City of North Vernon, Indiana

Combined Sewer Overflow Operational Plan

December, 1996

Revised: January 2016

LOCHMUELLER GROUP

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We Protect Hoosiers and Our Environment.
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Michael R. Pence
Governor

Carol S. Comer
Commissioner

VIA ELECTRONIC MAIL

March 21, 2016

The Honorable Michael Ochs, Mayor
City of North Vernon
143 East Walnut Street
North Vernon, Indiana 47265

Dear Mayor Ochs:

RE: CSOOP Update Review
City of North Vernon
NPDES Permit No. IN0020451
Jennings County

The Indiana Department of Environmental Management (IDEM) Office of Water Quality (OWQ) has completed a review of the update to the Combined Sewer Overflow Operational Plan (CSOOP) originally submitted on March 5, 2015, and revised on February 15, 2016, and by this letter, grants approval of the updates to the CSOOP.

The City of North Vernon shall maintain a current CSOOP, updated to reflect any new or revised State and/or Federal CSO regulations, policy and guidance material, as well as system modifications on file at the Publicly Owned Treatment Works (POTW) and also inform the OWQ of any significant changes. The CSOOP is a requirement of Attachment A of the National Pollutant Discharge Elimination System (NPDES) Permit No. IN0020451.

Please contact Colin Shumake at 317-234-9558 or by email at cshumake@idem.in.gov if you have questions regarding this CSOOP approval.

Sincerely,

Jerry Dittmer, Chief
Municipal NPDES Permits Section
Office of Water Quality

cc: Russell Vaught, Wastewater Superintendent
Kevin Hotz, IDEM Wastewater Inspector
Mike Gangstad, P.E., Lochmueller Group, Inc.
IDEM SERO

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1.1 Introduction

Combined sewers in the City's collection system were designed to convey wastewater and stormwater through a single pipe to the wastewater treatment plant. During periods of wet weather runoff, water can enter the collection system through various means and then overflow through a discharge pipe causing the combination of wastewater and stormwater to be discharged to the Vernon Fork of the Muscatatuck River. Because some of these discharges may be inadequately treated, the combined sewer overflows (CSOs) can be a source of contamination to receiving waters.

The options for addressing these CSOs may involve significant cost and significant managerial controls. Sewer separation is not necessarily a viable option because of economics and the potential necessity for local residents to implement costly and unwanted plumbing changes on private property. In addition, the construction of storage and/or treatment facilities for overflow volumes can be expensive and beyond local financing capabilities.

However, North Vernon must address the CSOs in its collection system to not only comply with current federal and state requirements, but more importantly, to preserve and protect the local environment. The elected officials of North Vernon have committed to addressing CSOs and to abate through proper control and management any adverse effects of overflows from the collection system to the local environment.

In response to enforcement actions initiated by US EPA and the IDEM, and based on recommendations from consultants to the City, all dry weather bypassing and overflows were eliminated by bringing the wastewater treatment plant into compliance through proper operation. Corrective maintenance activities were initiated at the treatment plant and at lift stations in the collection system. Regular and preventive maintenance activities were initiated in the collection system and at the treatment plant during 1995. In addition, equipment modifications were made in the collection system and at the plant to improve efficiencies and to insure continued compliance with permit limits.

North Vernon's Wastewater Department recognizes that the operation and maintenance of the complete collection and treatment system must be based on a sound understanding of the system and well thought out operating procedures for the various components. Standard Operating Procedures (SOPs) for the treatment components have been developed and will continue to be revised and implemented. SOPs for various units in the collection system have also been developed and implemented. The Wastewater Department has developed this Combined Sewer Overflow Operational Plan (CSOOP) to better manage and operate the combined sewer portion of the collection system. This document is based on the current understanding of existing facilities to maximize the reduction of combined sewer overflow events.

This document was developed by examining the major components of the collection and treatment system; by reviewing and analyzing the management and administration of the system; and by reviewing and analyzing the maintenance of the system. Opportunities for reducing inflow, for temporarily storing wet weather flows, and/or increasing treatment capabilities were evaluated in each area. This Plan, accordingly, focuses on the capture and treatment of the maximum volume of wet weather flows. It also provides a discussion and schedule of activities to finalize implementation of the LTCP which will accomplish this.

The major objective of developing and implementing this Plan is to reduce pollutant discharges. The development of the Plan has identified some opportunities for in-line storage of wet weather flows and capabilities at the treatment plant to store and treat excess wet weather flows, especially with the implementation of the CSO LTCP.

In keeping with the minimum control requiring maximization of the wastewater treatment, North Vernon completed a headworks replacement project in 2012. These units represented decades old technology that was found to be in constant need of repair, as well as restricted flow to the secondary treatment units. The Headworks Replacement Project replaced the decades old headworks system with new technology. The completed project provides the operators of the plant the ability and the flexibility to accurately maximize and manage the varying flows entering the facility.

The LTCP recommended improvements for the collection system to prevent the current surcharge problem at four (4) lift stations throughout the city consisting of improvements to the existing pumps and force mains as well as pipe replacements (completed 2014). The recommended plan for the WWTP includes a Mechanical Wet Weather Treatment unit – High Rate Clarifier. This option will completely capture the "First Flush" and provide primary treatment and disinfection up to and including the ten year, one hour design storm flows. Implementation will result in no overflows from wet weather events without undergoing wet weather treatment processes below the ten year, one hour flow.

This Plan was originally developed by the North Vernon Wastewater Department with assistance from Millennium Environmental and Schwing Environmental. The Plan was updated in 2015 by the North Vernon Wastewater Department with assistance from Lochmueller Group, Inc.

1.2 Historical Activities

The North Vernon Wastewater Collection System was originally built in the 1930s with the construction of the "A" line and the sewers tributary to it. In the late 1950s, the City expanded both its collection and treatment systems by constructing approximately 22,500 linear feet of 12 inch to 36 inch interceptor sewer, two (2) new lift stations, a new "Main Intercepting Chamber", and a new 24 inch interceptor sewer ("Y" line). There were seven (7) overflows constructed: one (1) at each of the two main lift stations (Long St., Northeast), five (5) in the collection system, including the one (1) at the "Main Intercepting Chamber" and one (1) at the treatment plant. All of the new sewers built during this construction project were designed and constructed as combined sewers.

In the late 1970s, the City through the Construction Grants Program expanded and upgraded its treatment and collection system. Work was done to remove the overflow structures in the collection system by constructing storm sewers to eliminate the stormwater inlets connected to the existing combined sewers. The "N" line was completely replaced and increased in size to handle the discharge from a new 1,400 gpm lift station. A section of the "F" line was abandoned and the flow diverted to the new 1,400 gpm lift station. The Main Intercepting Chamber was modified to eliminate the overflow to the river by the installation of a parallel 24 inch relief sewer from this chamber to the treatment facility. A new stormwater pump station and 1,000,000 gallon equalization basin was constructed to handle a portion of the excess wet weather flow. An overflow from the stormwater pump station's wet well was also constructed and is now designated as CSO 002. By 1996 all CSOs, except Outfall 002, had been eliminated.

In 1997, North Vernon completed wastewater treatment plant (WWTP) upgrades to improve plant performance during both dry and wet weather. The upgrades that were constructed included: two (2) 62' diameter secondary clarifiers; an intermediate pump station; coarse bubble diffusion was replaced with fine bubble diffusion; anaerobic digestion was converted to aerobic digestion; new fine screen; upgraded grit removal system; WWTP and CSO discharge were separated; EQ basin overflow was re-routed from the river to the WWTP headworks; and a belt filter press was added. There were also the following improvements to the collection system in 1997: Greenbriar CSO (Outfall 005) was eliminated; and the "H"-line was repaired and portions were lined. In 2000, North Vernon eliminated four (4) lift stations and sent all these wastewater flows to the Southwest Lift Station. The most recent action taken by North Vernon officials to address CSO issues was the commencement of implementation of its CSO Long Term Control Plan (LTCP) in the early fall of 2012.

1.3 Scope

The North Vernon Utility Service Board has recognized the importance of a well maintained and managed wastewater system. The Wastewater Department has been given a mandate to insure that the entire wastewater system is properly managed and maintained to guarantee public health and environmental protection and regulatory compliance. Since July of 1994, the City of North Vernon has been rededicated to correcting past problems at the wastewater treatment plant and in the collection system.

The North Vernon Wastewater Department is responsible for more than forty (40) miles of separate and combined sewers; twenty (20) lift stations; and a wastewater treatment plant (WWTP) which provides secondary treatment before the effluent is discharged to the Vernon Fork of the Muscatatuck River. The WWTP was upgraded in 1996; the treatment plant is able to treat increased flows during dry weather (increased average daily design flow from 1.75 MGD to 2.2 MGD) and during wet weather events (increased peak design flow to 4.76 MGD). In addition, operational changes have made it possible for the proper operation of the EQ basin and storage of up to 1 MG of wet weather flows. All dry weather overflows and bypassing of the EQ basin have been eliminated. Furthermore, the EQ basin overflow pipe has been physically disconnected from the effluent line so that all flow from the EQ basin must now receive full treatment through the plant.

The collection system component of the North Vernon wastewater system has, over the past fifty (50) years, been constructed in phases that were not always well planned nor well documented. However, the inconsistency in past construction practices is now being corrected by the Utility Service Board's adoption (in 1995) and the Wastewater Department's enforcement of "*Construction Standards*". In addition, records are not clear about how many combined sewer overflows actually existed in the system. The Wastewater Department, works to correct problems at the treatment plant and continues to study and correct problems within the collection system. Maintenance and repair protocols have been established resulting in improved management of the collection system and elimination of overflows at lift stations. In 2015, only one (1) overflow in the North Vernon collection system, the CSO at the plant headworks (Outfall 002), remains.

The analysis of the wastewater system indicates several strengths - commitment of the City Utility Service Board; expanded treatment capacity; maximized storage of wet weather flows in the collection system; and improved collection system maintenance. However, several weaknesses in the system must be addressed

in the future - no additional storage capacity in the collection system (this was addressed at the Northeast Lift Station as a part of Phase I of the LTCP); the age of the collection system; and the lack of previous maintenance of the collection system.

The Wastewater Department has implemented the nine minimum controls (NMCs) suggested by US EPA and IDEM to control and reduce the frequency of CSO events. Work will continue to address the NMCs and incorporate the remaining actions as required by North Vernon's CSO LTCP.

Goals established for the Wastewater Department are:

1. Clean all sewers once every five (5) years as a part of the city's cleaning schedule.
2. Clean all sewer segments that pose repeated maintenance issues at least twice every year.
3. Inspect all catch basins annually and clean them once every two (2) years.
4. No activation of the CSO will occur as a result of wet weather events up to and including the "first flush".
5. CSO activation as a result of flows from wet weather events between the "first flush" and a ten year, one hour design storm intensity will receive the equivalent of primary treatment and disinfection.
6. CSO activation as a result of flows from wet weather events above a ten year, one hour design storm intensity will receive the treatment to the extent possible by facilities designed for lesser flows.
7. There will be no dry weather CSO activation.
8. No CSO activation will degrade the water quality of the receiving stream.

1.4 Existing Facilities

The North Vernon Wastewater Department operates and maintains a collection system which has approximately forty (40) miles of separate and combined sewers, two (2) major lift stations, and eighteen (18) minor lift stations to convey wastewater and stormwater flows to the wastewater treatment plant. A map depicting the collection system is included in Appendix G. The treatment plant provides secondary treatment with effluent polishing through sand filtration. North Vernon also provides wastewater treatment, by Agreement, to the Town of Vernon, Indiana, Muscatatuck Urban Training Center and Campbell Township Regional Sewer District. Copies of the Agreements are contained in Appendix A.

The collection system has eight (8) distinct subbasins – six (6) of which have combined sewers, serving approximately 60% of the collection system; and two (2) of which have separate sewers. The North Vernon wastewater collection system, with subbasins depicted are shown in Figure 1-1.

The three (3) combined sewer service areas (CSSAs) discharge into the old "Main Intercepting Chamber" then through two (2) 24 inch sewers to the treatment plant. Prior to September, 1996 there were three (3) overflow points within the system. In September, 1996 the overflow at the Northeast Lift Station (Outfall 003) was eliminated. In 1997 the Greenbriar CSO (Outfall 005) was eliminated. The overflow (CSO 002) located at the headworks of the wastewater treatment plant remains.

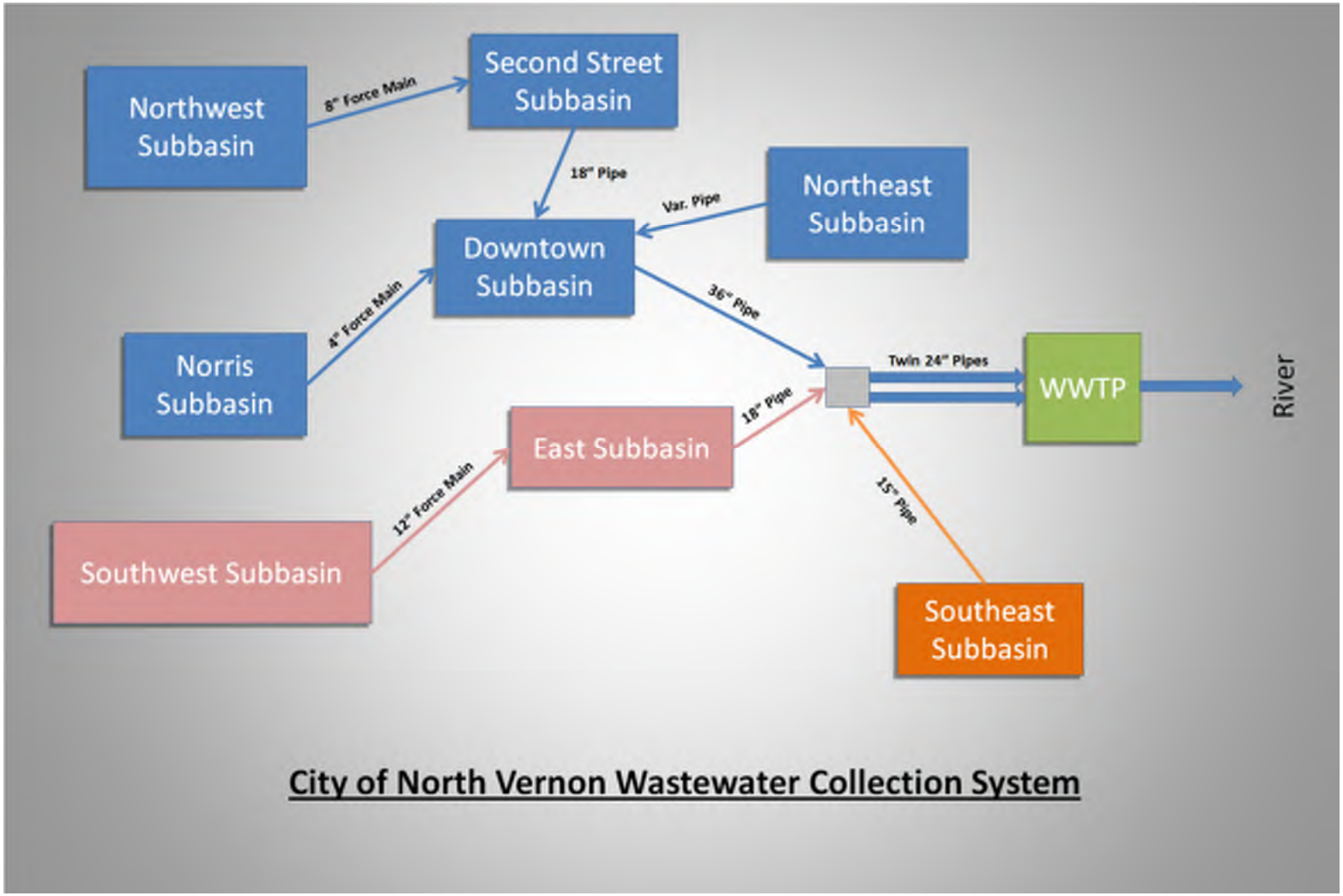

Figure 1-1 Sewer Sheds

1.5 Analysis of the Collection and Treatment System

The physical features of the collection and treatment system, the management and administration of the system, and the routine and preventive maintenance program for the system were reviewed and evaluated to understand limitations of the system and to determine opportunities for reducing CSOs. Modeling was performed to develop an accurate theoretical model with which to draw conclusions. Wet weather flow rates and volumes were determined using the EPA approved XP-SWMM modeling program. This model was developed using flow data collected using Flow Link Software from city personnel to calibrate the model. This flow data was gathered from July, 2010 to February, 2012.

1.5.1 Strengths

Based on the analysis and evaluation, the following collection and treatment system strengths were identified:

- The wastewater treatment plant was expanded in 1996 and early 1997 and has a peak treatment capacity of 4.76 MGD, which allows the treatment plant to process wet weather flows.
- The 1996-97 wastewater treatment plant upgrades provide for monitoring CSO quantity.
- The 1996-97 wastewater treatment plant upgrades provide a higher degree of reliability for treatment performance and a higher degree of flexibility for future treatment capability.
- The collection system storage capability is currently maximized by the city's operation and maintenance (O&M) program for sewers and lift stations which allow WWTP maximization prior to CSO activation.
- The Wastewater Department established an organized program to respond to customer complaints; clean sewers; and to identify and repair sewers requiring rehabilitation.
- The North Vernon City Utility Service Board has recognized the importance of wastewater system management and maintenance to insure that the City's infrastructure is properly operated, maintained and managed.
- The 2012 Headworks Replacement project replaced aged equipment that caused maintenance issues with new equipment that provides preliminary treatment and WWTP maximization.
- The 2014 completion of LTCP Phase I improvements which consisted of lift station and collection system improvements for delivery of all flows to the WWTP site.
- The implementation of the LTCP Phase II project which consists of a wet weather treatment facility at the WWTP will be completed in 2017. This project will allow for the equivalent of primary treatment and disinfection of flows between the "first flush" and up to and including the ten year, one hour design storm volume. The implementation of the CSO LTCP provides for the necessary treatment to meet water quality standards.
- The city has acquired the 5 surrounding acres of property around the wastewater treatment plant for the future growth of the system.

1.5.2 Weaknesses

The weaknesses in the collection and treatment system are:

- The collection system has little significant storage capacity. To help address this issue, 147,000 gallons of in-line storage was constructed adjacent to the Southwest Lift Station in 2014.

- The age of the combined sewers impacts the performance of the collection system;
- Inadequate documentation and "as built" records of in situ conditions of collection system sewers and appurtenances has caused problems in identifying and resolving problems. The city is doing its best to address this issue through its use of the "Think Map" GIS program.
- Inadequate design of force mains has reduced sewer life and caused failures in the collection system due to septicity and corrosion. Through the processes of televising, repair, manhole lining and odor control, North Vernon continues to address issues it finds in the aged collection system.

1.6 Plan Organization

The information and data collected for this Plan, the review and analysis of this information, and the conclusions are documented in the following sections.

- Section 2 - System Inventory
- Section 3 - Administrative Controls
- Section 4 - Maintenance Program
- Section 5 - Control Strategy
- Section 6 - Implementation Schedule

SECTION 2 - NORTH VERNON WASTEWATER SYSTEM

This Section describes the existing wastewater collection and treatment system and how it is intended to operate. System components are summarized and then described in detail in the major sections of this Section.

The City of North Vernon owns and operates a system of combined and separate sewers for the collection and transportation of wastewater and wet weather runoff to a treatment plant owned and operated by the City. The separate sewers comprise 38% while the combined sewers comprise the remaining 62% of the collection system. The combined sewers in the system collect and transport wastewater and wet weather runoff, whereas, the separate sewers collect and transport wastewater only. The combination of wastewater and wet weather runoff from the combined sewer service areas (CSSAs) may overflow and discharge, by design, at the one permitted combined sewer overflow (CSO) in the system during wet weather conditions. The permitted CSO discharges to the Vernon Fork of the Muscatatuck River. The sewer service areas, overflow point and sewer line designations are depicted in Figure 2.1 which provides a schematic of the complete collection system.

2.1 System Components Summary

2.1.1 Main Intercepting Chamber

As part of the 1950s expansion and improvement project, the City constructed a "Main Intercepting Chamber" located approximately 450 feet upstream of the treatment plant. The chamber's function was to limit the influent flow into the treatment plant during wet weather. All of the flow from the City enters this chamber through one of three trunk sewers ("A", "H", and "N" lines). The construction of the chamber limited the flow to a single 24 inch sewer ("Y" line) through the use of a weir in the chamber. When the flow reached a predetermined level, the excess flow would overflow into the 36 inch overflow line which discharged to the river.

In the late 1970's, the "Main Intercepting Chamber" was modified to eliminate the overflow weir and the discharge from the chamber to the 36 inch overflow sewer. In order to transport the additional flow, a second 24 inch sewer ("Z" line) was constructed.

2.1.2 "Y" and "Z" Lines

As mentioned above, modifications were made to the "Main Intercepting Chamber" to eliminate the 36 inch overflow by removing the overflow weir and sealing the outlet to the 36 inch overflow sewer line, and by installing a second 24 inch sewer, (the "Z" line). Under normal flow conditions, the "Y" line transports all of the flow from the "N" and "H" lines (the south section of the chamber) and the "Z" line transports all of the flow from the "A" line (the north section of the chamber). During wet weather conditions flow from either section of the chamber can overflow to the other section based on the water level in each section of the chamber. During wet weather, the flow to the treatment plant through the "Y" and "Z" lines is about equal.

2.1.3 Combined Sewer Service Areas

Three major trunk lines serve the City of North Vernon. Each of these trunk lines represents the major service areas within the City - the "A" line, collecting flows from the northern portion of North Vernon and the downtown area; the "H" line, serving the southern portion of North Vernon and the Town of Vernon; and the "N" line, serving the central portion of North Vernon. Within each of the three major areas, are

subbasins, as summarized in Table 2.1. These subbasins are designated as the "Downtown", "Northwest", "Northeast", "Norris" and "Second Street", which transport flows to the "A" line; "Southeast", which transports flows to the "H" line; and "East" and "Southwest", which transport flows to the "N" line. Because each of the major service areas contain subbasins with combined gravity sewers, the "A", "H" and "N" lines re also CSSAs.

Table 2.1 Major Basins and Subbasins

Basin Name	Subbasin	Type of System	Service Area (Acres)
"A" Line	Downtown	Combined	171
	Norris Ave.	Separate	101
	Northeast	Combined	256
	Northwest	Separate	704
	Second St.	Combined	175
"N" Line	East	Combined	130
	Southwest	Combined	762
"H" Line	Southeast	Combined	319
	Town of Vernon	Separate	128

2.1.4 Separate Sewer Service Area

There are three (3) separate sewer service areas (SSSAs) in North Vernon - the "Norris", "Northwest" and the Town of Vernon subbasins. As previously described, the SSSAs are located in the north, central and southern portions of North Vernon. The trunk lines - "A", "H" and "N" - receive and combine flows from the CSSAs and the SSSAs and transport the combined flows to the main intercepting chamber and thence to the wastewater treatment plant via the "Y" or the "Z" line. An inventory of all sewers in North Vernon is contained below in Table 2.2. All sewers constructed of Polyvinyl Chloride (PVC) plastic have been installed in the last forty (40) years and are in good condition. All sewers constructed of. Vitrified Clay Pipe (VCP) range in age from forty (40) to Eighty (80) years old. Given their age, all VCP sewers average condition.

Table 2.2 Summary of Pipe sizes

Subbasin	8" VCP	8" PVC	10" VCP	10" PVC	12" VCP	12" PVC	15" VCP	15" PVC	18" VCP	18"PVC	24"VCP	36"VCP
Downtown	10993	1575	628		4630	885	1162		750		1455	2073
East	5439	1200	975	1857	300				1919	375		
Norris		7090										
Northeast	11355	4491		858	2552				1106			
Northwest	7742	43506				3272						
Second St.	4882		1030		4904	1668	2406					
Southeast	10904	1672					11817	360				
Southwest	16753	28975			2849		5491	1500		4200		
Total Feet	68068	88509	2633	2715	15235	5825	20876	1860	3775	4575	1455	2073
Miles	12.9	16.8	0.5	0.5	2.9	1.1	4.0	0.4	0.7	0.9	0.3	0.4

2.1.5 Combined Sewer Overflows

At one time there may have been as many as seven (7) constructed combined sewer overflow discharge points in the North Vernon collection system. There is currently one (1) permitted combined sewer overflow (CSO) discharge point in the North Vernon collection system - permitted discharge Outfall No. 002 (the overflow structure is located at the head of the treatment plant).

The CSO (permitted discharge point No. 002) at the entrance of the wastewater treatment plant is operated per a Standard Operating Procedure (see Appendix B). When the flow rate at the treatment plant from the combined sewers exceeds approximately 8,333 gpm (12.0 MGD) during wet weather events and the 1 Million Gallon (MG) equalization basin is full, an overflow will occur. The overflow is monitored for frequency and duration, per the NPDES permit, and is also monitored for quality (suspended solids, biochemical oxygen demand and ammonia-N) during overflow events.

The combined wastewater and stormwater from this CSO, if activated, discharges to the Vernon Fork of the Muscatatuck River.

2.2 Combined Sewer Service Areas (CSSAs)

2.2.1 "A" Line CSSA

The "A" Line CSSA is the northern most part of the collection system and collects wastewater flows from sewer "service" areas that have both combined and separate sewers. The "A" Line CSSA collects flows from five (5) subbasins - "Downtown", which has combined sewers; "Northeast", which has combined sewers; "Second Street", which has combined sewers; "Norris", which has separate sewers and "Northwest", which has separate sewers. Flow is transported from the subbasins through the main trunk line, a thirty-six (36) inch reinforced concrete pipe (RCP), under the Muscatatuck Country Club Golf Course, to the main intercepting chamber previously described. Major sewer lines in this CSSA are fifteen (15), eighteen (18), twenty-one (21) and twenty-four (24) inch diameter sewers which flow into the 36 inch trunk line.

The "A" Line CSSA has a total "service" area of approximately 1407 acres, which includes the downtown area. See Table 2.1 for a summary description of the major basins and the subbasins.

2.2.2 "H" Line CSSA

The "H" Line CSSA provides service to the southern portion of North Vernon. This CSSA has two subbasins that have combined sewers - "Southeast", which has combined and the Town of Vernon force main. The Town of Vernon has separate sewers. The main trunk line is a fifteen (15) inch diameter vitrified clay pipe (VCP). The major sewers delivering flows to the "H" line are twelve (12) and fifteen (15) inch diameter sewers of varying materials.

The "H" Line CSSA has a total service area of approximately 447 acres, including the Town of Vernon.

2.2.3 "N" Line Street CSSA

The "N" Line CSSA is located in the west central and east area of North Vernon and also collects flows from subbasins which have combined and separate sewers. The subbasins in the "N" Line CSSA are - "East", which collects flows from combined sewers and "Southwest", which also collects flows from combined sewers. Flows are transported through the main trunk ("N") line, which is an eighteen (18) inch diameter

vitrified clay pipe (VCP), to the previously described main intercepting chamber under the golf course. Sewers in the subbasins are primarily twelve (12) and fifteen (15) inch diameter sewers of various materials.

The "N" Line CSSA has a service area of approximately 892 acres.

2.3 Separate Sewer Service Areas (SSSAs)

The City of North Vernon has two (2) major SSSAs, which were constructed in the 1979 Construction Grant Projects and a third, which is the Town of Vernon. All three of the SSSAs are served by a lift station.

2.3.1 Northwest SSSA

The Northwest SSSA provides sanitary sewer service to the northwest and far north portion of North Vernon. Included in this SSSA are the industrial customers in the collection system. This SSSA has separate sanitary sewers and consists of approximately 27,500 lineal feet of 8 inch and 12 inch VCP and PVC sewer. All of the wastewater from the Northwest SSSA flows into a lift station. The force main from the lift station discharges into the "A" line at manhole AD-1.

The Northwest SSSA has a service area of approximately 704 acres.

2.3.2 Norris Avenue SSSA

The Norris Avenue SSSA provides sanitary sewer service to the extreme south central portion of North Vernon. This SSSA has separate sanitary sewer and consists of approximately 7,150 lineal feet of 8 inch VCP and PVC sewers. The Norris Avenue SSSA flows into a lift station. The 4 inch PVC force main discharges into the "A" line at manhole PT-1. The force main is approximately 6,280 feet in length.

The Norris Avenue SSSA has a service area of approximately 101 acres.

2.4 Wastewater Treatment Plant

North Vernon's wastewater treatment plant (WWTP) is intended to treat all dry weather wastewater transported by the collection system. Since the collection system is a combined sewer system, the volume of wastewater transported and treated is dependent on weather conditions and wet weather events.

The WWTP has an average daily flow design capacity of 2.2 million gallons per day (MGD) and a peak design flow of 4.76 MGD. The treatment plant has a maximum hydraulic capacity of 6.0 MGD. The North Vernon Wastewater Treatment Plant was originally constructed in 1934 at the site on Greensburg Street; modified in 1979 and 1997 to treat increased flows and to be more flexible and reliable in operating modes.

The Headworks Replacement project of 2012 replaced outdated equipment and added more control to allow for WWTP maximization. This project consisted of several components. A new mechanically-cleaned bar screen replaced the existing rotary drum-screening device. A new vortex type grit removal system replaced the existing grit channel, optimizing removal of particulates and reducing the burden to the downstream processes. Integral to this project and to the operation of the plant itself, was the installation of a diversion structure downstream of the grit removal system. This structure contains an automatic flow control regulator gate device that will precisely regulate and control the flow passing to the Secondary Treatment Process systems. This control structure allows for plant maximization without overloading the WWTP.

The treatment plant provides secondary treatment utilizing activated sludge processes and uses sand filtration for effluent polishing and chlorination for disinfection from April 1 through October 31 annually. All Biosolids are either land applied or landfilled.

For purposes of this report, the WWTP has been divided into seven (7) major components. Each component is discussed in the following sections. Figure 2-1 is a schematic of the North Vernon Wastewater Treatment Plant.

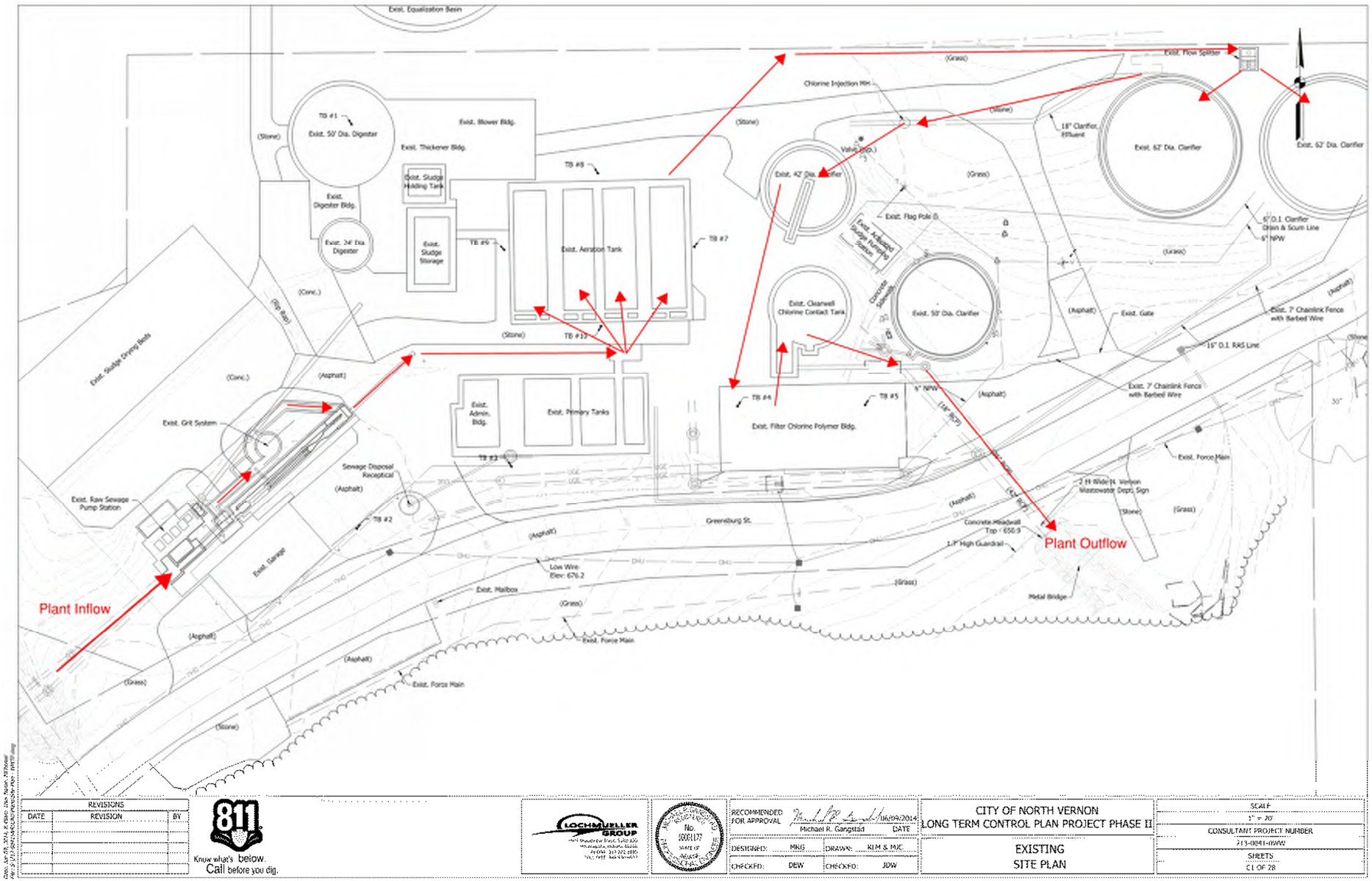

Figure 2-1 WWTP Flow Schematic

2.4.1 Flows/Flow Monitoring

The primary purpose for flow monitoring is to determine and record flows at the plant to be able to optimize the volume treated under all conditions. The secondary purpose for flow monitoring is to optimize individual unit process performance and to properly and adequately handle wastewater sidestreams generated within the treatment plant so as not to hydraulically overload the system or individual units.

The North Vernon WWTP, as a part of implementation of Phase II of the LTCP, will install a *"Supervisory Control and Data Acquisition"*(SCADA) system. The purpose of the SCADA system is to monitor the plant's operating conditions and to provide control for certain unit processes so that the maximum volume of flow can be processed through the treatment plant. Specifically, the SCADA system will:

1. Control flow to the treatment plant by automatically controlling the influent regulator gate to maintain an optimum flow rate into the plant;
2. Control the pumping of excess wet weather flows to the EQ basin for storage so that the maximum volume of wet weather flow is processed by the treatment plant prior to CSO 002 activating;
3. Notify plant operating personnel of high flow conditions; and
4. Notify plant operating personnel of operating conditions outside of standard acceptable performance conditions.

2.4.1.a. Primary Flow Measurement

Primary flow monitoring accounts for the wastewater flowing to the plant from the collection system and for wastewater discharged from the plant. There are three (3) possible locations to which flow can be directed from the collection system – the WTTP, the equalization (EQ) basin or CSO 002. There is only one discharge location from the plant after treatment. There are no unit process overflows or bypasses which could allow wastewater to be discharged to the effluent Outfall once wastewater has entered the plant for treatment.

As indicated, when flow reaches the plant, it can be split to three possible locations depending on the operating conditions at the plant. During normal dry weather flow conditions, wastewater flows directly to the plant's preliminary treatment unit. Wastewater entering the preliminary treatment unit is measured through a twelve (12) inch Parshall flume. The flume is monitored by an ultrasonic flow meter coupled to a chart recorder with indicator and totalizer functions.

During wet weather conditions, the plant's design capacity is directed to the preliminary treatment unit and excess flow is pumped to the plant's stormwater EQ basin for storage and treatment subsequent to flows receding.

2.4.1.b. Secondary Flow Measurement

Secondary flow monitoring is performed at several locations in the plant for process control and process optimization. This is summarized in Table 2.2.

2.4.1.c. Sampling and Monitoring

In addition to flow monitoring (quantity), the wastewater is sampled to determine quality. Two sampling locations are continuously operated for the collection of samples for analysis. A third location is sampled depending on the operational status of the filtration treatment unit.

Table 2.3 Secondary Flow Measurement

Location/Flow	Flow Meter Type	Functions	Application
Intermediate Pump Station	Doppler	Indicator; Totalizer	Process Control; Process Performance; Unit Evaluation
Return Activated Sludge	Rectangular Weir	Indicator; Totalizer; Ultrasonic Transducer	Process Control; Process Performance; Unit Evaluation
Filter Backwash	Orifice Plate Head Differential	Indicator	Process Control
Sludge Disposal	Doppler	Indicator; Totalizer	Land Application Reporting; Drying Bed Management

The plant effluent is sampled using a 24-hour composite flow proportioned sampler to determine the performance of the plant and for compliance with NPDES permit limits and conditions.

Secondary clarifier effluent is sampled using a 24-hour composite flow proportioned sampler. This sampling operation is used to assess the performance of the biological treatment components. This sampling location is utilized when the filter units are operating to assess the influent/effluent quality of the filters.

2.4.2 Preliminary Treatment Unit Processes

The purpose of the preliminary treatment at the plant is to control flow and to remove large debris and materials in the wastewater which could damage plant equipment or hinder treatment processes. The preliminary treatment unit processes at the North Vernon plant consist of a mechanically-cleaned bar screen and vortex type grit removal system.

The 2012 construction project at the WWTP included a mechanically-cleaned bar screen to replace the existing rotary drum-screening device. A vortex type grit removal replaced the existing grit channel optimizing the removal of particulates and reducing the burden to the downstream processes. Integral to this project and to the operation of the plant itself, was the installation of a diversion structure downstream

of the grit removal system. This structure contains an automatic flow control regulator gate device that precisely controls the flow passing to the Secondary Treatment Process systems.

Prior to the implementation of Phase II of the LTCP, the headworks will operate as described below. The 16 MGD mechanically-cleaned bar screen, with ¼" openings, is proceeded by a flow diversion structure which sends 6 MGD of flow to the existing storm water pump station and 10 MGD to the vortex type grit removal system. The grit removal system is proceeded by flow diversion structure that precisely maximizes the WWTP by sending up to 4.76 MGD to the Secondary Treatment Process and sends 5.24 MGD to the storm water pump station. The storm water pump station receives up to an 11.24 MGD rate of flow to maximize the existing flow equalization basin. Flows above the existing capacity of the equalization basin are discharged from the storm water pump station via CSO Outfall 002. A schematic of this completed project can be found below in Figure 2-2. Upon full implementation of Phase II of the LTCP, wet weather WWTP operations will be performed in accordance with the SOP found in Appendix B.

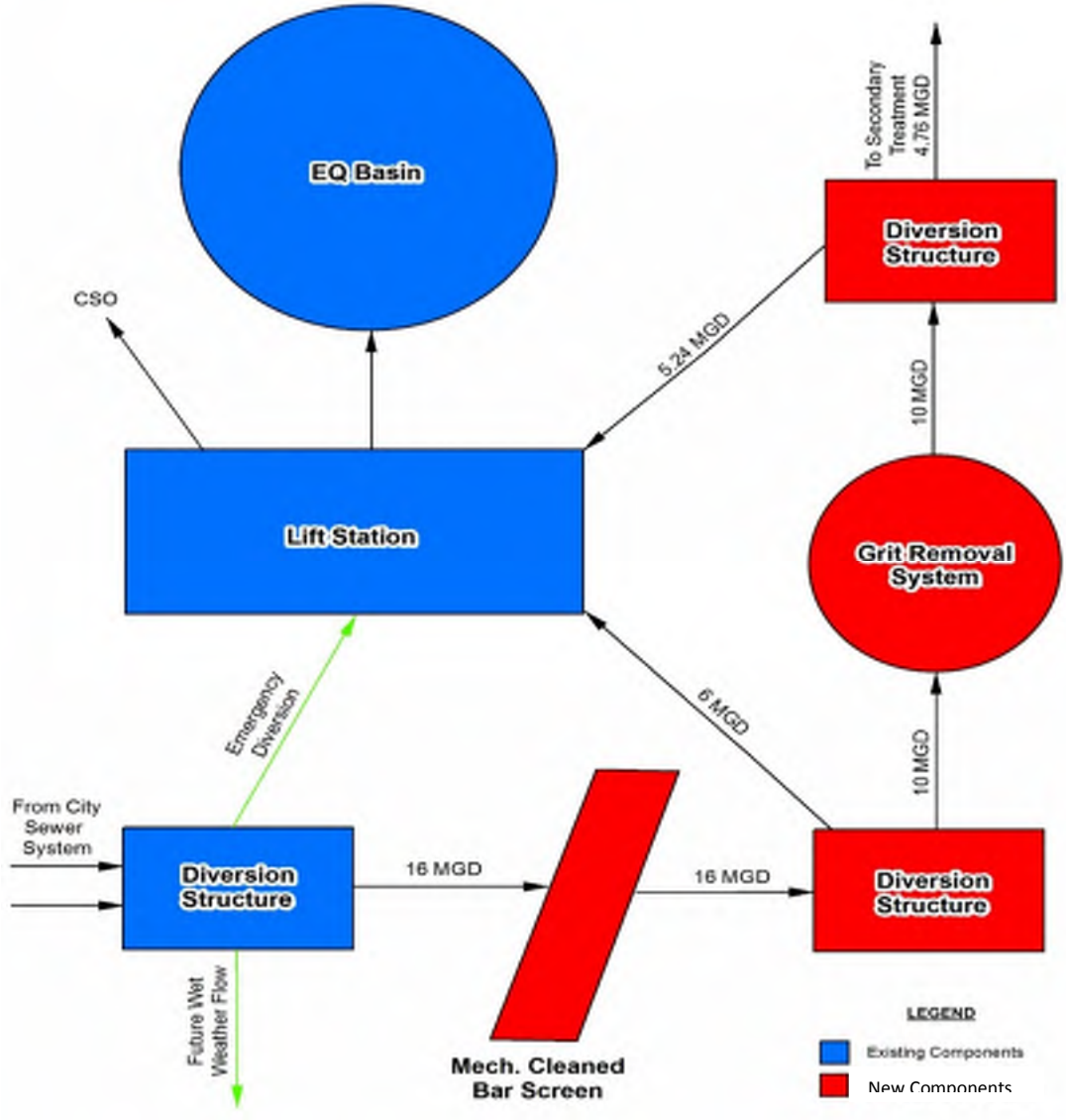

Figure 2-2 Headworks Replacement Schematic

2.4.3 Secondary Treatment Process - Activated Sludge Biological Treatment

The activated sludge biological treatment process converts soluble pollutants into insoluble biomass which can be removed from the wastewater in settling tanks. The North Vernon treatment plant's activated sludge operations consists of four (4) parallel aeration tanks operated in a plug flow mode. Each aeration tank has floor mounted fine bubble aerators to provide the mixing and oxygen necessary for the biological action and conversion of soluble material into insoluble form. The activated sludge biomass is continually mixed with influent wastewater to form the "mixed liquor" (microorganisms, soluble food substrate and wastewater). The mixed liquor is aerated in the aeration tanks allowing the microorganisms to use the biodegradable food substrate.

Flow distribution to the aeration tanks is controlled by the aeration tanks' influent slide gates located in the junction/splitter box. Air supplied to the tanks is controlled by the blower air supply and aeration system air control valves located on each tank.

Mixed liquor effluent from each tank flows into a common effluent launder. The combined mixed liquor flows by gravity to an intermediate pump station. The intermediate pump station pumps the mixed liquor to the secondary, operating continuously, with 100 percent backup capacity to handle the plant's peak design flow. The mixed liquor pumped to the secondary clarifiers flows into a splitter box which evenly divides the mixed liquor between the two clarifiers.

Two (2) secondary clarifiers provide solids separation and thickening for the activated sludge. The flow received in the center stilling well of the clarifiers flows horizontally toward the outer perimeter of the clarifiers allowing the biomass solids adequate time (approximately 2.5 hours) to separate from the liquid phase of the mixed liquor and settle to the bottom. The settled biomass is returned to the aeration tanks to mix with the influent wastewater. The clarified water overflows the effluent weirs and flows by gravity to the next treatment unit process.

The settled activated sludge biomass is removed from the bottom of the clarifier by a rotating sludge collection arm which slowly sweeps the floor of the clarifier forcing the biomass solids to a center drain pipe which flows by gravity back to the junction splitter box ahead of the aeration tank. Depending on the operating mode, weather conditions, and sludge conditions, the returned activated sludge may be aerated in reaeration tanks to better condition the sludge immediately prior to mixing it with influent wastewater.

The number of aeration tanks and secondary clarifiers in service at any given time is dependent on the operating conditions at the plant. During wet weather events both clarifiers are to be operated to maximize the hydraulic flow through the plant.

2.4.4 Disinfection

This unit process reduces the level of pathogens in the effluent wastewater before being discharged to the receiving stream. Pathogen reduction is desired to reduce the human health risk from contact with the treated wastewater. The North Vernon wastewater plant uses chlorine for disinfection. The chlorine gas is fed into the wastewater from one (1) ton cylinders. Chlorine can be fed to three (3) different points in the plant, depending on need: secondary clarifier effluent, flow to the sand filters, and flow from the sand filters.

Effluent from the secondary clarifiers flows by gravity to the chlorine contact tank. The aqueous chlorine solution is injected into the piping leading to the chlorine contact tank to increase mixing and contact time. Disinfected wastewater flows from the chlorine contact tank to the sand filters. Additional chlorine can be injected into the piping carrying this flow if conditions warrant. This additional chlorine can help maintain filter performance and condition with disinfection a secondary benefit. Chlorine can also be added to the filter effluent if additional "disinfection polishing" is needed.

The sand filters and filter clearwell storage is downstream of the chlorine contact tank which helps reduce the chlorine residual while insuring a high rate of disinfection. This also aids in meeting the NPDES requirements for minimal chlorine residual.

2.4.5 Filtration Unit Process (High Rate Sand Filtration)

This treatment process "polishes" the effluent by removing very fine suspended solids and associated carbonaceous material which remain after secondary treatment and disinfection. The activated sludge biological treatment and disinfection should normally provide the level of treatment needed to meet NPDES permit requirements. The rapid sand filters allow North Vernon to exceed those minimum performance requirements.

The chlorinated wastewater is piped to the rapid sand filters and is automatically divided by weirs between the four (4) filter cells. The filter cells are composed of graded sand and an underdrain system. The sand adsorbs the fine solids and carbonaceous material and the water passes through the underdrain system to the filter clearwell. When the head loss through the sand filter inhibits the filter's ability to pass flow (based on a determined flow rate), the filter cell is backwashed to remove the fine particles adsorbed by the sand. A backwash pump reverses the flow through the filter at a high rate of flow cleaning the sand and removing the accumulated solids. The backwash water, high in solids, is pumped to the EQ basin to be recycled through the plant for treatment.

2.4.6 Treatment Plant Outfall (Permitted Outfall 001)

The treatment plant Outfall provides a discharge point for the treated wastewater to reach the receiving stream and provides a point where the effluent quality can be sampled to determine plant performance and permit compliance. The filter clearwell, when full overflows over a weir and into the Outfall pipe which delivers the treated, disinfected and filtered effluent to the outfall headwall (Outfall 001). The discharged effluent cascades over stone rip rap before mixing into the Vernon Fork of the Muscatatuck River. The water entering the filter clearwell can be sampled as it enters the tank or just prior to overflowing the clearwell and analyzed as representative of the effluent wastewater being discharged. The flow through Outfall 001 is continuously monitored by an area velocity flow meter installed immediately upstream of the discharge point. This flow meter records all flow volumes exiting the wastewater treatment plant. This meter is coupled to a chart recorder with indicator and totalizer functions.

2.4.7 Biosolids Management

Excess biomass solids are generated as part of the activated sludge biological treatment process. The excess biosolids, waste activated sludge, are stabilized and concentrated in three (3) aerobic digesters. The aerobic digesters utilize coarse bubble aeration as the oxygen source for stabilizing the waste sludge. The aerobically digested waste sludge is either land applied or disposed of in a landfill by an outside contractor.

2.5 Combined Sewer Overflows

Combined Sewer Overflows (CSOs) properly operated allow for the controlled discharge of combined wastewaters in excess of the hydraulic capacity of the collection and/or treatment system. CSOs are point source discharges at specific locations which are permitted to discharge during wet weather events within the terms and conditions specified in the NPDES permit. The CSO discharge point is located and controlled to maximize the hydraulic flow transported in combined sewers to minimize adverse environmental impacts. There currently is one (1) permitted CSO in the North Vernon collection system. As part of the CSO LTCP Phase II construction project, backflow prevention devices will be added to all WWTP outfalls. Phase II construction will be completed by February 20, 2017 in accordance with the approved CSO LTCP implementation schedule.

Combined sewer overflow Outfall 002 is located just before the headworks of the treatment plant. This is a passive overflow which activates only when the water level in the headwork's junction box reaches a fixed weir elevation during wet weather events. Flows passing through CSO 002 receive screening and grit removal. CSO discharges through Outfall 002 and then into the Vernon Fork of the Muscatatuck River. Outfall 002 is located at the effluent headwall of the plant and is approximately 6 feet to the east of Outfall 001. The discharge from Outfall 002 cascades over stone rip rap before mixing with the receiving stream. The flow is measured upstream of the discharge point by means of a fixed elevation rectangular weir monitored by a flow meter coupled to a chart recorder and totalizer. Flow discharged through Outfall 002 during wet weather events is monitored for frequency, duration, volume and water quality parameters.

2.6 Effluent Standards

2.6.1 Outfall 001

The City of North Vernon's Wastewater Treatment Plant discharges via Outfall 001. The following standards are reflected in the NPDES permit that was effective February 1, 2015. North Vernon is required to report flow volumes, Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia-nitrogen, Phosphorus, pH, Dissolved Oxygen (DO), Total Residual Chlorine (TRC) and *E. coli* discharged from Outfall 001 5 times weekly. North Vernon is required to report Phosphorus monthly. The City of North Vernon Wastewater Treatment Plant NPDES permit contains the limits which must be met to avoid permit violations. These limitations are described below.

The averages for $CBOD_5$ are 993 lbs/day (monthly) and 1,589 lbs/day (weekly) taken from 24-Hour composite sample. The $CBOD_5$ average monthly concentration is 25 mg/l while the weekly average concentration is 40 mg/l. The averages for TSS are 1,192 lbs/day (monthly) and 1,788 lbs/day (weekly) taken from 24-Hour composite sample. The TSS average monthly concentration is 30 mg/l while the weekly average concentration is 45 mg/l. The summer averages for Ammonia-nitrogen are 60 lbs/day (monthly) and 87 lbs/day (weekly) while the winter averages are 87 lbs/day (monthly) and 131 lbs/day (weekly) all taken from 24-Hour composite sample. The Ammonia-nitrogen average monthly concentration in summer is 1.5 mg/l while the weekly average concentration is 2.2 mg/l. The Ammonia-nitrogen average monthly concentration in winter is 2.2 mg/l while the weekly average concentration is 3.3 mg/l.

The level of pH in the discharge must be maintained between 6.0 and 9.0 s.u. performed by grab sample. The summer DO average is 6.0 mg/l while the winter DO average is 5.0 mg/l; this sampling requires 3 grabs/24-Hours. The TRC averages are 0.01 mg/l (monthly) and 0.02 mg/l (daily) performed by grab sample.

The *E. coli* averages are 125 colony forming units (cfu)/100 ml (monthly) and 235 cfu/100 ml (daily) performed by grab sample.

2.6.2 Outfall 002

Upon full implementation of the revised CSO Long-Term Control Plan (LTCP), the City of North Vernon will be required to meet treatment standards that are outlined in IDEM's CSO Treatment Facilities Non-Rule Policy Document Number Water-016 for discharges from Outfall 002. North Vernon will be required to report flow volumes discharged from Outfall 002 as well as levels of $CBOD_5$ and TSS in the discharge. $CBOD_5$ and TSS will be measured by daily composite samples.

Discharges will be required to meet limits set for *E. coli* and TRC. The *E.* coli and TRC will be measured by daily grab samples. The *E. coli* monthly average of samples will be 125 (cfu)/100 ml. The daily maximum of *E. coli* will be 235 cfu/100 ml. The TRC monthly average of samples will be 0.01 mg/l and the daily maximum of TRC will be 0.02 mg/l. Failure to meet these limits could be considered an NPDES permit violation.

2.7 Quality of Receiving Waters

A 2006 stream study was conducted by Beckmar Environmental Laboratory personnel and is included in Appendix C. Like the previous 1996 study, this survey was to characterize the Vernon Fork of the Muscatatuck River which is the receiving stream of the WWTP from the city of North Vernon, Indiana. Whereas the 1996 study was developed to aid the city officials in evaluating the impact of CSO's on the river, the 2006 study was to look at the overall health of the receiving stream.

A 1-day sampling series was conducted on Monday, May 8, 2006 at three sites along the Vernon Fork. These sites were the same locations as those selected in the 1996 study. Samples were collected for chemical and microbiological analysis. Fish specimens were identified in the field and periphyton and benthos samples returned to the laboratory for plankton and macroinvertebrate identification.

Site #1 --- Up-stream dam site
This sampling site was accessed from a horse farm bordering the dam opposite the North Vernon Water Plant Intake. All samples were collected downstream of the dam due to high water. This site is approximately 2.08 miles above the North Vernon WWTP outfall.

Site #2 --- Mixing Zone site
This sampling site is approximately 100 yards below the WWTP discharge. It was chosen to allow adequate mixing of the effluent and receiving stream. The site was clean of trash and debris with no sludge blankets in the stream pools. No anoxic conditions were observed.

Site #3 --- Downstream site
The downstream site is approximately 14,000 stream feet below the North Vernon WWTP discharge and flows from the descending limestone staircase within the Muscatatuck County Park.

Chemical and Microbiological samples were collected and analyzed according to "Standards Methods for the Examination of Water and Wastewater", 21st Edition 2005 and "Methods for Chemical Analysis of Water and Wastewater", EPA EMSL – Cincinnati EPA-600/4-79-029.

The Vernon Fork at all three sampling sites appeared clean and free of "junked and discarded items" such as tires. Like in the previous 1996 study, the investigation found no sludge blankets, nor anoxic conditions in the stream. The fish included strictly clean water species particularly the Micropterus (smallmouth bass) and Etheostoma (darters). Suckers were found only at Site #2. Darters are found mainly in the very clear headwaters of streams just below riffle areas where they feed on insect larva and algae. Tabulated results of chemical and microbiological Analysis are as follows.

Figure 2-3 River Sampling Data

Parameter	Site #1	Site #2	Site #3	Units
Alkalinity	149	147	158	mg/l
Cyanide	<0.01	<0.01	<0.01	mg/l
BOD	3	3	3	mg/l
Total Coliform	>2419	>2419	>2419	col/100 ml
Fecal Coliform	120	120	60	col/100 ml
Fecal Strep	20	20	40	MPN/100 ml
FC/FS Ratio	6	6	1.5	Ratio
E-Coli	120	109	17	col/100 ml
HPC	780	1280	996	CFU/1 ml
Hardness	178	178	168	mg/l
Ammonia	<0.2	<0.2	<0.2	mg/l
Nitrite	0.02	0.02	0.01	mg/l
Nitrate	<0.06	<0.06	<0.0y	mg/l
Temperature	20	15	16.4	Deg C.
pH	8.35	7.90	7.90	S.U.
DO	11.1	9.7	9.9	mg/l
Phosphorus	0.41	0.31	0.24	mg/l
Total Solids	<0.02	<0.02	<0.02	%
TSS	16	12	4	mg/l
Volatile Solids	<6	<6	<6	mg/l
Turbidity	5.95	8.73	3.72	NTU
Cadmium	<0.001	<0.001	<0.001	mg/l
Chromium	<0.001	<0.001	<0.001	mg/l
Chromium, Hex.	<0.01	<0.01	<0.01	mg/l
Copper	<0.003	<0.003	<0.003	mg/l
Lead	<0.004	<0.004	<0.004	mg/l
Mercury	<0.0005	<0.0005	<0.0005	mg/l
Nickel	<0.005	<0.005	<0.005	mg/l
Zinc	0.008	0.005	0.005	mg/l

The Vernon Fork of the Muscatatuck River is a most valuable resource for the North Vernon area. It is a riparian ecosystem which reflects the overall health of the bio-community in its watershed. This study could not detect any obvious deterioration of the stream when compared to a similar study conducted in 1996. The stream remains in good shape and needs to be carefully guarded.

SECTION 3 - ADMINISTRATIVE CONTROLS

The preparation and implementation of this Operational Plan to control CSOs in the North Vernon collection system includes a review and description of the administrative controls available to, and implemented by, the City of North Vernon. This Section describes those administrative controls and concludes with recommendations for amending them, where appropriate and necessary, to meet the objectives of the Operational Plan.

3.1 NPDES Permit Requirements

North Vernon is subject to legislation adopted by the Indiana General Assembly and to rules adopted by the Indiana Department of Environmental Management (IDEM) to implement the legislation. The rules are promulgated in the Indiana Administrative Code (IAC) with Titles 326 through 329 addressing environmental issues.

Specifically, Title 327, Article 5, Rules 1 through 15, establish the administrative rules for issuance of National Pollutant Discharge Elimination System (NPDES) permits in Indiana. The NPDES permit received by North Vernon was issued pursuant to these regulations.

North Vernon is currently operating under NPDES permit number IN0020451, issued November 26, 2014. That permit established effluent limits (described above) for discharge from the treatment plant Outfall (001) to the Vernon Fork of the Muscatatuck River. The permit also established monitoring and reporting requirements for Outfall 001. A copy of the permit is included in Appendix D.

In addition to the effluent limits and monitoring and reporting requirements, the NPDES permit mandated that North Vernon also must implement and operate an industrial pretreatment program. The permit states that the permittee shall operate the POTW at the maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency and duration of CSOs. The permittee shall deliver all flows to the treatment plant within the constraints of the treatment capacity of the POTW. The permit authorized wet weather discharges from one point - identified as Combined Sewer Overflow Outfall 002.

It should be noted that the permit requires mass limits based on the peak design flow of 4.76 MGD for $CBOD_5$, TSS and ammonia-nitrogen and authorizes wet weather discharges from one (1) CSO point - the 002 Outfall at the plant. The CSO must still be monitored for frequency and duration and the permit requires the development of this operational plan with the inclusion of the nine minimum controls mandated by US EPA.

3.2 Existing Controls

3.2.1 North Vernon Sewer Use Ordinance

The primary method North Vernon has for controlling sewer usage is the Sewer Use Ordinance (SUO) described in this section. The SUO defines procedures for making connections to the North Vernon collection system, provides construction requirements and places limits on what may be discharged into the North Vernon collection system. North Vernon services the following satellite communities: Campbell Township Regional Sewer District, Jennings County Schools, Muscatatuck Urban Training Center and the Town of Vernon. In the agreements with all satellite communities it is required that they abide by the City of North Vernon SUO. A copy of the SUO is included in Appendix E along with the Wastewater Department's Construction Standards.

Major provisions of the SUO, that was last updated October 2012, include:

- A permit from the wastewater superintendent must be obtained before anyone can construct, repair, modify or alter a sewer lateral, public sewer, manhole or other collection system appurtenance;
- Within 90 days of receiving notice, a building owner (residential, commercial or industrial) must install toilet facilities and connect to the public sewer, if the sewer is within 300 feet of the property line;
- Separate and independent sewer laterals shall be provided for each and every building, except for sewers currently in use or for sewers which may be extended to buildings in the rear of existing structures;
- Sewer construction standards for laterals, mains, manholes and other appurtenances developed by the wastewater superintendent and adopted by the Utility Service Board will be enforced;
- No one shall discharge any pollutant or wastewater into the collection system which causes pass through or interference with the treatment component and limitations on certain pollutants, substances or wastewater shall be prohibited (e.g., explosive hazards, pH less than 6.0 or greater than 9.5, temperature greater than 140 F, petroleum oil, etc.); and
- Incorporation of the national categorical pretreatment standards and the State of Indiana's pretreatment standards; and establishment of industrial pretreatment and industrial user permit programs with associated enforcement efforts, consistent with federal and state rules.
- Prohibit introduction of inflow sources to any sanitary sewer.

3.2.2 Industrial Pretreatment Program

Pursuant to the permit issued in 1985, North Vernon developed and implemented an industrial pretreatment program, incorporating mandated federal and state requirements. The pretreatment program was approved by IDEM and is implemented.

The intent of the pretreatment regulations is to prohibit the discharge of wastes that are incompatible with wastewater treatment plant processes. Accordingly, the North Vernon Pretreatment Program has three (3) objectives:

1. To prevent the introduction of pollutants into the North Vernon Wastewater System that could interfere with the operation of the treatment plant, including the interference with its use or the disposal of biosolids;
2. To prevent the introduction of pollutants to the North Vernon Wastewater System that could pass through the treatment plant or otherwise be incompatible with the plant; and
3. To improve opportunities to recycle and reclaim municipal and industrial wastewaters and residuals/biosolids.

The utility is responsible for insuring that these objectives are met and that the SUO is enforced. The utility is also responsible for the collection of information and data from all industries discharging to the collection system to determine whether an industry is a Significant Industrial User (SIU) and needs a permit as described in the Sewer Use Ordinance. The utility is responsible for insuring that all SIUs are in compliance with the permits they are issued. This responsibility includes a requirement to perform a minimum of one site inspection per year at each SIU. North Vernon is also required to submit an annual report to U.S. EPA

and the Indiana Department of Environmental Management (IDEM) on pretreatment program performance.

There are currently four (4) industries in North Vernon, listed in Figure 3.1, classified as SIUs and which have been issued permits.

Table 3.1 Significant Industrial Users

Industry	Location	Discharge	Process
Hilex Poly/Novolex	1001 2nd Street North Vernon, IN 47265	Continuous	Makes plastic into shopping bags (own pretreatment WWTP)
Martinrea Industries, Inc.	505 Industrial Drive North Vernon, IN 47265	Continuous	Stamps, fabricates, cleans and coats fuel tubes, motor vehicle parts and accessories
Metaldyne Sintered Forged Products LLC	3100 North IN-3 North Vernon, IN 47265	Continuous	Manufactures and machines forged powder metal rods used in the automotive industry
Webster West Packaging, Inc.	1050 Rodgers Park Drive North Vernon, IN 47265	Batch	Converts corrugated paper into boxes for use in packaging customer products

Each SIU permit contains specific sampling and reporting frequency requirements which each permittee must be in compliance with. If any SIU is found in violation of a permit limit or condition, the Utility has an array of enforcement options available. The various non-compliance categories and actions which can be taken are described in Section 6 of the ***North Vernon Pretreatment Implementation and Management Plan.***

3.2.3 Sewer Construction Standards

The North Vernon City Utility Service Board adopted the *North Vernon Wastewater Department Construction Standards Revisions* (Appendix E) in 2014. This document establishes minimum standards for the type and quality of materials and workmanship used in the construction of sewer improvements, extensions and the repair of existing sewer mains and property lateral service lines. In addition, the *Construction Standards* establish performance testing of all new sewer main construction to insure the completion of high quality projects.

In addition to the City's SUO, the *Construction Standards* clearly state that sources of inflow (e.g., foundation/footer drains, downspouts, drainage structures, etc.) are prohibited from being connected to new sewer lines constructed after the adoption of the standards. All new sewers constructed are now required to be separate sewers.

Prior to acceptance of any new sewer main by the North Vernon Wastewater Department, the sewer main and appurtenances must be tested for excessive infiltration, alignment and deflection. Documentation of the success of the tests, as well as documentation of the project's construction "as built" in the field must be recorded and filed with the Wastewater Department Superintendent.

SECTION 4 - MAINTENANCE PROGRAM

4.1 Wastewater Department

4.1.1 Personnel

An organizational chart for the Wastewater Department is included in Figure 4. 1.

4.1.2 Personnel Training

The majority of the personnel training provided by the North Vernon Wastewater Utility is done on the job. Personnel are trained on the proper operation and use of all the equipment listed in Section 4.1.3 below. The Utility has developed Standard Operating Procedures (SOPs) for equipment and processes at the WWTP. Employees are trained by the operator of each area. Personnel are also sent to various seminars and classes during a calendar year. A Utility memorandum describing personnel training is included in Appendix B.

4.1.3 Equipment

The Wastewater Department has equipment specifically dedicated to the maintenance of the collection system. This equipment includes the following:

- 1 – Trailer mounted (350 gallon capacity) water jet cleaner - used to clean debris and obstructions from the collection system using high water pressure and numerous attachments depending on need. This machine is capable of supplying 1,500 psi of water pressure through 700 feet of ¾ inch hose. Attachments for this machine include straight, grease and sand nozzles, a rotating cleaning nozzle, and a rotating root saw.
- 1 gasoline powered sewer cleaning tool with a 5 horsepower, 4 speed motor and heavy duty cable capable of cleaning 4 inch to 14 inch sewers. North Vernon has 200 feet of cable and numerous head attachments for this machine.
- 1 - Vacuum Truck - equipped with a 2,000 gallon tank, used to remove debris from manholes and other appurtenances.
- 1 - Smoke Blower (4000 CFM, 5 HP) - used in conducting smoke testing in the collection system.
- 1 – Backhoe/Mini-Excavator - used for excavation and repair work
- Mainline Camera System
- Lateral Camera System
- Confined Space Entry Equipment

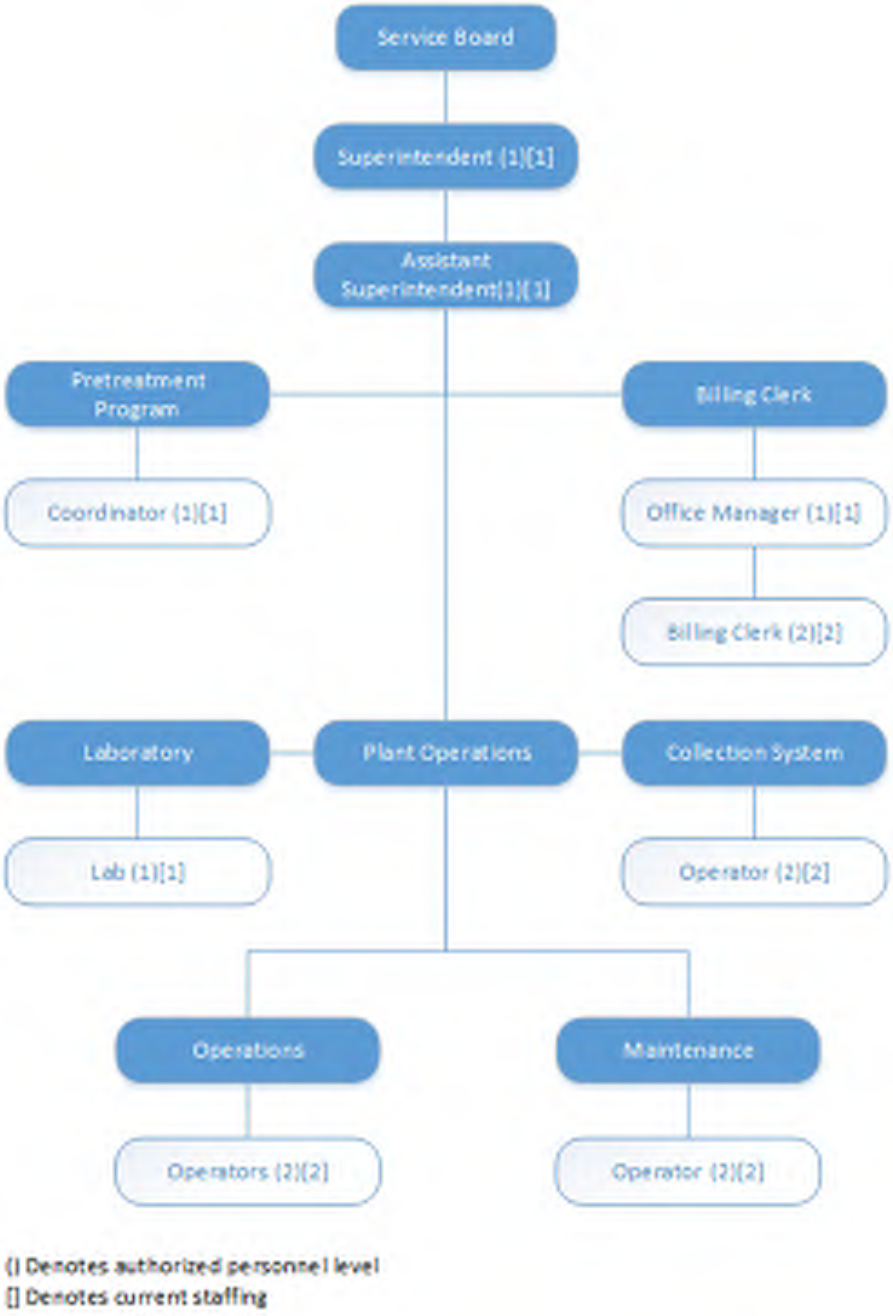

Figure 4-1 North Vernon Wastewater Department Organizational Chart

4.1.4 **Customer Complaint Response**

A *Standard Operating Procedure* (SOP) for managing and addressing customer complaints was developed and implemented in 1996. Upon receipt each complaint is evaluated and a priority assigned for follow-up.

All calls are documented on a *"Collection System Service Call Record'* form. The information collected on this form includes:

- Date and time of the Call
- Type of Call - Locate; Inspect; Complaint/ Other.
- Name, Address and Phone Number of Caller
- Brief Description of Request/Problem

All complaints are forwarded to the Collection System Foreman or "On Call" Collection System staff person for resolution. A determination of responsibility - City or property owner - is made based on the location of the problem. Utility locate requests are addressed by reviewing existing plans and sewer tap permit forms prior to field activities. Inspections are made on all new sanitary sewer connections and all reconstruction of old or existing lines to insure compliance with the construction standards.

The person responding is required to inform the Superintendent of the nature of the call and planned approach for resolution. The *"Response Section"* of the call form is completed by the responding employee upon resolution and the form is then filed in the Service Call Record, maintained in the Assistant Superintendent's office.

The SOP and forms are included in Appendix B.

4.1.5 Lift Station Operation and Maintenance

The North Vernon collection system currently operates twenty (20) lift stations for pumping wastewater to the treatment plant. These lift stations vary in size from 24 gallons per minute (gpm) to 635 gpm capacity. A lift station inventory is included in Table 4.1. Operation and maintenance of the lift stations is the responsibility of the Maintenance Department.

The lift stations are divided into two (2) categories - large capacity (those over 250 gpm) and small capacity (those less than 250 gpm). The large lift stations are checked one time per week (every Thursday) by Maintenance Department staff. The small capacity lift stations are checked weekly (every Thursday).

Table 4.1 Lift Station Inventory

LS Number	Lift Station Name	No. of Pumps	Flow (gpm), each pump	Motor (hp)	Service Area(Ac)	Service Subbasin
1	Hidden River	2	75	5	27	WWTP
2	Thompson's	2	30	3	11	Downtown
3	Summit Street	2	60	5	14	Downtown
4	Northeast	2	200	15	55	Downtown
5	Third Street – South	2	45	3	4	Northeast
6	Third Street – North	2	35	2	3	Northeast
7	Kreutzjans	2	100	3	4	2nd Street
8	Second Street	2	24	2	1	2nd Street
9	NVIC	2	105	6.5	30	Northwest
10	Northwest	3	500	15	275	Northwest
11	Middle School	No Info.	No Info.	No Info.	No Info.	Abandoned
12	Highway 50 West	No Info.	No Info.	No Info.	No Info.	Abandoned
13	Platter Drive	No Info.	No Info.	No Info.	No Info.	Abandoned
14	Norris Avenue	2	160	17	50	Norris
15	Long Street	No Info.	No Info.	No Info.	No Info.	Abandoned
16	Child's Lane	No Info.	No Info.	No Info.	No Info.	Abandoned
17	Whitey Miller's	2	32	2	2	Southeast
18	Spring Heights	2	40	3	7	Southeast
19	Park Avenue	2	45	3	6	Southeast
20	Twin Oaks	2	45	3	3	Southwest
21	Sand Creek School	2	80	6	20	Northwest
22	Southwest	3	635	25	988	Southwest
23	108 Spring Heights	1	35	3	1	Southeast
24	105 Spring Heights	1	35	3	1	Southeast
25	380 Park Avenue	1	35	3	1	Southeast

4.2 Maintenance

4.2.1 Cleaning Program

The Wastewater Department has reviewed the collection system mapping at length and developed a plan for routine sewer cleaning. The plan's objective is to divide the collection system according to subbasin and to clean all sewers in at least 1 subbasin per year. Records are kept such that work is continued where it was left off in case a subbasin is not completed in the allotted timeframe.

Currently, the collection system staff uses the "Water Jet" high pressure cleaning equipment and Vacuum Truck when responding to problems or complaints. It is a goal of the Wastewater Department to clean all lines once every five (5) years.

4.2.2 Overflow Inspections

The one (1) CSO point is inspected during and after each rainfall event. The frequency and duration of any permitted overflow is recorded and reported to the superintendent. The superintendent reports overflow occurrence to the IDEM on the CSO Monthly Report of Operation (MRO). The overflow location is also checked daily to insure that no dry weather overflow is occurring and to insure that no obstruction is in the proximity of the overflow location which could inadvertently cause an unauthorized overflow or impede an authorized overflow. The overflow is also monitored electronically and whenever an overflow occurs the autodialer notifies Wastewater Department staff. This is helpful in the event of a dry weather overflow.

4.2.3 Catch Basin Cleaning

There is not a planned and managed program for routine catch basin cleaning. It has been done on an "as needed" basis and is currently managed by the Wastewater Department. The labor necessary is a joint effort with city street department. A Standard Operating Procedure (SOP) has been developed for catch basin cleaning with implementation forthcoming. The SOP consists of the following tasks:

- Prior to rain events catch basin grates will be cleaned off.
- During and after rain events inlets and catch basins are checked again for debris and blockages.
- All catch basins are to be inspected annually.
- Catch basins will be cleaned once every two (2) years or as necessary to ensure operation.

4.2.4 Sewer Construction Inspections

All construction (new and repairs) on sewer service connections and line installations are inspected by the Wastewater Department for compliance with the *Construction Standards*. Inspection and enforcement of the standards is the responsibility of the Wastewater Department Superintendent. The day to day implementation of the inspection program is delegated to the Assistant Superintendent.

4.2.5 Sewer Blockages

Upon receipt of a blockage complaint or notification, a determination on responsibility - City or resident - is made. If the blockage is a City responsibility, a crew is dispatched as soon as practicable, within four (4) hours, to clear the blockage, dependent on severity. These types of situations can cause a sanitary sewer overflow which is reported to IDEM each time it is determined to be the utility's responsibility. If the responsibility is the resident's, e.g., the lateral house connection, the resident is informed and required to privately contract for the correction.

4.2.6 Sewer Repairs

Problems, real and potential, are routinely identified by a variety of methods including construction inspections, television inspection, smoke testing, flow monitoring and/or complaint response. Each problem is evaluated and prioritized by size, flow volume, need for repair, threat to the environment and public health, and impact to the collection and treatment system. A collection system work order is completed for each identified problem and a prioritized repair date projected - immediate, short term or

long term. At least two (2) working days prior to any excavation the "*Call Before You Dig" number (1-800-382-5544)* is called to identify other underground utilities in the area. Each adjacent property owner is notified of the pending project to minimize inconveniences and to insure good public relations.

The Wastewater Department collection system crew makes minor repairs (e.g., manhole rehabilitation/replacements less than 4 feet deep) in the collection system.

4.2.7 Sewer Televising

The North Vernon Sewer Utility televises areas that are experiencing maintenance issues before and after repair. It is also used for condition diagnosis in the rest of the collection system. Staffing does not allow for a full time sewer crew dedicated to sewer televising. With all the other responsibilities of the sewer utility time for televising is limited. It is a goal to televise 12,000 feet of North Vernon sewers per year.

4.2.8 Street Cleaning

The Street Department operates the street cleaning program. Currently, all streets with curbs are cleaned at least once monthly. Additional street cleaning is performed on an "as needed" basis.

4.2.9 Data/Information/Records Retention

The Wastewater Department does not have a formal maintenance management information system which it uses to track any problems, complaints, and maintenance activities done in the collection system. The Wastewater Department does keep records to track the following:

1. Manhole repair requirements;
2. Sewer repairs required;
3. Root problems; and
4. Complaints

SECTION 5 - CONTROL STRATEGY

5.1 Potential Control Methodologies

North Vernon has developed this Plan to better manage and operate the combined sewer portion of the collection system. Since each of the three trunk lines have combined sewers discharging into them the collection system as a whole represents a combined system.

North Vernon's goal is to manage this combined system to minimize the frequency and duration of discharges from the one (1) permitted combined sewer overflow. Accordingly, the Wastewater Department has three specific objectives for managing the collection system:

1. Insure that if a combined sewer overflow occurs, they are only the result of wet weather events;
2. Bring the wet weather combined sewer overflow discharge point into compliance with the technology based requirements of the Clean Water Act; and
3. Minimize the impacts of combined sewer overflows on water quality, aquatic biota and human health to the maximum extent possible.

There are an array of management and control methods available to allow North Vernon to achieve the stated objectives. The US EPA has promulgated the *"Nine Minimum Controls"* and IDEM promulgated the CSO Treatment Facilities Non-Rule Policy Document Number Water -016 for management of CSOs. North Vernon believes the nine controls succinctly represent the array of possible methods for CSO minimization. North Vernon believes it has flexibility and creativity to implement these nine controls specific to the North Vernon collection system and in particular to the permitted discharge based on North Vernon's analysis of its system. Further, North Vernon is taking advantage of the flexibility offered in the CSO Treatment Facilities Non-Rule Policy Document Number Water -016, which allows for treatment of CSO prior to discharge, as a means of meeting Water Quality Standards (WQS) in the Vernon Fork of the Muscatatuck River.

5.2 Basis of Analysis

The development of a control strategy for reducing the number, frequency and duration of CSO events requires an evaluation of the collection and wastewater treatment system's abilities to process excess hydraulic flows which occur during wet weather events.

In the past, the North Vernon combined collection system's flow transporting capacity had been intentionally restricted by the throttling of the influent sluice gate to reduce wastewater flows entering the treatment plant during wet weather events. In addition, passive reduction of wet weather flow transporting capacity occurred as a result of reduced sewer capacity due to restricted sewer pipes and a lack of routine collection system maintenance.

The plant's current NPDES permit established 4.76 MGD as the peak hydraulic flow which the plant was required to process during wet weather events. Flows greater than 4.76 MGD are processed while preventing secondary biological treatment failure due to biomass solids washout of the secondary clarifiers. The impairment of the secondary treatment process by handling excess wet weather flows causes long term treatment deterioration lasting for several days to weeks after wet weather events.

To maintain maximization of the wet weather flow capacity of the treatment plant once, the following operational and management principles were established:

1. Treatment of wet weather flows should not cause effluent water quality to deteriorate nor cause NPDES permit limit violations.
2. Treatment of wet weather flows from the "first flush" should focus on treating and/or containing the elevated organic waste loads associated from the combined sewer collection system.
3. Treatment of wet weather flows between the "first flush" and ten year, one hour design storm must include plant wastewater treatment plant maximization. Once the wastewater treatment plant is maximized the remaining flows must receive at a minimum equivalent to primary treatment and disinfection. This processing should not cause short or long term damage to equipment and/or treatment process integrity.
4. Treatment of flows above the ten year one hour design storm are to be performed to the extent possible with facilities that are designed for lesser flows. While processing these wet weather flows, treatment processes should be protected to insure process effectiveness and efficiencies both during and after wet weather events.

5.2.1 Dry Weather Flows

Treatment plant flow data for the operating year of 2014 was recorded on IDEM's CSO MRO. Based on a review of this data, the 2014 dry weather flow baseline was recorded as 1.13 MGD. Upon completion of the 1996-97 upgrade improvements, the treatment plant's average design daily dry weather flow capacity is 2.2 MGD. Based on the 2014 flow data, this allows for increased flow of 1.07 MGD which equates to an increased population equivalent of 11,070, at 100 gallons per day per capita. Based on this analysis it can be presumed that the dry weather treatment capacity of the North Vernon WWTP is sufficient well into the future.

5.2.2 Treatment Capacity

Wastewater treatment plant capacity is defined by two components: the capacity to adequately treat the organic waste load; and the capacity to process hydraulic flow through the treatment plant.

Historic data at the North Vernon treatment plant demonstrates that organic waste loading varies inversely proportional to the hydraulic loading. During dry weather, the plant's low influent flow results in higher hydraulic detention times. This provides the additional treatment time required to insure the organic waste load has been removed to a level which meets effluent water quality defined in the NPDES permit.

The wastewater's organic strength is reduced considerably during wet weather events. To date, operating data has indicated that under high wet weather flows resulting in low organic load, the treatment plant can treat the wastewater and meet required water quality standards for discharging.

The WWTP is currently operated in the following way. Wet weather flows up to 12.0 MGD are taken into the WWTP headworks where flows receive fine screening and grit removal. Flows up to 4.76 MGD receive immediate full treatment through the WWTP and discharge from Outfall 001 to the Muscatatuck River. The additional 7.24 MGD is automatically diverted from the headworks to the EQ pump station and is pumped into the EQ basin. Reference Figure 2.2.

Upon full implementation of the LTCP, there will be the 1.0 million gallon (MG) EQ basin and a 0.2 MG storage basin used to capture the first flush. The maximum inflow rate that North Vernon's WWTP facilities will be able to treat is 40.0 MGD. The following paragraphs describe the wet weather treatment scenarios that will be put into use once the LTCP Phase II project is completed in 2017.

- Wet weather flows up to 12.0 MGD are taken into the WWTP headworks where flows receive fine screening and grit removal. Flows up to 4.76 MGD receive immediate full treatment through the WWTP and discharge from Outfall 001 to the Muscatatuck River. The additional 7.24 MGD is automatically diverted from the headworks to the EQ pump station and is pumped into the EQ basin.
- When both basins are empty, 40.0 MGD can enter the diversion structure with 12.0 MGD entering the WWTP as described above and 28.0 MGD being sent to the influent chamber then on to the 0.2 MGD surge basin. In this scenario all flows would be stored for full treatment and subsequent discharge from Outfall 001.

- When the 1.0 MG EQ basin is full and a 40.0 MGD flow rate enters the diversion structure, 4.76 MGD is sent to the WWTP for full treatment with the remaining 35.24 MGD being sent to the influent chamber then on to the 0.2 MG surge basin for storage. In this scenario all flows would be stored for full treatment and subsequent discharge from Outfall 001.

- When the 0.2 MG surge basin is full and a 40.0 MGD flow rate enters the diversion structure, 12.0 MGD is sent to the WWTP with 4.76 receiving immediate full treatment and 7.24 MGD being sent to the EQ basin. 28.0 MGD is sent to the influent chamber with 25.76 MGD receiving the equivalent of primary treatment by the High Rate Clarification (HRC) Unit along with disinfection and 2.24 MGD being pumped from the HRC underdrain to the EQ basin for storage and then full treatment through the WWTP.

- When both the 1.0 MG EQ basin and 0.2 MG surge basin are both full, the "first flush" is effectively captured. At this point when a 40.0 MGD flow rate enters the diversion structure, 2.5 MGD is sent to the WWTP for full treatment. 37.5 MGD to the influent chamber with 35.24 MGD receiving the equivalent of primary treatment by (HRC) along with disinfection and 2.26 MGD being pumped from the HRC underdrain to the WWTP headworks (via EQ basin) for full treatment through the WWTP.

When the wet weather event ceases and influent flow rate reaches 2.26 MGD at the diversion structure, the wet weather treatment facility drainage mode can commence. The 0.2 MG surge basin is drained at a rate of 2.5 MGD through the influent chamber to the HRC where the underdrain pumps send the flow to the EQ basin. The EQ basin is drained at the same 2.5 MGD rate to the WWTP headworks until both basins have been drained. This scenario maintains plant maximization until the facilities are prepared for the next wet weather event. Upon full implementation of the LTCP, all the above treatment scenarios will be controlled automatically by the SCADA system. A schematic of the wet weather treatment facility is provided below in Figure 5-1.

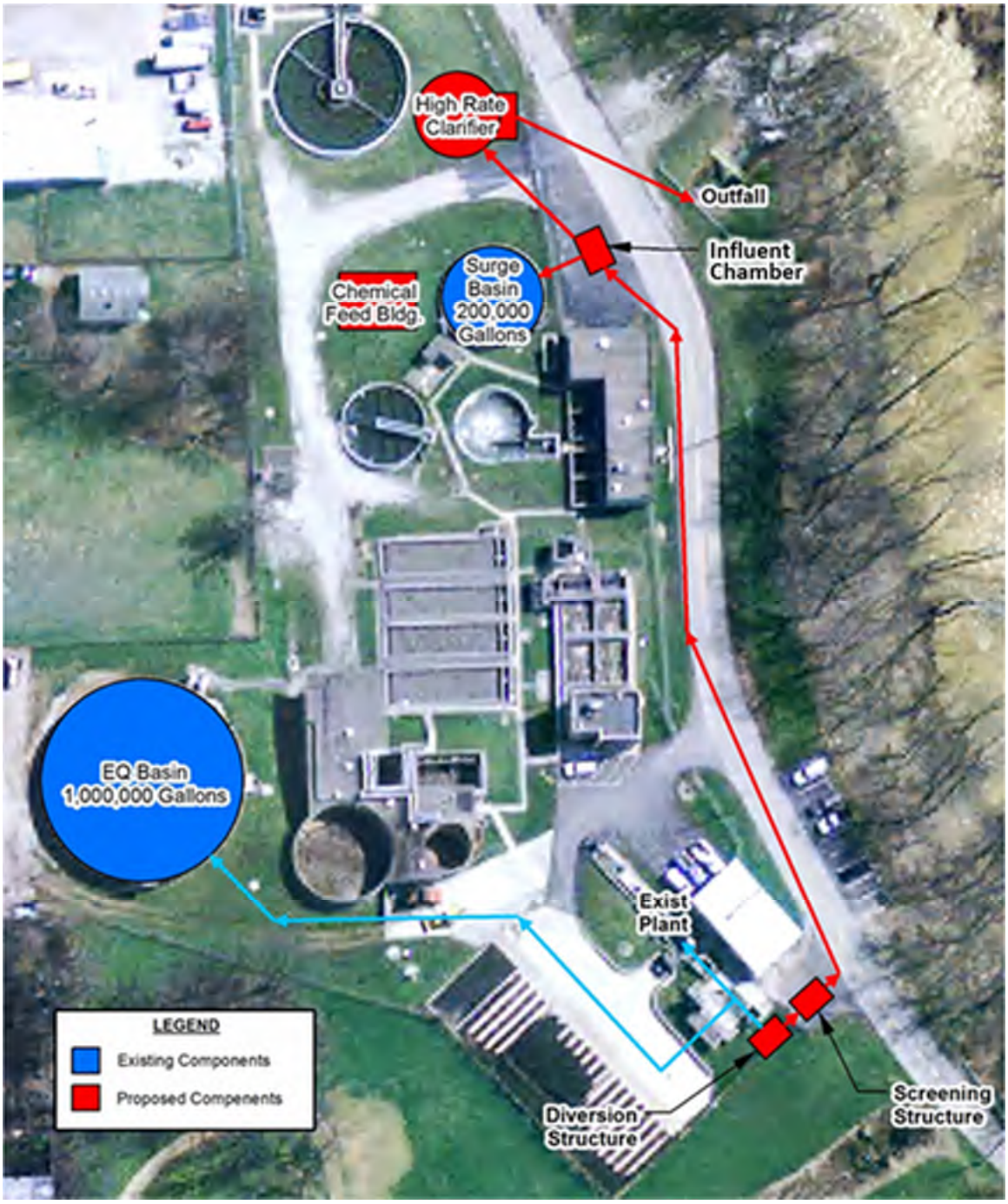

Figure 5-1 Wet Weather Treatment Facility

5.2.3 Rainfall/Groundwater Data and Analysis

The Wastewater Department has installed five (5) permanent rain gauge throughout the city which monitor the amount, duration and intensity of rain.

5.3 Proposed Control Strategies

5.3.1 Operation and Maintenance of the System

North Vernon is committed to a management and control program that focuses primary resources on the proper operation and maintenance of the collection and treatment facilities. The North Vernon City Council reorganized the Wastewater Department in March, 1995 and charged the new superintendent with the proper operation of all facilities to maximize treatment of all flows, including wet weather; and to institute maintenance efforts to insure the long term operability and reliability of all facilities. At the same time, the City Council made a commitment to the citizens of North Vernon and the US EPA and IDEM to meet all NPDES limits and conditions.

The staffing previously described includes a Superintendent and WWTP maintenance staff which can be assigned to maintenance activities, dependent on need. In addition, the Assistant Superintendent is responsible for implementing proper operation and maintenance programs for the collection system.

An annual budget was developed for the first time in 1996. This budget includes a line item for maintenance activities.

5.3.2 Maximization of Collection System Storage and Transport Capacity

In 2012, modeling was performed to develop an accurate theoretical model with which to draw conclusions. Wet weather flow rates and volumes were determined using the EPA approved XP-SWMM modeling program. This model was developed using flow data collected using Flow Link Software from city personnel to calibrate the model. This flow data was gathered from July, 2010 to February, 2012.

The Wastewater Department spends a significant amount of time studying the collection system and gathering data like that used for the XP-SWMM modelling described above to better understand the collection system and flow dynamics. Major problems found by the collection system crew (e.g., blockages, collapsed sewers, corroded manholes) are immediately repaired by North Vernon staff or by contractors to allow for better operation of the collection system.

In Phase I of the LTCP, the Northeast, Northwest, Norris and Southwest lift stations were improved so they could be maximized and provide as much capacity as possible for transport of flows through the collection system. These lift station upgrades were completed in 2014 and are further described in Section 6.

5.3.3 Modification of Pretreatment Requirements

The inventory of non-domestic dischargers (4 permitted SIUs and several commercial establishments) to the collection system reveals that these dischargers have no impact on the CSOs and receiving waters during wet weather events. The 4 SIUs contribute less than 10 percent of the design hydraulic flow during dry weather and this decreases to approximately 2 percent of the peak hydraulic design flow. The permits for the SIUs have stringent limits for metals and there have been no significant permit violations on these limits in the past 24 months.

The annual review of the pretreatment program will continue to include an evaluation of potential CSO impacts. This will also be incorporated into the review of all new industries locating on the North Vernon collection system.

5.3.4 Maximization of Flow to the Treatment Plant for Treatment

The 1997 WWTP Upgrade construction project included the construction of two (2) 62 foot diameter secondary clarifiers. This, coupled with the other modifications to the plant, has allowed the treatment plant's average daily design flow to be increased from 1.75 MGD to 2.2 MGD and the peak hydraulic flow to be increased to 4.76 MGD. In addition, the 1996-97 treatment plant upgrades provided for the proper utilization of the EQ basin as a storage unit for up to one (1) MGD of wet weather flow. This allows the North Vernon treatment plant to treat and/or store a significant portion of the wet weather flows before CSO 002 activates.

As previously described in Section 2.4.2, North Vernon completed a construction project at the WWTP that replaced the headworks. This project was successful in two (2) areas, all flows going into the WWTP now have improved screening and grit removal as a result of the new equipment, and flow controls are in place that allow to fully maximize the WWTP. An added benefit is that the majority of flows sent to the EQ basin now receive fine screening and grit removal.

When Phase II of the LTCP is fully implemented in 2017, a wet weather treatment facility will be in place that will have a 40 MGD capacity. The "first flush" will receive full treatment through the WWTP and the remaining flow will receive the equivalent of primary treatment and disinfection in accordance with IDEM's CSO Treatment Facilities Policy Number NRPD Water-016. As a consequence, there should be no untreated CSO discharge in North Vernon up to and including a ten year, one hour design storm intensity precipitation event.

5.3.5 Elimination of Dry Weather Overflows

This has been accomplished. There have been no dry weather overflows since April, 1995.

North Vernon's aggressive stance on correcting past problems identified technical and operational causes of dry weather bypassing. North Vernon's aggressive actions eliminated such overflows. The removal of the overflow line from the EQ basin to CSO 002 physically prevents any bypassing of the EQ basin. The proper operation of the EQ basin and the proper operation of the treatment plant and the implementation and operation of a plant alarm/notification system, reduced the frequency and duration of CSO activation.

North Vernon will continue to be aggressive in ensuring that there are no further dry weather overflows.

5.3.6 Control of Solid and Floatable Materials

The implementation of other controls (improved sewer cleaning and maintenance and maximizing flow) have helped in controlling solid and floatable materials in the CSO discharges during wet weather events. Upon full implementation of the LTCP in 2017, all CSO discharges up to and including a ten year, one hour design storm intensity will receive the equivalent of primary treatment and disinfection. All CSO discharges above a ten year, one hour design storm intensity will receive at least fine screening (¼" opening).

5.3.7 Pollution Prevention Program

The City of North Vernon does not currently have its own pollution prevention program. A long term goal of the city is to have curbside recycling for its citizens. North Vernon is part of the Southeastern Indiana Recycling District (SEIRD). SEIRD has a facility at 4800 State Road 3 behind the Jennings County Highway

Garage. A full description of the SEIRD and its programs can be found at www.seird.org. A copy of the SEIRD brochure for Jennings County programs is included in Appendix F.

5.3.8 Public Notification Program

In accordance with the CSO Public Notification Rule, the city will annually publish a public notification in the North Vernon Plain Dealer & Sun that will explain the presence of the combined sewer system, its impact on the environment during wet weather and how interested parties can be notified of CSO events. These publications will take place in March of each year.

To make certain that as much of the public as possible is notified in the event of a CSO event, media outlets are notified every time the CSO discharges. A fax is sent to Jennings County Health Department, North Vernon, Plain Dealer & Sun, WJCP Radio (92.7 FM) and the Mayor's Office at the Town of Vernon. A fax is also sent to the Friends of the Muscatatuck River environmental organization to inform them of CSO events. One resident is notified by e-mail at his request.

The city has posted a total of three (3) public notification signs to inform those who recreate in the Muscatatuck River. There is one sign at the WWTP where Outfall 002 is located; one at a public access site downstream; and one in the limits of the Town of Vernon. The Wastewater Department continues to make a concerted effort to notify the public in hopes of preventing human contact with CSO.

5.3.9 Monitoring

CSO discharges from CSO 002 are currently monitored for frequency, duration and volume, as previously discussed The collected data is reported on the Monthly CSO Monthly Report of Operations. Upon full implementation of the revised CSO Long-Term Control Plan (LTCP), the City of North Vernon will be required to meet treatment standards that are outlined in IDEM's CSO Treatment Facilities Non-Rule Policy Document Number Water-016 for discharges from Outfall 002 and report them to IDEM on its form.
North Vernon is committed to continuing this program and will be adding stream sampling to the effort to ascertain what, if any, impacts are manifested in the receiving stream.

5.4 Performance of Proposed System

The North Vernon wastewater system continues to undergo significant changes. It is estimated that these changes will continue into 2017. Upon full implementation of the LTCP, the changes will have addressed all aspects of the management, operation and maintenance of the entire wastewater system. These changes will**:**

- Increased the capacity of the wastewater treatment plant headworks;
- Increase the capacity of the collection system;
- Increased the capacity to treat and store wet weather flows.

Whereas several improvements have been implemented and additional improvements will continue to be made, the exact performance of the wastewater system when all improvements are completed and implemented can only be predicted.

To achieve the stated performance goals, the operating strategy for the wastewater system will accomplish the following.

a. Maximize hydraulic and storage capacity of the collection system by implementation and operation of an active and ongoing maintenance program. This will include the use of the inline storage that was installed at the Southwest Lift Station and the rest of Phase I of the LTCP that was implemented in 2014.
b. Increase and maximize the hydraulic and organic treatment capacity of the treatment plant by completion of the headworks upgrade in 2012. This provides preliminary treatment for a 12.0 MGD flow rate and screening/grit removal that is sent to the EQ basin. Implementation of the SOPs which allow for operation of the treatment plant at maximum capacity during wet weather events.
c. Maximize excess wet weather flow storage capacity by operating the 1.0 MG EQ basin per best management practices.
d. Full implementation of Phase II of the LTCP in 2017 will allow the WWTP to be fully maximized and when combined with the wet weather treatment facility a flow rate of 40.0 MGD to receive treatment and disinfection in accordance with IDEM's CSO Treatment Facilities Non-Rule Policy Document Number Water-016.
e. Prohibit the physical connection of any overflow or bypass piping to the outfall structure(s) at the receiving stream.
f. Prevent any dry weather overflows by the scheduled routine monitoring and maintenance of the one (1) CSO location.
g. Reduce the risk of treatment plant process failure by the continuous monitoring of critical operating conditions.
h. Reduce the risk to public health by the controlled discharge of excess wet weather flows at the one (1) CSO location and by posting a sign at the CSO location.
i. Monitor CSO discharge water quality to demonstrate that no impact or deterioration of the receiving stream water quality occurs.

5.5 Operational System Requirements

5.5.1 Wet Weather Control - Flood Proofing

There are some sewers and manholes within the North Vernon collection system that lie near or in small streams or swales, which are subject to flooding during wet weather. A priority of the Wastewater Department has been to physically inspect each and every manhole in the collection system. There have been several which were subject to inflow during wet weather. Each of these manholes have been raised or have had water tight, boltdown lids and castings installed to reduce if not eliminate the inflow into the collection system.

5.5.2 Flow Monitoring

Flow monitoring data must be collected to refine estimates of system flow for wet and dry weather, and to characterize diurnal variations. This information will be necessary to implement this Plan. Precipitation data will be collected in the area being monitored to correlate wet weather flows to subbasin flow observed.

Each of these lines have been broken into subbasins and as the collection system study efforts proceeds, each of the subbasins will be studied in-depth by conducting flow monitoring and rainfall data collection to determine the extent of the inflow into each subbasin.

Monitoring data is essential to control system design. Diurnal flow variations can be significant, so control strategies will have to recognize the varying capacities over the course of the day. System monitoring will identify these patterns for incorporation into the control strategy for CSO control.

5.6 Conclusion(s)

Since the original CSOOP approval, The North Vernon Wastewater Department continues to improve on its utility management, operation and maintenance of the wastewater system. The changes made, the development and implementation of SOPs, the training provided to Wastewater Department Staff, and the treatment plant upgrades have allowed the Wastewater Department to achieve the intent of the nine minimum controls (NMCs). The full implementation of the LTCP in 2017 will allow the Wastewater Department to fully manage CSO discharges in a way acceptable to IDEM and protecting of the environment and human health. North Vernon is committed to continue its aggressive program to implement needed changes and will continue to strive for optimum performance from the wastewater system.

SECTION 6 - IMPLEMENTATION AND SCHEDULE

6.1 Collection System

Phase 1 of the original LTCP called for evaluation and repair of the "most severely identified infiltration/inflow (I/I) problems" throughout the collection system during the first four years of implementation. As of 2012, North Vernon had spent approximately $518,655 on 3,695 feet of sewer replacements and repairs along with the repair or replacement of fifteen (15) manholes.

The collection system investigation and evaluation is ongoing with additional repairs and replacements expected. As a part of the 2012 CSO LTCP Amendment, the Phase 1 evaluations of the original LTCP have identified an additional 5,317 feet of necessary sewer repair or replacement.

The Wastewater Department has a line item in its budget for $35,000 per year to utilize for sewer replacement. A sewer replacement project on Madison Avenue is scheduled for 2015. To assist with sewer separation and drainage issues, a stormwater utility has been formed which adds another source of funds for storm sewer projects.

6.2 Lift Station Upgrades

6.2.1 Northeast Lift Station

The Northeast Lift Station is located in the Northeast Sub-basin along Fifth Street across from the existing Stone Quarry on the north side of the city. . This lift station serves both residential and commercial users for an area of approximately 55 acres. The existing lift station consists of two (2) pumps rated at 15 hp. The force main is 6" in diameter and extends in a southerly direction, finally terminating in a manhole approximately 500 feet away. During significant rain events, this lift station experiences surcharging.

During development of the CSO LTCP, it was determined that the surcharging of the Northeast Lift Station was a result of significant infiltration/inflow (I/I). To address the surcharging issue as a part of Phase I of the CSO LTCP, North Vernon replaced 400' of 8" sewer line, two (2) manholes and all sewer laterals in the project area.

In 2015, the Northeast Lift Station project was post-construction monitored and determined to be effective in eliminating surcharges.

6.2.2 Northwest Lift Station

The Northwest Lift Station is located in the Northwest Sub-basin along State Road 7. This lift station serves both residential and commercial users for an area of approximately 275 acres.

The existing lift station consists of two (2) wet wells. The first wet well includes one (1) pump rated at 20 hp and its associated 6" force main that terminates into manhole AD-1, which is located on the south edge of City Park and this force main is approximately 4,800 feet in length. The second wet well consists of two (2) pumps rated at 15 hp and the associated 8" force main that terminates at a manhole AF-1, which is located on Second Street and approximately 3,300 feet in length.

During development of the CSO LTCP, it was determined that the surcharging of the Northwest Lift Station was a result of significant I/I. Flow monitoring determined that a major source of the I/I was the Hickory

SECTION 6 - IMPLEMENTATION AND SCHEDULE

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Phase 1 of the original LTCP called for evaluation and repair of the "most severely identified infiltration/inflow (I/I) problems" throughout the collection system during the first four years of implementation. As of 2012, North Vernon had spent approximately $518,655 on 3,695 feet of sewer replacements and repairs along with the repair or replacement of fifteen (15) manholes.

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The Northeast Lift Station is located in the Northeast Sub-basin along Fifth Street across from the existing Stone Quarry on the north side of the city. . This lift station serves both residential and commercial users for an area of approximately 55 acres. The existing lift station consists of two (2) pumps rated at 15 hp. The force main is 6" in diameter and extends in a southerly direction, finally terminating in a manhole approximately 500 feet away. During significant rain events, this lift station experiences surcharging.

During development of the CSO LTCP, it was determined that the surcharging of the Northeast Lift Station was a result of significant infiltration/inflow (I/I). To address the surcharging issue as a part of Phase I of the CSO LTCP, North Vernon replaced 400' of 8" sewer line, two (2) manholes and three (3) sewer laterals in the project area.

In 2015, the Northeast Lift Station project was post-construction monitored and determined to be effective in eliminating surcharges.

6.2.2 Northwest Lift Station

The Northwest Lift Station is located in the Northwest Sub-basin along State Road 7. This lift station serves both residential and commercial users for an area of approximately 275 acres.

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During development of the CSO LTCP, it was determined that the surcharging of the Northwest Lift Station was a result of significant I/I. Flow monitoring determined that a major source of the I/I was the Hickory

6.4 Short Term Actions

The Wastewater Department has a Capital Improvement Plan (CIP) that takes a two phased approach to addressing the needs of the wastewater system. Phase I of the CIP are years 0-4 of the program. In 2015, the Wastewater Department has the following Phase I expenditures budgeted/planned. The short term actions will also include the implementation of Phase II of the LTCP. This project includes the conversion of an existing 200,000 gallon tank to a surge basin and the construction of HRC treatment unit and disinfection system. This work is to be completed in 2017.

Collection System

- Collection System Improvements - $50,000
- Northeast Lift Station - $80,000
- Property Purchase - $80,000
- Collection System Repairs - $35,000/year
- South State Sewer (3,000') - $410,000
- Annexation - $100,000
- Madison Avenue Sewer (400' of sanitary & storm)- $300,000

Wastewater Treatment

- Completion of Phase II of the CSO LTCP – $5,198,725
- Rebuild Sand Filters - $15,000
- Vactor Dump Pit - $20,000
- IPS Pump & VFD & Control Panel - $75,000

Storm Water

- Box Culvert on Oakridge - $40,000
- Stormwater Improvements - $70,000

6.5 Long Term Actions

Phase II of the CIP, planned by the Wastewater Department, is for years 5-25. In 2015, the Wastewater Department has the following Phase II expenditures budgeted/planned. These actions are long term and could change depending on the needs of the Wastewater Department as time progresses.

Wastewater Treatment

- Non-potable Water Main - $100,000

Storm Water

- Box Culvert on Dallas Drive - $95,000

6.6 Summary

North Vernon has already completed many activities, i.e., upgrading the treatment plant, replacing the WWTP headworks; repairing and rehabilitating the lift stations, adding in-line storage at the southwest lift station, eliminating overflows at the lift stations; physically disconnecting the EQ basin overflow bypass piping from the effluent pipe; etc., that would have appeared in the short and long term actions of this Plan.

The city has plans to finish addressing its CSO discharges by implementing Phase II of the LTCP with the construction of the wet weather treatment facility by the end of 2017. This will include a HRC and disinfection unit. North Vernon is committed to aggressively addressing the actions required by this Plan and will continue to meet the requirements set forth in its operation and maintenance program, while staying within the fiscal constraints of a municipality that has to spend several million dollars in the next few years.

APPENDIX A

CAMPBELL TOWNSHIP
WASTEWATER TREATMENT CONTRACT

This contract for the treatment of wastewater is entered into as of the 30th day of January 2014, between the City of North Vernon, Indiana, hereinafter referred to as the "Processor and the Campbell Township Regional Sewer District, Indiana, hereinafter referred to as the "District," witnesseth:

WHEREAS, the District is organized and established pursuant to an *Order* issued on May 6, 1997, by the Indiana Department of Environmental Management, and

WHEREAS, the Processor owns and operates a wastewater treatment facility with capacity currently capable of serving the present customers of the Processor and the estimated number of homes and facilities to be served by the District.

WHEREAS, by resolution of the Board of the District, and enacted on the 2nd day of December, 2013, the processing of wastewater from the "District by the Processor in accordance with the terms set forth in the Agreement was approved, and the execution of this contract by District Board Members was duly authorized.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements herein set forth.

A. The Processor agrees:

1. To receive, process and dispose of all wastewater at the point of delivery hereinafter specified, during the term of this contract or any renewal or extension thereof, in such quantity as may be required by the District.
2. To receive into its mains wastewater discharged from the District by a main and lift station, the cost of operating the lift station will be borne by the District.
3. Emergency failures caused by main sewer line breaks, power failure, flood, fire, earthquake or other catastrophe shall excuse the Processor from the provisions of this contract for such reasonable period of time as may be necessary to restore services.
4. To operate and maintain at its own expense at point of delivery, the necessary metering equipment, including a meter house or pit, and required devices of standard type for properly measuring the quantity of wastewater delivered to Processor and to calibrate such metering equipment whenever requested by District, but not more frequently than once every twelve (12) months. A meter registering not more than two percent (2%) about or below the test result shall be deemed accurate. The previous readings of any meter disclosed by test to be inaccurate shall be corrected for the twelve (12) months previous to such test in accordance with the

percentage of inaccuracy found by such tests. If any meter fails to register for any period, the amount of wastewater received during such period shall be deemed to be the amount of wastewater received in the corresponding period immediately before the failure, unless District and Processor shall agree upon a different amount. The metering equipment shall be read on the 1st day of each calendar month. The Processor will print out a graph of the flow for that billing period.

5. Processor agrees to furnish the District by main at Butlerville, Indiana no later than the 10th day of each month with an itemized statement of wastewater received by Processor during the previous month.

B. The District agrees:

1. To pay the Processor not later than thirty (30) days after the receipt of each statement for sewage processed in accordance with the following schedule of rates:

Cost of Treatment	$4.21 per 1,000 gallons
Operation, Maintenance & Replacement	$1.85 per 1,000 gallons

The "Operation, Maintenance and Replacement" charge of $1.85 per 1,000 gallon is to be trued up after the first year, and adjusted accordingly.

2. The District will pay a one-time capacity fee of $19,000.00 within thirty (30) days from the date this agreement is executed by both parties.

3. The District agrees to furnish and install the metering equipment, and the cost of connections and expenses incidental to the installation of the metering equipment, but thereafter Processor shall own and maintain the meter.

4. Processor has accepted the metering equipment from the District, and that it is in good operating condition based on it being tested by Gripp Incorporated.

C. It is further agreed between the Processor and the District as follows:

1. This contract shall extend for a term of one (1) year from the date of the metering delivery of wastewater as shown by the first bill submitted by the Processor to the District and, thereafter may be

renewed or extended for such term or terms, as may be agreed upon by the Processor and the District.

2. Thirty (30) days before the estimated date of completion of construction of the District wastewater disposal system and collection system, the District will notify the Processor in writing the date for the initial distribution of wastewater.
3. The Processor will, at all times, operate and maintain the system in an efficient manner and will take such action as may be necessary to dispose of all quantities of wastewater required to be disposed of by the District. Temporary or partial failure to receive and dispose of wastewater shall be remedied with al possible dispatch.
4. The provisions of this contract pertaining to the schedule of rates to be paid by the District for wastewater disposal are subject to modifications at the end of every one (1) year period. Any increase or decrease in rates shall be based on a demonstrable increase or decrease in the cost of wastewater disposal, but such costs shall not include increased capitalization of the Processor's sewer system. Other provisions of this contract may be modified or altered by mutual agreement.
5. This contract is subject to such rules, regulations or laws as may be applicable to similar agreements in this State and the Processor and the District will collaborate in obtaining such permits, certificates or the like, as may be required to comply therewith.
6. In the event of any occurrence rendering the District incapable of performing under this contract, any successor of the District, whether the result of legal process, assignment or otherwise, shall succeed to the rights of the District hereunder.
7. District agrees to comply with and obey the provisions of Processor's sewer use ordinance number 927.

In Witness Whereof, the parties hereto, acting under the authority of their respective governing bodies, have caused this contract to be executed in for (4) counterparts, each of which shall constitute an original.

Processor:
City of North Vernon

Date: 1-30-14

By: Harold Campbell
Harold Campbell, Mayor

Attest:

By:
Shawn Gerkin, Clerk-Treasurer

District:
Campbell Township Regional Sewer District

Date: 01/29/2014

By: _____
Chad Pittman, President

Attest:

By: _____
Charles C. Shook, Secretary

MEMORANDUM OF AGREEMENT

BETWEEN THE

MILITARY DEPARTMENT OF INDIANA

AND THE

CITY of NORTH VERNON, INDIANA

1. SUBJECT. This Memorandum of Agreement (MOA) is made and entered into between the Military Department of Indiana, "MDI", and the City of North Vernon, Indiana, "City", as pertains to the treatment of sewage currently processed within the property boundaries of the Atterbury-Muscatatuck training facility, "MTF", located in the vicinity of Butlerville, Indiana. More specifically, this MOA addresses mutual roles and responsibilities related to the offered and accepted sewage treatment service to be provided by the City. Further, this MOA addresses the collection, transmission, and treatment of sewage generated by and through the MTF, as well as the means by which said sewage will be transmitted to the City.

2. REFERENCES. References for this MOA include acknowledgement that the City, through its incorporated status and the laws of the State, has established a public utility for the purpose of providing sewage collection and treatment for North Vernon and areas immediately contiguous thereto. Additionally, provisions outlined and agreed to herein are consistent with the guidance and conditions of the current "Sewer Use Ordinance", as promulgated by the City; and, inasmuch as practical without challenge, all subsequent versions.

This MOA, as further reference, incorporates the various provisions of all preceding formal and informal discussions and documentation, wherein the MDI, through its authorized agents, and the City, through its authorized agents, have agreed, in principle, to the assumption of sewage treatment service by the City. Specifically, the City has agreed to provide sewage treatment for the MTF, at service rates consistent with Local, State, and Federal guidelines; and formally stipulated in the terms and conditions provided in the Addendum appended hereto.

In return, the MDI will establish connectivity to the City utility at the southern boundary of the MTF; and, has agreed to provide and maintain a lift station consistent with the projected flow as generated by the MTF and its current customers of the Campbell Township Sanitary Sewer District and the Brush Creek Elementary School. Rates for those MTF serviced customers will be negotiated independent of this MOA by duly designated representatives of the customers and the City.

3. BACKGROUND. This MOA is necessitated by the aging condition of sewage treatment facility located at the MTF; the inherent inefficiencies involved in the treatment of low flow effluents; the presence of an acceptable treatment alternative through the auspices of Jennings County and the City; and, availability of adequate sewage treatment capacity at the City utility.

Additionally, parties to this MOA have agreed to independently fund all system modification costs associated with the agreed upon service connection at the southern boundary of the training facility. Although not signatories hereto, agents for the customers of the MTF treatment facility have been apprised of this agreement, and subsequent responsibilities for negotiating individual treatment rates with the City.

4. RESPONSIBILITIES. This MOA is to serve as a baseline of information and formal cooperative agreement from which mutually acceptable rates and service specifications can be developed and periodically modified. Assignment of rates will be as reported in the Addendum hereto, and as established in the terms and conditions that follow.

Now, therefore, and in consideration of the mutual covenants described herein, the parties agree to the following listed terms and conditions.

A. Force Main and Meter Installation, and Maintenance.

Upon satisfaction of the terms and conditions specified herein, the MDI, through its agents and assigns, shall design; construct; and maintain a wastewater lift station and force main to the southern MTF boundary for execution of connection to the City owned and provided force main.

The MDI shall be responsible for maintaining its constructed lift station and force main in good working condition for not less than 15 years from date of connection with, and completion of the project undertaken by the City and Jennings County to extend the sanitary sewer force main to the MTF southern boundary. Or, specifically, not less than 15 years from the Project Completion Date, IAW Economic Development Administration Award No. 06-01-05376.

As part of its construction project, the MDI will furnish a meter to be located at, or near its boundary and convenient to the point of connection, hereinafter referred to as the "Delivery Point" under this MOA. The cost of any future replacement meters at the Delivery Point shall become the responsibility of the City.

Any "Deduct Meters" associated with the billing of customers other than the MTF shall be supplied and installed by the City. Parties hereto acknowledge that the Campbell Township Sanitary Sewer District and Brush Creek Elementary School, current customers of the MTF treatment facility, will have wastewater connection to the City through existing connections to the MTF collection system. The City agrees to make no additional connections to the MTF wastewater collection system without written permission of the MDI to do so.

B. Ownership of Facilities.

The lift station, force main, and appurtenances thereto, as reside within the boundaries of the MTF, shall be the property and maintenance responsibility of the MDI. The force main and associated appurtenances constructed by the City outside the MTF boundary shall remain the property of the City. The MDI and the City shall have the shared right of access to the meter at the Delivery Point for purposes of verifying meter readings, and for obtaining samples for testing water quality.

The MDI shall retain the right to have the meter calibrated for accuracy at regular intervals, at its own expense. The meter may be calibrated at other occasions, as deemed necessary, at the expense of the requesting Party. A meter measuring within one percent (1%) of accurate shall be deemed accurate. In the event the meter is registering inaccurately, bills to the MDI shall be adjusted for the period over which it is determined to have been inaccurate, but not to exceed one year.

C. Payments.

The MDI agrees to pay the City a onetime Tap & Capacity fee based on a projected flow rate of 56,000 gallons per day, and subsequent monthly sewage charges thereafter, IAW the City's normal billing procedures; and, as further defined in the Addendum to this Agreement. The Addendum, published independent to, but serving as an integral element of this MOA, represents the mutually accepted rate schedule for sewage treatment services described herein. As such, the Addendum, and any subsequent modification thereof, will be the joint product of all parties to this MOA; and, will be modified, as needed, to adjust the rate schedule to remain consistent with local, State, and Federal guidelines. The Addendum, and each revision thereof, published as a numbered Change, shall be affixed hereto, and become a part of this Agreement.

D. Initial Delivery Date.

The MDI, on behalf of the MTF, shall provide the City a 60 day notice of the anticipated date upon which sewage treatment service will be required from the City ("Initial Delivery Date") in order for the City to have sufficient time to install any facilities or appurtenances thereto as may be required for the service. However, the Initial Delivery Date shall not occur before November 1, 2013; and, in no event more than 24 months after the date of the signing of this MOA.

E. Capacity Shortages.

The City will endeavor to maintain and operate its collection system and treatment facility in an efficient manner. In the event of a shortage of treatment capacity over an extended period of time, the amount of treatment capacity allotted to the MDI shall be reduced or diminished in the same ratio or proportion as the restrictions placed on other City treatment customers.

F. Operational Sovereignty.

As identified herein, this MOA is entered into for the sole purpose of transferring the sewage treatment functions of the MTF to the City. In so doing, the parties to this MOA acknowledge the need to maintain the functional integrity of both the City and the MDI, each with separate authorities and responsibilities; and, that the service improvements inherent in the execution of this MOA are in the best interest of all parties, and the general public.

Be it known, therefore, that the MDI will not engage in any activity that would interfere with the operational functions of the City, and will only request information consistent with the service provided to the MTF. However, in consideration of the level of cooperation existent

between the parties, it is agreed that the MDI will provide an Ad Hoc representative to the City for any subsequent revisions of the "Sewer Use Ordinance".

5. AMENDMENT. Alteration, modification, and/or amendment of this MOA is not permitted, except by written document, with the concurrence and signatures of all parties. Each party, therefore, represents that it will not participate in any future agreement or understanding not reduced to writing and incorporated into this MOA as a written amendment prior to execution.

6. INTEGRATION. This MOA, and any provision and/or document discussed herein, as well as any subsequent amending documents, represent the entire understanding among and between the parties. By signing this MOA, the MDI and the City, by and through duly appointed agents, acknowledge that no other agreements regarding the transfer of the sewage treatment function from the MTF to the City exist; and, that if any such oral or written agreements exist, they are hereby superseded.

7. DURATION AND TERMINATION. This MOA will commence upon the signing by the designated party representatives; and will remain in effect, in its present and/or amended form, for an indefinite period, but in any case not less than 15 years from the Project Completion Date. This MOA may be subject to periodic review, as necessitated by the nature of the described activity; and, said review may be requested by either the City or the MDI. Furthermore, this MOA may be terminated, with the written consent of both parties, if prevalent conditions change or are negated by unforeseen future circumstances, provided that such termination occurs not less than 15 years from the Project Completion Date.

Therefore, and with the due diligence afforded them as authorized representatives of the parties to this MOA, as identified herein, the parties, having read and understood the content, do, by their respective signatures dated below, hereby agree to the provisions of this MOA.

Signatories to the Memorandum of Agreement:

Military Department of Indiana

By: _____
R. Martin Umbarger, Adjutant General

Date: 18 Nov. 13

City of North Vernon, Indiana

By: _____
Harold N. Campbell, Mayor

Date: 18 Nov 2013

In Witness Thereof

By: _____
Jack E. Fowler, LTC (R), AUSA

Date: 18 Nov 13

Addendum: Service Rates

ADDENDUM

TO

MEMORANDUM OF AGREEMENT

BETWEEN THE

MILITARY DEPARTMENT OF INDIANA

AND THE

CITY of NORTH VERNON, INDIANA

1. SUBJECT. This Addendum to the Memorandum of Agreement (MOA), subject "Sewage Treatment Service", as executed between the Military Department of Indiana "MDI" and the City of North Vernon, Indiana "City", presents the service rates as developed and adopted by all parties to the MOA.

2. REFERENCES. The references for this Addendum include the MOA, the provisions as outlined therein; and, the guidance and conditions of the current "Sewer Use Ordinance", as promulgated by the City.

3. BACKGROUND. This Addendum to the MOA is the result of mutually accepted terms and conditions presented therein; establishes service rates associated with collection and treatment of sewage generated by, and through the Atterbury-Muscatatuck Training Facility (MTF); and, also provides the framework for future rate reviews and adjustments.

4. RESPONSIBILITES. This Addendum, and each subsequent numbered **Change** thereof, is to serve as the accepted service rates for sewage collection and treatment provided by the City to the MTF. All parties to the MOA, and this Addendum, are responsible to insure that established rates are mutually acceptable; periodically reviewed and adjusted, when necessary; and remain consistent with Local, State, and Federal guidelines.

A. Rate Determination. The rates and charges, as promulgated herein, are the culmination of negotiations between the MDI and the City; and, represent terms and conditions memorialized in the MOA between the parties thereto. In addition, sewage treatment rates will be based on the City's standard tariff rate for similarly situated users; and, will remain consistent with applicable regulatory guidelines.

1) Base Rate. A "base rate" of **$4.21** per thousand (1,000) gallons of sewage collected and treated by the City will be charged, and invoiced monthly. Said base rate, as the minimum rate, incorporates projected sewage treatment requirements of the MTF and the City's standard tariff rates.

2) Cost of Service. A "volumetric charge" will be established at a rate of **$1.85** per thousand (1,000) gallons of collected and treated sewage; and consists of the actual costs of delivery from the lift station, located within the boundary of the MTF, to the City's treatment facility. The volumetric charge is in addition to the base rate shown in "A.1" above; and is the

result of the operation and maintenance of the force main and associated special equipment. The charge will be determined using the metered flow of sewage transported from the MTF lift station to the City treatment facility, subject to the flow deduction described in "3", below.

3) Metered Flow. Rates and charges, as presented herein, will be applied to the total metered flow transmitted from the MTF during the invoice period, less any metered flows from the Campbell Township Sanitary Sewer District; the Brush Creek Elementary School; and any other users whose flow passes through, or may in the future pass through the MTF lift station.

4) Assurances. The City acknowledges and further stipulates to the MDI that service rates set forth herein are currently, and shall perpetually be, the lowest rates charged by the City to any similarly situated customer within the City's customer base and/or jurisdiction. At no time shall any similarly situated customer receive a lower minimum charge or per gallon rate than established for the MDI.

B. Monthly Payments. The MDI, on behalf of the MTF, agrees to pay the City for sewage collection and treatment services on a monthly basis. Monthly invoicing by the City shall be, and will remain the payment procedure for the duration of this Addendum to the MOA. Further, the monthly invoicing will utilize rates and charges established herein, or in any subsequent numbered **Change** hereto; and, as determined by the volume of sewage collected and treated each month, in accordance with the City's normal billing procedures.

1) Invoice Preparation. The final billable flow for each monthly invoice, produced by the City for payment by the MDI, will be determined utilizing deduction methodology presented in "A.3", above.

2) Schedule of Payments. The MDI agrees to provide full monthly payment to the City, in accordance with provisions of the State's "Prompt Payment Act", mailed or delivered on the date specified for the amount specified; or, if no date is specified, within 35 days from the date upon which the MDI receives the invoice; and, at the rate(s) specified in "A", above.

3) Late Fees. The City may, after 60 days from the date of invoicing, levy a late fee against the MDI at the current rate associated with other similarly situated customers of the City's treatment facility; but may not exceed any rate limits established by State procedures regarding payment for goods and services.

4) Fiscal Conformity. All payments shall be made in arrears in conformance with State fiscal policies and procedures; and, as required by IC 4-13-2-14.8, by electronic funds transfer to the Financial Institution designated by the City in writing, unless a specific waiver has been obtained from the Auditor of the State. No payments shall be made in advance of receipt of the invoice for treatment services rendered, except as permitted by IC 4-13-2-20.

5) Invoicing Process. The City shall present a monthly invoice to the MDI, on or about the 25th of each month, which provides an itemized statement of the amount of sewage treated for the MTF during the preceding month, and charges associated therewith. Invoices will be sent to the MDI through the postal address as follows: **Atterbury-Muscatatuck Training Facility; Attn: Accounts Payable; 4230 E Administration Dr, P.O. Box 77; Butlerville, IN 47223.**

C. Rate Adjustment. Base rate and related service charges presented herein, and addressed in the MOA, are subject to periodic review and adjustment due to variants impacting treatment services. Those variants could include changes to basic flow rates; to the volume of transmitted effluents; or, to actual costs associated with operation and maintenance of the force main.

1) Formal Review. Under no circumstances, however, shall any treatment service rates be adjusted without a formal review, as established by the MOA. Rates set forth herein shall remain "fixed" for a 12 month period, commencing with initiation of MDI requested sewage treatment by the City. The rates will be considered for adjustment at, or before the 12 month anniversary; and may be extended at the same or an adjusted level for an additional period of 12 months, ad infinitum.

2) Adjustment Equity. A final rate extension and/or adjustment is wholly contingent upon mutual agreement by the MDI and the City, through duly designated representatives; and must be coincidental with rate changes being implemented on an across-the-board basis whereby all City sewage treatment customers are subjected to rate adjustment(s) of the same percentage.

3) Exception. The City may implement rate adjustments other than on an across-the-board basis, provided the extent of the rate adjustment as applied to the MDI, is limited to the recovery of additional demonstrated actual costs directly attributable to the collection and treatment of sewage from the MTF.

5. DURATION AND TERMINATION. The provisions of this Addendum, in consideration of covenants promulgated in the cited MOA, will commence upon signing by representatives of the MDI and the City; and with initiation of the sewage treatment services discussed herein.

This Addendum, and the rate(s) presented herein, shall remain in effect, in its present form or as a numbered **Change** thereof, for an indefinite period. Furthermore, this Addendum may not be terminated, in whole or in part, without written modification or termination of the MOA.

Therefore, and with the due diligence afforded them as duly authorized representatives of the parties to the MOA, the representatives, having read and understood the content, do, by their respective dated signatures below, hereby agree to the rates and procedures established herein.

Military Department of Indiana

By: John W. Bailey
John Bailey, COL (R), Controller

Date: 25 April 2014

City of North Vernon, Indiana

By: Russell L Vaught
Russell Vaught, Superintendent

Date: 25 April, 2014

In Witness Thereof

By: Jack E. Fowler
Jack E. Fowler, LTC (R), AUSA

Date: 25 Apr 14

JENNINGS COUNTY SCHOOL

WASTEWATER TREATMENT CONTRACT

This contract for the treatment of wastewater is entered into as of the 2nd day of October, 2013, between the City of North Vernon, Indiana, hereinafter referred to as the "Processor and the Jennings County Schools, hereinafter referred to as the "JCS", witnesseth:

WHEREAS, the JCS is organized and established under the provisions of a Charter from the State of Indiana, and

WHEREAS, the Processor owns and operates a wastewater treatment facility with capacity currently capable of serving the present customers of the Processor and the estimated number of homes and facilities to be served by the JCS.

WHEREAS, by resolution of the Board of the JCS, and enacted on the 30th day of September , 2013, the processing of wastewater from the "JCS" by the Processor in accordance with the terms set forth in the Agreement was approved, and the execution of this contract by Jennings County Board Members was duly authorized.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements herein set forth.

A. The Processor agrees:

1. To receive, process and dispose of all wastewater at the point of delivery hereinafter specified, during the term of this contract or any renewal or extension thereof, in such quantity as may be required by the JCS.
2. To receive into its mains wastewater discharged from the JCS by a main and lift station, the cost of operating the lift station will be borne by the JCS.
3. Emergency failures caused by main sewer line breaks, power failure, flood, fire, earthquake or other catastrophe shall excuse the Processor from the provisions of this contract for such reasonable period of time as may be necessary to restore services.
4. To operate and maintain at its own expense at point of delivery, the necessary metering equipment, including a meter house or pit, and required devices of standard type for properly measuring the quantity of wastewater delivered to Processor and to calibrate such metering equipment whenever requested by Processor, but not more frequently than once every twelve (12) months. A meter registering not more than two percent (2%) about or below the test result shall be deemed accurate. The previous readings of any meter disclosed by test to be inaccurate shall be corrected for the twelve (12) months previous to such test in accordance with the percentage of inaccuracy found by such tests. If any meter fails to register for any period, the amount of wastewater received during such period shall be deemed to be the amount of wastewater received in the corresponding period immediately before the failure, unless JCS and Processor shall agree upon a different amount. The metering equipment shall be read on the 1st day of each calendar month. The Processor will print out a graph of the flow for that billing period.
5. Processor agrees to furnish the JCS by main at North Vernon, Indiana no later than the 10th day of each month with an itemized statement of wastewater received by Processor during the previous month.

B. The JCS agrees:

1. To pay the Processor not later than thirty (30) days after the receipt of each statement for sewage processed in accordance with the following schedule of rates:

Cost of Treatment	$4.21 per 1,000
Operation, Maintenance & Replacement	$1.85 per 1,000
One Time Tap & Capacity Fee	$12,250.00

2. The JCS agrees to furnish and install the metering equipment, and the cost of connections and expenses incidental to the installation of the metering equipment, but thereafter Processor shall own and maintain the meter.

C. It is further agreed between the Processor and the JCS as follows:

1. This contract shall extend for a term of one (1) year from the date of the metering delivery of wastewater as shown by the first bill submitted by the Processor to the District and, thereafter may be renewed or extended for such term or terms, as may be agreed upon by the Processor and the JCS.
2. Thirty (30) days before the estimated date of completion of construction of the District wastewater disposal system and collection system, the JCS will notify the Processor in writing the date for the initial distribution of wastewater.
3. The Processor will, at all times, operate and maintain the system in an efficient manner and will take such action as may be necessary to dispose of all quantities of wastewater required to be disposed of by the JCS. Temporary or partial failure to receive and dispose of wastewater shall be remedied will al possible dispatch.
4. The provisions of this contract pertaining to the schedule of rates to be paid by the JCS for wastewater disposal are subject to modifications at the end of every one (1) year period. Any increase or decrease in rates shall be based on a demonstrable increase or decrease in the cost of wastewater disposal, but such costs shall not include increased capitalization of the Processor's sewer system. Other provisions of this contract may be modified or altered by mutual agreement.
5. This contract is subject to such rules, regulations or laws as may be applicable to similar agreements in this State and the Processor and the JCS will collaborate in obtaining such permits, certificates or the like, as may be required to comply therewith.
6. In the event of any occurrence rendering the JCS incapable of performing under this contract, any successor of the Town, whether the result of legal process, assignment or otherwise, shall succeed to the rights of the JCS hereunder.
7. JCS agrees to comply with and obey the provisions of Processor's sewer use ordinance number 927.

In Witness Whereof, the parties hereto, acting under the authority of their respective governing bodies, have caused this contract to be executed in for (4) counterparts, each of which shall constitute an original.

Processor:
City of North Vernon
By: _____
Mayor

Attest:
_____
Clerk-Treasurer

JCS:
Jennings County School
By: _____
Chairman

Attest:
_____
Clerk-Treasurer

4-21

FILE

AGREED MODIFICATION
TO
WASTEWATER TREATMENT CONTRACT

This agreement is entered into effective August 1, 1995, between the City of North Vernon, Indiana, hereinafter referred to as the "Processor" and the Town of Vernon, Indiana, hereinafter referred to as the "Town" and

WITNESSETH THAT:

WHEREAS, the Processor and the Town have previously entered into a certain WASTEWATER TREATMENT CONTRACT dated April 3, 1971, a true and correct copy of which is attached hereto as "Exhibit A" and which is incorporated herein by reference; and,

WHEREAS, circumstances have arisen which require certain modifications to the WASTEWATER TREATMENT CONTRACT in order to comply with applicable statutes and regulations and to provide for the continued efficient operation of the Processor's wastewater treatment facilities; and,

WHEREAS, both the Common Council of the City of North Vernon and the Town Board of Vernon have duly authorized the execution of this agreed modification;

NOW, THEREFORE, in consideration of the mutual agreements set forth herein, IT IS AGREED AS FOLLOWS:

1. Town hereby agrees to comply with any and all present and future pretreatment programs and sewer use ordinances duly enacted by the Processor.

2. Town shall pay any and all present and future sewer availability or capacity fees as set forth in the Processor's duly enacted ordinances.

3. Town shall submit to the Processor for review and approval any and all proposed sewer connection plans relating to the Town's sewer collection system prior to approving any new or additional connections. This obligation shall not apply to the 51 connections previously planned by the Town for the subdivision known as "Indian Hills". Town hereby represents to the Processor that it has not approved any additional new connections to its sewer collection system since March 1, 1995. Town hereby acknowledges that the Processor has the right under its duly enacted ordinances to withhold or prevent approval of new connections to the Town's system in the event the Processor believes that any such new connection may adversely affect the Processor's ability to comply with then applicable federal and state statutes or regulations or adversely affect the operation of the Processor's wastewater treatment facilities.

4. Town hereby agrees that it shall not discharge wastewater to the Processor's wastewater collection system at a gallon per minute rate greater than four (4) times its average daily flow for the current month expressed in gallons per minute. in the event the Town's discharges exceed this amount, the Town shall pay an in-flow and infiltration penalty in the amount of One Thousand Dollars ($1,000.00) for each and every occurrence. This penalty shall be collectible in accordance with all present and future sewer rate ordinances duly enacted by the Processor which are expressly incorporated herein by reference.

5. The Town shall at its expense purchase and install a Doppler flowmeter with totalizer and 24 hour recording chart for the purposes of determining its discharge flow rates to the Processor's sewer collection system. Processor shall be responsible for the operation and maintenance of the flowmeter including any necessary calibrations.

6. The Town's future sewer rates shall be the following:

Beginning August 1, 1995 through December 31, 2000

Operation, Maintenance & Replacement	$1.99 per 1,000 gallons
Debt Service	$1.08 per 1,000 gallons
Total User Charge Rate	$3.07 per 1,000 gallons

Beginning January 1, 2001

Operation, Maintenance & Replacement	$1.99 per 1,000 gallons
Debt Service	$0.79 per 1,000 gallons
Total User Charge Rate	$2.78 per 1,000 gallons

7. In the event the Town makes a one (1) time capital contribution in the amount of $66,000.00 to assist in funding improvements to the Processor's wastewater treatment facilities during 1996, the "Debt Service" component of the Town's sewer rates will be eliminated from and after the date of the one (1) time payment.

8. Both parties acknowledge that all terms and provisions contained in the parties' WASTEWATER TREATMENT CONTRACT not specifically modified herein remain in full force and effect, including, but not limited to paragraph C4.

In witness whereof, the parties hereto, acting under the authority of their respective governing bodies have caused this agreement to be executed.

Processor:

City of North Vernon

By: John G. Hall
JOHN G. HALL, Mayor

Attest:

Lulu Belle Webb
Lulu Belle Webb, Clerk-Treasurer

Town:

Town of Vernon

By: Allie Haselwood
Mayor

Attest:

Marietta A. Rooker
Clerk-Treasurer

This instrument prepared by: Corinne R. Finnerty, McConnell & Finnerty, Post Office Box 90, North Vernon, Indiana 47265; telephone (812) 346-5201; Attorney No. 8086-40

FILE

WASTE WATER TREATMENT CONTRACT

This contract for the treatment of waste water is entered into as of the 2nd day of April, 1971, between the City of North Vernon, Indiana, hereinafter referred to as the "Processor" and the Town of Vernon, Indiana, hereinafter referred to as the "Town", witnesseth:

WHEREAS, the Town of Vernon is organized and established under the provisions of a Charter from the State of Indiana, and

WHEREAS, the Processor owns and operates a waste water treatment facility with capacity currently capable of serving the present customers of the Processor and the estimated number of homes and facilities to be served by the Town as shown in the plans of the proposed facility now on file in the Office of the Town, and

WHEREAS, by Ordinance No. 423 enacted on the 23rd day of March, 1971, by the Processor, the processing of waste water from the Town in accordance with the provisions of this ordinance was approved, and the execution of this contract carrying out the ordinance by the Mayor and attested by the Clerk-Treasurer, was duly authorized, and

WHEREAS, by resolution of the Town Council of the Town, and enacted on the 5th day of September, 1967, the processing of waste water from the Town by the Processor in accordance with the terms set forth in the Ordinance was approved, and the execution of this contract by the Mayor and the Clerk-Treasurer of the Town of Vernon was duly authorized.

NOW, THEREFORE, in consideration of the foregoing and the mutual agreements herein set forth.

A. The Processor agrees:

1. To receive, process and dispose of all waste water at the point of delivery hereinafter specified, during the term of this contract or any renewal or extension thereof, in such quantity as may be required by the Town of Vernon.

2. To receive into its mains waste water discharged from the Town of Vernon by a main and lift station, the cost of operating the lift station will be borne by the Town.

3. Emergency failures caused by main sewer line breaks, power failure, flood, fire, earthquake or other catastrophe shall excuse the Processor from the provisions of this contract for such reasonable period of time as may be necessary to restore services.

4. To operate and maintain at its own expense at point of delivery, the necessary metering equipment, including a meter house or pit, and required devices of standard type for properly measuring the quantity of waste water delivered to Processor and to calibrate such metering equipment whenever requested by Town, but not more frequently than once every twelve (12) months. A meter registering not more than two percent (2%) above or below the test result shall be deemed accurate. The previous readings of any meter disclosed by test to be inaccurate shall be corrected for the twelve (12) months previous to such test in accordance with the percentage of inaccuracy found by such tests. If any meter fails to register for any period the amount of waste water received during such period shall be deemed to be the amount of waste water received in the corresponding period immediately before the failure, unless Town and Processor shall agree upon a different amount. The metering equipment shall be read on the 1st day of each calendar month. An appropriate official of the Town at all reasonable times shall have access to the meter for the purpose of verifying the readings.

5. Processor agrees to furnish the Town by mail at Vernon, Indiana, not later than the 10th day of each month with an itemized statement of waste water received by Processor during the previous month.

B. The Town agrees:

1. To pay the Processor not later than thirty (30) days after the receipt of each statement for sewage processed in accordance with the following schedule of rates:

a. So long as the average daily use by the Town does not exceed 75,000 gallons per day computed on a thirty (30) day month the rate shall be twenty-seven (27) cents per 1,000 gallons.

b. If the average daily use exceed 75,000 gallons per day, then the rate shall be thirty-two (32) cents per 1,000 gallons.

2. Town agrees to furnish and install the metering equipment, including a meter house or pit, and the costs of connections and expenses incidental to the installation of the metering equipment, but thereafter Processor shall own and maintain the meter.

C. It is further agreed between the Processor and the Town as follows:

1. This contract shall extend for a term of forty (40) years from the date of the metering delivery of waste water as shown by the first bill submitted by the Processor to the Town and, thereafter may be renewed or extended for such term, or terms, as may be agreed upon by the Processor and the Town.

2. Thirty (30) days before the estimated date of completion of construction of the Town's waste water disposal system and collection system, the Town will notify the Processor in writing the date for the initial distribution of waste water.

3. The Processor will, at all times, operate and maintain the system in an efficient manner and will take such action as may be necessary to dispose of all quantities of waste water required to be disposed of by the Town. Temporary or partial failure to receive and dispose of waste water shall be remedied with all possible dispatch.

4. The provisions of this contract pertaining to the schedule of rates to be paid by the Town for waste water disposal are subject to modifications at the end of every two (2) year period. Any increase or decrease in rates shall be based on a demonstrable increase or decrease in the costs of waste water disposal, but such costs shall not include increased capitalization of the Processor's sewer system. Other provisions of this contract may be modified or altered by mutual agreement.

5. This contract is subject to such rules, regulations or laws as may be applicable to similar agreements in this State and the Processor and the Town will collaborate in obtaining such permits, certificates or the like, as may be required to comply therewith.

6. The construction of the waste water disposal system by the Town is being financed by a loan made or insured by, and/or a grant from the United States Department of Agriculture acting through the Farmers Home Administration of the United States Department of Agriculture, and the provisions hereof pertaining to the undertakings of the Town are conditioned upon the approval, in writing, of the State Director of the Farmers Home Administration.

7. In the event of any occurrence rendering the Town incapable of performing under this contract, any successor of the Town, whether the result of legal process, assignment or otherwise, shall succeed to the rights of the Town hereunder.

8. Town agrees to comply with and obey the provisions of Processor's sewer use ordinance number 282.

In Witness Whereof, the parties hereto, acting under the authority of their respective governing bodies, have caused this contract to be executed in four (4) counterparts, each of which shall constitute an original.

PROCESSOR:

CITY OF NORTH VERNON

By Gerald F. Eder
Mayor

Attest:

Lulu Belle Webb
Clerk-Treasurer

TOWN:

TOWN OF VERNON

By Robert Rockey Mayor
Mayor

Attest:

Alyce Steele
Clerk-Treasurer

This contract is approved on behalf of the Farmers Home Administration this ____ day of _____, 1971.

By _____

Title _____

ORDINANCE NO. 877

**AN ORDINANCE PERTAINING TO
A NORTH VERNON UTILITY SERVICE BOARD
RESOLUTION FOR
AN INCREASE IN WASTEWATER RATES
OF THE NORTH VERNON MUNICIPAL UTILITIES
FOR WHOLESALE CLIENTS**

WHEREAS, it is the goal of the North Vernon Utility Service Board and of the North Vernon Common Council to insure that rates and charges made by the City for services be nondiscriminatory, reasonable, and just;

WHEREAS, for the rates and charges for services to be reasonable and just, the rates and charges must be adequate to produce sufficient revenue for maintenance costs, operating charges, depreciation, and interest charges on bonds;

WHEREAS, a wastewater rate overview was conducted by O.W. Krohn Associates which recommended an increase of North Vernon Municipal Utilities wastewater rates of approximately 37% above existing rates;

WHEREAS, the Utility Service Board, recognizing the need to soften the initial impact, has passed a resolution, attached hereto, suggesting a three-year stepped implementation of the recommended increase.

NOW, THEREFORE BE IT ORDAINED by the City of North Vernon that the North Vernon wastewater rates be increased as follows:

Wholesale customers, including the Town of Vernon, shall be subject to a stepped increase of the base rate for wastewater services as follows:

For 2009, an increase of the 2008 rate of $3.07 by 17.33%.

For 2010, an increase of the 2009 rate by 8.44%.

For 2011, an increase of the 2010 rate by 7.78%.

This ordinance shall be in full force and effect after passage and upon proper publication.

Passed and adopted by the Common Council of the City of North Vernon, Indiana, on the ____ day of FEB. 23 2009.

This Ordinance having been proposed for adoption, the Common Council voted 5 for adoption and 0 against adoption.

Passed and adopted by the Common Council of the City of North Vernon, Indiana, on this 23 day of FEB. 2009.

DAVID SHAW, President
North Vernon Common Council

Attest:

I, Roger W. Short, Clerk-Treasurer of the City of North Vernon, Indiana, attest to the passage of this resolution. The resolution was passed on to Harold Campbell, Mayor of North Vernon, on this 23 day of FEB. 2009.

Roger W. Short
Roger W. Short, Clerk-Treasurer
City of North Vernon, Indiana

Approved:

This Ordinance, having been passed by the Common Council, is hereby approved by me as Mayor of the City of North Vernon, Indiana. So approved on this 23 day of FEB. 2009.

Harold N. Campbell, Mayor
City of North Vernon, Indiana

STATE OF INDIANA)
)
) SS:
)
JENNINGS COUNTY)

CERTIFICATION OF COPY OF PUBLIC RECORD

I, Roger W. Short, Clerk-Treasurer of the City of North Vernon, Indiana, hereby certify the following:

1. By law, I have custody of the seal and the records of the City of North Vernon, Indiana.
2. The document attached to this Certificate is a true and correct copy of Ordinance # 897, consisting of three (3) pages, duly passed and enacted by the City of North Vernon, Indiana, at its public meeting on FEB 23, 2009.
3. This Ordinance has not been repealed or rescinded and remains in full force and effect as of this date.

WITNESS my hand and the seal of the City of North Vernon, Indiana, this 23 day of FEB. 2009.

Roger W. Short

Roger W. Short, Clerk-Treasurer
City of North Vernon, Indiana

APPENDIX B

North Vernon Municipal Utilities
Wastewater Department

725 N. Greensburg St.
North Vernon, IN 47265
(812) 346-1496 Plant
(812) 346-7304 Fax

Standard Operating Procedure

Unit Process: **Combined Sewer Overflow (CSO) 002**

Location: **Wastewater Treatment Plant Headwork's**

Effective Date: **January 11, 2012**

PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to establish procedures for the operation of the combined sewer overflow (CSO) designated as 002 located at the headworks of the wastewater treatment plant. This SOP defines the criteria under which the CSO is permitted to operate. It establishes operating procedures to insure that when the CSO is activated its operation meets the following criteria:

a) Is overflowing only during wet weather events including inflow snow melts;

b) Is operated in manner that minimizes the environmental impact on the Muscatatuck River;

c) Is overflowing only when the WWTP is being operated in a manner which maximizes the volume of wastewater the WWTP is treating while protecting the integrity of the WWTPs unit processes;

d) Is monitored during overflow to quantify the volume discharged by recording of the overflow rate , overflow duration and total volume discharged ;

e) Is monitored during overflow to quantify the wastewater characteristics by sampling and analytical measurement of the wastewater CBOD5 total suspended solids (TSS), pH and ammonia (NH3-N)

OPERATING PROCEDURE

The operation of CSO 002 is controlled by the influent flow control value. The position of the influent flow control Gate located directly downstream of the mechanically cleaned bar screen and grit removal system.. The influent flow control value setting regulated to insure that at least a 4.76 MGD flow rate is entering the WWTP for treatment.

The position of the influent flow control value to allow flows greater than 4.76 MGD to enter the WWTP is at the judgment of the Operator in charge. It is the policy of the North Vernon Wastewater Department to maximize the flow into the treatment plant. However, the concern for the protection of equipment, property and process integrity shall determine the amount, if any, that will be processed in excess of 4.76 MGD.

Any CSO 002 is overflowing; the flow rate and total flow volume shall be recorded. In addition, CSO flow sampling shall be conducted of the wastewater stream to CSO 002. The location of the CSO sampler will sample only CSO 002 discharge.

To the extent possible, internal WWTP recycle stream shall be discharge to the EQ basin and held for treatment during non-discharge (overflow) periods. Underdrain recycles of the EQ basin shall not occur when CSO 002 is overflowing. If the EQ basin fills to 14'(feet) at that time the storm water pump are inhibited. At that time any flow over 4.76 MGD will then discharge to 002 which is the CSO. Overflow.

CSO 002 overflows shall be reported as part of the City's Monthly Operating Report (MRO).

The following inspection shall be performed as indicated.

<u>Daily</u>

1. Inspect CSO 002 flow recorder and record the volume discharged. If a CSO 002 discharge is indicated, visual inspection of the CSO pit shall immediately be performed to confirm the water level at the discharge weir. If water is not at the level of the discharge weir, the Superintendent shall be notified immediately for investigation and the information entered into the Operator's Log Book.

2. Samples shall be collected from the CSO sampler for the time period the CSO 002 was overflowing. This sample shall be collected, Labeled and delivered to the North Vernon WWTP

Environmental Laboratory for analysis. A minimum sample volume of 500 mL is required for testing. The results of the samples shall be reported on the MRO.

3. If CSO 002 is not overflowing, wastewater in the combined sewer overflow wet well shall be pump to either the EQ basin for storage and treatment at a later time or pumped directly into the influent channel for immediate treatment.

The CSO pump station has the capability to be operated remotely

The above Standard Operating Procedure is ordered implemented effective this date by the North Vernon Wastewater Department Superintendent.

_____ _____

Wastewater Department Superintendent Date

North Vernon Municipal Utilities
Wastewater Department

DATE: **1/03/2015**

TO:	Kevin Stark, Jennings County Health Department	(812) 352-3030
	Mayor, Town of Vernon	C/O (812) 346-8045*
	North Vernon Plain Dealer & Sun	(812) 346-8368
	WJCP Radio 92.7 FM	(812)346-9722
	The Friends of the Muscatatuck River	Mail/Fax (812)346-8928**

FROM: City of North Vernon Wastewater Department

RE: Combined Sewer Overflow Event

TOTAL NUMBER OF PAGES INCLUDING THIS PAGE: 1
HARD COPY WILL NOT FOLLOW UNLESS REQUESTED.

In compliance with IDEM regulations and in conformance with the City of North Vernon's Combined Sewer Overflow Notification Plan, this is to advise you that a Combined Sewer Overflow (CSO) occurred as follows:

Start Date: **01/03/2015** Start Time: **11:30 AM**

During a CSO event, the Muscatatuck River's *E-Coli* count may temporarily increase indicating possible biological contamination. Individuals should not come into contact for a period of 24 hours after a CSO event.

For additional information, please contact the Wastewater Superintendent at (812) 346-1496 during normal business hours Monday through Friday.

This report was issued by: _____
Signature

Russell L. Vaught, Superintendent _____
Print Name

pc: Plant CSO Event Notification File
Jennings County Health Department CSO Event Notification File
WWTP MOR File

* Mayor, Dan Wright, Town of Vernon c/o FPBH
** Muscatatuck State Park, 325 N. State Hwy. 3 & 7, North Vernon, IN 47265
*** Troy Jackson tl.jackson@comcast.net

North Vernon Municipal Utilities
Wastewater Department

725 N. Greensburg St.
North Vernon, IN 47265
(812) 346-1496 Plant
(812) 346-7304 Fax

Standard Operating Procedure

Unit Process: **Equalization Basin**

Location: **Wastewater Treatment Plant Headworks**

Effective Date: **January 11, 2012**

PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to establish procedures for the operation of the Equalization Basin (EQ Basin) located at the wastewater treatment plant. This SOP defines the criteria under which the Equalization Basin is operated properly to meet the following criteria:

a) Excess wet weather flow are directed to the basin to the extent possible;

b) Is operated in a manner so that all recycle flow from unit processes are stored and returned for treatment;

c) Flow are returned for treatment through the WWTP while maximizing the volume of wastewater treated and protecting the integrity of the unit processes;

OPERATING PROCEDURE

Inlet Flow

The EQ basin can be filled from two (2) sources; WWTP waste streams and/or flow from the stormwater pump Station (SWPS). Since all flow enter the EQ Basin Via pump stations, which start and pump automatically, extreme caution and proper lock out procedures must be used when working inside the EQ Basin.

Waste stream to the EQ basin come from the following sources;

a) Digester decant/sludge drying bed underdrain pump station;

b) Aeration tank drain pump station;

c) Flietr backwash pump station

d) Excess influent wastewater from SWPS.

These pump stations operate independently of the water level in the EQ Basin and operate regardless of the water level in the EQ Basin.

The SWPS will pump to the EQ Basin when the wet well requires pumping regardless of the EQ Basin's water level. The level at which the pumps are turned on and off will be dependent on the operating and weather conditions at the time.

During periods of extended wet weather, the SWPS will shut of autumnally went the level get to 14 feet. The pump can be control remotely,

North Vernon Pump and Equipment 21 point Submersible Pump Station Check List

- Check electrical condition of insulation on power cables and all phases of motor (Meg Ohm)
- Identify any loose or faulty connections with the pump control panel
- Examine voltage between phases on the load side of the activated pump controls
- Check amperage draw on the pump motor
- Inspect condition and operation of any motor thermal protection control system
- Remove and physically inspect the pump from the lift station (Submersibles)
- Inspect lifting chain for weak links
- Check upper shaft seals and condition of motor / stator housing
- Identify the condition and operation of any motor / stator leak detectors
- Check lower shaft seals and condition of the lubricant oil
- Change oil annually
- Inspect for worn or loose impellers
- Check impeller wear ring, both rotating and stationary
- Listen for any bearing noise indicating damage or wear
- Inspect pump power and control cables for possible damage
- Clean, reset and test operation of any level control system
- Inspect for correct shaft rotation
- Reinstall and check operation of the pump
- Test pump cycle under submerged load
- Check valve operation and any associated equipment
- Inspect wet well hatch hinges

North Vernon Municipal Utilities
Wastewater Department

725 N. Greensburg St.
North Vernon, IN 47265
(812) 346-1496 Plant
(812) 346-7304 Fax

Standard Operating Procedure

Unit Process: Lift Stations

Location: Collection System

Effective Date: January 11, 2012

PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to establish procedures for the inspection and maintenance of wastewater lift stations.

PROCEDURE TWICE WEEKLY

1. Open control panels and pump pit hatches.
2. Turn each pump on hand one at a time and verify pumping by water level drop in pump pit.
3. Turn pumps back to auto after testing.
4. Test all alarm lights and alarms by using high level alarm float.
5. Inspect guide rails and all other internal structures of lift station
6. Pull floats and check pump sequence clean floats if necessary.
7. Once a week pump water level down below discharge flanges and check for leakage around seal and connection.
8. Get hour and flow readings where necessary.
9. Check bioxide tank level and proper operation of bioxide pumps.
10. Be sure all hatches, doors and gates are closed after inspections.

PROCEDURE ONCE MONTHLY

1. Get volt and amp readings at all lift stations.

PROCEDURE TWICE YEARLY

1. Clean lift station with Vactor to remove grease and other materials.

PROCEDURE ONCE YEARLY

1. Pump And Equipment and Submersible pump station Check list.

North Vernon Municipal Utilities
Wastewater Department

725 N. Greensburg St.
North Vernon, IN 47265
(812) 346-1496 Plant
(812) 346-7304 Fax

STANDARD OPERATING PROCEDURE

Effective Date: January 1, 2011

Location: Collection System

Process: Storm water catch basins.

Purpose: This procedure is used for maintaining the storm water drainage system.

A joint effort between the city street department and the city wastewater department is used to maintain the storm water drainage system.

Routine clearing of storm drain inlets and catch basins are done throughout the year. If a major rain event is forecast the wastewater department will clear off drain inlets before rain. During the rain event drains are to be checked to be sure they are free of debris. After the rain has quit the inlets and catch basins are to be checked again for debris or blockages.

All catch basins are to be inspected at least once a year. Catch basins will be cleaned once every two years or as necessary to keep them in operating condition.

North Vernon Municipal Utilities
Wastewater Department

725 N. Greensburg St.
North Vernon, IN 47265

(812) 346-1496 Plant
(812) 346-7304 Fax

Standard Operating Procedure

Unit Process: **Collection System Service Call – Reporting Procedures**

Effective Date: **January 21, 2012**

PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to establish procedures for receiving, recording and notification of all service calls made in the North Vernon collection system and storm water system.

Procedure

All incoming calls, which require Collection System staff's response, must be logged on the Collection System Service Call form. The entire upper portion of the Form must be completed. This information includes:

- Date and time of the call
- Type of call- line location, tap inspection , or complaint;
- Name, address and telephone number of caller;
- Brief description of the details of the call.

Line Locations

Requests for line locations are received one of two ways.

1. The company/ individual requesting the locate, faxes the request on a preprinted form. The request is then forwarded to the Collection System staff; or
2. The company/individual requesting the line locate calls the request into the Wastewater Department directly, in which case the Collection System Service Call form will be completed.

Once the request is received locate will be scheduled to meet the date/time requested.

Tap Inspections

All requests for tap inspections will be handled by the Collection System Foreman and will be assigned to staff, as appropriate.

The Collection System staff will check their records to determine if the appropriate fees (Tap and Capacity) have been paid. If there is no record of the fees being paid, the Utility Billing Office will be contacted. If the Utility Billing Office has no record of the fees being paid then no inspection can or will be made until the fees have been paid.

Only when the above fees have been paid, will the tap inspection will be scheduled. The results of the tap inspection will be recorded on the tap inspection Form with a copy being maintained at the Wastewater Department.

Complaints

All complaints will be taken seriously and responded to immediately.

During working hours – All complaints will be forwarded to the Collection System Forman immediately, if the Forman cannot be contacted than the senior member of the Collection System staff should be contacted.

After regular working hours – The Collection System staff on – call will be contacted and is responsible to answer the complaint.

The Collection System staff member responding to the call is responsible for notifying the Wastewater Department Superintendent of the problem and approach planned to correct it.

After determining the cause of the problem and corrective measures have been taken, the employee responding to the complaint must complete the Department Response Section of the Collection System Service Call Form. The Form will be filed in the service Call Record Book located in the Collection System office. A copy of all complaints will be sent to the Department Superintendent for review.

The above SOP is ordered implemented effective this date by the North Vernon Wastewater Department Superintendent.

_____ _____

Wastewater Department Superintendent Date

North Vernon Municipal Utilities

Utilities Service Call

Date: _____ Time: _____ am/pm Call taken by: _____

Water _____ Wastewater _____ Stormwater _____

Line Location: _____ Tap Inspection: _____ Complaint: _____ Miscellaneous: _____

Name of Caller: _____

Address: _____ City: _____

Telephone No.: _____

Details of Call: _____

_____

_____

_____

Department Response:

Date: _____ Time: _____ am/pm Employee(s) Responding: _____

Details of Actions Taken: _____

_____

_____

_____

_____

_____

_____

Completed By: _____ Date: _____

North Vernon Municipal Utilities

Memorandum

DATE: 1-13-2016

TO: Russell Vaught

FROM: Mike Anderson

RE: Employee training

As per your request this letter is to verify the employee training that is received at the North Vernon WWTP.

The North Vernon wastewater plant has written Standard Operating Procedures for the equipment and processes used at this facility. Employees are trained as needed on all equipment and operational procedures by the operator of that area. The SOP's are kept in a binder for quick reference if necessary.

In addition to the training at the wastewater facility employees are also given the opportunity to go to various seminars and classes throughout the year. These outside training seminars are put on by different wastewater organizations such as SIOA, IWEA, IRWA as well as other types of training by different companies.

City of North Vernon, Indiana

Wastewater Treatment Plant
Wet Weather
Standard Operating Procedure

January 2016

Upon full implementation of the LTCP, there will be the 1.0 million gallon (MG) EQ basin and a 0.2 MG storage basin used to capture the first flush and a high rate clarification unit with disinfection. A map of these items is included as **Figure 1**. The maximum inflow rate that North Vernon's WWTP facilities will be able to treat is 40.0 MGD. The following paragraphs describe the wet weather treatment scenarios that will be put into use once the LTCP Phase II project is completed in 2017.

Influent flows up to 12.0 MGD enter the diversion structure, and continue into the WWTP headworks with 4.76 MGD being processed by the plant and 7.24 MGD being sent to the 1.0 MG EQ basin (**Figure** 2).

When both basins are empty, 40.0 MGD can enter the diversion structure with 12.0 MGD entering the WWTP as described above. The remaining 28.0 MGD is sent to the influent chamber then on to the 0.2 MGD surge basin (**Figure 3**). In this scenario all flows would be stored for full treatment and subsequent discharge from Outfall 001.

When the 1.0 MG EQ basin is full and a 40.0 MGD flow rate enters the diversion structure, 4.76 MGD is sent to the WWTP for full treatment with the remaining 35.24 MGD being sent to the influent chamber then on to the 0.2 MG surge basin for storage (**Figure 4**). In this scenario all flows would be stored for full treatment and subsequent discharge from Outfall 001.

When the 0.2 MG surge basin is full and a 40.0 MGD flow rate enters the diversion structure, 12.0 MGD is sent to the WWTP with 4.76 receiving immediate full treatment and 7.24 MGD being sent to the EQ basin. 28.0 MGD is sent to the influent chamber with 25.76 MGD receiving the equivalent of primary treatment by the High Rate Clarification (HRC) Unit along with disinfection and 2.24 MGD being pumped from the HRC underdrain to the EQ basin for storage and then full treatment through the WWTP (**Figure 5**).

When both the 1.0 MG EQ basin and 0.2 MG surge basin are both full, the "first flush" is effectively captured. At this point when a 40.0 MGD flow rate enters the diversion structure, 2.5 MGD is sent to the WWTP for full treatment. 37.5 MGD to the influent chamber with 35.24 MGD receiving the equivalent of primary treatment by (HRC) along with disinfection and 2.26 MGD being pumped from the HRC underdrain to the WWTP headworks for full treatment through the WWTP (**Figure 6**).

When the wet weather event ceases and influent flow rate reaches 2.26 MGD at the diversion structure, the wet weather treatment facility drainage mode can commence. The 0.2 MG surge basin is drained at a rate of 2.5 MGD through the influent chamber to the HRC where the underdrain pumps send the flow to the WWTP headworks (**Figure 7**). The EQ basin is drained after the surge basin at the same 2.5 MGD rate to the WWTP headworks. This scenario maintains plant maximization until the facilities are prepared for the next wet weather event.

Upon full implementation of the LTCP, all the above treatment scenarios will be controlled automatically by the SCADA system.

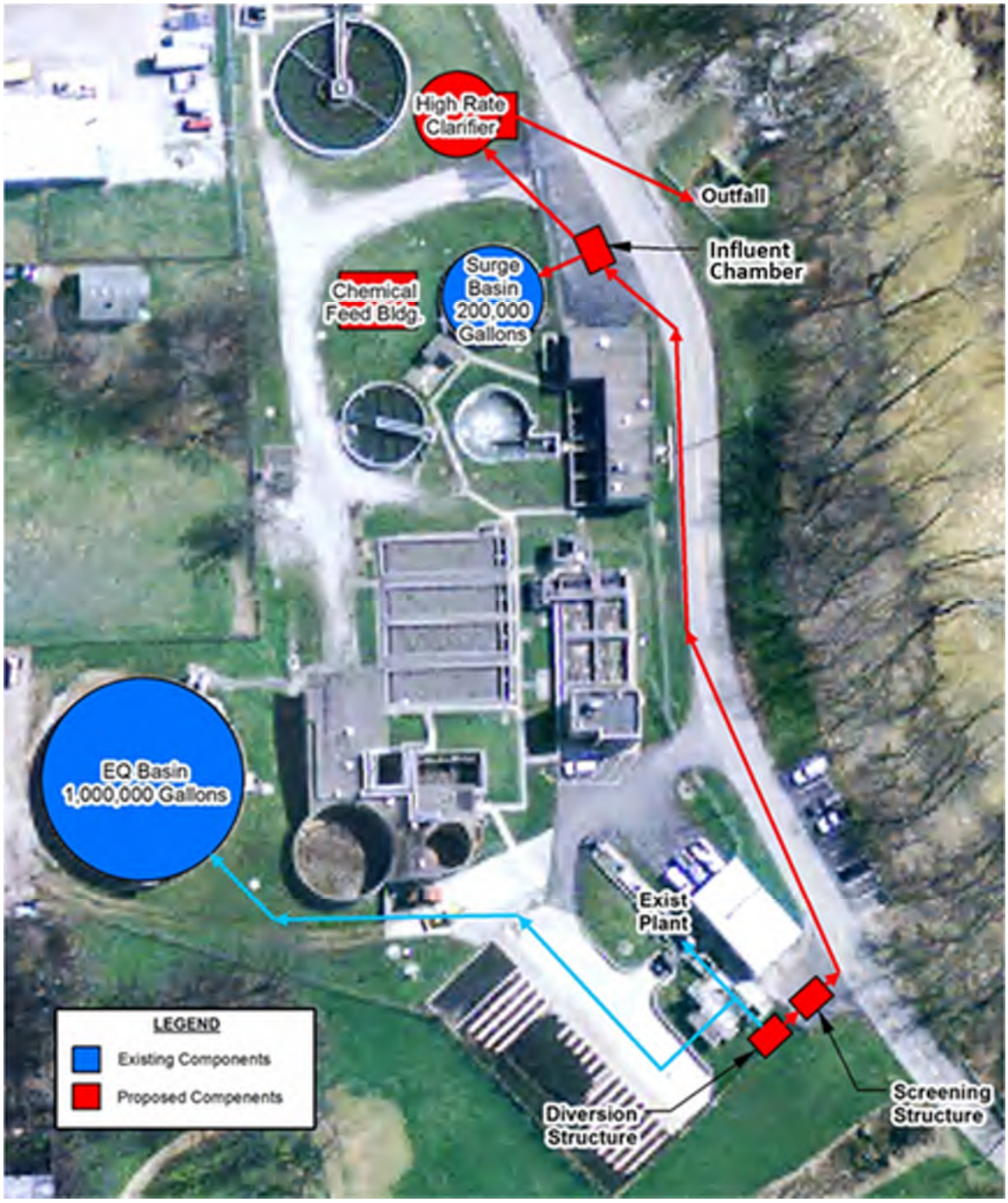


Figure 1 North Vernon Wet Weather Treatment Facilities

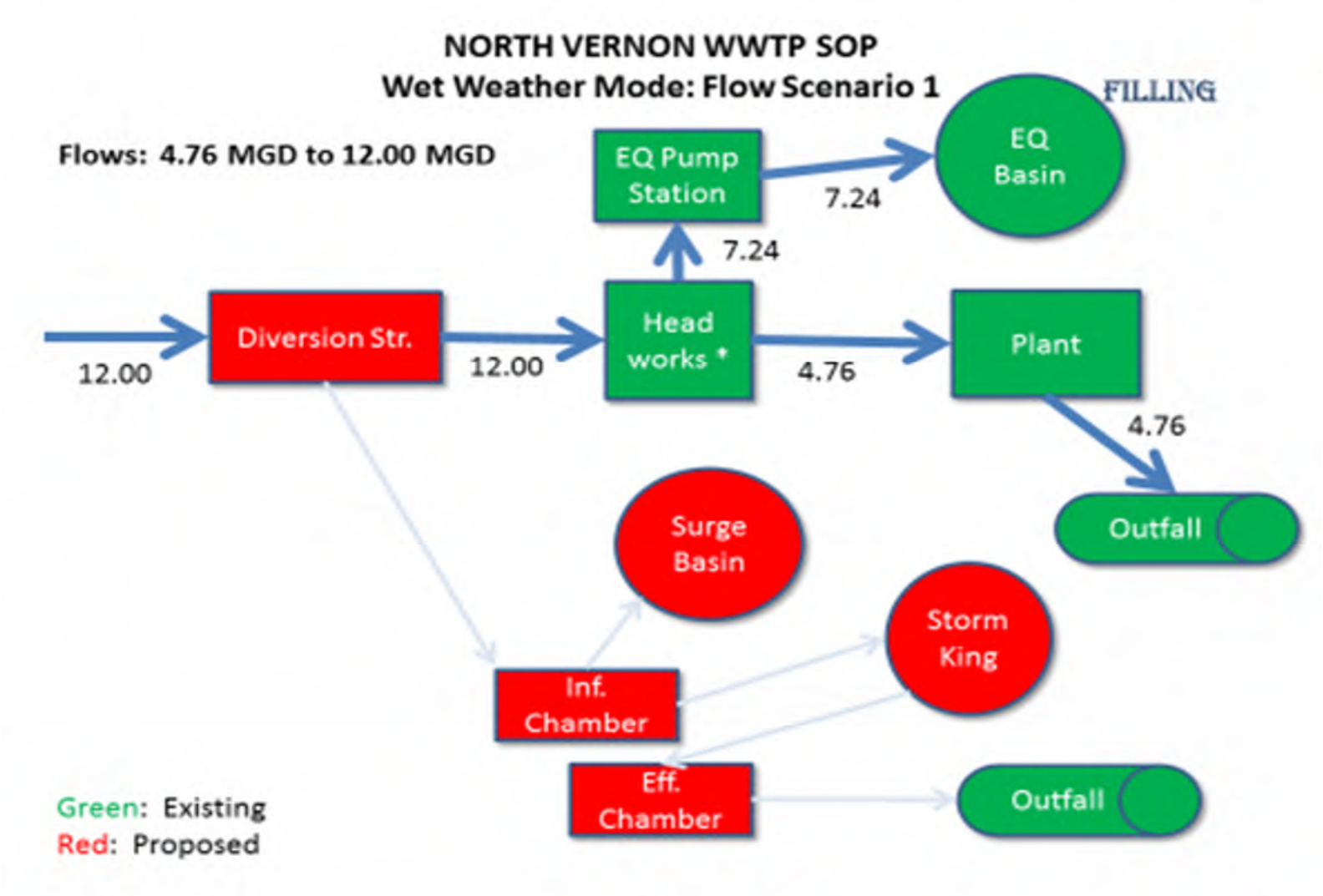


Figure 2 Flow Scenario 1

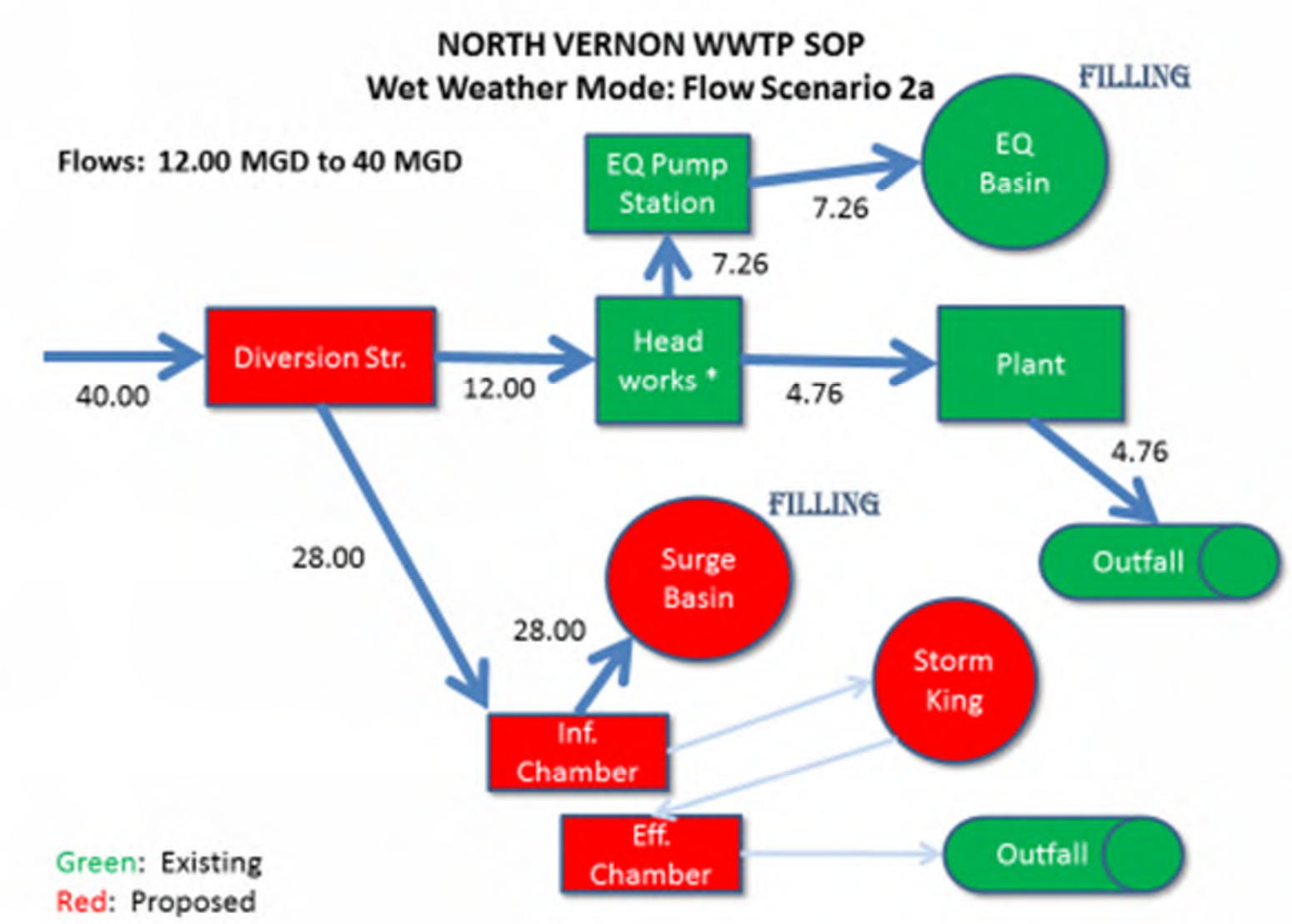


Figure 3 Flow Scenario 2a

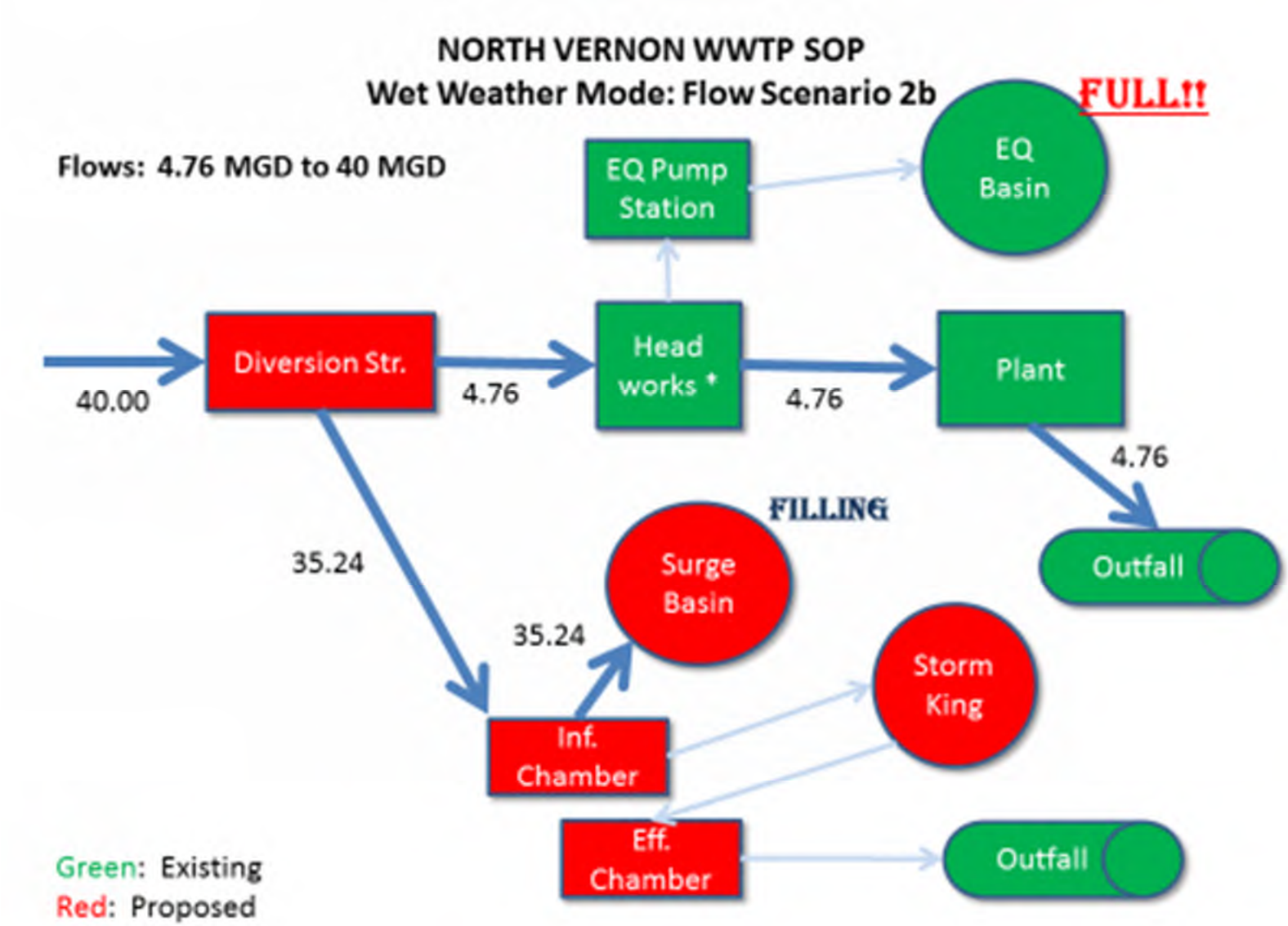


Figure 4 Flow Scenario 2b

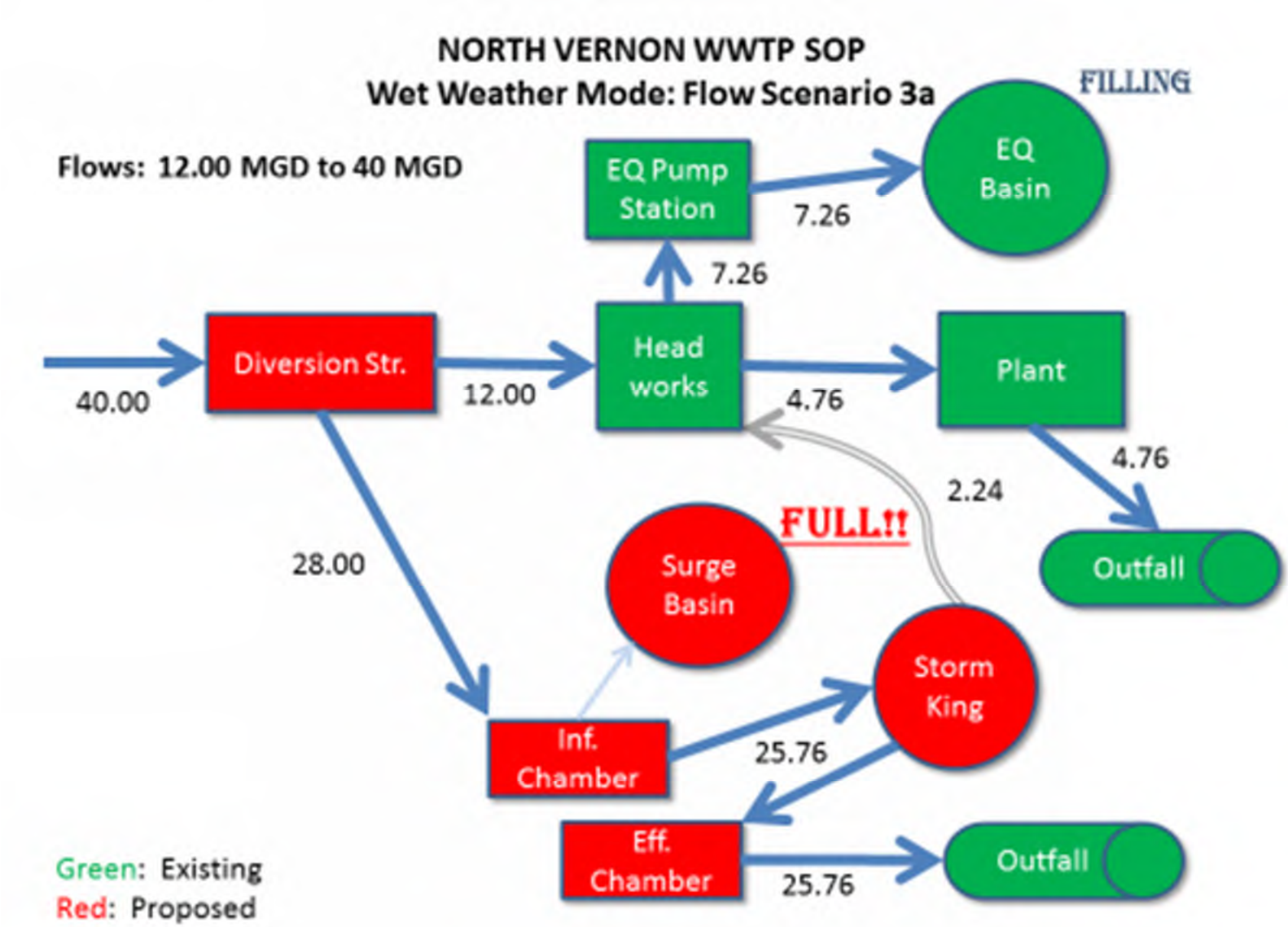


Figure 5 Flow Scenario 3a

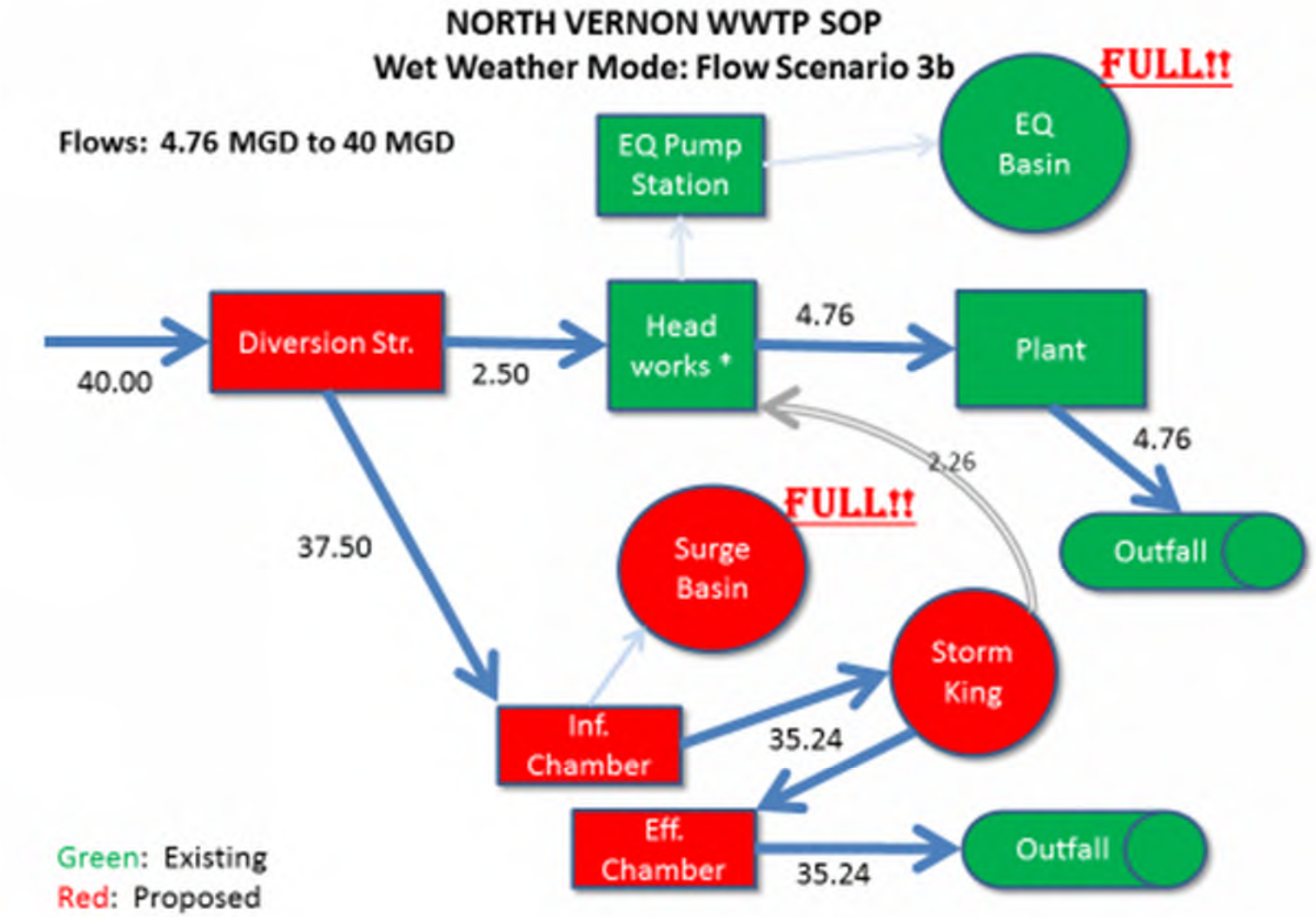


Figure 6 Flow Scenario 3b

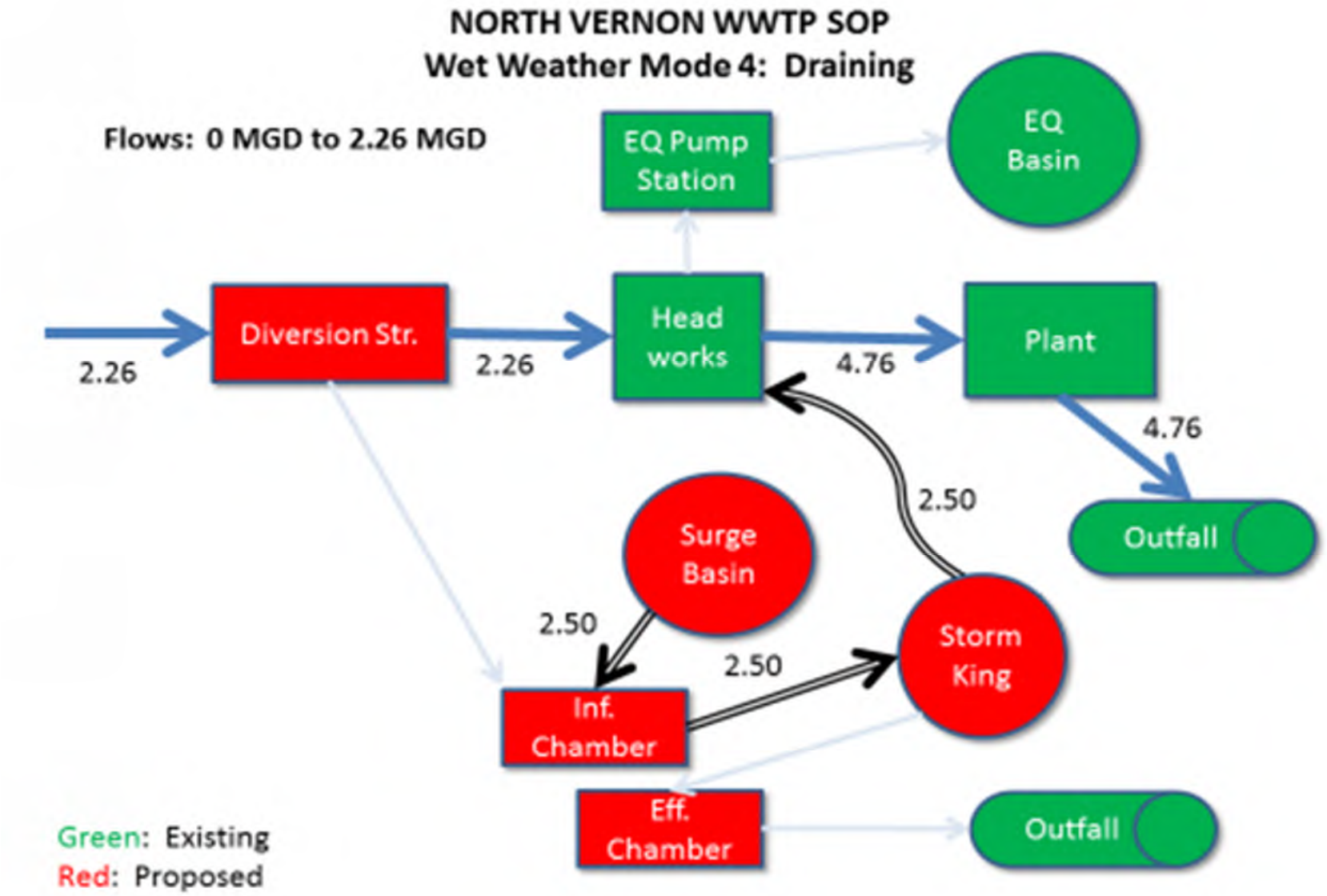
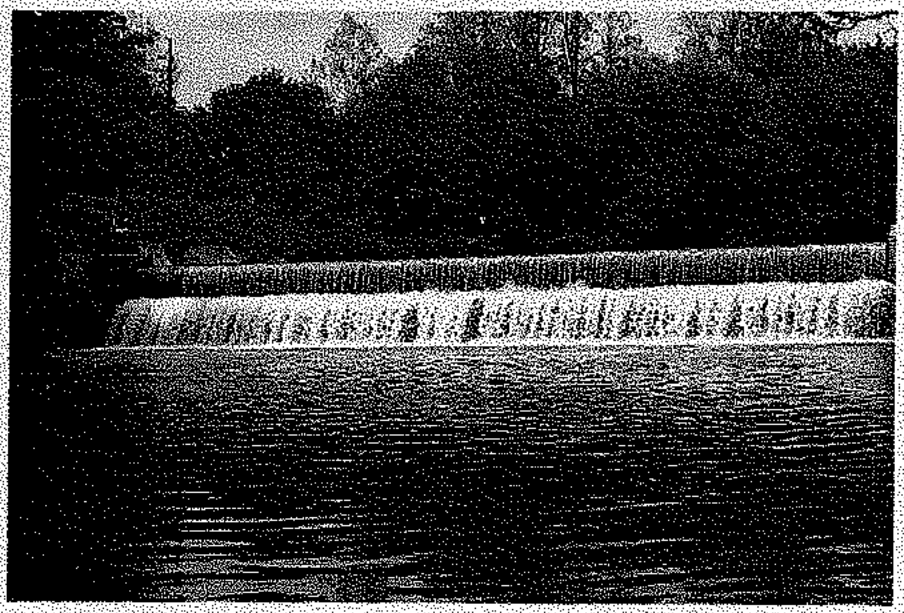


Figure 7 Wet Weather Mode 4: Draining

APPENDIX C

Beckmar
Environmental Laboratory
3251 Ruckriegel Parkway
Louisville, KY 40299
(502) – 266-6533



North Vernon Wastewater Department

Vernon Fork of the Muscatatuck Stream Reach Characterization Study

Page

I. Introduction

This 2006 stream study was conducted by Beckmar Environmental Laboratory personnel. Like the previous 1996 study, this survey was to characterize the Vernon Fork of the Muscatatuck River which is the receiving stream of the sewer plant discharge from the city of North Vernon, Indiana. Whereas the 1996 study was developed to aid the city officials in evaluating the impact of CSO's on the river, this current study was to look at the overall health of the receiving stream.

A 1-day sampling series was conducted on Monday, May 8, 2006 at three sites along the Vernon Fork. These sites were the same locations as those selected in the 1996 study. Samples were collected for chemical and microbiological analysis. Fish specimens were identified in the field and periphyton and benthos samples returned to the laboratory for plankton and macroinvertebrate identification. Indiana Fish and Wildlife were notified in advance of this sampling event, and Beckmar personnel were informed that they needed no special permits to conduct this 1-day study.

All chemical and microbiological analyses were performed in-house in a timely manner. Periphython and benthos samples were evaluated within 20 days of collection. All results of analysis are tabulated in this report and are followed up with an interpretation of these data.

II. FIELD SURVEY

On Monday, May 8, 2006, seven Beckmar Environmental Laboratory personnel collected samples for a stream characterization study on three sites of the Vernon Fork of the Muscatatuck River.

Personnel and specialties were as follows:

Paul Barker --- periphyton, benthos

Becky Barker --- fish, benthos

Jim Hale --- field chemistry, sampling

John Hamilton --- field chemistry, sampling

Rhonda Baker --- toxicology, sampling

Lawrence Hale --- field assistant

Eli Barker --- field assistant

Paul Barker served as coordinator and chief scientist for the study. The three sites were the same as a 1996 stream study "due to their relative ease of access and their being representative of the stream."

Site #1 --- Up-stream dam site

See Figure 1 --- A / Topographic map (7.5 minute) – page 6

See Figure 1 --- B / Aerial photo (Dam site) – page 7

This sampling site was accessed from a horse farm bordering the dam opposite the North Vernon Water Plant Intake. All samples were collected downstream of the dam due to high water. This site is approximately 2.08 miles above the North Vernon STP outfall. Chemical and microbiological samples were collected approximately 75 yards below the dam but above a riffle area and gravel bar. Benthos, fish and periphyton were collected throughout the

riffle area extending about 100 yards below the dam. Flow was roughly estimated to be 1,036 ft^3 /minute (12,920 gallons/minute). Samples were collected from 14:15 to 15:30 hours

See Figures 1 --- C / photos from sampling site facing dam (bottom photo) and facing downstream (top photo) - page 8

Site #2 --- Mixing Zone site

See Figure 2-A / Topographic map (7.5 minute) – page 9

See Figure 2-B / Aerial photo of mixing zone – Page 10

This sampling site is approximately 100 yards below the sewer plant discharge. It was chosen to allow adequate mixis of the effluent and receiving stream. The site was clean of trash and debris with no sludge blankets in the stream pools. No anoxic conditions were observed. Chemical and micro-biological samples were collected from mid stream. Other samples were collected from gravel/riffle areas. Samples were collected from 12:45 to 14:00 hours.

See Figures 2 --- C / photos from sampling site facing Upstream (top photo) and downstream (bottom photo) – page 11

Site #3 --- Downstream Site

See Figure 3-A / Topographic map (7.5 minutes) – page 12

See Figure 3-B / Aerial photo downstream site – page 13

The downstream site is approximately 14,000 stream feet below the North Vernon Sewer Plant Discharge, and is easily accessible from the huge descending limestone staircase adjacent to the parking lot ¼ mile from the main

entrance to the Muscatatuck County Park. Chemical and microbiological samples were collected at mid-steam above 2 adjoining riffle areas. Benthos, plankton, and fish were collected form the riffle area and river banks. Samples were collected starting at 10:15 AM and ending 12:00 noon.

See Figures 3 --- C / photos from parking lot above sampling site (both photos) – page 14

Topographic Maps derived from Butlerville, IN.
1957 (Revised 9n 1994)
and
Vernon, IN.
1959 (Photo revised 1981)

Vernon Fork – Mascatatuck River

Site #1: Upstream (Dam Site), 80 yards below in dam
Latitude: 85.61747
Longitude: 39.01186

Vernon Fork – Mascatatuck River

Site #2: Mixing Zone (STP site)
Latitude: 85.61299
Longitude: 39.00460

Mascatatuck River

Site #3: Downstream (Mascatatuck Park site, below parking lot)
Latitude: 85.61747
Longitude: 39.01186

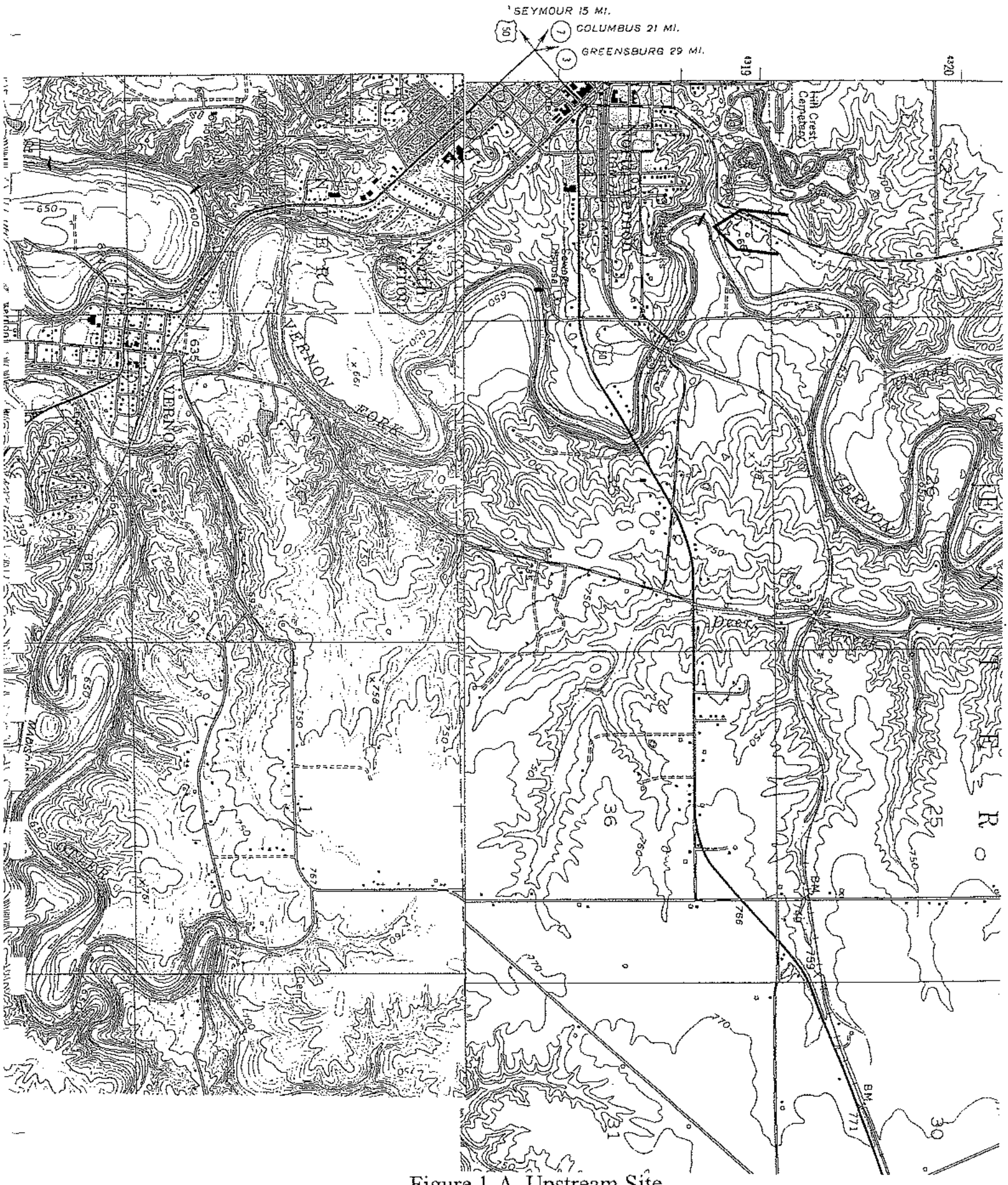


Figure 1-A Upstream Site

USGS **North Vernon, Indiana, United States** 05 Apr 1998

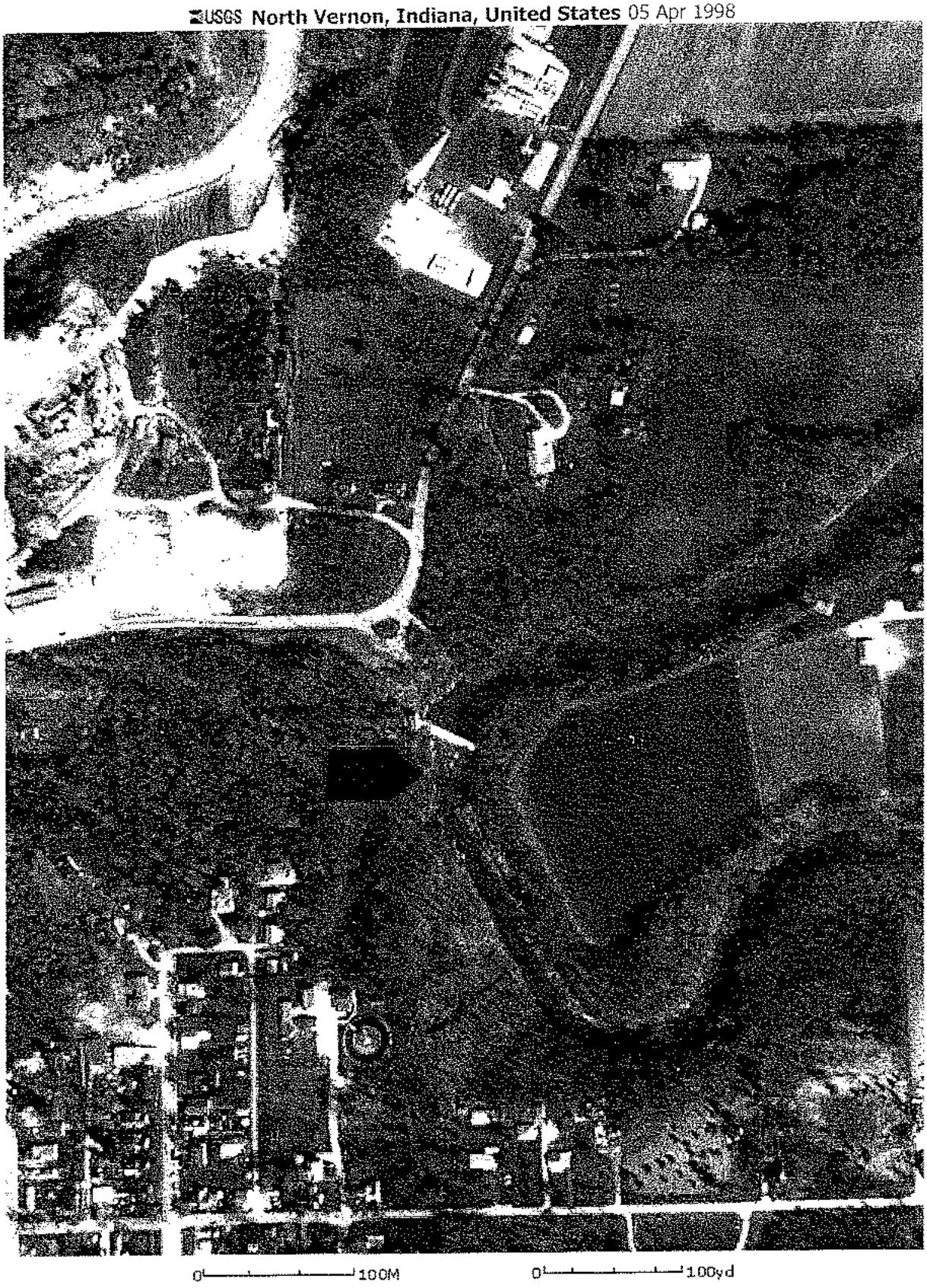


Image courtesy of the U.S. Geological Survey

Figure 1-B Upstream Site

Figure 1-C Upstream Stie

(Top: facing downstream, Bottom: facing dam)

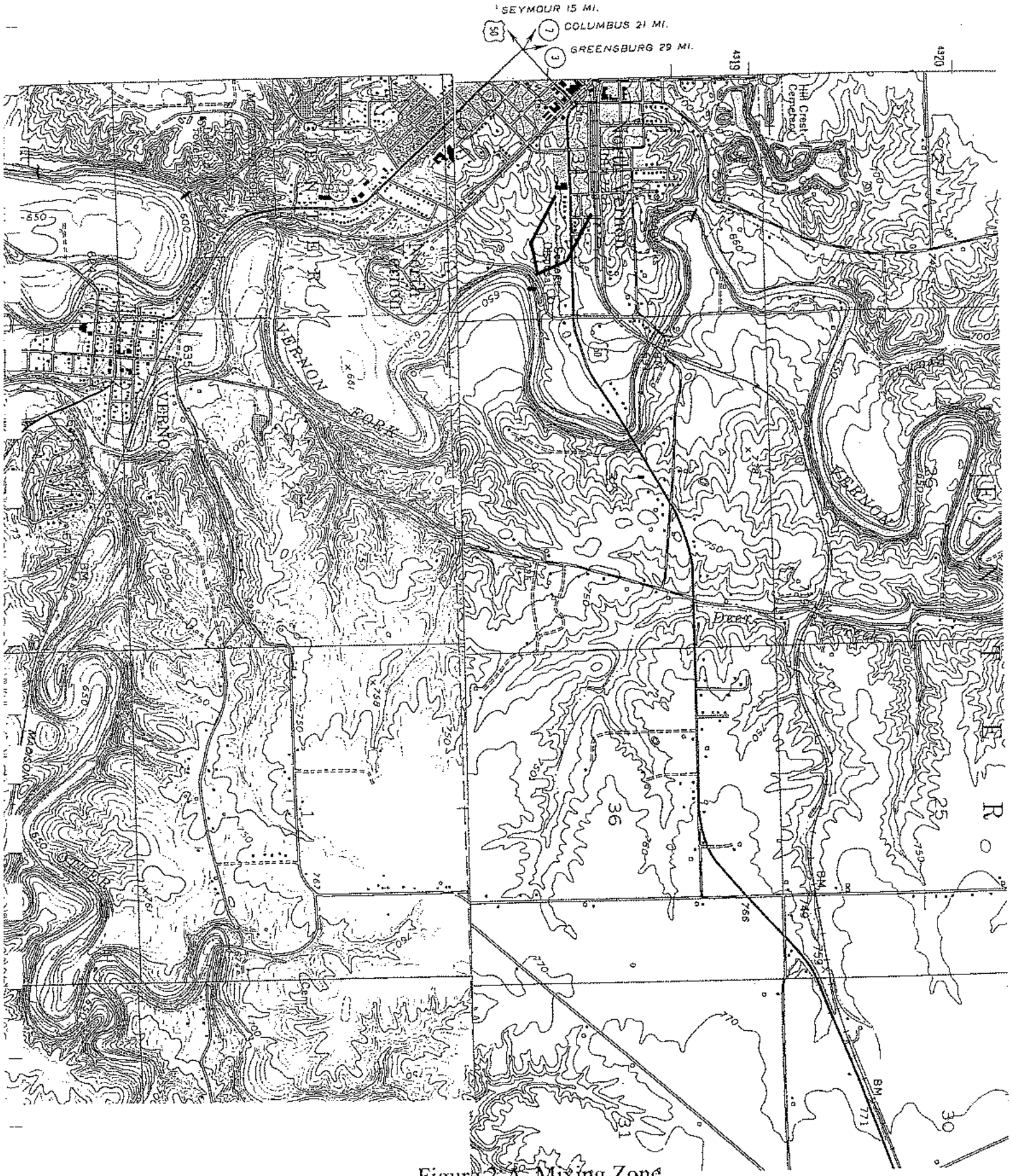


Figure 2-A Mixing Zone

USGS **North Vernon, Indiana, United States** 05 Apr 1998

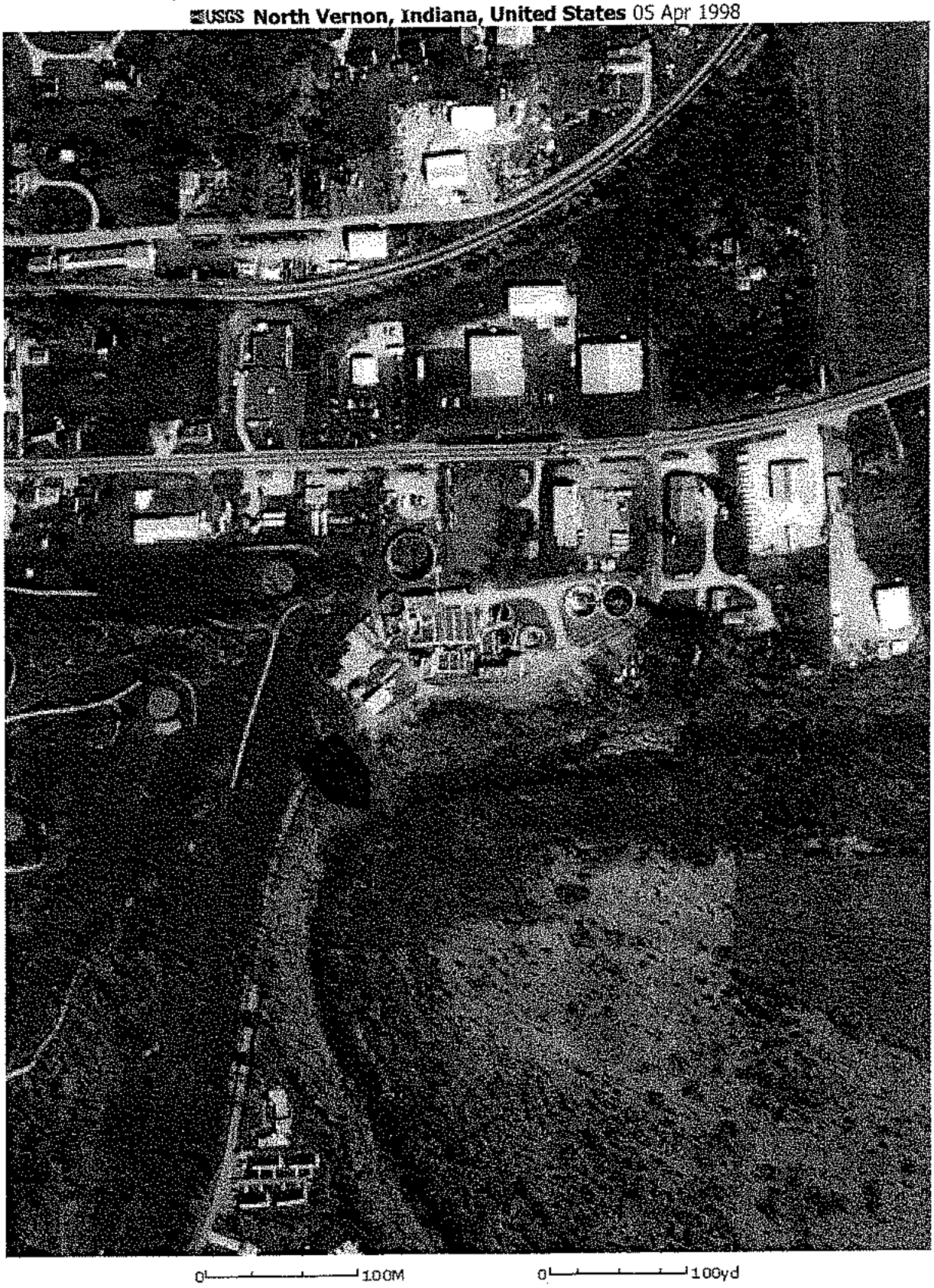


Image courtesy of the U.S. Geological Survey

Figure 2-B Mixing Zone

Figure 2-C Mixing Zone

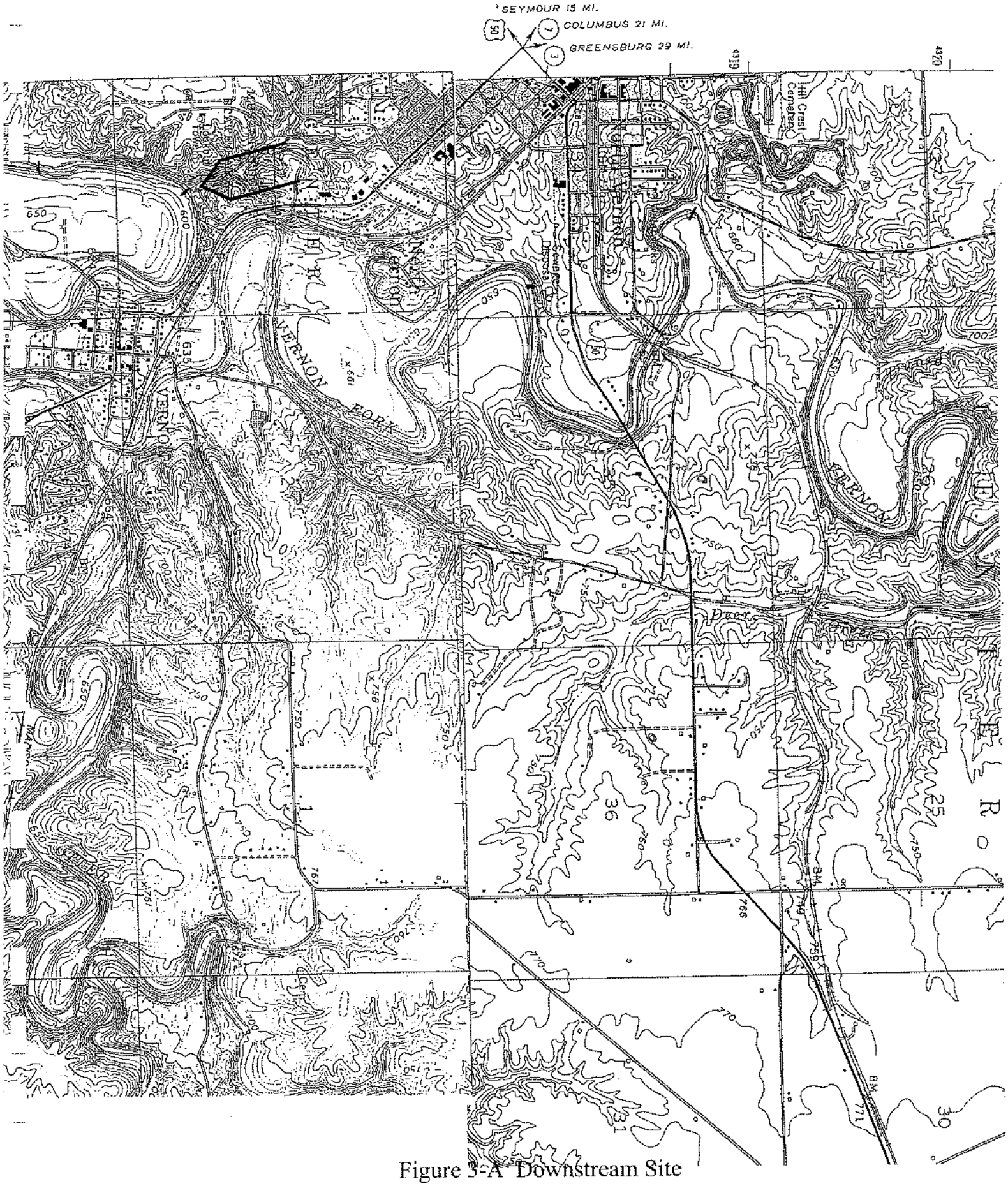


Figure 3-A Downstream Site

Image courtesy of the U.S. Geological Survey

Figure 3-B Downstream Site

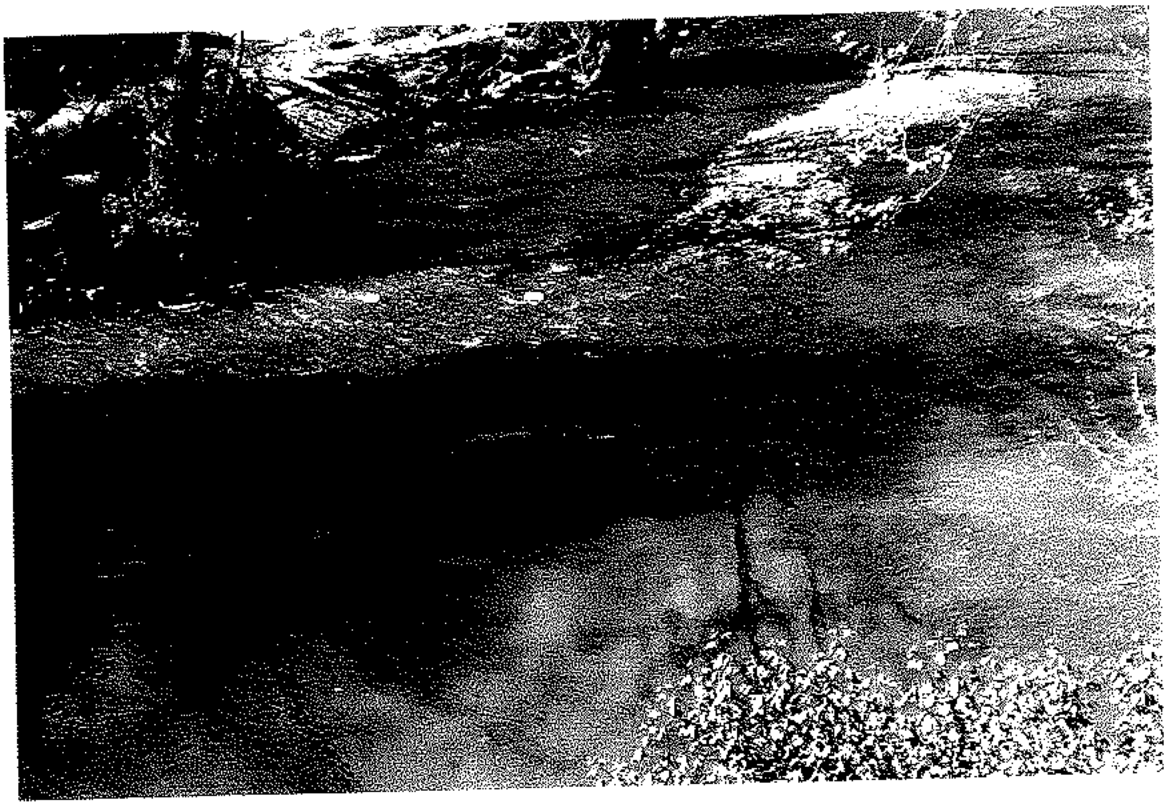


Figure 3-C Downstream Site

(both taken from parking area)

III. STREAM REACH CHARACTERIZATION

A-i Chemical and Microbiological Methods

Chemical and Microbiological samples were collected and analyzed according to "Standard Methods for the Examination of Water and Wastewater", 21st Edition 2005 and "Methods for Chemical Analysis of Water and Wastewater", EPA EMSL – Cincinnati EPA-600/4-79-020

Parameter	Standard Methods	EPA Methods
Alkalinity	2320-b	
Cyanide	4500-Cn-e	
BOD	5210-b	
Hardness		130.2
Ammonia		350.3
Nitrite	4500-No2-b	
Nitrate	4500-No3-d	
pH		150.1
Temperature	2550-b	
Dissolved Oxygen		360.1
Phosphorous		365.1
% Total Solids	2450-g	
TSS		160.2
Turbidity		180.1
Cadmium		200.7
Chromium		200.7

Parameter	Standard Methods	EPA Methods
Parameter	Standard Methods	EPA Methods
Copper		200.7
Lead		200.7
Mercury		245.1
Nickel		200.7
Zinc		200.7
Fecal Coliform	9222-d	
Total Coliform	9223-uv	
Fecal Strep	9230-c	
HPC	9215-b	
E-Coli	9223-uv	
FC/FS Ratio	9230-a	

III. STREAM REACH CHARACTERIZATION

A-ii Tabulated results of chemical and microbiological Analysis

Parameter	Site #1	Site #2	Site #3	Units
Alkalinity	149	147	158	mg/l
Cyanide	< 0.01	< 0.01	< 0.01	mg/l
BOD	3	3	3	mg/l
Total Coliform	> 2419	> 2419	> 2419	col/100ml
Fecal Coliform	120	120	60	col/100ml
Fecal Strep	20	20	40	MPN/100ml
FC/FS Ratio	6	6	1.5	Ratio
E-Coli	120	109	17	col/100ml
HPC	780	1280	996	CFU/1ml
Hardness	178	178	168	mg/l
Ammonia	< 0.2	< 0.2	< 0.2	mg/l
Nitrite	0.02	0.02	0.01	mg/l
Nitrate	< 0.06	< 0.06	< 0.06	mg/l
Temperature	20	15	16.4	Deg C.
pH	8.35	7.90	7.90	S.U.
DO	11.1	9.7	9.9	mg/l
Phosphorous	0.41	0.31	0.24	mg/l
Total Solids	< 0.02	< 0.02	< 0.02	%
TSS	16	12	4	mg/l
Volatile Solids	< 6	< 6	< 6	mg/l

Parameter	Site #1	Site #2	Site #3	Units
Turbidity	5.95	8.73	3.72	NTU
Cadmium	< 0.001	< 0.001	< 0.001	mg/l
Chromium	< 0.001	< 0.001	< 0.001	mg/l
Chromium,Hex.	< 0.01	< 0.01	< 0.01	mg/l
Copper	< 0.003	< 0.003	< 0.003	mg/l
Lead	< 0.004	< 0.004	< 0.004	mg/l
Mercury	< 0.0005	< 0.0005	< 0.0005	mg/l
Nickel	< 0.005	< 0.005	< 0.005	mg/l
Zinc	0.008	0.005	0.005	mg/l

B-i Macro-invertebrate, Mussel and Fish sampling Methods

The field work involved 7 laboratory personnel whose immediate goal was to complete all sampling and sample retrieval to the lab within a 12-hour period. Sampling procedures were adapted from the "Methods for Assessing Biological Integrity of Surface Waters" Kentucky Division of Water, Water Quality Branch, Ecological Support Section (October 1993).

Macro-invertebrates were collected in riffle areas by Becky Barker, Paul Barker and Jim Hale. Aquatic dip nets were placed below riffle areas as one or more personnel turned over rocks and pebbles in the riffles. Dip net sweeps were then taken from weed beds and other promising areas if available. Stones and algal masses were then picked over by Paul and Becky Barker. All macro-invertebrate forms were then transferred into a glass liter container with 70% denatured ethanol, the bottle labeled and returned to the laboratory for eventual work-up. Insects were identified in the laboratory using keys in Merritt and Cummins (1996), "An Introduction to the Aquatic Insects of North America" (3rd Ed), and in R.W. Pennack (1978) "Freshwater Invertebrates of the United States" (2nd edition).

Fish and mussels were collected using a 20 foot by 4 foot nylon seine by sweeping banks and shallow pools. Lawrence Hale, Rhonda Baker, Eli Barker and John Hamilton made all of the sweeps. Retrieved fish were then identified by Paul and Becky Barker in the field. Fish were identified using keys found in E. Eddy (1974) "The Freshwater Fishes." Some mussels were found when seining but more often when using dip nets looking through benthos samples.

Mussels and snails were identified using keys found in R.W. Pennack (1978) and P.W. ParmaLee (1967) "The Freshwater Mussels of Illinois." ALL mussels and snails were returned to the stream and released.

B-ii Tabulated Results for Macro-fauna

Site #1 Upstream (Collected 5/08/06 @ 14:15 hours)

	Order	Genus	Species	Common Name
Insecta:				
	Megalaptera	*Corydalis*	cornutus	Fish Flies
	Diptera	*Tipula*	sp	Crane Fly
		Simulium	sp	Black Fly
	Ephemeroptera	*Ephemerellida*	sp	Mayfly
		Isonychia	sp	Mayfly
	Plecoptera	*Teanioptera*	sp	Stonefly
	Tripcoptera	*Chimarra*	sp	Caddisfly
		Hydrophsyche	sp	Caddisfly
Mollusca:				
	Pelecypoda	*Lampsilis*	sp	Sand Shell
	Gastropods	*Lymnaea*	sp	River Snail
		Pleurocera	sp	River Snail
Pisces:				
		Micropterus	dolomieui	Small Mouth
		Lepomis	macrochirus	Bluegill
		Notropus	cornutus	Common Shiner
		Semotilus	atromaculatus	Creek Chub

Site #2: Mixing Zone (Collected 5/08/06 @ 12:45 hours)

	Order	Genus	Species	Common Name
Insecta:				
	Diptera	*Tipula*	sp	Crane Fly
	Ephemeroptera	*Isonychia*	sp	Mayfly
		Hexagenia	sp	Mayfly
		Ephemerellidae	*sp*	Mayfly
	Plecoptera	*Acroneuria*	sp	Stonefly
	Tripcoptera	*Chimarra*	sp	Caddisfly
Mollusca:				
	Pelecypoda	*Lampsilis*	sp	Sand Shell
	Gastropods	*Pleurocera*	sp	River Snail
Pisces:				
		Lepomis	macrochirus	Bluegill
		Notropus	cornutus	Common Shiner
		Micropterus	dolomieui	Small Mouth
		Etheostoma	caeruleum	Rainbow Darter
		Semotilus	atromaculatus	Creek Chub

Site #3: Downstream (Collected 5/08/06 @ 10:15 hours)

	Order	Genus	Species	Common Name
Insecta:				
	Diptera	*Tipula*	sp	Crane Fly
	Ephemeroptera	*Epeoris*	sp	Mayfly
		Ephemerellidae	*sp*	Mayfly
	Plecoptera	*Parlinella*	sp	Stonefly
		Taenioptra	sp	Stonefly
	Tripcoptera	*Chimarra*	sp	Caddisfly
Mollusca:				
	Pelecypoda	*Lampsilis*	sp	Sand Shell
	Gastropods	*Lymnaea*	sp	River Snail
		Pleurocera	sp	River Snail
Pisces:				
		Lepomis	macrochirus	Bluegill
		Noturus	murius	Madtom
		Etheostoma	caeruleum	Rainbow Darter
			flabellare	Fantail Darter
			nigrum	Johnny Darter
		Notropus	cornutus	Common Shiner

C-i: Periphyton Sampling Method

Periphyton samples were collected by Paul Barker and Jim Hale. Methods included the collection of algal masses, scraping of rocks, collection of sand samples, and clumps of emergent vegetation. Samples were composited by site into a liter glass container with no preservatives. Containers were then refrigerated until sample identification work. Samples were screened for diatoms, blue-green algae, and green algae using keys by Smith (1950) and using comparative algal plates found in "Standard Methods for the Examination of Water and Wastewater" 21st edition 2002.

C-ii Tabulated Results for Periphyton Analysis

Site #1 Upstream (Collected 5/08/06 @ 14:15 hours)

Division	Genus	Species	Common Name
Cyanophyta	*Anabaena*	sp	Blue-Green Algae
	Chlorococcus	sp	
	Lyngba	sp	
	Oscillatoria	sp	
Rhodophyta	*Lemanea*	sp	Red Algae
Chlorophyta	*Actinastrum*	sp	Green Algae
	Ankistrodesmus	sp	
	Chlamydomonas	sp	
	Cladophara	sp	
	Closterium	sp	
	Cosmarium	sp	
	Pandorina	sp	
	Pediastrum	sp	
	Scendedesmus	sp	
Euglenophyta	*Euglena*	sp	
	Peranema	sp	

Site #1 Upstream (Collected 5/08/06 @ 14:15 hours)

Division	Genus	Species	Common Name
Bacillariophyta	*Asteriouella*	sp	Diatoms
	Cyclotella	sp	
	Cymbella	sp	
	Dinobryon	sp	
	Flagilaria	sp	
	Melosira	sp	
	Meridian	sp	
	Navicula	sp	
	Pinnelaria	sp	
	Synedra	sp	
Xanthophyta	*Tribonema*	sp	Yellow-Brown Algae

Site #2: Mixing Zone (Collected 5/08/06 @ 12:45 hours)

Division	Genus	Species	Common Name
Cyanophyta	*Anabaena*	sp	Blue-Green Algae
	Microcystis	sp	
	Oscillatoria	sp	
Chlorophyta	*Ankistrodesmus*	sp	Green Algae
	Chlamydomonas	sp	
	Chlorella	sp	
	Cladophara	sp	
	Closterium	sp	
	Cosmarium	sp	
	Pandorina	sp	
	Pediastrum	sp	
	Scenedesmus	sp	
	Stigeoclonium	sp	
Euglenophyta	*Euglena*	sp	
	Peranema	sp	
Bacillariophyta	*Asterionella*	sp	Diatoms
	Cyclotella	sp	
	Cymbella	sp	
	Gyrosigma	sp	

Site #2: Mixing Zone (Collected 5/08/06 @ 12:45 hours)

Division	Genus	Species	Common Name
Bacillariophyta	*Melosira*	sp	
	Meridian	sp	
	Navicula	sp	
	Pinnelaria	sp	
	Synedra	sp	
Xanthophyta	*Tribonema*	sp	Yellow-Brown Algae

Site #3: Downstream (Collected 5/08/06 @ 10:15 hours)

Division	Genus	Species	Common Name
Cyanophyta	*Anabaena*	sp	Blue-Green Algae
	Oscillatoria	sp	
Chlorophyta	*Ankistrodesmus*	sp	Green Algae
	Chlamydomonas	sp	
	Cladophora	sp	
	Closterium	sp	
	Cosmarium	sp	
	Pandorina	sp	
	Scenedesmus	sp	
	Stigeoclonium	sp	
Euglenophyta	*Euglena*	sp	
	Peranema	sp	
Bacillariophyta	*Asterionella*	sp	Diatoms
	Cyclotella	sp	
	Cymbella	sp	
	Flagilaria	sp	
	Gomphonema	sp	
	Gyrosigma	sp	
	Melosira	sp	

Site #3: Downstream (Collected 5/08/06 @ 10:15 hours)

Division	Genus	Species	Common Name
Bacillariophyta	*Meridian*	sp	
	Navicula	sp	
	Synedra	sp	
Xanthophyta	*Tribonema*	sp	Yellow-Brown Algae

IV. INTERPRETATION AND EVALUATION OF DATA:

The Vernon Fork of the Muscatatuck continues to provide a suitable habitat for warm water fish populations. The stream showed healthy oxygen concentrations usually meeting or exceeding saturation levels, most likely due to the dam site and riffle areas of the stream. The cool temperatures of spring fed water and the canopy of trees along the stream provided cool air temperatures over the pools of water between successive riffle areas.

The Vernon Fork at all three sampling sites appeared clean and free of "junked and discarded items" such as tires. The predominant alga found everywhere in the stream was *Cladophora* sp., which provided for slippery footing when sampling the riffle areas. Like the previous 1996 study, our investigation found no sludge blankets, nor anoxic conditions in the stream. Neither chironomid blood midges nor mosquito larvae were found, indicating good stream flow and few stagnant water areas.

FISH

The fish included strictly clean water species particularly the *Micropterus* (smallmouth bass) and *Etheostoma* (darters). Suckers were found only at site #2. Darters are found mainly in the very clear headwaters of streams just below riffle areas where they feed on insect larva and algae.

MICROBIOLOGY — BACTERIA

As expected, total coliforms were elevated throughout the stream reach. Total coliforms are technically a drinking water parameter and the consistently high readings exceeding 2419 colonies/100ml indicate that the water must be disinfected to make it safe for potability standards of <1 total coliform/100m1.

Fecal coliforms and fecal strep were enumerated at all locations. Fecal coliforms were below the 200 colonies/100ml threshold required of all Sewer Plant discharges. The influx of the sewer plant effluent at site #2 did not appear to alter the fecal coliform levels immediately below the outfall.

In contrast to the 1996 study, this survey screened for E. coli, a species which is currently being adopted by the state of Indiana as a better indicator of stream health. E. coli levels were moderately high at both upstream and mixing sites and relatively low at the downstream site. Elevated E. coli levels at the dam site indicate human and/or agricultural fecal input above the dam.

Heterotrophic plate counts measure the general bacteriological population of the stream. HPC's were higher at the mixing zone site and indicate that the sewer plant, even when meeting the E. coli standard, may still be influencing the general bacterial population of the stream.

GENERAL CHEMISTRY

All metals with the exception of Zinc were below non-detectable limits at all three sampling sites as follows:

Cadmium	below 1 ppb
Chromium	below 1 ppb
Hex Chromium	below 10 ppb
Copper	below 3 ppb
Lead	below 4 ppb
Mercury	below 0.5 ppb
Nickel	below 5 ppb

Zinc was found in the range of 5 to 8 ppb.

Site #1 had a high TSS value most likely due to algal growth in the pooled area above the dam. Site #1 also had a higher phosphorus and pH reading. These were expected as high photosynthetic activity (algae growth) picks up phosphorus and elevates pH levels.

The overall chemistry of the North Vernon Fork appears normal and healthy. The continually high Dissolved Oxygen readings insure a healthy benthos and fish population.

INSECTS

The benthic organisms that were found in the stream indicate healthy conditions. Mayflies (*ephemeroptera*), stoneflies (*plecoptera*), Caddisflies (*tricoptera*) and particularly fish fly Larvae (*megaoptera*) show little pollution tolerance. Other flies (Dipterans) contribute to the biological diversity of the stream.

More importantly, there were no indicator organisms found that are associated with anoxic, heavy organic pollution such as chironomid larvae, rat-tail maggots, mosquito larva or sewage fungus (*sphaerotilus*).

ALGAE

The numbers of diatoms found at all three locations were impressive. There was no dominant flora, and this indicates a balanced, healthy stream. The continued presence of red algae (considered a rare find in this area) reinforces the image of a very clean stream at the dam site.

Blue green algae, often associated with eutrophic organically rich bodies of water, were found but in very low numbers, more of a background along with the diatoms and green algae.

SYNOPSIS

The Vernon Fork of the Muscatatuck River is a most valuable resource for the North Vernon area. It is a riparian ecosystem which reflects the overall health of the bio-community in its watershed. This study could not detect any obvious deterioration of the stream when compared to a similar study conducted in 1996. The stream remains in good shape and needs to be carefully guarded.

REFERENCES

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APPENDIX D

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

VIA ELECTRONIC MAIL November 26, 2014

The Honorable Harold Campbell, Mayor
City of North Vernon
143 E. Walnut Street
North Vernon, Indiana 47265

Dear Mayor Campbell:

Re: Final NPDES Permit No. IN0020451
City of North Vernon Wastewater Treatment Plant
Jennings County

Your application for a National Pollutant Discharge Elimination System (NPDES) permit has been processed in accordance with Sections 402 and 405 of the Federal Water Pollution Control Act as amended, (33 U.S.C. 1251, et seq.), and IDEM's permitting authority under IC 13-15. The enclosed NPDES permit covers your discharges to the Vernon Fork of the Muscatatuck River. All discharges from this facility shall be consistent with the terms and conditions of this permit.

One condition of your permit requires monthly reporting of several effluent parameters. Reporting is to be done on the Monthly Report of Operation (MRO) form. This form is available on the internet at the following web site:

http://www.in.gov/idem/5104.htm

You should duplicate this form as needed for future reporting.

Another condition which needs to be clearly understood concerns violation of the effluent limitations in the permit. Exceeding the limitations constitutes a violation of the permit and may bring criminal or civil penalties upon the permittee. (See Part II.A.1 and II.A.11 of this permit). It is very important that your office and treatment operator understand this part of the permit.

Please note that this permit issuance can be appealed. An appeal must be filed under procedures outlined in IC 13-15-6, IC 4-21.5, and the enclosed public notice. The appeal must be initiated by you within 18 days from the date this letter is postmarked, by filing a request for an adjudicatory hearing with the Office of Environmental Adjudication (OEA), at the following address:

Office of Environmental Adjudication
Indiana Government Center North
100 North Senate Avenue, Room 501
Indianapolis, IN 46204

Please send a copy of any such appeal to me at IDEM, Office of Water Quality-Mail Code 65-42, 100 North Senate Avenue, Indianapolis, Indiana 46204-2251.

The permit should be read and studied. It requires certain action at specific times by you, the discharger, or your authorized representative. One copy of this permit is also being sent to your operator to be kept at the treatment facility. You may wish to call this permit to the attention of your consulting engineer and/or attorney.

If you have any questions concerning your NPDES permit, please contact Bill Stenner at 317/233-1449. Questions concerning appeal procedures should be directed to the Office of Environmental Adjudication, at 317/232-8591.

Sincerely,

Paul Higginbotham, Chief
Permits Branch
Office of Water Quality

Enclosures
cc: Russell Vaught, Certified Operator
U.S. EPA, Region 5

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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 "Act"), Title 13 of the Indiana Code, and regulations adopted by the Water Pollution Control Board, the Indiana Department of Environmental Management (IDEM) is issuing this permit to the

CITY OF NORTH VERNON

hereinafter referred to as "the permittee." The permittee owns and/or the **City of North Vernon Wastewater Treatment Plant**, a major municipal wastewater treatment plant located at 725 North Greensburg Road, North Vernon, Indiana, Jennings County. The permittee is hereby authorized to discharge from the outfalls identified in Part I of this permit to receiving waters named the Vernon Fork of the Muscatatuck River in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in the permit. The permittee is also authorized to discharge from a combined sewer overflow outfall listed in Attachment A of this permit, to receiving waters named the Vernon Fork of the Muscatatuck River in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

Effective Date: February 1, 2015.

Expiration Date: January 31, 2020.

In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and application forms as are required by the Indiana Department of Environmental Management. The application shall be submitted to IDEM at least 180 days prior to the expiration date of this permit, unless a later date is allowed by the Commissioner in accordance with 327 IAC 5-3-2 and Part II.A.4 of this permit.

Issued November 26, 2014, for the Indiana Department of Environmental Management.

Paul Higginbotham, Chief
Permits Branch
Office of Water Quality

TREATMENT FACILITY DESCRIPTION

The permittee currently operates a Class III, 2.2 MGD single stage nitrification activated sludge treatment facility consisting of grit removal, influent screening, secondary clarification, rapid sand filtration, chlorination/dechlorination facilities, and influent and effluent flow metering. Solids are treated with aeration and aerobic digestion, prior to being dewatered and land applied under land application permit No. INLA000458.

The collection system is comprised of combined sanitary and storm sewers with one Combined Sewer Overflow (CSO) location. The CSO location has been identified and permitted with provisions in Attachment A of the permit.

The mass limits for $CBOD_5$, TSS and ammonia-nitrogen have been calculated utilizing the peak design flow of 4.76 MGD. This is to facilitate the maximization of flow through the treatment facility in accordance with this Office's CSO policy.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee shall take samples and measurements at a location representative of each discharge to determine whether the effluent limitations have been met. Refer to Part I.B of this permit for additional monitoring and reporting requirements.

1. Beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 001, which is located at Latitude: 39° 00' 16" N, Longitude: 85° 36' 00" W. The discharge is subject to the following requirements:

TABLE 1

	Quantity or Loading			**Quality or Concentration**			**Monitoring Requirements**	
Parameter	Monthly Average	Weekly Average	Units	Monthly Average	Weekly Average	Units	Measurement Frequency	Sample Type
Flow [1]	Report	----	MGD	----	----	----	5 X Weekly	24-Hr. Total
$CBOD_5$	993	1,589	lbs/day	25	40	mg/l	5 X Weekly	24-Hr. Composite
TSS	1,192	1,788	lbs/day	30	45	mg/l	5 X Weekly	24-Hr. Composite
Ammonia-nitrogen								
Summer [2]	60	87	lbs/day	1.5	2.2	mg/l	5 X Weekly	24-Hr. Composite
Winter [3]	87	131	lbs/day	2.2	3.3	mg/l	5 X Weekly	24-Hr. Composite
Phosphorus	----	----	----	Report	----	mg/l	Monthly	24-Hr. Composite

TABLE 2

	Quality or Concentration				Monitoring Requirements	
Parameter	Daily Minimum	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
pH [4]	6.0	----	9.0	s.u.	5 X Weekly	Grab
Dissolved Oxygen [5]						
Summer [2]	6.0	----	----	mg/l	5 X Weekly	3 Grabs/24-Hrs.
Winter [3]	5.0	----	----	mg/l	5 X Weekly	3 Grabs/24-Hrs.
Total Residual Chlorine [6]						
Final Effluent [7]	----	0.01	0.02	mg/l	5 X Weekly	Grab
E. coli [8]	----	125 [9]	235 [10]	colonies/100 ml	5 X Weekly	Grab

[1] Effluent flow measurement is required per 327 IAC 5-2-13. The flow meter(s) shall be calibrated at least once every twelve months.

[2] Summer limitations apply from May 1 through November 30 of each year.

[3] Winter limitations apply from December 1 through April 30 of each year.

[4] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Report of Operation forms.

[5] The daily minimum concentration of dissolved oxygen in the effluent shall be reported as the arithmetic mean determined by summation of the three (3) daily grab sample results divided by the number of daily grab samples. These samples are to be collected over equal time intervals.

[6] The effluent shall be disinfected on a continuous basis such that violations of the applicable bacteriological limitations (fecal coliform or *E. coli*) do not occur from April 1 through October 31, annually. If the permittee uses chlorine for any reason, at any time including the period from November 1 through March 31, then the limits and monitoring requirements in Table 2 for Total Residual Chlorine (TRC) shall be in effect whenever chlorine is used.

[7] In accordance with 327 IAC 5-2-11.1(f), compliance with this permit will be demonstrated if the measured effluent concentrations are less than the limit of quantitation (0.06 mg/l). If the measured effluent concentrations are above the water quality-based permit limitations and above the Limit of Detection (LOD) specified by the permit in any of three (3) consecutive analyses or any five (5) out of nine (9) analyses, the permittee is required to reevaluate its chlorination/dechlorination practices to make any necessary changes to assure compliance with the permit limitation for TRC.

These records must be retained in accordance with the record retention requirements of Part I.B.8 of this permit.

Effluent concentrations greater than or equal to the LOD but less than the Limit of Quantitation (LOQ), shall be reported on the discharge monitoring report forms as the measured value. A note must be included with the DMR indicating that the value is not quantifiable. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected at a concentration of 0.01 mg/l, report the value as < 0.01 mg/l. At present, two methods are considered to be acceptable to IDEM, amperometric and DPD colorimetric methods, for chlorine concentrations at the level of 0.06 mg/l.

Parameter	LOD	LOQ
Chlorine	0.02 mg/l	0.06 mg/l

Case-Specific MDL

The permittee may determine a case-specific Method Detection Level (MDL) using one of the analytical methods specified above, or any other test method which is approved by IDEM prior to use. The MDL shall be derived by the procedure specified for MDLs contained in 40 CFR Part 136, Appendix B, and the limit of quantitation shall be set equal to 3.18 times the MDL. Other methods may be used if first approved by the U.S. EPA and IDEM.

[8] The *Escherichia coli (E. coli)* limitations apply from April 1 through October 31 annually. IDEM has specified the following methods as allowable for the detection and enumeration of *Escherichia coli (E. coli)*:

1. Coliscan MF® Method
2. EPA Method 1603 Modified m-TEC agar
3. mColi Blue-24®
4. Colilert® MPN Method or Colilert-18® MPN Method

[9] The monthly average *E. coli* value shall be calculated as a geometric mean. Per 327 IAC 5-10-6, the concentration of *E. coli* shall not exceed one hundred twenty-five (125) cfu or mpn per 100 milliliters as a geometric mean of the effluent samples taken in a calendar month. No samples may be excluded when calculating the monthly geometric mean.

[10] If less than ten samples are taken and analyzed for *E. coli* in a calendar month, no samples may exceed two hundred thirty-five (235) cfu or mpn as a daily maximum. However, when ten (10) or more samples are taken and analyzed for *E. coli* in a calendar month, not more than ten percent (10%) of those samples may exceed two hundred thirty-five (235) cfu or mpn as a daily maximum. When calculating ten percent, the result must not be rounded up.

In reporting for compliance purposes on the Discharge Monitoring Report (DMR) form, the permittee shall record the highest non-excluded value for the daily maximum.

2. Minimum Narrative Limitations

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

a. including the mixing zone, to contain substances, materials, floating debris, oil, scum or other pollutants:

(1) that will settle to form putrescent or otherwise objectionable deposits;

(2) that are in amounts sufficient to be unsightly or deleterious;

(3) that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;

(4) which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;

(5) which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

b. outside the mixing zone, to contain substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

3. Additional Discharge Limitations and Monitoring Requirements

Beginning on the effective date of the permit, the effluent from Outfall 001 shall be limited and monitored by the permittee as follows:

TABLE 3

	Quality or Concentration			**Monitoring Requirements**	
Pollutant	Monthly Average	Daily Maximum	Unit	Measurement Frequency	Sample Type
Copper [1]	0.016	0.031	mg/l	1 X Weekly	24 Hr. Comp.
Lead [1]	----	Report	mg/l	Quarterly	24 Hr. Comp.
Zinc [1]	----	Report	mg/l	Quarterly	24 Hr. Comp.

Note: For measurement frequencies less than once per month, the permittee shall report the result from the monitoring period on the Discharge Monitoring Report (DMR) for the final month of the reporting timeframe, beginning with January of each year. For example, for quarterly monitoring, the permittee may conduct sampling within the month of January, February or March. The result from this reporting timeframe shall be reported on the March DMR, regardless of which of the months within the quarter the sample was taken.

[1] The permittee shall measure and report this parameter as Total Recoverable Metal. Concentrations less than the Limit of Quantitation (LOQ) and greater than or equal to the Limit of Detection (LOD) shall be reported by the permittee on the discharge monitoring report forms as the actual measured value. Concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected and the LOD is 0.1 mg/l, report the value as < 0.1 mg/l.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are recommended for use in the analysis of the effluent samples. Alternative 40 CFR 136 approved methods may be used provided the LOD is less than the monthly average and/or daily maximum effluent limitations.

The permittee may determine a case-specific Method Detection Level (MDL) using one of the analytical methods specified below, or any other test method which is approved by IDEM prior to use. The MDL shall be derived by the procedure specified for MDLs contained in 40 CFR Part 136, Appendix B, and the limit of quantitation shall be set equal to 3.18 times the MDL. NOTE: The MDL for purposes of this document, is synonymous with the "limit of detection" or "LOD" as defined in 327 IAC 5-1.5-26: "the minimum concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix".

Parameter	EPA Method	LOD	LOQ
Copper	3113 B	1.0 ug/l	3.2 ug/l
Lead	3113 B	1.0 ug/l	3.2 ug/l
Zinc	200.7, Revision 4.4 or 3120 B	2.0 ug/l	6.4 ug/l

4. Additional Monitoring Requirements

Beginning on the effective date of this permit, the permittee shall conduct the following monitoring activities:

a. Influent Monitoring

In addition to the requirements contained in Part I.B.2 of the NPDES permit, the permittee shall monitor the influent to its wastewater treatment facility for the following pollutants. Samples shall be representative of the raw influent in accordance with 327 IAC 5-2-13(b).

TABLE 4

	Quality or Concentration			**Monitoring Requirements**	
Parameter	Monthly Average	Daily Maximum	Unit	Measurement Frequency	Sample Type
Copper [1]	Report	Report	mg/l	2 X Monthly	24 Hr. Comp.
Lead [1]	Report	Report	mg/l	Quarterly	24 Hr. Comp.
Zinc [1]	Report	Report	mg/l	Quarterly	24 Hr. Comp.

Note: For measurement frequencies less than once per month, the permittee shall report the result from the monitoring period on the Discharge Monitoring Report (DMR) for the final month of the reporting timeframe, beginning with January of each year. For example, for quarterly monitoring, the permittee may conduct sampling within the month of January, February or March. The result from this reporting timeframe shall be reported on the March DMR, regardless of which of the months within the quarter the sample was taken.

[1] The permittee shall measure and report this parameter as Total Recoverable Metal. Concentrations less than the Limit of Quantitation (LOQ) and greater than or equal to the Limit of Detection (LOD) shall be reported by the permittee on the discharge monitoring report forms as the actual measured value. Concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected and the LOD is 0.1 mg/l, report the value as < 0.1 mg/l.

b. Organic Pollutant Monitoring

The permittee shall conduct an annual inventory of organic pollutants (see 40 CFR 423, Appendix A) and shall identify and quantify additional organic compounds which occur in the influent, effluent, and sludge. The analytical report shall be sent to the Pretreatment Group. This report is due in December of each year. The inventory shall consist of:

(1) Sampling and Analysis of Influent and Effluent

Sampling shall be conducted on a day when industrial discharges are occurring at normal or maximum levels. The samples shall be 24-hour flow proportional composites, except for volatile organics, which shall be taken by appropriate grab sampling techniques. Analysis for the U.S. EPA organic priority pollutants shall be performed using U.S. EPA methods 624, 625 and 608 in 40 CFR 136, or other equivalent methods approved by U.S. EPA. Equivalent methods must be at least as sensitive and specific as methods 624, 625 and 608.

All samples must be collected, preserved and stored in accordance with 40 CFR 136, Appendix A. Samples for volatile organics must be analyzed within 14 days of collection. Samples for semivolatile organics, PCBs and pesticides must be extracted within 7 days of collection and analyzed within 40 days of extraction. For composite samples, the collection date shall be the date at the end of the daily collection period.

(2) Sampling and Analysis of Sludge

Sampling collection, storage, and analysis shall conform to the U.S. EPA recommended procedures equivalent to methods in accordance with 40 CFR 503. Special sampling and/or preservation techniques will be required for those pollutants which deteriorate rapidly.

Sludge samples for volatile organics must be analyzed within 14 days of collection. Sludge samples for semivolatile organics, PCBs and pesticides must be extracted within 14 days of collection and analyzed within 40 days of extraction.

(3) Additional Pollutant Identification

In addition to the priority pollutants, a reasonable attempt shall be made to identify and quantify the ten most abundant constituents of each fraction (excluding priority pollutants and unsubstituted aliphatic compounds) shown to be present by peaks on the total ion plots (reconstructed gas chromatograms) more than ten times higher than the adjacent background noise. Identification shall be attempted through the use of U.S. EPA/NIH computerized library of mass spectra, with visual confirmation by an experienced analyst. Quantification may be based on an order of magnitude estimate based upon comparison with an internal standard.

The annual pretreatment program report required by Part III.A.7. of this permit, should identify the additional steps necessary to determine whether the pollutants that are present interfere, pass through, or otherwise violate 40 CFR 403.2. Upon such determination, the report must also identify the steps taken to develop and enforce local limitations on industrial discharges for those pollutants. This is a requirement of 40 CFR 403.5.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge flow and shall be taken at times which reflect the full range and concentration of effluent parameters normally expected to be present. Samples shall not be taken at times to avoid showing elevated levels of any parameters.

2. Data on Plant Operation

The raw influent and the wastewater from intermediate unit treatment processes, as well as the final effluent shall be sampled and analyzed for the pollutants and operational parameters specified by the applicable Monthly Report of Operation Form, as appropriate, in accordance with 327 IAC 5-2-13. Except where the permit specifically states otherwise, the sample frequency for the raw influent and intermediate unit treatment process shall be at a minimum the same frequency as that for the final effluent. The measurement frequencies specified in each of the tables in Part I.A. are the minimum frequencies required by this permit.

3. Monthly Reporting

The permittee shall submit accurate monitoring reports to the Indiana Department of Environmental Management containing results obtained during the previous monitoring period and shall be postmarked no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the monitoring period in which the permit becomes effective. These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Report of Operation (MRO). Permittees with metals monitoring requirements shall also complete and submit the Indiana Monthly Monitoring Report Form (MMR-State Form 30530) to report their influent and/or effluent data for metals and other toxics. Permittees with combined sewer overflow discharges must also submit the CSO Monthly Report of Operation to IDEM by the 28th day of the month following each completed monitoring period. All reports shall be mailed to IDEM, Office of Water Quality – Mail Code 65-42, Compliance Data Section, 100 North Senate Ave., Indianapolis, Indiana 46204-2251. In lieu of mailing paper reports the permittee may submit its reports to IDEM electronically by using the NetDMR application, upon registration and approval receipt. Electronically submitted reports (using NetDMR) have the same deadline as mailed reports. The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit.

A calendar week will begin on Sunday and end on Saturday. Partial weeks consisting of four or more days at the end of any month will include the remaining days of the week, which occur in the following month in order to calculate a consecutive seven-day average. This value will be reported as a weekly average or seven-day average on the MRO for the month containing the partial week of four or more days. Partial calendar weeks consisting of less than four days at the end of any month will be carried forward to the succeeding month and reported as a weekly average or a seven-day average for the calendar week that ends with the first Saturday of that month.

4. Definitions

a. Calculation of Averages

Pursuant to 327 IAC 5-2-11(a)(5), the calculation of the average of discharge data shall be determined as follows: For all parameters except fecal coliform and *E. coli*, calculations that require averaging of sample analyses or measurements of daily discharges shall use an arithmetic mean unless otherwise specified in this permit. For fecal coliform, the monthly average discharge and weekly average discharge, as concentrations, shall be calculated as a geometric mean. For *E. coli*, the monthly average discharge, as a concentration, shall be calculated as a geometric mean.

b. Terms

(1) "Monthly Average" -The monthly average discharge means the total mass or flow-weighted concentration of all daily discharges during a calendar month on which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar month. The monthly average discharge limitation is the highest allowable average monthly discharge for any calendar month.

(2) "Weekly Average" - The weekly average discharge means the total mass or flow weighted concentration of all daily discharges during any calendar week for which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar week. The average weekly discharge limitation is the maximum allowable average weekly discharge for any calendar week.

(3) "Daily Maximum" - The daily maximum discharge limitation is the maximum allowable daily discharge for any calendar day. The "daily discharge" means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four hour period that represents the calendar day for purposes of sampling.

(4) "24-hour Composite" - A 24-hour composite sample consists of at least four (4) individual flow-proportioned samples of wastewater, taken by the grab sample method over equal time intervals during the period of operator attendance or by an automatic sampler, and which are combined prior to analysis. A flow proportioned composite sample shall be obtained by:

(a) recording the discharge flow rate at the time each individual sample is taken,

(b) adding together the discharge flow rates recorded from each individual sampling time to formulate the "total flow value,"

(c) dividing the discharge flow rate of each individual sampling time by the total flow value to determine its percentage of the total flow value, and

(d) multiplying the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.

Alternatively, a 24-hour composite sample may be obtained by an automatic sampler on an equal time interval basis over a twenty-four hour period provided that a minimum of 24 samples are taken and combined prior to analysis. The samples do not need to be flow-proportioned if the permittee collects samples in this manner.

(5) $CBOD_5$: Five-day Carbonaceous Biochemical Oxygen Demand

(6) TSS: Total Suspended Solids

(7) *E. coli*: Escherichia coli bacteria

(8) The "Regional Administrator" is defined as the Region V Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.

(9) The "Commissioner" is defined as the Commissioner of the Indiana Department of Environmental Management, located at the following address: 100 North Senate Avenue, Indianapolis, Indiana 46204-2251.

(10) Limit of Detection or LOD is defined as a measurement of the concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix. The LOD is equivalent to the Method Detection Level or MDL.

(11)Limit of Quantitation or LOQ is defined as a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration about the method 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. This term is also called the limit of quantification or quantification level.

(12)Method Detection Level or MDL is defined as the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by the procedure set forth in 40 CFR Part 136, Appendix B. The method detection level or MDL is equivalent to the LOD.

5. Test Procedures

The analytical and sampling methods used shall conform to the current version of 40 CFR, Part 136, unless otherwise specified within this permit. Multiple editions of Standard Methods for the Examination of Water and Wastewater are currently approved for most methods, however, 40 CFR Part 136 should be checked to ascertain if a particular method is approved for a particular analyte. The approved methods may be included in the texts listed below. However, different but equivalent methods are allowable if they receive the prior written approval of the State agency and the U.S. Environmental Protection Agency.

a. Standard Methods for the Examination of Water and Wastewater
18^{th}, 19^{th}, or 20^{th} Editions, 1992, 1995 or 1998 American Public Health Association, Washington, D.C. 20005.

b. A.S.T.M. Standards, Part 23, Water; Atmospheric Analysis
1972 American Society for Testing and Materials, Philadelphia, PA 19103.

c. Methods for Chemical Analysis of Water and Wastes
June 1974, Revised, March 1983, Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, OH 45202.

6. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record and maintain records of all monitoring information on activities under this permit, including the following information:

a. The exact place, date, and time of sampling or measurements;

b. The person(s) who performed the sampling or measurements;

c. The dates and times the analyses were performed;

d. The person(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of all required analyses and measurements.

7. 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 Monthly Discharge Monitoring Report and on the Monthly Report of Operation form. Such increased frequency shall also be indicated on these forms. Any such additional monitoring data which indicates a violation of a permit limitation shall be followed up by the permittee, whenever feasible, with a monitoring sample obtained and analyzed pursuant to approved analytical methods. The results of the follow-up sample shall be reported to the Commissioner in the Monthly Discharge Monitoring Report.

8. 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 recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three-year period shall be extended:

a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or

b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

C. REOPENING CLAUSES

In addition to the reopening clause provisions cited at 327 IAC 5-2-16, the following reopening clauses are incorporated into this permit:

1. This permit may be modified or, alternately, revoked and reissued after public notice and opportunity for hearing to incorporate effluent limitations reflecting the results of a wasteload allocation if the Department of Environmental Management determines that such effluent limitations are needed to assure that State Water Quality Standards are met in the receiving stream.

2. This permit may be modified due to a change in sludge disposal standards pursuant to Section 405(d) of the Clean Water Act, if the standards when promulgated contain different conditions, are otherwise more stringent, or control pollutants not addressed by this permit.

3. This permit may be modified, or, alternately, revoked and reissued, to comply with any applicable effluent limitation or standard issued or approved under section 301(b)(2)(C), (D) and (E), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

   a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

   b. controls any pollutant not limited in the permit.

4. This permit may be modified, or alternately, revoked and reissued after public notice and opportunity for hearing to include Whole Effluent Toxicity (WET) limitations or to include limitations for specific toxicants if the results of the biomonitoring and/or the Toxicity Reduction Evaluation (TRE) study indicate that such limitations are necessary.

5. This permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing, to include a case-specific Method Detection Level (MDL). The permittee must demonstrate that such action is warranted in accordance with the procedure specified under Appendix B, 40 CFR Part 136, or approved by the Indiana Department of Environmental Management.

6. This permit may be modified or, alternatively, revoked and reissued after public notice and opportunity for hearing to incorporate additional requirements or limitations for specific toxicants if the required additional analyses in Part I.A. indicate that such additional requirements and/or limitations are necessary to assure that State Water Quality Standards are met in the receiving stream.

D. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The 1977 Clean Water Act explicitly states, in Section 101(3) that it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited. In support of this policy the U.S. EPA in 1995 amended the 40 CFR 136.3 (Tables IA and II) by adding testing methods for measuring acute and short-term chronic toxicity of whole effluents and receiving waters. To adequately assess the character of the effluent, and the effects of the effluent on aquatic life, the permittee shall conduct Whole Effluent Toxicity Testing. Part 1 of this section describes the testing procedures, Part 2 describes the Toxicity Reduction Evaluation which is only required if the effluent demonstrates toxicity, as described in paragraph f.

1. Whole Effluent Toxicity Tests

   The permittee shall conduct the series of bioassay tests described below to monitor the toxicity of the discharge from Outfall 001.

If toxicity is demonstrated as defined under paragraph f below, the permittee is required to conduct a toxicity reduction evaluation (TRE).

a. Bioassay Test Procedures and Data Analysis

(1) All test organisms, test procedures and quality assurance criteria used shall be in accordance with the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms; Fourth Edition Section 13, Cladoceran (*Ceriodaphnia dubia*) Survival and Reproduction Test Method 1002.0; and Section 11, Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test Method, (1000.0) EPA 821-R-02-013, October 2002, or most recent update.

(2) Any circumstances not covered by the above methods, or that require deviation from the specified methods shall first be approved by the IDEM's Permits Branch Toxicologist.

(3) The determination of effluent toxicity shall be made in accordance with the Data Analysis general procedures for chronic toxicity endpoints as outlined in Section 9, and in Sections 11 and 13 of the respective Test Method (1000.0 and 1002.0) of Short-term Methods of Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms (EPA 821-R-02-013), Fourth Edition, October 2002 or most recent update.

b. Types of Bioassay Tests

(1) The permittee shall conduct a 7-day Cladoceran (*Ceriodaphnia dubia*) Survival and Reproduction Test and a 7-day Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test on samples of the final effluent. All tests will be conducted on 24-hour composite samples of final effluent. All test solutions shall be renewed daily. On days three and five fresh 24-hour composite samples of the effluent collected on alternate days shall be used to renew the test solutions.

(2) If in any control more than 10% of the test organisms die in 96 hours, or more than 20% of the test organisms die in 7 days, that test shall be repeated. In addition, if in the *Ceriodaphnia* test control the number of newborns produced per surviving female is less than 15, or if 60% of surviving control females have less than three broods; and in the fathead minnow test if the mean dry weight of surviving fish in the control group is less than 0.25 mg, that test shall also be repeated. Such testing will determine whether the effluent affects the survival, reproduction, and/or growth of the test organisms. Results of all tests regardless of completion must be reported to IDEM.

c. Effluent Sample Collection and Chemical Analysis

(1) Samples for the purposes of Whole Effluent Toxicity Testing will be taken at a point that is representative of the discharge, but prior to discharge. The maximum holding time for whole effluent is 36 hours for a 24 hour composite sample. Bioassay tests must be started within 36 hours after termination of the 24 hour composite sample collection. Bioassay of effluent sampling may be coordinated with other permit sampling requirements as appropriate to avoid duplication.

(2) Chemical analysis must accompany each effluent sample taken for bioassay test. Especially the sample taken for the repeat or confirmation test as outlined in paragraph f.3. The analysis detailed under Part I.A. should be conducted for the effluent sample. Chemical analysis must comply with approved EPA test methods.

d. Frequency and Duration

The toxicity tests specified in paragraph b. shall be conducted once **annually** for the duration of the permit. The results of the toxicity tests are due once within each twelve month period as calculated from twelve months after the effective date of the permit.

If toxicity is demonstrated as defined under paragraph f (1), (2) or (3), the permittee is required to conduct a Toxicity Reduction Evaluation (TRE) as specified in Section 2.

e. Reporting

(1) Results shall be reported according to EPA 821-R-02-013, Section 10 (Report Preparation). Two copies of the completed report for each test shall be submitted to the Compliance Data Section of the IDEM no later than sixty days after completion of the test. An electronic copy of the report may be submitted to wwreports@idem.IN.gov in lieu of the two copies to the Compliance Data Section.

(2) For quality control, the report shall include the results of appropriate standard reference toxic pollutant tests for chronic endpoints and historical reference toxic pollutant data with mean values and appropriate ranges for the respective test species *Ceriodaphnia dubia* and *Pimephales promelas*. Biomonitoring reports must also include copies of Chain-of-Custody Records and Laboratory raw data sheets.

(3) Statistical procedures used to analyze and interpret toxicity data including critical values of significance used to evaluate each point of toxicity should be described and included as part of the biomonitoring report.

f. Demonstration of Toxicity

(1) Acute toxicity will be demonstrated if the effluent is observed to have exceeded **1.0** TU_a(acute toxic units) based on 100% effluent for the test organism in 48 and 96 hours for *Ceriodaphnia dubia* or *Pimephales promelas*, respectively.

(2) Chronic toxicity will be demonstrated if the effluent is observed to have exceeded **1.02** TU_c (chronic toxic units) for *Ceriodaphnia dubia* or *Pimephales promelas* .

(3) If toxicity is found in any of the tests specified above, a confirmation toxicity test using the specified methodology and same test species shall be conducted within two weeks of receiving the chronic toxicity test results. During the sampling for any confirmation tests the permittee shall also collect and preserve sufficient effluent samples for use in any Toxicity Identification Evaluation (TIE) and/or Toxicity Reduction Evaluation (TRE), if necessary. If any two (2) consecutive tests, <u>including any and all confirmation tests</u>, indicate the presence of toxicity, the permittee must begin the implementation of a Toxicity Reduction Evaluation (TRE) as described below. The whole effluent toxicity tests required above may be suspended (upon approval from IDEM) while the TRE is being conducted.

g. Definitions

(1) TU_c is defined as 100/NOEC or $100/IC_{25}$, where the NOEC or IC_{25} is expressed as a percent effluent in the test medium.

(2) TU_a is defined as $100/LC_{50}$ where the LC_{50} is expressed as a percent effluent in the test medium of an acute Whole Effluent Toxicity (WET) test that is statistically or graphically estimated to be lethal to fifty percent (50%) of the test organisms.

(3)"Inhibition concentration 25" or "IC_{25}" means the toxicant (effluent) concentration that would cause a twenty-five percent (25%) reduction in a nonquantal biological measurement for the test population. For example, the IC_{25} is the concentration of toxicant (effluent) that would cause a twenty-five percent (25%) reduction in mean young per female or in growth for the test population.

(4)"No observed effect concentration" or "NOEC" is the highest concentration of toxicant (effluent) to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms, that is, the highest concentration of toxicant (effluent) in which the values for the observed responses are not statistically significantly different from the controls.

2. Toxicity Reduction Evaluation (TRE)

The development and implementation of a TRE (including any post-TRE biomonitoring requirements) is only required if toxicity is demonstrated as defined by Paragraph 1.f.

Development and Submittal of TRE Plan	Within 90 days of two failed toxicity tests.
Initiate Effluent TRE	Within 30 days of TRE Plan submittal to IDEM.
Progress Reports	Every 90 days from the initiation date of the TRE.
Submit Final TRE Results	Within 90 days of the completion of the TRE, not to exceed 3 years from the date of the initial determination of toxicity (two failed toxicity tests).
Post-TRE Biomonitoring Requirements	Immediately upon completion of the TRE, conduct 3 consecutive months of toxicity tests, if no toxicity is shown, reduce toxicity tests to once every 6 months for the duration of the permit term. If post – TRE biomonitoring demonstrates toxicity, revert to implementation of a TRE.

a. Development of TRE Plan

Within 90 days of determination of toxicity, the permittee shall submit plans for an effluent TRE to the Compliance Data Section of the IDEM. The TRE plan shall include appropriate measures to characterize the causative toxicant and the variability associated with these compounds. Guidance on conducting effluent toxicity reduction evaluations is available from EPA and from the EPA publications listed below:

(1) Methods for Aquatic Toxicity Identification Evaluations:

Phase I Toxicity Characterization Procedures, Second Edition (EPA/600/6-91/003), February 1991.

Phase II Toxicity Identification Procedures (EPA 600/R-92/080), September 1993.

Phase III Toxicity Confirmation Procedures (EPA/600/R-92/081), September 1993.

(2) Methods for Chronic Toxicity Identification Evaluations
Phase I Characterization of Chronically Toxic Effluents EPA/600/6-91/005F, May 1992.

(3) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070), April 1989.

(4) Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatment Plants (EPA/833-B-99-022), August 1999.

b. Conduct the TRE

Within 30 days after submittal of the TRE plan to IDEM, the permittee must initiate an effluent TRE consistent with the TRE plan. Progress reports shall be submitted every 90 days to the Compliance Data Section of the Office of Water Quality (OWQ) beginning 90 days after initiation of the TRE.

c. Reporting

Within 90 days of the TRE completion, the permittee shall submit to the Compliance Data Section of the Office of Water Quality (OWQ) the final study results and a schedule for reducing the toxicity to acceptable levels through control of the toxicant source or treatment of whole effluent.

d. Compliance Date

The permittee shall complete items a, b, and c from Section 2 and reduce the toxicity to acceptable levels as soon as possible but no later than three years after the date of determination of toxicity.

e. Post-TRE Biomonitoring Requirements (Only Required After Completion of a TRE)

After the TRE, the permittee shall conduct monthly toxicity tests with 2 or more species for a period of three months. Should three consecutive monthly tests demonstrate no toxicity, the permittee shall conduct chronic tests every six months for the duration of the permit. These tests shall be conducted in accordance with the procedures under the Whole Effluent Toxicity Tests Section. The results of these tests shall be submitted to the Compliance Data Section of the Office of Water Quality (OWQ).

If toxicity is demonstrated as defined in paragraph 1.f after the initial three month period, testing must revert to a TRE as in Part 2 (TRE).

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all terms and conditions of this permit in accordance with 327 IAC 5-2-8(1) and all other requirements of 327 IAC 5-2-8. Any permit noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action or permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

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 the permit.

2. Duty to Mitigate

In accordance with 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with this permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine the nature and impact of the noncompliance.

3. Duty to Provide Information

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the facility that:

a. could significantly change the nature of, or increase the quantity of, pollutants discharged; or

b. the Commissioner may request to evaluate whether such cause exists.

In accordance with 327 IAC 5-1-3(a)(5), the permittee must also provide any information reasonably requested by the Commissioner.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must obtain and submit a renewal of this permit in accordance with 327 IAC 5-3-2(a)(2). It is the permittee's responsibility to obtain and submit the application. In accordance with 327 IAC 5-2-3(c), the owner of the facility or operation from which a discharge of pollutants occurs is responsible for applying for and obtaining the NPDES permit, except where the facility or operation is operated by a person other than an employee of the owner in which case it is the operator's responsibility to apply for and obtain the permit. The application must be submitted at least 180 days before the expiration date of this permit. This deadline may be extended if:

a. permission is requested in writing before such deadline;

b. IDEM grants permission to submit the application after the deadline; and

c. the application is received no later than the permit expiration date.

As required under 327 IAC 5-2-3(g)(1) and (2), POTWs with design influent flows equal to or greater than one million (1,000,000) gallons per day and POTWs with an approved pretreatment program or that are required to develop a pretreatment program, will be required to provide the results of whole effluent toxicity testing as part of their NPDES renewal application.

5. Transfers

In accordance with 327 IAC 5-2-8(4)(D), this permit is nontransferable to any person except in accordance with 327 IAC 5-2-6(c). This permit may be transferred to another person by the permittee, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

a. the current permittee notified the Commissioner at least thirty (30) days in advance of the proposed transfer date.

b. a written agreement containing a specific date of transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgment that the existing permittee is liable for violations up to that date, and the transferee is liable for violations from that date on) is submitted to the Commissioner.

c. the transferee certifies in writing to the Commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the Commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility.

d. the Commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act or state law.

6. Permit Actions

In accordance with 327 IAC 5-2-16(b) and 327 IAC 5-2-8(4), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts in the application, or during the permit issuance process; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge controlled by the permittee (e.g., plant closure, termination of the discharge by connecting to a POTW, a change in state law or information indicating the discharge poses a substantial threat to human health or welfare).

Filing of either of the following items does not stay or suspend any permit condition: (1) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (2) submittal of information specified in Part II.A.3 of the permit including planned changes or anticipated noncompliance.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

1. could significantly change the nature of, or increase the quantity of, pollutants discharged; or

2. the commissioner may request to evaluate whether such cause exists.

7. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or an invasion of rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

8. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or applications of the permit which can be given effect without the invalid provision or application.

9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

10. 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 Clean Water Act or state law.

11. Penalties for Violation of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Water Pollution Control Board is liable for a civil penalty not to exceed twenty-five thousand dollars ($25,000) per day of any violation. Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or designated agent in the performance of an inspection or investigation commits a class C infraction.

Pursuant to IC 13-30-10, a person who intentionally, knowingly, or recklessly violates any provision of this permit, the water pollution control laws or a rule or standard adopted by the Water Pollution Control Board commits a class D felony punishable by the term of imprisonment established under IC 35-50-2-7(a) (up to one year), and/or by a fine of not less than five thousand dollars ($5,000) and not more than fifty thousand dollars ($50,000) per day of violation. A person convicted for a violation committed after a first conviction of such person under this provision is subject to a fine of not more than one hundred thousand dollars ($100,000) per day of violation, or by imprisonment for not more than two (2) years, or both.

12. Penalties for Tampering or Falsification

In accordance with 327 IAC 5-2-8(9), the permittee shall comply with monitoring, recording, and reporting requirements of this permit. The Clean Water Act, as well as IC 13-30-10, provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under a permit shall, upon conviction, be punished by a fine of not more than ten thousand dollars ($10,000) per violation, or by imprisonment for not more than one hundred eighty (180) days per violation, or by both.

13. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health, and that standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants injurious to human health are effective and must be complied with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

14. Operator Certification

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22. In order to operate a wastewater treatment plant the operator shall have qualifications as established in 327 IAC 5-22-7. The permittee shall designate one (1) person as the certified operator with complete responsibility for the proper operations of the wastewater facility.

327 IAC 5-22-10.5(a) provides that a certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant, if it can be shown that he will give adequate supervision to all units involved. Adequate supervision means that sufficient time is spent at the plant on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are representative of the actual operations conditions. In accordance with 327 IAC 5-22-3(11), "responsible charge" means the person responsible for the overall daily operation, supervision, or management of a wastewater facility.

Pursuant to 327 IAC 5-22-10(4), the permittee shall notify IDEM when there is a change of the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator.

15. Construction Permit

Except in accordance with 327 IAC 3, the permittee shall not construct, install, or modify any water pollution treatment/control facility as defined in 327 IAC 3-1-2(24). Upon completion of any construction, the permittee must notify the Compliance Data Section of the Office of Water Quality in writing.

16. Inspection and Entry

In accordance with 327 IAC 5-2-8(7), the permittee shall allow the Commissioner, or an authorized representative, (including an authorized contractor acting as a representative of the Commissioner) upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a point source, regulated facility, or activity is located or conducted, or where records must be kept pursuant to the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

c. Inspect at reasonable times any facilities, equipment or methods (including monitoring and control equipment), practices, or operations regulated or required pursuant to this permit; and

d. Sample or monitor at reasonable times, any discharge of pollutants or internal wastestreams for the purposes of evaluating compliance with the permit or as otherwise authorized.

17. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless one of the following is completed prior to the commencement of the action:

a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharges will not cause a significant lowering of water quality as defined under 327 IAC 2-1.3-2(50). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 2-1.3-5 and 327 IAC 2-1.3-6.

B. MANAGEMENT REQUIREMENTS

1. Facility Operation, Maintenance and Quality Control

a. In accordance with 327 IAC 5-2-8(8), the permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for collection and treatment that are:

(1) installed or used by the permittee; and

(2) necessary for achieving compliance with the terms and conditions of the permit.

Neither 327 IAC 5-2-8(8), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit. Taking redundant treatment units off line does not violate the bypass provisions of the permit, provided that the permittee is at all times: maintaining in good working order and efficiently operating all facilities and systems; providing best quality effluent; and achieving compliance with the terms and conditions of the permit.

b. The permittee shall operate the permitted facility in a manner which will minimize upsets and discharges of excessive pollutants. The permittee shall properly remove and dispose of excessive solids and sludges.

c. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit.

d. Maintenance of all waste collection, control, treatment, and disposal facilities shall be conducted in a manner that complies with the bypass provisions set forth below.

e. Any extensions to the sewer system must continue to be constructed on a separated basis. Plans and specifications, when required, for extension of the sanitary system must be submitted to the Facility Construction and Engineering Support Section, Office of Water Quality in accordance with 327 IAC 3-2-1. There shall also be an ongoing preventative maintenance program for the sanitary sewer system.

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(11):

a. Terms as defined in 327 IAC 5-2-8(11)(A):

(1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause 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.

b. Bypasses, as defined above, are prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, as defined above;

(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 back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II.B.2.d; or

(4) The condition under Part II.B.2.f below is met.

c. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the "Spill Response and Reporting Requirements" in 327 IAC 2-6.1, including calling 888/233-7745 as soon as possible, but within two (2) hours of discovery. However, under 327 IAC 2-6.1-3(1), when the constituents of the bypass are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

d. The permittee must provide the Commissioner with the following notice:

(1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.

(2) The permittee shall orally report or fax a report of an unanticipated bypass within 24 hours of becoming aware of the bypass event. The permittee must also provide a written report within five (5) days of the time the permittee becomes aware of the bypass event. The written report must contain a description of the noncompliance (i.e. the bypass) and its cause; the period of noncompliance, including exact dates and times; if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the bypass event. If a complete fax or email submittal is sent within 24 hours of the time that the permittee became aware of the unanticipated bypass event, then that report will satisfy both the oral and written reporting requirement.

e. The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.b. The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

f. The permittee may allow any bypass to occur that does not cause a violation of the effluent limitations in the permit, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.B.2.b.,d and e of this permit.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(12):

a. "Upset" means 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. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this subsection, are met.

c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the permittee has identified the specific cause(s) of the upset;

(2) The permitted facility was at the time being operated in compliance with proper operation and maintenance procedures;

(3) The permittee complied with any remedial measures required under "Duty to Mitigate", Part II.A.2; and

(4) The permittee submitted notice of the upset as required in the "Incident Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

d. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof pursuant to 40 CFR 122.41(n)(4).

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

a. Collected screenings, slurries, sludges, and other such pollutants shall be disposed of in accordance with provisions set forth in 329 IAC 10, 327 IAC 6.1, or another method approved by the Commissioner.

b. The permittee shall comply with existing federal regulations governing solids disposal, and with applicable provisions of 40 CFR Part 503, the federal sludge disposal regulation standards.

c. The permittee shall notify the Commissioner prior to any changes in sludge use or disposal practices.

d. The permittee shall maintain records to demonstrate its compliance with the above disposal requirements.

5. Power Failures

In accordance with 327 IAC 5-2-10 and 327 IAC 5-2-8(13) in order to maintain compliance with the effluent limitations and prohibitions of this permit, 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. shall halt, reduce or otherwise control all discharge in order to maintain compliance with the effluent limitations and conditions of this permit 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.

6. Unauthorized Discharge

Any overflow or release of sanitary wastewater from the wastewater treatment facilities or collection system that results in a discharge to waters of the state and is not specifically authorized by this permit is expressly prohibited. These discharges are subject to the reporting requirements in Part II.C.3 of this permit.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(10)(F) and 5-2-16(d), the permittee shall give notice to the Commissioner as soon as possible of any planned alterations or additions to the facility (which includes any point source) that could significantly change the nature of, or increase the quantity of, pollutants discharged. Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited. Material and substantial alterations or additions to the permittee's operation that were not covered in the permit (e.g., production changes, relocation or combination of discharge points, changes in the nature or mix of products produced) are also cause for modification of the permit. However those alterations which constitute total replacement of the process or the production equipment causing the discharge converts it into a new source, which requires the submittal of a new NPDES application.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(9), 327 IAC 5-2-13, and 327 IAC 5-2-15, monitoring results shall be reported at the intervals and in the form specified in "Data On Plant Operation", Part I.B.2.

3. Incident Reporting Requirements

Pursuant to 327 IAC 5-2-8(10) and 327 IAC 5-1-3, the permittee shall orally report to the Commissioner information on the following incidents within 24 hours from the time permittee becomes aware of such occurrence. If the incident meets the emergency criteria of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made as soon as possible, but within two (2) hours of discovery. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit;

b. Any emergency incident which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the incident by calling 317/233-7745 (888/233-7745 toll free in Indiana). This number should only be called when reporting these emergency events;

c. Any upset (as defined in Part II.B.3 above) that exceeds any technology-based effluent limitations in the permit;

d. Any release, including basement backups, from the sanitary sewer system (including satellite sewer systems operated or maintained by the permittee) not specifically authorized by this permit. Reporting of known releases from private laterals not caused by a problem in the sewer system owned or operated by the permittee is not required under Part II.C.3, however, documentation of such events must be maintained by the permittee and available for review by IDEM staff;

e. Any discharge from any outfall from which discharge is explicitly prohibited by this permit as well as any discharge from any other outfall or point not listed in this permit; or

f. Violation of a maximum daily discharge limitation for any of the following toxic pollutants: copper.

The permittee can make the oral reports by calling 317/232-8670 during regular business hours. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. For incidents involving effluent limit violations or discharges, the written submission shall contain: a description of the event and its cause; the period of occurrence, including exact dates and times, and, if the event has not concluded, the anticipated time it is expected to continue; and steps taken or planned to reduce, mitigate and eliminate the event and steps taken or planned to prevent its recurrence. For sewer releases which do not meet the definition of a discharge, the written submission shall contain: a description of the event and its believed cause; the period of occurrence; and any steps taken or planned to mitigate the event and steps taken or planned to prevent its recurrence.

The permittee may submit a "Bypass Overflow/Incident Report" or a "Noncompliance Notification Report", whichever is applicable, to IDEM at 317/232-8637 or 317/232-8406 or to wwreports@idem.IN.gov. If a complete fax or email submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then that report will satisfy both the oral and written reporting requirements.

4. Other Noncompliance

Pursuant to 327 IAC 5-2-8(10)(D), the permittee shall report any instance of noncompliance not reported under the "Incident Reporting Requirements" in Part II.C.3 at the time the pertinent Discharge Monitoring Report is submitted. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent the noncompliance.

5. Other Information

Pursuant to 327 IAC 5-2-8(10)(E), where the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or in any report to the Commissioner, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(14):

a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a principal executive defined as a president, secretary, treasurer, any vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making functions for the corporation or the manager of one or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a federal, state, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

b. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) 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, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Commissioner.

c. Certification. Any person signing a document identified under paragraphs a and b of this section, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(14) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Progress Reports

In accordance with 327 IAC 5-2-8(10)(A), reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

10. Advance Notice for Planned Changes

In accordance with 327 IAC 5-2-8(10)(B), the permittee shall give advance notice to IDEM of any planned changes in the permitted facility, any activity, or other circumstances that the permittee has reason to believe may result in noncompliance with permit requirements.

11. Additional Requirements for POTWs and/or Treatment Works Treating Domestic Sewage

a. All POTWs shall identify, in terms of character and volume of pollutants, any significant indirect discharges into the POTW which are subject to pretreatment standards under section 307(b) and 307 (c) of the CWA.

b. All POTWs must provide adequate notice to the Commissioner of the following:

(1) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants.

(2) Any substantial change in the volume or character of pollutants being introduced into that POTW by any source where such change would render the source subject to pretreatment standards under section 307(b) or 307(c) of the CWA or would result in a modified application of such standards.

As used in this clause, “adequate notice” includes information on the quality and quantity of effluent introduced into the POTW, and any anticipated impact of the change on the quantity or quality of the effluent to be discharged from the POTW.

c. This permit incorporates any conditions imposed in grants made by the U.S. EPA and/or IDEM to a POTW pursuant to Sections 201 and 204 of the Clean Water Act, that are reasonably necessary for the achievement of effluent limitations required by Section 301 of the Clean Water Act.

d. This permit incorporates any requirements of Section 405 of the Clean Water Act governing the disposal of sewage sludge from POTWs or any other treatment works treating domestic sewage for any use for which rules have been established in accordance with any applicable rules.

e. POTWs must develop and submit to the Commissioner a POTW pretreatment program when required by 40 CFR 403 and 327 IAC 5-19-1, in order to assure compliance by industrial users of the POTW with applicable pretreatment standards established under Sections 307(b) and 307(c) of the Clean Water Act. The pretreatment program shall meet the criteria of 327 IAC 5-19-3 and, once approved, shall be incorporated into the POTW's NPDES permit.

D. ADDRESSES

1. Cashiers Office

Indiana Department of Environmental Management
Cashiers Office – Mail Code 50-10C
100 N. Senate Avenue
Indianapolis, Indiana 46204-2251

The following correspondence shall be sent to the Cashiers Office:

a. NPDES permit applications (new, renewal or modifications) with fee

b. Construction permit applications with fee

2. Municipal NPDES Permits Section

Indiana Department of Environmental Management
Office of Water Quality – Mail Code 65-42
Municipal NPDES Permits Section
100 N. Senate Avenue
Indianapolis, Indiana 46204-2251

The following correspondence shall be sent to the Municipal NPDES Permits Section:

a. Preliminary Effluent Limits request letters

b. Comment letters pertaining to draft NPDES permits

c. NPDES permit transfer of ownership requests

d. NPDES permit termination requests

e. Notifications of substantial changes to a treatment facility, including new industrial sources

f. Combined Sewer Overflow (CSO) Operational Plans

g. CSO Long Term Control Plans (LTCP)

h. Stream Reach Characterization and Evaluation Reports (SRCER)

3. Compliance Data Section

Indiana Department of Environmental Management
Office of Water Quality – Mail Code 65-42
Compliance Data Section
100 N. Senate Avenue
Indianapolis, Indiana 46204-2251

The following correspondence shall be sent to the Compliance Data Section:

a. Discharge Monitoring Reports (DMRs)

b. Monthly Reports of Operation (MROs)

c. Monthly Monitoring Reports (MMRs)

d. CSO MROs

e. Gauging station and flow meter calibration documentation

f. Compliance schedule progress reports

g. Completion of Construction notifications

h. Whole Effluent Toxicity Testing reports

i. Toxicity Reduction Evaluation (TRE) plans and progress reports

j. Bypass/Overflow Reports

k. Anticipated Bypass/Overflow Reports

l. Streamlined Mercury Variance Annual Reports

4. Pretreatment Group

Indiana Department of Environmental Management
Office of Water Quality – Mail Code 65-42
Compliance Data Section – Pretreatment Group
100 N. Senate Avenue
Indianapolis, Indiana 46204-2251

The following correspondence shall be sent to the Pretreatment Group:

a. Organic Pollutant Monitoring Reports

b. Significant Industrial User (SIU) Quarterly Noncompliance Reports

c. Pretreatment Program Annual Reports

d. Sewer Use Ordinances

e. Enforcement Response Plans (ERP)

f. Sludge analytical results

PART III

REQUIREMENT TO OPERATE
A PRETREATMENT PROGRAM

A. CONDITIONS

The permittee, hereinafter referred to as the "Control Authority," is required to operate its approved industrial pretreatment program approved on September 28, 1984, and any subsequent modifications approved up to the issuance of this permit. To ensure the program is operated as approved and consistent with 327 IAC 5-16 through 5-21, the following conditions and reporting requirements are hereby established. The Control Authority (CA) shall:

1. Legal Authority

   The CA shall develop, enforce and maintain adequate legal authority in its Sewer Use Ordinance (SUO) to fully implement the pretreatment program in compliance with State and local law. As part of this requirement, the CA shall develop and maintain local limits as necessary to implement the prohibitions and standards in 327 IAC 5-18.

2. Permit Issuance

   In accordance with 327 IAC 5-19-3(1) the CA is required to issue/reissue permits to Significant Industrial User(s) (SIU) as stated in the SUO. The CA must issue permits to new SIUs prior to the commencement of discharge. A SIU is defined in the SUO.

3. Industrial Compliance Monitoring

   The CA is required to conduct inspection, surveillance, and monitoring activities to determine SIU compliance status with the approved program and the SUO independent of data supplied by the SIU. SIU compliance monitoring performed by the CA will be conducted in accordance with the program plan or yearly program plan. SIUs will be inspected once per year, at a minimum.

4. Enforcement

   The CA is required to initiate the appropriate enforcement action against a SIU violating any provision of the SUO and/or discharge permit in accordance with the Enforcement Response Procedures (ERP) adopted by the CA. The CA must investigate violations by collecting and analyzing samples and collecting other information with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions in accordance with 40 CFR 403.8(f)(1)(iii) and 327 IAC 5-19-3(1)(F).

5. SIU Quarterly Noncompliance Report

The CA is required to report the compliance status of each SIU quarterly. The report is due by the 28th of the following months: April, July, October, and January of each year. The report shall include a description of corrective actions that have or will be taken by the CA and SIU to resolve the noncompliance situations. This report is to be sent to the Compliance Branch of the Office of Water Quality.

6. Public Participation and Annual Publishing of SIUs in Significant Noncompliance

The CA is required to comply with the public participation requirements under 40 CFR 25 and 327 IAC 5-19-3(2)(L). The CA must publish annually, by January 28, in the largest daily newspaper in the area, a list of SIUs that have been in Significant Noncompliance (SNC) with the SUO during the calendar year. The CA shall include in the ANNUAL REPORT a list of the SIUs published along with the newspaper clipping.

6. Industrial User Survey

The CA shall prepare and maintain a list of its Industrial Users meeting the criteria in 40 CFR 403(v)(1). The list shall identify the criteria in 40 CFR 403(v)(1) applicable to each Industrial User and where applicable, shall also indicate whether the CA has made a determination pursuant to 40 CFR 403(v)(2) that such Industrial User should not be considered a Significant Industrial User. Modifications to the list shall be submitted to the Approval Authority pursuant to 40 CFR 403.12(i)(1).

7. Annual Report

The CA is required to submit an annual report to the Pretreatment Group and EPA Region 5 by April 1, of each year. The CA shall also include a copy of the updated industrial user survey list. The annual report will be submitted in accordance with 40 CFR 403.12(i) to the following addresses:

Pretreatment Program Manager
U.S. EPA Region 5, WN-16J
NPDES Programs Branch
77 W. Jackson Blvd.
Chicago, IL 60604

Indiana Department of Environmental Management
Office of Water Quality - Mail Code 65-42
Compliance Data Section – Pretreatment Group
100 North Senate Avenue
Indianapolis, IN 46204-2251

8. Records Retention

Pursuant to 327 IAC 5-16-5.3(b), the CA shall retain any pretreatment reports from an industrial user a minimum of three (3) years and shall make such reports available for inspection and copying by IDEM or the U.S. EPA. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the industrial user, the operation of the POTW pretreatment program or when requested by IDEM or the U.S. EPA.

9. Confidentiality

The CA is required to comply with all confidentiality requirements set forth in 40 CFR 403.14, as well as the procedures established in the SUO.

10. Program Resources

Pursuant to 327 IAC 5-19-3(3), The CA shall maintain sufficient resources and qualified personnel to carry out the pretreatment program requirements.

11. Interjurisdictional Agreements

The CA must maintain sufficient legal authority to ensure compliance with all applicable pretreatment limits and requirements by all SIUs discharging to the POTW, including SIUs within governmental jurisdictions outside the immediate jurisdiction of the POTW. The CA must maintain the interjurisdictional agreements necessary to ensure full compliance by SIUs located within other jurisdictions as discussed in 40 CFR 403.8(f)(1).

12. POTW Pretreatment Program Revision Requirements

No later than 6 months after the effective date of this permit, the permittee shall re-evaluate its SUO to determine whether it provides adequate legal authority to fully implement the pretreatment program. Any modifications to the permittee's SUO shall be consistent with U.S. EPA's EPA Model Pretreatment Ordinance, available at: http://cfpub.epa.gov/npdes/docs.cfm?program_id=3&view=allprog&sort=name#model_ordinance.

In addition, the re-evaluation must include a technical re-evaluation of the local limits in accordance with 40 CFR 122.44(j)(2)(ii). The CA is to conduct the local limitations technical evaluation consistent with U.S. EPA's Local Limits Development Guidance (July 2004) document and U.S. EPA Region 5 Local Limits Spreadsheet (February 2011) available at: http://www.epa.gov/r5water/npdestek/npdprta.htm. The permittee shall submit these re-evaluations to U.S. EPA Region 5 and IDEM Pretreatment Group for review.

13. Program Modification

Pursuant to 327 IAC 5-19-6 and 40 CFR 403.18, any significant proposed program modification shall be submitted to the Pretreatment Group and the U.S. EPA for approval. A significant modification shall include, but not be limited to, any change in the SUO, major modification in the approval program's administrative procedures, a significant reduction in monitoring procedures, a significant change in the financial/revenue system, a significant change in the local limitations contained in the SUO, and a change in the industrial user survey.

NOTE: A summary of the revisions to the General Pretreatment Regulations (40 CFR 403) is available from the Pretreatment Group of the Compliance Data Section.

ATTACHMENT A

Precipitation Related Combined Sewer Overflow Discharge Authorization Requirements

I. Discharge Authorization

A. Combined Sewer Overflows are point sources subject to both technology-based and water quality-based requirements of the Clean Water Act and state law. The permittee is authorized to have wet weather discharges from outfall(s) listed below subject to the requirements and provisions of this permit, including Attachment A.

Outfall	Location	Receiving Water
002	Outfall adjacent to WWTP outfall 39°00'16" N 85°36'00" W	Vernon Fork of the Muscatatuck River

B. At all times the discharge from any and all CSO outfalls herein shall not cause receiving waters:

1. including the mixing zone, to contain substances, materials, floating debris, oil, scum, or other pollutants:
   a. that will settle to form putrescent or otherwise objectionable deposits;
   b. that are in amounts sufficient to be unsightly or deleterious;
   c. that produce color, visible oil sheen, odor, or other conditions in such a degree as to create a nuisance;
   d. which are in amounts sufficient to be acutely toxic to, or otherwise severely injure or kill aquatic life, other animals, plants, or humans;
   e. which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.
2. outside the mixing zone, to contain substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

C. Dry weather discharges from any portion of the sewer collection system, except WWTP outfall No. 001, are prohibited. If such a prohibited discharge should occur, the permittee is required to report the discharge in accordance with the provisions in Part II.C.3 of this permit.

II. Monitoring and Reporting Requirements

The permittee shall complete and submit accurate monitoring reports to the Indiana Department of Environmental Management. The permittee shall submit data specified on the CSO Monthly Report of Operation (MRO) for untreated CSO events (State Form 50546 (R3/7-13)), including but not limited to, WWTP data, precipitation data, and performance data for all discharges from the untreated CSO Outfall identified in Part I of

this Attachment A. Submitted CSO MROs shall contain results obtained during each month (a monitoring period) and shall be postmarked no later than 28 days following each completed monitoring period.

All reports shall be mailed to IDEM, Office of Water Quality – Mail Code 65-42, Compliance Data Section, 100 North Senate Ave., Indianapolis, Indiana 46204-2251. In lieu of mailing paper reports the permittee may submit its reports to IDEM electronically by using the NetDMR application, upon registration and approval receipt. Electronically submitted reports (using NetDMR) have the same deadline as mailed reports.

III. CSO Operational Plan

A. The permittee shall comply with the following minimum technology-based controls, in accordance with EPA's National CSO Control Policy:

1. The permittee shall implement proper operation and regular maintenance programs for the sewer system and the CSOs. The purpose of the operation and maintenance programs is to reduce the magnitude, frequency and duration of CSOs. The programs shall consider regular sewer inspections; sewer, catch basin, and regulator cleaning; equipment and sewer collection system repair or replacement, where necessary; and disconnection of illegal connections.
2. The permittee shall implement procedures that will maximize the use of collection system for wastewater storage that can be accommodated by the storage capacity of the collection system in order to reduce the magnitude, frequency and duration of CSOs.
3. The permittee shall review and modify, as appropriate, its existing pretreatment program to minimize CSO impacts from non-domestic users. The permittee shall identify all industrial users that discharge to the collection system upstream of any CSO outfalls; this identification shall also include the pollutants in the industrial user's wastewater and the specific CSO outfall(s) that are likely to discharge the wastewater.
4. The permittee shall operate the POTW at the maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency and duration of CSOs. The permittee shall deliver all flows to the treatment plant within the constraints of the treatment capacity of the POTW.
5. Dry weather overflows from CSO outfalls are prohibited. Each dry weather overflow must be reported to IDEM as soon as the permittee becomes aware of the overflow. When the permittee detects a dry weather overflow, it shall begin corrective action immediately. The permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.
6. The permittee shall implement measures to control solid and floatable materials in CSO discharges.
7. The permittee shall implement a pollution prevention program focused on reducing the impact of CSOs on receiving waters.
8. The permittee shall implement a public notification process to inform citizens of when and where CSO discharges occur and their impacts. This notification must also be done in accordance with 327 IAC 5-2.1.

9. The permittee shall monitor to effectively characterize CSO impacts and the efficacy of CSO controls.

B. The permittee's implementation of each of the minimum controls in Part III.A of this Attachment A shall be documented in its approved CSO Operational Plan (CSOOP). The permittee shall update the CSOOP, as necessary, to reflect changes in its operation or maintenance practices; changes to measures taken to implement the above minimum requirements; and changes to the treatment plant or collection system, including changes in collection system flow characteristics, collection system or WWTP capacity or discharge characteristics (including volume, duration, frequency and pollutant concentration). All updates to the CSOOP must be submitted to IDEM, Office of Water Quality, Municipal NPDES Permits Section for approval.

The CSOOP update(s) shall include a summary of the proposed revisions to the CSOOP as well as a reference to the page(s) that have been modified. Any CSOOP updates shall not result in:

1. a lower amount of flow being sent to and through the plant for treatment, or
2. more discharges (measured either by volume, duration, frequency, or pollutant concentration) occurring from the CSO outfalls.

The permittee shall maintain a current CSO Operational Plan, including all approved updates, on file at the POTW.

IV. Sewer Use Ordinance Review/Revision and Enforcement

The permittee's Sewer Use Ordinance must contain provisions which: (1) prohibit introduction of inflow sources to any sanitary sewer; (2) prohibit construction of new combined sewers outside of the existing combined sewer service area; and (3) provide that for any new building the inflow/clear water connection to a combined sewer shall be made separate and distinct from sanitary waste connection to facilitate disconnection of the former if a separate storm sewer subsequently becomes available. The permittee shall continuously enforce these provisions.

V. Reopening Clauses

A. This permit may be reopened to address changes in the EPA National CSO Policy or state or federal law.
B. The permit may be reopened, after public notice and opportunity for hearing, to incorporate applicable provisions of IC 13-18.

Fact Sheet
September 8, 2014

City of North Vernon Wastewater Treatment Plant
located at 725 North Greensburg Road
North Vernon, Indiana
Jennings County

Outfall Location	Latitude:	30° 00' 16" N
	Longitude:	85° 36' 00" W

NPDES Permit No. IN0020451

Background

This is the proposed renewal of the NPDES permit for the City of North Vernon Wastewater Treatment Plant which was issued on January 7, 2010 and has an expiration date of January 31, 2015. The permittee submitted an application for renewal which was received on August 4, 2014. The permittee currently operates a Class III, 2.2 MGD single stage nitrification activated sludge treatment facility consisting of grit removal, influent screening, secondary clarification, rapid sand filtration, chlorination/dechlorination facilities, and influent and effluent flow metering. Solids are treated with aeration and aerobic digestion, prior to being dewatered and land applied under land application permit No. INLA000458.

Collection System

The collection system is comprised of combined sanitary and storm sewers with one Combined Sewer Overflow (CSO) location at a point prior to the headworks of the WWTP. The CSO outfall has been identified and permitted with provisions in Attachment A of the permit.

CSO Statutory or Regulatory Basis for Permit Provisions

CSOs are point sources subject to NPDES permit requirements, including both technology-based and water quality-based requirements of the CWA and state law. Thus the permit contains provisions IDEM deems necessary to meet water quality standards, as well as technology-based treatment requirements, operation and maintenance requirements, and best management practices. This permit is based on various provisions of state and federal law, including (1) Title 13 of the Indiana Code; (2) the water quality standards set forth in 327 IAC 2-1.5; (3) the NPDES rules set forth in 327 IAC 2 and 327 IAC 5, including 327 IAC 5-2-8 and 327 IAC 5-2-10; and (4) section 402(q) of the CWA (33 USC § 1342), which requires all permits or orders issued for discharges from municipal CSOs to conform with the provisions of EPA's National CSO Control Policy (58 Fed. Reg. 18688, April 19, 1994). EPA's CSO Policy contains provisions that, among other things, require permittees to develop and implement minimum technological and operational controls and long term control plans to meet state water quality standards. The permit's penalty provisions are based in large part on IC 13-30.

In addition to the regulatory provisions previously cited, the data collection and reporting requirements are based in part on 327 IAC 5-1-3, 327 IAC 5-2-13 and section 402(q) of the CWA. The Long Term Control Plan (LTCP) provisions were included to ensure compliance with water quality standards.

Explanation of Effluent Limitations and Conditions

The effluent limitations set forth in Part I of Attachment A are derived in part from the narrative water quality standards set forth in 327 IAC 2-1-6. The narrative standards are minimum standards that apply to all waters at all times, and therefore are applicable to all discharges of pollutants. Because EPA has not issued national effluent limitation guidelines for this category of discharges, the technology-based BAT/BCT provisions are based on best professional judgment (BPJ) in addition to section 402(q) of the CWA. CSO discharges are not subject to the secondary treatment requirements applicable to publicly owned treatment works because overflow points have been determined to not be part of the treatment plant. Montgomery Environmental Coalition v. Costle, 646 F.2d 568 (D.C. Cir. 1980).

CSO Long Term Control Plan Requirements

The City of North Vernon submitted a revised Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP) Document to IDEM on March 16, 2012. The LTCP revision was approved in a NPDES permit modification issued July 18, 2012.

The revised LTCP alternative includes collection system projects and Wastewater Treatment Plant (WWTP) projects. The collection system projects are aimed at addressing surcharging problems at four (4) lift stations (LS) (Northwest LS, Norris Avenue LS, Northeast LS and Southwest LS), and include improvements to pumping capacities, improvements to various force mains, and pipe replacement. WWTP projects include additional storage capacity and construction of a wet weather treatment facility. The revised LTCP proposes to fully construct these projects within five (5) years of IDEM approval. The estimated total capital cost for implementing the proposed plan is $6,600,000. During the planning portion of each project, green infrastructure opportunities will be evaluated for possible inclusion in that project.

Upon completion of the projects outlined above, the City's Revised LTCP is designed to comply with the criteria in IDEM's CSO Treatment Facilities Non-Rule Policy Document Number Water-016, and shall be enforceable in accordance with AO Case No. 2012-20828-W.

Spill Reporting Requirements

Reporting requirements associated with the Spill Reporting, Containment, and Response requirements of 327 IAC 2-6.1 are included in Part II.B.2.c. and Part II.C.3. of the NPDES permit. Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedences that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedence to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

Solids Disposal

The permittee is required to dispose of its sludge in accordance with 329 IAC 10, 327 IAC 6.1, or 40 CFR Part 503. The permittee maintains a land application permit (INLA000458) for the disposal of solids.

Receiving Stream

The facility discharges to the Vernon Fork of the Muscatatuck River via Outfall 001. The receiving water has a seven day, ten year low flow ($Q_{7,10}$) of 0.2 cubic feet per second (0.13 MGD) at the outfall location. This provides a dilution ratio of receiving stream flow to treated effluent of 0.06:1. The receiving stream is designated for full body contact recreational use and shall be capable of supporting a well-balanced warm water aquatic community in accordance with 327 IAC 2-1.

Industrial Contributions

The permittee accepts industrial flow from Metaldyne Sintered Forged Products, LLC, Helex Poly Co. LLC, Webster West Packaging, Inc., and Martinrea Industries, Inc. Based on the industrial flow received by the treatment facility, the permittee is required to operate its approved industrial pretreatment program approved on September 28, 1984. Provisions for the industrial pretreatment program are included in Part III of this permit renewal. In addition, monitoring requirements for lead and zinc, and effluent limitations for copper are being included in the permit renewal.

Antidegradation

327 IAC 2-1.3 outlines the state's Antidegradation Standards and Implementation Procedures. The Tier 1 antidegradation standard found in 327 IAC 2-1.3-3(a) applies to all surface waters of the state regardless of their existing water quality. Based on this standard, for all surface waters of the state, existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected. IDEM implements the Tier 1 antidegradation standard by requiring NPDES permits to contain effluent limits and best management practices for regulated pollutants that ensure the narrative and numeric water quality criteria applicable to the designated use are achieved in the water and any designated use of the downstream water is maintained and protected.

The Tier 2 antidegradation standard found in 327 IAC 2-1.3-3(b) applies to surface waters of the state where the existing quality for a parameter is better than the water quality criterion for that parameter established in 327 IAC 2-1-6. These surface waters are considered high quality for the parameter and this high quality shall be maintained and protected unless the commissioner finds that allowing a significant lowering of water quality is necessary and accommodates important social or economic development in the area in which the waters are located. IDEM implements the Tier 2 antidegradation standard for regulated pollutants with numeric water quality criteria quality adopted in or developed pursuant to 327 IAC 2-1 and utilizes the antidegradation implementation procedures in 327 IAC 2-1.3-5 and 2-1.3-6.

According to 327 IAC 2-1.3-1(b), the antidegradation implementation procedures in 327 IAC 2-1.3-5 and 2-1.3-6 apply to a proposed new or increased loading of a regulated pollutant to surface waters of the state from a deliberate activity subject to the Clean Water Act, including a change in process or operation that will result in a significant lowering of water quality.

The NPDES permit does not propose to establish a new or increased loading of a regulated pollutant; therefore, the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 do not apply to the permitted discharge.

Effluent Limitations and Rationale

The effluent limitations proposed herein are based on Indiana Water Quality Standards, NPDES regulations, and Wasteload Allocation (WLA) analyses performed by this Office's Permits Branch staff on October 23, 1995, March 11, 2004, and August 18, 2014. These limits are in accordance with antibacksliding regulations specified in 327 IAC 5-2-10(11)(A). Monitoring frequencies are based upon facility size and type.

The final effluent limitations to be limited and/or monitored include: Flow, Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia-nitrogen (NH_3-N), Phosphorus, pH, Dissolved Oxygen (DO), Total Residual Chlorine (TRC), *Escherichia coli* (*E. coli)*, copper, lead and zinc.

Final Effluent Limitations

The summer monitoring period runs from May 1 through November 30 of each year and the winter monitoring period runs from December 1 through April 30 of each year. The disinfection season runs from April 1 through October 31 of each year.

The mass limits for $CBOD_5$, TSS and ammonia-nitrogen have been calculated utilizing the peak design flow of 4.76 MGD. This is to facilitate the maximization of flow through the treatment facility in accordance with this Office's CSO policy.

Influent Monitoring

The raw influent and the wastewater from intermediate unit treatment processes, as well as the final effluent shall be sampled and analyzed for the pollutants and operational parameters specified by the applicable Monthly Report of Operation Form, as appropriate, in accordance with 327 IAC 5-2-13 and Part I.B.2 of the permit. Except where the permit specifically states otherwise, the sample frequency for the raw influent and intermediate unit treatment process shall be at a minimum the same frequency as that for the final effluent. The measurement frequencies specified in each of the tables in Part I.A. are the minimum frequencies required by the permit.

Flow

Flow is to be measured five times weekly as a 24-hour total. Reporting of flow is required by 327 IAC 5-2-13.

$CBOD_5$

$CBOD_5$ is limited to 25 mg/l (993 lbs/day) as a monthly average and 40 mg/l (1,589 lbs/day) as a weekly average. Monitoring is to be conducted five times weekly by 24-hour composite sampling. The $CBOD_5$ concentration limitations included in this permit are set in accordance with the Wasteload Allocation (WLA) analysis performed by this Office's Permits Branch staff on March 11, 2004 and are the same as the concentration limitations found in the facility's previous permit.

TSS

TSS is limited to 30 mg/l (1,192 lbs/day) as a monthly average and 45 mg/l (1,788 lbs/day) as a weekly average. Monitoring is to be conducted five times weekly by 24-hour composite sampling. The TSS concentration limitations included in this permit are set in accordance with the Wasteload Allocation (WLA) analysis performed by this Office's Permits Branch staff on March 11, 2004 and are the same as the concentration limitations found in the facility's previous permit.

Ammonia-nitrogen

Ammonia-nitrogen is limited to 1.5 mg/l (60 lbs/day) as a monthly average and 2.2 mg/l (87 lbs/day) as a weekly average during the summer monitoring period. During the winter monitoring period, ammonia-nitrogen is limited to 2.2 mg/l (87 lbs/day) as a monthly average and 3.3 mg/l (131 lbs/day) as a weekly average. Monitoring is to be conducted five times weekly by 24-hour composite sampling. The ammonia-nitrogen concentration limitations included in this permit are set in accordance with the Wasteload Allocation (WLA) analysis performed by this Office's Permits Branch staff on October 23, 1995 and are the same as the concentration limitations found in the facility's previous permit. The antibacksliding regulations specified in 327 IAC 5-2-10(11)(A) prevent these limits from being increased to the concentrations specified in the WLA performed by this Office's Permits Technical Support Section staff on March 11, 2004.

Phosphorus

Phosphorus monitoring is being required monthly. This monitoring is being required as nutrient pollution and low dissolved oxygen consistently rank among the top impairments to water quality. Excessive phosphorus and nitrogen can result in harmful algal blooms that affect fish habitat, cause fish kills, lower dissolved oxygen, cause public health concerns related to impaired drinking water sources, and increase exposure to toxic microbes. Nutrient problems can exhibit in local waters as well as much further downstream, leading to degraded lakes and reservoirs. Nutrient pollution is of particular concern with regard to algal problems in some Great Lake waters, and hypoxic zones in the Gulf of Mexico where fish and aquatic life can no longer survive.

pH

The pH limitations have been based on 40 CFR 133.102 which is cross-referenced in 327 IAC 5-5-3. To ensure conditions necessary for the maintenance of a well-balanced aquatic community, the pH of the final effluent must be between 6.0 and 9.0 standard units in accordance with provisions in 327 IAC 2-1-6(b)(2). pH must be measured five times weekly by grab sampling. These pH limitations are the same as the limitations found in the facility's previous permit.

Dissolved Oxygen

Dissolved oxygen shall not fall below 6.0 mg/l as a daily minimum average during the summer monitoring period. During the winter monitoring period, dissolved oxygen shall not fall below 5.0 mg/l as a daily minimum average. These dissolved oxygen limitations are based on the Wasteload Allocation (WLA) analysis performed by this Office's Permits Branch staff on March 11, 2004 and are the same as the concentration limitations found in the facility's previous permit. Dissolved oxygen measurements must be based on the average of three grab samples taken within a 24-hr. period. This reduced number of required grab samples used to determine the dissolved oxygen reporting value has been retained from the previous permit based on the facility's compliance history for this parameter. Monitoring for dissolved oxygen is to be conducted five times weekly.

Total Residual Chlorine

Disinfection of the effluent is required from April 1 through October 31, annually. Effluent dechlorination will be required in order to protect aquatic life. In accordance with Indiana Water Quality Standards, the final effluent limits (end-of-pipe) for TRC are 0.01 mg/l monthly average and 0.02 mg/l daily maximum. Compliance will be demonstrated if the observed effluent concentrations are less than the limit of quantitation (0.06 mg/l). Disinfection requirements are established in 327 IAC 5-10-6. This monitoring is to be conducted five times weekly by grab sampling.

E. coli

The *E. coli* limitations and monitoring requirements apply from April 1 through October 31, annually. *E. coli* is limited to 125 count/100 ml as a monthly average, and 235 count/100 ml as a daily maximum. The monthly average *E. coli* value shall be calculated as a geometric mean. This monitoring is to be conducted five times weekly by grab sampling. These *E. coli* limitations are set in accordance with the Wasteload Allocation (WLA) analysis performed by this Office's Permits Branch staff on March 11, 2004.

Metals/Non-conventional Pollutants

Reasonable Potential Evaluations (RPE) were performed in conjunction with the Wasteload Allocation Analysis performed by this Office's Permits Branch staff on August 18, 2014. In reviewing the RPE, the projected effluent quality (PEQ) for copper was greater than the projected effluent limitations (PELs). Therefore, effluent limitations for copper are being retained in this permit. Copper is limited to 0.016 mg/l as a monthly average and 0.031 mg/l as a daily maximum. The monthly average copper concentration limitation included in this permit is set in accordance with the Wasteload Allocation (WLA) analysis performed by this Office's Permits Branch staff on Augustt 18, 2014 and is more stringent than the monthly average concentration limitation found in the facility's previous permit. The daily maximum copper concentration limitation included in this permit is set in accordance with the WLA analysis performed by this Office's Permits Branch staff on June 18, 2009 and is retained in the permit in accordance with the antibacksliding regulations specified in 327 IAC 5-2-10(11)(A).

In reviewing the RPE for lead and zinc, the projected effluent quality (PEQ) for these parameters was greater than the projected effluent limitations (PELs). Therefore, effluent limitations for lead and zinc have not been included in the permit renewal. However, due to the industrial contribution to the permitted facility, a quarterly monitoring requirement for lead and zinc is being retained in the permit renewal.

In addition to effluent monitoring and limitations, the permittee is required to monitor the influent wastestream for copper at a frequency of twice monthly, and for lead and zinc at a frequency of quarterly, all utilizing 24-Hr. composite sampling.

Whole Effluent Toxicity Testing

The permittee submitted a Whole Effluent Toxicity Tests (WETT) with the renewal application as required in 327 IAC 5-2-3(g). The permittee shall conduct the whole effluent toxicity tests described in Part I.D. of the permit to monitor the toxicity of the discharge from Outfall 001. This toxicity testing is to be performed annually for the duration of this NPDES permit. While IDEM generally requires toxicity testing to be performed twice annually by POTWs with approved industrial pretreatment programs, the requirement to perform toxicity testing annually has been retained from the previous permit as the industrial flow is less than 5% of the dry weather design flow of the permitted facility.

Acute toxicity will be demonstrated if the effluent is observed to have exceeded 1.0 TU_a(acute toxic units) based on 100% effluent for the test organism in 48 and 96 hours for *Ceriodaphnia dubia* or *Pimephales promelas*, which ever is more sensitive. Chronic toxicity will be demonstrated if the effluent is observed to have exceeded **1.02** TU_c (chronic toxic units) for *Ceriodaphnia dubia* or *Pimephales promelas*. If acute or chronic toxicity is found in any of the tests specified above, another toxicity test using the specified methodology and same test species shall be conducted within two weeks. If any two tests indicate the presence of toxicity, the permittee must begin the implementation of a toxicity reduction evaluation (TRE) as is described in Part I.D.2. of the permit.

Backsliding

None of the concentration limits included in this permit conflict with antibacksliding regulations found in 327 IAC 5-2-10(11)(A), therefore, backsliding is not an issue.

Reopening Clauses

Six reopening clauses were incorporated into the permit in Part I.C. One clause is to incorporate effluent limits from any further wasteload allocations performed; a second clause is to allow for changes in the sludge disposal standards; a third clause is to incorporate any applicable effluent limitation or standard issued or approved under section 301(b)(2)(C), (D) and (E), 304(b)(2), and 307(a)(2) of the Clean Water Act; a fourth clause is to include whole effluent toxicity limitations or to include limitations for specific toxicants; a fifth clause is to include a case-specific Method Detection Level (MDL); and a sixth clause is to incorporate additional requirements or limitations for specific toxicants if the required additional analyses in Part I.A. indicate that such additional requirements and/or limitations are necessary.

Compliance Status

The permittee entered into an Agreed Order (Order No. 2012-20828-W) with this Office on July 23, 2012. The Agreed Order cites the permittee for violation of narrative effluent limitations from CSO discharges and contains an order for the permittee to comply with 327 IAC 5-2-8(1), 327 IAC 2-1-6(a)(1), IC 13-18-4-5, IC 13-30-2-1, and Attachment A of the permit, and to operate the City collection system as efficiently and effectively as possible.

Expiration Date

A five-year NPDES permit is proposed.

Drafted by: Bill Stenner
September 8, 2014

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO: 2014 – 11E – F
DATE OF NOTICE: NOVEMBER 26, 2014

The Office of Water Quality issues the following NPDES FINAL PERMIT.

MINOR – RENEWAL

NORTH VERNON (city) WWTP, Permit No. IN0020451, JENNINGS COUNTY, 725 N Greensburg Rd, North Vernon, IN. This municipal facility discharges 2.2 million gallons daily of sanitary, industrial & combined sewer wastewater into Vernon Fork of the Muscatatuck River. Permit Manager: Bill Stenner at 317/233-1449, bstenner@idem.in.gov.

APPEAL PROCEDURES FOR FINAL PERMITS

The Final Permits are available for review & copies at IDEM, Indiana Government Center, North Bldg, 100 N Senate Ave, Indianapolis, IN, Rm 1203, Office of Water Quality/NPDES Permit Section, from 9 – 4, M - F (copies 10¢ per page). Each Final Permit is available at the respective, local County Health Department. **Please tell others you think would be interested in this matter.** See these sites for your rights & responsibilities: Public Participation: http://www.in.gov/idem/5474.htm; Citizen Guide: http://www.in.gov/idem/5903.htm.

Appeal Procedure: Any person affected by the issuance of the Final Permit may appeal by filing a Petition for Administrative Review with the Office of Environmental Adjudication **within** eighteen (18) days of the date of this Public Notice. Any appeal request must be filed in accordance with IC 4-21.5-3-7 and must include facts demonstrating that the party requesting appeal is the applicant; a person aggrieved or adversely affected or is otherwise entitled to review by law.
Timely filing: The Petition for Administrative Review must be received by the Office of Environmental Adjudication (OEA) **within** 18 days of the date of this Public Notice; either by U.S. Mail postmark or by private carrier with dated receipt. This Petition for Administrative Review represents a request for an Adjudicatory Hearing, therefore must:

- state the name and address of the person making the request;
- identify the interest of the person making the request;
- identify any persons represented by the person making the request;
- state specifically the reasons for the request;
- state specifically the issues proposed for consideration at the hearing;
- identify the Final Permit Rule terms and conditions which, in the judgment of the person making the request, would be appropriate to satisfy the requirements of the law governing this NPDES Permit rule.

If the person filing the Petition for Administrative Review desires any part of the NPDES Final Permit Rule to be stayed pending the outcome of the appeal, a Petition for Stay must be included in the appeal request, identifying those parts to be stayed. Both Petitions shall be mailed or delivered to the address here:
Phone: 317/232-8591.

Environmental Law Judge
Office of Environmental Adjudication
IGC – North Building- Rm 501
100 N. Senate Avenue
Indianapolis IN 46204

Stay Time frame: If the Petition (s) is filed **within** eighteen (18) days of the mailing of this Public Notice, the effective date of any part of the permit, within the scope of the Petition for Stay is suspended for fifteen (15) days. The Permit will become effective again upon expiration of the fifteen (15) days, unless or until an Environmental Law Judge stays the permit action in whole or in part.

Hearing Notification: Pursuant to Indiana Code, when a written request is submitted, the OEA will provide the petitioner or any person wanting notification, with the Notice of pre-hearing conferences, preliminary hearings, hearing stays or orders disposing of the Petition for Administrative Review. Petition for Administrative Review must be filed in compliance with the procedures and time frames outlined above. Procedural or scheduling questions should be directed to the OEA at the phone listed above.

APPENDIX E

The City of North Vernon
Sewer Use Ordinance

March 2010

(Revised October, 2012)

BERNARDIN · LOCHMUELLER & ASSOCIATES, INC.
3502 Woodview Trace · Suite150 · Indianapolis, IN 46268
PHONE 317.222.3880 · TOLL FREE 888.830.6977 · FAX 317.222.3881

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CITY OF NORTH VERNON SEWER USE ORDINANCE

ORDINANCE NO. [ ]

SECTION 1—GENERAL PROVISIONS

1.1 Purpose and Policy

This ordinance sets forth uniform requirements for Users of the Publicly Owned Treatment Works for the City of North Vernon and enables the City to comply with all applicable State and Federal laws, including the Clean Water Act (33 United States Code [U.S.C.] section 1251 et seq.) and the General Pretreatment Regulations (Title 40 of the *Code of Federal Regulations* [CFR] Part 403).

The objectives of this ordinance are:

A. To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will interfere with its operation;

B. To prevent the introduction of pollutants into the Publicly Owned Treatment Works that will pass through the Publicly Owned Treatment Works, inadequately treated, into receiving waters, or otherwise be incompatible with the Publicly Owned Treatment Works;

C. To protect both Publicly Owned Treatment Works personnel who may be affected by wastewater and sludge in the course of their employment and the general public;

D. To promote reuse and recycling of industrial wastewater and sludge from the Publicly Owned Treatment Works;

E. To provide for fees for the equitable distribution of the cost of operation, maintenance, and improvement of the Publicly Owned Treatment Works; and

F. To enable North Vernon to comply with its National Pollutant Discharge Elimination System permit conditions, sludge use and disposal requirements, and any other Federal or State laws to which the Publicly Owned Treatment Works is subject.

This ordinance shall apply to all Users of the Publicly Owned Treatment Works. The ordinance authorizes the issuance of individual wastewater discharge permits; provides for monitoring, compliance, and enforcement activities; establishes administrative review procedures; requires User reporting; and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

1.2 Administration

Except as otherwise provided herein, the Superintendent shall administer, implement, and enforce the provisions of this ordinance. Any powers granted to or duties imposed upon the Superintendent may be delegated by the Superintendent to a duly authorized City employee.

1.3 Abbreviations

The following abbreviations, when used in this ordinance, shall have the designated meanings:

BOD – Biochemical Oxygen Demand
BMP – Best Management Practice
BMR – Baseline Monitoring Report
CFR – *Code of Federal Regulations*
CIU – Categorical Industrial User
COD – Chemical Oxygen Demand
EPA – U.S. Environmental Protection Agency
gpd – gallons per day
IDEM- Indiana Department of Environmental Management
IU – Industrial User
mg/l – milligrams per liter (parts per million)
ng/l – nanograms per liter (parts per billion)
NPDES – National Pollutant Discharge Elimination System
NSCIU – Non-Significant Categorical Industrial User
POTW – Publicly Owned Treatment Works
RCRA – Resource Conservation and Recovery Act
SIU – Significant Industrial User
SNC – Significant Noncompliance
TSS – Total Suspended Solids
U.S.C. – United States Code

1.4 Definitions

Unless a provision explicitly states otherwise, the following terms and phrases, as used in this ordinance, shall have the meanings hereinafter designated.

A. Act or "the Act." The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. section 1251 et seq.

B. Approval Authority. The Regional Administration of U.S. EPA Region V.

C. Authorized or Duly Authorized Representative of the User.

(1) If the User is a corporation:

(a) The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(b) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established or actions taken to gather complete and accurate information for individual wastewater discharge permit requirements; and where authority to sign

documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) If the User is a partnership or sole proprietorship: a general partner or proprietor, respectively.

(3) If the User is a Federal, State, or local governmental facility: a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility, or their designee.

(4) The individuals described in paragraphs 1 through 3, above, may designate a Duly Authorized Representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the City.

D. Biochemical Oxygen Demand or BOD. The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20 degrees centigrade, usually expressed as a concentration (e.g., mg/l).

E. Best Management Practices or BMPs. The schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in **Section 2.2 A and B** [40 CFR 403.5(a)(1) and (b)]. BMPs include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage. **Note**: *BMPs also include alternative means (i.e., management plans) of complying with, or in place of certain established categorical Pretreatment Standards and effluent limits.*

F. Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Act (33 U.S.C. section 1317) that apply to a specific category of Users and that appear in 40 CFR Chapter I, Subchapter N, Parts 405-471.

G. Categorical Industrial User or CIU. An Industrial User subject to a categorical Pretreatment Standard or categorical Standard.

H. City. The City of North Vernon or the Common Council of North Vernon, or the North Vernon Utilities Service Board.

I. Chemical Oxygen Demand or COD. A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

J. Control Authority. The City.

K. Daily Maximum. The arithmetic average of all effluent samples for a pollutant collected during a calendar day.

L. Daily Maximum Limit. The maximum allowable discharge limit of a pollutant during a calendar day. Where Daily Maximum Limits are expressed in units of mass, the daily discharge is the total mass discharged over the course of the day. Where Daily

Maximum Limits are expressed in terms of a concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

M. Environmental Protection Agency or EPA. The U.S. Environmental Protection Agency or, where appropriate, the Regional Water Management Division Director, the Regional Administrator, or other duly authorized official of said agency.

N. Existing Source. Any source of a discharge that is not a "New Source."

O. Grab Sample. A sample that is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.

P. Indirect Discharge or Discharge. The introduction of pollutants into the POTW from any nondomestic source.

Q. Interference. A discharge that, alone or in conjunction with a discharge or discharges from other sources, inhibits or disrupts the POTW, its treatment processes or operations or its sludge processes, use or disposal; and therefore, is a cause of a violation of the City's NPDES permit or of the prevention of sewage sludge use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent State or local regulations: section 405 of the Act; the Solid Waste Disposal Act, including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State sludge management plan prepared pursuant to Subtitle D of the Solid Waste Disposal Act; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research, and Sanctuaries Act.

R. Local Limit. Specific discharge limits developed and enforced by the City upon industrial or commercial facilities to implement the general and specific discharge prohibitions listed in 40 CFR 403.5(a)(1) and (b).

S. Medical Waste. Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.

T. Monthly Average. The sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

U. Monthly Average Limit. The highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.

V. New Source.

(1) Any building, structure, facility, or installation from which there is (or may be) a discharge of pollutants, the construction of which commenced after the publication of proposed Pretreatment Standards under section 307(c) of the Act that will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:

(a) The building, structure, facility, or installation is constructed at a site at which no other source is located; or
(b) The building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an Existing Source; or
(c) The production or wastewater generating processes of the building, structure, facility, or installation are substantially independent of an Existing Source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the Existing Source, should be considered.

(2) Construction on a site at which an Existing Source is located results in a modification rather than a New Source if the construction does not create a new building, structure, facility, or installation meeting the criteria of Section (1)(b) or (c) above but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of a New Source as defined under this paragraph has commenced if the owner or operator has:

(a) Begun, or caused to begin, as part of a continuous onsite construction program
(i) any placement, assembly, or installation of facilities or equipment; or
(ii) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
(b) Entered into a binding contractual obligation for the purchase of facilities or equipment which is intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

W. Noncontact Cooling Water. Water used for cooling that does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

X. Pass Through. A discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the City's NPDES permit, including an increase in the magnitude or duration of a violation.

Y. Person. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns. This definition includes all Federal, State, and local governmental entities.

Z. pH. A measure of the acidity or alkalinity of a solution, expressed in standard units.

AA Pollutant. Dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, Medical Wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand,

cellar dirt, municipal, agricultural and industrial wastes, and certain characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

BB Pretreatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to, or in lieu of, introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical, or biological processes; by process changes; or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable Pretreatment Standard.

CC Pretreatment Requirements. Any substantive or procedural requirement related to pretreatment imposed on a User, other than a Pretreatment Standard.

DD Pretreatment Standards or Standards. Pretreatment Standards shall mean prohibited discharge standards, categorical Pretreatment Standards, and Local Limits.

EE Prohibited Discharge Standards or Prohibited Discharges. Absolute prohibitions against the discharge of certain substances; these prohibitions appear in **Section 2.2** of this ordinance.

FF Publicly Owned Treatment Works or POTW. A treatment works, as defined by section 212 of the Act (33 U.S.C. section 1292), which is owned by the City. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of sewage or industrial wastes of a liquid nature and any conveyances, which convey wastewater to a treatment plant.

GG Septic Tank Waste. Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

HH Sewage. Human excrement and gray water (household showers, dishwashing operations, etc.).

II. Significant Industrial User (SIU).

Except as provided in paragraphs (3) and (4) of this Section, a Significant Industrial User is:

(1) An Industrial User subject to categorical Pretreatment Standards; or

(2) An Industrial User that:

(a) Discharges an average of twenty-five thousand (25,000) gpd or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);
(b) 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
(c) Is designated as such by the City on the basis that it has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement.

(3) Upon a finding that a User meeting the criteria in Subsection (2) of this part has no reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or Requirement, the City may at any time, on its own initiative or in response to a petition received from an Industrial User, and in accordance with procedures in 40 CFR 403.8(f)(6), determine that such User should not be considered a Significant Industrial User.

JJ. Slug Load or Slug Discharge. Any discharge at a flow rate or concentration, which could cause a violation of the prohibited discharge standards in **Section 2.2** of this ordinance. A Slug Discharge is any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, Local Limits or Permit conditions.

KK Storm Water. Any flow occurring during or following any form of natural precipitation, and resulting from such precipitation, including snowmelt.

LL Superintendent. The person designated by the City to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by this ordinance**.** The term also means a Duly Authorized Representative of the Superintendent.

MM Total Suspended Solids or Suspended Solids. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquid, and that is removable by laboratory filtering.

NN User or Industrial User. A source of an indirect discharge.

OO Wastewater. Liquid and water-carried industrial wastes and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.

PP Wastewater Treatment Plant or Treatment Plant. That portion of the POTW which is designed to provide treatment of municipal sewage and industrial waste.

SECTION 2—GENERAL SEWER USE REQUIREMENTS

2.1 Local Standards and Prohibitions

A. It shall be unlawful for any person to place, deposit, permit to be deposited or discharge to any natural outlet within the City or any area under the jurisdiction of the City any sanitary, commercial, industrial or polluted wastewaters except where suitable treatment has been provided in accordance with this Ordinance.

B. Except as herein provided, no person shall construct or maintain any privy, privy vault, septic tank, cesspool or other wastewater treatment facility intended or used for the treatment and/or disposal of sewage.

C. No person shall construct, repair, modify or alter a sewer lateral, public sewer, manhole or other sewer system appurtenance without first obtaining a permit from the Superintendent.

D. No person shall maliciously, willfully or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, pipe or equipment which is part of the sewage system.

E. No person shall discharge or cause to be discharged any storm water, surface water, ground water, roof run-off, parking lot run-off, cooling water or unpolluted industrial process waters into any sanitary sewer.

F. The owners of all houses, buildings or properties used for human occupancy, employment, recreation or other purpose situated in the City and abutting any street, alley, right-of-way or easement in which there is now located or may in the future be located a public sanitary or combined sewer of the City, are hereby required at their own expense to install suitable toilet facilities therein and to connect such facilities and industrial waste outlets directly with the public sewer in accordance with this Ordinance within 90 days after the date of official notice to do so, provided that such public sewer is within 300 feet of the property line.

G. No statement contained in this Ordinance shall be construed as preventing the City from entering into an agreement between the City and any industrial discharger whereby an industrial waste of unusual strength or character may be accepted by the City for treatment subject to payment for treatment services by the industrial discharger.

H. It shall be the responsibility of the property owner to pay for the cost of constructing the sewer lateral from the building to the public sewer. It shall be the responsibility of the property owner to pay for the cost of maintaining the sewer lateral from the building to the limit of the public right-of-way or easement of the public sewer. The City is responsible for the maintenance and repair of the sewer lateral from the right-of-way or easement line to the public sewer main including the sewer lateral fitting which connects the sewer lateral to the public main.

I. A separate and independent sanitary sewer lateral shall be provided for each and every building, except present sewer structures in use; and except that where one building stands at the rear of another on the same lot and no sanitary sewer can be constructed to the rear building through an adjoining alley, court, yard or driveway, the sewer lateral from the front building may be extended to the rear building and the whole sewer lateral considered as one sewer lateral for the single property.

J. Old building sanitary sewer laterals may be used in connection with new buildings only when they are found on examination and testing by the Superintendent to meet all requirements of new sanitary sewer laterals.

K. The Superintendent shall develop and submit to the Utility Service Board for approval written construction standards for the construction of sewer laterals, sewer mains, manholes and other appurtenances which are connected to the City of North Vernon sewer system. The Superintendent shall revise the construction standards as appropriate and on a regular basis.

L. The construction of all sewers, components, systems or private sewers which connect to the North Vernon sewer system shall comply with the requirements of the Wastewater Department's Construction Standards. The acceptance of the applicability of these

standards to all sewers shall be considered part of the terms for the approval of connection to the North Vernon sewer system.

2.2 Prohibited Discharge Standards

A. General Prohibitions. No User shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes Pass Through or Interference. These general prohibitions apply to all Users of the POTW whether or not they are subject to categorical Pretreatment Standards or any other National, State, or local Pretreatment Standards or Requirements.

B. Specific Prohibitions. No User shall introduce or cause to be introduced into the POTW the following pollutants, substances, or wastewater:

(1) Pollutants which create a fire or explosive hazard in the POTW, including, but not limited to, wastestreams with a closed-cup flashpoint of less than 140 degrees F (60 degrees C) using the test methods specified in 40 CFR 261.21;

(2) Wastewater having a pH less than 5.0 or more than 9.5, or otherwise causing corrosive structural damage to the POTW or equipment;

(3) Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in Interference but in no case solids greater than 0.75 inch(es) (3/4") in any dimension;

(4) Pollutants, including oxygen-demanding pollutants (CBOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause Interference with the POTW;

(5) Wastewater having a temperature greater than 140 degrees F (60 degrees C), or which will inhibit biological activity in the treatment plant resulting in Interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees F (40 degrees C);

(6) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that will cause Interference or Pass Through;

(7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

(8) Trucked or hauled pollutants, except at discharge points designated by the Superintendent in accordance with **Section 3.4** of this ordinance;

(9) Noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or a hazard to life, or to prevent entry into the sewers for maintenance or repair;

(10) Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating the City's NPDES permit;

(11) Wastewater containing any radioactive wastes or isotopes except in compliance with applicable State or Federal regulations;

(12) Storm Water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, Noncontact Cooling Water, and unpolluted wastewater, unless specifically authorized by the Superintendent;

(13) Sludges, screenings, or other residues from the pretreatment of industrial wastes;

(14) Medical Wastes, except as specifically authorized by the Superintendent in an individual wastewater discharge permit;

(15) Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail toxicity test;

(16) Detergents, surface-active agents, or other substances which that might cause excessive foaming in the POTW;

(17) Fats, oils, or greases of animal or vegetable origin in concentrations greater than 100mg/l;

(18) Wastewater causing two readings on an explosion hazard meter at the point of discharge into the POTW, or at any point in the POTW, of more than 10% or any single reading over 10% of the Lower Explosive Limit of the meter.

Pollutants, substances, or wastewater prohibited by this Section shall not be processed or stored in such a manner that they could be discharged to the POTW.

2.3 National Categorical Pretreatment Standards

Users must comply with the categorical Pretreatment Standards found at 40 CFR Chapter I, Subchapter N, Parts 405–471.

A. Where a categorical Pretreatment Standard is expressed only in terms of either the mass or the concentration of a pollutant in wastewater, the Superintendent may impose equivalent concentration or mass limits in accordance with **Section 2.3E** and **2.3F**.

B. When the limits in a categorical Pretreatment Standard are expressed only in terms of mass of pollutant per unit of production, the Superintendent may convert the limits to equivalent limitations expressed either as mass of pollutant discharged per day or effluent concentration for purposes of calculating effluent limitations applicable to individual Industrial Users in accordance with 40 CFR 403.6(c)(2).

C. When wastewater subject to a categorical Pretreatment Standard is mixed with wastewater not regulated by the same Standard, the Superintendent shall impose an alternate limit in accordance with 40 CFR 403.6(e).

D. A CIU may obtain a net/gross adjustment to a categorical Pretreatment Standard in accordance with the following paragraphs of this Section.

(1) Categorical Pretreatment Standards may be adjusted to reflect the presence of pollutants in the Industrial User's intake water in accordance with this Section. Any Industrial User wishing to obtain credit for intake pollutants must make application to the City. Upon request of the Industrial User, the applicable Standard will be calculated on a "net" basis (i.e., adjusted to reflect credit for pollutants in the intake water) if the requirements of paragraph (2) of this Section are met.

(2) Criteria.
(a) Either (i) The applicable categorical Pretreatment Standards contained in 40 CFR subchapter N specifically provide that they shall be applied on a net basis; or (ii) The Industrial User demonstrates that the control system it proposes or uses to meet applicable categorical Pretreatment Standards would, if properly installed and operated, meet the Standards in the absence of pollutants in the intake waters.
(b) Credit for generic pollutants such as biochemical oxygen demand (BOD), total suspended solids (TSS), and oil and grease should not be granted unless the Industrial User demonstrates that the constituents of the generic measure in the User's effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outfall or elsewhere.
(c) Credit shall be granted only to the extent necessary to meet the applicable categorical Pretreatment Standard(s), up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with Standard(s) adjusted under this Section.
(d) Credit shall be granted only if the User demonstrates that the intake water is drawn from the same body of water as that into which the POTW discharges. The City may waive this requirement if it finds that no environmental degradation will result.

E. When a categorical Pretreatment Standard is expressed only in terms of pollutant concentrations, an Industrial User may request that the City convert the limits to equivalent mass limits. The determination to convert concentration limits to mass limits is within the discretion of the Superintendent. The City may establish equivalent mass limits only if the Industrial User meets all the conditions set forth in (1)(a) through (e) below.

(1) To be eligible for equivalent mass limits, the Industrial User must:
(a) Employ, or demonstrate that it will employ, water conservation methods and technologies that substantially reduce water use during the term of its individual wastewater discharge permit;
(b) Currently use control and treatment technologies adequate to achieve compliance with the applicable categorical Pretreatment Standard, and not have used dilution as a substitute for treatment;
(c) Provide sufficient information to establish the facility's actual average daily flow rate for all wastestreams, based on data from a continuous effluent flow monitoring device, as well as the facility's long-term average production rate. Both the actual average daily flow rate and the long-term average production rate must be representative of current operating conditions;

(d) Not have daily flow rates, production levels, or pollutant levels that vary so significantly that equivalent mass limits are not appropriate to control the Discharge; and
(e) Have consistently complied with all applicable categorical Pretreatment Standards during the period prior to the Industrial User's request for equivalent mass limits.

(2) An Industrial User subject to equivalent mass limits must:
(a) Maintain and effectively operate control and treatment technologies adequate to achieve compliance with the equivalent mass limits;
(b) Continue to record the facility's flow rates through the use of a continuous effluent flow monitoring device;
(c) Continue to record the facility's production rates and notify the Superintendent whenever production rates are expected to vary by more than 20 percent from its baseline production rates determined in paragraph **2.3F(1)(c) of this Section**. Upon notification of a revised production rate, the Superintendent will reassess the equivalent mass limit and revise the limit as necessary to reflect changed conditions at the facility; and
(d) Continue to employ the same or comparable water conservation methods and technologies as those implemented pursuant to paragraphs **2.3E(1)(a) of this Section** as long as it discharges under an equivalent mass limit.

(3) When developing equivalent mass limits, the Superintendent:
(a) Will calculate the equivalent mass limit by multiplying the actual average daily flow rate of the regulated process(es) of the Industrial User by the concentration-based Daily Maximum and Monthly Average Standard for the applicable categorical Pretreatment Standard and the appropriate unit conversion factor;
(b) Upon notification of a revised production rate, will reassess the equivalent mass limit and recalculate the limit as necessary to reflect changed conditions at the facility; and
(c) May retain the same equivalent mass limit in subsequent individual wastewater discharger permit terms if the Industrial User's actual average daily flow rate was reduced solely as a result of the implementation of water conservation methods and technologies, and the actual average daily flow rates used in the original calculation of the equivalent mass limit were not based on the use of dilution as a substitute for treatment pursuant to **Section 2.7**. The Industrial User must also be in compliance with **Section 13.3** regarding the prohibition of bypass.

F. The Superintendent may convert the mass limits of the categorical Pretreatment Standards of 40 CFR Parts 414, 419, and 455 to concentration limits for purposes of calculating limitations applicable to individual Industrial Users. The conversion is at the discretion of the Superintendent.

G. Once included in its permit, the Industrial User must comply with the equivalent limitations developed in this **Section (2.3)** in lieu of the promulgated categorical Standards from which the equivalent limitations were derived. **[Note: See 40 CFR 403.6(c)(7)]**

H. Many categorical Pretreatment Standards specify one limit for calculating maximum daily discharge limitations and a second limit for calculating maximum Monthly Average, or 4-day average, limitations. Where such Standards are being applied, the same production

or flow figure shall be used in calculating both the average and the maximum equivalent limitation. **[Note: See 40 CFR 403.6(c)(8)]**

I. Any Industrial User operating under a permit incorporating equivalent mass or concentration limits calculated from a production-based Standard shall notify the Superintendent within two (2) business days after the User has a reasonable basis to know that the production level will significantly change within the next calendar month. Any User not notifying the Superintendent of such anticipated change will be required to meet the mass or concentration limits in its permit that were based on the original estimate of the long term average production rate. **[Note: See 40 CFR 403.6(c)(9)]**

2.4 State Pretreatment Standards

Users must comply with State Pretreatment Standards codified at 327 IAC 5-18.

2.5 Local Limits

A. The Superintendent is authorized to establish Local Limits pursuant to 40 CFR 403.5(c).

B. The following pollutant limits are established to protect against Pass Through and Interference. No person shall discharge wastewater containing in excess of the following Daily Maximum Limits:

0.03	mg/l arsenic
0.2	mg/l cadmium
2.0	mg/l chromium
0.2	mg/l copper
0.5	mg/l cyanide
0.11	mg/l lead
0.5	ng/l mercury
0.6	mg/l nickel
100	mg/l fats, oil and grease as a polar material
100	mg/l oil and grease as nonpolar material
0.10	mg/l selenium
0.24	mg/l silver
0.5	mg/l total phenols
4.0	mg/l zinc

The above limits apply at the point where the wastewater is discharged to the POTW. All concentrations for metallic substances are for total metal unless indicated otherwise. The Superintendent may impose mass limitations in addition to the concentration-based limitations above.

C. Any wastewater containing in excess of **200 mg/l of $CBOD_5$ or total suspended solids** or **20 mg/l ammonia-N** or **500 mg/l COD** will be surcharged as high strength wastewater as provided for in the current Sewer Rate Ordinance. The issuance of surcharges for treating high strength wastewater shall not be construed as acceptance of high strength wastewater for treatment by North Vernon. North Vernon reserves the right and authority to prohibit the discharge of high strength wastewater when such wastewaters cause or are reasonably expected to cause POTW upsets, overloading or damage to the sewer collection system.

D. The Superintendent may develop Best Management Practices (BMPs), by ordinance or in individual wastewater discharge permits, to implement Local Limits and the requirements of **Section 2.2**.

2.6 City's Right of Revision

The City reserves the right to establish, by ordinance or in individual wastewater discharge permits, more stringent Standards or Requirements on discharges to the POTW consistent with the purpose of this ordinance.

2.7 Dilution

No User shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. The Superintendent may impose mass limitations on Users who are using dilution to meet applicable Pretreatment Standards or Requirements or in other cases when the imposition of mass limitations is appropriate.

SECTION 3—PRETREATMENT OF WASTEWATER

3.1 Pretreatment Facilities

Users shall provide wastewater treatment as necessary to comply with this ordinance and shall achieve compliance with all categorical Pretreatment Standards, Local Limits, and the prohibitions set out in **Section 2.2** of this ordinance within the time limitations specified by EPA, the State, or the Superintendent, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the User's expense. Detailed plans describing such facilities and operating procedures shall be submitted to the Superintendent for review, and shall be acceptable to the Superintendent before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the User from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the City under the provisions of this ordinance.

3.2 Additional Pretreatment Measures

A. Whenever deemed necessary, the Superintendent may require Users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage wastestreams from industrial wastestreams, and such other conditions as may be necessary to protect the POTW and determine the User's compliance with the requirements of this ordinance.

B. The Superintendent may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. An individual wastewater discharge permit may be issued solely for flow equalization.

C. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Superintendent, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential users. All interception units shall be of a type and capacity approved by the Superintendent, shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired by the User at their expense.

D. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

3.3 Accidental Discharge/Slug Discharge Control Plans

At least once every two (2) years, the Superintendent shall evaluate whether each SIU needs an accidental discharge/slug discharge control plan or other action to control Slug Discharges. The Superintendent may require any User to develop, submit for approval, and implement such a plan or take such other action that may be necessary to control Slug Discharges. Alternatively, the Superintendent may develop such a plan for any User. An accidental discharge/slug discharge control plan shall address, at a minimum, the following:

A. Description of discharge practices, including nonroutine batch discharges;

B. Description of stored chemicals;

C. Procedures for immediately notifying the Superintendent of any accidental or Slug Discharge, as required by **Section 6.6** of this ordinance; and

D. Procedures to prevent adverse impact from any accidental or Slug Discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

3.4 Hauled Wastewater

A. Septic tank waste may be introduced into the POTW only at locations designated by the Superintendent, and at such times as are established by the Superintendent. Such waste shall not violate **Section 2** of this ordinance or any other requirements established by the City. The Superintendent may require septic tank waste haulers to obtain individual wastewater discharge permits.

B. The Superintendent may require haulers of industrial waste to obtain individual wastewater discharge permits. The Superintendent may require generators of hauled industrial waste to obtain individual wastewater discharge permits. The Superintendent also may prohibit the disposal of hauled industrial waste. The discharge of hauled industrial waste is subject to all other requirements of this ordinance.

C. Industrial waste haulers may discharge loads only at locations designated by the Superintendent. No load may be discharged without prior consent of the Superintendent. The Superintendent may collect samples of each hauled load to ensure

compliance with applicable Standards. The Superintendent may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.

D. Industrial waste haulers must provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of waste. The form shall identify the type of industry, known or suspected waste constituents, and whether any wastes are RCRA hazardous wastes.

SECTION 4—INDIVIDUAL WASTEWATER DISCHARGE PERMITS

4.1 Wastewater Analysis

When requested by the Superintendent, a User must submit information on the nature and characteristics of its wastewater within ten (10) days of the request. The Superintendent is authorized to prepare a form for this purpose and may periodically require Users to update this information. Failure to complete and submit this form shall be deemed a violation of this Ordinance and subjects the User to the sanctions set out in **Sections 10 through 12** of this Ordinance.

4.2 Individual Wastewater Discharge Permit Requirement

A. No Significant Industrial User shall discharge wastewater into the POTW without first obtaining an individual wastewater discharge permit from the Superintendent, except that a Significant Industrial User that has filed a timely application pursuant to **Section 4.3** of this ordinance may continue to discharge for the time period specified therein.

B. The Superintendent may require other Users to obtain individual wastewater discharge permits as necessary to carry out the purposes of this ordinance.

C. Any violation of the terms and conditions of an individual wastewater discharge permit shall be deemed a violation of this ordinance and subjects the wastewater discharge permittee to the sanctions set out in **Sections 10 through 12** of this ordinance. Obtaining an individual wastewater discharge permit does not relieve a permittee of its obligation to comply with all Federal and State Pretreatment Standards or Requirements or with any other requirements of Federal, State, and local law.

4.3 Individual Wastewater Discharge Permitting: Existing Connections

Any User required to obtain an individual wastewater discharge permit who was discharging wastewater into the POTW prior to the effective date of this ordinance and who wishes to continue such discharges in the future, shall, within thirty (30) days after said date, apply to the Superintendent for an individual wastewater discharge permit in accordance with **Section 4.5** of this ordinance, and shall not cause or allow discharges to the POTW to continue after one hundred eighty (180) days of the effective date of this ordinance except in accordance with an individual wastewater discharge permit issued by the Superintendent.

4.4 Individual Wastewater Discharge: New Connections

Any User required to obtain an individual wastewater discharge permit who proposes to begin or recommence discharging into the POTW must obtain such permit prior to the beginning or recommencing of such discharge. An application for this individual wastewater discharge permit, in accordance with **Section 4.5** of this ordinance, must be filed at least thirty (30) days prior to the date upon which any discharge will begin or recommence.

4.5 Individual Wastewater Discharge Permit Application Contents

A. All Users required to obtain an individual wastewater discharge permit must submit a permit application. The Superintendent may require Users to submit all or some of the following information as part of a permit application:

(1) Identifying Information.
   (a) The name and address of the facility, including the name of the operator and owner.
   (b) Contact information, description of activities, facilities, and plant production processes on the premises;

(2) Environmental Permits. A list of any environmental control permits held by or for the facility.

(3) Description of Operations.
   (a) A brief description of the nature, average rate of production (including each product produced by type, amount, processes, and rate of production), and standard industrial classifications of the operation(s) carried out by such User. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated processes.
   (b) Types of wastes generated, and a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW;
   (c) Number and type of employees, hours of operation, and proposed or actual hours of operation;
   (d) Type and amount of raw materials processed (average and maximum per day);
   (e) Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge;

(4) Time and duration of discharges;

(5) The location for monitoring all wastes covered by the permit;

(6) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in **Section 2.3C** (40 CFR 403.6(e)).

(7) Measurement of Pollutants.
   (a) The categorical Pretreatment Standards applicable to each regulated process and any new categorically regulated processes for Existing Sources.

(b) The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the Standard or by the Superintendent, of regulated pollutants in the discharge from each regulated process.
(c) Instantaneous, Daily Maximum, and long-term average concentrations, or mass, where required, shall be reported.
(d) The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in **Section 6.10** of this ordinance. Where the Standard requires compliance with a BMP, or pollution prevention alternative, the User shall submit documentation as required by the Superintendent or the applicable Standards to determine compliance with the Standard.
(e) Sampling must be performed in accordance with procedures set out in **Section 6.11** of this ordinance.

(7) Any other information as may be deemed necessary by the Superintendent to evaluate the permit application.

B. Incomplete or inaccurate applications will not be processed and will be returned to the User for revision.

4.6 Application Signatories and Certifications

A. All wastewater discharge permit applications, User reports and certification statements must be signed by an Authorized Representative of the User and contain the certification statement in **Section 6.14A**.

B. If the designation of an Authorized Representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new written authorization satisfying the requirements of this Section must be submitted to the Superintendent prior to or together with any reports to be signed by an Authorized Representative.

4.7 Individual Wastewater Discharge Permit Decisions

The Superintendent will evaluate the data furnished by the User and may require additional information. Within thirty (30) days of receipt of a complete permit application, the Superintendent will determine whether to issue an individual wastewater discharge permit. The Superintendent may deny any application for an individual wastewater discharge permit.

SECTION 5—INDIVIDUAL WASTEWATER DISCHARGE PERMIT ISSUANCE

5.1 Individual Wastewater Discharge Permit Duration

An individual wastewater discharge permit shall be issued for a specified time period, not to exceed five (5) years from the effective date of the permit. An individual wastewater discharge permit may be issued for a period less than five (5) years, at the discretion of the Superintendent. Each individual wastewater discharge permit will indicate a specific date upon which it will expire.

5.2 Individual Wastewater Discharge Permit Contents

An individual wastewater discharge permit shall include such conditions as are deemed reasonably necessary by the Superintendent to prevent Pass Through or Interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, and protect against damage to the POTW. The City of North Vernon has the authority to enforce against falsification and tampering of information contained in the permit application.

A. Individual wastewater discharge permits must contain:

(1) A statement that indicates the wastewater discharge permit issuance date, expiration date and effective date;

(2) A statement that the wastewater discharge permit is nontransferable without prior notification to the City in accordance with **Section 5.5** of this ordinance, and provisions for furnishing the new owner or operator with a copy of the existing wastewater discharge permit;

(3) Effluent limits, including Best Management Practices, based on applicable Pretreatment Standards;

(4) Self monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants (or best management practice) to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law.

(5) A statement of applicable civil and criminal penalties for violation of Pretreatment Standards and Requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable Federal, State, or local law.

(6) Requirements to control Slug Discharge, if determined by the Superintendent to be necessary.

(7) Failure to submit chain-of-custody information is a violation of the pretreatment program.

B. Individual wastewater discharge permits may contain, but need not be limited to, the following conditions:

(1) Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization;

(2) Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works;

(3) Requirements for the development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or nonroutine discharges;

(4) Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW;

(5) The unit charge or schedule of User charges and fees for the management of the wastewater discharged to the POTW;

(6) Requirements for installation and maintenance of inspection and sampling facilities and equipment, including flow measurement devices;

(7) A statement that compliance with the individual wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable Federal and State Pretreatment Standards, including those which become effective during the term of the individual wastewater discharge permit; and

(8) Other conditions as deemed appropriate by the Superintendent to ensure compliance with this ordinance, and State and Federal laws, rules, and regulations.

5.3 Permit Issuance Process

A. Public Notification. The Superintendent will publish in an official government publication and/or newspaper(s) of general circulation that provides meaningful public notice with the jurisdiction(s) served by the POTW, or on a Web page, a notice to issue a pretreatment permit, at least thirty (30) days prior to issuance. The notice will indicate a location where the draft permit may be reviewed and an address where written comments may be submitted.

B. Permit Appeals. The Superintendent shall provide public notice of the issuance of an individual wastewater discharge permit. Any person, including the User, may petition the Superintendent to reconsider the terms of an individual wastewater discharge permit within thirty (30) days of notice of its issuance.

(1) Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.

(2) In its petition, the appealing party must indicate the individual wastewater discharge permit provisions objected to, the reasons for this objection, and the alternative condition, if any, it seeks to place in the individual wastewater discharge permit.

(3) The effectiveness of the individual wastewater discharge permit shall not be stayed pending the appeal.

(4) If the Superintendent fails to act within thirty (30) days, a request for reconsideration shall be deemed to be denied. Decisions not to reconsider an individual wastewater discharge permit, not to issue an individual wastewater discharge permit, or not to modify an individual wastewater discharge permit shall be considered final administrative actions for purposes of judicial review.

(5) Aggrieved parties seeking judicial review of the final administrative individual wastewater discharge permit decision must do so by filing a complaint with the Jennings County Circuit Court for within fifteen days.

5.4 Permit Modification

A. The Superintendent may modify an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:

(1) To incorporate any new or revised Federal, State, or local Pretreatment Standards or Requirements;

(2) To address significant alterations or additions to the User's operation, processes, or wastewater volume or character since the time of the individual wastewater discharge permit issuance;

(3) A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge;

(4) Information indicating that the permitted discharge poses a threat to the City's POTW, City personnel, the receiving waters; or to the POTW's beneficial sludge use;

(5) Violation of any terms or conditions of the individual wastewater discharge permit;

(6) Misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;

(7) Revision of or a grant of variance from categorical Pretreatment Standards pursuant to 40 CFR 403.13;

(8) To correct typographical or other errors in the individual wastewater discharge permit; or

(9) To reflect a transfer of the facility ownership or operation to a new owner or operator where requested in accordance with **Section 5.5**.

5.5 Individual Wastewater Discharge Permit Transfer

Individual wastewater discharge permits may be transferred to a new owner or operator only if the permittee gives at least sixty (60) days advance notice to the Superintendent and the Superintendent approves the individual wastewater discharge permit transfer. The notice to the Superintendent must include a written certification by the new owner or operator which:

A. States that the new owner and/or operator have no immediate intent to change the facility's operations and processes;

B. Identifies the specific date on which the transfer is to occur; and

C. Acknowledges full responsibility for complying with the existing individual wastewater discharge permit.

Failure to provide advance notice of a transfer renders the individual wastewater discharge permit void as of the date of facility transfer.

5.6 Individual Wastewater Discharge Permit Revocation

The Superintendent may revoke an individual wastewater discharge permit for good cause, including, but not limited to, the following reasons:

A. Failure to notify the Superintendent of significant changes to the wastewater prior to the changed discharge;

B. Failure to provide prior notification to the Superintendent of changed conditions pursuant to **Section 6.5** of this ordinance;

C. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;

D. Falsifying self-monitoring reports and certification statements;

E. Tampering with monitoring equipment;

F. Refusing to allow the Superintendent timely access to the facility premises and records;

G. Failure to meet effluent limitations;

H. Failure to pay fines;

I. Failure to pay sewer charges;

J. Failure to meet compliance schedules;

K. Failure to complete a wastewater survey or the wastewater discharge permit application;

L. Failure to provide advance notice of the transfer of business ownership of a permitted facility; or

M. Violation of any Pretreatment Standard or Requirement, or any terms of the wastewater discharge permit or this ordinance.

Individual wastewater discharge permits shall be voidable upon cessation of operations or transfer of business ownership. All individual wastewater discharge permits issued to a User are void upon the issuance of a new individual wastewater discharge permit to that User.

5.7 Individual Wastewater Discharge Permit Reissuance

A User with an expiring individual wastewater discharge permit shall apply for individual wastewater discharge permit reissuance by submitting a complete permit application, in accordance with **Section 4.5** of this ordinance, a minimum of one hundred eighty (180) days prior to the expiration of the User's existing individual wastewater discharge permit.

5.8 Regulation of Waste Received from Other Jurisdictions

A. If another municipality, or User located within another municipality, contributes wastewater to the POTW, the Superintendent shall enter into an intermunicipal agreement with the contributing municipality.

B. Prior to entering into an agreement required by paragraph A, above, the Superintendent shall request the following information from the contributing municipality:

(1) A description of the quality and volume of wastewater discharged to the POTW by the contributing municipality;

(2) An inventory of all Users located within the contributing municipality that are discharging to the POTW; and

(3) Such other information as the Superintendent may deem necessary.

C. An intermunicipal agreement, as required by paragraph A, above, shall contain the following conditions:

(1) A requirement for the contributing municipality to adopt a sewer use ordinance which is at least as stringent as this ordinance and Local Limits, including required Baseline Monitoring Reports (BMRs) which are at least as stringent as those set out in **Section 2.5** of this ordinance. The requirement shall specify that such ordinance and limits must be revised as necessary to reflect changes made to the City's ordinance or Local Limits;

(2) A requirement for the contributing municipality to submit a revised User inventory on at least an annual basis;

(3) A provision specifying which pretreatment implementation activities, including individual wastewater discharge permit issuance, inspection and sampling, and enforcement, will be conducted by the contributing municipality; which of these activities will be conducted by the Superintendent; and which of these activities will be conducted jointly by the contributing municipality and the Superintendent;

(4) A requirement for the contributing municipality to provide the Superintendent with access to all information that the contributing municipality obtains as part of its pretreatment activities;

(5) Limits on the nature, quality, and volume of the contributing municipality's wastewater at the point where it discharges to the POTW;

(6) Requirements for monitoring the contributing municipality's discharge;

(7) A provision ensuring the Superintendent access to the facilities of Users located within the contributing municipality's jurisdictional boundaries for the purpose of inspection, sampling, and any other duties deemed necessary by the Superintendent; and

(8) A provision specifying remedies available for breach of the terms of the intermunicipal agreement.

(9) North Vernon has the right to take legal action to enforce the terms of the contributing municipality's (jurisdiction's) ordinance or to impose and enforce pretreatment standards and requirements directly against noncompliant dischargers in the event the contributing municipality (jurisdiction) is unable or unwilling to take such action.

SECTION 6—REPORTING REQUIREMENTS

6.1 Baseline Monitoring Reports

A. Within either one hundred eighty (180) days after the effective date of a categorical Pretreatment Standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing Categorical Industrial Users currently discharging to or scheduled to discharge to the POTW shall submit to the Superintendent a report which contains the information listed in paragraph B, below. At least ninety (90) days prior to commencement of their discharge, New Sources, and sources that become Categorical Industrial Users subsequent to the promulgation of an applicable categorical Standard, shall submit to the Superintendent a report which contains the information listed in paragraph B, below. A New Source shall report the method of pretreatment it intends to use to meet applicable categorical Standards. A New Source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.

B. Users described above shall submit the information set forth below.

(1) All information required in **Section 4.5A(1)(a), Section 4.5A(2), Section 4.5A(3)(a), and Section 4.5A(6).**

(2) Measurement of pollutants.
   (a) The User shall provide the information required in **Section 4.5A(7)(a) through (d)**. The User shall take a minimum of one representative sample to compile that data necessary to comply with the requirements of this paragraph.
   (b) Samples should be taken immediately downstream from pretreatment facilities if such exist or immediately downstream from the regulated process if no pretreatment exists. If other wastewaters are mixed with the regulated wastewater prior to pretreatment the User should measure the flows and concentrations necessary to allow use of the combined wastestream formula in 40 CFR 403.6(e) to evaluate compliance with the Pretreatment Standards. Where an alternate concentration or mass limit has been calculated in accordance with 40 CFR 403.6(e) this adjusted limit along with supporting data shall be submitted to the Control Authority;
   (c) Sampling and analysis shall be performed in accordance with **Section 6.10**;
   (d) The Superintendent may allow the submission of a baseline report which utilizes only historical data so long as the data provides information sufficient to determine the need for industrial pretreatment measures;

(e) The baseline report shall indicate the time, date and place of sampling and methods of analysis, and shall certify that such sampling and analysis is representative of normal work cycles and expected pollutant Discharges to the POTW.

(3) Compliance Certification. A statement, reviewed by the User's Authorized Representative as defined in **Section 1.4C** and certified by a qualified professional, indicating whether Pretreatment Standards are being met on a consistent basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the Pretreatment Standards and Requirements.

(4) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the Pretreatment Standards, the shortest schedule by which the User will provide such additional pretreatment and/or O&M must be provided. The completion date in this schedule shall not be later than the compliance date established for the applicable Pretreatment Standard. A compliance schedule pursuant to this Section must meet the requirements set out in **Section 6.2** of this ordinance.

(5) Signature and Report Certification. All baseline monitoring reports must be certified in accordance with **Section 6.14A** of this ordinance and signed by an Authorized Representative as defined in **Section 1.4C**.

6.2 Compliance Schedule Progress Reports

The following conditions shall apply to the compliance schedule required by **Section 6.1(B)(4)** of this ordinance:

A. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the User to meet the applicable Pretreatment Standards (such events include, but are not limited to, hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);

B. No increment referred to above shall exceed nine (9) months;

C. The User shall submit a progress report to the Superintendent no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, and, if appropriate, the steps being taken by the User to return to the established schedule; and

D. In no event shall more than two (2) months elapse between such progress reports to the Superintendent.

6.3 Reports on Compliance with Categorical Pretreatment Standard Deadline

Within ninety (90) days following the date for final compliance with applicable categorical Pretreatment Standards, or in the case of a New Source following commencement of the introduction of wastewater into the POTW, any User subject to such Pretreatment Standards

and Requirements shall submit to the Superintendent a report containing the information described in **Section 4.5A(6) and (7) and 6.1(B)(2)** of this ordinance. For Users subject to equivalent mass or concentration limits established in accordance with the procedures in **Section 2.3**, this report shall contain a reasonable measure of the User's long-term production rate. For all other Users subject to categorical Pretreatment Standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the User's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with **Section 6.14A** of this ordinance. All sampling will be done in conformance with **Section 6.11**.

6.4 Periodic Compliance Reports

A. All Significant Industrial Users must, at a frequency determined by the Superintendent, submit no less than twice per year (June and December) reports indicating the nature, concentration of pollutants in the discharge which are limited by Pretreatment Standards and the measured or estimated average and maximum daily flows for the reporting period. In cases where the Pretreatment Standard requires compliance with a Best Management Practice (BMP) or pollution prevention alternative, the User must submit documentation required by the Superintendent or the Pretreatment Standard necessary to determine the compliance status of the User

B. All periodic compliance reports must be signed and certified in accordance with **Section 6.14A** of this ordinance.

C. All wastewater samples must be representative of the User's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a User to keep its monitoring facility in good working order shall not be grounds for the User to claim that sample results are unrepresentative of its discharge.

D. If a User subject to the reporting requirement in this section monitors any regulated pollutant at the appropriate sampling location more frequently than required by the Superintendent, using the procedures prescribed in **Section 6.11** of this ordinance, the results of this monitoring shall be included in the report.

6.5 Reports of Changed Conditions

Each User must notify the Superintendent of any significant changes to the User's operations or system which might alter the nature, quality, or volume of its wastewater at least thirty (30) days before the change.

A. The Superintendent may require the User to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under **Section 4.5** of this ordinance.

B. The Superintendent may issue an individual wastewater discharge permit under **Section 5.7** of this ordinance or modify an existing wastewater discharge permit under **Section 5.4** of this ordinance in response to changed conditions or anticipated changed conditions.

6.6 Reports of Potential Problems

A. In the case of any discharge, including, but not limited to, accidental discharges, discharges of a nonroutine, episodic nature, a noncustomary batch discharge, a Slug Discharge or Slug Load, that might cause potential problems for the POTW, the User shall immediately telephone and notify the Superintendent of the incident. This notification shall include the location of the discharge, type of waste, concentration and volume, if known, and corrective actions taken by the User.

B. Within five (5) days following such discharge, the User shall, unless waived by the Superintendent, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the User to prevent similar future occurrences. Such notification shall not relieve the User of any expense, loss, damage, or other liability which might be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the User of any fines, penalties, or other liability which may be imposed pursuant to this ordinance**.**

C. A notice shall be permanently posted on the User's bulletin board or other prominent place advising employees who to call in the event of a discharge described in paragraph A, above. Employers shall ensure that all employees, who could cause such a discharge to occur, are advised of the emergency notification procedure.

D. Significant Industrial Users are required to notify the Superintendent immediately of any changes at its facility affecting the potential for a Slug Discharge.

6.7 Reports from Unpermitted Users

All Users not required to obtain an individual wastewater discharge permit shall provide appropriate reports to the Superintendent as the Superintendent may require.

6.8 Notice of Violation/Repeat Sampling and Reporting

If sampling performed by a User indicates a violation, the User must notify the Superintendent within twenty-four (24) hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Superintendent within thirty (30) days after becoming aware of the violation. Resampling by the Industrial User is not required if the City performs sampling at the User's facility at least once a month, or if the City performs sampling at the User between the time when the initial sampling was conducted and the time when the User or the City receives the results of this sampling, or if the City has performed the sampling and analysis in lieu of the Industrial User.

6.9 Notification of the Discharge of Hazardous Waste

Any discharge into the POTW of any waste, substance, or material which, if otherwise disposed of, would be hazardous waste under 40 CFR Part 261 is prohibited unless authorized by written permit signed by the Superintendent.

A permit issued by the Superintendent to discharge hazardous waste, will include the following requirements and User responsibilities:

A. Any User who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities, in writing, of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the User discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification also shall contain the following information to the extent such information is known and readily available to the User: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following twelve (12) months. All notifications must take place no later than one hundred and eighty (180) days after the discharge commences. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed conditions must be submitted under **Section 6.5** of this ordinance. The notification requirement in this Section does not apply to pollutants already reported by Users subject to categorical Pretreatment Standards under the self-monitoring requirements of **Sections 6.1, 6.3, and 6.4** of this ordinance.

B. Dischargers are exempt from the requirements of paragraph A, above, during a calendar month in which they discharge no more than fifteen (15) kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e). Discharge of more than fifteen (15) kilograms of nonacute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the User discharges more than such quantities of any hazardous waste do not require additional notification.

C. In the case of any new regulations under section 300.1 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the User must notify the Superintendent, the EPA Regional Waste Management Waste Division Director, and State hazardous waste authorities of the discharge of such substance within ninety (90) days of the effective date of such regulations.

D. In the case of any notification made under this Section, the User shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

E. This provision does not create a right to discharge any substance not otherwise permitted to be discharged by this ordinance, a permit issued thereunder, or any applicable Federal or State law.

6.10 Analytical Requirements

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto, unless otherwise specified in an applicable categorical Pretreatment Standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, or where the EPA determines that the Part

136 sampling and analytical techniques are inappropriate for the pollutant in question, sampling and analyses shall be performed by using validated analytical methods or any other applicable sampling and analytical procedures, including procedures suggested by the Superintendent or other parties approved by EPA.

6.11 Sample Collection

Samples collected to satisfy reporting requirements must be based on data obtained through appropriate sampling and analysis performed during the period covered by the report, based on data that is representative of conditions occurring during the reporting period.

A. Except as indicated in Section B and C below, the User must collect wastewater samples using 24-hour flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the Superintendent. Where time-proportional composite sampling or grab sampling is authorized by the City, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the City, as appropriate. In addition, grab samples may be required to show compliance with Daily Maximum Limits.

B. Samples for oil and grease, temperature, pH, cyanide, total phenols, sulfides, and volatile organic compounds must be obtained using grab collection techniques.

C. For sampling required in support of baseline monitoring and 90-day compliance reports required in **Section 6.1 and 6.3**, a minimum of four (4) grab samples must be used for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the Superintendent may authorize a lower minimum. For the reports required by paragraphs **Section 6.4**, the Industrial User is required to collect the number of grab samples necessary to assess and assure compliance by with applicable Pretreatment Standards and Requirements.

6.12 Date of Receipt of Reports

Written reports will be deemed to have been submitted on the date postmarked. For reports, which are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report shall govern.

6.13 Recordkeeping

Users subject to the reporting requirements of this ordinance shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this ordinance, any additional records of information obtained pursuant to monitoring activities undertaken by the User independent of such requirements, and documentation associated with Best Management Practices established under **Section 2.4C**. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s)

taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning the User or the City, or where the User has been specifically notified of a longer retention period by the Superintendent.

6.14 Certification Statements

A. Certification of Permit Applications, User Reports—The following certification statement is required to be signed and submitted by Users submitting permit applications in accordance with **Section 4.7**; Users submitting baseline monitoring reports under **Section 6.1B(5)**; Users submitting reports on compliance with the categorical Pretreatment Standard deadlines under **Section 6.3**; Users submitting periodic compliance reports required by **Section 6.4A & B.** The following certification statement must be signed by an Authorized Representative as defined in **Section 1.4C**:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SECTION 7—COMPLIANCE MONITORING

7.1 Right of Entry: Inspection and Sampling

The Superintendent shall have the right to enter the premises of any User to determine whether the User is complying with all requirements of this ordinance and any individual wastewater discharge permit or order issued hereunder. Users shall allow the Superintendent ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

A. Where a User has security measures in force which require proper identification and clearance before entry into its premises, the User shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, the Superintendent shall be permitted to enter without delay for the purposes of performing specific responsibilities.

B. The Superintendent shall have the right to set up on the User's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the User's operations.

C. The Superintendent may require the User to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the User at its own expense. All devices used to

measure wastewater flow and quality shall be calibrated annually to ensure their accuracy.

D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the User at the written or verbal request of the Superintendent and shall not be replaced. The costs of clearing such access shall be born by the User.

E. Unreasonable delays in allowing the Superintendent access to the User's premises shall be a violation of this ordinance.

7.2 Search Warrants

If the Superintendent has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the City designed to verify compliance with this ordinance or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, the Superintendent may seek issuance of a search warrant from the Jennings County Circuit Court.

SECTION 8—CONFIDENTIAL INFORMATION

Information and data on a User obtained from reports, surveys, wastewater discharge permit applications, individual wastewater discharge permits, and monitoring programs, and from the Superintendent's inspection and sampling activities, shall be available to the public without restriction, unless the User specifically requests, and is able to demonstrate to the satisfaction of the Superintendent, that the release of such information would divulge information, processes, or methods of production entitled to protection as trade secrets under applicable State law. Any such request must be asserted at the time of submission of the information or data. When requested and demonstrated by the User furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other effluent data, as defined at 40 CFR 2.302 shall not be recognized as confidential information and shall be available to the public without restriction.

SECTION 9—PUBLICATION OF USERS IN SIGNIFICANT NONCOMPLIANCE

The Superintendent shall publish annually, in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the POTW, a list of the Users which, at any time during the previous twelve (12) months, were in Significant Noncompliance with applicable Pretreatment Standards and Requirements. The term Significant Noncompliance shall be applicable to all Significant Industrial Users, or any other Industrial User that violates paragraphs (C), (D) or (H) of this Section and shall mean:

A. Chronic violations of wastewater discharge limits, defined here as those in which sixty-six percent (66%) or more of all the measurements taken for the same pollutant parameter taken during a six- (6-) month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including Instantaneous Limits as defined in **Section 2**;

B. Technical Review Criteria (TRC) violations, defined here as those in which thirty-three percent (33%) or more of wastewater measurements taken for each pollutant parameter during a six- (6-) month period equals or exceeds the product of the numeric Pretreatment Standard or Requirement including Instantaneous Limits, as defined by **Section 2** multiplied by the applicable criteria (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a Pretreatment Standard or Requirement as defined by **Section 2** (Daily Maximum, long-term average, Instantaneous Limit, or narrative standard) that the Superintendent determines has caused, alone or in combination with other discharges, Interference or Pass Through, including endangering the health of POTW personnel or the general public;

D. Any discharge of a pollutant that has caused imminent endangerment to the public or to the environment, or has resulted in the Superintendent's exercise of its emergency authority to halt or prevent such a discharge;

E. Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an individual wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;

F. Failure to provide within forty-five (45) days after the due date, any required reports, including baseline monitoring reports, reports on compliance with categorical Pretreatment Standard deadlines, periodic self-monitoring reports, and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance; or

H. Any other violation(s), which may include a violation of Best Management Practices, which the Superintendent determines will adversely affect the operation or implementation of the local pretreatment program.

SECTION 10—ADMINISTRATIVE ENFORCEMENT REMEDIES

10.1 Notification of Violation

When the Superintendent finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Superintendent may serve upon that User a written Notice of Violation. Within thirty (30) days of the receipt of such notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the User to the Superintendent. Submission of such a plan in no way relieves the User of liability for any violations occurring before or after receipt of the Notice of Violation. Nothing in this Section shall limit the authority of the Superintendent to

take any action, including emergency actions or any other enforcement action, without first issuing a Notice of Violation.

10.2 Consent Orders

The Superintendent may enter into Consent Orders, assurances of compliance, or other similar documents establishing an agreement with any User responsible for noncompliance. Such documents shall include specific action to be taken by the User to correct the noncompliance within a time period specified by the document. Such documents shall have the same force and effect as the administrative orders issued pursuant to **Sections 10.4 and 10.5** of this ordinance and shall be judicially enforceable.

10.3 Show Cause Hearing

The Superintendent may order a User which has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, to appear before the Superintendent and show cause why the proposed enforcement action should not be taken. Notice shall be served on the User specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the User show cause why the proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least seven (7) days prior to the hearing. Such notice may be served on any Authorized Representative of the User as defined in **Section 1.4C** and required by **Section 4.7A.** A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the User.

10.4 Compliance Orders

When the Superintendent finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Superintendent may issue an order to the User responsible for the discharge directing that the User come into compliance within a specified time. If the User does not come into compliance within the time provided, sewer service may be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders also may contain other requirements to address the noncompliance, including additional self-monitoring and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order may not extend the deadline for compliance established for a Pretreatment Standard or Requirement, nor does a compliance order relieve the User of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a bar against, or a prerequisite for, taking any other action against the User.

10.5 Cease and Desist Orders

When the Superintendent finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, or that the User's past violations are likely to recur, the Superintendent may issue an order to the User directing it to cease and desist all such violations and directing the User to:

A. Immediately comply with all requirements; and

B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge.

Issuance of a cease and desist order shall not be a bar against, or a prerequisite for, taking any other action against the User.

10.6 Administrative Fines

A. When the Superintendent finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Superintendent may fine such User in an amount not to exceed two thousand five hundred ($2,500.00) dollars. Such fines shall be assessed on a per-violation, per-day basis. In the case of monthly or other long-term average discharge limits, fines shall be assessed for each day during the period of violation.

B. Unpaid charges, fines, and penalties shall, after sixty (60) calendar days, be assessed an additional penalty of ten percent (10%) of the unpaid balance, and interest shall accrue thereafter at a rate of one and one half percent (1.5%) per month. A lien against the User's property shall be sought for unpaid charges, fines, and penalties.

C. Users desiring to dispute such fines must file a written request for the Superintendent to reconsider the fine along with full payment of the fine amount within thirty (30) days of being notified of the fine. Where a request has merit, the Superintendent may convene a hearing on the matter. In the event the User's appeal is successful, the payment, together with any interest accruing thereto, shall be returned to the User. The Superintendent may add the costs of preparing administrative enforcement actions, such as notices and orders, to the fine.

D. Issuance of an administrative fine shall not be a bar against, or a prerequisite for, taking any other action against the User.

10.7 Emergency Suspensions

The Superintendent may immediately suspend a User's discharge, after informal notice to the User, whenever such suspension is necessary to stop an actual or threatened discharge, which reasonably appears to present, or cause an imminent or substantial endangerment to the health or welfare of persons. The Superintendent may also immediately suspend a User's discharge, after notice and opportunity to respond, that threatens to interfere with the operation of the POTW, or which presents, or may present, an endangerment to the environment.

A. Any User notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a User's failure to immediately comply voluntarily with the suspension order, the Superintendent may take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The Superintendent may allow the User to recommence its discharge when the User has demonstrated to the satisfaction of the Superintendent that the period of endangerment

has passed, unless the termination proceedings in **Section 10.8** of this ordinance are initiated against the User.

B. A User that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement, describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, to the Superintendent prior to the date of any show cause or termination hearing under **Sections 10.3 or 10.8** of this ordinance.

Nothing in this Section shall be interpreted as requiring a hearing prior to any Emergency Suspension under this Section.

10.8 Termination of Discharge

In addition to the provisions in **Section 5.6** of this ordinance, any User who violates the following conditions is subject to discharge termination:

A. Violation of individual wastewater discharge permit conditions;

B. Failure to accurately report the wastewater constituents and characteristics of its discharge;

C. Failure to report significant changes in operations or wastewater volume, constituents, and characteristics prior to discharge;

D. Refusal of reasonable access to the User's premises for the purpose of inspection, monitoring, or sampling; or

E. Violation of the Pretreatment Standards in **Section 2** of this ordinance.

Such User will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under **Section 10.3** of this ordinance why the proposed action should not be taken. Exercise of this option by the Superintendent shall not be a bar to, or a prerequisite for, taking any other action against the User.

SECTION 11—JUDICIAL ENFORCEMENT REMEDIES

11.1 Injunctive Relief

When the Superintendent finds that a User has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, the Superintendent may petition the Jennings County Circuit Court through the North Vernon City Attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the individual wastewater discharge permit, order, or other requirement imposed by this ordinance on activities of the User. The Superintendent may also seek such other action as is appropriate for legal and/or equitable relief, including a requirement for the User to conduct environmental remediation. A petition for injunctive relief shall not be a bar against, or a prerequisite for, taking any other action against a User.

11.2 Civil Penalties

A. A User who has violated, or continues to violate, any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, shall be liable to the City for a maximum civil penalty of not less than $1,000, nor greater than $2,500.00 per violation, per day. In the case of a monthly or other long-term average discharge limit, penalties shall accrue for each day during the period of the violation.

B. The Superintendent may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the City.

C. In determining the amount of civil liability, the Court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration of the violation, any economic benefit gained through the User's violation, corrective actions by the User, the compliance history of the User, and any other factor as justice requires.

C. Filing a suit for civil penalties shall not be a bar against, or a prerequisite for, taking any other action against a User.

D. Users desiring to dispute such penalties must file a written request for the Superintendent to reconsider the penalty along with full payment of the penalty amount within thirty (30) days of being notified of the penalty. Where a request has merit, the Superintendent may convene a hearing on the matter. In the event the User's appeal is successful, the payment, together with any interest accruing thereto, shall be returned to the User. The Superintendent may add the costs of preparing administrative enforcement actions, such as notices and orders, to the penalty.

11.3 Criminal Prosecution

A User who willfully or negligently violates any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement may be referred to the Prosecuting Attorney or to the United States Attorney, upon decision of the North Vernon Common Council.

11.4 Remedies Nonexclusive

The remedies provided for in this ordinance are not exclusive. The Superintendent may take any, all, or any combination of these actions against a noncompliant User. Enforcement of pretreatment violations will generally be in accordance with the City's enforcement response plan. However, the Superintendent may take other action against any User when the circumstances warrant. Further, the Superintendent is empowered to take more than one enforcement action against any noncompliant User.

SECTION 12—SUPPLEMENTAL ENFORCEMENT ACTION

12.1 Performance Bonds

The Superintendent may decline to issue or reissue an individual wastewater discharge permit to any User who has failed to comply with any provision of this ordinance, a previous individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, unless such User first files a satisfactory bond, payable to the City, in a sum not to exceed a value determined by the Superintendent to be necessary to achieve consistent compliance.

12.2 Liability Insurance

The Superintendent may decline to issue or reissue an individual wastewater discharge to any User who has failed to comply with any provision of this ordinance, a previous individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, unless the User first submits proof that it has obtained financial assurances sufficient to restore or repair damage to the POTW caused by its discharge.

12.3 Payment of Outstanding Fees and Penalties

The Superintendent may decline to issue or reissue an individual wastewater discharge permit to any User who has failed to pay any outstanding fees, fines or penalties incurred as a result of any provision of this ordinance, a previous individual wastewater discharge permit, or order issued hereunder.

12.4 Water Supply Severance

Whenever a User has violated or continues to violate any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement, water service to the User may be severed. Service will recommence, at the User's expense, only after the User has satisfactorily demonstrated its ability to comply.

12.5 Public Nuisances

A violation of any provision of this ordinance, an individual wastewater discharge permit, or order issued hereunder, or any other Pretreatment Standard or Requirement is hereby declared a public nuisance and shall be corrected or abated as directed by the Superintendent. Any person(s) creating a public nuisance shall be subject to the provisions of **North Vernon Ordinance No. 861** (and subsequent ordinances) governing such nuisances, including reimbursing the City for any costs incurred in removing, abating, or remedying said nuisance.

12.6 Contractor Listing

Users which have not achieved compliance with applicable Pretreatment Standards and Requirements are not eligible to receive a contractual award for the sale of goods or services to the City. Existing contracts for the sale of goods or services to the City held by a User found to be in Significant Noncompliance with Pretreatment Standards or Requirements may be terminated at the discretion of the Superintendent.

SECTION 13—AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS

13.1 Upset

A. For the purposes of this Section, upset means an exceptional incident in which there is unintentional and temporary noncompliance with categorical Pretreatment Standards because of factors beyond the reasonable control of the User. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical Pretreatment Standards if the requirements of paragraph (C), below, are met.

C. A User who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and the User can identify the cause(s) of the upset;

(2) The facility was at the time being operated in a prudent and workman-like manner and in compliance with applicable operation and maintenance procedures; and

(3) The User has submitted the following information to the Superintendent within twenty-four (24) hours of becoming aware of the upset. If the twenty-four (24) hour notification is provided orally, a written submission must be provided within five (5) days:

(a) A description of the indirect discharge and cause of noncompliance;

(b) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

(c) Steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

D. In any enforcement proceeding, the User seeking to establish the occurrence of an upset shall have the burden of proof.

E. Users shall have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with categorical Pretreatment Standards.

F. Users shall control production of all discharges to the extent necessary to maintain compliance with categorical Pretreatment Standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

13.2 Prohibited Discharge Standards

A User shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in **Section 2.2(A)** of this ordinance or the specific prohibitions in **Sections 2.2(B)(3) through (18)** of this ordinance if it can prove that it did not know, or have reason to know, that its discharge, alone or in conjunction with discharges from other sources, would cause Pass Through or Interference and that either:

A. A Local Limit exists for each pollutant discharged and the User was in compliance with each limit directly prior to, and during, the Pass Through or Interference; or

B. No Local Limit exists, but the discharge did not change substantially in nature or constituents from the User's prior discharge when the City was regularly in compliance with its NPDES permit, and in the case of Interference, was in compliance with applicable sludge use or disposal requirements.

13.3 Bypass

A. For the purposes of this Section,

(1) Bypass means the intentional diversion of wastestreams from any portion of a User's 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.

B. A User may allow any bypass to occur which does not cause Pretreatment Standards or Requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (C) and (D) of this Section.

C. Bypass Notifications

(1) If a User knows in advance of the need for a bypass, it shall submit prior notice to the Superintendent, at least ten (10) days before the date of the bypass, if possible.

(2) A User shall submit oral notice to the Superintendent of an unanticipated bypass that exceeds applicable Pretreatment Standards within twenty-four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) days of the time the User becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Superintendent may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

D. Bypass

(1) Bypass is prohibited, and the Superintendent may take an enforcement action against a User for a bypass, unless

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
(b) 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 back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
(c) The User submitted notices as required under paragraph (C) of this section.

(2) The Superintendent may approve an anticipated bypass, after considering its adverse effects, if the Superintendent determines that it will meet the three conditions listed in paragraph (D)(1) of this Section.

SECTION 14—MISCELLANEOUS PROVISIONS

14.1 Pretreatment Charges and Fees

The City may adopt reasonable fees for reimbursement of costs of setting up and operating the City's Pretreatment Program, which may include:

A. Fees for wastewater discharge permit applications including the cost of processing such applications;

B. Fees for monitoring, inspection, and surveillance procedures including the cost of collection and analyzing a User's discharge, and reviewing monitoring reports and certification statements submitted by Users;

C. Fees for reviewing and responding to accidental discharge procedures and construction;

D. Fees for filing appeals;

E. Fees to recover administrative and legal costs not included in paragraph B of this section associated with the enforcement activity taken by the Superintendent to address IU noncompliance; and

F. Other fees as the City may deem necessary to carry out the requirements contained herein. These fees relate solely to the matters covered by this ordinance and are separate from all other fees, fines, and penalties chargeable by the City.

14.2 Severability

If any provision of this ordinance is invalidated by any court of competent jurisdiction, the remaining provisions shall not be affected and shall continue in full force and effect.

14.3 Repeal of Conflicting Provisions and Ordinances

Provisions of any ordinances previously enacted, or now in existence, which are in conflict with this Ordinance, are hereby repealed as of the effective date of this Ordinance.

SECTION 15—EFFECTIVE DATE

This ordinance shall be in full force and effect immediately following its passage, approval, and publication, as provided by law.

CITY OF NORTH VERNON
WASTEWATER CONSTRUCTION SPECIFICATIONS

Introduction

Unless modified, deleted, replaced or otherwise changed, the latest published edition of the following documents shall be the accepted standard for materials and/or procedures for the construction, modification, alteration, or expansion of North Vernon's sewer system:

1. IDEM Laws and Regulations.

2. Recommended Standards for Sewage Works (Ten State Standards).

If a conflict shall exist between reference sources, the most restrictive requirement shall prevail. The Wastewater Superintendent shall provide interpretation, as requested.

Property owners, at their cost, are responsible for the maintenance and repair of the sewer lateral from their building sewer to the right-of-way or utility easement line. The City is responsible for the maintenance and repair of the sewer lateral from the right-of-way or easement line to the public sewer main including the sewer lateral fitting which connects the sewer lateral to the public sewer main.

All work preformed within a public right-of-way or an utility easement shall be performed by a plumber licensed in the State of Indiana, a contractor under the direct supervision of the Wastewater Department or an employee of the Wastewater Department. All work performed on a sewer lateral from a building to the right-of-way or utility easement line shall be performed by a plumber licensed in the State of Indiana except as herein stated.
The owner of an owner occupied residence may perform work on the owner's sewer lateral outside of the public right-of-way or easement.

Anytime work is performed on a sewer lateral, a Sewer Permit is required for the purpose of documenting the work performed on the sewer lateral.

Plan approval by the City of North Vernon does not imply nor assure approval by IDEM. Plans are approved subject to the conditions of compliance with all applicable laws, rules, regulations and standards. The proposed project may be constructed only in accordance with the approved plans. There may be no deviation from the approved plans without the written approval of the City. Approval of the plans does not constitute an assurance that the proposed project will operate in compliance with all IDEM regulations.

Plans shall be submitted to IDEM for approval. The cost of submitting plans to IDEM and review by IDEM shall be paid by the Contractor. Construction shall not begin until such plans are approved by IDEM.

Due to Federal, State and City ordinances, all sewers connecting to the City of North Vernon's public sewer system shall comply with City of North Vernon standards.

Determination of the Amount of Sewage

Average Flows

The average flow of sanitary sewer shall be computed on the basis of 100 gallons per capita. The estimated flows listed are to be used only for the design of sewers and lift stations, and should not be used in the design of treatment plants.

WASTEWATER SOURCE	ESTIMATED SEWAGE FLOW (gallons per day)
Apartments	
One bedroom	200
Two bedrooms	300
Three bedrooms	350
Assembly Halls	
Per seat	2
Bowling Alleys (no food service)	
Per lane	75
Churches	
Small-per sanctuary seat	3-5
Large with kitchen-per sanctuary seat	5-7
Dance Halls	
Per person at maximum capacity	2
Factories	
No showers-per employee	20
With showers-per employee	35
Family Dwelling	
Per person	100

WASTEWATER SOURCE	ESTIMATED SEWAGE FLOW (gallons per day)
Single Family	400
Food Service Operations	
Ordinary restaurant (not 24 hours) per seat	35
24 hour restaurant-per seat	50
Banquet rooms-per seat	5
Restaurant along freeway-per seat	70
Tavern (very little food service)-per seat	35
Curb service (drive-in)-per car space	50
Hospitals	
No resident personnel-per bed	200
Laundries	
Coin operated-per machine (standard size)	400
Motels	
Per Unit	100
Nursing and Rest Homes	
Per patient	100
Office Buildings (exclusive of cafeteria or Office) per employee per shift	20
Add for cafeteria (.5 per sq. ft.)	5
Playgrounds and Daytime Parks	
With toilet facility-per person	5
Schools	
Elementary (not including showers or Cafeteria-per pupil)	15
High and Junior High (not including Showers or cafeteria) per pupil	20
Add for showers-per pupil	5
Service Stations	
Per rest room	400

WASTEWATER SOURCE	ESTIMATED SEWAGE FLOW (gallons per day)
Shopping Centers (without food service or Laundries)-per area of floor space	0.2/sq.ft.
Swimming Pool (average with hot shower)	
Per swimmer	10
Theaters	
Movie-per seat	5
Trailer Parks (mobile home parks)	
Per trailer space	300

Peak Flows

Sanitary sewers shall be designed on a peak flow basis using a peak factor of four (4) times the total calculated average daily wastewater flow for lateral sewers, and a peak factor of 2.5 for sub-mains and trunk sewers. Pumps and force mains should be designed to carry the peak flow of all the sewers that discharge into the lift station. The peak flow for area which do not have a 24-hour run-off period shall be calculated as follows:

$$\text{Peak Factor} \times \frac{\text{Calculated Wastewater Flow} \times 24 \text{ hours}}{\text{Run-off period (In Hours)}} = \_\_\_\_\_ \text{gpd}$$

Peak Factor = 4.0 for Sewer mains
Peak Factor = 2.5 for Trunk Sewers

ENTITY	RUN-OFF PERIOD
Municipality	24 hours
Factories	Length of Shift
Subdivisions (over 250 homes)	24 hours
Subdivisions (under 250 homes)	16 hours
Hospitals	12 – 24 hours
Schools	8 hours
Restaurants	16 hours
Mobile Home Parks	12 hours
Motels	4 hours

(Use of other run-off periods must be documented.)

Infiltration

An allowance of 15% of the daily peak sanitary flows shall be added to the above peak sanitary flows to establish daily infiltration levels to the treatment plant's drainage basin.

DETAILS OF DESIGN AND CONSTRUCTION

Minimum Size

All public sanitary sewers conveying raw sewage shall be at least eight (8) inches in diameter.

Depth

Sewers shall be deep enough to prevent freezing and to receive sewage from basements and cellars.

Location

Public sewer mains shall be installed in public right-of-way or upon approval, in public utility easement. A sewer maintenance area shall be provided by the formula:

(2.5 x depth of sewer line) + ten (10) feet

This sewer maintenance area shall be no less than twenty (20) feet and shall be totally within the public right-of-way or public utility easement. It shall be evenly divided on both sides of the sewer line.

Flow Velocity

All sanitary sewers shall be designed to give a mean velocity of at least 2.0 feet per second, when flowing full; this is based on Manning's formula using an "n" factor of 0.013 in design. Use of other "n" values will be considered if shown justifiable on the basis of extensive field data. When velocities greater than fifteen (15) feet per second are expected, provisions should be made to protect against displacement and erosion of the pipe.

Minimum Allowable Slope

The minimum allowable slope shall be that which results in a velocity of at least two (2) feet per second when the sewer pipe flows at ¾ of full depth. Sewers 24 inches or less shall be laid with uniform slope and straight alignment between manholes. The line and grade alignment shall be checked with laser instrument whenever possible: use of batter boards is also acceptable.

Sewer Size	Min. Slope to Obtain 2.0 FPS Velocity (ft./100 ft.) (n-0.013)	Approx. Capacity Minimum Slope (GPD)	Approx. Capacity Minimum Slope (CFS)
8”	0.40	520,000	0.80
10”	0.28	750,000	1.16
12”	0.22	1,100,000	1.70
15”	0.15	1,680,000	2.60
18”	0.12	2,330,000	3.60

Steep Slopes

If plans are submitted for approval with a slope less than the minimum, the consulting engineer must show justification for the recommendation.

Sewers on 15% slope or greater shall be anchored with concrete anchors spaced as follows:

a. Not over 36 feet center to center on grades 20% to 35%.

b. Not over 24 feet center to center on grades 35% to 50%.

c. Not over 16 feet center to center on grades 50% and over.

Changes in Pipe Size

When a smaller sewer discharges into a larger one, the invert of the larger sewer much be lowered sufficiently to maintain the same energy gradient. An approximate method to accomplish this is to place the 0.8 depth point of both sewers at the same elevation.

When a larger sewer discharges into a smaller one, the invert of the smaller sewer should not be raised to maintain the same energy gradient.

CONNECTIONS

Roof drains, foundation drains and all other clean water connections to the sanitary sewer system are prohibited. The following shall appear on sanitary sewer plans and construction plans submitted to the City and IDEM for review:

> **“No buildings shall be connected to a sewer lateral until the building is under roof. Roof drains, foundation drains, foundation sump pumps and all other clean water Connections are prohibited to the sanitary sewer system.”**

APPENDIX F

RE-USE STORE

A GREAT WAY TO RECYCLE

Do you have any unwanted, but still usable, items around the house? If so, take them to the Reuse Center!

- Appliances
- Tables
- Electronics
- Books
- Shelving
- Screens
- Toys
- Clothing
- Windows
- Tools
- Fitness Equip
- Knick Knacks

The center provides an alternative way for items to be "recycled". Bring something in, take something out! All items left at the center are available to any Jennings County resident at no cost. Items from the center are not intended to be resold. Please don't abuse the generosity of others. No upholstered items.

Shopping Hours
Mon, Wed, Fri… 1pm – 6pm
Saturday 11am – 3pm

DID YOU KNOW...

...the Southeastern Indiana Recycling District Re-Use Stores have over 55,000 visits per year? Thanks to the many who regularly donate good, usable items to SEIRD.

WHAT WE DO

RECYCLING
- Staffs and maintains 7 Recycle Centers in the district
- Collects recyclables at 50 schools weekly
- Assists in 14 satellite recycling locations

EDUCATION
- Adult / Youth Education Presentations throughout the seven county district
- Annual Scholarship Program for high school seniors in district
- Provides Recycling Rebates to 50+ schools
- Quarterly recycling education publication distributed through schools / newspapers

RE-USE STORES
- Staffs and manages 7 ReUse Stores throughout the district
- Re-Use stores host over 1200 visitors weekly

GRANT PROGRAMS
- Recycling grants provided to the 9 communities offering curbside recycling
- Recycling grants provided for counties offering satellite recycling opportunities

COUNTY ASSISTANCE
- SISWD prepares trash / recycling bids & contracts for district cities, towns, counties
- SISWD assists counties in maintaining environmental compliance standards
- SISWD works with / supports area chambers, safety programs, local events, etc.

DISASTER DEBRIS ASSISTANCE
- SISWD assists all 7 counties in the removal of debris from disasters such as tornadoes, floods, ice storms, etc.
- SISWD prepares damage assessment volumes throughout the district to help communities in removal cost calculations
- SISWD is responsible for removal of difficult to dispose of items left in the wake of a disaster

LOCATION

The Recycling Center is located behind the Jennings County Highway Garage, next to the fairgrounds.

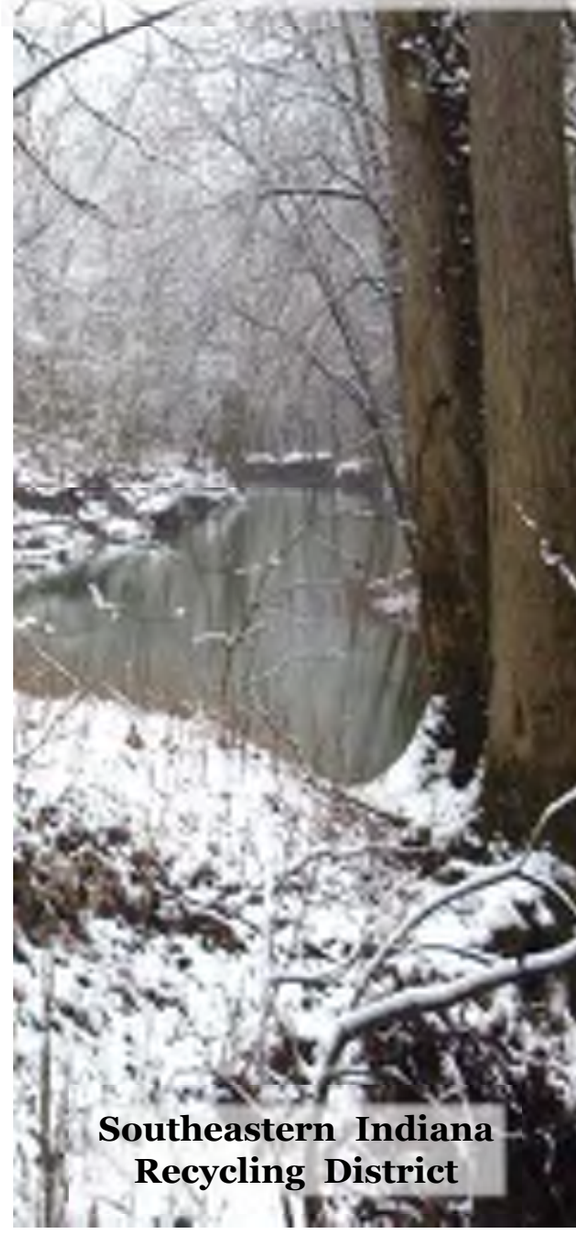
Jennings County Recycling Center
4800 State Road #3
North Vernon, IN 47265
Phone: 812.352.0800
Mon., Wed., Thur., Fri: 8am – 6pm
Sat: 8am – 4pm

2014-15 Holiday Closings Schedule
December 24-25 Christmas
January 1 New Year's Day
January 19 Martin Luther King Jr
February 16 President's Day

This service is provided for the residents of Jennings County to recycle household items. Please note that only the materials listed inside this brochure will be accepted.

Southeastern Indiana Recycling District
6556 North Shun Pike Rd. JPG #534
Madison, IN 47250
812.574.4080 800.997.4793
www.seird.org

Jennings County Recycling Guide Winter 2014



Southeastern Indiana Recycling District

ACCEPTED RECYCLABLES

PAPER PRODUCTS

- CORRUGATED CARDBOARD & PAPERBOARD
  Boxes should be broken down and flattened.
- NEWSPAPER
  Must be dry and bundled. Please do not use paper or plastic bags.
- MIXED PAPER
  Office, computer paper, junk mail. Keep dry.
- MAGAZINES
  Materials including magazines and unwanted phone books. Must be kept dry and bundled.

GLASS

- GLASS BOTTLES
  All glass food and beverage bottles: clear, green, brown. Please rinse.

PLASTIC BAGS

- Clean, dry plastic grocery bags. Also shrink wrap, dry cleaner bags, drink carton wraps.

PLASTICS

- PLASTIC CONTAINERS #1- #7
  Soft drink, soda bottles, milk & juice jugs, detergent & bleach containers. Household containers only. Please rinse.

121614

ACCEPTED RECYCLABLES

BATTERIES

- CAR BATTERIES
  Must not be cracked. Cells must be capped.
- RECHARGEABLE BATTERIES
  Rechargeable batteries are accepted. Please no alkaline batteries.

METALS & ALUMINUM

- ALUMINUM
  Soft drink and beer cans. Please rinse and separate from metal cans.
- STEEL / TIN
  Food, soup, vegetables, etc. Please wash.
- SCRAP METAL
  Remove gas tanks, fuels, batteries from appliances. No wire fencing.

FLUORESCENT BULBS

- LIMIT: 8 Tubes.

The following items **will not** be accepted:

- Fuel tanks
- Household Hazardous Waste
- Window or plate glass
- Paper / Cardboard that is wet
- Alkaline batteries

Please do not leave items after hours.

PROBLEM WASTES

REFRIGERANTS

- ACCEPTABLE ITEMS INCLUDE:
  Refrigerators, air conditioners, freezers, dehumidifiers. Currently no disposal fee.

ELECTRONICS

- COMPUTERS & MONITORS (Limit of 2)
- STEREOS, DVD PLAYERS, PHONES, VCRs, PRINTERS, SCANNERS.
- TELEVISIONS (Limit of 2)
  Currently no disposal fee.

OIL, FILTERS, ANTIFREEZE

LIMIT: 5 gallons of motor oil.

USED TIRES

- AUTO / PICK UP (Limit 10)
  $1 off rim. $2 on rim.
- TRACTOR (Limit 4 total)
  Front tire: $3. Rear tire: $10.
- SEMI TRUCK TIRES (Limit: 4)
  $5 off rim. $10 on rim.

PROBLEM WASTES

HOUSEHOLD HAZARDOUS WASTE

Special HHW collection dates have been set for **2015**. Accepted (NO fee): Cleaning chemicals, oil based paints and stains, pesticides and herbicides, acids, fluorescent bulbs, flammables, mercury items, etc. **The next date for HHW disposal in Jennings County: Mar. 14, 2015 from 8-10am at the Recycle Center.**

PHARMACEUTICAL WASTE

Jennings County residents may dispose of (at NO fee) non-controlled and controlled medicines at the Jennings Cty Sheriff's Dept. Please contact the health dept. for sharps disposal.

ADDITIONAL RECYCLING OPPORTUNITIES

For residents of Jennings County who live some distance from the Recycle Center there are recycling drop off opportunities at **Scipio** (behind the firehouse and Jennings Industries) and at the **Butlerville** Grocery.

APPENDIX G

CITY OF NORTH VERNON
JENNINGS COUNTY, INDIANA

WASTEWATER COLLECTION SYSTEM

NOTE: NORTHWEST AND NORRIS SUBBASINS ARE SEPARATE SEWERS. ALL OTHER SUBBASINS ARE COMBINED.

1" = 400'

NORTHWEST SUBBASIN
SECOND ST. SUBBASIN
NORTHEAST SUBBASIN
SOUTHWEST SUBBASIN
DOWNTOWN SUBBASIN
EAST SUBBASIN
SOUTHWEST SUBBASIN
SOUTHEAST SUBBASIN
NORRIS SUBBASIN

LIFT STATION # 9 NVIC
LIFT STATION # 10 NORTHWEST
LIFT STATION # 8 SECOND STREET
LIFT STATION # 6 THIRD ST. NORTH
LIFT STATION # 5 THIRD ST. SOUTH
LIFT STATION # 4 NORTHEAST
LIFT STATION # 7 KREUTZIANS
LIFT STATION # 3 SUMMIT ST.
LIFT STATION # 2 THOMPSON'S
LIFT STATION # 1 HIDDEN RIVER
LIFT STATION # 20 TWIN OAKS
LIFT STATION # 18 SPRING HEIGHTS
LIFT STATION # 19 PARK AVENUE
LIFT STATION # 17 WHITEY MILLER
LIFT STATION # 22 SOUTHWEST
LIFT STATION # 14 NORRIS AVENUE

2 MILES ± 4" FORCE MAIN FROM LIFT STATION # 21 SAND CREEK
4" FORCE MAIN FROM OTA LIFT STATION
8" FORCE MAIN
12" FORCE MAIN
QUAKER HILLS (UNDER CONSTRUCTION)

CORPORATE LIMITS
ANIMAL CONTROL
AIRPORT
ST. ANNE'S GOLF COURSE
MASCOTECH
LOWE'S
O'MARA
LIBRARY
Armory
City Park
St Marys Cem
Hill Crest Cemetery
Stone Quarry
Water Treatment
Wastewater Treatment
MUSCATATUCK GOLF COURSE
MUSCATATUCK COUNTY PARK
North Vernon
Radio Tower
Substation
Woods
Branch
VERNON
AERIAL CROSSING
CSO-002

Revision	Drawn By	Date
1	BB	Dec 20, 1996
2	BB	Aug 26, 1997
3	BB	Nov 20, 1997
4	BB	~~Aug 25, 2000~~

FEWELL, PETTITT, BENDER, HAUERSPERGER & ASSOCIATES, INC.
Engineers • Surveyors • Designers • Inspectors
73 Medical Plaza
P.O. Box 412
Batesville, IN 47006
Phone: (812) 934-2562
Fax: (812) 934-2561
138 East Washington
P.O. Box 147
North Vernon, IN 47265
Phone: (812) 346-2046
Fax: (812) 346-8041
www.fpbhonline.com

SCALE: 1" = 400' DRAWN BY: BB CHECKED BY:
DATE: SEPTEMBER 16, 1996 JOB NO: 95-2390
FOR: CITY OF NORTH VERNON - WASTEWATER
CITY MAP
WASTEWATER
COLLECTION SYSTEM

DRAWING NO 1 OF 1