

**PROJECT PLAN UPDATE**  
**FOR**  
*City of Allegan*  
**WASTEWATER TREATMENT PLANT UPGRADES**



**HRC JOB NO. 20110460**

**May 2012**

**Prepared by:**



**HUBBELL, ROTH & CLARK, INC**

**Consulting Engineers**

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# ***Section I - Summary and Recommendations***

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## **A. Summary**

The Project Plan Update for the City of Allegan Wastewater Treatment Plant improvements has been prepared using the Project Plan Preparation Guidance of the State Revolving Fund (SRF) Administrative Rules, and with assistance from MDEQ's Environmental Science and Services Division (ESSD). The SRF provides for financial assistance in the form of low interest loans, currently at 2.5%. These rules call for compliance with the basic Federal Planning Requirements and the National Environmental Policy Act (NEPA). This Project Plan Update will serve as a basis for project prioritization and must be submitted to the MDEQ by July 1, 2012 in order to be on the project priority list for the fiscal year 2013 (October 1, 2012 to September 30, 2013). This plan is intended to be an update to the original WWTP project plan 5300 as approved by the MDEQ.

## **B. Conclusions**

The following is a summary of the problems that presently exist at the City of Allegan Wastewater Treatment Plant. The City has recently received an SRF loan for the improvements to Tank 3 at the wastewater treatment plant as identified in a previous project plan. The City of Allegan also completed a project plan in 2009 which identified several improvements to their collection and pumping system. All of the first phase projects identified in that plan have been completed at this time, although not funded through the SRF program as they did not rank within the fundable range. The City will continue to complete the improvements as outlined for the Phase II program through their sewer funds, rather than seek further SRF loans for those projects. However, there are still projects remaining at the WWTP that require additional funding. The following is a summary of problems that presently exist within the City of Allegan wastewater treatment plant:

1. Lack of redundancy/reliability in the septage receiving system.
2. Lack of redundancy in UV disinfection system and need for building to house equipment.
3. No mechanical sludge thickening capability.
4. No mechanical mixing capability in the buried sludge storage tank.
5. Need for cover/odor control for aerobic sludge holding tanks.
6. Rectangular aerobic sludge tank disposal pump has operational difficulties due to its distance from the sludge tank.

While all of these improvements will be necessary over the 20 year planning period as discussed in this report, the first phase of the project will include addition of the second septage receiving station and the addition of a redundant UV disinfection system and building to house equipment.

## **C. Recommendations**

The selected projects, highlighted herein, are the most cost-effective and environmentally-sound alternatives. The following recommendations are therefore made:

- The City Council should pass a resolution formally adopting the Project Plan.
- The City should apply for a low-interest loan under the SRF program.
- The City should continue its involvement and support of on-going programs relating to water pollution control that support energy reduction and sensitivity to the environment.

# Section II - Project Background

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## A. Study Area Description

### 1. General

The City of Allegan is located in the southwestern part of Michigan's Lower Peninsula in Allegan County and lies within the Kalamazoo River watershed. The total City area is approximately 4.1 square miles or 2,682 acres. The City's Wastewater Treatment Plant (WWTP) includes the wastewater discharges from portions of Allegan Township, and the sewered area of the City of Allegan. Portions of the City may not be connected currently to the system, but each resident could if they so desired. The City of Allegan's WWTP was originally constructed in 1976 and was modified and expanded in 1991, 1995, and 2010. Currently, the City is designing improvements to Tank 3, which are expected to be constructed in 2014.

Areas located outside of the City limits currently discharging to the Allegan WWTP include the portion of Allegan Township located south of the City along M-89, and west of the City, along M-40. The Study Area for the WWTP improvements is shown on Figure 1.

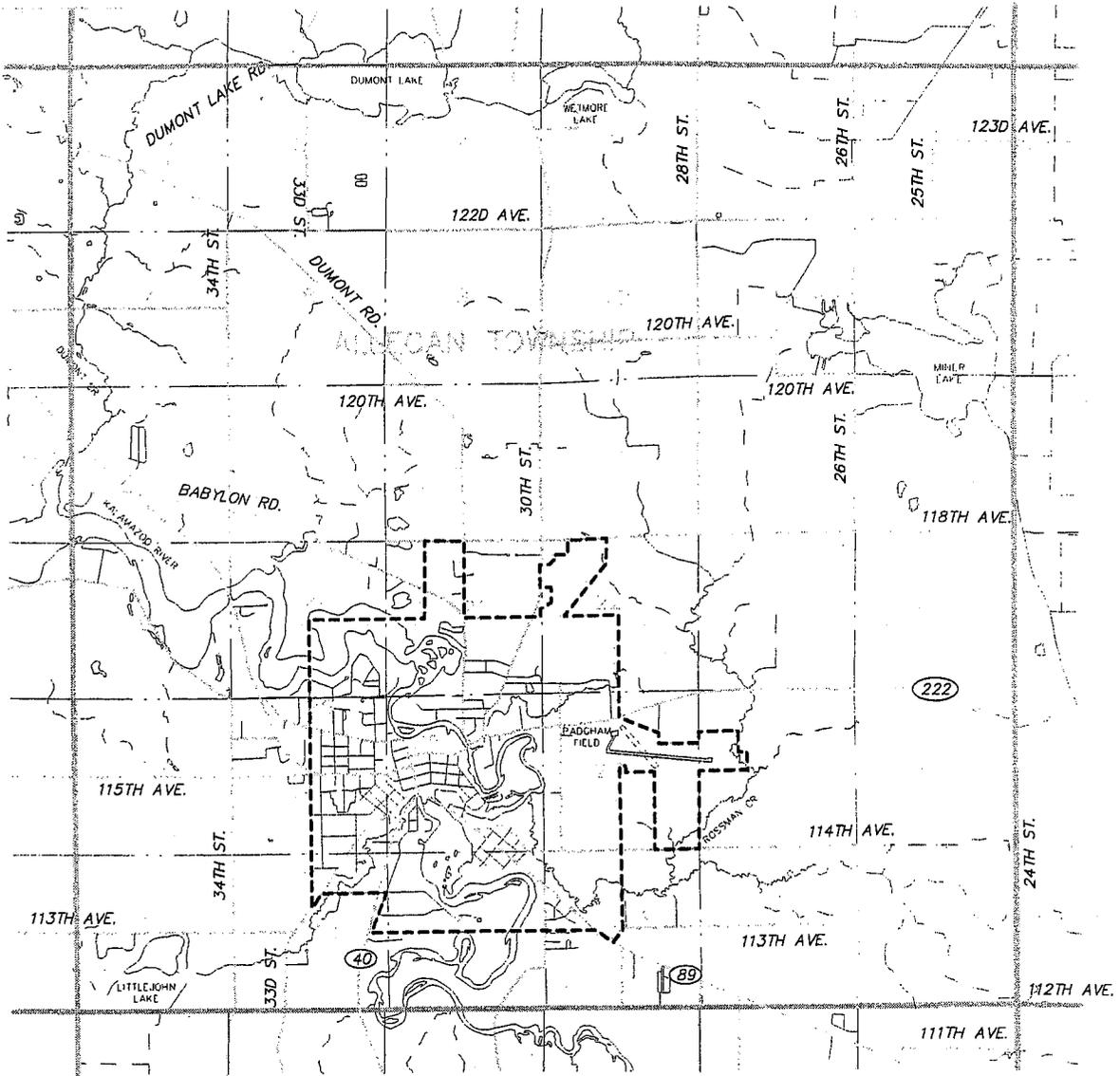
### 2. Land Use

The largest three (3) land use types within the City of Allegan excluding open space are Residential (25.7%), Industrial (14.2%), and Commercial (3.9%) of the total land use. The existing and proposed land use within the City of Allegan as well as Allegan Township is shown in Figure 2 through 5 and summarized as follow:

TABLE II-1: STUDY AREA LAND COVER

Land Cover Type	Acreage	Percent of Total Area
Residential	688.14	25.7%
Commercial	104.46	3.9%
Industrial	380.99	14.2%
Institutional	58.94	2.2%
Agricultural	16.3	0.6%
Water/Wetlands	427.71	15.9%
Open/Wooded	661.58	24.7%
Transportation (inc. airport)	255.32	9.5%
Outdoor Recreation	88.62	3.3%
Total	2,682	100.0%

*Note: The Data represents that of the City of Allegan.  
(Source: City of Allegan, Master Plan Update, April 2010)*



North



SCALE : NONE

**LEGEND**

	TOWNSHIP BOUNDARIES
	ALLEGAN CITY LIMITS

**CITY OF ALLEGAN  
ALLEGAN COUNTY, MICHIGAN  
WASTEWATER SYSTEM IMPROVEMENTS  
STUDY AREA MAP**

FIGURE 1

# MAP 6 Existing Land Use and Zoning

- Allegan City Zoning
- CENTRAL BUSINESS DISTRICT
  - GENERAL COMMERCIAL DISTRICT
  - MANUFACTURING DISTRICT
  - MOBILE HOME RESIDENTIAL DISTRICT
  - MULTI-FAMILY DWELLING UNITS
  - PUBLIC/GOVERNMENTAL LANDS DISTRICT
  - RESTRICTED COMMERCIAL DISTRICT
  - SINGLE FAMILY RESIDENTIAL - LOW DENSITY
  - SINGLE FAMILY RESIDENTIAL - MED DENSITY
  - WATER
  - City Boundary

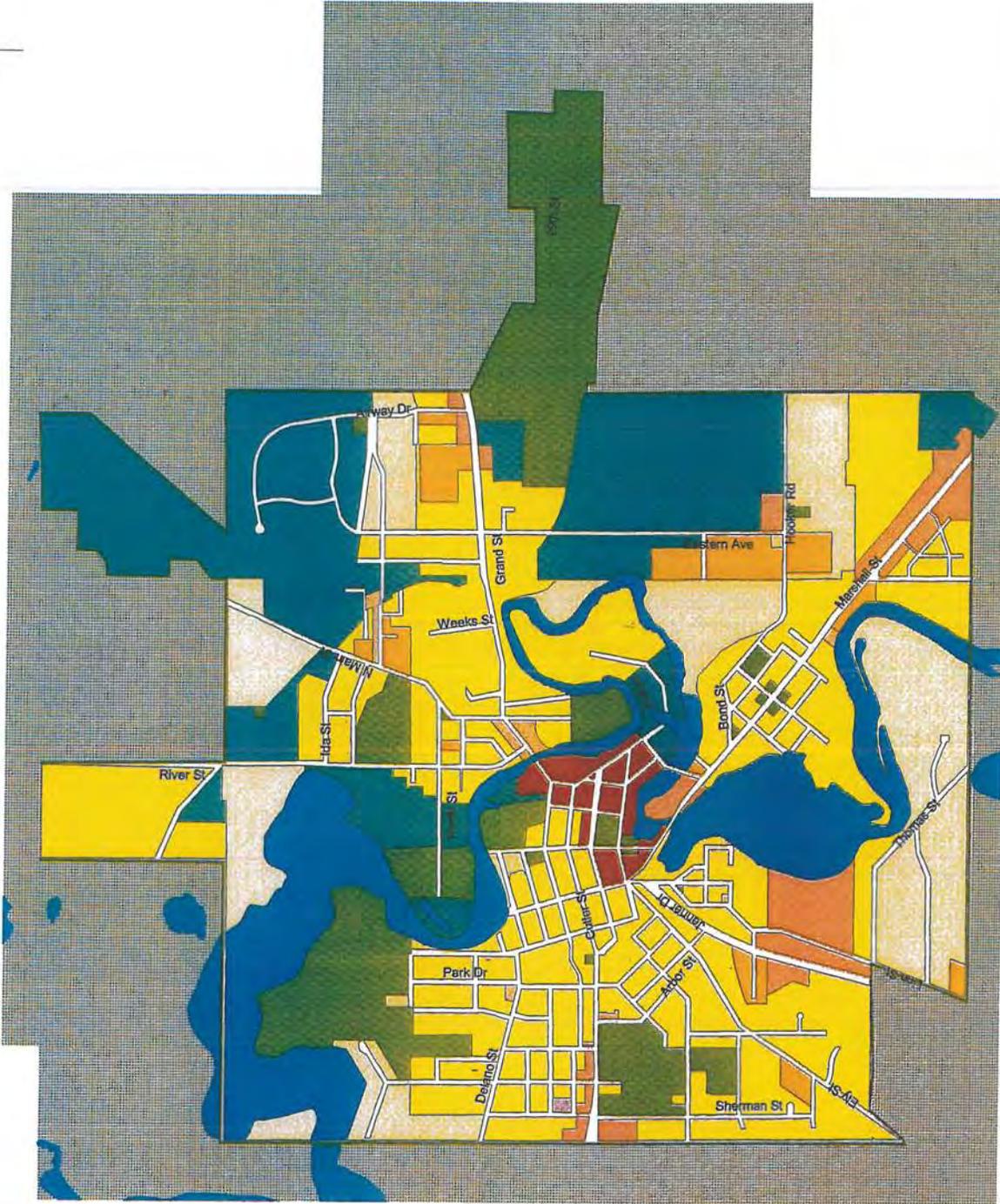


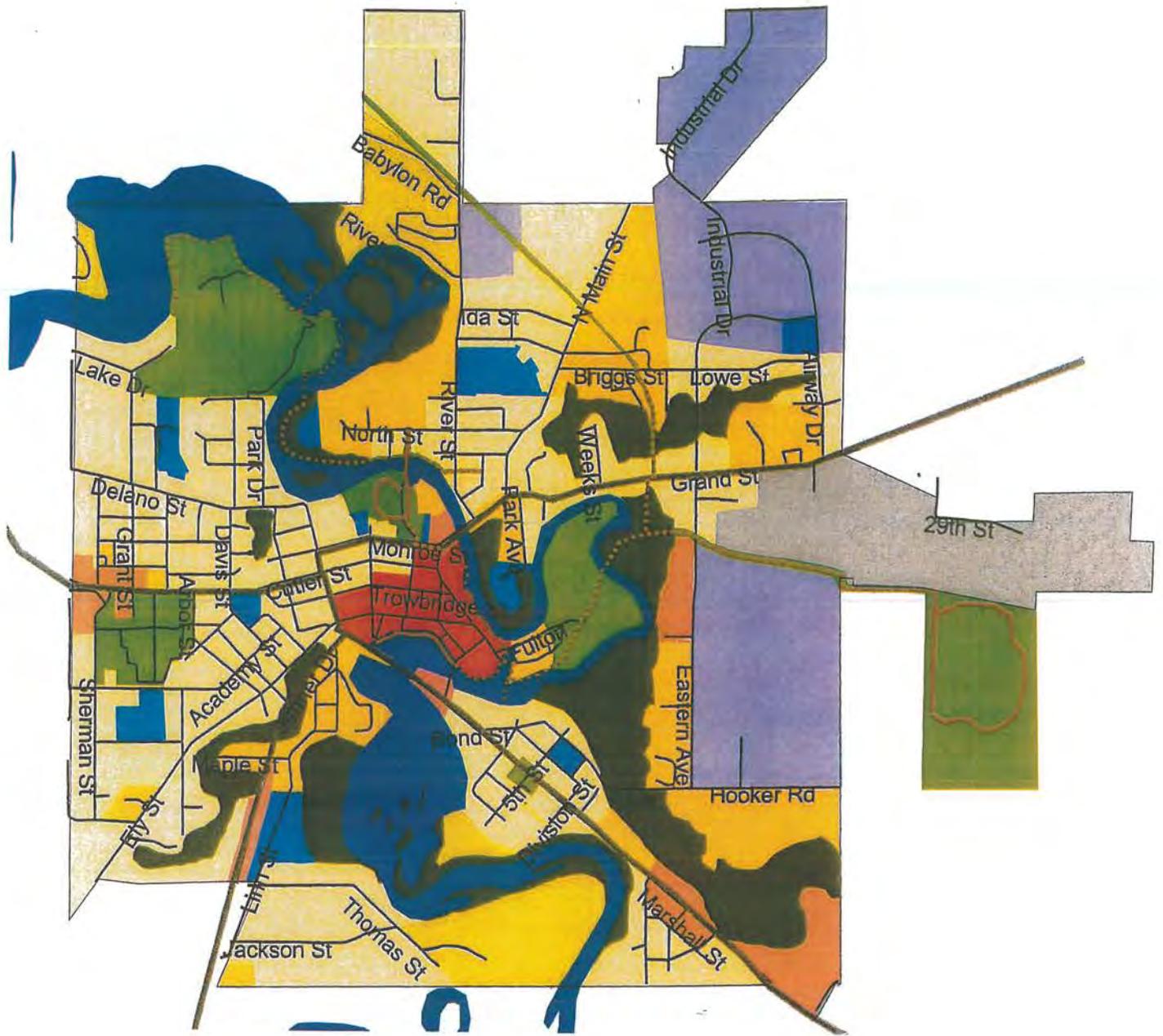
Source: City of Allegan Zoning Ordinance  
and mapped by Allegan County.

December 11, 2002

**Williams & Works**

549 Ottawa Ave., N.W. Grand Rapids, MI 49503  
Phone: (616) 224-1500 Fax: (616) 224-1501





**MAP 8**  
**Allegan Future Land Use**

**Future Land Use**

-  Airport
-  Central Business District
-  Civic
-  Commercial Center
-  Community Recreation
-  Industrial
-  Permanent Open Space
-  Residential Mix
-  River Overlook Residential
-  Single Family Residential



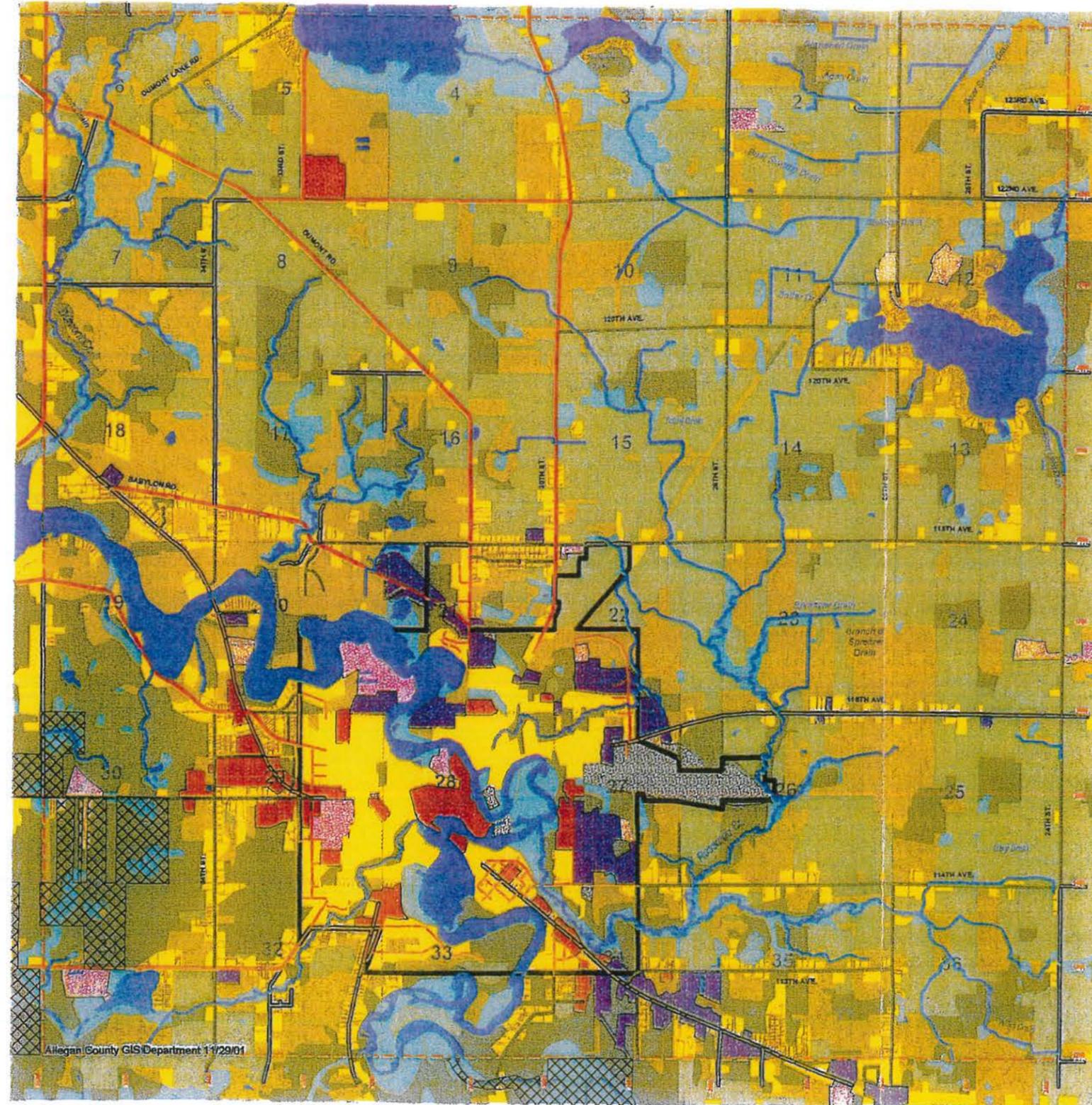
February 2004

Source: The Future Land Use Map was developed through the ideas shared in the Community Futuring Workshop and multiple work sessions with the Master Plan Advisory Committee and the Planning Commission.

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# Alleghan Township Land Use



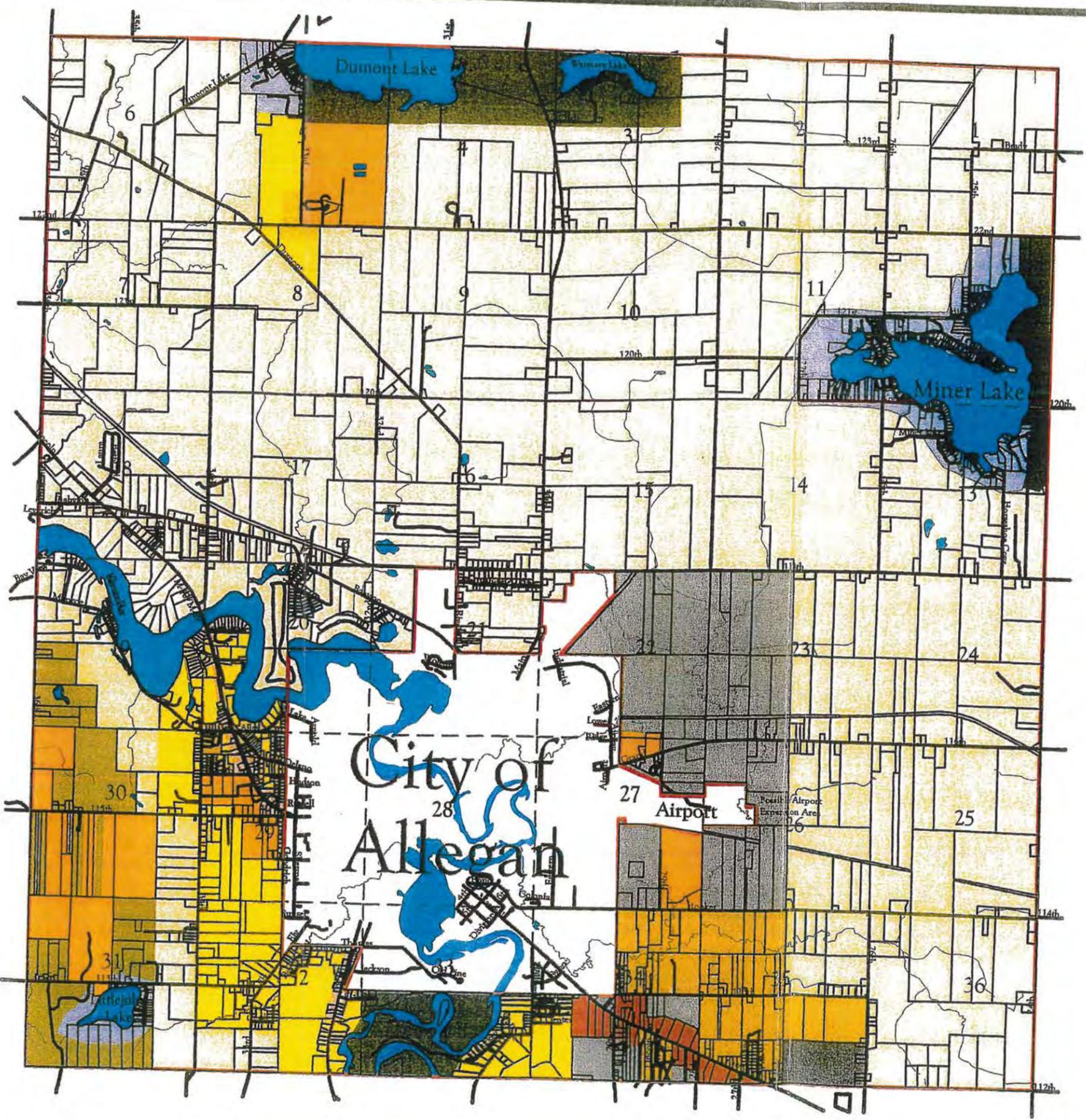
## Legend

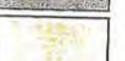
Source: GIS Research Center, WMU & Alleghan County GIS Department (1996)

- |                          |                                    |               |                     |
|--------------------------|------------------------------------|---------------|---------------------|
| Residential              | Transportation Comm. & Utilities   | Agriculture   | Wetlands            |
| Commercial               | Extractive                         | Forested      | Open Land Developed |
| Industrial               | Non Forested Open Land Undeveloped | Surface Water | Barren Land         |
| Alleghan State Game Area |                                    |               |                     |



# Alleghan Township Future Land Use Map



-  Lake Residential
-  Resource Protection
-  Rural
-  General Commercial-Light Industrial
-  High Density Residential
-  Industrial
-  Low Density Residential
-  Medium Density Residential
-  Office/Local Retail
-  Village Center
-  Institutional/Public lands
-  Manufactured Housing Community

Boundaries of each designation are approximate and meant to be interpreted as indefinite.



**Williams & Works**

Base Map Source: Alleghan County GIS Department

### 3. Population Data

The City of Allegan Community Master Plan, updated April 2010, was referenced for a determination of the population served. This Master Plan used several sources for future population projections within the City, including constant proportion, growth rate, arithmetic, and building permits. As all of these methods produce different projections, the average of these is as follows:

TABLE II-2: POPULATION PROJECTIONS

Year	Population (Allegan Master Plan)	Population (West Mich. Regional Planning)
2000	4,838	4,838
2010	4,998	4,998
2020	5,369	5,209
2030	5,724	NA
2032	5,760	NA

*Note: The Data represents that of the City of Allegan. (Source: City of Allegan, Master Plan Update, April 2010, West Michigan Regional Planning Commission Population Projections). The numbers in italics are projections, and all others are based on the 2000 and 2010 U.S. Census.*

The 2000 U.S. Census population for the City of Allegan was 4,838 persons. According to the 2010 U.S. Census, the population was 4,998 persons, or an increase of 3.3%.

### 4. Economic Characteristics

The top employers located in the City of Allegan are Perrigo Corporation, Allegan General Hospital, Allegan Public Schools, and Allegan County.

Data reported in the City of Allegan Master Plan was used to determine the economic environment. The median annual income for Allegan County is \$50,487, with household incomes for the City indicated in Table II-3.

TABLE II-3: STUDY AREA HOUSEHOLD INCOME

Municipality	Median Annual Household Income
City of Allegan	\$39,539
Allegan Township	\$45,813

*Source: USCB*

## 5. Cultural and Environmental Settings

### Cultural Setting:

Allegan County and the City of Allegan have many archaeological and cultural resources. However, none of these will be impacted by the proposed project. All work will be undertaken at the existing WWTP site. The WWTP site is generally not viewed by the public and therefore all work proposed within on that site will not have any impacts. The State Historic Preservation Office (SHPO) was contacted to aid in the identification of significant historical and archaeological sites which may be affected by the project. All correspondence related to this matter is included in Appendix E.

There are 20 historic sites, including homes, historic districts, and landmarks located within the City of Allegan. However, none of these are in close proximity to the project area and therefore none will be affected by the proposed work.

### Climate:

The Study Area lies within an area of humid continental climate. The average winter temperatures are 24.7 degrees, with an average of 80 inches of snow. The average summer temperature is 73 degrees. The average annual rainfall for the City of 36 inches.

### Air Quality:

Mobile source emissions, mainly from automobiles, are the primary source of outdoor air pollution in this area. The area has the noise pollution characteristics of an urban, industrialized community. No noise pollution problems exist in residential areas, other than from traffic noise from adjacent major roadways. Commercial and business areas experience only normal traffic noise.

### Wetlands:

The major watershed in the City of Allegan is the Kalamazoo River, which is fed by several sub-watersheds. Lake Allegan is located in the northwest portion of the City. This is a manmade lake was created by damming off a portion of the Kalamazoo River. There may be localized wetlands associated with the river in the proximity of the WWTP site. Any impacts to these wetlands will be identified and permitted accordingly.

Wetland maps are shown in Figure 6.

### Coastal Zones:

None exist in the Study Area.

### Floodplains:

The floodplains in the Study Area primarily result from Kalamazoo River. It is anticipated that all construction work will take place outside of the 100-year floodplain limits. However, all work on the WWTP will be carefully evaluated for impacts to the floodplain and if any are identified, MDEQ will be contacted and the appropriate permits obtained. A copy of the FEMA Flood Insurance Rate Map is shown in Figure 7.



# U.S. Fish and Wildlife Service National Wetlands Inventory

Alleghen WWTP

Jan 25, 2012



## Wetlands

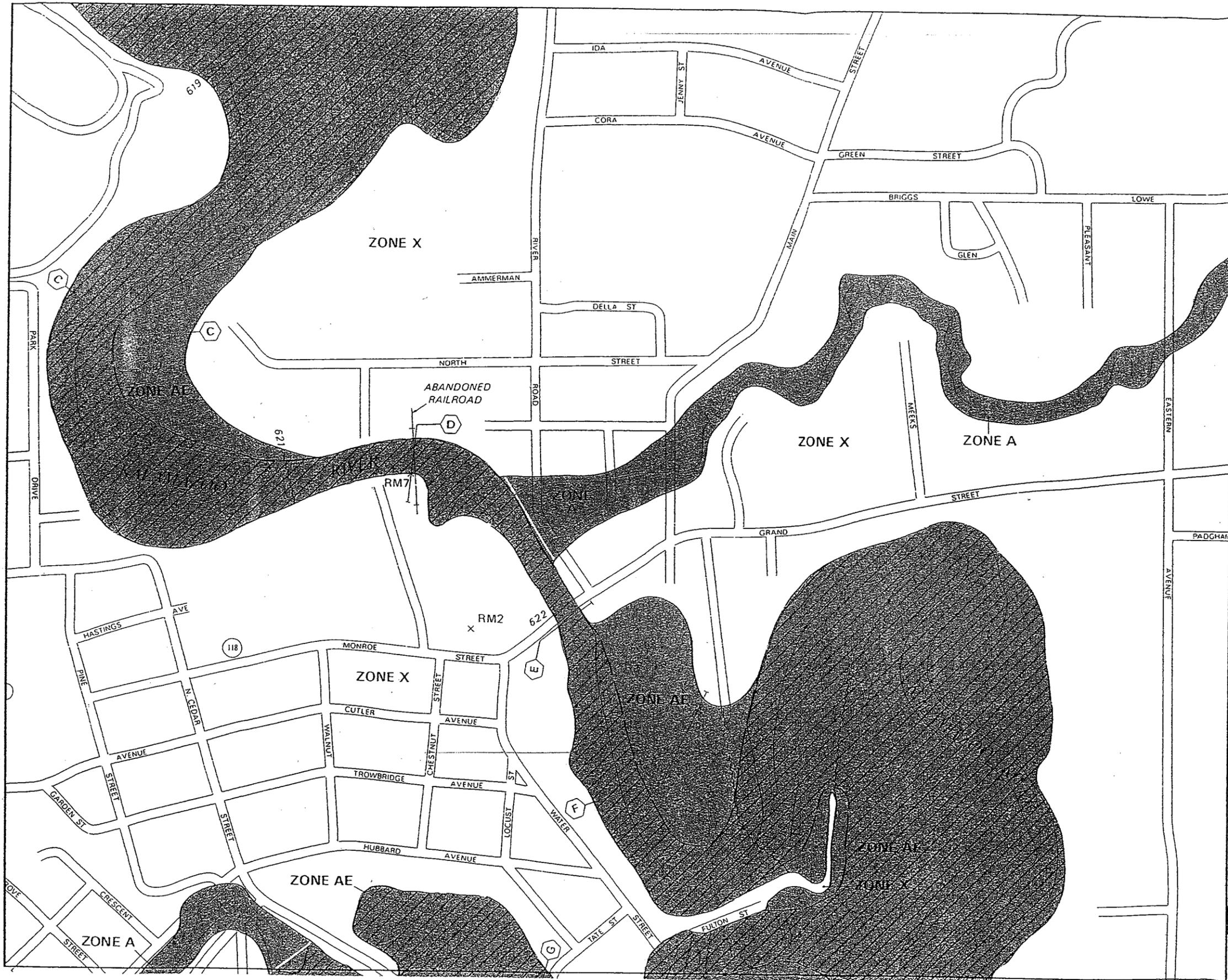
- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

## Riparian

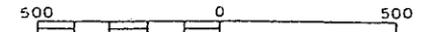
- Herbaceous
- Forested/Shrub

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:



APPROXIMATE SCALE IN FEET



NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

CITY OF  
ALLEGAN,  
MICHIGAN  
ALLEGAN COUNTY

(ONLY PANEL PRINTED)

COMMUNITY-PANEL NUMBER

260003 0001 B

EFFECTIVE DATE:

MAY 4, 1989



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

### Natural or Wild and Scenic Rivers:

The rivers within the Study Area have recreational and aesthetic value but are not classified as “Natural” or “Wild and Scenic” by the Michigan Department of Natural Resources (MDNR).

### Surface Waters:

The Study Area lies within the Kalamazoo River Watershed. The City of Allegan WWTP NPDES permit regulates its discharge to the Kalamazoo River. The major surface water bodies within the study area include the Kalamazoo River, Lake Allegan, Dumont Lake, and Miner Lake. The City of Allegan and surrounding areas currently use groundwater as their source for drinking water due to the variability of surface water quality based on seasonal and weather related events.

### Recreation Facilities:

The City of Allegan has a total of 75.3 acres of parks, as well as six schools with parks, and the Allegan County Fairgrounds. The City owns and operates seven parks that include Jaycee Park, Rossman Park, Sue Lange Memorial Park, Hanson Park, Mahan Park, Riverfront Park, and the Wellness and Sports Complex. In addition to these parks, the City has several other publicly owned facilities including Griswold Auditorium, The Regent Theater, The Allegan Area Community Center, The Allegan Area Arts Council, The Allegan Community Players, Allegan County Historical Society and Old Jail Museum, The Allegan Library, The Allegan County 4-H Club, and the Allegan County Fairgrounds. No parks or other publicly owned facilities will be impacted by the proposed work.

### Topography:

The study area is located on the banks of the Kalamazoo River, primarily to the east of the river. The highest elevation in the study area is roughly 850 feet, with the water elevation at the river approximately 600 to 615 feet. The topography in the City rarely exceeds 20%, and generally slopes towards the Kalamazoo River or one of the surrounding lakes

### Geology:

Michigan has been subjected to four (4) glacial periods: Wisconsinian, Illinoian, Nebraskan, and Kansian. The last of these continental glacial periods, the Wisconsinian, existed approximately 11,000 years ago and is responsible for much of the development of Michigan’s underlying geology. According to the Hydrogeologic Atlas of Michigan, the surficial geology of the study area consists of glacial sediments deposited by glacial outwash channels, medium and fine textured till, some areas of peat and muck, and post glacial alluvium.

### Soils:

The Study Area lies within the Kalamazoo River Watershed. The soils in the City fall into four soil groups (per the USDA Soil Conservation Service, Soil Survey of Allegan County 1984). These four groups are the Glendora-Adrian-Granby Association, Capac-Rimer-Pipestone Association, Chelsea-Ockley-Oshtemo Association, and Oakville Association. The largest portion of the City falls under the Oakville Association. These soils are moderately well-drained to well-drained, and is typically sandy, often associated with outwash and lake plans. It is not typically associated with farmland. Figure 8 shows the general soils information for Allegan County.

# LEGEND

- 1 GLENDORA-ADRIAN-GRANBY association: Nearly level, poorly drained and very poorly drained soils formed in sandy and organic material; on flood plains, outwash plains, lake plains, and till plains
- 2 CAPAC-RIMER-PIPESTONE association: Nearly level and undulating, somewhat poorly drained soils formed in loamy, sandy, and silty material; on moraines, till plains, lake plains, and outwash plains
- 3 OSHTEMO-CHELSEA-OCKLEY association: Rolling to very hilly, well drained and somewhat excessively drained soils formed in loamy and sandy material; on moraines, outwash plains, terraces, and valley trains
- 4 CHELSEA-OCKLEY-OSHTEMO association: Nearly level to gently rolling, somewhat excessively drained and well drained soils formed in sandy and loamy material; on moraines, outwash plains, terraces, and valley trains
- 5 MOROCCO-NEWTON-OAKVILLE association: Nearly level and undulating, somewhat poorly drained, very poorly drained, well drained, and moderately well drained soils formed in sandy material; on outwash plains, lake plains, and beach ridges
- 6 MARLETTE-CAPAC-METEA association: Nearly level to very hilly, moderately well drained, somewhat poorly drained, and well drained soils formed in loamy and sandy material; on moraines and till plains
- 7 SEBEWA-COLWOOD-BRADY association: Nearly level, poorly drained and somewhat poorly drained soils formed in loamy, sandy, and silty material; on outwash plains, lake plains, valley trains, and terraces
- 8 OAKVILLE association: Nearly level to steep, moderately well drained and well drained soils formed in sandy material; on outwash plains, lake plains, dunes, moraines, and beach ridges

COMPILED 1984

SECTIONALIZED TOWNSHIP

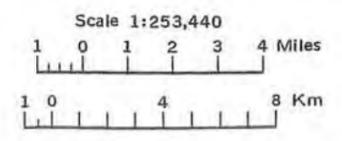
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36



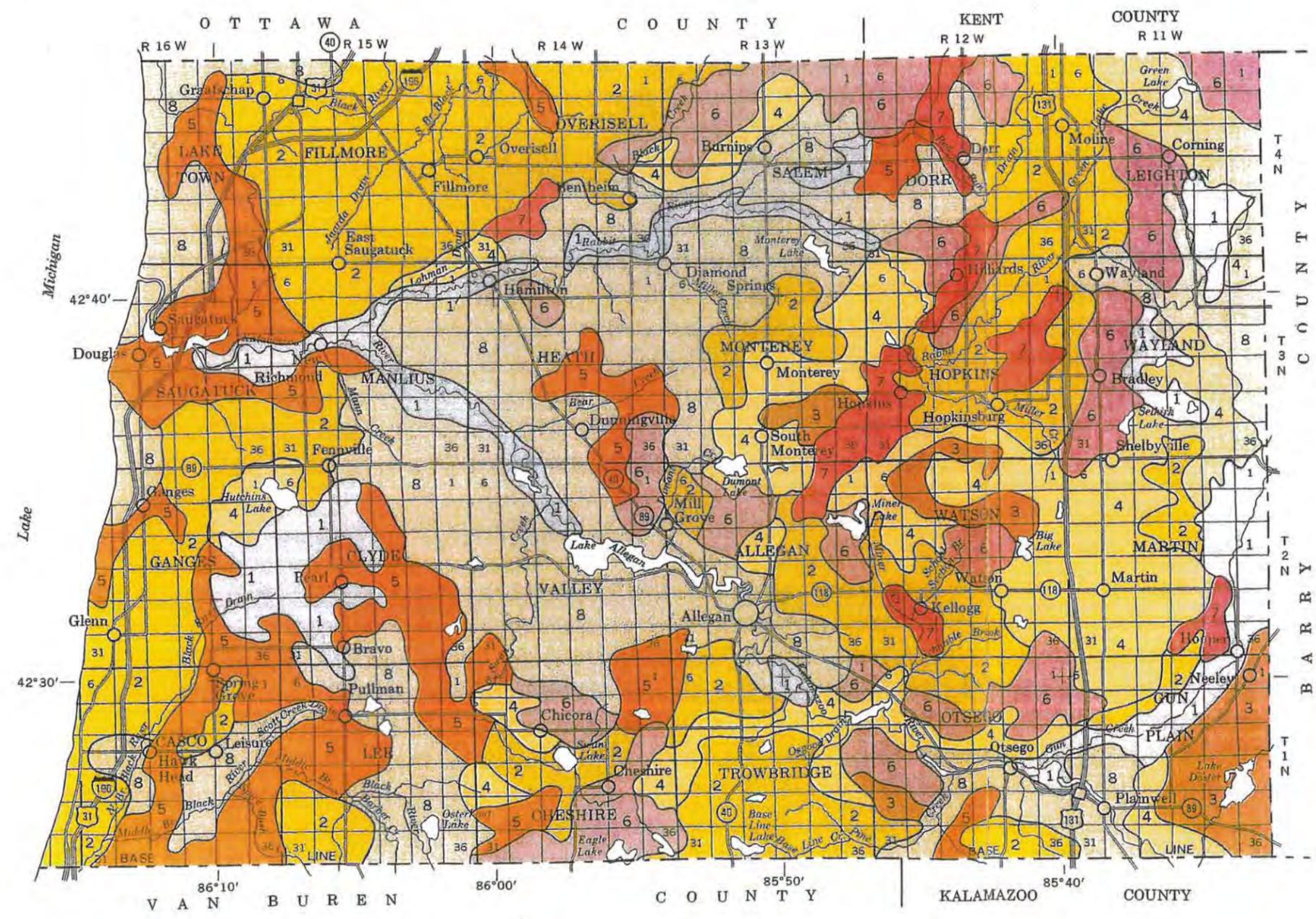
U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
MICHIGAN AGRICULTURAL EXPERIMENT STATION

## GENERAL SOIL MAP

ALLEGAN COUNTY, MICHIGAN



Each area outlined on this map consists of more than one kind of soil. The map is thus meant for general planning rather than a basis for decisions on the use of specific tracts.



As part of the final design process, soil borings will be taken on-site to determine whether any special construction methods will be needed.

Agricultural Resources:

As previously discussed, there are only 16.3 acres (0.6% of total land area), located within the City limits. Therefore, the agricultural resources are minimal. None of these areas will be impacted by the proposed work.

Existing Plant and Animal Communities:

Wildlife within the Study Area includes animals and birds normally associated with urban or agricultural environments. Cottontail rabbit, ruffed grouse, opossum, pheasant, fox squirrels, deer, turkeys, and several species of waterfowl are known to inhabit the Study Area.

The City of Allegan reviewed the Michigan Natural Feature Inventory and U.S. Fish and Wildlife Technical Assistance website for federally or state listed threatened and endangered species. According to the website, two (2) endangered species, the Indiana bat and Karner blue butterfly, are listed as being located within Allegan County. The Indiana bat usually lives in wooded areas and the Karner blue butterfly lives near Wild Lupine which is generally found in oak savannas or pine barrens. As all of the work is to take place on the existing WWTP property, which is already developed, there will be no impacts to these type of habitats.

According to the USFW Technical Assistance website, there is one threatened plant species (Pitcher's thistle). Again, because all work is proposed on the WWTP site, which is developed, there will be no impacts to the plant. The City of Allegan also contacted US Fish and Wildlife and the Michigan Natural Features Inventory regarding endangered species. All correspondence regarding endangered/threatened plants or animals is included in Appendix E.

**B. Existing Facilities – Collection System**

The collection system improvements needed over the 20 year planning period were identified and discussed in the Allegan WWTP Project Plan Update (5300) approved by MDEQ on May 9, 2008. As discussed previously, the Phase I upgrades identified in that plan were completed using other funding sources, as the project was not within the SRF fundable range. The City will continue to complete the improvements as outlined for the Phase II program through their sewer funds, rather than seek further SRF loans for those projects. The City has had no additional significant needs on its collection system and no significant increase in inflow and infiltration (I/I) since the previous project plan was prepared. As this project plan is intended to be an additional update to the original plan, the collection system was not investigated at this time.

**C. Existing Facilities – POTW, General**

The WWTP is located on North Street along the Kalamazoo River, with all collected wastewater being received at the plant, treated, and continuously discharged to the Kalamazoo River. The WWTP has a preliminary treatment system consisting of raw sewage pumping, fine screening, degritting and flow measurement. Pretreated wastewater proceeds by gravity through the secondary biological treatment utilizing the activated sludge process modified for biological nutrient removal, and final clarifier tanks. Final clarifier effluent flows to the ultraviolet disinfection system and then to the River for discharge. Excess influent wastewater can be pumped to the equalization tank on site for storage prior to being returned for treatment through the aforementioned treatment system. Coagulant (aluminum sulfate) can be added for precipitation and removal of phosphorus. Aerobic sludge digestion stabilizes the byproduct

sludges prior to final disposal, typically by utilization on agricultural land. (These systems are described in greater detail in the next Sections.)

The design and permitted annual average daily flow is 1.2 MGD, with a design peak hour flow of approximately 4.0 MGD moderated by the provision of off-line raw wastewater storage in the equalization tank. Table II-4 summarizes the average flow, influent and effluent data for the year 2011.

Table II-4: 2011 AVERAGE POTW DATA

Flow (mgd)		Influent (mg/l)				Effluent (mg/l)			
Daily	Peak Hr.*	BOD <sub>5</sub>	TSS	Total P	NH <sub>3</sub> -N	CBOD <sub>5</sub>	TSS	Total P	NH <sub>3</sub> -N
0.905	1.202	612	464	7.5	16.4	4.1	6.5	0.22	0.9

*\*A portion of the estimated peak flow can be stored in the storage/equalization basin prior to being returned for full treatment.*

The City of Allegan WWTP is effectively treating the wastewater flows received from the areas tributary to the Facility. Appendix A is a copy of the City’s current National Pollution Discharge Elimination System Permit (NPDES), which includes all of the Plant’s effluent limitations and monitoring requirements. The City has not had any NPDES permit violations since January of 2010. This violation occurred during construction of the recent plant upgrades when temporary construction conditions affected the treatment process, resulting in minor violations.

The City has implemented an Industrial Pretreatment Program, which regulates discharges into the City’s sewerage systems. A complete list of significant industrial users within the WWTP service area is provided in Appendix B. Of this list, Perrigo Company and Key Gas Components have an active IPP discharge permit.

**D. Existing Facilities – Systems and Infrastructure**

The Discharge Data Form, required for the Project Plan is provided in Appendix G.

**1. Liquid Stream**

**1.1 General**

The liquid stream processes were upgraded in recent projects with the exception of the proposed addition to the ultraviolet disinfection system. Thus, they will not be considered further in this Plan

*Ultraviolet Disinfection*

The secondary effluent flows by gravity from the secondary clarifiers to the UV channel. A screen is equipped at the head of the channel to screen out algae and leaves which may enter the clarified effluent from catching on the UV bulbs. Two banks of low pressure UV bulbs are contained in the channel along with an influent flow level weir and effluent flow level gate. Currently, there is only one UV channel for treatment, with no means to bypass this channel. Cleaning of the bulbs and other maintenance is done out in the open on the UV channel deck. In the

winter or during inclement weather, this operation becomes difficult to complete without protection from the weather.

After contact with the UV bulbs, the flow is discharged to the Kalamazoo River.

## **2. Solids Stream**

### **2.1 Septage Receiving**

A septage receiving station was constructed as part of the 2008 improvements and consists of a septage flow meter, rock trap, fine screen and aerated mix/storage tank. The septage is mixed and aerated in the storage tank with waste activated sludge before being pumped to one of the two aerobic sludge holding tanks on the site.

Because there is only one septage receiving station, when it is out of service for maintenance, there is no ability to receive septage at the plant. In addition, the number of septage trucks currently using the station results in multiple truck backups during peak usage times.

### **2.2 Sludge Thickening and Storage**

There are three sludge holding tanks on the site. Two of them are equipped with an air supply/diffusion system to provide aerobic conditions for digesting and thickening of the sludge. All three of the tanks are equipped with decanting valves to decant liquid from the tanks to the headworks of the plant to allow for sludge thickening.

The tank which does not have aeration capabilities is a buried, covered, concrete tank. Because there is no equipment in the tank, there is no way to mix the contents to promote more homogenous sludge which assists in thickening and sludge removal.

The two tanks which do have aeration capabilities are not covered and have experienced odor complaints in the past when the aeration system is running. In addition, the disposal pump for one of these tanks is located in a building not contiguous to the tank. This makes pumping sludge from the tank difficult due to the long length of sludge suction piping from the tank to the pump.

After storage, the sludge is removed from the tanks and land applied to farm fields by a private contractor.

## **E. Need for Project**

The Wastewater Plant is generally in compliance with the requirements of the NPDES permit and there are no orders of enforcement in place. Recent projects at the plant have upgraded much of its equipment. However, over the next 20 years, there are additional needs at the plant for projects which have not been addressed to date as described herein.

Without the construction of the proposed project, the water quality of the Kalamazoo River watershed would be degraded potential failures in the UV system. Also, without the construction of the proposed secondary septage receiving station, the City may not be able to provide service to all septage haulers, especially in the event that the one station has to go down for service. This may cause septage haulers to revert back to land application with no treatment,

which could impact the water quality of the entire watershed through runoff. Allegan is attempting to cooperate with the State instituted policy of allowing treatment of septage at POTWs for overall environmental benefits, and doing this project accomplishes that goal. In addition, odor complaints in the Service area from the WWTP would continue without construction of an odor control system.

# ***Section III - Alternative Analysis***

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## **A. Alternatives Considered**

The alternatives considered for each improvement element are described in the following narratives. A technical basis has been developed for each improvement element and an economic comparison of alternatives completed where appropriate.

## **B. Alternative No. 1—No Action**

Currently the existing septage receiving facility is operating at a higher rate than anticipated. This causes a delay in service during peak hours and the possibility of service disruption if the station needs to go offline for maintenance. Furthermore, the underground sludge storage tank currently has no mixing capabilities. Therefore it is difficult to get a homogeneous sludge for final use due to settling issues. The proposed projects will also need to be completed to provide redundancy, reduce odors, improve operations, and keep the station up to current standards.

## **C. Alternative No. 2—Upgrade Existing System**

The overall project needs over the 20 year planning period have been outlined in the previous section. The individual projects are detailed in the herein, including alternatives analyzed for each of the proposed improvements. While the City needs to complete all of these projects over the next 20 years, the first phase consists of the installation of a second septage receiving station and the installation of a secondary UV disinfection system. These projects are detailed in the following section. As additional funding becomes available, the additional projects will be completed.

## **WWTP Upgrades**

There are several improvements to the plant which were not done as part of the 2008 or 2012 SRF projects that are required to be done over the next 20 years.

### **1. Addition of Second Septage Receiving Station**

The existing septage receiving building/equipment which was added in 2008 is receiving significantly more use than anticipated. This results in service delays when multiple septage haulers wait in line to use the single facility, and possible service disruptions when the single station is down for maintenance and repair. The usage is only expected to increase as new septage haulers are signed up on an ongoing basis. Furthermore, the original basis of design for the station assumed that septage will be received at a maximum rate of six (6) loads per hour. To accomplish this, two stations are needed, as it takes approximately 20 minutes per truck to unload. Under current operating conditions, there are times when three trucks are waiting to unload. This results in significant wait times which the septage haulers are not able to economically live with. Furthermore, according to the EPA Reliability criteria for solids handling at WWTPs, there should be a means provided to repair and maintain equipment without interruption of the operation. Currently, if the septage receiving screen were out of service, for instance, it would interrupt the operation of the septage receiving. Thus, a second screen is needed to continue operations. Thus, a second facility is needed. There is no alternative to septage other than a second receiving station.

This facility is proposed to be located adjacent to the existing facility in a new building. Due to its distance from the septage mixing tanks, a new pumped discharge system will be

installed adjacent to the new facility to receive and pump septage to the mix tank. The new facility will have a capacity to match the existing facility (400 gallons per minute unloading rate) and will contain an automated unloading system including a meter, valve, fine screen and billing system.

This work is presented in Figure 9. The estimated capital cost is \$660,000.00.

## **2. Addition of a Second Channel of Ultraviolet Disinfection Equipment with a Building**

Currently, there is no redundancy for the single UV disinfection system. This process is used exclusively for disinfection of the final effluent water. Should the existing system fail or require maintenance during this time period, it is possible that the fecal coliform limit may not be achieved. In addition, the existing system is out in the open with no enclosure. This creates maintenance difficulties during inclement weather when the UV bulbs have to be removed from the water channel and cleaned by hand above ground. A new building is proposed to enclose the existing and proposed UV channels.

Regarding alternatives to UV Disinfection, there is possibly an alternative for a chlorine contact basin as a backup to the UV. However, due to safety and security concerns with the chlorine chemicals, this process was eliminated during the previous project. Therefore, that alternative is not considered viable, and the addition of a second channel is the only alternative to doing nothing.

The estimated capital cost is \$490,000.00.

## **3. Mixing Improvements**

The existing buried sludge storage tanks and equalization tanks are currently not equipped with function mixers. This creates problems due to settlement of solids in the equalization tank and lack of homogeneity in the sludge storage tank. It is proposed to add mechanical mixing equipment to both tanks. The estimated capital cost is \$400,000.00.

## **4. Sludge Storage Improvements – Tank Covers and Odor Control**

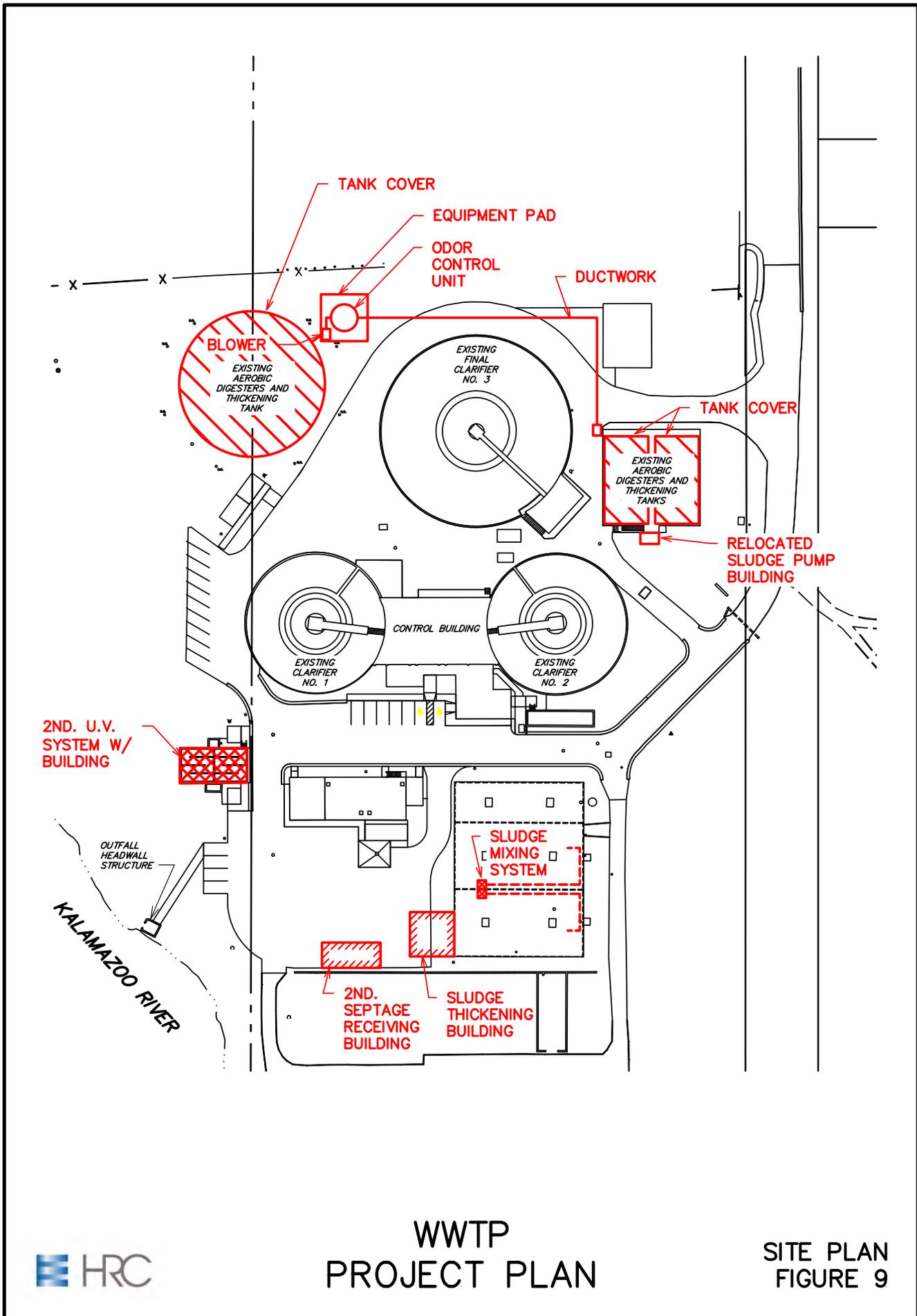
Currently, only one of the three sludge storage tanks is covered and there is no odor control system in place for any of the tanks.

It is proposed to add covers to both the existing circular, glass-lined steel tank and the above ground concrete tank. In addition, due to recent odor complaints, it is proposed to add an odor control system to the two aerated sludge holding tanks.

The estimated capital cost is \$1,150,000.00.

## **5. Mechanical Sludge Thickener**

The existing solids handling system relies on aerobic digestion and decanting to thicken the solids. This method requires electrical energy for aeration and typically achieves a sludge thickness of 5% maximum. Another common method of sludge thickening is by mechanical means. In this method, waste sludge is pumped to a mechanical thickener where the sludge is mixed with a polymer, and the thickened sludge is stored without the need for further aeration. This mechanical thickening can achieve a sludge thickness of 6% - 8% depending on the polymer used and the desired thickness. A new thickening system is proposed to be constructed on the site near the buried sludge storage tanks. The system



WWTP  
PROJECT PLAN

SITE PLAN  
FIGURE 9



would consist of a building housing a thickener, chemical feed system and disposal pump. It would receive waste sludge from the septage holding tank pumps.

These improvements are shown in Figure 9. The estimated capital cost is \$760,000.00.

#### **6. Relocate Sludge Pump**

The existing rectangular digesters are served with an existing sludge pump located in the aeration tank 3 pump building. This building was constructed in the 1990's and is far enough from the sludge tank that it is difficult for the pump to move the sludge to the pump (suction) due to its thickness/viscosity. It is proposed to relocate this pump to a new building which would be constructed adjacent to the existing sludge tank.

This improvement is shown in Figure 9. The estimated capital cost is \$90,000.00.

### **D. Cost of Alternatives**

The above sections summarize the proposed costs. (Detailed cost estimates are provided for the projects in Appendix C.)

### **E. Impacts of Alternatives**

Because all of the proposed work would be performed on the existing WWTP property, the impacts of the various alternatives on the surrounding environment would be the same. The long and short-term impacts of the alternatives are described in Section V – Environmental Impacts.

# *Section IV - Selected Alternative*

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## **A. Proposed Facilities**

The following projects are proposed under the first phase of this Project Plan.

- Due to the unanticipated demand at the first septage receiving station, a second station is necessary for to provide access and redundancy should the existing station need to be shut down for maintenance.
- Installation of a secondary UV disinfection system including a building to house the equipment.

Over the next 20 years, additional improvements will be required for the WWTP and collection systems as outlined in the previous sections. The City will not complete these additional improvements until such time as additional funding becomes available. However, this plan outlines all future needs over the 20 year planning period. Updates to the project plan will be provided when the City is ready to move forward on these improvements.

## **B. Schedule**

The Table IV-1 provides a proposed schedule for the Project Plan submittal and associated deadlines. Table IV-2 presents the overall schedule proposed for the first phases of the WWTP as outlined in this report.

Table IV-1: PROPOSED SRF PROJECT SCHEDULE

<b>Task</b>	<b>Complete on or Before</b>
Public Hearing Notice	March 26, 2012
Place Draft Project Plan on Public Record	March 30, 2012
Formal Public Hearing	May 14, 2012
Submit Final Project Plan to MDEQ for SRF Consideration	May 18, 2012
Apply for S2 Design Grant	May 18, 2012
MDEQ Approval of Plans and Specifications	March 5, 2013
Bid Advertisement Published	April 5, 2013
Part III Application Due (Bid, Tent. Award)	May 15, 2013
MDEQ Order of Approval Issued	June 4, 2013
MMBA Preclosing	June 15, 2013
MMBA Closing	June 25, 2013

Table IV-2: PROPOSED DESIGN/CONSTRUCTION SCHEDULE

Phase	Description		
1	Septage Receiving Station/UV Disinfection Redundancy and Enclosure	Design Construction	2013 2014

The other projects outlined herein will be designed and constructed in the future as funding allows.

**C. Cost Estimate**

The estimated 2012 total project cost for all projects outlined herein is \$3,550,000 (March 2012 ENR 20 Cities CCI = 9268). Table IV-3 provides a summary of the estimated costs this work. A complete cost estimate breakdown for all projects is provided in Appendix C.

TABLE IV-3: ESTIMATED COST SUMMARY, ALL PROJECTS

Project Element	Project Cost	Present Worth	Annual Equivalent Cost
Total Project Cost	\$3,550,000	\$3,042,000	\$234,000

It is likely that the City will pursue this loan in multiple segments. Table IV-4 provides a summary of the estimated costs assuming that the first year program consists only of the septage receiving station and UV system improvements.

TABLE IV-4: ESTIMATED COST SUMMARY, PHASE I PROJECTS

Project Element	Project Cost	Present Worth	Annual Equivalent Cost
Total Project Cost	\$1,150,000	\$851,000	\$65,000

**D. Authority to Implement Selected Alternative**

The City Council has the legal authority to implement the Project Plan Supplement. A copy of the draft resolution is provided in Appendix D.

**E. User Costs**

The costs as described above will be paid for by user charges. The expected operation, maintenance, and replacement costs for these projects will be a net decrease due to the revenue earned by the septage receiving station, savings in sludge disposal, and increased efficiency leading to reduced energy costs.

TABLE IV-5: USER COST SUMMARY, ALL PROJECTS

<b>Description</b>	<b>Expense Opinion</b>
Debt Retirement, Yearly Cost	\$227,700
O, M & R Yearly Cost	(\$41,500)
Total Yearly Costs	\$186,200

The costs above were calculated using an interest rate of 2.5% for SRF funding and are based on a 20 year loan period.

Table IV-6 outlines the proposed costs for the first phase projects only. The O&M costs for this option will also be reduced due to the revenue earned from the septage receiving area.

TABLE IV-6: USER COST SUMMARY, PHASE I PROJECTS

<b>Description</b>	<b>Expense Opinion</b>
Debt Retirement, Yearly Cost	\$73,800
O, M & R Yearly Cost	(\$28,500)
Total Yearly Costs	\$45,300

The City's residential customer base currently represents approximately 42% of the average billed sales, and there are currently 1,850 accounts in this customer category. A summary of the estimated project user costs is give below for all projects, and the Phase I projects only.

TABLE IV-7: ESTIMATED TOTAL RESIDENTIAL MONTHLY COST, ALL PROJECTS

Total Yearly Costs	\$186,200
Estimated Monthly Cost for Residential User	\$3.52

TABLE IV-8: ESTIMATED TOTAL RESIDENTIAL MONTHLY COST, PHASE I PROJECTS

Total Yearly Costs	\$45,300
Estimated Monthly Cost for Residential User	\$0.86

A current City resident that uses 5,000 gallons a month would be billed \$34.76 (\$15.81 readiness to serve and \$18.95 for 5,000 gallons). A resolution was passed June 28, 2010 that gives a 2% rate increase to sewer rates on July 1, 2012 and 2013.

# ***Section V - Environmental Impacts***

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## **A. General**

The anticipated environmental impacts resulting from the construction of the selected plan include beneficial and adverse, short term and long term, and irreversible and irretrievable impacts. The following is a discussion of the environmental impacts of the selected plan.

### **1. Beneficial and Adverse Impacts**

Construction activities associated with WWTP will take place on the existing treatment plant property. Construction and equipment manufacturing related jobs would be generated, and local contractors would have an equal opportunity to bid on the construction contracts.

Implementation of the Project Plan would create temporary disruption due to required construction. This includes noise and dust generated by the work, and possible erosion of spoils from open excavation. The assessment of alternate solutions and sites for the proposed project included identification of any important resources of either historic or environmental value which are protected by law and should be avoided.

### **2. Short and Long-Term Impacts**

The short-term adverse impacts associated with construction activities would be minimal, and mitigatable, in comparison to the resulting long-term beneficial impacts. Short-term impacts include traffic disruption, dust and noise. No long-term negative impacts are anticipated. The long-term positive impacts include increased redundancy at the plant, and the ability to process more septage will provide environmental benefits as less septage will need to be land applied.

### **3. Irreversible Impacts**

The investment in non-recoverable resources committed to the Project Plan would be traded off for the improved performance of the facilities during the life of the system. The commitment of resources includes public capital, energy, labor, and unsalvageable materials. These non-recoverable resources would be foregone for the provision of the proposed improvements.

Construction accidents associated with this project may cause irreversible bodily injuries or death. Accidents may also cause damage to or destruction of equipment and other resources.

## **B. Analysis of Impacts**

### **1. Direct Impacts**

#### Local Air Quality

There will be minimal direct impacts on local air quality during the construction phases of these projects. Any effects on air quality will be due to dust and emissions from construction equipment.

#### Archeological, Historical, or Cultural Resources

There are no impacts on archaeological, tribal, historical, or cultural resources due to this project.

## Impacts upon the Existing or Future Quality of Local Groundwater and Surface Waters

Construction will occur on the WWTP site, which is adjacent to the Kalamazoo River. Appropriate measures will be taken during construction to avoid detrimental impact to the river. All necessary permits will be obtained prior to the proposed activities. There are no impacts anticipated to the local groundwater.

## Impacts upon Superfund Site

The following information is from the US EPA document titled "EPA Superfund Record of Decision: ROCKWELL INTERNATIONAL CORP. (ALLEGAN PLANT) EPA ID: MID006028062 OU 01 ALLEGAN, MI 07/11/1995."

The Rockwell International site is a former drive line manufacturing facility located at 1 Glass Street in Allegan, Michigan. The site occupies approximately 30 acres in an industrially-zoned area and is bound on the north and northwest by Kalamazoo River; to the east by private residences and River Street; on the south by private residences and North Street; and to the southwest and west by vacant, low-lying land and the City of Allegan municipal wastewater treatment plant.

Located at and adjacent to the southwest corner of the Rockwell International site is the former City of Allegan municipal landfill. The landfill occupies approximately 11 acres. Approximately two-thirds of the landfill is covered by the City of Allegan wastewater treatment plant (2.5 acres), a maintained lawn (0.5 acres), and an unpaved parking lot (4 acres). The remaining portion of the landfill occupies approximately 4 acres of vacant, vegetated, low-lying land south of North Street that is poorly drained and frequently covered by areas of standing water.

The former City of Allegan municipal landfill is located in the southwest corner of the Rockwell International site beneath the west parking area, and extends beneath the City of Allegan municipal wastewater treatment plant and ground, and the low-lying, vacant property south of North Street.

As shown on historical aerial photographs, the northwest-west portion of the Rockwell International site and area south of the site, including the landfill, was formerly a low-lying backwater area of the Kalamazoo River. From approximately 1950 to 1974, the City of Allegan operated a municipal landfill in the southern portion of the backwater area north and south of North street. Fill materials encountered in soil borings collected throughout the landfill primarily consist of sand, gravel, and concrete debris. The City of Allegan also reportedly burned municipal waste in the southern portion of the former backwater area, and residues from burning could be mixed with the landfilled material. Black- stained sands encountered in the landfill may also indicate the disposal of foundry sand.

The surface of the landfill is generally flat and at grade with the surrounding area, however, the depth of the landfill varies with the base of the former backwater area ranging from approximately 25 feet below ground surface in the northern portion of the landfill to 8 to 9 feet below ground surface (ft-bgs) in the southern and western portions of the landfill.

Based on the results of the baseline risk assessment conducted for the Landfill Contents Operable Unit, U.S. EPA has determined that conditions in the landfill contents do not pose a significant current or future risk to human health or the environment. The noncancer hazard indices calculated for exposure to the landfill are less than 1.0; the excess lifetime cancer risk falls within the acceptable riskrange of 1E-04 to 1E-06 as established in the NCP; and the screening ecological assessment indicates that the landfill contents are not expected to pose a

significant threat to the environment via the soil exposure pathway. Based on these results, U.S. EPA has determined that no remedial action is warranted to remediate the Landfill Contents Operable Unit of the site.

U.S. EPA has determined that conditions in the landfill contents do not pose a current or potential threat to human health or the environment, and that no remedial action is warranted to remediate the landfill contents operable unit.

The Michigan Department of Natural Resources has determined that the selected remedy meets the provisions of the Limited Industrial Category of Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (formerly known as the Michigan Environmental Response Act). The State of Michigan therefore concurs with the selected remedy.

Additional information regarding this site is available in a figure contained in Appendix E.

#### Impacts upon Sensitive Features

It is anticipated that all construction will take place outside of the designated floodplain, wetland areas, or other sensitive areas.

#### Impacts upon People and the Local Economy

Short term impacts to people will occur during the construction phase. Increased construction traffic will occur in the area of the WWTP. All City of Allegan sanitary sewer users will experience beneficial long term impacts due to the level of service to which they expect being maintained by these improvements.

The local economy will be stimulated for contractors and suppliers of the materials, labor, and equipment necessary to construct the project.

#### Operational Impacts

### **2. Indirect Impacts**

#### Changes in Rate, Density, or Type of Residential, Commercial, or Industrial Development and the Associated Transportation Changes

No changes are anticipated to the above.

#### Changes in Land Use

No changes are anticipated to the above. All improvements to the WWTP will be on the existing treatment plant site.

#### Changes in Air or Water Quality due to Facilitated Development

There will be no changes to air or water quality due to development. There will be no direct correlation to development as a result of this project.

#### Changes to the Natural Setting or Sensitive Features Resulting from Secondary Growth

There should be no changes to the natural setting or sensitive features resulting from secondary growth.

### Impacts on Cultural, Human, Social, and Economic Resources

No changes are anticipated to the above.

### Impacts of Area Aesthetics

All of the proposed WWTP work will be completed on the existing site which is largely isolated from public view.

### Resources Consumption over the Useful Life of the Treatment Works, especially the Generation of Solid Wastes

No changes are anticipated to the above.

## **3. Cumulative Impacts**

### Siltation

Siltation may occur during the construction phase of the project. Proper Soil Erosion and Sedimentation Control practices will be followed to reduce the impacts of siltation on surrounding areas.

### Water Quality Impacts from Direct Discharges and Non-Point Sources

No water quality impacts are proposed by this project.

### Indirect impacts from development

There should not be development as a result of this project.

### The impacts from multiple public works projects occurring in the same vicinity

There will only be short term traffic impacts during the construction phase of this project and proper traffic control measures will be followed.

# ***Section VI - Mitigation***

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## **A. Short-Term, Construction-Related Mitigation**

Environmental disruption will occur during construction. Guidelines will be established for cover vegetation removal, dust reduction, traffic control, and accident prevention. Once construction is completed those short-term effects will stop and the area will be returned to the original conditions insofar as possible.

The soil erosion impact would be mitigated through the contractor's required compliance with a program for control of soil erosion and sedimentation, as specified in Part 91 of Michigan Act 451, P.A. of 1994. The use of soil erosion and sedimentation controls, such as straw bales, sedimentation basins, and silt fence, will protect the Kalamazoo River.

Construction equipment will be maintained in good condition to decrease noise. All access roads will be swept as necessary to avoid tracking dirt onto public roads.

## **B. Mitigation of Long Term Impacts**

General construction activities will prohibit the disposal of soils in wetlands, floodplains, or other sensitive areas. Catch basins will be protected where earth changing activities will take place.

## **C. Mitigation of Indirect Impacts**

The current trend in the City of Allegan is that the land use is largely dominated by residential properties. According to the City of Allegan's master planning for land use, this will not change much. Considering that everyone within the city limits can access the wastewater system if they choose to connect, a large increase in flow is not expected from inside the City limits.

New flows may come from outside the City such as Allegan, Valley, and Trowbridge Townships. A copy of the zoning and land use maps for the City of Allegan and for Allegan Township (both current and future) are shown in Figures 2 through 5.

The City of Allegan ordinances can be found on their website. General rules are the same as DEQ permits require, such as storm water containment, soil erosion and sedimentation control.

Planning and staging of construction could play a vital role in the success of the wastewater improvements. The existing system need to be kept operational while the improvements are being constructed, tested, and placed in service.

# ***Section VII - Public Participation***

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## **A. General**

The Project Plan was advertised in the local newspaper on March 26, 2012 (refer to Appendix F.) Copies of the Project Plan were placed at several locations throughout the City for the public's review. These locations include:

- City Hall, 112 Locust Street
- Wastewater Treatment Plant, 350 North Street

A formal public hearing was held on May 14, 2012 to review the work associated with the proposed Project Plan. The hearing was held to review the information presented in the Project Plan, including estimated user costs and to receive comments and views of interested persons. Copies of correspondence related to agency notifications, as well as other relevant correspondence, are included in Appendix E.

## **B. Resolution**

The City Council made a formal resolution regarding this Plan at a Council meeting following the public hearing scheduled for May 14, 2012. The resolution is included in Appendix D.

## **C. Public Hearing**

Representatives from the City and Hubbell, Roth & Clark, the City's Consulting Engineer, were present at 7:00 p.m. for the public hearing scheduled at Griswold Auditorium, located at 401 Hubbard Street on May 14, 2012. Appendix G includes a transcribed copy of the public hearing, attendance list and a photocopy of the slides presented at the hearing.

## ***Section VIII - Glossary***

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<b><u>Term</u></b>	<b><u>Description</u></b>
• 10-year Storm	A storm of a designated duration (ranging from 30 minutes to 24 hours) that has a 10% chance of occurring in a given year.
• 100-year Storm	A storm of a designated duration (ranging from 30 minutes to 24 hours) that has a 1% chance of occurring in a given year.
• Activated Sludge	Product that results when primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the breakdown of organic matter in raw sewage undergoing secondary waste treatment.
• Activated Sludge Process	Biological treatment process in which wastewater and biological sludge is mixed and aerated to facilitate aerobic decomposition by microbes.
• Aeration	Addition of air/oxygen to wastewater to maintain aerobic biological conditions.
• Aeration Tanks	A chamber used to inject air into water.
• Anaerobic Digester	A structure or device that promotes the biochemical degradation of complex organic material, such as waste activated sludge, into methane gas and other by-products.
• Average Flow	The average quantity of flow that passes a point over a given period of time.
• Biochemical Oxygen Demand (BOD)	The quantity of oxygen used in the aerobic decomposition of organic matter, usually expressed in parts per million. The degree of BOD removal is used as a measure in determining the efficiency of a sewage treatment plant as well as in measuring stream water quality.
• Bypass	The measurable diversion of raw sewage out of the sewer system.
• cfs	Cubic feet per second.
• Chlorination	The application of chlorine to water, generally for the purpose of disinfection.
• Cost-Effectiveness Analysis	An analysis performed to determine which alternate collection or treatment system would result in the minimum total resource cost to meet the requirements. A cost-effectiveness analysis for a sewer system determines this by comparing with total costs for transportation and treatment of the infiltration/inflow.
• Cost-Effectiveness Guidelines	Developed by EPA to aid grantees in the selection of a system component which will result in the minimum total resources cost over a fixed period of time to meet federal, state, and local requirements.
• Dechlorination	A process of removing residual chlorine from disinfected wastewater prior to discharge into the environment.
• Design Flow	The average daily flow that a treatment plant or other facility is designed to accommodate. Usually expressed in millions of gallons per day (MGD) or cubic feet per second (cfs).

- **Design Period** Time span over which proposed collector or treatment facilities are expected to be operating; period over which facility costs are amortized.
- **Drainage District or Watershed** The tributary area of a particular point on a channel system that contributes storm water runoff upstream of that point.
- **Effluent** The flow exiting a treatment process.
- **Environmental Impact Assessment (EIA)** A preliminary evaluation of the potential environmental impacts (positive and negative) of a proposed federally funded project. It should be submitted as part of the Project Plan.
- **Environmental Impact Statement (EIS)** A detailed analysis of the potential environmental impacts of a proposed project required when the EPA Regional Administrator determines that a project is highly controversial or may have significant adverse environmental effects.
- **FEMA** Federal Emergency Management Agency.
- **Flood** An overflow of lands not normally covered by water that is used or are usable to man. Normally a “flood” is considered as any temporary rise in stream flow and stage that results in significant adverse effects in the vicinity. (See surface runoff for comparison.)
- **Floodplain** The relatively flat area or low land adjoining the channel of a river or stream, which has been or may be covered by flood water. Formally defined as the area that would be flooded during a 100-year storm.
- **Floodway** The channel of the stream plus any adjacent flood plain areas that must be kept free of encroachment such that a 100-year flood can be transported without increasing upstream water elevations more than 0.10 feet.
- **Force Mains** Pipes used to transport wastewater under pressure against the force of gravity.
- **gpd** Gallons per day.
- **gpm** Gallons per minute.
- **Grit** Sand, gravel, cinders, and other heavy solid matter that have settling velocities substantially higher than those of putrescible organic solids in wastewater.
- **Grit Chamber** Detention chamber or an enlargement of a sewer, designed to reduce flow velocity of the liquid so that separation of mineral from organic solids by differential sedimentation is permitted.
- **Head** A measure of pressure exerted by a fluid expressed as the height of an enclosed column of the fluid that could be balanced by the pressure in the system.
- **Head loss** The difference in water level between the upstream and downstream sides of a treatment process attributed to friction losses.
- **Hydraulic Gradient** The slope of the hydraulic grade line. This is the slope of the wastewater surface in an open channel or the slope of the water pressure for pipes under pressure.
- **Hydraulic Loading** Total volume of liquid applied per unit of time to a tank or treatment process
- **Hydrograph** A curve denoting the discharge of flow over a period of time.

- **Infiltration/Inflow (I/I)** The total quantity of water from both infiltration and inflow without distinguishing the source.
- **Infiltration** The water entering a sewer system from the soil through defective pipes, foundation drains, pipe joints, connections and manhole walls.
- **Inflow** The water discharged into a sewer system from roof drains, cooling water discharges, drains from springs and swampy areas, manhole covers, cross-connections from storm sewers and combined sewers, catch basins, storm waters, surface runoff, street wash waters or drainage.
- **Influent** The flow entering a treatment process.
- **Interceptor** Any pipe, regardless of size that carries wastewater directly to the treatment plant. Generally, they are the largest pipes in the collection system.
- **Lateral** The pipe to which individual houses and business establishments connect to public sewers.
- **Lagoon (Polishing Pond)** A shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater effluents from other biological processes; also used for storage of wastewater.
- **Lift Station (Pump Station)** A facility within a sanitary sewer system which pumps flows from a lower elevation to a higher elevation.
- **Main/Submain** The word “main” is frequently used loosely to indicate a large pipe, which is not a lateral and not an interceptor. It frequently forms one of the larger branches of a complex collection system.
- **MDEQ** Michigan Department of Environmental Quality
- **MDNR** Michigan Department of Natural Resources
- **Mesophilic Anaerobic Digestion** An anaerobic digestion process which is operated at a temperature of approximately 95° F.
- **MGD** Millions of gallons per day.
- **MH** Manhole.
- **National Pollutant Discharge Elimination System (NPDES)** The effluent discharge permit system established under the 1972 Federal Water Pollution Control Administration as part of the Clean Water Act, which places conditions on the type and concentration of pollutants that discharge to a waterway of the United States.
- **Nitrification** The ammonia released from organic compounds, plus that from other sources such as industrial wastes and agricultural runoff, is oxidized to nitrate by a special group of nitrifying bacteria as their source of energy in a process called Nitrification.
- **NH<sub>3</sub>** The chemical formula for ammonia, which is a compound of hydrogen and nitrogen that occurs extensively in nature.
- **Peak Flow** The maximum quantity of flow that passes a point over a given period of time.
- **Point Source Pollution** Pollutants that enter the water untreated from any discernible, confined, and discrete conveyance such as a sewer pipe, culvert, tunnel, or other channel or conduit.

- Preliminary Treatment System A system of treatment steps that generally includes screening, grit removal, pre-aeration, and/or flow equalization that prepare wastewater influent for further treatment.
- Primary Impacts Those which can be attributed directly to a proposed action.
- Primary Clarifier The first settling tank for the removal of settleable solids through which wastewater is passed in a treatment works.
- Primary Sludge Sludge produced in a primary waste treatment unit.
- Primary Treatment The process to remove settleable pollutants. Treatment steps including sedimentation to produce an effluent suitable for biological treatment.
- Sanitary Sewer A sewer intended to carry only sanitary and industrial wastewater from residences, commercial buildings, industrial plants, and institutions, including service connections.
- Sanitary Sewer System (Sewage Collection System) The entire network of sanitary sewers and pumping stations which collect a municipality's wastewater.
- Screening The removal of relatively coarse floating and suspended solids by straining through racks or screens.
- Secondary Impacts Those resulting from indirect or induced changes in community land use patterns, population and economic growth, and environmental quality resulting from induced growth.
- Secondary Treatment The second step in most publicly owned waste treatment systems in which bacteria consume the organic parts of the waste. It is accomplished by bringing together waste, bacteria, and oxygen in trickling filters or in the activated sludge process. This treatment removes floating and settleable solids and about 90 percent of the oxygen-demanding substances and suspended solids. Disinfection is the final stage of secondary treatment.
- Service Area The area which will be serviced by a wastewater treatment system.
- Sewage Sewage refers to the wastewater from residential, commercial, and industrial establishments, which flows through the pipes to a treatment plant.
- Sewer Sewer refers to the pipe used to transport wastewater.
- Sewer or Sanitary District A sewer district is usually either a semi-autonomous governmental unit whose purpose is the provision of sewerage or a special assessment district within which sewerage facilities are provided to residents.
- Sludge The accumulated settled solids deposited from sewage or industrial wastes, raw or treated, in tanks or basins, and containing more or less water forming a semi-liquid mass.
- State Revolving Fund (SRF) This program was established to provide low cost financing for the construction of publicly owned water pollution control facilities. The program is jointly administered by the Michigan Municipal Bond Authority and the Michigan Department of Environmental Quality.
- Storm Sewer A sewer intended to carry only storm waters, surface runoff, street wash waters, and drainage.
- Surface Runoff Water that is derived directly from precipitation and passes over the ground into storm sewers and water-courses (see "Flood" for comparison).

- Suspended Solids (SS) Small particles of solid pollutants in sewage that contribute to turbidity and resist separation by conventional means.
- Ten State Standards Recommended standards for water and wastewater facilities by the Committee of the Great Lakes-Upper Mississippi River Board of State Public Health and Environmental Managers.
- Tertiary Treatment Advanced cleaning of wastewater that goes beyond the secondary or biological stage, removing nutrients such as phosphorus, nitrogen, and most BOD and suspended solids.
- Thermophilic Anaerobic Digestion An anaerobic digestion process which is operated at a temperature of approximately 131° F.
- Total P Total phosphorus.
- TCRPC Tri-County Regional Planning Commission
- TSS Total Suspended Solids. A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for "total suspended non-filterable solids."
- Trunk Sewer Generally, a large diameter municipal sewer that collects flow from smaller diameter municipal sewers and discharges to an interceptor sewer.
- US EPA The United States Environmental Protection Agency.
- User Charge Fees levied upon users of a water or wastewater system, based on the volume and/or characteristics of the water.
- Vactor Receiving Station Container filter is used for dewatering and disposal of scum, grease, grit from sanitary sewer system and POTW.
- Volatile Solids Those solids in water or other liquids that are lost on ignition of the dry solids at 550° centigrade.
- Water Quality Criteria The levels of pollutants that affect the suitability of water for a given use. Generally, water use classification includes: public water supply, recreation, propagation of fish and other aquatic life, agricultural use and industrial use.

**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

***City of Allegan***

**APPENDIX A  
CURRENT NPDES PERMIT**

PERMIT NO. MI0020532

**STATE OF MICHIGAN**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**



**AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 *et seq.*) (the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Order 2011-1,

**City of Allegan**  
112 Locust Street  
Allegan, Michigan 49010

is authorized to discharge from the **Allegan Wastewater Treatment Plant** located at

350 North Street  
Allegan, Michigan 49010

designated as **Allegan WWTP**

to the receiving water named the Kalamazoo River in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

This permit is based on a complete application submitted on March 15, 2010.

**This permit takes effect on December 1, 2011.** The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules. On its effective date this permit shall supersede NPDES Permit No. MI0020532, expiring October 1, 2010.

This permit and the authorization to discharge shall expire at midnight, **October 1, 2015**. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information, forms, and fees as are required by the Department of Environmental Quality (Department) by **April 4, 2015**.

Issued \_\_\_\_\_

DRAFT – 9/12/2011  
Philip Argiroff, Chief  
Permits Section  
Water Resources Division

## PERMIT FEE REQUIREMENTS

In accordance with Section 324.3120 of the Michigan Act, the permittee shall make payment of an annual permit fee to the Department for each October 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by January 15 for notices mailed by December 1. The fee is due no later than 45 days after receiving the notice for notices mailed after December 1.

**Annual Permit Fee Classification:** Municipal Minor, 1 MGD to less than 10 MGD (IP)

In accordance with Section 324.3118 of the Michigan Act, the permittee shall make payment of an annual storm water fee to the Department for each January 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by March 15 for notices mailed by February 1. The fee is due no later than 45 days after receiving the notice for notices mailed after February 1.

In accordance with Section 324.3132 of the Michigan Act, the permittee shall make payment of an annual biosolids land application fee to the Department if the permittee land applies biosolids. In response to the Department's annual notice, the permittee shall submit the fee, which shall be postmarked no later than January 31 of each year.

## CONTACT INFORMATION

Unless specified otherwise, all contact with the Department required by this permit shall be made to the Kalamazoo District Supervisor of the Water Resources Division. The Kalamazoo District Office is located at 7953 Adobe Road, Kalamazoo, Michigan 49009-5026, Telephone: 269-567-3500, Fax: 269-567-9440.

## CONTESTED CASE INFORMATION

Any person who is aggrieved by this permit may file a sworn petition with the State Office of Administrative Hearings and Rules of the Michigan Department of Licensing and Regulatory Affairs, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Licensing and Regulatory Affairs may reject any petition filed more than 60 days after issuance as being untimely.

**PART I**

**Section A. Limitations and Monitoring Requirements**

**1. Final Effluent Limitations, Monitoring Point 001A**

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge treated municipal wastewater from Monitoring Point 001A through Outfall 001. Outfall 001 discharges to Kalamazoo River. Such discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>				<u>Maximum Limits for Quality or Concentration</u>				<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>7-Day</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	---	(report)	MGD	---	---	---	---	5xWeekly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD <sub>5</sub> )	250	400	---	lbs/day	25	40	---	mg/l	5xWeekly	24-Hr Composite
Total Suspended Solids	300	450	---	lbs/day	30	45	---	mg/l	5xWeekly	24-Hr Composite
Ammonia Nitrogen (as N)	(report)	---	---	lbs/day	(report)	---	---	mg/l	5xWeekly	24-Hr Composite
Total Phosphorus (as P)	10	---	---	lbs/day	1.0	---	---	mg/l	5xWeekly	24-Hr Composite
Fecal Coliform Bacteria	---	---	---	---	200	400	---	ct/100 ml	5xWeekly	Grab
Total Mercury	(report)	---	---	lbs/day	(report)	---	---	ng/l	Quarterly	Grab
Total Mercury	<u>12-Month Rolling Average</u> 0.0001	---	---	lbs/day	<u>12-Month Rolling Average</u> 10	---	---	ng/l	Quarterly	Calculation
					<u>Minimum Monthly</u>					
CBOD <sub>5</sub> Minimum % Removal	---	---	---	---	85	---	---	%	Monthly	Calculation
Total Suspended Solids Minimum % Removal	---	---	---	---	85	---	---	%	Monthly	Calculation
					<u>Minimum Daily</u>		<u>Maximum Daily</u>			
pH	---	---	---	---	6.5	---	9.0	S.U.	5xWeekly	Grab
Dissolved Oxygen	---	---	---	---	3.0	---	---	mg/l	5xWeekly	Grab

The following design flow was used in determining the above limitations, but is not to be considered a limitation or actual capacity: 1.2 **MGD**

a. Narrative Standard

The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge in unnatural quantities which are or may become injurious to any designated use.

**PART I****Section A. Limitations and Monitoring Requirements**

- b. **Sampling Locations**  
Samples for all parameters shall be taken prior to discharge. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative of the effluent.
- c. **Ultraviolet Disinfection**  
It is understood that ultraviolet light will be used to achieve compliance with the fecal coliform limitations. If disinfection other than ultraviolet light will be used, the permittee shall notify the Department in accordance with Part II.C.11. - Changes in Facility Operations.
- d. **Percent Removal Requirements**  
These requirements shall be calculated based on the monthly (30-day) effluent CBOD<sub>5</sub> and Total Suspended Solids concentrations and the monthly influent concentrations for approximately the same period.
- e. **Final Effluent Limitation for Total Mercury**  
The final limit for total mercury is the Discharge Specific Level Currently Achievable (LCA) based on a multiple discharger variance from the water quality-based effluent limit of 1.3 ng/l, pursuant to Rule 323.1103(9) of the Water Quality Standards. Compliance with the LCA shall be determined as a 12-month rolling average. The 12-month rolling average shall be determined by adding the present monthly average result to the preceding 11 monthly average results then dividing the sum by 12. For facilities with quarterly monitoring requirements for total mercury, quarterly monitoring shall be equivalent to 3 months of monitoring in calculating the 12-month rolling average. Facilities that monitor more frequently than monthly for total mercury must determine the monthly average result, which is the sum of the results of all data obtained in a given month divided by the total number of samples taken, in order to calculate the 12-month rolling average. If the 12-month rolling average for any quarter is less than or equal to the LCA, the permittee will be considered to be in compliance for total mercury for that quarter, provided the permittee is also in full compliance with the Pollutant Minimization Program for Total Mercury, set forth in Part I.A.1.

After a minimum of 12 monthly data points have been collected, the permittee may request a reduction in the monitoring frequency for total mercury. This request shall contain an explanation as to why the reduced monitoring is appropriate and shall be submitted to the Department. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency for total mercury indicated in Part I.A.1 of this permit. The Department may revoke the approval for reduced monitoring at any time upon notification to the permittee

- f. **Total Mercury Testing Requirements**  
The analytical protocol for total mercury shall be in accordance with EPA Method 1631, Revision E, "Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry". The quantification level for total mercury shall be 0.5 ng/l, unless a higher level is appropriate because of sample matrix interference. Justification for higher quantification levels shall be submitted to the Department within 30 days of such determination.

The use of clean technique sampling procedures is required unless the permittee can demonstrate to the Department that an alternative sampling procedure is representative of the discharge. Guidance for clean technique sampling is contained in: EPA Method 1669, *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels (Sampling Guidance)*, EPA-821-R96-001, July 1996. Information and data documenting the permittee's sampling and analytical protocols and data acceptability shall be submitted to the Department upon request.

## PART I

### Section A. Limitations and Monitoring Requirements

- g. Reduction of Total Phosphorus in the Kalamazoo River/Lake Allegan Watershed  
The Department has developed a Total Maximum Daily Load (TMDL) for total phosphorus in Lake Allegan. The TMDL is established to protect Lake Allegan from high nutrient levels which has resulted in violations of water quality standards. In addition to establishing the TMDL, the Department is signatory to a "Cooperative Agreement to Meet Total Maximum Daily Load (TMDL) for Phosphorus" (cooperative agreement). Signatories to the cooperative agreement include point source dischargers of phosphorus and other stakeholders including nonpoint source contributors. The signatories to the cooperative agreement have agreed to participate with other point and nonpoint contributors in the watershed to reduce phosphorus as necessary to meet the goals of the TMDL. This will be accomplished by continuing activities outlined in the phosphorus reduction implementation plans as well as other activities as specified in the cooperative agreement.

If it is determined that commitments under the cooperative agreement are not met, this permit may be modified to include the appropriate phosphorus requirements in accordance with applicable laws and rules.

## 2. Additional Monitoring Requirements

As a condition of this permit, the permittee shall monitor the discharge from monitoring point 001A for the constituents listed below. This monitoring is an application requirement of 40 CFR 122.21(j), effective December 2, 1999. Testing shall be conducted in August 2012, May 2013, March 2014, and October 2014. Grab samples shall be taken for total mercury, available cyanide, total phenols, and parameters listed under Volatile Organic Compounds. For all other parameters, 24-hour composite samples shall be taken.

Test species for whole effluent toxicity monitoring shall include fathead minnow **and** either *Daphnia magna*, *Daphnia pulex* or *Ceriodaphnia dubia*. If the permittee has received Department approval to conduct acute toxicity testing using the more sensitive species identified in the toxicity database, the first three (3) tests required above may be performed using the more sensitive species. The last (4<sup>th</sup>) test shall be conducted using two (2) test species. Testing and reporting procedures shall follow procedures contained in EPA/600/4-90/027/F, "Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Fifth Edition)." When the effluent ammonia nitrogen (as N) concentration is greater than 5 mg/l, the pH of the toxicity test shall be maintained at the pH of the effluent at the time of sample collection. Toxicity test data acceptability is contingent upon the validation of the test method by the testing laboratory. Such validation shall be submitted to the Department upon request.

The results of such monitoring shall be submitted with the application for reissuance (see the cover page of this permit for the application due date). The permittee shall notify the Department within 14 days of completing the monitoring for each month specified above in accordance with Part II.C.5. Additional reporting requirements are specified in Part II.C.11. The permittee shall report to the Department any whole effluent toxicity test results greater than 1.0 TU<sub>A</sub> or 1.0 TU<sub>C</sub> within five (5) days of becoming aware of the result. If, upon review of the analysis, it is determined that additional requirements are needed to protect the receiving waters in accordance with applicable water quality standards, the permit may then be modified by the Department in accordance with applicable laws and rules.

Whole Effluent Toxicity  
acute toxicity

Hardness  
calcium carbonate

## PART I

## Section A. Limitations and Monitoring Requirements

Metals (Total Recoverable), Cyanide and Total Phenols (Quantification levels in parentheses)

antimony (1 µg/l)	arsenic (1 µg/l)	barium (5 µg/l)
beryllium (1 µg/l)	boron (20 µg/l)	cadmium (0.2 µg/l)
chromium (5 µg/l)	copper (1 µg/l)	lead (1 µg/l)
nickel (5 µg/l)	selenium (1 µg/l)	silver (0.5 µg/l)
thallium (1 µg/l)	zinc (5 µg/l)	
available cyanide (2 µg/l) using Method OIA - 1677		
total phenolic compounds		

Volatile Organic Compounds

acrolein	acrylonitrile	benzene
bromoform	carbon tetrachloride	chlorobenzene
chlorodibromomethane	chloroethane	2-chloroethylvinyl ether
chloroform	dichlorobromomethane	1,1-dichloroethane
1,2-dichloroethane	trans-1,2-dichloroethylene	1,1-dichloroethylene
1,2-dichloropropane	1,3-dichloropropylene	ethylbenzene
methyl bromide	methyl chloride	methylene chloride
1,1,2,2,-tetrachloroethane	tetrachloroethylene	toluene
1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethylene
vinyl chloride		

Acid-Extractable Compounds

p-chloro-m-cresol	2-chlorophenol	2,4-dichlorophenol
2,4-dimethylphenol	4,6-dinitro-o-cresol	2,4-dinitrophenol
2-nitrophenol	4-nitrophenol	pentachlorophenol
phenol	2,4,6-trichlorophenol	

Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene
benzidine	benzo(a)anthracene	benzo(a)pyrene
3,4-benzofluoranthene	benzo(ghi)perylene	benzo(k)fluoranthene
bis(2-chloroethoxy)methane	bis(2-chloroethyl)ether	bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate	4-bromophenyl phenyl ether	butyl benzyl phthalate
2-chloronaphthalene	4-chlorophenyl phenyl ether	chrysene
di-n-butyl phthalate	di-n-octyl phthalate	dibenzo(a,h)anthracene
1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
3,3'-dichlorobenzidine	diethyl phthalate	dimethyl phthalate
2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine
fluoranthene	fluorene	hexachlorobenzene
hexachlorobutadiene	hexachlorocyclo-pentadiene	hexachloroethane
indeno(1,2,3-cd)pyrene	isophorone	naphthalene
nitrobenzene	n-nitrosodi-n-propylamine	n-nitrosodimethylamine
n-nitrosodiphenylamine	phenanthrene	pyrene
1,2,4-trichlorobenzene		

## PART I

### Section A. Limitations and Monitoring Requirements

#### 3. Pollutant Minimization Program for Total Mercury

The goal of the Pollutant Minimization Program is to maintain the effluent concentration of total mercury at or below 1.3 ng/l. The permittee shall continue to implement the Pollutant Minimization Program approved on March 27, 2008, and modifications thereto, to proceed toward the goal. The Pollutant Minimization Program includes the following:

- a. an annual review and semi-annual monitoring of potential sources of mercury entering the wastewater collection system;
- b. a program for quarterly monitoring of influent and periodic monitoring of sludge for mercury; and
- c. implementation of reasonable cost-effective control measures when sources of mercury are discovered. Factors to be considered include significance of sources, economic considerations, and technical and treatability considerations.

On or before March 31 of each year, the permittee shall submit a status report for the previous calendar year to the Department that includes 1) the monitoring results for the previous year, 2) an updated list of potential mercury sources, and 3) a summary of all actions taken to reduce or eliminate identified sources of mercury.

Any information generated as a result of the Pollutant Minimization Program set forth in this permit may be used to support a request to modify the approved program or to demonstrate that the Pollutant Minimization Program requirement has been completed satisfactorily.

A request for modification of the approved program and supporting documentation shall be submitted in writing to the Department for review and approval. The Department may approve modifications to the approved program (approval of a program modification does not require a permit modification), including a reduction in the frequency of the requirements under items a. & b.

This permit may be modified in accordance with applicable laws and rules to include additional mercury conditions and/or limitations as necessary.

#### 4. Storm Water Pollution Prevention Plan

The permittee is authorized to discharge storm water associated with industrial activities as defined in 40 CFR 122.26(b)(14)(i-ix). These storm water discharges shall be controlled in accordance with the requirements of this special condition. The permittee has developed and implemented a Storm Water Pollution Prevention Plan (SWPPP). The permittee shall continue implementation of the SWPPP for maximum control of significant materials (as defined in Part II.A.) so that storm water discharges will not cause a violation of the Water Quality Standards. The SWPPP shall be routinely reviewed and updated in accordance with the requirements of this section.

Storm water discharges are a violation of this permit if:

The receiving water will contain unnatural turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge; or

The permittee has not implemented an acceptable SWPPP.

- a. Source Identification  
To identify potential sources of significant materials that can pollute storm water and subsequently be discharged from the facility, the SWPPP shall, at a minimum, include the following:

## PART I

### Section A. Limitations and Monitoring Requirements

- 1) A site map identifying the following: buildings and other permanent structures; storage or disposal areas for significant materials; secondary containment structures and descriptions of what is contained in the primary containment structures; storm water discharge outfalls (numbered or otherwise labeled for reference); location of storm water and non-storm inlets (catch basins, roof drains, conduits, drain tiles, retention pond riser pipes, and sump pumps) (numbered or otherwise labeled for reference) contributing to each outfall; location of NPDES permitted discharges other than storm water; outlines of the drainage areas contributing to each outfall; structural runoff controls or storm water treatment facilities; areas of vegetation (with brief description such as lawn, old field, marsh, wooded, etc); areas of exposed and/or erodible soils and gravel lots; impervious surfaces (roofs, asphalt, concrete); name and location of receiving water(s); and areas of known or suspected impacts on surface waters as designated under Part 201 (Environmental Response) of the Michigan Act;
- 2) A list of all significant materials that could pollute storm water. For each material listed, the SWPPP shall include each of the following descriptions:
  - a) ways in which each type of significant material has been or has reasonable potential to become exposed to storm water (e.g., spillage during handling; leaks from pipes, pumps, and vessels; contact with storage piles, contaminated materials, or soils; waste handling and disposal; deposits from dust or overspray, etc.);
  - b) an evaluation of the reasonable potential for contribution of significant materials to runoff from at least the following areas or activities: loading, unloading, and other significant material handling operations; outdoor storage, including secondary containment structures; outdoor manufacturing or processing activities; significant dust or particulate generating processes; discharge from vents, stacks and air emission controls; on-site waste treatment, storage, and disposal practices; maintenance and cleaning of vehicles, machines and equipment; sites of exposed and/or erodible soil; Sites of Environmental Contamination listed under Part 201 (Environmental Response) of the Michigan Act; waste management units and areas of concern subject to corrective action under Part 111 (Hazardous Waste Management) or Part 115 (Solid Waste Management) of the Michigan Act; areas of significant material residues; areas where animals congregate (wild or domestic) and deposit wastes; and other areas where storm water may contact significant materials;
  - c) identification of the outfall(s) and the inlet(s) contributing the significant material to each outfall through which the significant material may be discharged if released;
  - d) a listing of significant spills and significant leaks of polluting materials that occurred at areas that are exposed to precipitation or that otherwise discharge to a point source at the facility. The listing shall include spills that occurred over the three (3) years prior to the completion of the SWPPP or latest update of the SWPPP; the date, volume and exact location of release; and the action taken to clean up the material and/or prevent exposure to storm water runoff or contamination of surface waters of the state. Any release that occurs after the SWPPP has been developed shall be controlled in accordance with the SWPPP and is cause for the SWPPP to be updated as appropriate within 14 calendar days of obtaining knowledge of the spill or loss; and
  - e) the permittee shall determine whether its facility discharges storm water to a water body for which the Department has established a Total Maximum Daily Load (TMDL). If so, the permittee shall assess whether the TMDL requirements for the facility's discharge are being met through the existing SWPPP controls or whether additional control measures are necessary. The permittee's assessment of whether the TMDL requirements are being met shall focus on the effectiveness, adequacy, and implementation of the permittee's SWPPP controls; and
- 3) A summary of existing storm water discharge sampling data (if available) describing pollutants in storm water discharges at the facility. This summary shall be accompanied by a description of the suspected source(s) of the pollutants detected.

**PART I****Section A. Limitations and Monitoring Requirements**

## b. Preventive Measures and Source Controls, Non-Structural

To prevent significant materials from contacting storm water at the source, the SWPPP shall, at a minimum, include the following non-structural controls:

1) A program which includes a schedule for routine preventive maintenance. The preventive maintenance program shall consist of routine inspections and maintenance of storm water management and control devices (e.g., cleaning of oil/water separators and catch basins, routine housekeeping activities, etc.) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to the storm sewer system or the surface waters of the state. The routine inspection shall include areas of the facility in which significant materials have the reasonable potential to contaminate runoff. A written report of the inspection and corrective actions shall be maintained on file by the permittee, and shall be retained in accordance with Record Keeping, below;

2) Good housekeeping procedures to maintain a clean, orderly facility. Good housekeeping procedures shall include routine inspections that focus on the areas of the facility that have a reasonable potential to contaminate storm water runoff from the property. The routine housekeeping inspections may be combined with the routine inspections for the preventive maintenance program. A written report of the inspection and corrective actions shall be retained in accordance with Record Keeping, below;

3) Regularly scheduled comprehensive site inspections. The inspections shall include, but not be limited to, the structural controls in use at the facility and the areas and equipment identified in the preventive maintenance program and good housekeeping procedures. The inspections shall also include a review of the routine preventive maintenance reports, good housekeeping inspections reports, and any other paperwork associated with the SWPPP. The comprehensive site inspection shall be conducted by the Certified Storm Water Operator at least quarterly. The permittee may request Department approval of an alternate schedule for comprehensive site inspections. A written report of the inspection and corrective actions shall be retained in accordance with Record Keeping, below. Included in the report shall be a certification that the facility is in compliance with this permit and the SWPPP;

4) Material handling procedures and storage requirements for significant materials. Equipment and procedures for cleaning up spills shall be identified in the SWPPP and made available to the appropriate personnel. The procedures shall identify measures to prevent the spilled materials or material residues from contaminating storm water runoff from the property. The SWPPP shall include language describing what a reportable spill or release is and the appropriate reporting requirements in accordance with Part II.C.6. and Part II.C.7. of the permit. The SWPPP may include, by reference, requirements of either a Pollution Incident Prevention Plan (PIPP) prepared in accordance with the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code); a Hazardous Waste Contingency Plan prepared in accordance with 40 CFR 264 and 265 Subpart D, as required by Part 111 of the Michigan Act; or a Spill Prevention Control and Countermeasure (SPCC) plan prepared in accordance with 40 CFR 112;

5) Measures used to control soil erosion and sedimentation including identification of the areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. Gravel lots are to be included;

6) Employee training programs which will be implemented to inform appropriate personnel at all levels of responsibility of the components and goals of the SWPPP. The SWPPP shall identify periodic dates for the employee training program (recommended at least once per year). Records of the employee training program shall be retained in accordance with Record Keeping, below; and

**PART I****Section A. Limitations and Monitoring Requirements**

7) Actions being taken to limit the discharge of significant materials in order to comply with TMDL requirements.

The SWPPP shall identify significant materials expected to be present in storm water discharges following implementation of non-structural preventative measures and source controls.

c. Structural Controls for Prevention and Treatment

Where implementation of the measures required by Preventive Measures and Source Controls, Non-Structural; above; does not control storm water discharges in accordance with Water Quality Standards, below, the SWPPP shall provide a description of the location, function, design criteria, and installation/construction schedules of structural controls for prevention and treatment. Structural controls may be necessary:

- 1) To prevent uncontaminated storm water from contacting or being contacted by significant materials, and/or
- 2) If preventive measures are not feasible or are inadequate to keep significant materials at the site from contaminating storm water.

Structural controls shall be used to treat, divert, isolate, recycle, reuse, or otherwise manage storm water in a manner that reduces the level of significant materials in the storm water and provides compliance with the Water Quality Standards, below.

d. Keeping SWPPPs Current

1) The permittee and/or the Certified Storm Water Operator shall review the SWPPP on or before **April 1<sup>st</sup>** of each year, and maintain written summaries of the reviews in accordance with Record Keeping, below. Based on the review, the permittee and/or the Certified Storm Water Operator shall amend the SWPPP as needed to ensure continued compliance with the terms and conditions of this permit.

2) The SWPPP developed under the conditions of a previous permit shall be amended as necessary to ensure compliance with this permit.

3) The SWPPP shall be updated or amended whenever changes at the facility have the potential to increase the exposure of significant materials to storm water, significant spills at the facility occur, or when the SWPPP is determined by the permittee or the Department to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Updates based on increased activity at the facility shall include a description of how the permittee intends to control any new sources of significant materials or respond to and prevent spills in accordance with the requirements of Source Identification; Preventive Measures and Source Controls, Non-Structural; and Structural Controls for Prevention and Treatment; above.

4) The Department or authorized representative may notify the permittee at any time that the SWPPP does not meet minimum requirements. Such notification shall identify why the SWPPP does not meet minimum requirements. The permittee shall make the required changes to the SWPPP within 30 days after such notification from the Department or authorized representative and shall submit to the Department a written certification that the requested changes have been made.

5) Amendments to the SWPPP shall be signed and retained on-site pursuant to Record Keeping, below.

e. Certified Storm Water Operator Requirements

A Certified Storm Water Operator certified by the Department is required by Section 3110 of the Michigan Act. The Certified Storm Water Operator shall have supervision over the facility's storm water treatment and control measures included in the SWPPP. The names and certification numbers of the Certified Storm Water Operators shall be included in the SWPPP.

**PART I****Section A. Limitations and Monitoring Requirements**

If the Certified Storm Water Operator is changed or an additional Certified Storm Water Operator is added, the permittee shall provide the name and certification number of the new Certified Storm Water Operator to the Department. If a facility has multiple Certified Storm Water Operators, the names and certification numbers of the Certified Storm Water Operators shall be included in the SWPPP.

- f. **Signature and SWPPP Review**
- 1) The SWPPP shall be signed by the Certified Storm Water Operator and by either the permittee or an authorized representative in accordance with 40 CFR 122.22. The SWPPP and associated records shall be retained on-site at the facility which generates the storm water discharge.
  - 2) The permittee shall make SWPPPs, reports, log books, storm water discharge sampling data (if collected), and items required by Record Keeping, below, available upon request to the Department or authorized representative.
- g. **Record Keeping**
- The permittee shall maintain records of all SWPPP related inspection and maintenance activities. Records shall also be kept describing incidents such as spills or other discharges that can affect the quality of storm water runoff. All such records shall be retained for three (3) years.
- h. **Water Quality Standards**
- At the time of discharge, there shall be no violation of the Water Quality Standards in the receiving waters as a result of the storm water discharge. This requirement includes, but is not limited to, the following conditions:
- 1) In accordance with Rule 323.1050 of the Water Quality Standards, the receiving waters shall not have any of the following unnatural physical properties as a result of this discharge in quantities which are or may become injurious to any designated use: turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits;
  - 2) Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department followed by a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition; and
  - 3) Any pollutant for which a level of control is specified to meet a TMDL established by the Department shall be controlled at the facility so that its discharge is reduced by/to the amount specified in the TMDL.
- i. **Prohibition of Non-storm Water Discharges**
- Discharges of material other than storm water shall be in compliance with an NPDES permit issued for the discharge. Storm water shall be defined to include the following non-storm water discharges provided pollution prevention controls for the non-storm water component are identified in the SWPPP: discharges from fire hydrant flushing, potable water sources including water line flushing, water from fire system testing and fire fighting training without burned materials or chemical fire suppressants, irrigation drainage, lawn watering, routine building wash down which does not use detergents or other compounds, pavement wash water where toxic or hazardous materials have not occurred (unless all contamination by toxic or hazardous materials have been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated groundwater, foundation or footing drains where flows are not contaminated with process materials such as solvents, and discharges from fire fighting activities. Discharges from fire fighting activities are exempted from the requirement to be identified in the SWPPP.

## PART I

### Section A. Limitations and Monitoring Requirements

#### 5. Untreated or Partially Treated Sewage Discharge Requirements

In accordance with Section 324.3112a of the Michigan Act, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, the Department, local health departments, a daily newspaper of general circulation in the county in which the permittee is located, and a daily newspaper of general circulation in the county or counties in which the municipalities whose waters may be affected by the discharge are located that the discharge is occurring.

The permittee shall also annually contact municipalities, including the superintendent of a public drinking water supply with potentially affected intakes, whose waters may be affected by the permittee's discharge of combined sewage, and if those municipalities wish to be notified in the same manner as specified above, the permittee shall provide such notification. Such notification shall also include a daily newspaper in the county of the affected municipality.

At the conclusion of the discharge, written notification shall be submitted in accordance with and on the "CSO/SSO Reporting Form" available via the internet at: [http://www.michigan.gov/deq/0,1607,7-135-3313\\_3682\\_3715---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3715---,00.html), or, alternatively for combined sewer overflow discharges, in accordance with notification procedures approved by the Department.

In addition, in accordance with Section 324.3112a of the Michigan Act, each time a discharge of untreated sewage or partially treated sewage occurs, the permittee shall test the affected waters for *Escherichia coli* to assess the risk to the public health as a result of the discharge and shall provide the test results to the affected local county health departments and to the Department. The testing shall be done at locations specified by each affected local county health department but shall not exceed 10 tests for each separate discharge event. The affected local county health department may waive this testing requirement, if it determines that such testing is not needed to assess the risk to the public health as a result of the discharge event. The results of this testing shall be submitted with the written notification required above, or, if the results are not yet available, submit them as soon as they become available. This testing is not required, if the testing has been waived by the local health department, or if the discharge(s) did not affect surface waters.

Permittees accepting sanitary or municipal sewage from other sewage collection systems are encouraged to notify the owners of those systems of the above reporting and testing requirements.

## PART I

### Section A. Limitations and Monitoring Requirements

#### 6. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address and telephone number of the new facility contact).

- a. The facility contact shall be (or a duly authorized representative of this person):
  - for a corporation, a principal executive officer of at least the level of vice president, or a designated representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the permit application or other NPDES form originates,
  - for a partnership, a general partner,
  - for a sole proprietorship, the proprietor, or
  - for a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager or other duly authorized employee.
- b. A person is a duly authorized representative only if:
  - the authorization is made in writing to the Department by a person described in paragraph a. of this section; and
  - the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

#### 7. Monthly Operating Reports

Part 41 of Act 451 of 1994 as amended, specifically Section 324.4106 and associated Rule 299.2953, requires that the permittee file with the Department, on forms prescribed by the Department, reports showing the effectiveness of the treatment facility operation and the quantity and quality of liquid wastes discharged into waters of the state.

Within thirty (30) days of the effective date of this permit, the permittee shall submit to the Department a treatment facility monitoring program to meet this requirement. Upon approval by the Department the permittee shall implement the treatment facility monitoring program. The reporting forms and guidance are available on the DEQ web site at [http://www.michigan.gov/deq/0,1607,7-135-3313\\_44117---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3313_44117---,00.html). The permittee may use alternative operating forms if they are consistent with the approved monitoring program. These forms shall be maintained on site and shall be provided to the Department for review upon request. These treatment facility monitoring records shall be maintained for a minimum of three years.

### Section B. Schedule of Compliance

#### 1. Schedule of Compliance Not Required

This section (Section B: Schedule of Compliance) is not needed for this permit.

**PART I****Section C. Industrial Waste Pretreatment Program****1. Michigan Industrial Pretreatment Program**

- a. The permittee shall implement the Michigan Industrial Pretreatment Program approved on September 4 1985, and any subsequent modifications approved up to the issuance of this permit.
- b. The permittee shall comply with Rules 323.2301 through 323.2317 of the Michigan Administrative Code (Part 23 Rules) and the approved Michigan Industrial Pretreatment Program.
- c. The permittee shall have the legal authority and necessary interjurisdictional agreements that provide the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program throughout the service area. The legal authority and necessary interjurisdictional agreements shall include, at a minimum, the authority to carry out the activities specified in Rule 323.2306(a).
- d. The permittee shall develop procedures which describe, in sufficient detail, program commitments which enable implementation of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(c).
- e. The permittee shall establish an interjurisdictional agreement (or comparable document) with all tributary governmental jurisdictions. Each interjurisdictional agreement shall contain, at a minimum, the following:
  - 1) identification of the agency responsible for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries; and
  - 2) the provision of the legal authority which provides the basis for the implementation and enforcement of the approved Michigan Industrial Pretreatment Program within the tributary governmental jurisdiction's boundaries.
- f. The permittee shall prohibit discharges that:
  - 1) cause, in whole or in part, the permittee's failure to comply with any condition of this permit or the Michigan Act;
  - 2) restrict, in whole or in part, the permittee's management of biosolids;
  - 3) cause, in whole or in part, operational problems at the treatment facility or in its collection system;
  - 4) violate any of the general or specific prohibitions identified in Rule 323.2303(1) and (2);
  - 5) violate categorical standards identified in Rule 323.2311; and
  - 6) violate local limits established in accordance with Rule 323.2303(4).
- g. The permittee shall maintain a list of its nondomestic users that meet the criteria of a significant industrial user as identified in Rule 323.2302(cc).
- h. The permittee shall develop an enforcement response plan which describes, in sufficient detail, program commitments which will enable the enforcement of the approved Michigan Industrial Pretreatment Program and the Part 23 Rules in accordance with Rule 323.2306(g).
- i. The Department may require modifications to the approved Michigan Industrial Pretreatment Program which are necessary to ensure compliance with the Part 23 Rules in accordance with Rule 323.2309.

**PART I****Section C. Industrial Waste Pretreatment Program**

- j. The permittee shall not implement changes or modifications to the approved Michigan Industrial Pretreatment Program without notification to the Department.
- k. The permittee shall maintain an adequate revenue structure and staffing level for effective implementation of the approved Michigan Industrial Pretreatment Program.
- l. The permittee shall develop and maintain, for a minimum of three (3) years, all records and information necessary to determine nondomestic user compliance with the Part 23 Rules and the approved Michigan Industrial Pretreatment Program. This period of retention shall be extended during the course of any unresolved enforcement action or litigation regarding a nondomestic user or when requested by the Department or the United States Environmental Protection Agency. All of the aforementioned records and information shall be made available upon request for inspection and copying by the Department and the United States Environmental Protection Agency.
- m. The permittee shall evaluate the approved Michigan Industrial Pretreatment Program for compliance with the Part 23 Rules and the prohibitions stated in item f (above). Based upon this evaluation, the permittee shall propose to the Department all necessary changes or modifications to the approved Michigan Industrial Pretreatment Program no later than the next Industrial Pretreatment Program Annual Report due date (see item o. below).
- n. The permittee shall develop and enforce local limits to implement the prohibitions listed in item f. above. Local limits shall be based upon data representative of actual conditions demonstrated in a maximum allowable headworks loading analysis.
- o. On or before April 1 of each year, the permittee shall submit to the Department, as required by Rule 323.2310(8), an Industrial Pretreatment Program Annual Report on the status of program implementation and enforcement activities. The reporting period shall begin on January 1 and end on December 31. At a minimum, the Industrial Pretreatment Program Annual Report shall contain the following items:
  - 1) additions, deletions, and any other modifications to the permittee's previously submitted nondomestic user inventory (Rule 323.2306(c)(i));
  - 2) additions, deletions, and any other modifications to the permittee's approved Significant Industrial User List (Rule 323.2306(h));
  - 3) a listing of the names of Significant Industrial Users not inspected by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;
  - 4) a listing of the names of Significant Industrial Users not sampled for all required pollutants by the permittee at least once during the reporting period or at the frequency committed to in the approved Michigan Industrial Pretreatment Program;
  - 5) a listing of the names of Significant Industrial Users without a permit at any time during the reporting period;
  - 6) a listing of the names of categorical industrial users in significant noncompliance for each of the criteria defined in Rule 323.2302(dd)(i)-(viii);
  - 7) proof of publication of all categorical industrial users in significant noncompliance in the largest daily newspaper in the municipality in which the permittee is located;

**PART I****Section C. Industrial Waste Pretreatment Program**

- 8) a summary of the enforcement activities by the permittee during the report period. This Summary shall include:
- a) a listing of the names of nondomestic users which were the subject of an enforcement action;
  - b) the enforcement action taken and the date the action was taken; and
  - c) whether the nondomestic user returned to compliance by the end of the reporting period (include date nondomestic user returned to compliance).
- 9) a listing of the names of Significant Industrial Users who did not submit pretreatment reports in accordance with requirements specified in their permit during the reporting period;
- 10) a listing of the names of Significant Industrial Users who did not self-monitor in accordance with requirements specified in their permit during the reporting period;
- 11) a summary of results of all the sampling and analyses performed of the wastewater treatment plant's influent, effluent, and biosolids conducted in accordance with approved methods during the reporting period. The summary shall include the monthly average, daily maximum, quantification level, and number of samples analyzed for each pollutant. At a minimum, the results of analyses for all locally limited parameters for at least one monitoring event that tests influent, effluent and biosolids during the reporting period shall be submitted with each report, unless otherwise required by the Department. Sample collection shall be at intervals sufficient to provide pollutant removal rates, unless the pollutant is not measurable; and
- 12) any other relevant information as requested by the Department.

**PART I****Section D. Residuals Management Program****1. Residuals Management Program for Land Application of Biosolids**

The permittee is authorized to land apply bulk biosolids or prepare bulk biosolids for land application in accordance with the permittee's approved Residuals Management Program (RMP) approved on February 13, 2001 and approved modifications thereto in accordance with the requirements established in R323.2401 through R323.2418 of the Michigan Administrative Code (Part 24 Rules). The approved RMP, and any approved modifications thereto, are enforceable requirements of this permit. Incineration, landfilling and other residual disposal activities shall be conducted in accordance with Part II.D.7. of this permit. The Part 24 Rules can be obtained via the internet (<http://www.michigan.gov/dnre/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids laws and Rules Information which is under the Laws & Rules banner in the center of the screen).

**a. Annual Report**

On or before October 30 of each year, the permittee shall submit to the Biosolids Program, Environmental Resource Management Division, Department of Environmental Quality, P.O. Box 30241, Lansing, MI 48909-7741 for the previous fiscal year of October 1 through September 30. At a minimum, the report shall contain:

1) a certification that current residuals management practices are in accordance with the approved RMP, or a proposal for modification to the approved RMP; and

2) a completed Biosolids Annual Report Form which can be obtained via the internet (<http://www.michigan.gov/deq/> and on the left side of the screen click on Water, Biosolids & Industrial Pretreatment, Biosolids then click on Biosolids Annual Report Form which is under the Downloads banner in the center of the screen) or from the Department.

**b. Modifications to the Approved RMP**

Prior to implementation of modifications to the RMP, the permittee shall submit proposed modifications to the Department for approval. The approved modification shall become effective upon the date of approval. Upon written notification, the Department may impose additional requirements and/or limitations to the approved RMP as necessary to protect public health and the environment from any adverse effect of a pollutant in the biosolids.

**c. Record Retention**

Records required by the Part 24 Rules shall be kept for a minimum of five years. However, the records documenting cumulative loading for sites subject to cumulative pollutant loading rates shall be kept as long as the site receives biosolids.

**d. Contact Information**

RMP related submittals to the Department shall be to the Kalamazoo District Supervisor of the Environmental Resource Management Division. The Kalamazoo District Office is located at 7953 Adobe Road, Kalamazoo, Michigan 49009-5026, Telephone: 269-567-3500, Fax: 269-567-9440.

## PART II

### Section A. Definitions

This list of definitions may include terms not applicable to this permit.

**Acute toxic unit (TU<sub>A</sub>)** means  $100/LC_{50}$  where the  $LC_{50}$  is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

**Bioaccumulative chemical of concern (BCC)** means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

**Biosolids** are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

**Bulk biosolids** means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

**Chronic toxic unit (TU<sub>C</sub>)** means  $100/MATC$  or  $100/IC_{25}$ , where the maximum acceptable toxicant concentration (MATC) and  $IC_{25}$  are expressed as a percent effluent in the test medium.

**Class B Biosolids** refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

**Daily concentration** is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Daily loading** is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

**Department** means the Michigan Department of Environmental Quality.

**Detection Level** means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

## PART II

### Section A. Definitions

**Discharge Event** is a discrete occurrence during which effluent is discharged to the surface water up to 10 days of a consecutive 14 day period.

**EC<sub>50</sub>** means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

**Fecal coliform bacteria monthly** is the geometric mean of the samples collected during a discharge event. Days with no discharge shall not be used to determine the value. The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMR. If the period in which the discharge event occurred was partially in each of two months, the monthly value shall be reported on the DMR of the month in which the last day of discharge occurred.

**Fecal coliform bacteria 7-day** is the geometric mean of the samples collected in any 7-day period during a discharge event. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. If the seven day period was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

**Flow Proportioned sample** is a composite sample with the sample volume proportional to the effluent flow.

**Grab sample** is a single sample taken at neither a set time nor flow.

**Geometric Mean** is the average of the logarithmic values of a base 10 data set, converted back to a base 10 number.

**IC<sub>25</sub>** means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

**Interference** is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

**Land Application** means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

**LC<sub>50</sub>** means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

**Maximum acceptable toxicant concentration (MATC)** means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

## PART II

### Section A. Definitions

**MGD** means million gallons per day.

**Monthly monitoring frequency** refers to a calendar month. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Monthly concentration** is the sum of the daily concentrations determined during a discharge event divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMR. If the seven day period was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

**Monthly loading** is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during a discharge event. The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. Days with no discharge shall not be used to determine the value. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMR. If the seven day period was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred..

**National Pretreatment Standards** are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

**No observed adverse effect level (NOAEL)** means the highest tested dose or concentration of a substance which results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

**Noncontact Cooling Water** is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

**Nondomestic user** is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

**Partially treated sewage** is any sewage, sewage and storm water, or sewage and wastewater, from domestic or industrial sources that is treated to a level less than that required by the permittee's National Pollutant Discharge Elimination System permit, or that is not treated to national secondary treatment standards for wastewater, including discharges to surface waters from retention treatment facilities.

**Pretreatment** is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

**POTW** is a publicly owned treatment works.

**Quantification level** means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

## PART II

### Section A. Definitions

**Quarterly monitoring frequency** refers to a three month period, defined as January through March, April through June, July through September, and October through December. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Regional Administrator** is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

**Significant industrial user** is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

**Significant Materials** Significant Materials means any material which could degrade or impair water quality, including but not limited to: raw materials; fuels; solvents, detergents, and plastic pellets; finished materials such as metallic products; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (see 40 CFR 372.65); any chemical the facility is required to report pursuant to Section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA); polluting materials as identified under the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code); Hazardous Wastes as defined in Part 111 of the Michigan Act; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

**Tier I value** means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

**Tier II value** means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

**Total Maximum Daily Loads (TMDLs)** are required by the Federal Act for waterbodies that do not meet Water Quality Standards. TMDLs represent the maximum daily load of a pollutant that a waterbody can assimilate and meet Water Quality Standards and an allocation of that load among point sources, nonpoint sources, and a margin of safety.

**Toxicity Reduction Evaluation (TRE)** means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

**Water Quality Standards** means the Part 4 Water Quality Standards promulgated pursuant to Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

**Weekly monitoring frequency** refers to a calendar week which begins on Sunday and ends on Saturday. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**Yearly monitoring frequency** refers to a calendar year beginning on January 1 and ending on December 31. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

**24-Hour Composite sample** is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

## PART II

### Section A. Definitions

**3-Portion Composite sample** is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

**7-day concentration** is the sum of the daily concentrations determined during any 7 days of discharge during a discharge event divided by the number of daily concentrations determined. If the number of days of the discharge event is less than 7 days the number of actual days of discharge shall be used for the calculation. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMR. If the seven day period was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

**7-day loading** is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days. If the number of days of the discharge event is less than 7 days the number of actual days of discharge shall be used for the calculation. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMR. If the seven day period in which the discharge event occurred was partially in each of two months, the value shall be reported on the DMR of the month in which the last day of discharge occurred.

## PART II

### Section B. Monitoring Procedures

#### 1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

#### 2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants), unless specified otherwise in this permit. Requests to use test procedures not promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Chief of the Permits Section, Water Resources Division, Michigan Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan, 48909-7773. The permittee may use such procedures upon approval.

The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

#### 3. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

#### 4. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

#### 5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Department.

## PART II

### Section C. Reporting Requirements

#### 1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Department within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

#### 2. Submittal Requirements for Self-Monitoring Data

Part 31 of Act 451 of 1994, as amended, specifically Section 324.3110(3) and Rule 323.2155(2) of Part 21 allows the Department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self Monitoring" the permittee shall submit self-monitoring data via the Department's Electronic Environmental Discharge Monitoring Reporting (e2-DMR) system.

The permittee shall utilize the information provided on the e2-Reporting website @ <https://secure1.state.mi.us/e2rs/> to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the department no later than the **20<sup>th</sup> day of the month** following each month of the authorized discharge period(s). The permittee may be allowed to submit the electronic forms after this date if the Department has granted an extension to the submittal date.

#### 3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Water Resources Division, Michigan Department of Environmental Quality. Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Department, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge. With this annual certification, the permittee shall submit a summary of the previous years monitoring data. The summary shall include maximum values for samples to be reported as daily maximums and/or monthly maximums and minimum values for any daily minimum samples.

#### 4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the Michigan Act or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

#### 5. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

## PART II

### Section C. Reporting Requirements

#### 6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

- a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

#### 7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated on the second page of this permit, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

#### 8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset, shall notify the Department by telephone within 24-hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

- a. that an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. that the permitted wastewater treatment facility was, at the time, being properly operated; and
- c. that the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this permit.

In any enforcement proceedings, the permittee, seeking to establish the occurrence of an upset, has the burden of proof.

## PART II

### Section C. Reporting Requirements

#### 9. Bypass Prohibition and Notification

- a. Bypass Prohibition - Bypass is prohibited unless:
- 1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
  - 2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
  - 3) the permittee submitted notices as required under 9.b. or 9.c. below.
- b. Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 9.a. above.
- c. Notice of Unanticipated Bypass - The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated on the second page of this permit (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.
- e. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.11. of this permit.
- f. Definitions
- 1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
  - 2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

#### 10. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

## PART II

### Section C. Reporting Requirements

#### 11. Notification of Changes in Discharge

The permittee shall notify the Department, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application (see the first page of this permit for the date(s) the complete application was submitted). Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

#### 12. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Department by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.10.; and 4) the action or activity will not require notification pursuant to Part II.C.11. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

#### 13. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

#### 14. Operations and Maintenance Manual

Part 41 of Act 451 of 1994, as amended, specifically Section 324.4104 and associated Rule 299.2957, allow the Department to require an Operations and Maintenance (O&M) manual for the wastewater treatment facility. An up-to-date copy of the O&M manual shall be kept at the wastewater treatment facility. Upon request a copy of the O&M manual shall be provided to the Department. The Department may review the manual in whole or in part at their discretion and require modifications to it if portions are determined to be inadequate.

At a minimum, the O&M manual should include the following information: permit standards, description and operation information for all equipment, staffing information, laboratory requirements, record keeping requirements, maintenance plan for equipment, emergency operating plan, safety program information and copies of all pertinent forms, as-built plans, and manufacturer's manuals.

Certification of the existence and accuracy of the operations and maintenance manual is required to be submitted to the Department at least sixty days prior to startup of a new wastewater treatment plant. Submittal of re-certifications will also be required sixty days prior to start up of any substantial improvements or modifications made at the wastewater treatment plant.

## PART II

### Section D. Management Responsibilities

#### 1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#### 2. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the Michigan Act. Permittees authorized to discharge storm water shall have the storm water treatment and/or control measures under direct supervision of a storm water operator certified by the Department, as required by Section 3110 of the Michigan Act.

#### 3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

#### 4. Power Failures

In order to maintain compliance with the effluent limitations of this permit and prevent unauthorized discharges, the permittee shall either:

- a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- b. upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

#### 5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

## PART II

### Section D. Management Responsibilities

#### 6. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the Michigan Act.

#### 7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

#### 8. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

#### 9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

## PART II

### Section E. Activities Not Authorized by This Permit

#### 1. Discharge to the Groundwaters

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

#### 2. POTW Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities at a POTW. Approval for the construction or modification of any physical structures or facilities at a POTW must be by permit issued under Part 41 of the Michigan Act.

#### 3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

#### 4. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

#### 5. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

#### 6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.

**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

***City of Allegan***

**APPENDIX B  
SIGNIFICANT INDUSTRIAL USERS**

List of Possible Industrial Users  
January 2011

<u>Name and Address</u>	<u>Type of Discharge</u>
1) Allegan Co. Fair P.O. Box 10 , 150 Allegan Co. Fair Dr., Allegan, MI 49010	Domestic only
2) Allegan General Hospital 555 Linn St. Allegan, MI 49010	Domestic only
3) Allegan Print and Mailing 136 Brady Street Allegan, MI 49010	Closed
4) Allegan Transmission and Auto Salvage 1307 Lincoln Rd, Allegan, MI 49010	Domestic only
5) Allegan Veterinary Clinic 100 Water St. Allegan, MI 49010	Domestic only
6) Canneys Water Treatment 314 Western Ave. Allegan, MI 49010	Domestic only
7) Consumers Energy 670 Grand St. Allegan, MI 49010	Domestic only
8) Dentist – Eric Erickson 500 Linn St. Allegan, MI 49010	Domestic only
9) Dentist – Rupp / Cramer / Buis 425 Cutler St. Allegan, MI 49010	Domestic only
10) D and J Precision Machine Service 611 N. Eastern Ave Allegan, MI 49010	Domestic only
11) Flashes Publishers 595 Jenner Dr. Allegan, MI 49010	Domestic only
12) Gordon Funeral Res. Inc. 528 Trowbridge Allegan, MI 49010	Domestic only
13) Hanse Environmental 235 Hubbard St. Allegan MI 49010	Domestic only

- |   |                                  |
|---|----------------------------------|
| 14) Hanse Environmental<br>388 Water St. Allegan, MI 49010                  | Domestic Only                    |
| 15) Ken's Tire Service<br>500 Water St. Allegan, MI 49010                   | Domestic only                    |
| 16) M & S Service Co. Inc.<br>739 Airway Dr. Allegan, MI 49010              | Closed                           |
| 17) Myers Auto 2 Inc.<br>322 Water St. Allegan, MI 49010                    | Domestic only                    |
| 18) Outdoor Environmental Inc.<br>324 Eastern Ave. Allegan, MI 49010        | Domestic only                    |
| 19) PJ Printing, Inc.<br>605 N. Eastern Ave. Allegan, MI 49010              | Printers<br>Industrial user      |
| 20) Plumbers Portable Toilets<br>710 Industrial Dr. Allegan, MI 49010       | Domestic only                    |
| 21) Renal Care Group<br>730 Airway Dr. Allegan, MI 49010                    | Kidney doctor<br>Industrial user |
| 22) Rite Aid<br>560 Jenner Dr. Allegan, MI 49010                            | Domestic user                    |
| 23) River Valley Machine Inc.<br>600 North Eastern Ave. Allegan, MI 49010   | Domestic only                    |
| 24) Servpro of Allegan & Barry Co.<br>607 N. Eastern Ave. Allegan, MI 49010 | Domestic only                    |
| 25) Singh BP LLC<br>101 Monroe Rd. Allegan, MI 49010                        | Car wash<br>Industrial user      |
| 26) UniPac<br>809 Airway Dr. Allegan, MI 49010                              | Domestic user                    |
| 27) VMS Inc.<br>805 Airway Dr. Allegan, MI 49010                            | Domestic only                    |
| 28) Webber & Sons<br>920 Marshall Allegan, MI 49010                         | Domestic only                    |

29) Westside Pool  
610 Beechwood Dr. Allegan, MI 49010

Domestic only

Significant and/or Categorical Users  
January 2011

<u>Name and Address</u>	<u>Type of Discharge</u>
1) Haworth Seating Plant 640 River St. Allegan, MI 49010 Metal Finisher, 200,000 gallons monthly	Categorical user Closed
2) Key Gas Components 1303 Lincoln Road Allegan, MI 49010 Metal finisher, 200,000 gallons monthly	Categorical user
3) L. Perrigo Co. Plant 1 117 Water St. Allegan, MI 49010 OTC Pharm., 150,000 gallons monthly	Categorical user Closed
4) L. Perrigo Eastern Ave. Facility 538 Eastern Ave. Allegan, MI 49010 OTC Pharm., 140,000 gallons daily	Categorical user
5) Conestoga-Rover & Associates 4141 Davis Creek Court Kalamazoo, MI 49001	Significant User Closed
On site at Former Rockwell Site 1 Glass Street Allegan, MI 49010	

**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

*City of Allegan*

**APPENDIX C  
COST ESTIMATE**











**HUBBELL, ROTH & CLARK, INC**  
 Consulting Engineers

Engineering. Environment. Excellence.

**ENGINEER'S OPINION OF PROBABLE PROJECT COST**

Grand Rapids, MI

Telephone: (616) 454-4286

PROJECT: Project Plan

DATE: 3/24/2012

LOCATION: Allegan, MI

PROJECT NO. 20110366

BASIS FOR ESTIMATE:  CONCEPTUAL  PRELIMINARY  FINAL

ESTIMATOR: TSW

WORK: Rotary Drum Thickener

CHECKED BY: \_\_\_\_\_

CURRENT ENR: \_\_\_\_\_

ITEM NO.	DESCRIPTION	QUANT.	UNIT	UNIT AMOUNT	TOTAL AMOUNT
1	Equipment	1	LS	\$175,000.00	\$175,000.00
2	Discharge pump	1	LS	\$40,000.00	\$40,000.00
3	Piping/Valves	1	LS	\$75,000.00	\$75,000.00
4	Electrical/SCADA	1	LS	\$50,000.00	\$50,000.00
5	Building/Sitework	1	LS	\$200,000.00	\$200,000.00
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
	<b>Subtotal</b>				<b>\$540,000</b>
	Engineering, Legal and Contingencies	40	%		\$220,000
	<b>TOTAL PROJECT COST</b>				<b>\$760,000</b>



**City of Allegan  
CWSRF Project Plan  
Wastewater Treatment Plan Upgrades**

**All Projects  
Present Worth Calculations**

<u>CAPITAL COST</u>	CAPITAL COST <sup>(1)</sup>	SERVICE LIFE (YEARS)	PRESENT WORTH <sup>(2)</sup>
Civil / Site Work - All Projects	\$ 149,000.00	50	\$ 112,000.00
Structural - All Projects	\$ 652,000.00	50	\$ 490,000.00
Mechanical/Electrical - All Projects	\$ 2,749,000.00	20	\$ 2,749,000.00
<b>TOTAL CAPITAL COST</b>	<b>\$ 3,550,000.00</b>		<b>\$ 3,351,000.00</b>
 INTEREST DURING CONSTRUCTION Assumes 2 year interest at 2.5%			 \$ 178,000.00
 <u>ANNUAL OPERATION AND MAINTENANCE COST</u>			
ANNUAL O, M & R COST (NON-ENERGY)		\$ 15,000.00	
PRESENT WORTH OF OM&R COST (NON ENERGY)			\$ 195,000.00
ANNUAL O, M & R COST (ENERGY)		\$ 10,500.00	
PRESENT WORTH OF OM&R COST (ENERGY)			\$ 190,000.00
ANNUAL VALUE OF SAVINGS ON O&M/REVENUE FROM SEPTAGE	\$ 67,000.00		\$ (872,000.00)
<b>PRESENT WORTH</b>			<b>\$ 3,042,000.00</b>
 <b>AVERAGE ANNUAL EQUIVALENT COST</b>			 <b>\$ 234,000.00</b>

Notes:

- (1) March 2012 ENR 20 Cities CCI = 9268
- (2) Cost is based on a study period of 20 years and a discount rate of 4.5%.  
Present Worth Costs are based on Straight Line Depreciation and no inflation.

**City of Allegan  
CWSRF Project Plan  
Wastewater Treatment Plan Upgrades**

**All Projects - Standard Bond Rate  
Present Worth Calculations**

<b><u>CAPITAL COST</u></b>	CAPITAL COST <sup>(1)</sup>	SERVICE LIFE (YEARS)	PRESENT WORTH <sup>(2)</sup>
Civil / Site Work - All Projects	\$ 149,000.00	50	\$ 112,000.00
Structural - All Projects	\$ 652,000.00	50	\$ 490,000.00
Mechanical/Electrical - All Projects	\$ 2,749,000.00	20	\$ 2,749,000.00
<b>TOTAL CAPITAL COST</b>	<b>\$ 3,550,000.00</b>		<b>\$ 3,351,000.00</b>
 INTEREST DURING CONSTRUCTION Assumes 2 year interest at 5.375%			 \$ 382,000.00
 <b><u>ANNUAL OPERATION AND MAINTENANCE COST</u></b>			
ANNUAL O, M & R COST (NON-ENERGY)		\$ 15,000.00	
PRESENT WORTH OF OM&R COST (NON ENERGY)			\$ 195,000.00
ANNUAL O, M & R COST (ENERGY)		\$ 10,500.00	
PRESENT WORTH OF OM&R COST (ENERGY)			\$ 190,000.00
ANNUAL VALUE OF SAVINGS ON O&M/REVENUE FROM SEPT	\$ 67,000.00		\$ (872,000.00)
<b>PRESENT WORTH</b>			<b>\$ 3,246,000.00</b>
 <b>AVERAGE ANNUAL EQUIVALENT COST</b>			 <b>\$ 250,000.00</b>

Notes:

(1) March 2012 ENR 20 Cities CCI = 9268

(2) Cost is based on a study period of 20 years and a discount rate of 4.5%.  
Present Worth Costs are based on Straight Line Depreciation and no inflation.

**City of Allegan  
CWSRF Project Plan  
Wastewater Treatment Plan Upgrades**

**Septage Receiving and UV Disinfection - SRF Bond Rate  
Present Worth Calculations**

<u>CAPITAL COST</u>	CAPITAL COST <sup>(1)</sup>	SERVICE LIFE (YEARS)	PRESENT WORTH <sup>(2)</sup>
Civil / Site Work - All Projects	\$ 44,000.00	50	\$ 33,000.00
Structural - All Projects	\$ 322,000.00	50	\$ 242,000.00
Mechanical/Electrical - Phase I Projects	\$ 784,000.00	20	\$ 784,000.00
<b>TOTAL CAPITAL COST</b>	<b>\$ 1,150,000.00</b>		<b>\$ 1,059,000.00</b>
INTEREST DURING CONSTRUCTION Assumes 2 year interest at 2.5%			\$ 58,000.00
<b><u>ANNUAL OPERATION AND MAINTENANCE COST</u></b>			
ANNUAL O, M & R COST (NON-ENERGY)		\$ 4,000.00	
PRESENT WORTH OF OM&R COST (NON ENERGY)			\$ 52,000.00
ANNUAL O, M & R COST (ENERGY)		\$ 4,000.00	
PRESENT WORTH OF OM&R COST (ENERGY)			\$ 72,000.00
ANNUAL VALUE OF SAVINGS ON O&M/REVENUE FROM SEPTAGE	\$ 30,000.00		\$ (390,000.00)
<b>PRESENT WORTH</b>			<b>\$ 851,000.00</b>
<b>AVERAGE ANNUAL EQUIVALENT COST</b>			<b>\$ 65,000.00</b>

Notes:

(1) March 2012 ENR 20 Cities CCI = 9268

(2) Cost is based on a study period of 20 years and a discount rate of 4.5%.  
Present Worth Costs are based on Straight Line Depreciation and no inflation.

**City of Allegan  
CWSRF Project Plan  
Wastewater Treatment Plan Upgrades**

**Septage Receiving and UV Disinfection - Standard Bond Rate  
Present Worth Calculations**

<u><b>CAPITAL COST</b></u>	CAPITAL COST <sup>(1)</sup>	SERVICE LIFE (YEARS)	PRESENT WORTH <sup>(2)</sup>
Civil / Site Work - All Projects	\$ 44,000.00	50	\$ 33,000.00
Structural - All Projects	\$ 322,000.00	50	\$ 242,000.00
Mechanical/Electrical - All Projects	\$ 784,000.00	20	\$ 784,000.00
<b>TOTAL CAPITAL COST</b>	<b>\$ 1,150,000.00</b>		<b>\$ 1,059,000.00</b>
INTEREST DURING CONSTRUCTION Assumes 2 year interest at 5.375%			\$ 124,000.00
<u><b>ANNUAL OPERATION AND MAINTENANCE COST</b></u>			
ANNUAL O, M & R COST (NON-ENERGY)		\$ 4,000.00	
PRESENT WORTH OF OM&R COST (NON ENERGY)			\$ 52,000.00
ANNUAL O, M & R COST (ENERGY)		\$ 4,000.00	
PRESENT WORTH OF OM&R COST (ENERGY)			\$ 72,000.00
ANNUAL VALUE OF SAVINGS ON O&M/REVENUE FROM SEPT	\$ 30,000.00		\$ (390,000.00)
<b>PRESENT WORTH</b>			<b>\$ 917,000.00</b>
<b>AVERAGE ANNUAL EQUIVALENT COST</b>			<b>\$ 70,000.00</b>

Notes:

(1) March 2012 ENR 20 Cities CCI = 9268

(2) Cost is based on a study period of 20 years and a discount rate of 4.5%.  
Present Worth Costs are based on Straight Line Depreciation and no inflation.

**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

***City of Allegan***

**APPENDIX D  
COUNCIL RESOLUTION**

12.28

**A RESOLUTION ADOPTING A FINAL PROJECT PLAN  
FOR WASTEWATER SYSTEM IMPROVEMENTS AND  
DESIGNATING AN AUTHORIZED PROJECT REPRESENTATIVE**

**WHEREAS**, the City of Allegan (legal name of applicant) recognizes the need to make improvements to its existing wastewater treatment and collection system; and

**WHEREAS**, the City of Allegan (legal name of applicant) authorized Hubbell, Roth, & Clark, Inc. (name of consulting engineering firm) to prepare a Project Plan Update to the previous project plan 5300 (approved May 9, 2008), which recommends the construction of a second septage receiving station and upgrades to the UV disinfection system as part of the Phase I improvements.; and

**WHEREAS**, said Project Plan was presented at a Public Hearing held on May 14, 2012 and all public comments have been considered and addressed;

**NOW THEREFORE BE IT RESOLVED**, that the City of Allegan (legal name of applicant) formally adopts said Project Plan and agrees to implement the selected alternative (Alternative No. 2 – Upgrade Existing System).

**BE IT FURTHER RESOLVED**, that the Wastewater Treatment Plant Superintendent (title of the designee's position), a position currently held by Mr. Doug Sweeris (name of the designee), is designated as the authorized representative for all activities associated with the project referenced above, including the submittal of said Project Plan Update as the first step in applying to the State of Michigan for a revolving fund loan to assist in the implementation of the selected alternative.

Yeas: Day, Ingalsbee, Leverence, McDaniel, Tripp, Mayor Clark

Nays: None

Abstain: None

Absent: McKenzie

I certify that the above Resolution was adopted by Allegan City Council (the governing body of the applicant) on May 14, 2012.

BY: Robert Hillard  
Name and Title (please print or type) Robert Hillard, City Manager/Clerk

[Signature]  
Signature

5-17-2012  
Date

Michigan Department of Environmental Quality  
Rick Snyder, Governor  
Dan Wyant, Director

http://www.michigan.gov/deq

## Clean Water Revolving Funds SRF/SWQIF Project Plan Submittal Form

<b>Name of the Project</b> City of Allegan – Wastewater Treatment Plant Upgrades		<b>Applicant's Federal Employer Identification Number (EIN)</b> 38-6004518	
<b>Legal Name of Applicant</b> (The legal name of the applicant may be different than the name of the project. For example, a county may be the applicant for bonding purposes, while the project may be named for the particular village or township it serves.)  City of Allegan		<b>Areas Served by this Project</b>  Counties <u>Allegan County</u>  Congressional Districts <u>6</u>  State Senate Districts <u>24</u>  State House Districts <u>88</u>	
<b>Address of Applicant</b> (Street, PO Box, City, State & Zip) 112 Locust Street Allegan, Michigan 49010			
<b>Brief Description of the SRF Project</b> Improvements and upgrades to the existing WWTP. First phase projects include the installation of a second septage receiving station and improvements to UV disinfection. Future projects in the 20 year planning period include mechanical sludge thickening and mixing, odor control, and replacement of the sludge tank disposal pump.			
<b>Estimated Total Cost of the SRF Project</b> Phase I - \$985,000		<b>SRF Construction Start Target Date</b> July 2013	
<b>Brief Description of the SWQIF Project</b> N/A			
<b>Estimated Total Cost of the SWQIF Project</b> N/A		<b>SWQIF Construction Start Target Date</b> N/A	
<b>Name and Title of Applicant's Authorized Representative</b> Doug Sweeris, Wastewater Treatment Plan Superintenden			
<b>Address of Authorized Representative</b> (if different from above) 112 Locust Street Allegan, Michigan 49010		<b>Telephone</b> 269-686-1117	<b>FAX</b> 269-673-2869
		<b>E-Mail Address</b> alleganwwtp@gmail.com	
<b>Signature of Authorized Representative</b> 			<b>Date</b> 5/18/2012
<b>Joint Resolution(s) of Project Plan Adoption/Authorized Representative Designation attached</b> check here <input checked="" type="checkbox"/>			

A final project plan, prepared and adopted in accordance with the Department's *Clean Water Revolving Funds (SRF and SWQIF) Project Plan Preparation Guidance*, must be submitted by July 1st in order for a proposed project to be considered for placement on a Project Priority List for the next fiscal year. Please send your final project plan with this form to:

REVOLVING LOAN SECTION  
RESOURCE MANAGEMENT DIVISION  
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
PO BOX 30241  
LANSING MI 48909-7741

**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

***City of Allegan***

**APPENDIX E  
CORRESPONDENCE**



**HUBBELL, ROTH & CLARK, INC**  
Consulting Engineers

**Principals**  
George E. Hubbell  
Thomas E. Biehl  
Walter H. Alix  
Peter T. Roth  
Michael D. Waring  
Keith D. McCormack  
Nancy M.D. Faught

**Senior Associates**  
Gary J. Tressel  
Lawrence R. Ancypa  
Kenneth A. Melchior  
Randal L. Ford  
David P. Wilcox  
Timothy H. Sullivan

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Daniel W. Mitchell  
Jesse B. VanDeCreek  
Robert F. DeFrain  
Marshall J. Grazioli  
Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

Grand River Band of Ottawa Indians  
1251 Plainfield NE Ste. B  
P.O. Box 2937  
Grand River, MI 49501

Attention: Mr. Ron Yob

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

Dear Mr. Yob:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. The SRF Project Plan requirements state that your office is to be notified so that a determination can be made of whether the proposed project could impact religious or culturally significant tribal lands in the vicinity of the project. A map of the project area is attached.

Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stichel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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555 Hulet Drive, PO Box 824  
Bloomfield Hills, Michigan 48303-0824  
Telephone 248 454 6300 Fax 248 454 6312  
www.hrc-engr.com

Engineering. Environment. Excellence.



**HUBBELL, ROTH & CLARK, INC**  
Consulting Engineers

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Robert F. DeFrain  
Marshall J. Grazloil  
Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

Hannahville Potawatomi Indian Community  
14911 Hannahville B-1 Road  
Wilson, MI 49896

Attention: Mr. Earl Meshigaud

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

Dear Mr. Meshigaud:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

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Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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Marshall J. Grazioli  
Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

Little River Band of Ottawa Indians  
375 River Street  
Manistee, MI 49660

Attention: Mr. Jay Sam

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

Dear Mr. Sam:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

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Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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Little River Band of Ottawa Indians  
Tribal Historic Preservation  
375 River Street  
Manistee, MI 49660  
1-888-723-8288

January 13, 2012

Hubbell, Roth & Clark, Inc.  
555 Hulet Drive  
Bloomfield Hills, MI 48303

Dear Ms. Stickel;

The Tribe has received your Letter of Jan. 10, 2012, referencing City of Allegan, SRF Project Plan for WWTP Improvements and requesting a determination as to whether or not the proposed project will affect Indian religious sites. Thank you for ensuring that we received notification. This letter is the Tribe's formal answer to your request.

In reply to the above cited letter, I can reply by stating that the site listed is located in a region of the state of Michigan that Little River Band of Ottawa Indians did not occupy significantly. Further, after a careful review of our information the Little River Band of Ottawa Indians has determined there that this project will not affect any religious, cultural or historic Little River Band of Ottawa Indians sites of which we are currently aware.

The Tribe would, however, appreciate work stopping and being contacted should there be something of a cultural, religious or historic nature discovered so as to assist in mitigation of the discovered site.

Signed

Jonnie Sam II, Director  
Historic Preservation Department  
Little River Band of Ottawa Indians



**HUBBELL, ROTH & CLARK, INC**  
**Consulting Engineers**

**Principals**  
George E. Hubbell  
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Walter H. Aih  
Peter T. Roth  
Michael D. Waring  
Keith D. McCormack  
Thomas M. Doran  
Nancy M.D. Faught

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Robert F. DeFrain  
Marshall J. Grazioli  
Thomas D. LaCross  
Dennis J. Bencit  
James F. Burton  
Jane M. Graham

January 10, 2012

Match-e-be-nash-shee-wish Band of Potawatomi Indians  
P.O. Box 218  
Dorr, MI 49323

Attention: Mr. Ed Pigeon

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

Dear Mr. Pigeon:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. The SRF Project Plan requirements state that your office is to be notified so that a determination can be made of whether the proposed project could impact religious or culturally significant tribal lands in the vicinity of the project. A map of the project area is attached.

Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

Nottawaseppi Band of Huron Potawatomi  
2221 1½ Mile Road  
Fulton, MI 49053

Attention: Mr. RoAnn Beebe

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

Dear Mr. Beebe:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

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Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Doran, T. Wagenmaker, File

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Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

Pokagon Band of Potawatomi  
P.O. Box 180  
Dowagiac, MI 49047

Attention: Mr. Mark Parrish

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

Dear Mr. Parrish:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. The SRF Project Plan requirements state that your office is to be notified so that a determination can be made of whether the proposed project could impact religious or culturally significant tribal lands in the vicinity of the project. A map of the project area is enclosed.

Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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555 Hulet Drive, PO Box 824  
Bloomfield Hills, Michigan 48303-0824  
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Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

West Michigan Regional Planning Commission  
820 Monroe Avenue, NW, Suite 214  
Grand Rapids, MI 49503

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

To Whom It May Concern:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. As required, we are contacting your office to seek input regarding the impacts (if any) of the proposed project upon local development plans, regional water quality management plans, etc. A map of the project area is attached. We will submit a "Draft" Project Plan to the Commission as soon as it is complete in order to confirm that the data in the project plan is consistent with the population figures and projections as well as to seek your input on the Project Plan.

Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

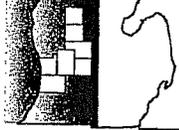
pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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555 Hulet Drive, PO Box 824  
Bloomfield Hills, Michigan 48303-0824  
Telephone 248 454 6300 Fax 248 454 6312  
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**WMRPC**



**WEST MICHIGAN REGIONAL  
PLANNING COMMISSION**

820 Monroe Avenue NW ♦ Suite 214 ♦ Grand Rapids, MI 49503 ♦ (616) 774-8400 ♦ [www.wmrpc.org](http://www.wmrpc.org)

February 14, 2012

Ms. Karyn Stickel  
Hubbell, Roth & Clark  
555 Hulet Drive  
P.O. Box 824  
Bloomfield Hills, MI 48303

RE: FPRS # 12-01  
Project: City of Allegan – Wastewater Treatment Plant Improvements

Dear Ms. Stickel,

The West Michigan Regional Planning Commission has taken the opportunity to review your proposed project and grant application.

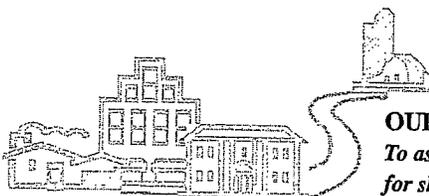
A summary of the proposed project was sent to the surrounding communities. We received no additional comments or issues warranting further review of the application. As a result, the Regional Clearinghouse Review process has been completed.

Thank you for the opportunity to review your project.

Sincerely,

A handwritten signature in cursive script that reads "Nancy K. Murphy".

Nancy K. Murphy  
Administrative Assistant



**OUR MISSION STATEMENT**

*To assist planning efforts in community and economic development, provide a regional forum for sharing information and ideas, and promote cooperative solutions to regional issues.*



**HUBBELL, ROTH & CLARK, INC**  
Consulting Engineers

**Principals**  
George E. Hubbell  
Thomas E. Biehl  
Walter H. Aix  
Peter T. Roth  
Michael D. Waring  
Keith D. McCormack  
Nancy M.D. Faught

**Senior Associates**  
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Lawrence R. Ancypa  
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Robert F. DeFrain  
Marshall J. Grazioli  
Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

MDNR Wildlife Division  
Natural Heritage Program  
P.O. Box 30180  
Lansing, Michigan 48909

Attention: Endangered Species Specialist

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

To Whom It May Concern:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. SRF Project Plan requirements state that your office is to be notified to ascertain whether any species of fauna or flora listed or proposed to be listed in the Michigan Natural Features Inventory as endangered or threatened, or the critical habitat of such species, is found in the vicinity of the proposed project. A map of the project area is attached.

Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
LANSING



RODNEY A. STOKES  
DIRECTOR

January 19, 2012

Ms. Karyn M. Stickel, PE  
Hubbell, Roth & Clark, Inc.  
PO Box 824  
Bloomfield Hills, MI 48303-0824

Dear Ms Stickel:

The Michigan Department of Natural Resources (DNR) is, unfortunately, no longer able to conduct Environmental Reviews (ER) and ceased acceptance of review requests September 16, 2011. Funding for the program was not included in the state budget for the fiscal year that begins October 1 and issuance of clearance letters will no longer be done. Project review requests can be sent to Michigan Natural Features Inventory (MNFI), a program of Michigan State University Extension.

After Oct. 1, MNFI will review projects for potential impacts to endangered species, but there will now be a cost to the requestor for MNFI's services. For information on environmental reviews or to request environmental reviews after October 1, 2011, contact Ed Schools, Senior Conservation Scientist, at 517-373-0798 or [schools@msu.edu](mailto:schools@msu.edu) or go to MNFI website at [www.msue.msu.edu/mnfi](http://www.msue.msu.edu/mnfi). Requests will no longer be accepted through the DNR Endangered Species Assessment web site.

Endangered species and wetland laws remain in place. Under Part 365 of Public Act 451 people are not allowed to take or harm any endangered or threatened of fish, plants or wildlife. The DNR will still be responsible for issuing permits and enforcement relative to the take of endangered and threatened species.

If you have any questions, please e-mail me at [SargentL@michigan.gov](mailto:SargentL@michigan.gov). Thank you.

Sincerely,

Lori G. Sargent  
Nongame Wildlife Biologist



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Consulting Engineers

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James F. Burton  
Jane M. Graham

January 10, 2012

U.S. Fish and Wildlife Service  
East Lansing Field Office  
2651 Coolidge Road  
East Lansing, MI 48823

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

To Whom It May Concern:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump.

The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. SRF Project Plan requirements state that your office is to be notified to ascertain whether any federally listed species through the implementation of Section 7 of the federal Endangered Species Act, or their habitat, is found in the vicinity of the proposed project. A map of the project area is attached.

Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

CWB

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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Thomas D. LaCross  
Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 31, 2012

U.S. Fish & Wildlife Service  
East Lansing Field Office  
2651 Coolidge Rd., Suite 101  
East Lansing, MI 48823

Attn: Ms. Tameka Dandridge

Re: SRF Project Plan for WWTP Improvements  
Endangered Species Act Consultation  
City of Allegan, Allegan County

HRC Job No. 20110460.02

Dear Ms. Dandridge:

The City of Allegan wishes to expand the facilities at their current Waste Water Treatment Plant at 350 North Street, Allegan, Michigan 49010. As agents for the City of Allegan, Hubbell, Roth & Clark, Inc. is preparing the design for the improvements.

The project will involve improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump. The first phase of the project, which includes the mixing improvements and septage receiving facility, is scheduled for construction in 2014. Other phases of the project will be constructed as funding allows/becomes available.

Our office reviewed the U.S. Fish and Wildlife technical assistance website on January 27, 2012 for federally listed threatened and endangered species. According to the website two (2) endangered species, one (1) threatened species, and one (1) candidate species may be present in Allegan County. The endangered species are the Indiana bat and the Karner blue butterfly, the threatened species is the Pitcher's thistle, and the candidate species is the Eastern Massasauga.

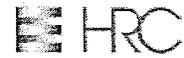
The action area for the proposed project is the existing Waste Water Treatment Plant at 350 North Street, Allegan, Michigan 49010. The Kalamazoo River runs along the northern edge of the property. However, the proposed improvements are to the existing facilities or the construction of new facilities within the current paved and lawn portions of the property, and will not encroach into the river corridor. For these reasons, we conclude that the City of Allegan SRF Project Plan for WWTP Improvements will have "no effect" on listed species, their habitats, or proposed or designated critical habitat.

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Bloomfield Hills, Michigan 48303-0824  
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Ms. Tameka Dandridge  
January 31, 2012  
HRC Job Number 20110460.02  
Page 2 of 2



If you have any questions, please feel free to contact the undersigned.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

A handwritten signature in cursive script that reads "Karyn Stickel".

Karyn Stickel, P.E.

CWB

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File



**HUBBELL, ROTH & CLARK, INC**  
Consulting Engineers

**Principals**  
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Dennis J. Benoit  
James F. Burton  
Jane M. Graham

January 10, 2012

State Historic Preservation Office  
Environmental Review Office  
Michigan Historical Center  
702 West Kalamazoo Street  
P.O. Box 30740  
Lansing, Michigan 48909-8240

Re: SRF Project Plan for WWTP Improvements  
City of Allegan

HRC Job No. 20110460

To Whom It May Concern:

Hubbell, Roth & Clark, Inc. (HRC) is presently working for the City Allegan on a Project Plan for improvements to the existing wastewater treatment plant, including mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener, construction of the second half of the UV system, and relocation of a sludge pump. The City has decided to pursue financial assistance for the improvements from the State of Michigan through the State Revolving Fund (SRF). A Project Plan is the required first step in applying for a SRF loan. SRF Project Plan requirements state that your office is to be notified so that a determination can be made of whether the proposed project could cause irreparable loss or destruction of significant prehistorical, historical, or archeological data in the vicinity of the project. A map of the project area is attached as is the required State Historic Preservation Office application with all applicable information. All proposed work will take place on the WWTP property.

A thorough review of the areas where work is proposed found that this project will not impact any historical sites, buildings, structures, districts, or objects of national, state, regional, or local significance. We are contacting your office to request comments regarding the presence of any identifiable properties, sites, structures, etc. that may be affected by this project. Please inform us of your findings at your earliest convenience. Should you have any questions or require additional information regarding this matter, please contact the undersigned at 248.454.6566.

Very truly yours,

HUBBELL, ROTH & CLARK, INC.

Karyn M. Stickel, P.E.

Attachment

pc: City of Allegan; Mr. Doug Sweeris  
HRC; T. Wagenmaker, File

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Bloomfield Hills, Michigan 48303-0824  
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**STATE HISTORIC PRESERVATION OFFICE**  
**Application for Section 106 Review**

SHPO Use Only					
<input type="checkbox"/> IN	Received Date	___ / ___ / ___	Log In Date	___ / ___ / ___	
<input type="checkbox"/> OUT	Response Date	___ / ___ / ___	Log Out Date	___ / ___ / ___	
	Sent Date	___ / ___ / ___			

Submit one copy for each project for which review is requested. This application is required. Please type. Applications must be complete for review to begin. Incomplete applications will be sent back to the applicant without comment. Send only the information and attachments requested on this application. Materials submitted for review cannot be returned. Due to limited resources we are unable to accept this application electronically.

**I. GENERAL INFORMATION**

THIS IS A NEW SUBMITTAL       THIS IS MORE INFORMATION RELATING TO ER#

- a. Project Name: City of Allegan Wastewater Treatment Plant Improvements
- b. Project Address (if available): 350 North Street, Allegan, Michigan 49010
- c. Municipal Unit: City of Allegan County: Allegan
- d. Federal Agency, Contact Name and Mailing Address (If you do not know the federal agency involved in your project please contact the party requiring you to apply for Section 106 review, not the SHPO, for this information.): MDEQ SRF/SWQIF, Ms. Cindy Clendenon, P.O. Box 30457, Lansing, MI 48909
- e. State Agency (if applicable), Contact Name and Mailing Address: MDEQ SRF/SWQIF, Ms. Cindy Clendenon, P.O. Box 30457, Lansing, MI 48909
- f. Consultant or Applicant Contact Information (if applicable) including mailing address: Karyn M. Stichel, P.E., Hubbell, Roth & Clark, Inc., 555 Hulet Drive, P.O. Box 824, Bloomfield Hills, MI 48303

**II. GROUND DISTURBING ACTIVITY (INCLUDING EXCAVATION, GRADING, TREE REMOVALS, UTILITY INSTALLATION, ETC.)**

DOES THIS PROJECT INVOLVE GROUND-DISTURBING ACTIVITY?  YES  NO (If no, proceed to section III.)

Exact project location must be submitted on a USGS Quad map (portions, photocopies of portions, and electronic USGS maps are acceptable as long as the location is clearly marked).

- a. USGS Quad Map Name: Allegan
- b. Township: 02N Range: 13W Section: 28
- c. Description of width, length and depth of proposed ground disturbing activity: The project will involve several improvement to the WWTP. All disturbance will take place on the existing WWTP property. As the City is currently in the planning phase, the exact limits of disturbance is not know at this time.
- d. Previous land use and disturbances: Wastewater Treatment Plant. Previous disturbances include prior construction and improvements to the WWTP.
- e. Current land use and conditions: Currently the WWTP site is being utilized for wastewater treatment and will continue to be used for this in the future.
- f. Does the landowner know of any archaeological resources found on the property?  YES  NO  
Please describe:

**III. PROJECT WORK DESCRIPTION AND AREA OF POTENTIAL EFFECTS (APE)**

**Note: Every project has an APE.**

- a. Provide a detailed written description of the project (plans, specifications, Environmental Impact Statements (EIS), Environmental Assessments (EA), etc. **cannot** be substituted for the written description): The proposed project consists of Improvements to the existing wastewater treatment plant. It will include mixing improvements for the underground sludge storage tank, covers and odor control for the open sludge tanks, construction of an additional septage receiving facility, construction of a mechanical sludge thickener,

construction of the second half of the UV system, and relocation of a sludge pump. We are currently in the planning stages of this work.

- b. Provide a localized map indicating the location of the project; road names must be included and legible.
- c. On the above-mentioned map, identify the APE.
- d. Provide a written description of the APE (physical, visual, auditory, and sociocultural), the steps taken to identify the APE, and the justification for the boundaries chosen. The Area of Potential Effects is the property that currently contains the Wastewater Treatment Plant for the City of Allegan and the associated equipment. The proposed improvements that will make up the project will be within the current property limits. The boundaries of the APE are the property lines. The boundaries were chosen due to the fact that this property is currently owned by the City, and all WWTP shall remain on this property. The APE is shown on the attached map.

#### IV. IDENTIFICATION OF HISTORIC PROPERTIES

- a. List and date all properties 50 years of age or older located in the APE. If the property is located within a National Register eligible, listed or local district it is only necessary to identify the district: None
  - b. Describe the steps taken to identify whether or not any historic properties exist in the APE and include the level of effort made to carry out such steps: The National Register of Historic Places in Michigan was reviewed. There are several homes, districts, and landmarks in Allegan that are on this list. There addresses were checked with the location of the WWTP, where all work is proposed, and it was determined that none of these properties would be affected by the work. The Michigan Historic Sites Database was also reviewed. Again, there are many homes, districts, and landmarks within the City of Allegan that are on this list. However, none of these properties are in close proximity to the WWTP, none are located in the APE, and therefore, none of these will be affected by the work on the WWTP property.
  - c. Based on the information contained in "b", please choose one:  
 Historic Properties Present in the APE  
 No Historic Properties Present in the APE
  - d. Describe the condition, previous disturbance to, and history of any historic properties located in the APE: None
- 

#### V. PHOTOGRAPHS

**Note: All photographs must be keyed to a localized map.**

- a. Provide photographs of the site itself.
  - b. Provide photographs of all properties 50 years of age or older located in the APE (faxed or photocopied photographs are not acceptable).
- 

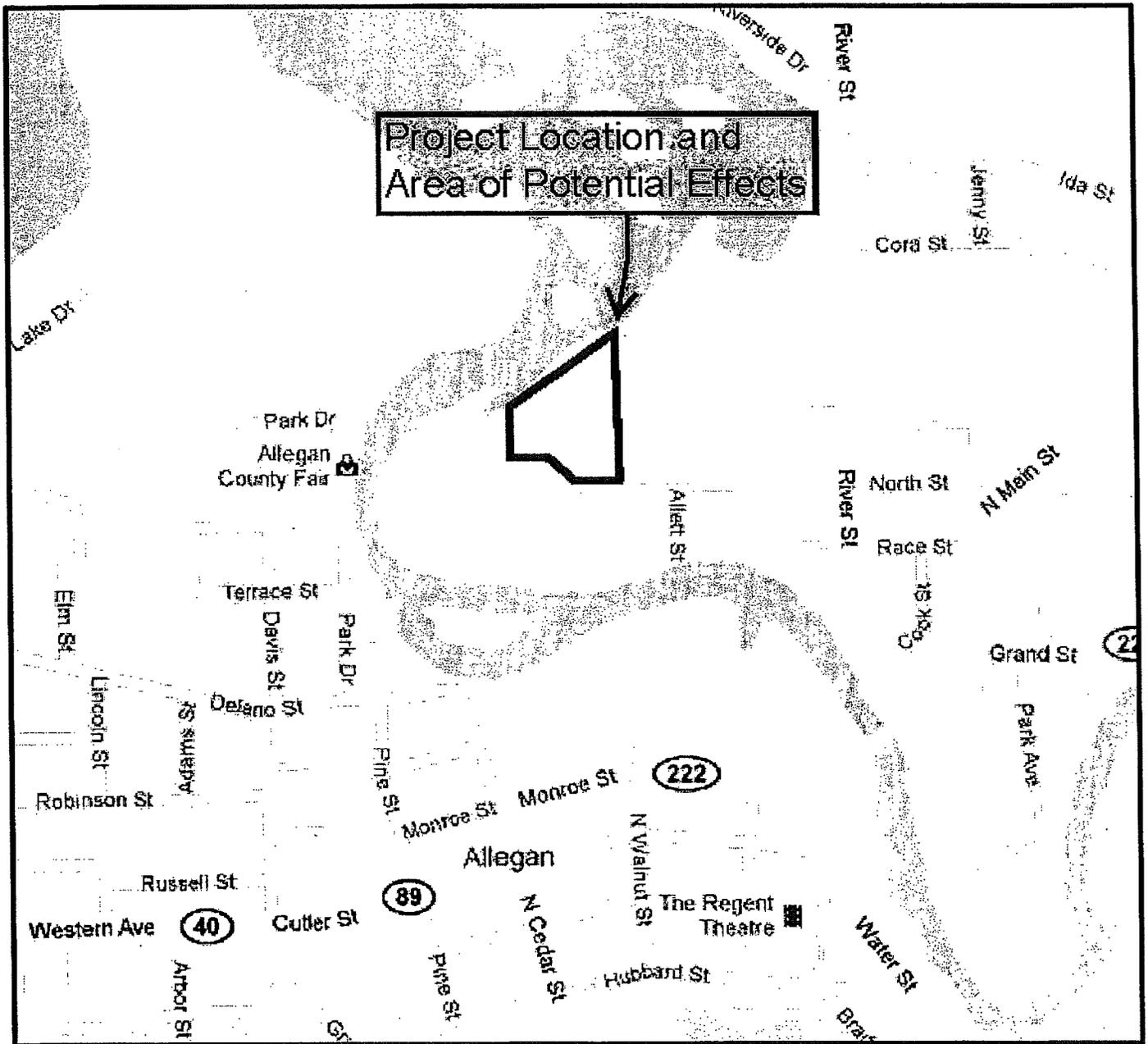
#### VI. DETERMINATION OF EFFECT

- No historic properties affected based on [36 CFR § 800.4(d)(1)], please provide the basis for this determination.
- No Adverse Effect [36 CFR § 800.5(b)] on historic properties, explain why the criteria of adverse effect, 36 CFR Part 800.5(a)(1), were found not applicable.
- Adverse Effect [36 CFR § 800.5(d)(2)] on historic properties, explain why the criteria of adverse effect, [36 CFR Part 800.5(a)(1)], were found applicable.

***Please print and mail completed form and required information to:  
State Historic Preservation Office, Environmental Review Office, Michigan Historical Center, 702  
W. Kalamazoo Street, P.O. Box 30740, Lansing, MI 48909-8240***

# City of Allegan

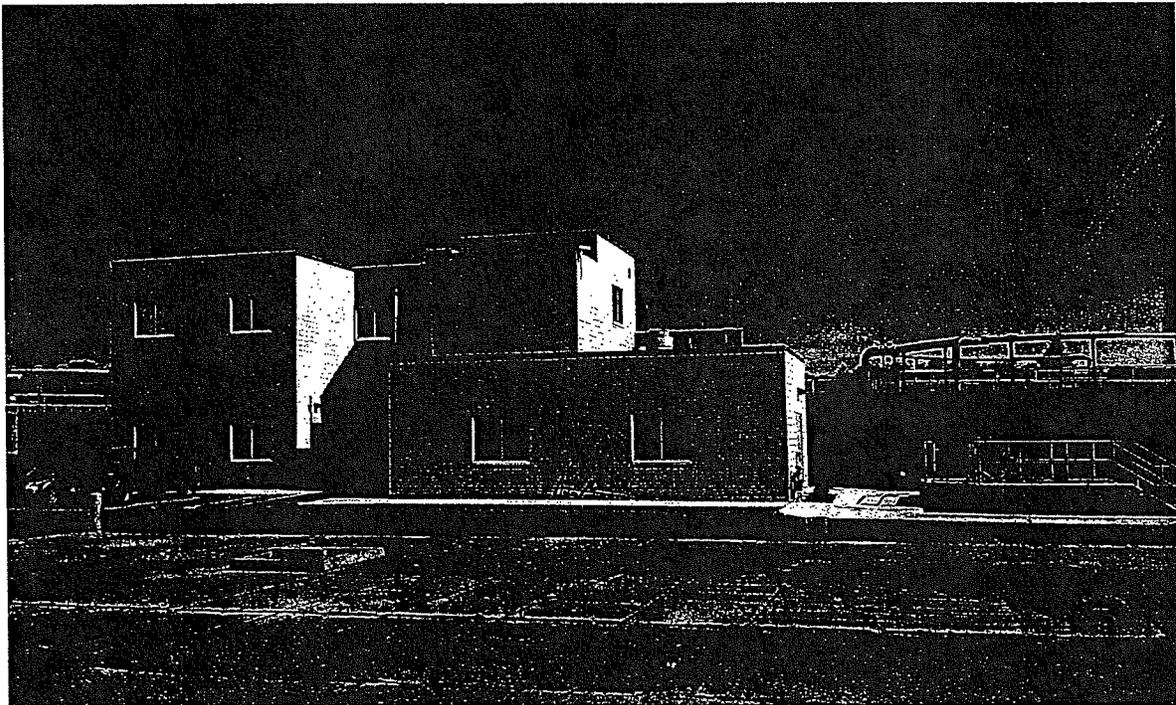
## SRF Project Plan for WWTP Improvements

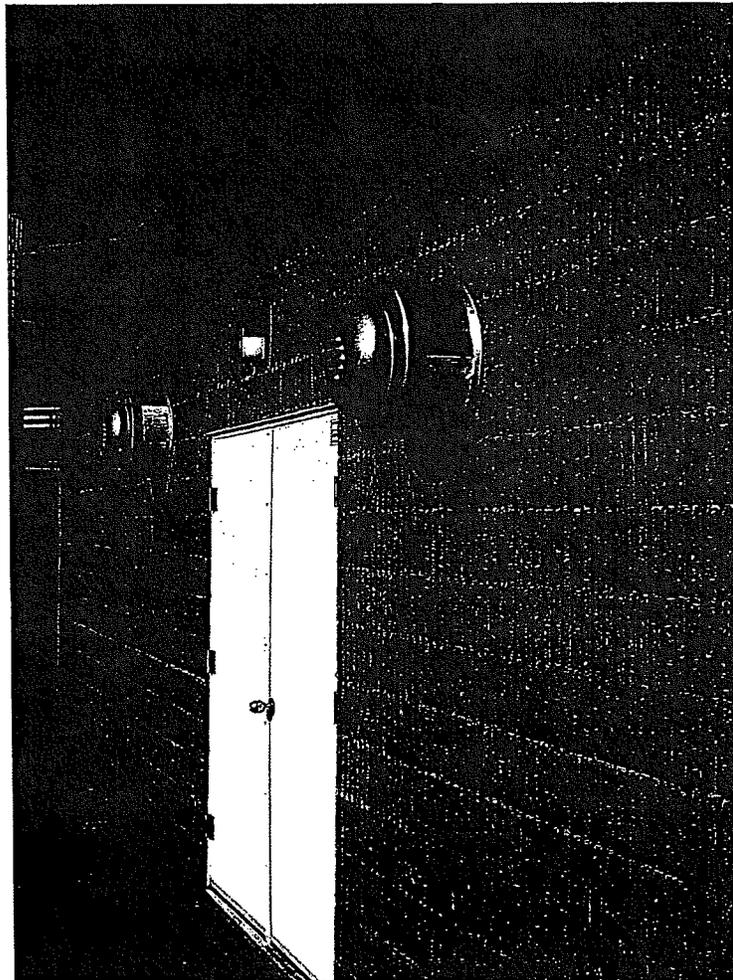
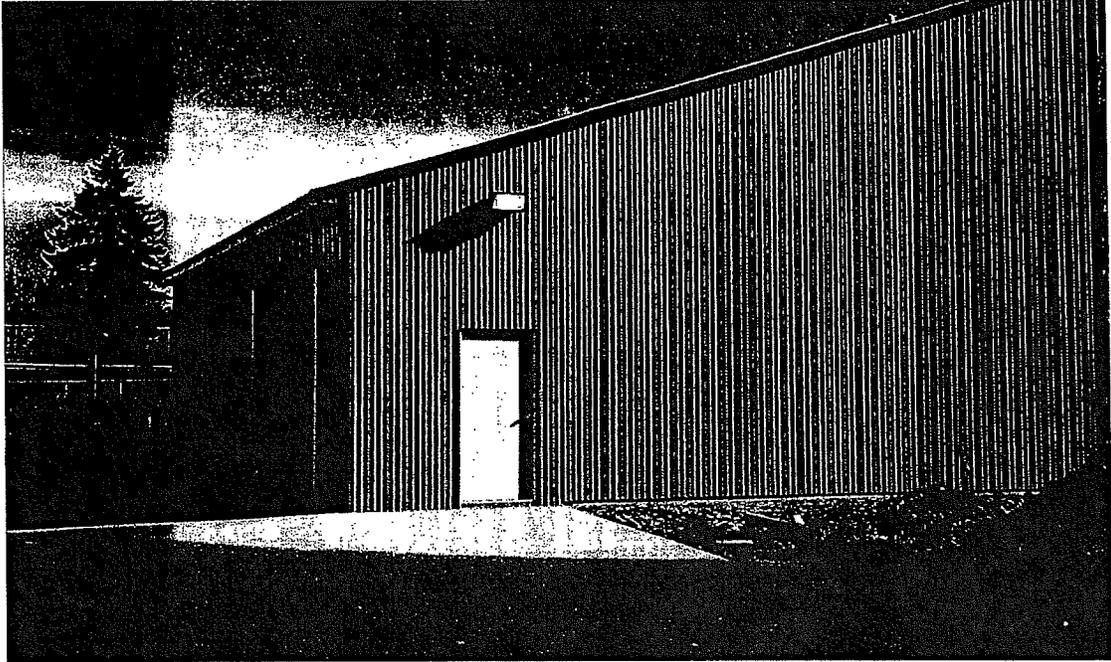


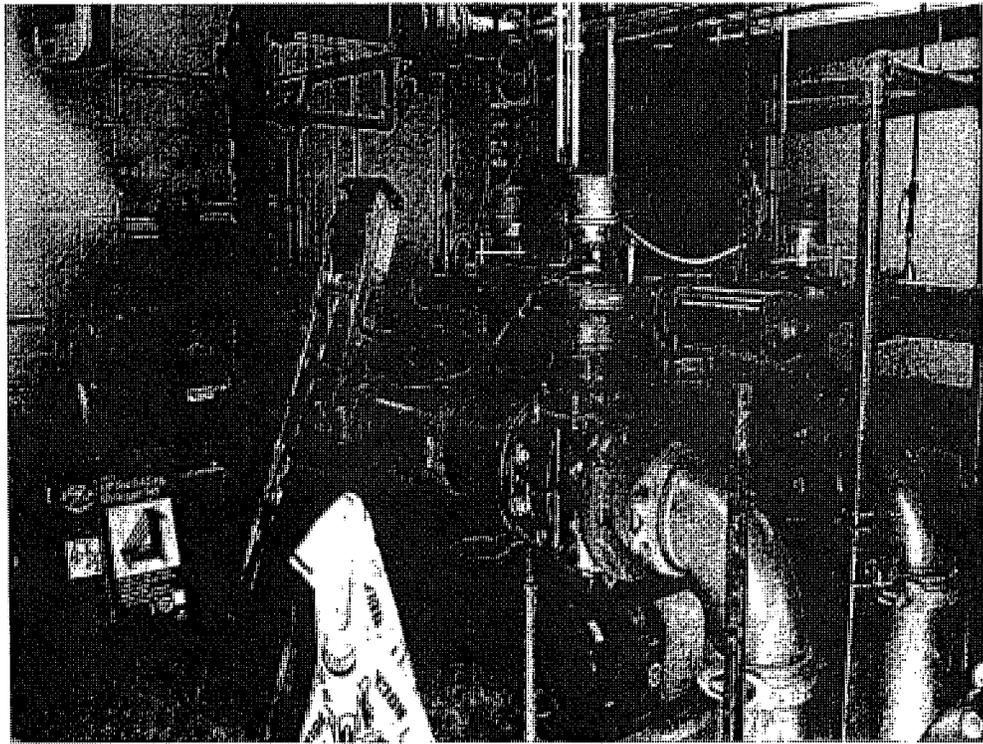
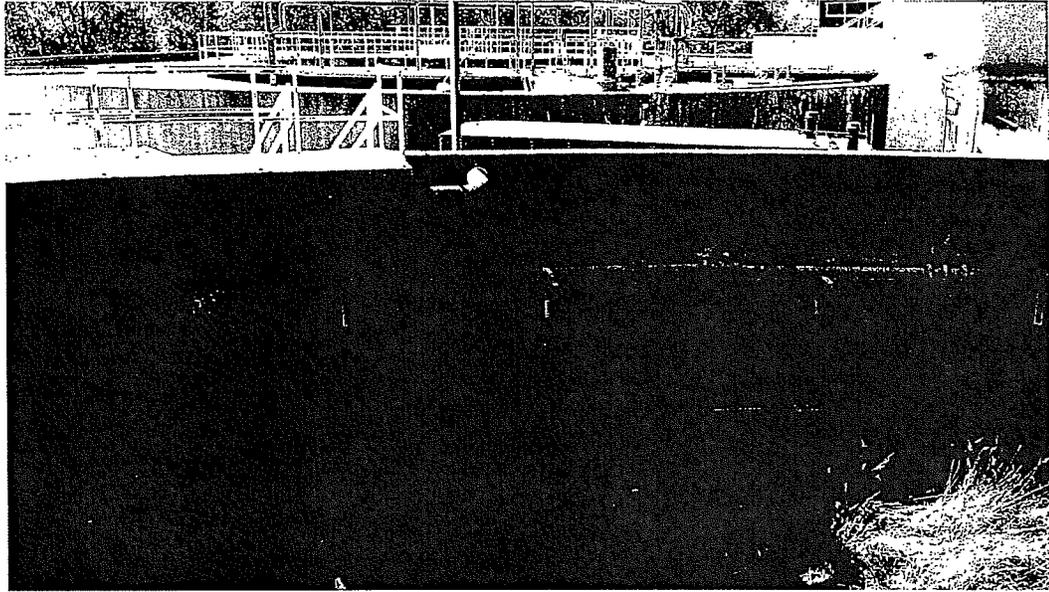
# City of Allegan

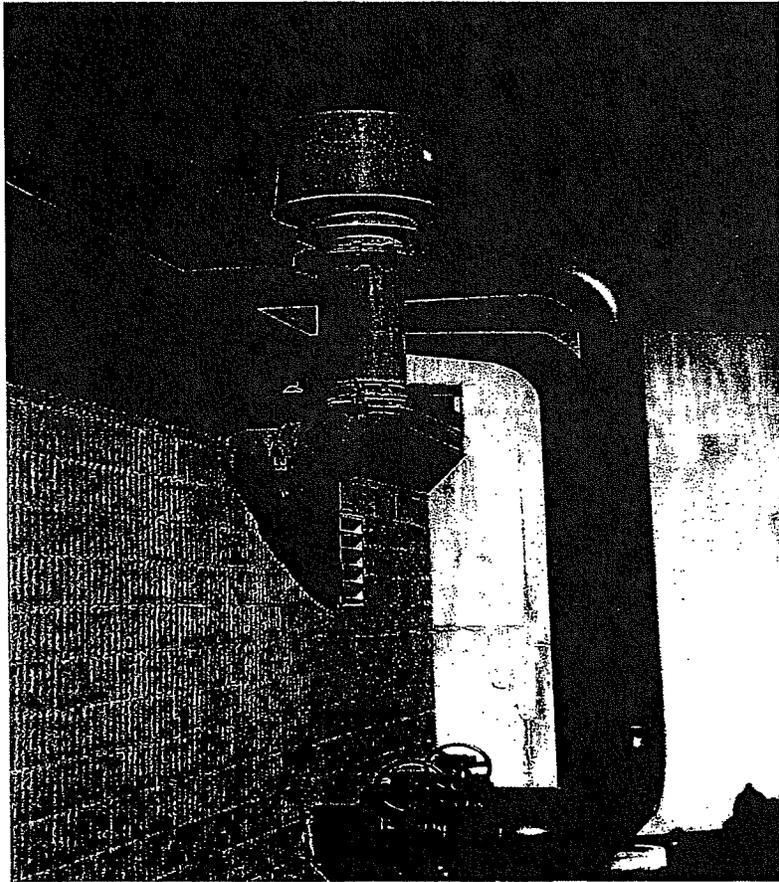
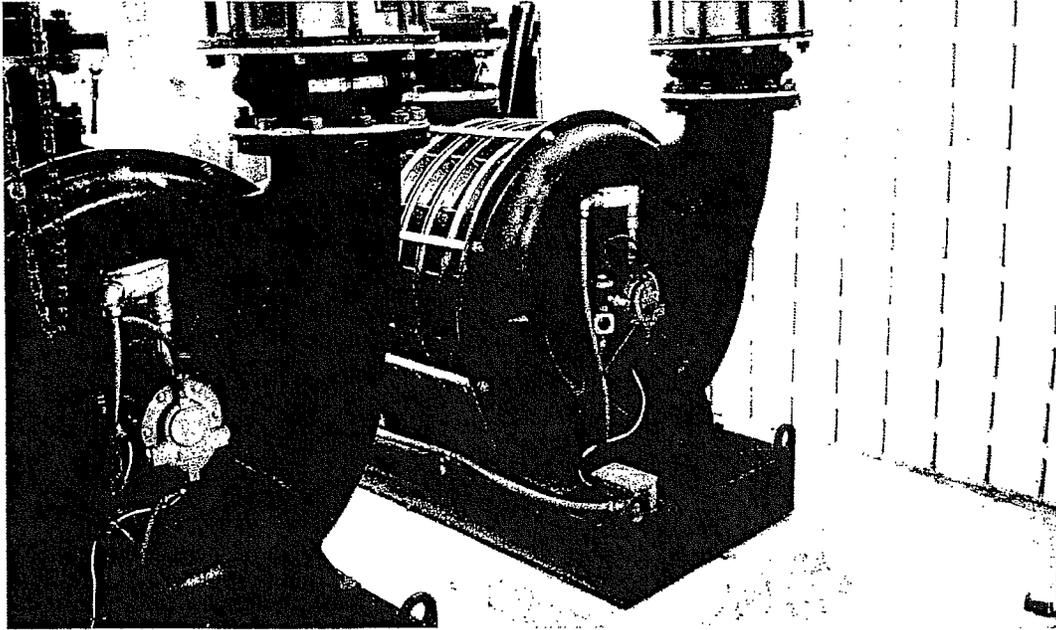
## SRF Project Plan for WWTP Improvements













RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY  
STATE HISTORIC PRESERVATION OFFICE

GARY HEIDEL  
EXECUTIVE DIRECTOR

February 7, 2012

SONYA T BUTLER  
SECTION CHIEF RLOCS  
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
P O BOX 30273  
LANSING MI 48909

RE: ER-07-242 City of Allegan Wastewater Treatment Plant Improvements, 350 North Street, T2N,  
R13W, S28, City of Allegan, Allegan County (EPA)

Dear Ms. Butler:

Under the authority of Section 106 of the National Historic Preservation Act of 1966, as amended, we have reviewed the above-cited undertaking at the location noted above. Based on the information provided for our review, it is the opinion of the State Historic Preservation Officer (SHPO) that no historic properties are affected within the area of potential effects of this undertaking.

The views of the public are essential to informed decision making in the Section 106 process. Federal Agency Officials or their delegated authorities must plan to involve the public in a manner that reflects the nature and complexity of the undertaking, its effects on historic properties and other provisions per 36 CFR § 800.2(d). We remind you that Federal Agency Officials or their delegated authorities are required to consult with the appropriate Indian tribe and/or Tribal Historic Preservation Officer (THPO) when the undertaking may occur on or affect any historic properties on tribal lands. In all cases, whether the project occurs on tribal lands or not, Federal Agency Officials or their delegated authorities are also required to make a reasonable and good faith effort to identify any Indian tribes or Native Hawaiian organizations that might attach religious and cultural significance to historic properties in the area of potential effects and invite them to be consulting parties per 36 CFR § 800.2(c-f).

This letter evidences the EPA's compliance with 36 CFR § 800.4 "Identification of historic properties", and the fulfillment of the EPA's responsibility to notify the SHPO, as a consulting party in the Section 106 process, under 36 CFR § 800.4(d)(1) "No historic properties affected."

The State Historic Preservation Office is not the office of record for this undertaking. You are therefore asked to maintain a copy of this letter with your environmental review record for this undertaking. If the scope of work changes in any way, or if artifacts or bones are discovered, please notify this office immediately.

If you have any questions, please contact Brian Grennell, Cultural Resource Management Specialist, at (517) 335-2721 or by email at [grennellb@michigan.gov](mailto:grennellb@michigan.gov). Please reference our project number in all communication with this office regarding this undertaking. Thank you for this opportunity to review and comment, and for your cooperation.

Sincerely,

  
Brian G. Grennell  
Cultural Resource Management Specialist

for Brian D. Conway  
State Historic Preservation Officer

SAT:BGG:kah

Copy: Ms. Karyn M. Stickel, Hubbell, Roth & Clark





**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

*City of Allegan*

**APPENDIX F  
AFFADAVIT OF PUBLICATION, PUBLIC  
HEARING TRANSCRIPT, AND  
ATTENDANCE LIST**

# AFFIDAVIT OF PUBLICATION

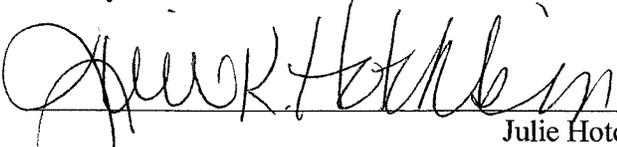
State of Michigan  
County of Allegan

Amy Visuri, being duly sworn says she is one of the principal clerks of the Allegan County News a weekly newspaper published and circulated in said county. The annexed is a printed copy of a notice which was published in said newspaper on the following dates, to wit:

March 29, A.D. 2012

  
\_\_\_\_\_  
Amy Visuri

Subscribed and sworn to before me this  
29<sup>th</sup> day of March A.D. 2012

  
\_\_\_\_\_  
Julie Hotchkiss

Notary Public, Allegan County, Michigan.  
Acting In Allegan County, Michigan

My commission expires 3/15/17

## KAECHELE PUBLICATIONS, INC.

*The Allegan County News - The Union Enterprise - The Commercial*  
P.O. Box 189, Allegan, MI 49010 - (269) 673-5534 - Fax (269) 673



# NOTICE OF PUBLIC HEARING

The City of Allegan will hold a public hearing on the proposed Waste Water Treatment Plant Upgrades project for the purpose of receiving comments from interested persons.

The hearing will be held at 7:00 p.m. on May 14, 2012 at the Griswold Auditorium, located at 401 Hubbard Street, Allegan, Michigan, 49010.

The purpose of the proposed project is to provide improvements to the City of Allegan Wastewater Treatment Plant. Low interest rate funding is being pursued through the Michigan Department of Environmental Quality Clean Water State Revolving Fund Program.

Phase I Project construction will involve the addition of a second septage receiving station, and the addition of a secondary UV disinfection system and enclosure. The City looked at the selected option and the No Action Alternative. The No Action Alternative does not provide for needed improvements necessary for proper operation City Wastewater Treatment Plant. The cost to complete this alternative is \$1,150,000.00. The Project Plan includes other projects including mechanical sludge thickening, mechanical mixing in the sludge storage tank, odor control, and installation of a new sludge pump. The costs for these projects are an additional \$2,050,000.00 and will be completed in the future as funding allows.

Impacts of the proposed project include temporary disruption due to the required construction, including noise and dust generated by the work, and possible erosion of spoils from open excavation. The long term effects include improved performance of the facilities, and increased septage receiving capacity.

The estimated cost to users for the Phase I projects will be approximately \$0.86 per month per residential unit.

Copies of the plan detailing the proposed project are available for inspection at the following location(s):

Allegan City Hall 112 Locust Street Allegan, Michigan 49010	Allegan Wastewater Treatment Plant 350 North Street Allegan, Michigan 49010
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Written comments received before the hearing record is closed on May 14, 2012 will receive responses in the final project plan. Written comments should be sent to:

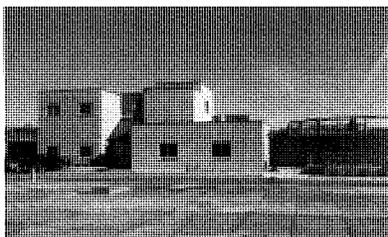
Allegan City Hall  
Attention: City Clerk  
112 Locust Street  
Allegan, Michigan 49010



# **CITY OF ALLEGAN WASTEWATER TREATMENT PLANT UPDATES**

Project Plan Public Hearing

May 14, 2012



## **Introductions**

City of Allegan

- ▣ Doug Sweeris, WWTP Superintendent

HRC

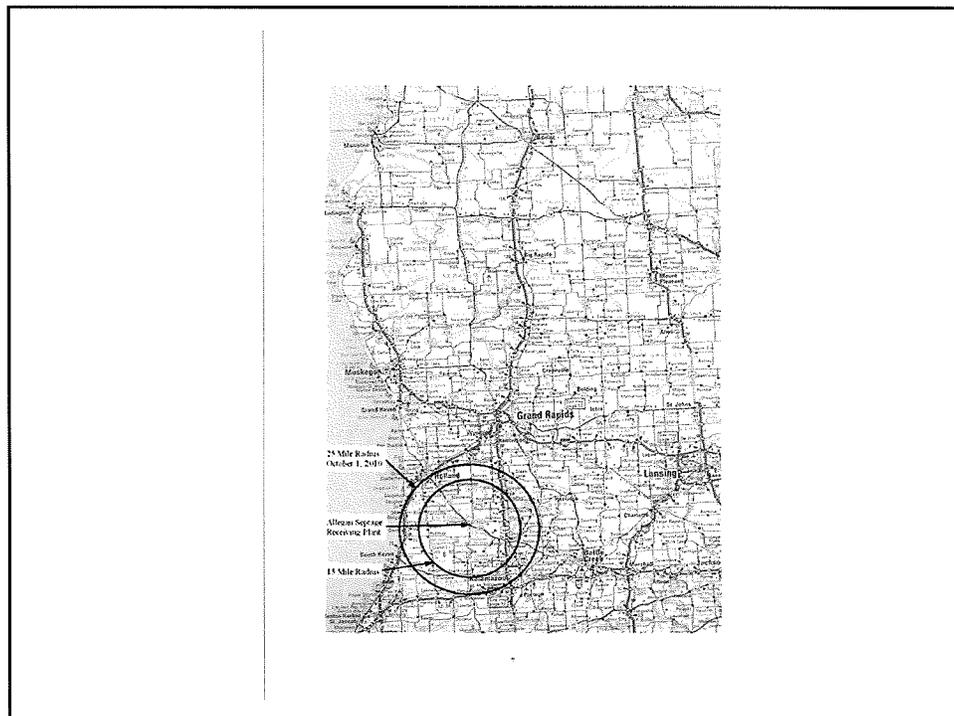
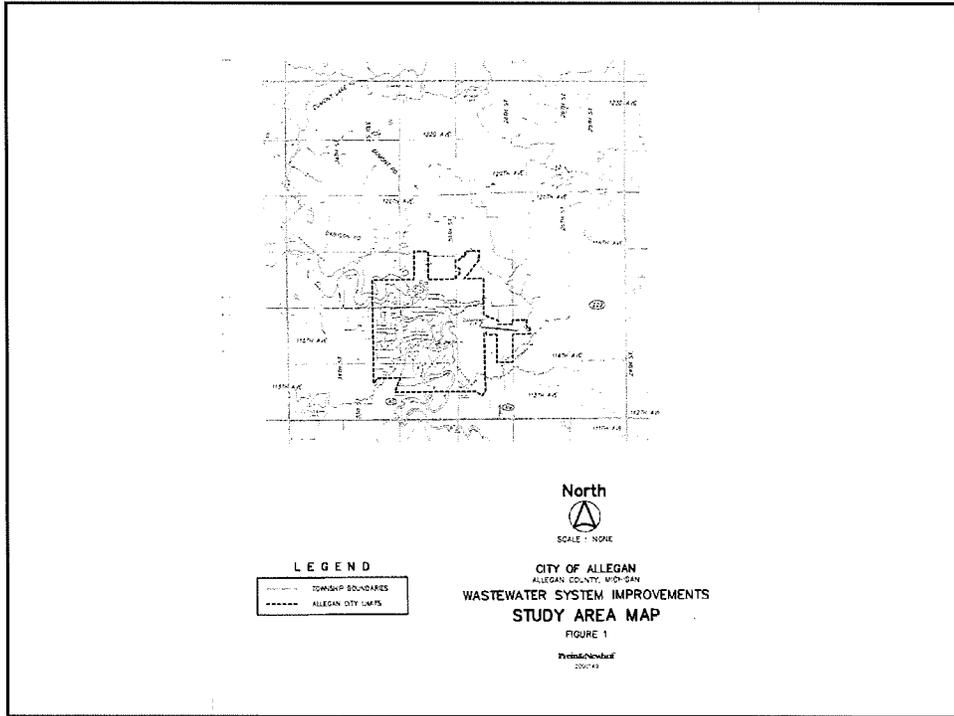
- ▣ Trevor Wagenmaker, P.E.

## **Project Introduction**

- ▣ Reason for Project Plan
  - S2 grant available to pay for 90% of project planning costs.
  - Project Plan required to make Application for State Revolving Fund (SRF) Assistance
  - SRF Program administered by MDEQ and provides low interest rate loans (currently 2.5%) for qualifying projects.
  - Loans can be used to finance future improvements at WWTP
  - Project Plan submittal deadline is July 1, 2012 for prioritization for 2013 Fiscal Year

## **Project Overview**

- ▣ WWTP Background
  - 1976 – Original Construction
  - 1991, 1995, and 2010 – Expansions and modifications made to the plant
  - 2012 – Improvements to Tank 3 to commence soon and will be financed by a SRF loan, including another S2 grant procured to pay for 90% of project design.
  - WWTP currently serves the City of Allegan, as well as portions of Allegan Township.
  - Septage receiving station covers all of Allegan County and portions of adjacent counties as well. Currently receives 90% of the septage pumped in Allegan County.



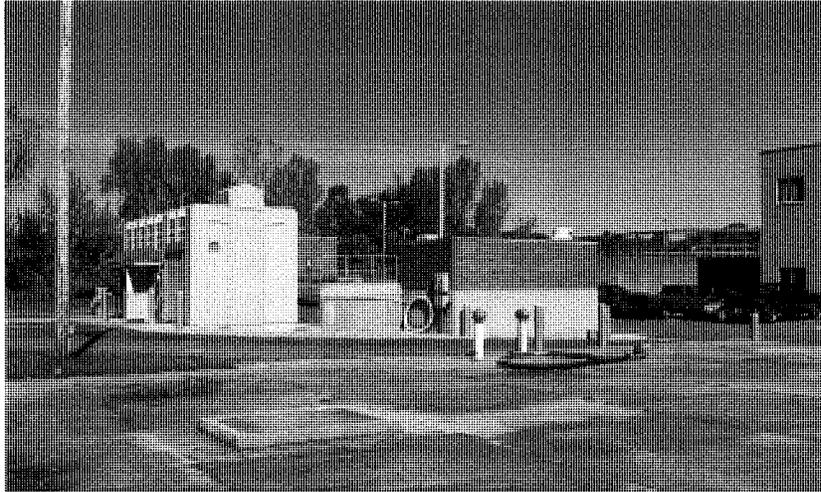
## Overview

- Existing Wastewater Treatment
  - Collector Sewers and Pump Stations
  - Preliminary Treatment – Raw Sewage Pumping, fine screening, degritting, and flow measurement
  - Secondary Biological Treatment – Activated sludge processing and final clarifier tanks
  - Disinfection – UV disinfection
  - Septage Receiving Station constructed in 2010 and being utilized far more than expected

## WWTP Location Map



## Septage Receiving Station



## Project Plan

- ▣ Need for Project:
  - Currently the septage receiving station is operating over capacity and the wait time for dropping off septage is increasing. Additionally, there is no backup if the station needs to be taken offline for service.
  - The UV disinfection system has one channel for entire flow and no weather protection for maintenance operations.
  - Major project completed in 2009 to upgrade many processes at the plant. However, several of the biosolids handling equipment and tanks were not upgraded at that time. They are reaching the end of their useful life and may need to be upgraded replaced.

## **Selected Phase I Projects**

- ▣ Construction of a second septage receiving station.
- ▣ Addition of a second channel of ultraviolet disinfection equipment with a building for maintenance activities.

## **Project Plan Alternatives**

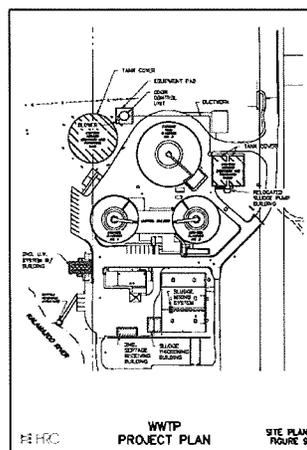
- ▣ Alternative No. 1 – No Action
  - Existing equipment would continue to operate as is.
  - No redundant equipment would be installed.
  - Not considered because the lack of redundancy for several operations at the plants could lead to treatment problems or water quality issues in the receiving water.

## Project Plan Alternatives

- Alternative No. 2 – Upgrade Existing System
  - Construct a second septage receiving station adjacent to the existing.
  - Construct a secondary channel for UV disinfection to provide redundancy and additional treatment capacity. Enclose the system in a building for better access for maintenance.

This Alternative is considered the best alternative as it is the only one that improves plant operations and provides required redundancy.

## Proposed Site Plan



## **Septage Receiving Station**

- ▣ A new septage receiving station will be built adjacent to the existing station.
- ▣ This station will alleviate the wait time for septage haulers and increase revenue for the City that it earns from accepting sludge.
- ▣ New station will also provide redundancy should the existing station need to be taken off line for service.
- ▣ Construction of a second station will increase service life as each piece of equipment will be used only half as much if only one station were available.

## **UV Disinfection**

- ▣ Construct a secondary treatment channel adjacent to the existing channel.
- ▣ Enclose both channels in a building to protect from elements and ease maintenance procedures.
- ▣ Secondary channel is needed for backup/redundancy.

## Future Projects

- Over the next 20 years, the following projects may need to be constructed:
  - Mixing Improvements
  - Sludge Storage Improvements
  - Mechanical Sludge Thickener
  - Relocate the Sludge Pump
  - Sludge Storage Odor Control Equipment/Structure

## Project Costs

	Present Worth	
	Phase I Projects	All Projects
Capital Costs (less Salvage Value)	\$ 1,059,000.00	\$ 3,351,000.00
Annual OM&R Costs	\$ (266,000.00)	\$ (487,000.00)
Interest During Construction	\$ 58,000.00	\$ 178,000.00
Net Present Worth	\$ 851,000.00	\$ 3,042,000.00
Annual Average Equivalent Costs	\$ 65,000.00	\$ 234,000.00

Notes:

Net Present Worth is the sum of capital costs, OM&R costs, and interest during construction, less 20-year sa  
 Present Worth Costs are based on Straight Line Depreciation and no inflation.  
 Cost is based on a study period of 20 years and a discount rate of 4.5%.  
 March 2012 EIR 20 Cree CC = 9265

## User Costs

- ▣ Average Residential User Cost of Phase I Projects

Total Yearly Cost (Debt Retirement) - \$45,300  
Estimated Monthly Cost for Residential User  
=\$0.86

- ▣ The costs of this project are offset by the revenue earned by the septage receiving station.
- ▣ The residential customer base is approximately 42% of the average billed sales.
- ▣ Costs are based on 1,850 residential sewer accounts.

## Impacts of Selected Projects

### Short Term Impacts

- ▣ Positive Impacts
  - Create indirect and induced employment during construction.
- ▣ Negative Impacts
  - Noise, soil erosion, dust, fumes, and increased traffic – typical construction disruptions.

## Impacts of Selected Projects

- ▣ Long Term Impacts
  - Positive Impacts
    - Increase the volume of septage that can be received and treated at the plant.
    - Protect quality of the Kalamazoo River by providing additional UV disinfection.
    - Provide redundancy at the plant.
  - Negative Impacts
    - None anticipated.

## Impacts of Selected Projects

- ▣ Irreversible Impacts
  - Non-recoverable materials committed to project are traded off to provide improved performance and capabilities at the plant.
  - Resources include public capital, energy, labor, and unsalvageable materials.
  - Possible construction damage or accidents.

## Mitigation of Impacts

- Mitigation of Short-Term, Construction Related Impacts
  - Establishing guidelines for vegetation removal, dust reduction, and traffic control.
  - Obtain and comply with soil erosion and sedimentation control permit.
- Mitigation of Long Term Impacts
  - It is assumed that the short term mitigation techniques will avoid long term impacts due to construction.

## Proposed Schedule

- Submittal of SRF Final Project Plan for Project Prioritization – May 20, 2012
- Submittal of S2 Application for Phase I Design Costs – May 20, 2012 (assuming funds still available)
- Approval of Plans and Specification – March 2013
- Project Bidding – April 2013
- Tentative Project Award – May 2013
- SRF Loan Closing – June 2013
- Construction of Phase I Projects will take place in 2013 - 2014.

## **Changes to the Project Plan**

- The following changes were made to the plan that was available for public review:
  - Plan changes made to indicate that it is an update to previous project plan.
  - Additional information was added to the plan regarding need for a second septage receiving station, including environmental impact of reduced septage receiving capabilities.
  - Information was added to the plan regarding the typical user's average sewage bill and impacts to that.

## **Questions**

- Please approach the podium and state name and address for the record.

**In The Matter Of:**  
*City of Allegan*  
*Regular City Council Meeting*

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*Public Hearing*  
*May 14, 2012*

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*O'Brien & Bails Court Reporting & Video*  
*Michigan Firm No. 8029*  
*141 East Michigan Avenue, Suite 206 (Headquarters)*  
*Kalamazoo, MI 49007*  
*1.800.878.8750*

O'BRIEN  BAILS

Original File 05-14-2012 City of Allegan MH.txt  
Min-U-Script® with Word Index

Page 1

1 OF ALLEGAN  
2 LAR CITY COUNCIL MEETING  
3 IC HEARING  
4 AY, MAY 14, 2012 - 7:00 P.M.  
5 WOLD AUDITORIUM  
6 Hubbard Street  
7 gan, Michigan  
8  
9 MR. CLARK: I'd like to call the regularly scheduled  
10 City Council meeting for the City of Allegan, Monday, May 14th  
11 to order. At this time I'd like to start off with the pledge  
12 of allegiance.  
13 (Pledge recited.)  
14 MR. CLARK: Okay. At this time I'd also like to ask  
15 everyone like myself to turn your phone off or put it on  
16 vibrate. Since we have a lot to do this evening I'd like to  
17 get finished at a halfway decent time.  
18 Laura would you like to take role, please?  
19 LORI VANDERCLAY: Council Member Day.  
20 MR. DAY: Here.  
21 LORI VANDERCLAY: Council Member Ingalsbee.  
22 MS. INGALSBEE: Here.  
23 LORI VANDERCLAY: Council Member Leverage.  
24 MS. LEVERENCE: Here.  
25 LORI VANDERCLAY: Mayor Pro Tem McDaniel.

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1 MS. MCDANIEL: Here.  
2 LORI VANDERCLAY: Council Member McKenzie.  
3 MS. MCKENZIE: (Not present.)  
4 LORI VANDERCLAY: Council Member Tripp.  
5 MR. TRIPP: Here.  
6 LORI VANDERCLAY: And Mayor Clark.  
7 MR. CLARK: Here.  
8 At this point I'd like to take a motion. Rachel is  
9 under the weather, we got an e-mail from here this afternoon.  
10 She is not feeling well. She won't be here. So if we could  
11 have a motion to excuse here to excuse her for this evening.  
12 MR. DAY: So move.  
13 MS. MCDANIEL: Support.  
14 MR. CLARK: All in favor say aye.  
15 (Council members respond aye.)  
16 MR. CLARK: Oppose.  
17 (No response.)  
18 MR. CLARK: We have a lot on the agenda tonight. We  
19 have two special meetings within the City Council meeting. So  
20 I am going to forego the Mayor's report. I just want to wish  
21 to all the mother's who are out there I hope they had a happy  
22 Mother's Day. And we're just going to forego that and move on  
23 with the business. Rob.  
24 MR. HILLARD: Sure. We want to come back to the  
25 minutes though.

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1 MR. CLARK: I'm sorry. Let me do that real quick.  
2 At this point I'd like to seek approval of minutes for the  
3 April 23rd City Council meeting.  
4 MR. DAY: So move.  
5 MR. TRIPP: Support.  
6 MR. CLARK: All in favor say aye.  
7 (Council members respond aye.)  
8 MR. CLARK: Oppose.  
9 (No response.)  
10 MR. CLARK: We'd also like to seek approval of the  
11 Special City Council meeting, that was a budget meeting on May  
12 8th.  
13 MR. DAY: So move.  
14 MR. TRIPP: Support.  
15 MR. CLARK: All in favor say aye.  
16 (Council members respond aye.)  
17 MR. CLARK: Oppose.  
18 (No response.)  
19 MR. CLARK: Also the Special City Council meeting,  
20 approve the minutes on May 9th, which was also a budget  
21 meeting.  
22 MS. INGALSBEE: So move.  
23 MR. DAY: Support.  
24 MR. CLARK: All in favor say aye.  
25 (Council members respond aye.)

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1 MR. CLARK: Oppose.  
2 (No response.)  
3 MR. CLARK: Thank you. Okay. Rob, City Managers  
4 report.  
5 MR. HILLARD: I have nothing on my report tonight.  
6 I am here to answer any questions that you have though.  
7 MR. CLARK: Okay. Petition and public comment, if  
8 we have anyone out there that wants to address the City  
9 Council other than on the couple of the special meeting  
10 things, which would be the wastewater treatment plant and also  
11 the proposed City budget. You can address us at that time.  
12 If you have something else, now is your chance to address us.  
13 Okay. We're going to move right along on the agenda  
14 to see, which is included in there the special public  
15 hearings. I'd like to get those -- get those out of the way.  
16 So first thing we're going to is move to C, under hearings,  
17 which is proposed wastewater treatment plant upgrades through  
18 the Michigan Department of Transportation, Environmental  
19 Quality Clean Air Water State Revolving Fund Program. Public  
20 hearing at 7:00. We're going to start the meeting at exactly  
21 7:03. That meeting is called to order.  
22 Rob, do you want to turn it over to Doug? What do  
23 you want to do on that?  
24 MR. SEWEERS: Sure. Trevor Wagenmaker, our engineer  
25 from Hubbell, Roth, Clark, who will have a presentation on the

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1 project plan. And himself or myself are available to answer  
2 any questions.  
3 MR. WAGONMAKER: Thank you. I am Trevor Wagenmaker.  
4 We have a Power Point here that we put together and just to  
5 update the way the SR program works. We have a 30 day period  
6 for public comment. We made project plans available of which  
7 I have two copies here on the end of the table. This is the  
8 updated plan, because we have received some comments. So  
9 after the 30 day period is over, we have public hearing.  
10 Anybody else wants to chime in, today is the chance.  
11 So I am just going to go through the outline of the  
12 plan. I am not going to take up hopefully much time. There's  
13 probably, I don't know, 15 or 20 slides, but I will try to go  
14 through them relatively quickly, because most of you here are  
15 familiar with it. And certainly if there is any public that  
16 has questions as we go -- well, at the end we will have an  
17 opportunity.  
18 Doug introduced me. I am with Hubbell Roth Clark.  
19 The reason for the plan, an S2 Grant is available from the  
20 State to pay for 90 percent of the planned costs, which is  
21 what we just completed. And the plan itself is required to  
22 make application to the State for revolving loan fund.  
23 Current loan rate is about two and a half percent for  
24 qualifying projects, which the plan and the one currently we  
25 are working on will qualify for that. So this is for future

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1 projects. This is not one we have built or are about to  
2 build. These are ones we are planning to build in the future  
3 for the potentially next ten to twenty years.  
4 The deadline here is July 1st, so we are ahead of  
5 the game as far as getting this to the State.  
6 The background. The plant was originally built in  
7 the '70s. There's been several upgrades over the years with  
8 the one most recent one in 2010 is quite a significant  
9 project. 2012 we are starting improvements here in a few  
10 months on tank three. Which was -- which was a carryover from  
11 the 2010 project. It was part of that project plan actually.  
12 It just wasn't implemented at that time.  
13 Wastewater plant currently serves the City as well  
14 as some portions of the township. The septage receiving  
15 station, of which we will be talking about quite a bit, covers  
16 all of Allegan County and portions of adjacent counties as  
17 well, currently receives about 90 percent of the septage  
18 pumped in Allegan County. That is just the study area map.  
19 You can see dash lines there represent your service area,  
20 which encompasses the City plus some areas outside of the  
21 City. That is the septage map. You can see there there is a  
22 15-mile and 25-mile radius which went into affect at different  
23 times. And that is following State guideline as far as  
24 septage haulers bringing their septage to the facility. Other  
25 haulers, as I understand it even outside of that, potentially

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1 bringing their septage to the facility because the economics  
2 make sense for them.  
3 Existing wastewater treatment. We have sewer pump  
4 station preliminary treatment at plant. Secondary treatment  
5 at the plant disinfection with ultraviolet disinfection and  
6 then we did in 2010 construct the first septage receiving  
7 station. And as you note there, it is being utilized far more  
8 than expected. There is a wastewater location map you see  
9 there right on the bend of the river. On the left of that  
10 picture there is the septage receiving station, it was  
11 constructed in 2010. The trucks drive around, they unload at  
12 that station, there is a hose for them, there is a control  
13 panel that they swipe a card and they can automatically get --  
14 city can automatically get their information for billing and  
15 other purposes.  
16 So the need for the project, which following project  
17 guidelines we have to establish a need in order for the State  
18 to fund it. Currently the septage station is operated over  
19 what it was intended for capacity and the wait time for  
20 unloading the septage is increasing. So you can get back ups  
21 of multiple trucks at any given time.  
22 Another component of the project is U.S.  
23 disinfection system, when it was built in 2010, we built one  
24 channel for that so all the flow goes through that and just  
25 for cost savings and time there was no building put over it to

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1 protect it from the weather or for maintenance, which is  
2 typical in this climate. But time and financially that wasn't  
3 included in that project.  
4 Major project completed in 2009 or 2010 upgraded  
5 many processes of the plant. Again there were several  
6 projects that weren't done, among them were biosolids handling  
7 equipment we will talk about here in a little bit. Again, the  
8 State wants us to look at a 20 year plan. So in the next 20  
9 years, thinking about all the things you could do with the  
10 plant that you may want to get funded through this project or  
11 program. And one of the things the program will not fund is  
12 expansion and capacity. If for some reason you have a lot of  
13 flow from outside of the City limits that you agree to take  
14 in, it meant you had to double your plant capacity. This  
15 program is not for that. This is more upgrading to your  
16 existing service area, and then continuing to make  
17 improvements to the equipment as they fail or as they need  
18 more redundancy. So the Phase One projects we have identified  
19 are construction of second receiving station for septage and  
20 addition of a second channel for ultraviolet disinfection  
21 equipment with a building covered for both channels for  
22 maintenance activity.  
23 We have to go through a process of looking at  
24 alternatives. One of the alternatives is, well, you don't do  
25 anything. What if we don't do anything. Then the

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1 consequences of that is we would not have redundancy of  
2 equipment. We would not have the lack -- we have lack of  
3 redundancy, because we do not have a second receiving station  
4 or a second UV channel which would hinder the operation of the  
5 plant. So upgrading the system is the alternative that we,  
6 you know, primarily examined, which is constructing a second  
7 septage receiving station and constructing second channel for  
8 UV disinfection and putting a building over it.  
9 That alternative was considered the best alternative  
10 as it is the only one that improves the plant operation and  
11 provides required redundancy. There is a plan -- site plan  
12 showing the improvements not only Phase One, we also have  
13 Phase Two in the proect plan, which are future potential  
14 projects. And we have to include them if you ever want to get  
15 funding. Not necessarily you are going to build them.  
16 The one at the top there, tank cover, we last summer  
17 there was some odor issues with some of the sludge operations  
18 and so in the future, if that continues, you could put in an  
19 odor control system basically covering open tanks and putting  
20 a venting system so you treat that air. So that is a  
21 potential project in the future.  
22 Another potential project is relocating sludge pump  
23 right now closer to the sludge tanks to improve the operation.  
24 Another project towards the bottom of the sheet  
25 there is a sludge thickening and sludge mixing system on

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1 existing tank. And again, that would just be to improve the  
2 operation of the system long term.  
3 Now, you are getting more septage and even the  
4 loadings from Perrigo which are increasing the organic  
5 loadings, you are generating a lot more sludge. And so just  
6 more efficiently dealing with that in the future. If it's  
7 deemed necessary, those are projects that can be added.  
8 Septage receiving station. We are planning on  
9 building a new one next to the existing to alleviate wait time  
10 for septage haulers, increasing revenue for the City that it  
11 earns from accepting that. Because right now, it is a  
12 significant revenue stream for the City to receive septage.  
13 So you will provide redundancy, because the one station you  
14 have eventually it breaks down, it is mechanical equipment and  
15 it is in quite a harsh duty with the septage it screens, the  
16 septage it meters, and so eventually it does breakdown.  
17 Having a second station allows you to keep in business. And  
18 you know in the meantime it allows you to get people in and  
19 out of the plant faster. So it increases the service life of  
20 the equipment as it says at the bottom there.  
21 UV disinfection. Looking at constructing a second  
22 treatment channel adjacent to the existing, which it is very  
23 easy to do that. There the old chlorine tank is still there.  
24 We only used half of it last time, we use the other half, we  
25 cover it with a building so you can have maintenance

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1 activities in inclement weather.  
2 Future projects over the next twenty years, as I  
3 mentioned on the site plan. Mixing improvements, sludge  
4 storage improvements, mechanical sludge thickener, locating --  
5 relocating sludge pump and sludge storage odor control  
6 equipment. So they are all focused on sludge. Again the  
7 liquid site of the plant for all we know you may need  
8 improvements in the future related to capacity if something  
9 happened beyond your service area. This program wouldn't fund  
10 that. This program just focuses on your existing service area  
11 needs. It is a little hard to read that project cost. I will  
12 go to the next screen, it is a little easier.  
13 But basically the residential cost for a typical  
14 user, which is how we like to express this, if you say the  
15 total estimated yearly coast for this Phase One project which  
16 is a septage station and the UV, it's \$45,000 a year which  
17 includes paying back the bonds. But it also includes the  
18 savings you will get for the extra revenue you will get for  
19 having the second station. The estimated monthly cost to a  
20 user is 86 cents based on a normal usage. So again we offset  
21 the cost by the revenue earned. Right now your residential  
22 customer based approximately 42 percent of the average sales  
23 and there are about 1,850 residential accounts in the system.  
24 At this point my understanding is there is no intention to  
25 raise rates for that project given your existing rate

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1 structure and your existing revenue base. But we have to show  
2 for the purpose of this plan what the cost would be to the  
3 user just for the basic system that we are putting in.  
4 As far as the impacts. Short term positive, it  
5 creates jobs obviously during construction. Negative impacts,  
6 you know, there is some disruption to the traffic of the  
7 plant, but that is -- it is strictly confined to the plant  
8 site.  
9 Long term impacts. Increased volume of septage that  
10 can be received and treated which provides protection to the  
11 Kalamazoo River and also disinfection of having additional  
12 capacity, disinfection redundancy protects the river.  
13 Negative impacts. There's none anticipated.  
14 Irreversible impacts. Again this is just a category  
15 we have to address in the plan you can see in possible  
16 construction damage or accidents, resources including public  
17 capital, energy, non-salvageable materials, that is a category  
18 we have to address in the plan. Mitigation of  
19 construction-related impacts, we establish guidelines for  
20 things like soil erosion control. Long term impacts, it is  
21 assumed the short-term litigation techniques will avoid  
22 long-term impacts during construction.  
23 The schedule. So we are hoping to submit the plan  
24 if everything goes well tonight, submit it to the State very  
25 quickly and apply for a S2 grant for Phase One design costs so

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1 that the design can start. Again, the design costs are also  
2 funded in a 90 percent grant.  
3 Approval of plans and specs could be done by next  
4 March, so that you could bid this project next April and begin  
5 construction of this project next June. So it is quite a long  
6 time frame to have, but with the State's schedule with their  
7 funding, we have to get going now on it.  
8 We made some minor changes to the project plan that  
9 was available for public review based on some comments we  
10 received.  
11 As far as the need for the project, the State  
12 initially questioned the need for second receiving station and  
13 they questioned whether or not they could fund that. So we  
14 had to provide them some additional information in which case  
15 they accepted it. We've also added to the plan regarding  
16 typical users average sewer billings and impacts to that. So  
17 relatively minor additions to the plan.  
18 So that is what I have. If there is any questions?  
19 Just for the record there we do have a sign-in sheet if any  
20 public has questions you are welcome to ask them and sign in  
21 and we can give you copies of the responses, DEQ will mail it  
22 out to you.  
23 MR. CLARK: City Council, any questions?  
24 MR. TRIPP: I have one.  
25 MR. WAGENMAKER: Yes, sir.

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1 MR. TRIPP: If indeed we are over capacity we can't  
2 handle everything, it is showing how businesses are doing, we  
3 need another one, we are also saying that the majority -- not  
4 the majority, but a great deal of the sludge we are servicing  
5 pretty much all of Allegan County. And if I am looking at the  
6 numbers, in essence we are saying we are looking at the  
7 residents to pay an extra 86 cents a month for this service.  
8 I guess my logic is why can't that be incorporated in the  
9 price of the sludge, so that the people that are utilizing  
10 that facility are paying the extra \$43,000 a year and we don't  
11 have to pass anything on to the residents?  
12 MR. WAGENMAKER: Right. Well, there is a couple  
13 answers. There is two components to the project. The UV  
14 component isn't related to the septage at all. So that cost  
15 wouldn't be borne, you know, by the septage haulers per se.  
16 As far as the actual -- if I went back to the slide which  
17 showed the amount of estimated yearly cost. That \$43,000, as  
18 I recall, about \$30,000 -- it is actually -- that is the debt  
19 repayment, but the debt repayment is more like \$70,000. We  
20 are reducing that because of the additional revenue you are  
21 bringing in from the septage haulers. So they are actually  
22 bringing in revenue to pay for this.  
23 Now, you got to also think about it in terms of the  
24 fact that the City is getting a second one of these, you  
25 really are providing yourselves a benefit, because the one you

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1 have, it will wear out and you will have to replace that  
2 equipment anyway. And that is built into the cost of the  
3 septage haulers pay. So by the State funding a second one,  
4 you know, you're effectively extending the life of that one  
5 because you are able to use the second one.  
6 So it is a win-win in the sense that you reduce the  
7 wait time, you bring in more revenue, and by the way, you  
8 extend the life of the capital you have already purchased. So  
9 the way the formulas are for the costs that the State has us  
10 do in the project plans, it is pretty cut and dried in terms  
11 of how we have to present it. So we have to represent it as a  
12 user cost. The reality is if you went into how much benefit  
13 do you get from not extending the life of your existing  
14 station -- and by the way, we are pretty conservative on how  
15 much additional revenue you can bring in with this. I mean  
16 already you have gone way beyond what we estimated in the  
17 first phase for the revenue you have brought in. So for all  
18 we know, you are going to bring in more revenue and there is  
19 going to be zero cost. If that makes sense.  
20 But the way we are presenting it, kind of on a worst  
21 case scenario is, okay, if you didn't get much more septage  
22 coming in, you know, you are still -- there is some cost on  
23 the residential base because they are paying it back. If that  
24 makes sense.  
25 MR. CLARK: Okay. I understand. Anyone else?

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1 Move on to resolutions.  
2 MR. DAY: Public comment.  
3 MS. MCDANIEL: Make sure there is no other public  
4 comment and if not --  
5 MR. DAY: If not, make a motion to close the public  
6 hearing.  
7 MR. CLARK: Recommendations or resolutions during  
8 that public hearing, we will close and go on.  
9 MR. TRIPP: Okay second.  
10 MS. MCDANIEL: Okay.  
11 MR. CLARK: All in favor say aye.  
12 (Council responds aye.)  
13 MR. CLARK: Opposed?  
14 (No response.)  
15 MR. HILLARD: Move on to resolutions now. Keep  
16 going under hearings is 1 A, which is resolution 12.28  
17 adapting a final budget plan for wastewater system  
18 improvements and designing an authorized project  
19 representative. Staff recommends approval of this.  
20 Rob?  
21 MR. HILLARD: The resolution itself is a State  
22 requirement. The action item is that by adopting this  
23 resolution the City of Allegan formally adopts the project  
24 plan and agrees to implement the select alternative, which is  
25 the upgrade to the system.

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1 Be it further resolved that the wastewater plant  
 2 superintendent position currently held by Mr. Seweers as the  
 3 designee, is authorized to oversee all activities, the project  
 4 plan update, da-da-da-da-da. That is what the resolution  
 5 includes. Anything else to add on top of that, Doug or  
 6 Trevor?  
 7 MR. SEWEERS: No.  
 8 MR. CLARK: Discussion? Seek motion for approval.  
 9 MR. DAY: Motion to approve.  
 10 MR. TRIPP: Approve.  
 11 MR. CLARK: All in favor say aye.  
 12 (Council responds aye.)  
 13 MR. CLARK: Opposed?  
 14 (No response.)  
 15 MR. CLARK: Resolution 12.29 authorizing the S2  
 16 grant agreement. Staff recommends approval of this. Rob?  
 17 MR. HILLARD: It is a 90-ton grant and authorizes  
 18 the engineering to pursue the project as outlined within the  
 19 project plan, the alternative. What did we call it?  
 20 MR. SEWEERS: Phase One.  
 21 MR. HILLARD: Alternative Phase One. This is the  
 22 actual applying for the grant portion.  
 23 MR. CLARK: Discussion?  
 24 MR. DAY: Motion to approve.  
 25 MS. MCDANIEL: Support.

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1 MR. DAY: Motion to approve.  
 2 MS. MCDANIEL: Second.  
 3 MR. CLARK: All in favor say aye.  
 4 (Council responds aye.)  
 5 MR. CLARK: Opposed?  
 6 (No response.)  
 7 MR. CLARK: Thank you. Okay. Next would be another  
 8 public hearing supposed to start at 7:10, it is approximately  
 9 7:20.  
 10 (End of hearing.)  
 11 (At 7:23 p.m. deposition concluded.)  
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1 MR. CLARK: All in favor say aye.  
 2 (Council responds aye.)  
 3 MR. CLARK: Opposed?  
 4 (No response.)  
 5 MR. CLARK: Thank you. Request for services  
 6 received from HRC Grand Rapids, Michigan for design  
 7 engineering system for a second septage receiving station at  
 8 the wastewater treatment plant in the amount of \$89,500.  
 9 Staff recommends. Approval. Rob?  
 10 MR. HILLARD: That also includes the UV channel  
 11 design as well as the design component for engineering Phase  
 12 One. This would be implemented if in fact we do receive the  
 13 S2 grant.  
 14 MR. SEWEERS: Correct.  
 15 MR. HILLARD: Which we will know in the next month  
 16 or two.  
 17 MR. SEWEERS: Deadline for the application is end of  
 18 June. Money is awarded first of October. We should know  
 19 roughly MID August to September if money is available and if  
 20 we will be awarded money. So yeah, you will.  
 21 MS. HILL: So implementation of approval of plan.  
 22 MR. SEWEERS: Part of approval, HRC proposal now you  
 23 have to have the proposal engineer designated for the S2  
 24 grant.  
 25 MR. CLARK: Discussion?

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1 \* \* \* \*  
 2 CERTIFICATE  
 3 E OF MICHIGAN)  
 4 TY OF BARRY )  
 5 I certify that this transcript consisting of 20  
 6 pages, is a complete, true and correct record of the public  
 7 hearing held on May 14, 2012.  
 8  
 9 27, 2012  
 10  
 11 \_\_\_\_\_  
 12 Signature  
 13  
 14 MARY B. HOWLAND, CSR0078, CM  
 15 141 East Michigan, Suite 601  
 16 Kalamazoo, Michigan 49007  
 17 1-800-878-8750  
 18 My commission expires:  
 19 5/12/2013  
 20  
 21  
 22  
 23  
 24  
 25

	12:14;13:1	16:18;17:3	<b>breakdown (1)</b>	10:23
<b>\$</b>	<b>agenda (2)</b>	<b>authorizes (1)</b>	10:16	<b>CITY (21)</b>
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<b>\$70,000 (1)</b>	<b>ahead (1)</b>	<b>average (2)</b>	15:17	24;4:1,3,7,25;5:18;
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**CWSRF PROJECT PLAN  
WASTEWATER TREATMENT PLANT UPGRADES**

**IN**

*City of Allegan*

**APPENDIX G  
DISCHARGE DATA FORM**

## Project Priority List (PPL) Scoring Data Form

Please complete the information requested below and indicate the page numbers or appendices in the project plan which verify the information provided. Enter "N/A" if information is not pertinent.

PROJECT APPLICANT: City of Allegan

PROJECT LOCATION: City of Allegan, Allegan County, MI

### 1. Water Pollution Severity Data (0 to 500 points)

- page II-7      1. Pre-project conditions, including wastewater collection/treatment deficiencies and water quality problems currently occurring.
- page III-2      2. Post-project conditions, including proposed facilities and water quality improvements.

Does the existing facility (or facilities) being upgraded, expanded, or replaced by this project file either surface water or groundwater discharge monitoring reports?

YES, Proceed to Section C    or     NO, Proceed to Section A or B

Note: If a project with either a surface water or groundwater discharge is also causing a nitrate problem in the groundwater (i.e., leaky lagoons), please be sure to complete Item B.5. Projects may receive points for both surface water and groundwater contamination.

#### A. Data on Existing Surface Water Discharge

- page II-5      1. Discharge type:
- Continuous
  - Seasonal
  - Intermittent (*if CSO, or SSO, please complete Sections E and F below*)
- page \_\_\_\_\_ 2. **Flow.** For facilities that discharge to regional treatment plants and do not file surface water discharge monitoring reports, provide the average daily metered flow (*identify whether units are MGD or MGY*)
- page II-5      3. Identify Receiving Water and Type Kalamazoo River
- page \_\_\_\_\_ 4. Location (*town, range, and section*) \_\_\_\_\_
- page \_\_\_\_\_ 5. Existing Treatment
- Untreated       Secondary       Combined Sewer Overflow       Tertiary
  - Primary (including septic systems with direct surface water discharge)
- page \_\_\_\_\_ 6. Existing Disinfection Process:
- None
  - Chlorination
  - Alternative Technology (*specify type*) Ultra Violet

#### B. Data on Existing Groundwater Discharge

- page \_\_\_\_\_ 1. Discharge Type:
- Continuous
  - Seasonal
  - Intermittent

- page \_\_\_\_\_
- page \_\_\_\_\_
- page \_\_\_\_\_
- page \_\_\_\_\_
2. **Flow.** For unsewered areas, flow should be calculated using a figure of 70 gpcd. For facilities that do not file groundwater discharge monitoring reports, provide the existing metered flow figure (*identify whether units are MGD or MG Y*) \_\_\_\_\_
  3. **Location** (*provide town, range, and section*) \_\_\_\_\_
  4. **Existing Treatment**  
 Untreated       Primary (including septic with tile field)       Secondary
  5. **Nitrate contamination of public or private wells caused by the discharge of effluent/waste from the treatment system or systems**  
 Public well(s) in vicinity contains nitrates > 10 mg/L (100 points)  
 Private well(s) in vicinity contains nitrates > 10 mg/L (75 points)  
 Monitoring well(s) in vicinity contains nitrates > 10 mg/L (50 points)\*  
 No evidence of nitrate contamination in local wells

\*Note: If only the total inorganic nitrogen ("TIN" ammonia + nitrite + nitrate) concentration is available, a separate sampling and nitrate analysis should be performed to document the nitrate concentration.

**C. Information on Proposed Surface Water/Groundwater Discharge**  
*(Attach additional pages if necessary; a copy of the effluent limits letter/permit table may suffice.)*

- page \_\_\_\_\_
1. **Discharge Type:**  
 Continuous  
 Seasonal      Identify all discharge points and receiving waters.
  2. **Average Design Flow** (*identify units as MGD or MG Y*) \_\_\_\_\_
  3. **Identify receiving water for a surface water discharge** \_\_\_\_\_
  4. **Location** (*town, range, and section*) \_\_\_\_\_
  5. **List Effluent Limits:**  
 Minimum Dissolved Oxygen \_\_\_\_\_  
 CBOD<sub>5</sub> \_\_\_\_\_  
 Ammonia \_\_\_\_\_  
 Phosphorus \_\_\_\_\_  
 Total Inorganic Nitrogen (TIN) (from Groundwater Permit) \_\_\_\_\_
  6. **Will the proposed facility address documented total residual chlorine (TRC) violations?**  
 YES, proceed to 7       NO
  7. **Will the proposed disinfection improvements involve either dechlorination or an alternative disinfection technology (e.g. ultraviolet disinfection, ozonation) that eliminates the use of chlorine?**  
 YES       NO

**D. Data on Existing (Pre-Project) CSO and SSO Discharges**

Information must be provided for each outfall directly associated with the proposed correction project.

Outfall #	Receiving Stream	Location* Town/Range/Section	Estimated Overflow Volume (MG) for 1-year, 1-hour storm event
001			

Outfall #	Estimated Overflow Duration (Hours)	Estimated Annual Overflow Volume (MG)	Tributary Residential Population
001			

\* A map showing the discharge locations by number is highly preferable and can be attached to this sheet.

**E. Data on Future (Post-Project) CSO and SSO Discharges**

List each outfall from Section E. For outfalls which will cease to function as combined sewer outfalls upon the completion of this project, simply enter "Eliminated" under Receiving Stream. List any new outfalls (e.g., for a retention/treatment basin) created by this project and include its associated discharge data.

Outfall #	Receiving Stream	Location* Town/Range/Section	Estimated Overflow Volume (MG) for 1-year, 1-hour storm event
001			

Outfall #	Estimated Overflow Duration (Hours)	Estimated Annual Overflow Volume (MG)	Detention Time Prior to Discharge for 1-year, 1-hour storm event
001			

\* A map showing the discharge locations by number is highly preferable and can be attached to this sheet.

**SRF/SWQIF Project Nos.** \_\_\_\_\_

Please attach additional pages if necessary.

**2. Enforcement Actions (0 or 300 points)**

Is the proposed project necessary for compliance with a fixed-date construction schedule established by an order, permit, or other document issued by the DEQ, or entered as part of an action brought by the state against a municipality?

YES, Proceed to Item A or  NO, Proceed to Section 3

page \_\_\_\_\_ A. Copy of the enforcement action, order, permit or other DEQ document.

**3. Population Data (30 to 100 points)**

page \_\_\_\_\_ A. Existing residential population to be served by the proposed project: 4,000

page \_\_\_\_\_ B. Existing population of the POTW service area: 4,000

**4. Dilution Ratio (25 to 100 points)**

*The data for the dilution ratio scoring category is collected from several questions in the Water Quality Severity Data section of this document and information in DEQ files, therefore, **no action is required from the applicant for the completion of this item of the PPL Scoring Data Form.** The primary purpose of this section is to clarify and document the figures utilized in the dilution ratio calculation. Please note that for new collection system projects, the existing discharge is calculated by multiplying the residential population to be served by the proposed project by 70 gallons per capita per day (gpcd). For projects with existing Groundwater and NPDES permits, the Discharge Monitoring Report (DMR) data will be obtained by the DEQ staff. For projects that discharge to regional facilities and do not have individual discharge permits, the existing discharge will be based on the average daily metered flow.*

**The following information will be completed by DEQ staff:**

The dilution ratio is \_\_\_\_\_ and was calculated from \_\_\_\_\_/\_\_\_\_\_.

(Specify the units for both the numerator and denominator).

**5. Failing On-Site Septic Systems (0 or 100 points)**

Does the project propose to correct failing on-site septic systems that have no suitable replacement?

YES, Proceed to Item A or  NO, Proceed to Section 6

page \_\_\_\_\_ A. Documentation of site limitations that prevent septic system replacement.

**6. Septage Receiving/Treatment Facilities (0 or 100 points)**

Does the project propose to construct, upgrade, or expand a septage receiving or treatment facility?

YES, Proceed to Item A or  NO

page III-1 A. Description of the proposed septage facility improvements.