of Commissioners sets the date for the public hearing; the Applicant shall send a written notice of the hearing, by first class mail, to all persons having an interest as owner, tenant, easement holder, or mortgagee of record in any of the Affected Premises. The notice shall include a brief statement regarding the application that fairly informs the recipients of the Restricted Zone's main features and the potential impacts the Restricted Zone may have on the recipients' in general. The Applicant shall mail the Notice at least ten days prior to the hearing. The Applicant shall also publish the Notice in a newspaper of general circulation within the County at least seven days before the hearing. The Applicant shall also mail the Notice to the MDEQ and USEPA representative, as appropriate, who issued the approval of the proposed Restricted Zone and use regulations; and to the MDEQ District Supervisor of the regulatory program with jurisdiction over the contaminated site. For each Notice required under this SECTION, the Applicant shall file one copy of each Notice, an affidavit of publication for each Notice, an affidavit of publication for each Notice and an affidavit of mailing for each Notice, with the County Administrator prior to the hearing.

SECTION 21b.07: If, after the public hearing, the Board of Commissioners determines that there is a need to establish a new Restricted Zone, the Board of Commissioners shall amend this Code to establish the new Restricted Zone. The County Clerk shall publish a Notice of the amendment to this Code in the same manner required by law for Ordinance amendments.

SECTION 21b.08: The Applicant shall notify all owners and occupants of real property within the newly established Restricted Zone of the need to close and abandon wells located on property located within the Restricted Zone. The Applicant shall also inform the owners and occupants of real property within the newly established Restricted Zone of who will be financially responsible for closing and abandoning the wells.

CHAPTER 22b-23b RESERVED FOR FUTURE USE

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CHAPTER 24b: EFFECT OF RESTRICTED ZONES, WELLS AND GROUNDWATER USE PROHIBITED

Except as provided in CHAPTER 22b of this Code, no person shall install or utilize, or allow, permit, or provide for the installation or utilization of a well in any Restricted Zone. Except as provided in SECTION 22b of this Code, no person shall use any groundwater from any well located within a Restricted Zone.

CHAPTER 25b: EXCEPTIONS TO PROHIBITION

A Person may install, utilize, allow, permit, or provide for the installation or utilization of, a well within a Restricted Zone identified in this Code, if one of the following exceptions applies and the individual complies with the requirements set forth in this SECTION.

SECTION 25b.01: EXISTING WELLS - WATER SERVICE UNAVAILABLE

The owners and/or occupants of property within a Restricted Zone that contained a working well(s) on the date that the County established the Restricted Zone under this Code, may continue to use the well(s) if it is safe and suitable for use and municipal water service is unavailable to the property.

- a. For purposes of this Subsection, a well will be considered safe and suitable for use if the Person wishing to use the well provides the County with a written annual certification, or more frequent certification if required by the County, that the well is safe and suitable. A Person wishing to use the well must secure certification, at his/her own expense, from a MDEQ-approved laboratory, that the well produces water that is within maximum contaminant levels as defined in Part 201. The Person wishing to use the well must arrange for the testing laboratory to promptly submit the results of the test to the MDEQ or the Department for review and determination that the well is safe and suitable for use and that use of the well does not exacerbate the contamination.
- b. For purposes of ARTICLE IIIb, municipal water service is unavailable only if it is technically unreasonable, from an engineering perspective, or otherwise impractical to supply the premises with municipal water. No split or conveyance of property shall be effective to render municipal water unavailable.

SECTION 25b.02: PROOF OF NO INFLUENCE

After the establishment of a Restricted Zone under this Code, the Department shall not issue a well permit for the installation of any water supply well within the Restricted Zone unless all of the following conditions are present:

- a. Municipal water service is unavailable to the property; and,
- b. The MDEQ determines, in writing, that the contaminated groundwater shall not influence or potentially influence the use of the well; and,

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- c. The MDEQ determines, in writing, that future migration of contaminated groundwater shall not affect the use of the well. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting to install the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting to install the well with all technical and practical information, in the Applicant's possession, that may reasonably aid the person in providing necessary information to the MDEQ; and,
- d. The individual wanting to install the water supply well submits copies of the MDEQ's determinations to the County and,
- e. The County Administrator, upon review of the written determinations of the MDEQ, and in consultation with the Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the installation and use of the water supply well; and,
- f. Any water supply well approved under this Subsection must be installed using well construction techniques (e.g. double casing) that will maintain the integrity of the aquifer to be used as the supply source and prevent migration of contaminants to the aquifer to be used as the supply source. The individual must also provide the County Administrator with a written description of the proposed well construction techniques for review and approval prior to the installation of the well; and
- g. After the well is installed, the owner of the property on which the well is located, shall comply with the annually sampling and testing protocol set forth in SECTION 22a.01 of this Code; and,
- h. If the sampling and testing protocol indicate that the groundwater contaminants are influencing the water supply well, the owner of the property shall immediately abandon and plug the well.

SECTION 25b.03: GROUNDWATER MONITORING

A well within a Restricted Zone may be used for groundwater monitoring and/or remediation as part of a MDEQ or USEPA approved response activity.

SECTION 25b.04: CONSTRUCTION DE-WATERING

A well within a Restricted Zone may be used for construction de-watering, if the individual(s) installing and using the well complies with the following conditions:

- a. Use of the de-watering well will not expose an uncontaminated aquifer to contaminated groundwater; result in the Possible cross-contamination between saturated zones, or exacerbate the contamination; and,

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- b. The water generated by that activity is properly handled and disposed of in compliance with all applicable laws, rules, regulations, permit and licensing requirements, orders and directives of any governmental entity or agency of competent jurisdiction.

Any exacerbation of the contamination caused by the use of the well under this exception shall be the responsibility of the person operating the dewatering well, as provided in Part 201 of the Natural Resources and Environmental Protection Act, MCL 324.20101 to 324.20142.

SECTION 25b.05: EXISTING, SPECIFIC NON-CONTACT WELLS

For purposes of the ARTICLE IIIb of this Code, a “non-contact” water supply system means a water supply system designed and utilized so as to prohibit the use of the water within the system for human ingestion. After the establishment of a Restricted Zone, an existing water supply well within the Restricted Zone shall not be used for non-contact heating, cooling or processing activities unless all of the following conditions are present:

- a. The MDEQ determines, in writing, that the use of a well for non-contact heating, cooling or processing activities will not cause the future migration of contaminated groundwater; and,
- b. The Person requesting the continued utilization or installation of the well submits a copy of the MDEQ’s written determination to the County Administrator; and,
- c. The County Administrator, upon review of the written determination of the MDEQ, and in consultation with the Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the continued utilization, or installation, and use of the well upon such terms and conditions that the MDEQ may identify or require. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting to continue to utilize the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting to continue to utilize the well with all technical and practical information, in the Applicant’s possession, that may reasonably aid the person in providing necessary information to the MDEQ.

SECTION 25b.06: NEW, SPECIFIC NON-CONTACT WELLS

After the establishment of a Restricted Zone under this Code, the Department an individual shall not install a new well to be used for noncontact heating, cooling or processing activities within a Restricted Zone unless all of the following conditions are present:

- a. The MDEQ determines, in writing, that the use of a well for noncontact heating, cooling or processing activities will not cause the future migration of contaminated groundwater; and,
- b. The Person requesting the installation of the well submits a copy of the MDEQ’s written determination to the County Administrator; and,

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- c. The County Administrator, upon review of the written determination of the MDEQ, and in consultation with the Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the continued utilization, or installation, and use of the well upon such terms and conditions that the MDEQ may identify or require. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting the installation of the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting the installation of the well with all technical and practical information, in the Applicant's possession, that may reasonably aid the person in providing necessary information to the MDEQ.

SECTION 25b.07: SPECIFIC NON-CONTACT IRRIGATION WELLS

After the establishment of a Restricted Zone under this Code, no new well shall be installed, within the Restricted Zone, for use as an irrigation well. An individual may continue to utilize an existing well for non-contact irrigation within a Restricted Zone if all of the following conditions are present:

- a. The MDEQ determines, in writing, that the use of a well for non-contact irrigation will not cause the future migration of contaminated groundwater; and,
- b. The Person requesting the continued utilization or installation of the well submits a copy of the MDEQ's written determination to the County Administrator; and,
- c. The County Administrator, upon review of the written determination of the MDEQ, and in consultation with the Department and such other technical experts as the Administrator deems necessary, may execute a waiver allowing the continued use of the well upon such terms and conditions that the MDEQ may identify or require. Such terms and conditions may include, but are not limited to, hydrogeological evaluations including pump tests, an analysis of the degree of protection from vertical migration of contaminants through geologic barriers, and groundwater modeling. The person requesting to continue to utilize the well shall be responsible for the costs of providing the MDEQ with the information the MDEQ deems necessary to determine whether it will issue a waiver. The Applicant shall provide the person requesting to continue to utilize the well with all technical and practical information, in the Applicant's possession, that may reasonably aid in providing necessary information to the MDEQ.

Any exacerbation of the contamination caused by the use of the well under this exception shall be the responsibility of the person operating the dewatering well, as provided in Part 201 of the Natural Resources and Environmental Protection Act MCL 324.20101 to 324.20142.

SECTION 25b.08: PUBLIC EMERGENCIES

A well may be used within a Restricted Zone in the event of a public emergency.

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CHAPTER 26b: WATER SOURCES FOR HUMAN CONSUMPTION

Except as provided in CHAPTER 22b of this Code, the water supply delivered for human consumption to any property located within a Restricted Zone shall be delivered only from a Municipal water system or by the use of bottled water delivered and purchased in containers under conditions approved by the State of Michigan. For the purposes of this subsection, the term “Human Consumption” means use in food or drink intended for human ingestion, use in food preparation or food service, use in the interior of a dwelling or dwelling unit for household purposes, and use in any building for personal washing.

CHAPTER 27b: NON-CONFORMING WELLS

Any existing well, the use of which is prohibited by CHAPTER 21a, shall be plugged or abandoned in conformance with all applicable laws, rules, regulations, permit and license requirements, orders and directives of any governmental entity or agency of competent jurisdiction, or, in conformance with the protocol developed consistent with the American Standards for Testing and Materials standard #D5299-92.

CHAPTER 28b: WELLS AFFECTING CONTAMINATED GROUNDWATER

Except as provided in CHAPTER 22b, no well may be used or installed at any place in the County if the use of the well will have the effect of causing the migration of contaminated groundwater or a contaminated groundwater plume to previously un-impacted groundwater, or adversely impacting any groundwater treatment system, unless the well is part of a MDEQ or USEPA approved groundwater monitoring or remediation system.

CHAPTER 29b: VIOLATIONS

Any violation or suspected violation of the provisions of ARTICLE IIIb of this Code shall be addressed under ARTICLE VII: Declaratory Rulings and Hearing Procedures and ARTICLE VI: Criminal Penalties, of this Code.

SECTION 2. The County Clerk/Register is hereby directed to publish a summary copy of the Amendment to the Kalamazoo County Sanitary Code in the Kalamazoo Gazette promptly after passage of this Amendment.

SECTION 3. Upon passage, this Amendment shall become effective November 6, 2003.

Timothy A. Snow
County Clerk/Register

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ARTICLE IV: HOUSING REGULATIONS

CHAPTER 16: PURPOSE AND APPLICABILITY

ARTICLE IV of the Code establishes the minimum standards governing the condition and maintenance of dwellings; establishes the minimum standards governing supplied utilities and facilities and other physical things and conditions essential to making such dwellings safe, sanitary and fit for human habitation; establishes the minimum standards governing the condition of dwellings offered for rent; fixes certain responsibilities and duties upon owners and occupants of dwellings; authorizes the Department to inspect dwellings; and authorizes the Department to condemn any dwelling which are found unfit for human habitation.

Any person who fails or refuses to comply with the provisions of ARTICLE IV will be subject to the penalties described in ARTICLE VIII of this Code.

CHAPTER 17: INSPECTION OF DWELLINGS, DWELLING UNITS AND PREMISES

SECTION 17.01: INSPECTION

The Department shall have the authority to inspect and determine the condition of dwellings, dwelling units, and premises located within the County of Kalamazoo, in order to safeguard the health and safety of the occupants of dwellings, and of the general public. The Department may enter, examine, and survey, at all reasonable times, all dwellings, dwelling units and premises. The owner or occupant of every dwelling, dwelling unit, or the person in charge thereof, shall give the Department free access to such dwelling, dwelling unit and its premises, at all reasonable times, for the purpose of such inspection, examination, and survey. Every occupant of a dwelling or a dwelling unit shall give the owner thereof, or his agent or employee, access to any such dwelling, dwelling unit, or premises, at all reasonable times for the purpose of making repairs or alterations which are necessary to effect compliance with the provisions of this ordinance or with any lawful order issued pursuant to the provisions of this ordinance.

CHAPTER 18: MINIMUM STANDARDS

SECTION 18.01: BASIC EQUIPMENT AND FACILITIES

No person shall occupy, or allow the occupancy of, any dwelling or dwelling unit, for the purpose of living, sleeping, cooking, or eating therein, unless the dwelling or dwelling unit complies with the following requirements:

- a. Every dwelling unit shall have an adequate onsite water supply system and an adequate onsite sewage treatment system which complies with the design, construction and operation provisions contained in this Code, or be connected to municipal water and/or sewer.
- b. Every dwelling unit shall contain a kitchen sink in working condition and properly connected to an adequate onsite water supply system and an adequate onsite sewage treatment system, or be connected to municipal water and/or sewer.
- c. Every dwelling or dwelling unit shall contain at least one properly functioning flush toilet, a

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sink, a bathtub or shower, which are properly connected to an adequate onsite water supply system and an adequate onsite sewage treatment system or be connected to municipal water and/or sewer.

- d. Every dwelling unit shall have adequate garbage receptacles and disposal capabilities. Garbage storage containers must be water proof and vermin resistant.

SECTION 18.02: VENTILATION AND HEATING

No person shall occupy, or allow the occupancy of, any dwelling or dwelling unit unless the dwelling or dwelling unit complies with the following requirements:

- a. Every habitable room shall have at least one easily opened window, skylight or similar device, which adequately ventilates the room.
- b. Every window or door used, or intended to be used, for ventilation; and any other opening capable of allowing the entry of rodents and insects; shall be properly screened or modified to prevent the entry of rodents and insects.
- c. All habitable rooms shall have properly installed and maintained heating facilities capable of providing temperatures of at least 68 Degrees Fahrenheit.

CHAPTER 19: GENERAL REQUIRMENTS RELATING TO THE SAFE AND SANITARY MAINTENANCE OF PARTS OF DWELLINGS AND DWELLING UNITS

SECTION 19.01: REQUIREMENTS

- a. No person shall occupy, or allow the occupancy of, a dwelling or dwelling unit unless the dwelling or dwelling unit meets the following requirements:
 - i. Every foundation, floor, wall, ceiling, roof, window, exterior door and basement hatchway is reasonably weather tight, vermin and insect resistant and is kept in proper working condition.
 - ii. Every plumbing fixture, waste pipe, and water pipe is properly installed and maintained in a good sanitary working condition.
 - iii. The floor surface of every bathroom is reasonably impervious to water and shall be constructed to permit the easy cleaning and maintenance of the floor surface.
- b. No owner, operator or occupant of a dwelling or dwelling unit shall shut off, or discontinue any utility necessary for the occupancy of the dwelling or dwelling unit except:
 - i. To permit the completion of necessary repairs or alterations; or,
 - ii. When the Department orders the discontinuance during temporary emergencies.

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CHAPTER 20: RESPONSIBILITY OF OWNERS AND OCCUPANTS

SECTION 20.01: RESPONSIBILITY

- a. Owner(s) of dwellings or dwelling units shall be responsible to maintain the shared or public areas of the dwelling and premises in a clean condition.
- b. Occupant(s) shall keep that part of the dwelling where they reside in a clean condition.
- c. Owner/occupant(s) shall not allow filth, garbage or other rubbish which could be determined a danger to public health, to accumulate in the dwelling unit or on the premises.
- d. Owners(s) of dwelling or dwelling units shall provide adequate garbage storage facilities.
- e. Owner(s) of dwellings or dwelling units shall assure removal of garbage and rubbish is required at regular intervals to avoid excessive accumulation and/or a public health nuisance.
- f. Owner(s) of dwellings or dwelling units shall be responsible to exterminate insects, rodents, or other pest infestations that are known to be capable of carrying disease.
- g. Owner(s) of dwellings or dwelling units shall maintain all water and sewer lines in sanitary manner.
- h. Owner(s) of vacant and/or condemned dwellings or dwelling units shall maintain the dwelling or dwellings units to prevent casual entry and the accumulation of garbage or rubbish on the premise. Financial institutions holding titles of foreclosed properties are considered to be the "Owner".

CHAPTER 21: DESIGNATION OF UNFIT DWELLINGS AND CONDEMNATION PROCEDURE

SECTION 21.01: UNFIT DWELLINGS

The Department shall designate owner occupied or rental dwellings or dwelling units as unfit for human habitation and proceed to condemn such units if the Department finds any of the following:

- a. Dwelling or dwelling unit fails to provide the basic amenities essential to healthful living because it is so damaged, decayed, dilapidated, insanitary, unsafe, vermin infested; is likely to cause sickness or disease and/or likely to negatively impact the health or safety of the occupants or the public and/or,
- b. The owner or occupant of the dwelling fails to comply with ARTICLE IV of this Code or the Department issued orders under the provisions of this Code or rules pursuant thereto.

SECTION 21.02: PLACARDING OF UNFIT DWELLINGS OR DWELLING UNITS; VACATING PREMISES (DEALING WITH A DANGEROUS BUILDING)

- a. If the Department determines that a dwelling or dwelling unit is unfit for human habitation,

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the Department shall condemn the dwelling or dwelling unit; post a placard(s) (at least 7.5 inches by 9.5 inches in size) at a conspicuous place(s) on the dwelling or dwelling unit which notifies the public that the Department has condemned the dwelling or dwelling unit as unfit for human habitation. Occupants of the dwelling or dwelling unit will be ordered to vacate the premise within a reasonable time as determined by the Department based upon risk to occupants and/or public.

- b. No person shall reoccupy any dwelling or dwelling unit which the Department has condemned and placarded until the dwelling or dwelling unit is in compliance with all applicable provisions of this Code; and the Department authorizes the removal of the placard(s).
- c. No person shall deface or remove a placard from any dwelling or dwelling unit that the Department has condemned and placarded unless the Department or a court of competent jurisdiction authorizes the removal of the placard(s).

SECTION 21.03: EMERGENCY ACTION

- a. Whenever the Department finds that an emergency exists which requires immediate action to protect public health, the Department may, without notice or hearing, issue an Emergency Order which recites the existence of the emergency and directs the actions which a dwelling or dwelling unit's owner or occupant must take to address the emergency. Notwithstanding any other provision of this Code, an Emergency Order shall take effect immediately.
- b. Any person who fails or refuses to comply with the provisions of an Emergency Order is in violation of this Code and subject to the penalties described in ARTICLE VIII of this Code.

CHAPTER 22: RESERVED FOR FUTURE USE

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ARTICLE V: NONCOMMUNITY WATER SUPPLY ENFORCEMENT POLICY

CHAPTER 23: PURPOSE AND APPLICABILITY

ARTICLE V applies to all Noncommunity Water Supplies as defined in Act 399 of the Public Acts of 1976, as amended, and seeks to assure compliance with the construction and sampling requirements promulgated under that Act.

CHAPTER 24: GENERAL PROVISIONS

SECTION 24.01: AUTHORITY

Act 399 of the Public Acts of 1976, as amended, gives the MDEQ authority to designate an authorized agent or representative to administer the Act and the Rules promulgated under the Act. Pursuant to this authority, the MDEQ has designated the Department as authorized agents and representatives.

SECTION 24.02: POLICY

The Department shall enforce the provisions of the Noncommunity Water Supplies Act 399 of the Public Acts of 1976, as amended, and Act 306 of the Public Acts of 1969, as amended, consistent with the procedures established by MDEQ. The Department shall initiate enforcement activities when one or more of the following deficiencies occur:

- a. A monitoring violation is detected.
- b. A construction deficiency exists in a new onsite water supply system.
- c. There is an improperly located new onsite water supply system.
- d. There is a failure to comply with the Department's order to correct an existing well construction or location deficiency.

SECTION 24.03: PROCEDURE

- a. When one or more of the deficiencies listed in SECTION 24.02 of this Code takes place, the Department shall:
 - i. Mail a letter of noncompliance to the owner of the Noncommunity Water Supply System. This letter shall describe why the Noncommunity Water Supply System is noncompliant and provide the owner with a specific schedule for bringing the Noncommunity Water Supply System into compliance with a correction schedule. The Department may consider the severity of the violation when preparing the correction schedule.
 - ii. Confirm that the owner has complied with an order and correction schedule. The Department may confirm that the owner has complied with an order and correction

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- schedule, by re-inspecting the system and/or receiving written documentation that conclusively demonstrates that the owner took the necessary corrective action.
- iii. If the owner of a Noncommunity Water Supply fails to comply with the correction schedule and correct the violations as directed, the Department may initiate an informal hearing pursuant to the procedure set forth in ARTICLE VII of this Code.
- b. An owner of a Type II Noncommunity Water Supply System, or the owner's designated representative, who disagrees with a Notice of Deficiency, an Order to take Corrective Action, a correction schedule or the Department's interpretation of the provisions of this CHAPTER, may request an informal hearing pursuant to the procedure set forth in ARTICLE VII of this Code.

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ARTICLE VI: FOOD PROTECTION PROGRAM; INSPECTION AND ENFORCEMENT

CHAPTER 25: PURPOSE AND APPLICABILITY

ARTICLE VI of the Code concerns the administration and enforcement of Act 92, of the Public Acts of 2000 as amended, Michigan's Food Law 2000, and Sections 2441 and 2442 of the State of Michigan Public Health Code.

SECTION 25.01: INSPECTION SCHEDULES

The Department shall inspect each food service establishment within Kalamazoo County in compliance with requirements of Act 92, of the Public Acts of 2000, as amended.

SECTION 25.02: COMPLIANCE AT THE TIME OF AN INSPECTION (ROUTINE OR FOLLOW-UP)

- a. If a food service establishment is in compliance with the provisions of this Code at the time of a routine inspection, the Department shall continue to conduct routine inspections of the establishment according to the requirements of Act 92, of the Public Acts of 2000, as amended.
- b. If an inspection pursuant to CHAPTER 25.01 shows that:
 - i. No Imminent or Substantial Hazards exist at the food establishment; and,
 - ii. There are no Priority Item or Priority Foundation Item violations present at the food establishment, or the violations are corrected immediately if present or according to an agreed upon correction schedule, and any Priority Item or Priority Foundation Item violation found is not a chronic violation; and,
 - iii. If unsanitary conditions are present, they are corrected according to an agreed upon schedule(s); and the violations are not a chronic violation.

The Department shall continue to conduct routine inspections of the establishment according to the requirements of Act 92, of the Public Acts of 2000, as amended.

SECTION 25.03: NON-COMPLIANCE AT THE TIME OF INSPECTION

- a. If an inspection shows that a food service establishment is in violation of the provisions of this Code and the violation(s) constitutes an Imminent or Substantial Hazard to the public's health, the Department shall take action as provided in SECTION 25.04.5. of this Code; and Section 2113 of Act 92, of the Public Acts of 2000, as amended.
- b. If an inspection shows the presence of Priority Item or Priority Foundation Item violation(s) and the violation(s) are not corrected prior to the conclusion of the inspection or according to an agreed upon correction schedule, or if the violation(s) also constitute a chronic violation(s),

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the Department shall:

- i. Take action as provided in SECTION 25.04.2 of this Code unless the violation(s) were the subject of a previous compliance agreement/correction schedule between the owner/operator and the Department, or the violation(s) were the subject of an Informal Hearing; or,
 - ii. If the violation(s) were the subject of a previous compliance agreement or correction schedule between the owner/operator and the Department; the Department shall take action as provided in SECTION 25.04.3 of this Code; or,
 - iii. If the violation(s) were the subject of an Informal Hearing, Department shall take action as provided in SECTION 25.04.4 of this Code and Section 4125 of Act 92, of the Public Acts of 2000, as amended.
- c. If an inspection shows that unsanitary conditions at the food service establishment constitute chronic or continuous violations of this Code, Department shall take action as provided in SECTION 25.04.2 of this Code and Sections 4125 and 3117 of Act 92, of the Public Acts of 2000, as amended.
 - d. If an inspection shows that a person is operating a food service establishment without a license, the Department shall take action as provided in SECTION 25.04.6 of this Code and Sections 2117 and 4101 of Act 92, of the Public Acts of 2000, as amended.
 - e. If any person interferes with an agent of the Department in the performance of his/her duties, Department shall take action as provided in SECTION 25.04.3 of this Code and Sections 4125 and 3117 of Act 92, of the Public Acts of 2000, as amended.
 - f. If any person constructs, or begins construction of, a new food service establishment without an approved plan, the Department shall take action as provided in SECTION 25.04.9 of this Code and Section 3117 of Act 92, of the Public Acts of 2000, as amended.
 - g. If any person remodels an existing food service establishment without an approved plan, the Department shall take action as provided in SECTION 25.04.9 of this Code and Section 3117 of Act 92, of the Public Acts of 2000, as amended.
 - h. If any person operates a Temporary Food Service Establishment without a license, the Department shall take action as provided in SECTION 25.04.6 of this Code and Section 3117 of Act 92, of the Public Acts of 2000, as amended.
 - i. If the Department determines that a food source is unapproved, adulterated or contaminated, the Department shall issue an Order to hold, test or destroy a food product in addition to any action which the Department may take under SECTION 25.04.10 of this Code and Section 2105 of Act 92, of the Public Acts of 2000, as amended.
 - j. After a proper inspection, and in accordance with SECTION 25.04.8 of this Code and Section 2121 of Act 92, of the Public Acts of 2000, as amended, the Department shall impose License limitations, limiting the extent of food preparation or the menu items, which a food service

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establishment may prepare and serve. If the Department imposes license limitations, the establishment's owner is entitled to an informal hearing.

SECTION 25.04: ENFORCEMENT STEPS

When enforcing the provisions of ARTICLE VI of the Code, and specifically in conjunction with SECTION 25.03, the Department shall utilize the following steps or procedures:

25.04.1 Conduct subsequent inspection(s) to determine compliance with a mandated or agreed upon correction schedule. The correction schedule may occur as a result of a routine inspection, office conference, Informal Hearing, or Formal Hearing. If the establishment exhibits non-compliance with such orders or agreements, the Department shall proceed to the next appropriate enforcement step (for example, a Formal Hearing, if the follow-up inspection is the result of a failure to comply with a correction schedule established at an Informal Hearing).

25.04.2 Office Conference. If an inspection reveals that a food service establishment is not in compliance with the provisions of this Code, the Department shall hold an Office Conference at the Kalamazoo County Health and Community Services Department with the owner or designated agent of the food service establishment. If the Office Conference results in an agreed upon schedule of compliance, the Department shall reduce the schedule in writing and conduct necessary inspections. If the Office Conference does not result in an agreed upon schedule of compliance, the Department shall institute an Informal Hearing pursuant to the provisions of ARTICLE VII of this Code.

25.04.3 Informal Hearing. An Informal Hearing is held for the purpose of determining whether there is sufficient evidence to mandate a compliance schedule for certain violations. An Informal Hearing is to be conducted in accordance with the procedures set forth in ARTICLE VII of this Code and the Department may direct that an Informal Hearing take place for any or all of the following reasons:

- a. A person fails to comply with an order of the Department; or,
- b. A person interferes with an agent of the Department in the performance of his/her official duties; or,
- c. A person fails to correct a Priority Item or Priority Foundation Item violation(s) as agreed to in a compliance schedule; or,
- d. A person fails to correct a food service establishment's chronic, repeated or continuous Priority Item or Priority Foundation Item violation(s).
- e. A food service establishment licensee requests an Informal Hearing in writing. A Licensee's written request for an Informal Hearing must contain a description of the reason for, or subject of, the Informal Hearing.

25.04.4 Formal Hearing. A Formal Hearing is to be conducted in accordance with the procedures set forth in ARTICLE VII of this Code and is held for the purpose of:

- a. Determining whether a food service license should be suspended or revoked; or,

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- b. Determining whether to reverse or end an order from the Department to suspend food service; or,
- c. A food service establishment licensee requests a Formal Hearing in writing. A Licensee's written request for a Formal Hearing must contain a description of the reason for, or subject of, the Formal Hearing.

25.04.5 If the Department determines that conditions in a food service establishment constitute an imminent hazard, the Department shall order the food service establishment to immediately cease all food service operations until the hazard is removed or corrected. The owner and/or licensee of a food service establishment must immediately comply with the order to cease food service operations. The owner and/or licensee may request that the Department conduct a Formal Hearing to determine if the order to cease food service operations should be reversed or terminated, and the food service operation shall remain closed to the public pending the outcome of the Formal Hearing.

25.04.6 If the Department determines that a food service establishment is operating without a valid food service license, the Department shall order the owner and/or operator of the food service establishment to immediately cease all food preparation and service. No food service preparation or operations may resume until the owner and/or operator fully complies with all of the food service licensing requirements contained in this Code.

25.04.7 Late fees. The Department shall assess fees for late food service establishment license applications in accordance with the fee schedule promulgated by the Kalamazoo County Board of Commissioners under ARTICLE I, CHAPTER 2, SECTION 2.06, of this Code.

25.04.8 License Limitations. The Department may place restrictions on a food service establishment license, which limits the preparation of food if the Department determines that such limitations are necessary to protect the public's health. Unless the owner/licensee voluntarily agrees to the implementation of the limitations at the time of a plan review, the Department must offer the owner/licensee the opportunity to have the necessity of the limitations addressed in an Informal Hearing.

25.04.9 If the Department determines that any person is constructing or remodeling a food service establishment in violation of the provisions of this Code, the Department shall order the immediate cessation of the construction, alterations, conversions, or remodeling until the owner/licensee submits appropriate and acceptable to plans and specifications to the Department.

25.04.10 If the Department determines that a food product constitutes a potential threat to public health, the Department shall order the person(s) in control of such food to hold, test, or destroy the food product. Failure to comply with an order to hold, test or destroy a food product will result in an imminent hazard.

Any violation or suspected violation of the provisions of ARTICLE VI of this Code shall be addressed under ARTICLE VII: Declaratory Rulings and hearing Procedures and ARTICLE VI: Criminal Penalties, of this Code.

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ARTICLE VII: DECLARATORY RULING AND HEARING PROCEDURES

CHAPTER 26: PURPOSE

ARTICLE VII of the Code sets out the type of declaratory ruling and hearing procedures which Kalamazoo County will use to interpret and enforce the provisions of this Code; to obtain the voluntary correction of Code violations; and to provide a review of actions taken by the Department in administering and enforcing this Code. The Hearing procedures contained in this ARTICLE are also intended to comply with the Administrative Procedures Act.

CHAPTER 27: DEFINITIONS SPECIFIC FOR ARTICLE VII

SECTION 27.01: FORMAL HEARING

“Formal Hearing” means a hearing to obtain compliance with the provisions of this Code; to correct a violation of this Code and/or as an appellate review of the decision from an Informal Hearing.

SECTION 27.02: FORMAL HEARING BOARD

“Formal Hearing Board” means a board of three people: one member of the Kalamazoo County Board of Commissioners; the Director of the Kalamazoo County Health and Community Services Department or his/her designated representative, who shall also serve as the Chairperson of the Formal Hearing Board; and the County Clerk or his/her designated representative.

SECTION 27.03: INFORMAL HEARING

“Informal Hearing” means a hearing to determine if a person is in compliance with this Code and other applicable laws. During an Informal Hearing schedules for correcting violations of this Code will be set, and license requirements/limitations necessary to insure compliance with state mandated laws and this Code will be reviewed.

SECTION 27.04: INFORMAL HEARING OFFICER

“Informal Hearing Officer” means the Manager of the Environmental Health Division or his/her designated representative.

SECTION 27.05: RESPONDENT

“Respondent” means the individual who is alleged to have violated a provision of this Code and has received a notice to appear at either an Informal Hearing or a Formal Hearing. A person who initiates an Informal Hearing or a Formal Hearing for purposes including, but not limited to, the review of a decision from an Informal Hearing, the review of a denial of a variation application, or the review of a declaratory ruling, shall also be identified as the Respondent.

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CHAPTER 28: DECLARATORY RULINGS

SECTION 28.01: DECLARATORY RULINGS; PURPOSE

On request of an interested person, the Department may issue a Declaratory Ruling concerning the applicability of the provisions of this Code to an actual state of facts.

SECTION 28.02: DECLARATORY RULINGS; PROCEDURE

- a. A person requesting the issuance of a Declaratory Ruling must submit the request, in writing, to the Department. The submission must sufficiently identify the facts forming the basis for the request for a Declaratory Ruling; the SECTION(s) of the Code which apply to the factual situation; and any argument or authority which the applicant wishes the Department to consider when issuing a Declaratory Ruling.
- b. Within 30 days of receiving a written request to issue a Declaratory Ruling, the Department shall deny, in writing, the request to issue a Declaratory Ruling; issue a written Declaratory Ruling; or send a written request to the application which describes what additional information the Department needs to render a decision on the application for the issuance of a Declaratory Ruling.

SECTION 28.03: DECLARATORY RULINGS; BINDING EFFECT

A written Declaratory Ruling issued by the Kalamazoo County Health and Community Services Department is binding upon the Department, and the person requesting the Declaratory Ruling, unless:

- a. A Court of competent jurisdiction alters or sets aside the Declaratory Ruling; or,
- b. The Department alters or sets aside the Declaratory Ruling, but such action by the Department shall only have a prospective effect and no retroactive effect.

SECTION 28.04: DECLARATORY RULINGS; APPEAL

An interested person who disagrees with a written Declaratory Ruling issued by the Department may have the Declaratory Ruling reviewed at an Informal Hearing held in accordance with the provisions of CHAPTER 29 of this ARTICLE.

CHAPTER 29: INFORMAL HEARINGS

SECTION 29.01: INFORMAL HEARING; NOTIFICATION

- a. The Department shall provide all parties to an Informal Hearing with reasonable notice of the hearing and the written notice shall include:
 - i. A statement of the date, hour, place and nature of the hearing. Unless otherwise specified

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- in the Notice, the hearing shall take place at the principal offices of the Environmental Health Division.
- ii. A statement of the legal authority and jurisdiction under which the hearing is to be held.
 - iii. A reference to the particular SECTION(s) of the code, which will be addressed at the hearing.
 - iv. A detailed statement of the matters or violations asserted by the Department. If the Department cannot provide a detailed statement at the time the first notice is sent to the Respondent, the Department shall provide a general statement of the issues involved. If the Department initially provides a general statement, it shall provide the Respondent with a detailed statement as soon as practical.
 - v. A statement that the Respondent may request an adjournment of the Informal Hearing date if the Respondent submits a written request for an adjournment to the Department at least 48 hours prior to the scheduled hearing. The Department shall respond to the adjournment request prior to the scheduled hearing and if they grant the adjournment request they shall provide all parties involved in the hearing with a written notice of adjournment that contains the new date, and time, of the hearing.

SECTION 29.02: INFORMAL HEARING; RESPONSE TO NOTICE OF HEARING; EVIDENCE; ATTORNEYS

- a. A respondent who receives a Notice of Informal Hearing may, but is not required to, file a written answer to the Notice with the Department at any time prior to the completion of the Informal Hearing.
- b. All parties involved in the Informal Hearing shall have the right to present oral and written arguments on issues of law and policy during the hearing.
- c. All parties involved in the Informal Hearing shall have the right to present evidence and argument on issues of fact during the hearing.
- d. A party shall have the right to cross-examine a witness, including the author of any document offered into evidence, which was prepared by, on behalf of, or for the use of the Department.
- e. The Informal Hearing Officer shall, as far as practicable, require the parties to comply with the Rules of Evidence which apply in non-jury civil cases in a Circuit Court, but the Informal Hearing Officer may also admit and give probative effect to evidence which does not comply with the Rules of Evidence if it is a type commonly relied upon reasonably prudent persons of the conduct of their affairs. The Informal Hearing Officer may exclude irrelevant, immaterial or unduly repetitious evidence. The Informal Hearing Officer shall give effect to legally recognized privileges such as Attorney-Client, Physician-Patient, Priest-Penitent, etc.
- f. All parties may, but are not required to, have an attorney represent their interests at an Informal Hearing.

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SECTION 29.03: INFORMAL HEARING; FORMAT AND PROCEEDINGS; BURDEN OF PROOF

The Informal Hearing shall proceed, as much as practicable, according to the following sequence of events:

- a. The Informal Hearing Officer shall call the proceeding to order and provide the parties with a brief summary of information concerning the Informal Hearing. This statement can be oral or written and shall include:
 - i. The date, time and reason for the Informal Hearing.
 - ii. An introduction of those present, including their names, titles and the agency or person they represent.
 - iii. A description of the Informal Hearing format and that the hearing will be recorded.
 - iv. An acknowledgment that the Informal Hearing Officer has either received, or has not received any written statements or responses from the Respondent prior to the start of the Informal Hearing.
- b. After the Informal Hearing Officer completes all introductory remarks, the staff of the Environmental Health Division shall:
 - i. Present an overview/introductory statement which briefly describes the reason(s) why the Department has directed the holding of the Informal Hearing; the provision(s) of the Code or compliance schedule which the Respondent has alleged violated; and the evidence the staff intends to introduce during the Informal Hearing.
 - ii. After the staff completes its introductory statement, the Respondent may, but is not required to, make a statement in which the Respondent states his/her position and what evidence the Respondent intends to introduce during the Informal Hearing.
 - iii. The staff then shall present its evidence, including the testimony of witnesses, to the Informal Hearing Officer.
 - iv. After the staff finishes with its presentation of evidence, the Respondent has the opportunity to make an introductory statement if he/she/it has not already made such a statement and present his/her/its evidence, including the testimony of witnesses, to the Informal Hearing Officer. The respondent is not required to present any evidence.
 - v. After the Respondent finishes his/her/its presentation of evidence, the staff shall have the opportunity to make a final argument in support of its position.
 - vi. After the staff completes its final argument, the respondent shall have the opportunity to make a final argument in support of his/her/its position.
- c. The staff bears the “burden of proof” in an Informal Hearing, which requires the staff to prove

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its allegations against the respondent by a preponderance of the evidence (e.g. that the evidence shows that it is more likely than not that the respondent violated the provisions of this Code or a compliance schedule).

SECTION 29.04: INFORMAL HEARING; DECISION OF INFORMAL HEARING OFFICER

- a. After the conclusion of the final arguments, the Informal Hearing Officer shall issue an oral or written decision. If the Informal Hearing Officer issues an oral decision, he/she shall issue the decision immediately after the conclusion of final arguments and with all parties present. The Informal Hearing Officer shall reduce an oral decision to writing and send a copy of the decision to all parties within 14 working days of the completion of final arguments.
- b. All decisions, whether oral or written, must include a brief recap of testimony and evidence presented to the Informal Hearing Officer; the Informal Hearing Officer's finding of facts concerning the allegations raised by the staff and Department; and a determination of whether the staff has met its burden of proof and showed that the violations exist or occurred; and, if the staff has proven a violation, the action the respondent must take to correct the violation. Such action can include, but is not limited to, creation of a compliance schedule.

SECTION 29.05: APPEAL

Any party who disagrees with the decision of the Informal Hearing Officer may appeal the decision by requesting that the decision be reviewed through a Formal Hearing. A Respondent must submit a written request for a Formal Hearing within 35 days of the date on which the Informal Hearing Officer made his/her decision. The request for a Formal Hearing must contain a photocopy of the Informal Hearing Officer's written decision and any fee required by the Board of Commissioners.

CHAPTER 30: FORMAL HEARINGS

SECTION 30.01: REQUESTS FOR FORMAL HEARINGS

The Department may request a Formal Hearing if an individual fails to comply with a decision from an Informal Hearing, including failure to adhere to a compliance schedule. An individual may request a Formal Hearing for purposes of reviewing/appealing a decision from an Informal Hearing. All requests for Formal Hearings shall be in writing and contain a description of the reason why the individual or staff is requesting the Formal Hearing and a copy of the written decision of the Informal Hearing Officer if the Formal Hearing Board is being asked to review or enforce such a decision. Any person requesting a Formal Hearing shall provide the other parties with a copy of the request.

SECTION 30.02: FORMAL HEARINGS; SCHEDULING; PUBLIC NOTICE; OPEN TO THE PUBLIC

- a. The Manager of the Environmental Health Division shall schedule a Formal Hearing to start within 30 working days after the Department receives a Formal Hearing request.
- b. Formal Hearings shall be open to the public and notice of such shall be posted in the principal office of the Kalamazoo County Health and Community Services Department and the County Clerk at least 24 hours before the scheduled hearing. Such notice shall include the date, time,

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and location of hearing and the telephone number of the Department.

SECTION 30.03: FORMAL HEARINGS; NOTIFICATION

- a. The Manager of the Environmental Health Division shall serve a Notice of Formal Hearing on the Respondent through personal delivery or certified mail, restricted delivery. The Manager of the Environmental Health Division shall serve the Notice upon the respondent at least five business days before the date scheduled for the Formal Hearing unless an immediate hearing is required by this Code. The Notice shall include:
 - i. A statement of the date, hour, place and nature of the hearing. Unless otherwise specified in the Notice, the hearing shall take place at the principal offices of the Environmental Health Division.
 - ii. A statement of the legal authority and jurisdiction under which the hearing is to be held.
 - iii. A reference to the particular section(s) of the code, which will be addressed at the hearing.
 - iv. A detailed statement of the matters or violations asserted by the Department. If the Department cannot provide a detailed statement at the time the first notice is sent to the Respondent, the Department shall provide a general statement of the issues involved. If the Department initially provides a general statement, it shall provide the Respondent with a detailed statement as soon as practicable.
 - v. A statement that the Respondent may request an adjournment of the Formal Hearing if the Respondent submits a written request for an adjournment to the Manager of the Environmental Health Division at least 48 hours prior to the scheduled hearing. The Manager of the Environmental Health Division shall respond to the adjournment request prior to the scheduled hearing and if he/she grants the adjournment request he/she shall provide all parties involved in the hearing with a written notice of adjournment that contains the new date, and time, of the hearing.

SECTION 30.04: FORMAL HEARING; FORMAL HEARING OFFICER; DUTIES

The Formal Hearing Officer in a Formal Hearing acts as moderator of the proceedings but does not have the authority to render any final decisions as to whether the staff has sustained its burden of proof and proven its allegations. The Formal Hearing Board shall have the sole authority to enter final decisions as to whether the staff has sustained its burden of proof and proven its allegations.

SECTION 30.05: FORMAL HEARING; RESPONSE TO NOTICE OF HEARING; EVIDENCE; ATTORNEYS

- a. A Respondent who receives a Notice of Formal Hearing may, but is not required to, file a written answer to the Notice with the Manager of the Environmental Health Division at any time prior to the completion of the Informal Hearing.
- b. All parties involved in the Formal Hearing shall have the right to present oral and written arguments on issues of law and policy during the Formal Hearing.

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- c. All parties involved in the Formal Hearing shall have the right to present evidence and argument on issues of fact during the Formal Hearing.
- d. A party shall have the right to cross-examine a witness, including the author of any document offered into evidence, which was prepared by, on behalf of, or for the use of the Department.
- e. The Formal Hearing Officer shall, as far as practicable, require the parties to comply with the Rules of Evidence which apply in non-jury civil cases in a Circuit Court, but the Formal Hearing Officer may also admit and give probative effect to evidence which does not comply with the Rules of Evidence if it is a type commonly relied upon by reasonably prudent persons of the conduct of their affairs. The Formal Hearing Officer may exclude irrelevant, immaterial or unduly repetitious evidence. The Formal Hearing Officer shall give effect to legally recognized privileges such as Attorney-Client, Physician-Patient, Priest-Penitent, etc.
- f. All parties may but are not required to have an attorney at a Formal Hearing.
- g. The Department shall make all records in a case, including statements by the Department witnesses, available to Respondent for use on cross-examination.
- h. The Formal Hearing Officer shall be responsible for calling on appropriate members of the staff or outside professionals to act as witnesses on behalf of the Department.
- i. All evidence to be presented at a hearing shall be entered only at the time of the hearing. No evidence will be added or deleted after the hearing.
- j. A deposition may be used in lieu of other evidence, if taken in accordance with the Michigan Court Rules.
- k. Documentary evidence may be received in the form of a copy or excerpt. All documentary evidence incorporated by reference must be made available to the Respondent and Respondent's counsel prior to the Formal Hearing.

SECTION 30.06: FORMAL HEARINGS; FORMAT AND PROCEEDINGS; BURDEN OF PROOF; FORMAL HEARING BOARD'S RIGHT TO ASK QUESTIONS

The formal hearing shall proceed, as much as practicable, according to the following sequence of events:

- a. The Formal Hearing Officer shall call the proceeding to order and provide the parties with a brief summary of information concerning the hearing. This statement can be oral or written and shall include:
 - i. The date, time and reason for the hearing.
 - ii. An introduction of those present, including their names, titles and the agency or person they represent.

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- iii. A description of the hearing format and that the hearing will be recorded.
 - iv. An acknowledgment that the Formal Hearing Officer has either received, or has not received any written statements or responses from the Respondent prior to the start of the Formal Hearing.
 - v. At this time the Formal Hearing Officer shall also question the Formal Hearing Board Members as to any conflict of interest in the case before them.
- b. After the Formal Hearing Officer completes all introductory remarks, the staff of the Environmental Health Division shall:
- i. Present an overview/introductory statement which briefly describes the reason(s) why the Department has directed the holding of the Formal Hearing; the provision(s) of the Code or Compliance Schedule which the Respondent has alleged violated; and the evidence the staff intends to introduce during the hearing.
 - ii. After the staff completes its introductory statement, the Respondent may, but is not required to, make a statement in which the Respondent states his/her position and what evidence the Respondent intends to introduce during the hearing.
 - iii. The staff then shall present its evidence, including the testimony of witnesses, to the Formal Hearing Officer.
 - iv. After the staff finishes with its presentation of evidence, the Respondent has the opportunity to make an introductory statement if he/she/it has not already made such a statement and present his/her/its evidence, including the testimony of witnesses, to the Formal Hearing Officer. The respondent is not required to present any evidence.
 - v. After the Respondent finishes his/her/its presentation of evidence, the staff shall have the opportunity to make a final argument in support of its position.
 - vi. After the staff completes its final argument, the respondent shall have the opportunity to make a final argument in support of his/her/its position.
- c. The staff bears the “burden of proof” in a Formal Hearing, which requires the staff to prove its allegations against the respondent by a preponderance of the evidence (e.g. that the evidence shows that it is more likely than not that the respondent violated the provisions of this Code or a compliance schedule).
- d. The members of the Formal Hearing Board may ask questions of the parties and witnesses at any time. The Formal Hearing Board may also ask one or all parties to submit written proposed findings of fact for the Board’s review and possible adoption.

SECTION 30.07: FORMAL HEARINGS; DECISION OF FORMAL HEARING BOARD

- a. After the conclusion of the final arguments, the Formal Hearing Board shall issue an oral or written decision within thirty days of the completion of the Hearing. The Board shall

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announce its final decision to all parties at a meeting open to the public.

- b. All decisions, whether oral or written, must include a brief recap of testimony and evidence presented to the Formal Hearing Board; the Formal Hearing Board's finding of facts concerning the allegations raised by the staff, Department; and a determination of whether the staff has met its burden of proof and showed that the violations exist or occurred; and, if the staff has proven a violation, the action the respondent must take to correct the violation. Such action can include, but is not limited to, creation of a compliance schedule.
- c. The decision of the Formal hearing Board is final concerning the issue(s) addressed in the Board's decision.

SECTION 30.08: APPEAL

Any party who disagrees with the decision of the Formal Hearing Board may appeal the decision to the appropriate Circuit Court. A party must submit his/her/its written appeal to the Circuit Court within 60 days of the date on which the Formal Hearing Board mailed or personally served its written final decision to the parties.

SECTION 30.09: FORMAL HEARINGS; PREPARATION AND MAINTENANCE OF AN OFFICIAL RECORD

The Department shall prepare an official record of all hearings that shall include the following:

- a. Notices, inspection reports, correspondence and conversations.
- b. Questions and offers of proof made during the Formal Hearing and the objections and rulings thereon.
- c. Evidence presented.
- d. Matters officially noticed by the Formal Hearing Board except matters so obvious that a statement of them would serve no useful purpose.
- e. Proposed findings of fact if the Formal Hearing Board requested them.
- f. Any decisions, opinions, orders, or findings of fact by the Formal Hearing Officer presiding at the hearing and by the Department.

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ARTICLE VIII: CRIMINAL PENALTIES

CHAPTER 31: MAXIMUM PENALTIES; SEPARATE VIOLATIONS

- a. In addition to the enforcement procedures, civil penalties and hearing procedures contained in ARTICLES II-VII of this Code, the violation of any provision of this Code shall also be criminal misdemeanor. Any individual convicted in a court of law of violating any provision of this Code shall be imprisoned in the County jail for up to Ninety (90) Days, or fined up to Two Hundred Dollars (\$200.00), or both.
- b. Each day that a violation exists constitutes a separate and distinct violation of this Code.

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ARTICLE IX: RESIDUAL METHAMPHETAMINE CONTAMINATION CLEANUP REGULATIONS

CHAPTER 23a: PURPOSE

The Kalamazoo County Board of Commissioners has determined that it is necessary to ensure that buildings that have been used for methamphetamine activities are “safe” to reoccupy and has authorized the Kalamazoo County Health and Community Services Department to establish standards for the cleanup of methamphetamine laboratories used to manufacture and/or use methamphetamine. Pursuant to these regulations, property owners or any person seeking to occupy a building or to offer for occupancy a building, are required to meet all of the requirements set forth in these regulations before permitting the use of a building that has been used for methamphetamine activities, except that a property owner may elect instead to demolish the affected building.

CHAPTER 24a: APPLICABILITY

The requirements of ARTICLE IX apply: (1) when an owner of property has received notification from the Department that chemicals, equipment, or supplies indicative of a methamphetamine laboratory or smoking of methamphetamine have been identified at the property, or (2) when a methamphetamine laboratory is otherwise discovered, and the owner of the property has received notice.

CHAPTER 25a: DEFINITIONS SPECIFIC FOR ARTICLE IX

SECTION 25a.01: CHEMICAL STORAGE AREA

“Chemical Storage Area” means any area where chemicals used in the manufacture of methamphetamine are stored or have come to be located.

SECTION 25a.02: CLEANUP LEVEL

“Cleanup Level” means the numerical value, established in SECTION 30a of this regulation, that causes the consultant to determine if an area is compliant or noncompliant based on the results of sampling conducted in accordance with the sampling procedures presented in Appendix A of these regulations.

SECTION 25a.03: CONSULTANT

“Consultant” means an Environmental Professional, (as described in SECTION 25a.14 of these definitions), who conducts the preliminary and post-decontamination assessments.

SECTION 25a.04: CONTAMINANT

“Contaminant” means a chemical, chemical residue or compound that may be present and may pose an immediate or long-term threat to human health and the environment.

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SECTION 25a.05: CONTAMINATION or CONTAMINATED

“Contamination” or “Contaminated” means the presence of chemical residues, which may present an immediate or long-term threat to human health or the environment.

SECTION 25a.06: CONTRACTOR

“Contractor” means one or more individuals or commercial entities hired to perform decontamination work in accordance with the requirements of this regulation.

SECTION 25a.07: COOKING AREA

“Cooking area” means any area where methamphetamine manufacturing is occurring or has occurred.

SECTION 25a.08: DECISION LEVEL

“Decision Level” means that concentration, relative to the cleanup level, that shall be used to distinguish between compliant and non-compliant areas. The calculation for the decision level for composite samples is found in Appendix A, Composite Decision Level.

SECTION 25a.09: DECONTAMINATION

“Decontamination” means the process of reducing the level of contamination to a level as low as reasonably achievable (ALARA) using currently available methods. At a minimum, decontamination must reduce contamination of specified substances below the concentrations described in SECTION 30a of these regulations.

SECTION 25a.10: DEMOLITION

“Demolition” means the wrecking or taking out of any load-supporting structural member, including any related handling operations.

SECTION 25a.11: DISPOSAL

“Disposal” means handling, transportation and ultimate disposition of materials removed from contaminated properties.

SECTION 25a.12: DOCUMENTATION

“Documentation” means preserving a record of an observation through writings, drawings, photographs, or other appropriate means.

SECTION 25a.13: ENCAPSULATION

“Encapsulation” means applying a surface sealant to create a physical barrier intended to decrease or to eliminate the potential for exposure to residual contaminants that may exist beneath the physical barrier even after decontamination.

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SECTION 25a.14: ENVIRONMENTAL PROFESSIONAL

“Environmental Professional” means a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions, recommendations and conclusions regarding contamination conditions indicative of the use or manufacture of methamphetamine on, at, or in a building sufficient to meet the objectives and performance factors of these regulations.

SECTION 25a.15: METHAMPHETAMINE ACTIVITY

“Methamphetamine Activity” means the illegal manufacturing or use by smoking or heating of methamphetamine.

SECTION 25a.16: METHAMPHETAMINE LABORATORY

“Methamphetamine Laboratory” means a building, property or structure that is used or has been used for the manufacturing or storage of methamphetamine.

SECTION 25a.17: MEDIA

“Media” means the physical material onto which a sample substrate is collected. Media includes cotton gauze, glass fiber filters, MCE membranes, etc.

SECTION 25a.18: METHAMPHETAMINE

“Methamphetamine” means dextro-methamphetamine, levo-methamphetamine, and unidentified isomers of the same, any racemic mixture of dextro/levo methamphetamine, or any mixture of unidentified isomers of methamphetamine. The term includes derivatives, conjugates, oxides, and reduced forms of the basic structure of Methamphetamine.

SECTION 25a.19: NON-POROUS SURFACE

“Non-porous Surface” means a surface that does not readily admit the passage of gas, residue, or liquid through its pores or interstices.

SECTION 25a.20: POROUS SURFACE

“Porous Surface” means a surface that readily admits the passage of gas, residue or liquid through its pores or interstices.

SECTION 25a.21: PUBLICLY OWNED TREATMENT WORKS (POTW)

“Publicly Owned Treatment Works (POTW)” means a publicly owned domestic wastewater treatment facility.

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SECTION 25a.22: PRELIMINARY ASSESSMENT

“Preliminary assessment” means an evaluation of a property to determine the current condition, including the nature and extent of observable or detectable contamination.

SECTION 25a.23: REMOVAL

“Removal” means the taking out or stripping of material or surfaces to eliminate the potential for exposure to contaminants on or in the material or surfaces.

SECTION 25a.24: SUBSTRATE

“Substrate” means the material being collected. Substrates may include soils, water, painted surfaces, carpet debris, unidentified powders, dust, etc.

SECTION 25a.25: WASTE DISPOSAL AREA

“Waste Disposal Area” means any area where chemicals used or generated in the manufacture of methamphetamine are disposed or have come to be located.

SECTION 25a.26: WIPE SAMPLE

“Wipe sample” means a surface sample collected by wiping a sample media on the surface being sampled in accordance with Appendix A of these regulations.

CHAPTER 26a: CONDEMNATION PROCEDURES

Whenever the Department receives notice from a local law enforcement agency about the existence of any property or building that is or has been identified as having suspected methamphetamine activities, the Department shall institute the procedures set forth in these regulations. Notification from a law enforcement agency should include the property location by street address or other identifiable locators and date of discovery of methamphetamine activity.

If written notice is not provided and the Department is informed by other means or agencies, the Department shall contact the law enforcement agency that discovered the suspected methamphetamine activity and secure the necessary information.

SECTION 26a.01: The Department shall not be responsible for the initial removal and inventory of any chemicals found at a site of methamphetamine activity.

SECTION 26a.02: After a law enforcement agency completes its investigative work and prepares to leave a site of suspected methamphetamine activity, it may leave a Department condemnation sign (at least 7.5 inches by 9.5 inches) conspicuously posted on the entrance of the affected part of the building. If the condemnation sign is not posted by the law enforcement agency, the Department shall post the condemnation sign on the entrance of the affected building upon receipt of notification. Once this sign is posted, it shall be unlawful for any person to enter the site except by permission of the Department. This proscription shall not apply to law enforcement officers, health officials, or their

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agents or the owners' consultants and/or contractors who have been hired to assess or decontaminate the building. It shall be unlawful for any person, other than the Department or those given permission by the Department to remove this sign.

SECTION 26a.03: After the Department receives information from law enforcement that it has identified suspected methamphetamine activities and posted the appropriate condemnation sign, or after the Department has posted the condemnation sign, the Department shall contact the Owner, Occupant and Property Agent, if applicable, to inform the Owner and Occupant of their responsibilities relative to the condemnation notice. The Department shall issue a notice and Order requiring the Owner and Occupant to perform testing and/or clean up pursuant to this regulation. The Department shall include the following in the notice and order:

- a. Information about the potential health hazard;
- b. A summary of the Owner's and Occupant's responsibilities under this Code;
- c. Information that can assist the Owner and Occupant to locate appropriate services necessary to abate the potential health hazard.

SECTION 26a.04: Notice for Abatement or Removal must be served on the Owner, Occupant and Property Agent, if applicable, in one of the following ways:

- a. By registered or certified mail using the last known address of record;
- b. By a law enforcement officer authorized to serve a warrant;
- c. By the Department in person.

SECTION 26a.05: The Department shall send written notice about the condemnation within three business days of service of a notice for abatement describing the condition of the property and the action required to the following parties:

- a. The respective township/municipality in which the building is located;
- b. Local law enforcement agency;
- c. MDCH, if applicable.

SECTION 26a.06: Pursuant to this regulation, Owner(s) and/or Occupant(s) provided with a notice, including a posted notice informing them of the suspected methamphetamine activities, shall promptly act to vacate the Occupant(s) within 24 hours or proceed with eviction if necessary.

CHAPTER 27a: PRELIMINARY ASSESSMENT

A preliminary assessment shall be conducted by the consultant, in accordance with this regulation, prior to the commencement of property decontamination. Information gained during the preliminary assessment shall be the basis for property decontamination and clearance sampling. Access to the property shall be limited to those with appropriate training and personal protective equipment. The

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preliminary assessment report must be completed and signed by the Environmental Professional as defined in SECTION 25a.18 of these regulations. Information collected during the preliminary assessment shall include, but not be limited to, the following:

- a. Property description including physical address, legal description, number and type of buildings present, description of adjacent and/or surrounding properties, and any other observations made.
- b. Review of available law enforcement reports that provide information regarding the manufacturing method, chemicals present, cooking areas, chemical storage areas, and observed areas of contamination or waste disposal.
- c. Identification of structural features that may indicate separate functional spaces, such as attics, false ceilings and crawl spaces, basements, closets, and cabinets.
- d. Identification and documentation of areas of contamination. This identification will be based on assessment sampling necessary to verify the presence or absence of residual contamination.
- e. Identification and documentation of cooking areas if available.
- f. Identification and documentation of signs of contamination such as staining, etching, fire damage, or outdoor areas of dead vegetation.
- g. Identification of adjacent units and common areas where contamination may have spread or been tracked.
- h. Identification and documentation of common ventilation systems with adjacent units or common areas.
- i. Photographic documentation of property conditions, including cooking areas, chemical storage areas, waste disposal areas, and areas of obvious contamination.
- j. All assessment sampling shall be conducted as part of the preliminary assessment to characterize the presence, nature and extent of contamination. Assessment sampling and laboratory analysis shall be conducted in accordance with CHAPTER 29a and Appendix A of these regulations.
- k. The number and type of samples shall be based on the size of the area or material, the chemical or contaminant being tested for, and the purpose of the sample (i.e., initial assessment or final clearance). Composite sampling will be allowed for preliminary assessment purposes.
- l. The consultant may determine that some areas should be deemed to be contaminated based on data other than assessment sampling. Areas that are deemed to be contaminated do not need to be sampled as part of the preliminary assessment.

The property owner has the option of waiving the preliminary assessment process. In the event that the property owner elects to waive the preliminary assessment process, a verbal and/or written

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request shall be submitted to the Department indicating that the homeowner has elected to waive this portion of the preliminary assessment process. Verbal notification of intent to waive will be noted in Department files.

CHAPTER 28a: DECONTAMINATION PROCEDURES

If the results of the preliminary assessment identify that the building is contaminated as a result of methamphetamine activity or if the property owner elects to waive the preliminary assessment, decontamination shall be conducted to reduce the concentration of contaminants to the levels specified in CHAPTER 30a of this regulation. Decontamination shall be conducted in accordance with procedures designed to protect workers, future occupants, neighbors and the general public, and shall include, but not be limited to, the following:

SECTION 28a.01: Detergent water washing of non-porous, porous and semi porous surfaces that are contaminated, or that are reasonably expected to be contaminated, that will not be removed. It is strongly recommended that all carpet and padding suspected of being contaminated be discarded.

SECTION 28a.02: Removal of all contaminated material that will not or cannot be decontaminated to cleanup levels specified in CHAPTER 30a of this regulation. If sampling cannot demonstrate that cleanup levels have been met on any contaminated material, said material shall be removed and properly disposed of in accordance with these regulations. Any removal of asbestos or lead based paint must be conducted in accordance with all applicable Federal, State and Local requirements.

SECTION 28a.03: Encapsulation of porous and semi-porous surfaces may be conducted after detergent water washing and after clearance sampling has demonstrated that cleanup levels have been achieved.

SECTION 28a.04: Decontamination of ventilation systems by a trained contractor. It is recommended that the contractor use the National Air Duct Cleaners Association (NADCA) Guidelines for the decontamination of ventilation systems.

SECTION 28a.05: Water flushing of plumbing systems connected to the sanitary sewer to eliminate any residual chemicals.

SECTION 28a.06: Personal Property

- a. Personal property and items not attached to the building should be decontaminated to the cleanup levels specified in CHAPTER 30a of this regulation, or properly disposed in accordance with these regulations.
- b. Personal property that will not be disposed of should be sampled in accordance with procedures described in Appendix A of these regulations.
- c. Composite samples may be collected in accordance with the following procedure. Composite samples must be taken from items constructed of like materials that are contained within the same individual functional space (e.g., clothing from a bedroom closet may be sampled as a composite, fabric furniture within a living room may be sampled as a composite, draperies within an individual room may be sampled as a composite, non-porous goods such as wood or

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metal tables, shelves, cabinets, etc. in the same room may be sampled as a composite, etc.). A composite sample is considered representative of contaminant levels on all personal property of that type material within the same functional space. No more than four individual items may be included in any one composite sample. Should analysis of composite samples from multiple items indicate methamphetamine levels in excess of the cleanup level, all items comprising the composite sample will be considered to be in excess.

SECTION 28a.07: Any demolition, removal and disposal of all or part of a building, including waste generated from decontamination, shall be conducted in accordance with all local, State and Federal requirements.

CHAPTER 29a: POST-DECONTAMINATION SAMPLING AND ANALYTICAL PROCEDURES

SECTION 29a.01: Assessment sampling and laboratory analysis shall be conducted in accordance with Appendix A of these regulations.

SECTION 29a.02: Post-decontamination clearance sampling shall be conducted to verify that cleanup standards have been met. Sample collection and laboratory analysis shall be conducted in accordance with the procedures set forth in Appendix A of these regulations.

SECTION 29a.03: If preliminary assessment sampling was not performed, sampling shall be performed at all locations likely or possibly to have been contaminated, including all areas connected by shared ventilation systems. Otherwise, locations of samples shall be based on information gathered during the preliminary assessment. Samples shall be collected from:

- a. Areas expected to have the highest levels of contamination, such as cooking areas, chemical storage areas, and waste disposal areas.
- b. Areas where contamination may have migrated, such as adjacent rooms or units, common areas, and ventilation systems.

SECTION 29a.04: The number and type of samples shall be based on the size of the area or material, the chemical or contaminant being tested for, and the purpose of the sample.

- a. Discrete sampling is required in all cases;
- b. Composite sampling may only be conducted in situations where contamination is expected to be relatively evenly dispersed throughout a given area, and composite sampling will provide an accurate representation of the area sampled, as described in Appendix A.

SECTION 29a.05: Sample handling, including labeling, preservation, documentation, and chain-of-custody, shall be conducted in a manner consistent with the requirements of the analytical method being used.

SECTION 29a.06: Analytical methods shall be appropriate based on the compound being sampled.

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SECTION 29a.07: Quality Control/Quality Assurance (QA/QC) samples, including sample blanks, matrix spike and matrix spike duplicates, shall be collected and/or analyzed as specified in the sampling and analysis protocols presented in Appendix A of these regulations.

SECTION 29a.08: If the property has an onsite sewage treatment system (OSTS), evaluation and potential sampling of the OSTs may be necessary. The investigation and cleanup of soil, surface water and groundwater contamination resulting from disposal of methamphetamine waste into a OSTs shall be conducted in accordance with all applicable rules and requirements imposed by the MDEQ Remediation and Redevelopment Division.

CHAPTER 30a: CLEAN UP LEVELS

The following cleanup levels shall be used to determine if a building has been adequately decontaminated. They may also be used during the preliminary assessment to demonstrate that a building, or portion of a building, is not contaminated. All properties must meet the cleanup level for methamphetamine. Additional cleanup levels that may be applied to a property shall be based on information gained during the preliminary assessment.

SECTION 30a.01: Surface wipe samples for methamphetamine shall not exceed a concentration of $0.5 \mu\text{g} / 100 \text{ cm}^2$.

SECTION 30a.02: The investigation and cleanup of outdoor contamination, including soil, surface water and groundwater, shall be conducted in accordance with the MDEQ Remediation and Redevelopment Division.

CHAPTER 31a: POST-DECONTAMINATION REPORTING

A final report shall be prepared by the consultant to document the decontamination process and demonstrate that the property has been decontaminated to the cleanup levels listed in CHAPTER 30a of these regulations. The final report shall be complete and signed by the Environmental Professional and include, but not be limited to, the following:

SECTION 31a.01: Property description including physical address, legal description, ownership, number and type of buildings present, description of adjacent and/or surrounding properties, and any other observations made.

SECTION 31a.02: Description of manufacturing methods and chemicals used, based on observations, law enforcement reports and knowledge of manufacturing method, if available.

SECTION 31a.03: If available, copies of law enforcement reports that provide information regarding the manufacturing method, chemicals present, cooking areas, chemical storage areas, and observed areas of contamination or waste disposal.

SECTION 31a.04: A description of cooking areas.

SECTION 31a.05: A description of areas with signs of contamination such as staining, etching, fire damage, or outdoor areas of dead vegetation, with a figure documenting location(s).

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SECTION 31a.06: The results of inspection of plumbing system integrity and identification of sewage disposal mechanism.

SECTION 31a.07: If applicable, a description of adjacent units and common areas where contamination may have spread or been tracked.

SECTION 31a.08: If applicable, an identification of common ventilation systems with adjacent units or common areas.

SECTION 31a.09: A description of the sampling procedures used, including sample collection, handling, and QA/QC.

SECTION 31a.10: A description of the analytical methods used and laboratory QA/QC requirements.

SECTION 31a.11: A description of the location and results of initial sampling (if any), including a description of sample locations and a figure with sample locations and identification.

SECTION 31a.12: A description of the decontamination procedures used and a description of each area that was decontaminated.

SECTION 31a.13: If applicable, a description of the removal procedures used and a description of areas where removal was conducted, and the materials removed.

SECTION 31a.14: If applicable, a description of the encapsulation procedures used and a description of the areas and/or materials where encapsulation was performed.

SECTION 31a.15: A description of the waste management procedures used, including handling and final disposition of wastes.

SECTION 31a.16: A description of the location and results of post-decontamination samples, including a description of sample locations and a figure with sample locations and identification.

SECTION 31a.17: Photographic documentation of pre- and post-decontamination property conditions, including cooking areas, chemical storage areas, waste disposal areas, areas of obvious contamination, sampling and decontamination procedures, and post-decontamination conditions.

SECTION 31a.18: Consultant statement of qualifications, including professional certifications or qualifications within the Environmental Profession and description of experience in assessing contamination associated with methamphetamine activity.

SECTION 31a.19: Certification of procedures and results, and variations from standard practices.

SECTION 31a.20: A signed certification statement in one of the following forms, as appropriate:

“I do hereby certify that I conducted an assessment of the subject property in accordance with the Kalamazoo County Residual Methamphetamine Contamination Cleanup Regulations. I further certify that the property has been decontaminated in accordance with the procedures set forth in the Kalamazoo County Residual Methamphetamine Contamination Cleanup Regulations and that the

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cleanup standards established by Kalamazoo County have been met as evidenced by testing I conducted.”

“I do hereby certify that I conducted an assessment of the subject property in accordance with the Kalamazoo County Residual Methamphetamine Contamination Cleanup Regulations. I further certify that the cleanup standards established by Kalamazoo County have been met as evidenced by testing I conducted.”

SECTION 31a.21: Signature of the Environmental Professional.

SECTION 31a.22: The property owner and consultant shall each retain a copy of the report for a period of seven years.

CHAPTER 32a: LIFTING OF CONDEMNATION

Upon receipt of a copy of the Post-Decontamination Report or a Preliminary Assessment Report that states that contamination no longer remains or is not present in the building, the Department shall lift the condemnation and vacancy order by sending written notification to the property owner. Copies of the written notification shall also be sent to the township/municipality and consultant.

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CHAPTER 33a: REFERENCE MATERIALS

American Society for Testing and Materials (ASTM) Method D3278-96e1 (October 1997), Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester.

American Society for Testing and Materials (ASTM) Method D5756-02 (November 2002), Standard Test Method for Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Mass Concentration.

American Society for Testing and Materials (ASTM) Method D93-02a (December 2002), Standard Test Methods for Flash Point by Pensky-Martens Closed Tester.

Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup, EPA-560/5-86-017 (May 1986).

National Institute for Occupational Safety and Health (NIOSH), U.S. Department of Health and Human Services (DHHS), NIOSH Manual of Analytical Methods (NMAM), 4th. Ed., DHHS (NIOSH) Publication No. 94-113 (August, 1994), 1st supplemental publication 96-135 (1996), 2nd supplement publication 98-119 (1998):

Method 6009, Mercury (Issue 2, August 1994).

Method 9100, Lead in Surface Wipe Samples (Issue 2, May 1996).

Regulations Pertaining to the Cleanup of Methamphetamine Laboratories, Colorado Department of Public Health and Environment, Department of Public Health and Environment, 6 CCR 1014-3, (Adopted January 19, 2005)

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846 [Third Edition (November 1986), as amended by Updates I (dated July 1992), II (dated September 1994), IIA (dated August 1993), IIB (dated January 1995), III (dated December 1996) and IIIA (dated April 1998)]:

Method 1010, Pensky-Martens Closed-Cup Method for Determining Ignitability (Revision O, September 1986).

Method 1020A, Setaflash Close-Cup Method for Determining Ignitability (Revision 1, July 1992).

Method 1110, Corrosivity Toward Steel (Revision O, September 1986).

Method 6020, Inductively Coupled Plasma – Mass Spectrometry (Revision O, September 1994).

Method 8260B, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (Revision 2, December 1996).

Method 9014, Titrimetric and Manual Spectrophotometric Determinative Methods for Cyanide (Revision O, December 1996).

Method 9021, Purgeable Organic Halides (POX) (Revision O, December 1996).

Method 9034, Titrimetric Procedure for Acid-Soluble and Acid Insoluble Sulfides (Revision O, December 1996).

Method 9040B, pH Electrometric Measurement (Revision 2, January 1995).

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APPENDIX A: SAMPLING METHODS AND PROCEDURES

Purpose

The purpose of this appendix is to provide a procedure for reducing variability in sample collection for methamphetamine activities.

Pre-Decontamination sampling

In pre-decontamination sampling, the assumption (hypothesis) is made that the area is clean i.e. “compliant,” and data will be collected to find support for the hypothesis. Data (such as samples) are collected to “prove” the area is compliant. Sampling, if it is performed, is conducted in the areas with the highest probability of containing the highest possible concentrations of contaminants. Any data that disproves the hypothesis, including police records, visual clues of production, storage, or use or documentation of drug paraphernalia being present, is considered conclusive, and leads the consultant to accept the null hypothesis and declare the area non-compliant.

Post-Decontamination sampling

In post-decontamination sampling, the hypothesis is made that the area is non-compliant, and data are collected to test the hypothesis. The role of the consultant in post decontamination sampling is not to demonstrate that the area is “clean,” but rather, using biased sampling, to diligently attempt to prove that the area is not clean. The lack of data supporting the hypothesis leads the consultant to accept the null hypothesis and conclude that the area is compliant.

Decision Statement

If, based on the totality of the circumstances, the consultant finds that insufficient evidence exists to support the hypothesis that any given area is non-compliant, that area shall be deemed to be compliant with CHAPTER 30a of these regulations and shall be released. If objective sampling data indicate contamination is less than the cleanup level, that data may be used as *prima facie* evidence that insufficient evidence exists to support the hypothesis that any given area is non-compliant.

Area Samples

Buildings

Wipe Sample

For methamphetamine laboratories or buildings where methamphetamine activity has occurred, as defined in these regulations whose structural floor plan is not greater than 1,500 square feet, surface sampling shall be collected according to the following schedule.

Exception: for pre-decontamination scenarios, any and all other data may be used in lieu of sampling to reject the hypothesis and deem the area to be contaminated.

At least 1000 cm² of surface shall be sampled, unless the area is assumed to be non-compliant.

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- At least 1,000 cm² of total surface area must be sampled for any single laboratory identified pursuant to these regulations
- An additional 100 cm² must be sampled for every additional 400 square feet of structural floor space.
- A minimum of four samples shall be collected from any building where methamphetamine activity has occurred.

The required sample area shall be composed of no fewer than three discrete samples. Should composite samples be collected, each composite shall consist of no greater than five discrete samples collected in accordance with the procedures outlined in the section in this appendix on Composite Sampling.

Where the methamphetamine activity is located in a building other than a single-family dwelling, the potential of fugitive emissions must be considered. For example, if the area was located in a hotel room, and evidence of contamination extended into the corridor, the elevator, the lobby, and one adjacent room, there would be four separate areas to evaluate: 1) The primary hotel room, 2) the corridor/elevator complex 3) the lobby, 4) the adjacent hotel room.

Every area exhibiting indication of contamination shall be sampled. For example, where a single-family dwelling meets the definition of a methamphetamine laboratory, and an associated detached apartment contains indications of contamination, the dwelling and the apartment shall be evaluated separately.

Recreational Vehicles

Wipe Sample

For methamphetamine laboratories in recreational vehicles, surface sampling shall be collected according to the following schedule. Exception: for pre-decontamination scenarios, any and all other data may be used in lieu of sampling to reject the hypothesis and deem the area to be contaminated.

- A minimum of 500 cm² of surface shall be sampled, unless the area is assumed to be noncompliant.
- An additional 100 cm² must be sampled for every 50 square feet of structural floor space for any recreational vehicle, such as a motor home, trailer, or camper.
- A minimum of three samples shall be collected from any laboratory identified in a recreational vehicle.

The required sample area shall be composed of no fewer than three discrete samples. Should composite samples be collected, each composite shall consist of no greater than five discrete samples collected in accordance with the procedures outlined in the section in this appendix on Composite Sampling.

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Sampling Procedures

Non-Porous Surfaces - Wipe Samples

Wipe sampling shall be used to determine the extent of contamination on non-porous surfaces. Wipe samples shall be collected in accordance with the procedures set forth below for either discrete or composite samples.

Sample media may consist of one of the following:

- Gauze material, including Johnson & Johnson cotton squares or equivalent.
- Filter paper, including Whatman 40, 41, 42, 43, 44, 540, 541, Ahlstrom 54, VWR 454, S&S WH Medium, or other filter paper with equivalent performance.

The following procedure is for collecting discrete wipe samples from non-porous surfaces.

1. Attach disposable templates or masking tape to the area(s) to be sampled, being careful not to touch the area within the template. The sample area shall be 100 cm² (10cm by 10cm) or a multiple of 100 cm².
2. Prepare a rough sketch of the area(s) to be sampled.
3. The sample media should be wetted with distilled water or solvent (isopropyl alcohol or methanol) to enhance collection efficiency.
4. Use a new set of clean, non-powdered impervious gloves for each sample to avoid contamination of the sample media by previous samples and to prevent contact with the substance.
5. Press the sample media down firmly, but not excessively, with the fingers, being careful not to touch the sample surface with the thumb. Blot rough surfaces uniformly instead of wiping. Wipe smooth surfaces as described below.
6. Wiping may be done by one of the following methods:
 - a. Square method: Start at the outside edge and progress toward the center of the surface area by wiping in concentric squares of decreasing size.
 - b. "S" method: Wipe horizontally from side-to-side in an overlapping "S"-like pattern as necessary to completely cover the entire wipe area.
7. Without allowing the sample media to come into contact with any other surface, fold the sample media with the sampled side in.
8. Use the same sample media to repeat the sampling of the same area. If using the "S" method, the second pass shall be sampled by wiping with overlapping "S"-like motions in a top-to-bottom direction.

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9. Fold the sample media over again so that the sampled side is folded in. Place the sample media in a sample container, cap and number it, and note the number at the sample location on the sketch. Include notes with the sketch giving any further description of the sample.
10. At least one sample media blank, treated in the same fashion but without wiping, should be submitted for every 10 samples collected.

When collecting composite samples, the procedure outlined above shall be used with the following exceptions:

1. A single pair of gloves may be used to collect each single sample that will be part of a composite sample. However, a new pair of gloves must be used for each set of composite samples.
2. All individual samples that make up a composite sample must be placed in one sample container.

Porous Surfaces - Wipe Samples

Wipe sampling of porous surfaces may be conducted during the preliminary assessment, in lieu of vacuum sampling, in order to obtain a qualitative (absence or presence) identification of a chemical. Wipe sampling shall not be used to demonstrate that cleanup levels have been met on porous surfaces.

Outdoors

For laboratories with outdoor components, or laboratories which are exclusively outdoors, the following sampling must be performed when conditions indicate the potential for soil contamination. Sampling must be conducted in accordance with the grid sampling method as described in the Midwest Research Institute's publication titled "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup" (referenced in 40 CFR § 761.130), which is incorporated herein by reference. Surface samples shall be taken to a depth of no greater than 8 cm. Sample volumes should be at least 100 cm³ and no more than 250 cm³. (Guidance on soil sampling can be found in ASTM D5730, ASTM E1727, ASTM D4700, and the EPA Environmental Investigations Standard Operating Procedures and Quality Assurance (EISOPQA) Manual. Additional subsurface samples may be required.

Other outdoor surfaces should be evaluated based on best professional judgment. Wipe samples and destructive samples may be required.

Composite Sampling

Composite sampling is permitted by this regulation, as described herein. The consultant may not use composite sampling unless in their professional judgment, contamination is expected to be relatively evenly dispersed throughout a given area, such that the sampling will accurately represent the conditions of the methamphetamine activities. If compositing is used, then the composite shall consist of no greater than five discrete samples. Any composite sampling must consist of like media,

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matrices or substrates. The mixing of media, matrices or substrates is not permitted. All individual samples (designated as g), from which any single composite is formed must be of equal volume (for liquids), equal surface area (for surface wipe sampling or vacuum sampling) or equal weight (for solids).

Composite sampling may be implemented using one of the following sampling designs. The consultant shall choose the sampling design based upon the specific conditions of the drug laboratory being assessed.

Simple Random Composite Sampling

Figure 1A below illustrates a simple random composite sampling design. In this figure, the sampled area could represent any surface or media about which a decision must be made (such as a series of walls, or carpeting or even contaminated soils).

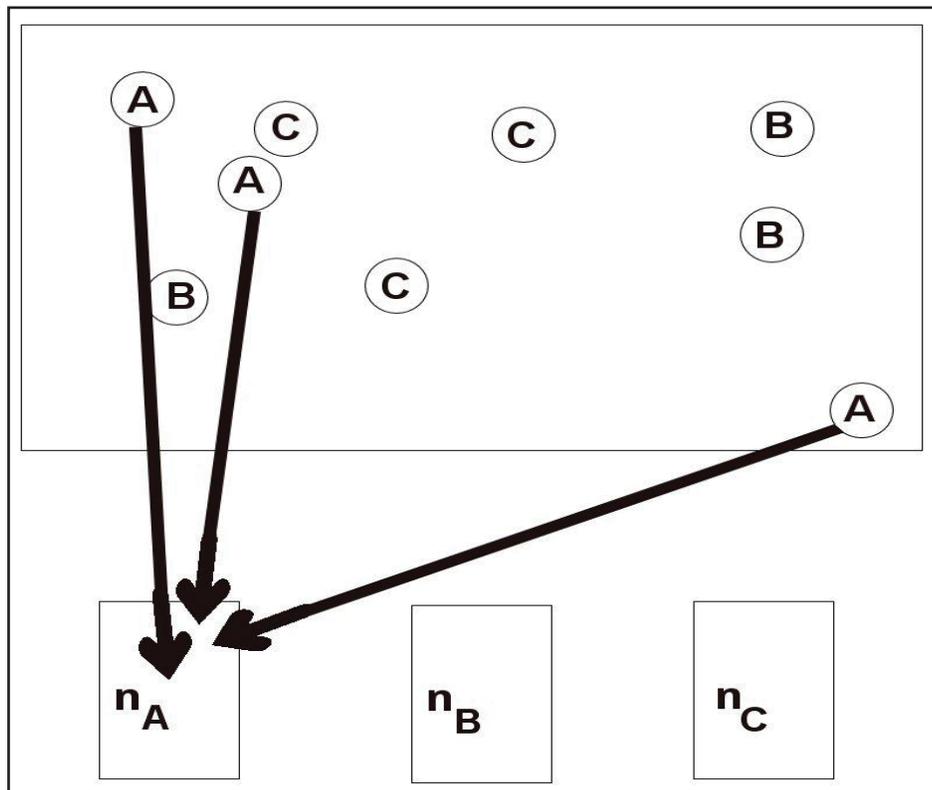


Figure 1A
Example of Random Sample Composites

In the above example, nine individual samples ($n \cdot g = 9$) are composited into three samples for submission to a laboratory (XA , XB , XC).

The individual sample locations can be selected by any number of methods such as those as described in American Society for Testing and Materials (ASTM) Method D6051-96 (2001), *Standard Guide for Composite Sampling and Field Subsampling for Environmental Waste Management Activities*. The “system of halves” as described in 40 CFR § 761.306 may also be used.

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An example of the “system of halves” is provided below and illustrated in Figures 1B and 1C.

1. Select the surface which represents the area of highest possible contamination
2. Delineate one square meter within the area
3. Divide the one square meter area in half with an imaginary line in any direction
4. Assign each half “heads” or “tails”
5. Flip a coin
6. Divide the “winning side” in half with an imaginary line in any direction
7. Flip a coin
8. Continue dividing the “winning” side until the winning side is between 100 cm² and 200 cm² and collect the wipe sample from that area
9. The method is repeated for each individual (g) of the composite

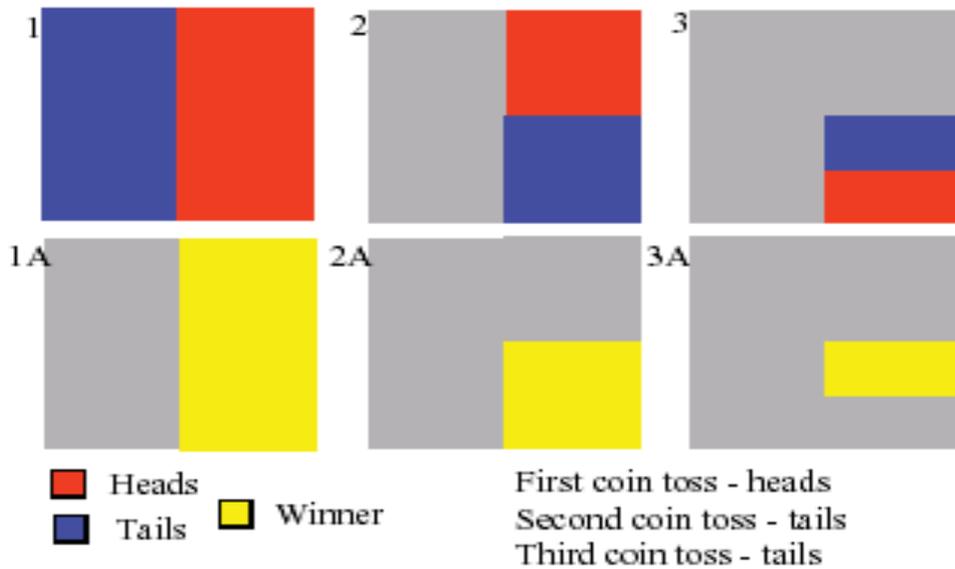


Figure 1B
Example of Random Sample Composites

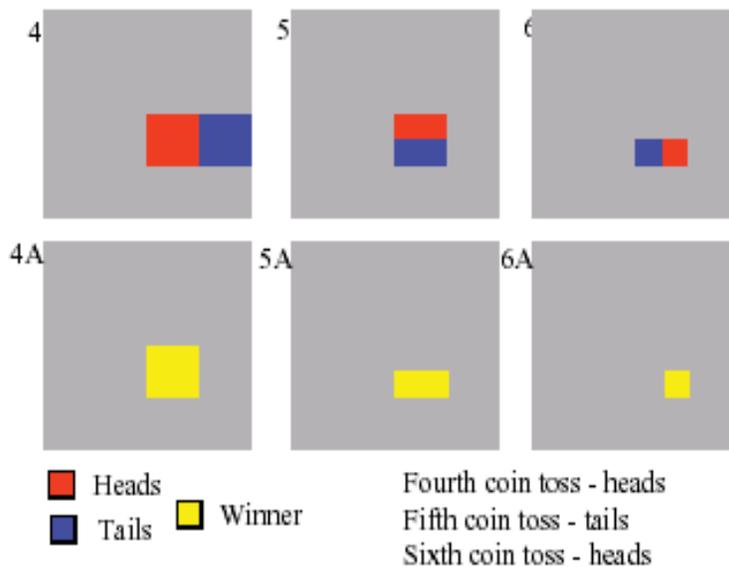


Figure 1C

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Systematic Composite Sampling

A systematic composite sampling design is illustrated in Figure 2. Each field sample collected at the “A” locations is pooled and mixed into one composite sample. The process is then repeated for “B,” “C,” “D” locations and so on. The relative location and size of each individual field sample (such as “A”) should be the same within each block.

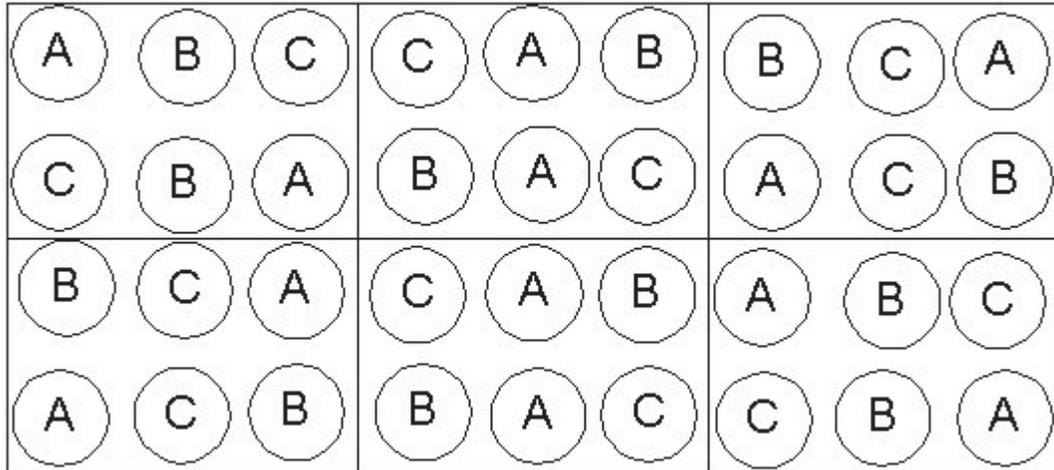


Figure 2
Example “A” of Systematic Sample Composites

A second systematic composite design is illustrated in Figure 3. This sample design involves collecting and pooling samples from *within* a grid (See Figure 3). Each field sample collected at the “A” locations is pooled and mixed into one composite sample. The process is then repeated for “B,” “C,” “D” locations and so on. The relative location and size of each individual field sample (such as “A”) should be the same within each block.

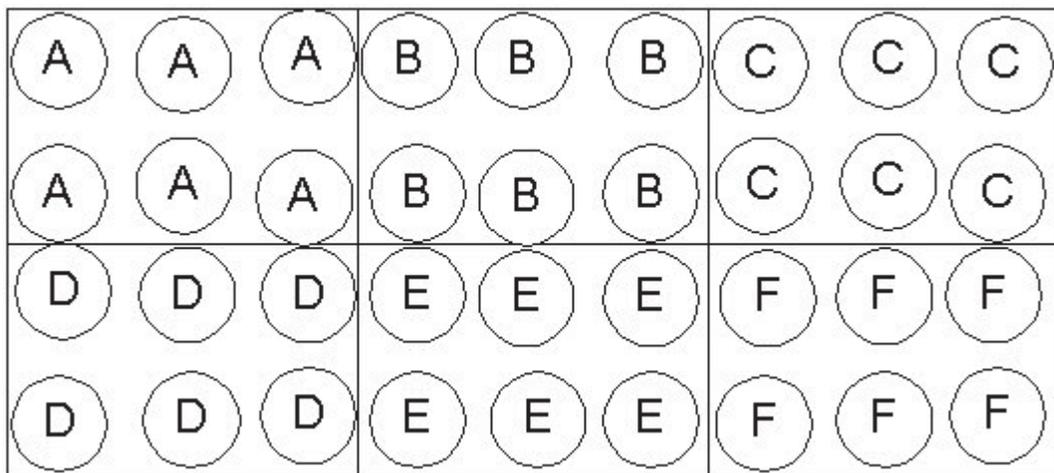


Figure 3
Example “B” of Systematic Sample Composites

For both assessment and post-decontamination sampling, either simple random composite sampling or systematic composite sampling may be used where contamination is expected to be relatively evenly dispersed throughout a given area, as described above, except the consultant shall selectively

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choose sample locations that represent the highest potential contamination, in accordance with the hypothesis being tested.

Composite Decision Level

If composite sampling is used, the following procedure shall be used for detecting hot spots to determine if one or more of the individual samples making up the composite could exceed the cleanup level, but remain undetected due to “dilution” that results from the compositing process.

The approach assumes the underlying distribution is normal and the composite samples were formed from equal-sized individual samples. In the following equations, CL represents the cleanup level that cannot be exceeded in any individual sample. It is assumed that the analytical limit of quantification, or quantitation limit (QL), is less than the cleanup level. For any laboratory result (X_i) from a composite sample formed from individual samples (g), the following rules shall be assumed:

- 1) If $X_i < CL$ then no individual sample (g) shall be deemed greater than the CL
- 2) If $X_i > CL$ then at least one sample *must* be, and as many as all individual samples *may* be greater than the CL

If it is determined that one or more individual samples making up the composite exceeds the cleanup level, all areas represented by the composite sample shall be considered to exceed the cleanup level unless a discrete sample of any individual area demonstrates that the cleanup level has been met in that area.

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ARTICLE X: BODY ART

CHAPTER 32: PURPOSE AND APPLICABILITY

ARTICLE X applies to all Body Art Facilities as defined in the Public Acts 2010, Act 375 and seeks to assure body art businesses are in compliance with State Law.

CHAPTER 33: GENERAL PROVISIONS

SECTION 33.01: AUTHORITY

Under the Public Health Code Act 368 of 1978 and most recently with the enactment of the Body Art Facilities Act, Act No. 375 Public Acts of 2010 MCL 333.13101, MDCH has the authority to designate an authorized agent or representative to administer the Act and the Rules promulgated under the Act. Pursuant to this authority, MDCH has designated the Department as authorized agents and representatives.

SECTION 33.02: POLICY

The Department shall enforce the provisions of Act No. 375 Public Acts of 2010 MCL 333.13101, as amended, consistent with ARTICLE VII of this Code. The Department shall initiate enforcement activities when the Department determines that the continued operation of a body art facility is an imminent danger under Public Health Code Act No. 368 of 1978 Section 2451. The Department shall order the immediate cessation of the operation of that facility in the manner prescribed in this act or there is a failure to comply with the Department's order to correct an existing deficiency.

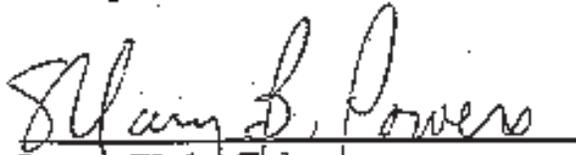
SECTION 33.03: PROCEDURE

- a. When one or more of the deficiencies listed in SECTION 33.02 of this Code takes place, the Department shall:
 - i. Cite any observed violation(s), consider the severity of the violation and develop a written correction schedule; and,
 - ii. Re-inspect the facility to confirm that the owner has complied with the correction schedule.
 - iii. If the owner of the Body Art Facility fails to comply with the correction schedule and correct the violations as directed, the Department may order closure and/or initiate an informal hearing pursuant to the procedure set forth in ARTICLE VII of this Code.
- b. An owner of the Body Art Facility, or the owner's designated representative, who disagrees with a Notice of Deficiency, an Order to take Corrective Action, a correction schedule or the Department's interpretation of the provisions of the State Law, may request an informal hearing pursuant to the procedure set forth in ARTICLE VII of this Code.

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KALAMAZOO COUNTY SANITARY CODE APPROVALS

These regulations were approved by the Kalamazoo County Board of Commissioners at a regular meeting on October 17, 2000.


Lorence Wenke, Chairperson
Kalamazoo County Board of Commissioners

10/17/2000
Date


Timothy A. Snow, County Clerk/Register

10/17/2000
Date

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on May 15, 2001. ARTICLE I, CHAPTER 2, SECTION 2.01 was amended; ARTICLE I, CHAPTER 3, SECTION 3.30 was amended; ARTICLE I, CHAPTER 3, SECTION 3.31 was amended; SECTION 3.36a was added to ARTICLE I, CHAPTER 3; SECTION 3.46a was added to ARTICLE I, CHAPTER 3; ARTICLE IIIa, "Public Swimming Pool Water Quality Testing" was added.

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on October 7, 2003. ARTICLE IIIb, "Water Supply Regulations – Restricted Zones" was added. ARTICLE IIIb becomes effective November 6, 2003.

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on May 16, 2006. ARTICLE IX, "Regulations Pertaining to the Clean Up of Methamphetamine Laboratories" was added. ARTICLE IX becomes effective May 16, 2006.

These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on September 18, 2007. ARTICLE I, "Purpose, General Provisions & Definitions", ARTICLE II, "Onsite Sewage Treatment Regulations", and ARTICLE IX, "Illegal Methamphetamine Laboratories Cleanup Regulations" were added. ARTICLE I, II and IX become effective November 12, 2007.


Timothy A. Snow
County Clerk/Register

KALAMAZOO COUNTY SANITARY CODE

KALAMAZOO COUNTY SANITARY CODE APPROVALS

These regulations were approved by the Kalamazoo County Board of Commissioners at a regular meeting on January 15, 2013.


David C. Maturen, Chairperson
Kalamazoo County Board of Commissioners

1.15.13
Date


Timothy A. Snow, Clerk/Register of Deeds

1.15.13
Date

Article I "Purpose, General Provisions and Definitions": Amend Sections 3.01, 3.14, 3.15, 3.17, 3.21, 3.23, 3.29, 3.31, 3.32, 3.38, 3.39, 3.42, 3.44, 3.49, 3.52, 3.61, 3.62, 3.65, 3.68, 3.72, 3.76, 3.78, 3.80 and 3.81: add new definitions for Baffle, Building Check Valve, Engineered System, Header pipe, Native Soil, New Construction Site, Priority Foundation Item, Priority item, Property, Soil Loading Rate, Vented Elbow, Structure and Violation; Delete existing definitions for Automatic Siphon, Cellar, Daylight Window, Imminent Danger, and Percolation Rate.

Article II "On-site Sewage Treatment Regulations": Chapter 5 "Purpose and Applicability" Amend Sections 5.02, 5.03, 5.04; Chapter 6 Onsite Sewage Treatment System Permitting Criteria" Amend Sections 6.03, 6.06, 6.08, 6.09, 6.10, 6.11, 6.12, 6.14; Chapter 7 "Requirements for the Construction and Maintenance of Individual Onsite Sewage Treatment Systems" Amend Sections 7.01, 7.02, 7.03, 7.04, 7.05, 7.06, 7.07, 7.08, 7.09, 7.10, 7.11, 7.12, 7.13, 7.14, 7.15, 7.16, 7.17; Chapter 8 "Onsite Sewage Treatment System Installer Registration Requirements" Amend Section 8.01.

Article IIIa "Public Swimming Pool Water Quality Testing": Amend Chapter 16a "Weekly Testing: Quarterly Testing; and Unacceptable Water Quality."

Article IV "Housing Regulations": Amend Chapter 16 "Purpose and Applicability"; Chapter 17 "Inspection of Dwellings, Dwelling Units and premises" Amend Section 17.01; Chapter 18 "Minimum Standards" Amend Sections 18.01 and 18.02; Chapter 19 "General Requirements" Amend Section 19.01; Replace the former Chapter 20 "Minimum Space, Use and Location Requirements" with a new Chapter 20 "Responsibility of Owners and Occupants"; Replace the former Chapter 21 "Responsibility of Owners and Occupants" with a new Chapter 21 "Designation of Unfit Dwellings and Condemnation Procedure"; Replace the former Chapter 22 "Designation of Unfit Dwellings and Condemnation Procedure" with a new Chapter 22 "Reserved for Future Use."

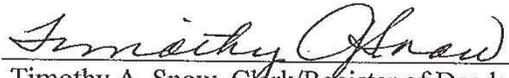
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Article VI "Food Protection Program; Inspection and Enforcement": Chapter 25 "Purpose and Applicability" Amend Sections 25.02, 25.03, and 25.04

Article IX "Illegal Methamphetamine Laboratories Cleanup Regulations": Amend Title of Article to "Residual Methamphetamine Contamination Cleanup Regulations" Amend Chapter 23a "Purpose", Chapter 24a "Applicability", Chapter 25a "Definitions Specific for Article IX", Chapter 26a "Condemnation Procedures", Chapter 27a "Preliminary Assessment", Chapter 28a "Decontamination Procedures", Chapter 29a "Post-Decontamination Sampling and Analytical Procedures", Chapter 30a "Clean Up Levels" and Chapter 31a "Post-Decontamination Reporting"; add Chapter 32a "Lifting of Condemnation" and rename Chapter 33a "Reference Materials" (currently Chapter 32A). Amend Appendix A "Sampling Methods and Procedures". Delete Appendix B "Analytical Methods", Appendix C "Ventilation System Decontamination" and Appendix D "Individual Onsite Sewage Treatment Systems".

Article X "Body Art": Add a new Article X entitled "Body Art" which defines Body Art establishments and provides for the licensing and inspection such establishments.

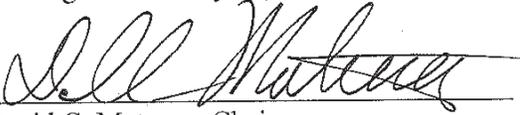
These regulations were amended at a regular meeting of the Kalamazoo County Board of Commissioners on January 15, 2013.


Timothy A. Snow, Clerk/Register of Deeds

KALAMAZOO COUNTY SANITARY CODE

KALAMAZOO COUNTY SANITARY CODE APPROVALS

These regulations were approved by the Kalamazoo County Board of Commissioners at a regular meeting on February 18, 2014.



David C. Maturen, Chairperson
Kalamazoo County Board of Commissioners

2.18.14
Date



Timothy A. Snow, Clerk/Register of Deeds

2.18.14
Date

Article IIIb "Water Supply Regulations – Restricted Zones" Chapter 19b Restriction Zones, added Section 19b.01 to 19b.05 and Section 19c.01 to 19c.06.

Appendix 10



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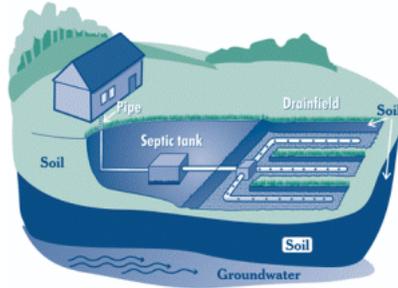
Body Art

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Environmental Health Division

ONSITE SEWAGE TREATMENT SYSTEMS

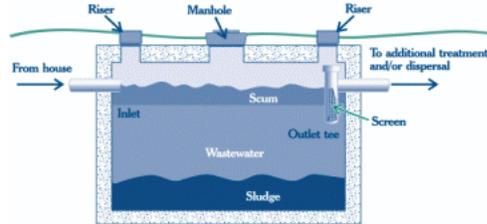


Onsite sewage treatment systems serve over 30,000 Kalamazoo County properties, where municipal wastewater service is unavailable. Rather than relying on a central wastewater treatment plant, onsite sewage treatment systems use soil at the property to treat small wastewater flows. A properly constructed and maintained sewage system relies on natural soil organisms, such as beneficial bacteria, to digest nutrients and kill pathogens in the wastewater before the liquid reaches groundwater -- Kalamazoo County's only source of drinking water.

The [Kalamazoo County Sanitary Code](#) details specific construction and permit requirements. A typical onsite sewage treatment system (STS) includes two components - a septic tank and a soil absorption system. Some systems may also include a pump chamber and pump.

Septic tank

The septic tank is a watertight concrete box that collects all wastewater leaving the house. In the septic tank, solid materials in the wastewater settle and collect at the bottom of the tank. Oils and scum float to the top of the tank. Clarified liquids discharge through a tee to a soil absorption system.



The Environmental Health Division recommends hiring a septic tank pumping service (see "septic" in the YellowPages) to remove accumulated solids in the tank every three years, so solids are not allowed to fill the tank or overflow into the soil absorption system. Since 2008, all new and upgraded sewage systems are required to have a riser(s) to grade to allow access to the septic tank for pumping.

The number of bedrooms and the presence of a garbage disposal determine the size of the tank. A garbage disposal is strongly discouraged because the disposal increases the amount of kitchen scraps and other solids that enter the septic tank and possibly pass into the soil absorption system.

A typical tank also contains a T-shaped outlet (known as a baffle or sanitary tee) in the septic tank to prevent sludge and scum from leaving the tank and moving into an absorption system. [Effluent filters](#) (or screens) are recommended (and required in systems using a pump) to keep solids from entering the soil absorption system.

Soil Absorption System

Liquid effluent passes from the septic tank to a soil absorption system. A soil absorption system consists of tile trenches, drainbeds, drywells (see Informational Sheets for more information), or other systems to distribute the effluent to the soil underground where natural microorganisms and oxygen treat the effluent by killing pathogens and digesting or recycling nutrients before reaching the groundwater. The depth of soil covering most new absorption systems is limited to six to 24 inches, so oxygen from the atmosphere can reach soil microbes.

Many newer absorption systems include an [alternator valve](#). The valve divides the absorption system into two parts by directing the flow of effluent. One half of the absorption system works, while the other half rests and recovers, which extends the life span of the system. Each year, a homeowner should turn the alternator valve and maintain access to the valve. [Contact us](#) if you are having trouble locating the valve. Alternator valves have been commonly installed in Kalamazoo County since 1997.

Maintaining and Protecting Your Onsite Sewage Disposal System

A key reason to maintain your onsite sewage treatment system is to save money! Failing systems are expensive to repair or replace, and poor maintenance is often the culprit.

- Have the septic tank pumped every three years by a licensed contractor.
- Turn the alternator valve annually to allow one part of your absorption system to rejuvenate.



- **Use water efficiently.** Leaky sinks and toilets can waste as much as 200 gallons each day. Low-flush toilets, an Energy Star-rated front-loading washing machine, and faucet aerators significantly reduce the amount of water that your sewage system needs to treat.
- Due to its high salinity, water softener discharge should be kept out of your onsite sewage treatment system.
- All wastewater from sinks, baths, showers, toilets, washing machines, and dishwashers must be discharged to the sewage treatment system.
- Plant only grass over and near your sewage treatment system. Do not plant any shallow rooted trees or shrubs, like willows or soft maples, near any portion of the system. Their roots will grow and travel laterally underground. As they seek water, they can grow into pipes causing blockages.
- Keep roof drains, groundwater sump pump drains, and other rain or surface water drainage systems directed away from the absorption field.
- Be alert. Unpleasant odors, soggy soil, liquid waste flow, or excessive grass growth over the absorption area can be signs that the system is in need of service.
- Do not build anything over or within fifteen feet of any part of your onsite sewage treatment system.
- Do not allow anyone to drive heavy vehicles, like cars or trucks, over any portion of the system. Pipes and tanks may be damaged or crushed.
- Don't dispose of household hazardous wastes in sinks or toilets. The [Kalamazoo County Household Hazardous Waste Center](#) accepts unwanted chemicals from most county households for no charge, including pure used motor oil, antifreeze, brake fluid, oil-based paints and stains, gasoline, cleaners, and other items.
- Avoid flushing sanitary napkins, tampons, disposable diapers, condoms, or other non-biodegradable products into your sewage system.
- Avoid flushing prescription and over-the-counter medications into your sewage system. Dispose of unwanted medications in your garbage cart for pickup service.

Informational Sheets

- [Sewage Backup Clean Up Recommendations](#) (pdf)
- [Septic Tanks -Why Should I Pump My Tank?](#) (pdf)
- [Can My Water Softener Discharge to My Onsite Sewage Disposal System?](#) (pdf)
- [Bull Run Alternator Valve](#) (pdf)
- [Trench](#) (pdf)
- [Drainbed](#) (pdf)
- [Mound](#) (pdf)
- [Drywell](#) (pdf)



The Kalamazoo County Health and Community Services Department programs are open to all without regard to race, sex, color, national origin, religion, height, weight, marital status, political affiliation, sexual orientation, gender identity, or disability.

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Appendix 11



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Environmental Health Division

WATER WELL ABANDONMENT

An abandoned well is a well no longer in use or in such disrepair that groundwater cannot be obtained. Wells that pose a health risk also meet the legal definition of an abandoned well. Each year many wells are abandoned when households connect to municipal water systems or have new wells drilled. Proper plugging of unused wells is required by The Groundwater Quality Control Act, Part 127, 1978 PA 368. To protect the health and safety of the community and yourself from liability, abandoned wells must be properly plugged. The well owner is responsible to assure proper abandonment.



Problems associated with abandoned wells

An abandoned well that is not properly plugged (sealed) can be a hazard to the community and the environment. The abandoned well can be a direct pipeline for introducing contamination into groundwater. Runoff water carrying bacteria, sediment, fertilizer, pesticides or other chemicals may flow directly into groundwater through the improperly abandoned well. Accidental or intentional dumping of waste materials down an unplugged pipe will contaminate groundwater.



Finding an abandoned well

Look for:

- Pipes sticking out of the ground
- Pipes sticking through the wall or floor in the basement
- Cement pits
- Windmills
- Old crock, brick, or stone structures
- Old hand pumps

To help determine if an abandoned well exists on your property, consult:

- Kalamazoo County Environmental Health Division
- Former property owners or neighbors
- Old photographs
- Fire insurance plan drawings



Homeowner plugging abandoned wells

In most cases, shallow (less than 30 feet deep) driven wells and large diameter dug wells can be successfully plugged by a well owner with the proper information. However, a poorly sealed well is no better than an open well. Simply capping an abandoned well is not an acceptable alternative. Before attempting to plug the well, review state well plugging regulations and make sure that you understand all steps. Never use waste materials for well plugging. The use of improper materials can lead to groundwater contamination. The most common well plugging materials used in Michigan are prepared bentonite grout, dry bentonite chips or pellets, and neat cement.

Seek a registered well driller to plug the following well types:

- Drilled wells
- Flowing wells
- Wells greater than 30 feet deep
- Wells where water is seeping around the casing
- Wells which produce gas
- Wells where pumping equipment is difficult to remove

Cost of well plugging

Cost varies depending on well depth, casing diameter, and the amount of plugging material required. Having an old well plugged at the same time a new well is being drilled or when connecting to a municipal water supply can reduce costs.

Steps to plug a water well

- Contact Kalamazoo County Environmental Health Division to request a copy of the water well and pump record (if available). The well driller files this record after completing the well. It provides information such as the well depth, casing diameter and depth of static water. Check out the historical water well records at [Welllogic](#).
- Follow the [Michigan Water Well Construction and Pump Installation Code](#). **Note: Simply capping a water well is not an approved plugging practice.**
- Completion of the [Abandoned Well Plugging Record](#) is required by the Groundwater Quality Control Act and must be submitted to Kalamazoo County Environmental Health Division.

Municipal water connection

The Groundwater Quality Control Act, Part 127, 1978 PA 368, as amended, states "A well that is abandoned when municipal water is installed shall be plugged pursuant to the provisions of these rules." A well owner is responsible for ensuring unused wells are properly plugged. A registered water well driller is recommended to perform this work.

A private water well may be retained for irrigation purposes if all isolation and construction code requirements meet The Groundwater Quality Control Act. The City of Kalamazoo and the City of Portage may require installation of a reduced pressure back flow preventer (RPZ) on the municipal service line. Keeping the water well in service may require periodic testing at the well owner's expense. This is to insure the protection of the city water supply. Please contact the City of Kalamazoo or the City of Portage offices for specific requirements. A letter of intent to keep the well for irrigation purposes is required by our office. Please send the form [Well Irrigation Confirmation](#) (PDF) to our office after connection to the Municipal Water Supply.

More information

- [Kalamazoo County Environmental Health Division](#)
- Registered water well drilling contractors in the phone book under Water Well Drilling and Service
- The [Michigan Department of Environmental Quality, Well Construction Unit](#)



The Kalamazoo County Health and Community Services Department programs are open to all without regard to race, sex, color, national origin, religion, height, weight, marital status, political affiliation, sexual orientation, gender identity, or disability.

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Appendix 12

ISSUED: July 30, 2012

ORDER NO.: 6.10

SUBJECT: Unknown Substance/Hazardous Materials Incidents and Investigations

This order provides basic response guidelines for the investigation of suspected hazardous materials and unknown substances. The Public Safety Department Fire Division shall be the primary emergency response agency for all suspected hazardous materials (haz-mat) incidents. The Fire Division Incident Commander (IC) shall assess the site and circumstances to determine if a release of hazardous materials has occurred. If, in the judgement of the IC, such a release has occurred, the following procedure shall be implemented.

The Fire Division is responsible and has the authority to restrict/require specific actions (e.g., evacuation) until a dangerous situation is abated. Public Safety Department Fire Division personnel shall respond to haz-mat incidents in a defensive mode only to identify and confine hazardous materials pursuant to their training. Other city employees will respond to a haz-mat incident and assist in the mitigation of the circumstances in accordance with their level of training in handling hazardous materials. It will be the primary responsibility of the Fire Division to conduct, assess and investigate suspected contamination as authorized by the IC.

- A. A Unified Incident Command System (ICS) shall be implemented at all suspected or confirmed haz-mat incidents. The Fire Division shall advise all responding departments of the location for the unified incident command post. Pursuant to state statute, the Fire Division shall be responsible for the abatement of the hazardous situation.
- B. Following the determination that a haz-mat incident has occurred, the IC shall notify Portage Central Dispatch of the incident and request a response by the Kalamazoo County Haz Mat Response Team (KCHMT). The KCHMT is specifically responsible for control efforts (i.e., stopping or controlling a release). The IC shall designate a Fire Division employee as a liaison between the command post and Central Dispatch. This individual will also ensure that emergency notifications, which may include the following, are completed:
 1. Kalamazoo County Emergency Management Director (through Kalamazoo County Sheriff dispatch).
 2. Michigan DNRE Pollution Emergency Alerting System (PEAS) (800-292-4706).
 3. Michigan Department of Labor and Economic Growth, Bureau of Fire Services (Voice Mail = 517-322-5316 or Pager = 888-237-4081).
 4. City of Portage contacts:
 - a. Director of Parks, Recreation & Public Services: Any incident requiring diking materials (i.e., sand), traffic rerouting, etc.
 - b. Public Safety Department – Police Division: Assistance with traffic control, evacuations or other emergency activities.

- c. Office of the City Manager: Large scale or serious incidents where the City Manager should be appraised or where activation of the Emergency Coordination Center (ECC) may be necessary.
- d. Director of Transportation and Utilities.

5. American Red Cross local chapter (if evacuations are ordered).

6. Based on the size and complexity of the incident, additional notifications may be necessary as determined by Fire Division procedures.

Note: The purpose of these notifications shall be identified by the Fire Division and it shall be clarified as to whether assistance is being requested from those agencies being notified or if it is an “information only” notification.

- C. Any attempt to verify the presence of a reported substance or identify a discovered substance shall be in accordance with the level of training of the responder. This may be delegated to responding KCHMT members.
- D. Where incidents of contamination are involved, the IC shall implement an emergency response in accordance with the Fire Division standard operating guidelines.
 - 1. A clean-up contractor shall be contacted if necessary. If identification of a responsible party is not immediately practical, the IC (or designee) must contact the MDNRE for cleanup and payment. Only if this is not successful should the city commit to payment for cleanup. The Director of Transportation and Utilities has authority to contact a cleanup contractor to mitigate the incident and obligate the city for payment of the cleanup.
 - 2. As soon as is practical, the party responsible for the incident should be identified and held accountable for all clean-up efforts and associated costs.
 - 3. If conditions warrant, the IC, Public Safety Director or Senior Deputy Fire Chief – Operations may, at any time, request through the City Manager's Office, to initiate provisions of the Emergency Preparedness Response Plan, including activation of the city ECC or Kalamazoo County EOC as appropriate.
- E. The Director of Parks, Recreation and Public Services shall ensure that Portage Central Dispatch is, at all times, provided with the appropriate telephone numbers and order of call-in for department personnel. The Director of Parks, Recreation & Public Services is responsible for providing proper and current telephone numbers for the MDNRE.
- F. The IC shall be responsible for all decisions related to incident and hazardous materials management, including communicating with and directing all other responders.
 - 1. A unified command shall be established with representatives of involved city departments, the responsible party, or representative thereof (if identified and on site), and other state and/or federal response agencies.

2. If the incident is determined to be the result of criminal or terrorist activities, the site shall be specified as a crime scene and the security and investigation of the scene shall become the responsibility of the Police Division. The lead agency in the unified ICS will then switch from the Fire Division to the Police Division.
- G. All traffic and crowd control and necessary communication related to these services, including evacuation of persons from the affected area, shall be the responsibility of the Police Division on-site command officer, under direction of the IC.
- H. The Public Safety Director or Senior Deputy Fire Chief - Operations shall prepare an incident report by the next working day following the conclusion of the incident. (If the incident is determined to be a criminal incident, the criminal investigative report shall be the responsibility of the Public Safety Director.) The report shall summarize the investigation and actions taken. Directors of all other departments assisting at the incident shall provide a report of the activities performed by their respective departments to the Senior Deputy Fire Chief – Operations to aid in the preparation of the report. The report may contain recommendations to prevent a similar incident or for any needed follow-up actions that may be necessary. The report shall be transmitted to the Office of the City Manager.

DEPARTMENT OF TRANSPORTATION & UTILITIES

EMERGENCY PREPAREDNESS PLAN

STANDARD OPERATING PROCEDURES

December, 1998

January 14, 2015

7719 South Westnedge Avenue - Portage, Michigan 49002 (269) 329-4422

EMERGENCY PREPAREDNESS PLAN

DEPARTMENT OF TRANSPORTATION & UTILITIES
STANDARD OPERATING PROCEDURES

As part of the City of Portage Emergency Preparedness Plan, the Department of Transportation & Utilities in conjunction with United Water (the city's contractor for operation and maintenance of the water and sewer utility systems) will utilize the following Standard Operating Procedures in situations when major emergencies are declared. Major emergencies would include tornadoes or excessive wind and rain storms, major snow or ice storms, hazardous waste spills, or other such calamity that would impair normal operations of the city's water and sewer utility systems and/or normal operations of the city's traffic control system. Protection of the general public is of utmost concern and these standard operating procedures will serve as guidelines for both the Department of Transportation & Utilities and United Water personnel during emergency situations.

Emergency Preparedness Plan

When an emergency of such a magnitude occurs that activation of the City’s Emergency Operations Center is required, the following personnel assignments will be in effect:

<u>Location</u>	<u>Personnel</u>
Emergency Operation Center	Director of Transportation & Utilities (W. Christopher Barnes) – Primary Utilities Engineer (Kendra Gwin) – 1 st Alternate Traffic Engineer (Muhammad Arif) – 2 nd Alternate
Forward Command Center	United Water Project Manager (David Jones) Primary United Water Operations Supervisor (Bob Nieuwenhuis) 1st Alternate
Traffic Command Center	Traffic Engineer (Muhammad Arif) – Primary (Traffic)

Other departmental personnel such as our Project Manager and Utility Contract Administrator will be called in if necessary and report to the Department of Transportation & Utilities’ main office at 7719 South Westnedge Avenue. United Water employees will be called in in accordance with United Water’s Emergency Preparedness Contingency Plan.

Tornadoes

In the event of a tornado touching down in Portage and causing damage severe enough to cause activation of the City’s Emergency Operations Center, the Department of Transportation & Utilities as well as United Water will initiate twenty-four hour operation utilizing two twelve hour shifts until the emergency situation is over. Primary responsibilities include:

1. Traffic Flow - Assist Police Department and Parks, Recreation & Public Services Department in blocking off streets with barricades and establishing alternate routes utilizing temporary signage. Activities will be directed by the Director of Transportation & Utilities at the Emergency Operations Center through the Traffic Engineer assigned to the Traffic Command Center.

Barricades and signs can be obtained from Rathco Safety Supply, 6742 Lovers Lane, Portage, Michigan 49002, telephone 323-0153.

2. Traffic Control System - Provide assistance to Police Department in control of vehicular traffic within the city limits of the city. Traffic signals which are down or inoperable will need repair which could take considerable time. Police will have to direct and control traffic at key intersections. Where possible, damaged

signals will be placed on flash mode. The city's traffic signal maintenance contractor, Windemuller Electric, Inc., 1176 Electric Avenue, Wayland, Michigan 49348, telephone 1-800-333-3641 is to be contacted immediately to address the most critical traffic signal control problem areas.

3. Utility Operations - All emergency water and sanitary sewer activities will be directed by the Director of Transportation & Utilities at the Emergency Operations Center through the United Water Project Manager at the Forward Command Post. Primary responsibility is to assure that all sewer lift stations, water wells and water tower facilities are operational utilizing emergency power units where required.

On-site auxiliary power is available at the following water pumping stations:

Westfield Well Site	1,200 gpm	1.7 MGD
Milham Well Site	3,000 gpm	4.3 MGD
Portage Creek #1	1,200 gpm	1.7 MGD
Garden Lane #2	1,200 gpm	1.7 MGD
Garden Lane #3	900 gpm	1.3 MGD
Garden Lane #4	1,200 gpm	1.7 MGD
Garden Lane #5	700 gpm	1.0 MGD
Shuman #1	<u>1,000 gpm</u>	<u>1.4 MGD</u>
Total	10,400 gpm	14.8 MGD

10,400 gallons per minute (gpm) will maintain total distribution at normal usage. Normal usage in 2014 = 5.06 million gallons per day (MGD)

On-site auxiliary power is available at twelve major wastewater collection system lift stations. This provides for automatic operation at these sites. The stations with on-site auxiliary power are:

Station #1	518 East Osterhout Avenue
Station #2	9301 South Westnedge Avenue
Station #3	3010 Wells Avenue
Station #4	8267 South 12 th Street
Station #8	2214 Emily Drive
Station #22	4250 West Milham Avenue
Station #23	5575 S. 12 th Street
Station #26	1399 West Osterhout Avenue
Station #27	10401 East Shore Drive
Station #30	2222 Winters Drive
Station #31	3222 Coachlite Avenue
Station #56	3800 West Milham Avenue

The on-site auxiliary generator at the Haverhill water tower provides power to the repeater for the SCADA system wireless communication equipment and to the Police Department radio equipment located at the water tower site.

The on-site auxiliary generator at the Pine View water tower provides power to the repeater for the SCADA system wireless communication equipment.

Auxiliary power for the remaining wastewater collection system lift stations is provided by auxiliary units housed at the DPS maintenance facility. These units may be moved to locations in need of power for lift station operations, and will be coordinated and directed by the Director of Transportation & Utilities through the United Water Project Manager at the Forward Command Post.

Two 175 kw portable generators are available for sewer lift stations only. One 200 kw portable generator is located at the DPS facility for the facility's emergency power. If power is returned to this facility, this mobile unit is available for field operations.

4. Emergency Water Supply

a) If a water tower is damaged:

1. Manual control of pumps is required.
2. Pressure relief valves required on system.
3. Monitoring of system pressures at or near tank if possible.
4. Establish water points throughout area (hydrants or public buildings, i.e. schools, fire stations, etc.)
5. Tank trucks to haul water to areas without supply. Tank trucks can be obtained at Patterson Wayne & Sons Water, Climax, MI Phone # 269-720-8609 (Currently haul dairy products and they have several trucks with 6,000 – 9,000 gln. Capacity) or Balkema Excavating. - Phone #349-8627
Trucks must be disinfected before use.

b) If water tower remains in operation:

1. Set up water points throughout area (hydrants, public buildings, etc.)
2. Tank trucks to supply areas without water.
3. Shut off water supply to damaged structures where pipes are leaking.
4. Other emergency responses and activities are described in more detail in the attached Emergency Preparedness Contingency Plan.

Major Snow Storms

The Department of Parks, Recreation & Public Services has primary responsibility for snow removal operations during the winter months. During major storm events, the Parks, Recreation & Public Services will shift to a twenty-four operation utilizing two twelve-hour shifts. During these occurrences, United Water will make available those employees who have valid Commercial Drivers Licenses and are capable of operating snow removal equipment for the duration of the emergency event after utility emergency situations have been attended to.

Department of Transportation & Utilities personnel will also be available to supplement and assist the Streets Division during the period of twenty-four hour operation.

Hazardous Spills

In the event of a flammable or hazardous waste spill, the Department of Transportation & Utilities and United Water will provide whatever assistance is required by the Fire Department and Parks, Recreation and Public Services. Service will be provided in the following areas:

1. Traffic Control

Transportation and Utilities will assist Police in establishing and controlling alternate routes for detour or evacuation purposes. Signs and barricades can be obtained from Rathco Safety & Supply, 6742 Lovers Lane, Portage, MI 49002, telephone 323-0153.

2. Containment

Transportation & Utilities will provide engineering assistance as requested by the Fire Department or the Parks, Recreation & Public Services Department to contain a hazardous spill. The city has under contract Terra I/S, (269-342-0231 or 1-866-354-8963) for emergency spill response when no identified responsible party can be located.

Appendix 13

Land Divisions with Public Improvements

Address:

Project Name:

This checklist is intended as a guide to assist the applicant in the Administrative, Planning Commission and City Council review process of land divisions that include public improvements. The applicant is responsible for being sufficiently familiar with and have a working knowledge of the codes and ordinances of the City of Portage but the Department of Community Development will be glad to assist. A meeting with Department staff is encouraged.

Filing Information

Yes No N/A

- 1. Development Application
- 2. Filing fee per fee schedule
- 3. Eight (8) sets of final plan documents and one 11" x 17" reproduction of the plan
- 4. Verification of submittal to the following authorities as noted
 - Kalamazoo County Road Commission
 - Michigan Department of Natural Resources and Environment
 - Kalamazoo County Drain Commission
 - Kalamazoo County Planning Department
 - Other _____

Plan Preparation and Guidelines

Yes No N/A

- 1. All plans will be drawn on uniform sheets no greater than 30" x 42".
- 2. All plans will be drawn to an engineering scale not to exceed 1" = 50' or less than 1" = 20' with a north arrow oriented to the top of the sheet.
- 3. All plans will be clear, legible and accurately scaled
- 4. If more than one plan/set, all required plans will be stapled along the left margin into sets. All plans will be folded to a size not greater than 8-1/2" x 14".

Land Division Plan Requirements

Yes No N/A

- 1. Name, address and phone number of property owner, applicant, engineer and/or architect.
- 2. Legal description of property, including parcel area
- 3. Vicinity map showing closest major cross streets, zoning and existing land use of adjacent parcels
- 4. Property lines and lot dimensions.
- 5. Existing and proposed topography depicted in two-foot contour lines labeled with USGS datum
- 6. Location of all buildings on adjacent properties within 200 feet.
- 7. Building setbacks on front, side rear.
- 8. Location and type of natural features such as woods, wetlands, streams, rivers, lakes, drains, etc.
- 9. Access both pedestrian and vehicular, showing approach type, radii on curb returns and points of ingress and egress.
- 10. Adjacent right-of-ways including private driveways, curb, gutter, sidewalks, median islands, streetlights, hydrants.
- 11. Location of existing and proposed water main and/or water service, fire hydrants or private well.
- 12. Location of existing and proposed sewer main and/or sewer lead or septic tank.
- 13. Location of existing and proposed storm water structures and system.
- 14. Location of private utilities including electric, gas, phone, cable, etc.
- 15. Other _____

Site/Final Plan Information

Address:

Project Name:

This checklist is intended as a guide to assist the applicant in the Administrative/Planning Commission site plan review process. The applicant is responsible for being sufficiently familiar with and have a working knowledge of the codes and ordinances of the City of Portage but the Department of Community Development will be glad to assist. A meeting with Department staff is encouraged.

Filing Information

Yes No N/A

- 1. Development Application
- 2. Filing fee per fee schedule
- 3. Eight (8) sets of final plan documents and one 11" x 17" reproduction of the plan
- 4. Permits required from other agencies as noted:
 - Kalamazoo County Road Commission
 - Kalamazoo County Environmental Health Division
 - Michigan Department of Natural Resources and Environment (MDNR-E)
 - Kalamazoo County Drain Commission
 - Kalamazoo/Battle Creek International Airport
 - Kalamazoo County Planning Department
 - Other _____
- 5. For final/specific plans, confirmation of conformance with the previously approved tentative plan.
- 6. For final/specific plans, any easements, restrictive covenants, bonds or other appropriate documents.

Plan Preparation and Guidelines

Yes No N/A

- 1. All plans will be drawn on uniform sheets no greater than 24" x 36".
- 2. All plans will be drawn to an engineering scale not to exceed 1" = 50' or less than 1" = 20' with a north arrow oriented to the top of the sheet.
- 3. All plans and notations will be clear, legible and accurately scaled.
- 4. If more than one plan/set, all required plans stapled along the left margin into sets. Please fold to a size not greater than 8-1/2" x 14".

Plan Information

Yes No N/A

- 1. Name, address and phone number of property owner, applicant, engineer and/or architect.
- 2. Legal description of property, including parcel area and building/property address number.
- 3. Vicinity Map showing closest major cross streets, zoning and existing land use of adjacent parcels.
- 4. Property lines, lot dimensions and existing easements.
- 5. Building height, type of construction (per the State of Michigan Construction Code) and square footage of all floors including basements and mezzanines.
- 6. Existing and proposed topography depicted in two-foot contour lines labeled with USGS datum.
- 7. Location, dimension and area of existing and proposed buildings on site, and location of all buildings on adjacent properties within 200 feet.

Yes No N/A

8. Building setbacks on front, side and rear and spacing between buildings on site.
9. Location and type of natural features such as woods, wetlands, streams, rivers, lakes, floodplains, drains, etc.
10. USGS first floor elevation of all buildings.
11. Soil erosion control/site grading measures:
- Timing schedule indicating the anticipated start and completion dates of the development stage(s) and the time of exposure of each area prior to the completion of effective erosion and sediment control measures.
 - Calculations of the quantity of excavation and fill involved.
 - Elevations, dimensions, location, extent and slope of all proposed grading including building and driveway grades.
 - Estimated cost of all required temporary and permanent soil erosion control measures.
 - On-site drainage flow and all temporary and permanent soil erosion control measures that will be constructed in conjunction with the proposed work.
 - Map showing all land areas contributing run-off or drainage to the site.
 - Estimated runoff that will be conveyed to an existing lake, stream, wetland or drain, if applicable.
12. Access to the site - both pedestrian and vehicular, showing approach type, radii on curb returns, points of ingress and egress and cross access with adjoining properties.
13. Access to adjacent properties - both pedestrian and vehicular, and across the street from the proposed project showing driveway width and radii on the curb returns.
14. Off-street parking and loading areas showing location, number and typical dimension of standard and barrier free spaces, and location and dimension of loading areas.
15. Adjacent right-of-ways including private driveways, curb, gutter, sidewalks, median islands, streetlights, hydrants.
- Width of adjacent public and/or private road right-of-way: _____
16. Location of existing, proposed and size of water main and/or water service, fire hydrants or private well.
17. Location of existing, proposed and size of sewer main and/or sewer lead or septic tank.
18. Location of existing, proposed and size of storm water structures and systems. The storm water system must be designed in accordance with the Storm Water Design Criteria Manual.
19. Location of private utilities including electric, gas, phone, cable, etc.
20. Location of refuse disposal area and method of screening if visible from a public right-of-way or adjacent to a residential use or zone.
21. Location of existing and/or proposed signs.
22. Location and type of proposed screening, fencing or landscaping particularly around the perimeter of the proposed project.
23. Exterior lighting:
- Location of all outdoor lighting fixtures, including but not limited to, freestanding pole fixtures, building-mounted and canopy light fixtures on the site and building elevations.
 - Outdoor light fixtures shall be shielded or constructed so that light rays emitted by the fixture are projected below the horizontal plane passing through the lowest point on the fixture from which light is emitted (e.g. shoebox-type fixture). Incandescent lamps of one hundred and sixty (160) watts or less, glass tubes filled with neon, argon and krypton and any other light source of fifty (50) watts or less need not be shielded. Decorative luminaries above fifty (50) watts shall have internal and/or external reflectors that shield the light source.
 - The intensity of light on a site shall not exceed three-tenths (0.3) foot-candles at any property line that abuts a public park or Residential District or use property.
 - A photometric grid overlaid on the proposed site plan (or landscape plan) must be submitted for parking lots which exceed ten thousand (10,000) square feet and abut a public park or residential district or use indicating the light intensity throughout the site (in foot-candles). Measurements must be at ground level and shown at ten (10) foot spacing.
 - Manufacturer's specification sheets and details for the type of fixture being proposed including but not limited to the total lumen output, type of lamp, distribution type and method of shielding must be submitted.
 - The use of metal halide and fluorescent lamps is highly encouraged over low or high-pressure sodium or mercury vapor lamps. It is also recognized that new lamp types are occasionally introduced that may have similar characteristics as the currently preferred types that may also be desirable for use in outdoor lighting.
 - The maximum height of parking lot light fixtures shall not exceed 25 feet. An increase in height up to 35 feet in a Business or Industrial District may be approved when the poles are no closer than one hundred fifty (150) feet to a public park or Residential District boundary or use or public or private roadway.
 - Indirect illumination of signs, canopies and buildings is permitted provided a maximum one hundred and twenty five (125) watt bulb is utilized and there is no glare.

24. Other _____



Application for Residential Plot/Building Plan Approval

Department of Community Development

7900 South Westnedge Avenue • Portage, Michigan 49002 • (269) 329-4477

PROJECT INFORMATION

PROJECT DESCRIPTION	ADDRESS
---------------------	---------

IDENTIFICATION: OWNER OR LESSEE

ADDRESS			
CITY	STATE	ZIP CODE	TELEPHONE NUMBER

BUILDING CONTRACTOR

NAME		ADDRESS	
CITY	STATE	ZIP CODE	TELEPHONE NUMBER
BUILDER'S LICENSE NUMBER	FEDERAL EMPLOYER ID NUMBER OR REASON FOR EXEMPTION		EXPIRATION DATE
WORKERS COMP INSURANCE CARRIER OR REASON FOR EXEMPTION		MESC EMPLOYER NUMBER OR REASON FOR EXEMPTION	

NOTE: APPLICANT TO PROVIDE THREE (3) 8.5"X11" PLOT PLANS AND TWO (2) SETS OF BUILDING PLANS

Have the Following Items Been Submitted?	Yes	No	NA
Scale:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lot Dimensions _____ W _____ D _____ A	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setback Dimensions _____ F _____ S _____ R	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location and Dimensions of Existing Structure(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location and Dimension of Proposed Structure(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of Proposed Paving/Driveway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of Access / Curb Cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of Proposed Utilities (water, sewer, gas, electric)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of Existing Utilities and Utility Easements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building / Structure Height	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Elevations: Provide elevations for center line of street; property corners and building corners. Arrows should be used to show lot drainage. <small>(Building and lot elevations must be provided for all new residential houses and addition projects except for accessory buildings less than 200 square feet in area or open decks where no regrading is proposed.)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flood Plain: Data Elevations (NAVD88 or NGVD29) are required for property within 500 feet of a body of water (i.e., lake, stream, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For Swimming Pool:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location of pool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Location and type of fencing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drainage plan submitted for pool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the property corners staked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the project staked (building / structure corners or setback lines)? If no, date to be staked _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Valuation of Project _____	Main Floor Area _____	Second Floor Area _____
Finished Basement Area _____	Unfinished Basement Area _____	Screened Porch Area _____
Deck Area _____	Garage Area _____	Shed Area _____
Energy Code Submitted Yes <input type="checkbox"/> No <input type="checkbox"/>	Water Service Size _____	Meter Size _____

Applicant Signature _____ Date _____

ISSUED: September 16, 2011

ORDER NO.: 8.02

SUBJECT: Development Review and Approval Process

This Administrative Order establishes the development review, construction, inspection, and finalization process to be followed by the Administration for residential, business, institutional, and industrial development proposals. The process outlined below will ensure a timely, thorough, and comprehensive review of projects in compliance with applicable ordinances and procedures of the City of Portage.

- I. The development review and approval procedure as explained in detail in the Department of Community Development handbook **Development Procedures**, will be coordinated by the Deputy Director of Planning, Development and Neighborhood Services (DDPDNS) under the supervision of the Director of Community Development (DCD). A written record of procedures, communications, plans and specifications, and decisions shall be maintained by the Department of Community Development.
- II. The review and approval procedure established in this Administrative Order shall be completed for residential, commercial, institutional, and industrial projects where:
 - A. A site plan is required pursuant to Section 42-480 of the Zoning Code;
 - B. A final plan is required pursuant to Section 42.370 of the Zoning Code;
 - C. Land Divisions are proposed which are not otherwise regulated pursuant to Section 42-125 of the Zoning Code;
 - D. Subdivision of land is proposed pursuant to Article 5 of the Land Development Regulations of the Subdivision Regulations Ordinance; and
 - E. A Condominium subdivision is proposed pursuant to Article 6 of the Land Development Regulations.
- III. Administrative Development Review Team.
 - A. To facilitate review of development proposals, a Development Review Team (DRT) is established. The DRT will be comprised of representatives from the Department of Transportation and Utilities, the Public Safety Department Fire Division, and Department of Community Development. Department Heads will serve as DRT members when necessary. The DDPDNS will coordinate the DRT in the processing of development project proposals in the City of Portage
 - B. The DRT will hold weekly meetings. To facilitate review of development proposals including introduction of new projects, review of current projects and updates on progress of projects under construction, a project listing will be prepared and updated by the DDPDNS. The meeting agenda and all information will be prepared by the

- C. DDPDNS and submitted to the Director and, then, to the DRT. The Departments participating on the DRT shall prepare **written** comments on each development project. These **written** comments shall be provided to the DDPDNS for inclusion in the agenda for regular scheduled meetings of the DRT. DRT members shall be responsible for providing status information on all projects listed in the meeting. Meeting minutes will be maintained by the DDPDNS.
- IV. Development Review Procedure -- Preliminary and Final Site review.
- A. Inquiries concerning development project proposals shall be referred to the DDPDNS who will provide **written** information, checklists, and the Development Procedures to assist the applicant through the development review process.
 - B. The DDPDNS will provide the DRT with copies of development project proposals/plans for review. Subsequent to review of the development project proposals/plans, **written** comments from each department, **under signature of the Department Head**, shall be provided to the DDPDNS. These **written** comments will be submitted for the preliminary review and the final review of development project proposals/plans in accordance with the Development Procedures. Comments from each department after DRT review will be transmitted in writing to the applicant by the DDPDNS.
 - C. The DDPDNS shall coordinate formal approval of the development project proposal/plan in accordance with the Development Procedures. The DDPDNS shall prepare the report and recommendation for the Planning Commission and/or the City Council and submit to the Director. Subsequent to Planning Commission and/or City Council decision, the DDPDNS will inform the applicant **in writing** of the action by the Planning Commission and the City Clerk shall notify the applicant of any City Council action.
- V. Development Review Procedure -- Building Plan and Infrastructure Plan Review and Approval.
- A. Building Plan review and approval will be coordinated by the Department of Community Development. Inquiries about building plan and infrastructure plans shall be referred to the DDPDNS. The DDPDNS will provide **written** information, checklists and the Development Procedures to assist the applicant through this review procedure.
 - B. The building plan review and approval procedure will consist of a preliminary review and a final review.
 - C. The DDPDNS will provide copies of the building plans and specifications to the Public Safety Department Fire Division and the Department of Transportation and Utilities. Subsequent to the review of the building plans and specifications, **written** comments from the Fire Division, **under the signature of the Public Safety Director (or designee)**, and the Department of Transportation and Utilities, **under the signature of the Director of Transportation and Utilities**, shall be provided to the DDPDNS. These written comments will be submitted for the preliminary review and final review of the building plans and specifications, in accordance with the Development Procedures.
 - D. Subsequent to final approval of the building plans and specifications, the DDPDNS will inform the applicant **in writing** of the action taken and distribute the approved building plans and specifications in accordance with the Development Procedures.

- E. Utility/Infrastructure plans will be coordinated by the Department of Community Development. The infrastructure plan review and approval procedure will consist of a preliminary review and a final review.
 - F. The DDPDNS will provide copies of infrastructure plans to the Fire Division and the Department of Transportation and Utilities. Subsequent to review of the infrastructure plans, **written comments** from each department, **under signature of the Department Head**, shall be provided to the DDPDNS. These **written** comments will be submitted for the preliminary review and the final review of infrastructure plans, in accordance with the Development Procedures.
 - G. Upon approval of the infrastructure plans, the DDPDNS shall inform the applicant **in writing** of the approval. DDPDNS shall prepare the administrative report and recommendation for review by the Director and subsequent approval by the City Council, as may be necessary.
 - H. A pre-construction meeting shall be conducted for all development projects per the Development Procedures.
- VI. Development Review Procedure -- Construction Inspection.
- A. The construction inspection of the proposed development project will be ensured by the Department of Community Development. The DDPDNS will coordinate construction activities and to assist the applicant throughout the construction phase to ensure conformance with city requirements per the Development Procedures.
 - B. The DDPDNS will coordinate the resolution of all construction related issues which arise during the construction of the development project. **Written** communications to the applicant and to affected city departments will be coordinated by the DDPDNS.
- VII. Development Review Procedure -- Construction Finalization/Occupancy.
- A. The Department of Community Development will coordinate construction finalization and occupancy. Upon a request for final inspection and/or occupancy, the department shall notify the Development Review Team (DRT) in accordance with the Development Procedures. The Development Review procedure for construction finalization/occupancy will consist of a preliminary review and final review.
 - B. The DRT will be provided copies of the construction finalization/occupancy by the Department of Community Development. **Written** comments from each department, **under signature of the Department Head**, shall be provided to the Department of Community Development. These **written** comments shall be submitted for the preliminary review and final review of construction finalization/ occupancy. Upon approval of the construction/occupancy, the DDPDNS shall advise the DCD. Final approval of the Certificate of Occupancy shall then be issued and transmitted to the applicant by the DDPDNS or final report prepared by the DDPDNS and submitted to the DCD for City Manager and City Council approval as required. The DDPDNS shall notify the DRT that the building has been completed and the final occupancy permit or final approval has been issued.

Surety for Public Infrastructure Projects

Address:

Project Name:

This checklist is intended as a guide to assist the applicant and his/her design engineer in determining the cost to construct, install and dedicate uncompleted and required public improvements. The surety must represent 125% of the estimated cost of completion of the required improvements. Supporting documentation must accompany this form.

Engineering/Surveying	Cost
Engineering Inspections	
Sub-contractor testing (compaction, compression, sanitary video or others as may be necessary)	
As-Built Records (as build drawings, tie cards, certification of inspection)	
Plat Survey (set monuments/irons)	
<i>Subtotal of Engineering/Surveying Category:</i>	
Public Utilities	
Sanitary Sewer:	
• Lineal feet of sewer main: _____ Number of laterals: _____	
Water main:	
• Lineal feet of water main: _____ Number and size of services: _____	
Storm Sewer	
• Lineal feet of storm sewer	
• Retention Basin (construction & restoration)	
• Fencing around retention basin: Indicate lineal feet	
• Paved access drive to retention basin: Indicate lineal feet and width	
• Landscaping around retention basin	
Roadway	
• Lineal feet of roadway: _____ Back-of-curb to back-of-curb width: _____	
• Excavation/Grading	
• Street (curb, gutter, gravel and asphalt)	
• Restoration (topsoil, seeding & fertilizer)	
• Sidewalks: Indicate lineal feet:	
• Street Trees: Indicate quantity:	
• Pavement markings	
• Signs (street, traffic & hydrant)	
<i>Subtotal of Public Utilities Category:</i>	
Private Utilities	
Gas	
Electric (including streetlights)	
Cable	
Telephone	
<i>Subtotal of Private Utilities Category:</i>	

Other Public Improvements	Cost
<i>Subtotal of Other Category:</i>	
Summation of Subtotals:	
TOTAL (Subtotals x 1.25)	

Appendix 14



Home > Departments > Public Safety > Fire Division > Chemical Survey

Select Language | ▼

Chemical Survey

Information: Completion of the Chemical Survey is requested to determine the quantity of specific chemical groups used, produced or stored in facilities within the jurisdiction of the Portage Department of Public Safety. The Michigan Occupational Safety and Health Administration (MIOSHA), P.A. 154 of 1974, as amended, and the Fire Prevention Code, PA 207 of 1941, as amended, require that any firm handling hazardous chemicals provide information to the Fire Chief upon request.

Instructions: Indicate below whether the firm is a user, producer or storer of any of the chemical types listed. Select all the categories that apply when a chemical has more than one characteristic (e.g., both a Class 3 flammable and a Class 6 poison). Each chemical group listed in the Chemical Survey includes a specific quantity. Select the appropriate quantity category for each chemical group on site. **Note: Each line of the Chemical Survey must be completed.** Do not leave blanks. If a chemical group listed is not used, produced or stored, select "Do Not Have." Reference to Material Safety Data Sheets, SARA Title III reporting forms and/or the Hazardous Chemical Definitions may be required to complete the Chemical Survey.

When substantial changes occur in the quantity or type of chemical use, manufacture or related storage, a revised survey must be submitted to the Fire Chief. In addition, a revised survey will be requested periodically as the Fire Chief determines necessary, but at a minimum, once every five years.

If the information provided in the Chemical Survey indicates that the firm is a user, producer or storer of hazardous chemicals and the chemicals on site meet or exceed the specified quantities, the Portage Department of Public Safety - Fire Division will request further information. This may include a request for Material Safety Data Sheets, chemical lists maintained under the Employee Right to Know provisions of MIOSHA and other information.

This firm is a ... (Select all that apply)

Chemical User (chemicals used in activities on site)

Chemical Producer (chemicals manufactured at this site, including packaging)

Other (e.g., chemicals are stored on site but not used or produced such as a service station, retail store, storage facility, etc.)

Date Name of Firm

Physical Address

Mailing Address (if different)

Name & Title of Person Completing Survey

Telephone Number

Email Address

EMERGENCY CONTACTS (Including private alarm/security companies)

Name and Title	Daytime Telephone	Evening Telephone
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Please complete the Chemical Survey based on the maximum quantity the firm would have on-site, including storage, at any one time during the year.

Chemical Type	Specified Quantity	
Class 1		
Explosives & Blasting Agents (Not including Class C Explosives)	Any Quantity	<input type="text" value="[Choose one]"/>
Class 2		
Poison Gas	Any Quantity	<input type="text" value="[Choose one]"/>
Flammable Gas	100 gal. water capacity	<input type="text" value="[Choose one]"/>
Non-flammable Gas	100 gal. water capacity	<input type="text" value="[Choose one]"/>
Class 3		

Flammable Liquid	1,000 gallons	[Choose one] ▼
Combustible Liquid	10,000 gallons	[Choose one] ▼
Class 4		
Flammable Solid (Dangerous when wet)	100 lbs.	[Choose one] ▼
Flammable Solid	500 lbs.	[Choose one] ▼
Spontaneously Combustible Material	100 lbs.	[Choose one] ▼
Class 5		
Oxidizer	500 lbs.	[Choose one] ▼
Organic Peroxide	250 lbs.	[Choose one] ▼
Class 6		
Poison	500 lbs.	[Choose one] ▼
Irritating Material: Liquid	1,000 gal.	[Choose one] ▼
Irritating Material: Solid	500 lbs.	[Choose one] ▼
Class 7		
Radioactive Material (Yellow III Label)	Any Quantity	[Choose one] ▼
Class 8		
Corrosives: Liquid	1,000 gal.	[Choose one] ▼
Corrosives: Solid	500 lbs.	[Choose one] ▼
No DOT Category		
Known Human Carcinogen	Any Category	[Choose one] ▼



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****REQUIRED**** Recaptcha is a security check designed to prevent automated abuse.

HAZARDOUS CHEMICAL DEFINITIONS

Carcinogen – A chemical is considered to be a carcinogen if: 1) it has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen; or 2) it is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition), or 3) it is regulated by OSHA as a carcinogen.

Combustible liquid – Any liquid having a flashpoint at or above 100 degrees F (37.8 degrees C), but below 300 degrees F (93.3 degrees C), except any mixture having components with flashpoints of 200 degrees F (93.3 degrees C), or higher, the total volume of which make up 99 percent or more of the volume of the mixture.

Corrosives – liquid and solid – Any liquid or solid that causes visible destruction or irreversible damage to human skin tissue. Also, it may be a liquid that has a severe corrosion rate on steel.

Explosives and blasting agent – (not including Class C explosives) – “Explosive” means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature. “Blasting Agent” means a material designed for blasting. It must be so insensitive that there is a very little probability of: 1) accidental explosion, or 2) going from burning to detonation.

Flammable liquid – Any liquid having a flashpoint below 100 degrees F (37.8 degrees C), except any mixture having components with flashpoints of 100 degrees F (37.8 degrees C) or higher, the total of which makes up 99 percent or more of the total volume of the mixture.

Flammable gas – A gas that can burn with the evolution of heat and a flame. Flammable compressed gas is any compressed gas of which: 1) a mixture of 13 percent or less (by volume) with air is flammable, or 2) the flammable range with air is under 12 percent.

Flammable solid – A solid, other than a blasting agent, or explosive, that is liable to cause fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard.

Flammable solid (dangerous when wet) – Water Reactive Material (Solid) – Any solid substance (including sludges and pastes) which react with water by igniting or giving off dangerous quantities of flammable or toxic gases. (Sec. 171.8)

Irritating material – liquid and solid – A liquid or solid substance which, upon contact with fire or air, gives off dangerous or intensely irritating fumes.

Non-flammable gas – Any compressed gas other than a flammable compressed gas.

Organic peroxide – An organic compound that contains the bivalent -O-O structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

Oxidizer – A chemical that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases. Example being: chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily.

Poison gas – Less dangerous poisons, toxic substances, liquid or solids (including pastes and semi-solids) so toxic to man that they are a hazard to health during transportation.

Poison gas – Extremely dangerous poisons, highly toxic poisonous gases or liquids – a very small amount of the gas, or vapor of the liquid, mixed with air is dangerous to life.

Radioactive material (yellow 111 label) – Any material, or combination of materials, that spontaneously gives off ionizing radiation.

Spontaneously combustible material – (Solid) A solid substance (including sludges and pastes) which may undergo spontaneous heating or self-burning under normal transportation conditions. These materials may increase in temperature and ignite when exposed to air.

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Get the information you need on Portage events, construction projects, city projects and much more.

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Appendix 15

Users and manufacturers of hazardous materials.

Chemical and fuel spills, leaks and dumping.

Sewage disposal systems and improper chemical disposal.

Road salt.

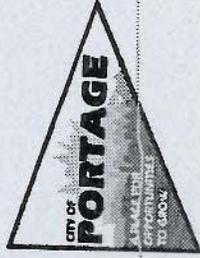
Abandoned, unplugged wells.

What Can You Do?

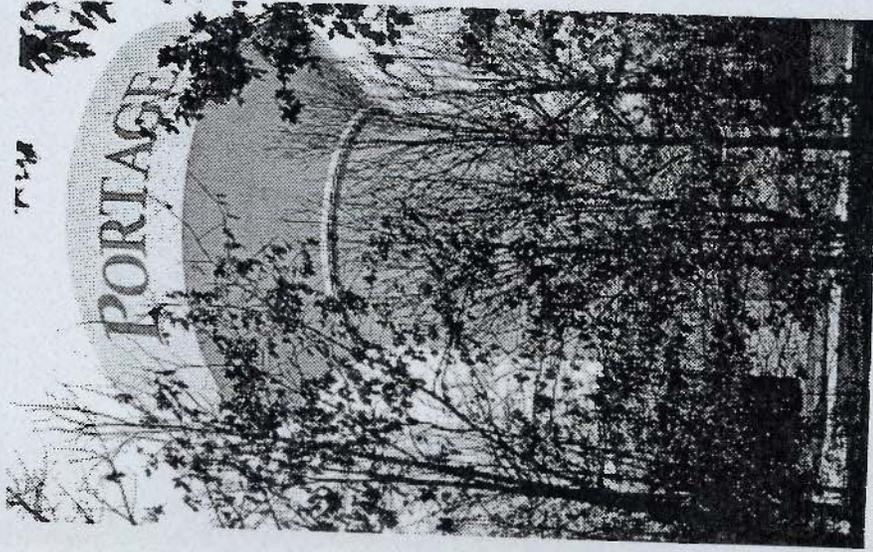
- Be aware of threats to your water resources.
- Use lawn fertilizers, insecticides, herbicides, and fungicides sparingly and only in areas where they're needed.
- Dispose of hazardous chemicals at the Household Hazardous Waste Disposal Center at 1301 Lamont Avenue, Kalamazoo, MI (Information Hotline 373-5211)
- Locate and plug unused, abandoned wells.
- Don't dump solvents, fuels, oils, paints, thinners, disinfectants, pesticides, poisons, antifreeze or animal waste on the ground, or down stormwater drains.
- Support initiatives that protect your groundwater and surface water resources.

For more information please contact:

City of Portage, Transportation
& Utilities Department
7719 South Westnedge Avenue
Portage, MI 49002
(616-329-4422)



Wellhead Protection



Protecting Our
Valuable Resource

WATER

Everyone in the City of Portage uses groundwater for drinking, cooking, bathing, cleaning and many other things. Every day, residents pump thousands of gallons of this precious natural resource from public and private wells for use. Where does the water come from? Is it safe to drink?

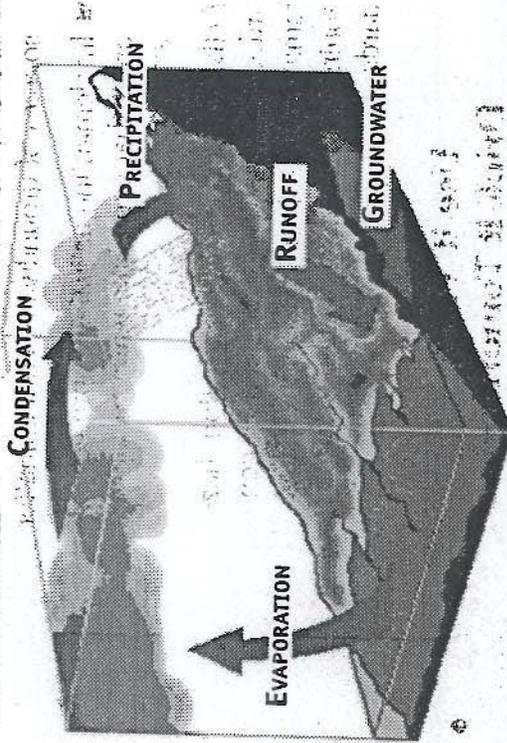
The City of Portage receives an average of 35 inches of precipitation per year. Most of the precipitation evaporates or transpires through plants. Some water travels over land to a stream, lake or storm sewer and about nine inches of water seeps into the ground through surface soil and underlying sand and gravel layers, until the water eventually reaches the **water table**. The water table is the top of a saturated zone called the **aquifer**.

Water contained in the aquifer is called **groundwater**. Groundwater moves toward surface outlets, such as wetlands, lakes and streams. Low places such as Portage Creek, Fork Portage Creek and Sugarloaf Lake where the water table meets the ground surface. Groundwater flows into the streams and keeps them flowing during dry periods and in winter when there is no rainfall.

Groundwater also flows toward pumping wells. This cyclic movement of water from lakes and plants to the atmosphere, to the land, overland and through aquifers is called the **water cycle**.

Human activities on the land and in the atmosphere influence the water cycle and affect the quality of our groundwater and surface water resources.

THE WATER CYCLE



Well Protection Planning— What is it?

Wellhead protection is a program designed to protect groundwater pumped from water supply wells. The goal of wellhead protection is to prevent contami-

mination of groundwater resources by managing the land that contributes water to our aquifers and water supply wells. The City of Portage is helping to protect your water supply by doing the following:

- Using a planning team to guide the wellhead protection plan development and implementation.
- Identifying the land that contributes water to supply wells.
- Locating the existing and potential sources of groundwater contamination.
- Implementing activities to protect the areas that contribute water to supply wells.

Activities include public education, hazardous waste surveys, cleaning-up contaminated sites, and enforcing existing zoning ordinances and plan review standards.

Use it Today— Drink it Tomorrow!

What goes on the ground or in drains and pipes can turn up in drinking water, lakes, streams and wetlands.

In the City of Portage, potential sources of groundwater contamination are:

- Lawn, garden and farm fertilizers.
- Leaking underground storage tanks and pipelines.

Appendix 16

What if I live in an extension sewer district and have never paid for an assessment?

When you connect to the sewer you will be charged extension district fees which are equal to sewer assessment charges (front footage plus street lead) in effect at the time.

Residential homeowners may spread only the cost of the front footage charges in equal installments over 20 years with interest charges based on current city bond rates. You may also pay the entire amount in full and avoid any interest charges. Commercial property owners must pay the entire amount in full.

Senior citizens may apply for a State funded assessment deferment through the Office of the City Assessor. For additional information regarding this program, call the Office of the City Assessor at 329-4433.

Once I've connected to city sewer, how much will the sewer service cost?

The cost of sewer usage is determined

The cost of sewer usage is determined by the actual amount of water used during the billing period, plus a base quarterly fee. Current rate sheets may be obtained by contacting the Department of Transportation & Utilities at 329-4422.

What happens if I don't connect to city sewer within the required time period?

Failure to connect to sanitary sewer is a civil infraction which could result in fines up to \$1,000 and responsibility for all court costs.

Any owner without an approved deferment who has not connected their property to sewer within the designated time period will receive a citation for a civil infraction. In the case of extenuating circumstances such as waiting for a response to a deferment request or Block Grant loan, or other serious or unavoidable circumstances, reasonable time will be allowed for the work to be completed before the city proceeds with legal action.

Who can I contact if I need additional information?

If you have any questions, please contact the City of Portage Department of Transportation & Utilities at 329-4422.

Information on the City of Portage Mandatory Sewer Connection Program



City of Portage

7900 South Westnedge Avenue • Portage, Michigan 49002
www.portagemi.gov

01/1/2014

The City of Portage Mandatory Sewer Connection Program

Why did the city adopt a Mandatory Sewer Connection Program?

Intensive study determined that it was important to reduce the amount of pollutants released into the groundwater (our major source of drinking water), by eliminating septic systems wherever sanitary sewer is available.

When must I connect?

All properties with available sanitary sewer must connect to the municipal sewer system within eighteen months of the published notice of availability. Generally, properties which have sanitary sewer installed during the Summer/Fall construction season will receive notification the following January that they have eighteen months to connect to the municipal sewer system.

How do I go about connecting to city sewer?

1. Determine who is going to connect your property to the sewer. You may contract a private plumber or complete the connection yourself if you are qualified to do so.
2. Apply for a sewer use permit at the Community Development Department at Portage City Hall.
3. Obtain the necessary plumbing permits for connection to the sewer. This is typically taken care of by the plumber.

Can I defer connecting to city sewer?

Sometimes connecting to city sewer can present a financial hardship for property owners. A program has been established which will allow for temporary deferment of the connection. Applications for deferment, which include a \$25 non-refundable filing fee, will be accepted beginning twelve months after mandatory sewer connection notification. Requests for deferment will be reviewed by the Environmental Board, which has the authority to approve or disapprove the application. Approval is primarily based on low income guidelines established by the Federal and State governments. Consideration may also be given if extenuating financial circumstances exist. The length of deferment granted will be determined during the review process, however the maximum deferment allowed is 18 months from the date of approval. Subsequent requests may be made to extend the deferment (subject to re-submittal of necessary documents).

Are assistance programs available to help with the cost of connecting to city sewer?

Funding for low interest loans may be available from the Community Development Block Grant Program administered by the Community Development Department. Loans are subject to availability of funds and qualifications of the applicant. All property owners meeting the criteria for Block Grant funds may apply for loans at any time, regardless of the time specified for connection. Call the Community Development Department at 329-4280 for information on Block Grant assistance.

How much will it cost to connect to city sewer?

There are three initial costs when connecting to city sewer:

1. The Sewer Connection Charge

- a) There is a \$300 Sewer Connection Charge for residential homes. This charge must be paid in full at the time of connection to the public sewer.
- b) The Sewer Connection Charge for businesses, commercial and industrial properties is determined by building size, use and/or water usage. For the exact cost, please contact the Community Development Department at 329-4466 to determine the exact cost. This charge must be paid in full at the time of connection to the public sewer.

- c) In certain circumstances there will be an additional charge for a meter.

2. There is a Plumbing Permit charge based on the amount and type of sewer work being performed.

This cost is computed at the Community Development Department at the time of application for the permit. The plumber typically includes this cost in the price estimate.

3. The cost for installation of the sewer connection is determined between you and your plumber. There are many firms licensed to install sewers, so it is recommended that you check with several firms to obtain the best price.