FRANKLIN COUNTY STORM WATER MANAGEMENT PROGRAM

Illicit Discharge Detection and Elimination Plan

Version 2.2

Revised: January 2020

Table of Contents

List of Figures

Appendix

SECTION 1.0 Introduction

This document outlines the process that Franklin County and the Townships within Franklin County are taking to address public health concerns and water quality issues related to illicit discharges within the boundaries of their respective jurisdictions. Within the purview of the permit for which this document was produced, **effluent from Household Sewage Treatment Systems (HSTS) is considered the primary areas of focus for illicit discharges**.

A substantial investment in time, money, and energy is responsible for the progress made to date with defining and documenting the issues surrounding HSTS. These efforts have involved identifying the locations of HSTS throughout Franklin County, Field Verification and Dry Weather Screening (DWS) of Municipal Separate Storm Sewer (MS4) outfalls, mapping of the stormwater sewer system, establishing ordinances and zoning requirements, and planning for community education, outreach and the means for addressing illicit discharges.

The National Pollution Discharge Elimination System (NPDES) Small MS4 Stormwater General Permit (OHQ000002) defines the area of responsibility of the permittees to the locations that meet two requirements. First, the area of responsibility includes the MS4s, which the permittee owns and operates. Second, the area of responsibility must fall within the areas designated by the latest United States Census as 'Urbanized Areas'. Figure 1.0 shows the Urbanized Areas of Franklin County; refer to Appendix B– Definition of Urbanized Areas.

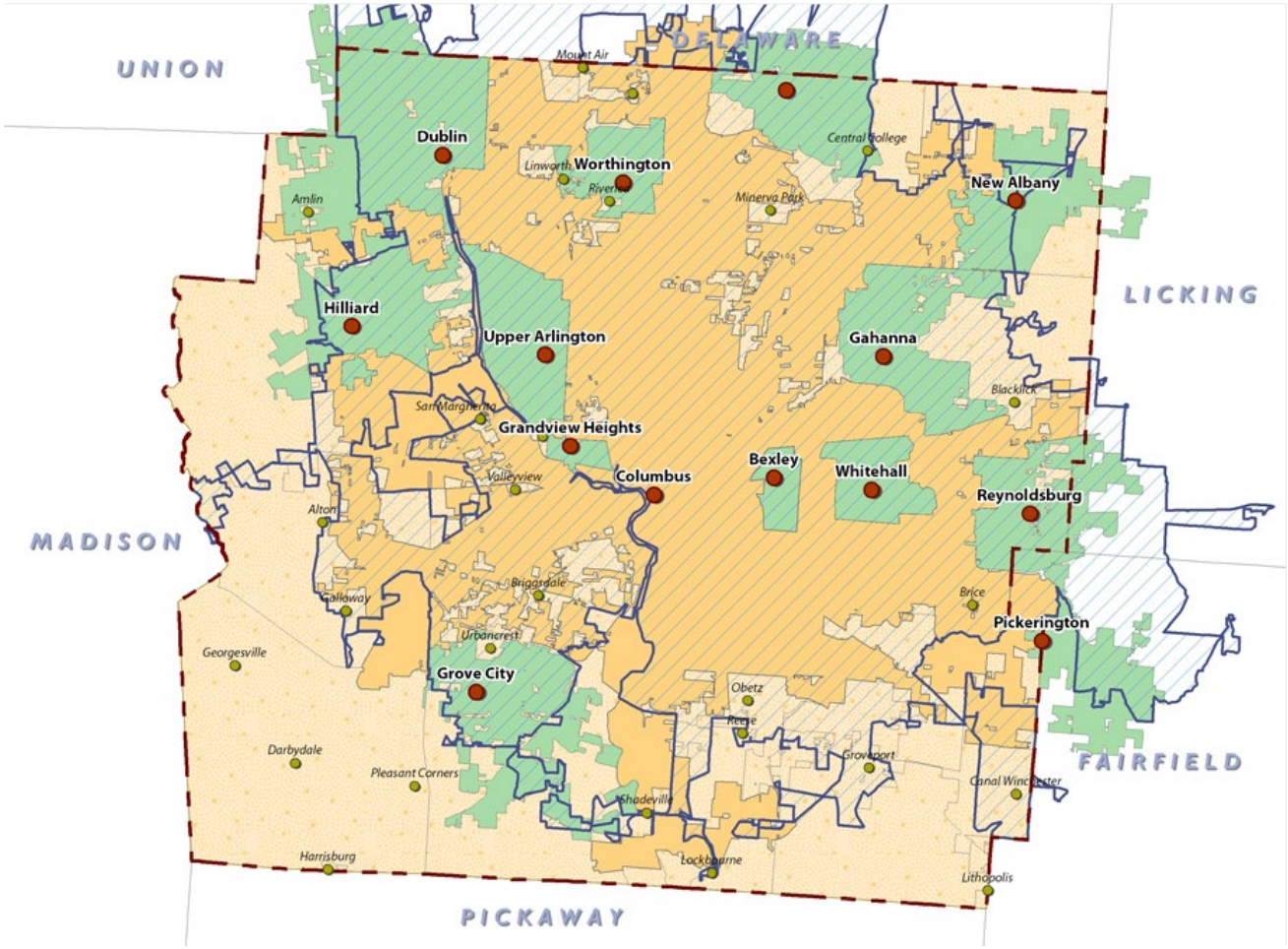

Figure 1.0 **Urbanized Areas of Franklin County. The urbanized areas are the 'hatched' areas within the blue boundary. Shown with pre-2010 census update for urbanized area.**

While the entirety of unincorporated Franklin County is the focus of the Stormwater Partnership agencies, the urbanized areas as identified in the US Census are the focus of the NPDES stormwater permit activities, thus making the minimum requirements of the NPDES permit a subset of the overall effort and direction stormwater efforts in Franklin County. This decision was based on two predominant factors. First, many of the entities contributing to meeting the requirements of the permit are responsible for the whole of their jurisdiction, not only the areas designated as Urbanized Areas. As such, the belief is that all residents are due the efforts of the various county agencies and none should be ignored when public health risks exist. Secondly, due to the irregular boundaries of the municipalities in Franklin County, the areas of responsibility are disparate. Including another 'imposed' boundary only adds to greater segregation and increased difficulty in planning and tracking processes.

As has been determined by actions taken to date by Franklin County and many other counties within Ohio, the impacts of HSTS are prevalent, widespread, and very costly to address both financially and in terms of human resources. However, in keeping with the published guidelines for the NPDES Small MS4 Stormwater General Permit (OHQ000002), Franklin County and its co-permittees are undertaking the task of addressing illicit discharges to the maximum extent practical and as is legally, feasibly, and economically, viable.

SECTION 2.0 Policy Statements and Guiding Principles

FCPH, FSWCD, and the Franklin County officials responsible for the implementation of the Franklin County NPDES Storm Water Permit developed policy statements and guiding principles for the community to understand the framework and strategies that will be adhered to when working towards meeting the permit requirements summarized in this IDDE Plan. These policy statements and guiding principles are outlined as follows:

1. As required by the OEPA, and in accordance with the Franklin County NPDES Storm Water Permit, FCPH will educate citizens and property owners about the risk to public health from recreation in streams and water bodies containing discharges from Household Sewage Treatment Systems, educate owners of these systems to assist in improving water quality by properly operating and maintaining their existing sewage treatment systems to prevent public health nuisances.
2. The OEPA under the authority of the Franklin County NPDES Storm Water Permit requires that household and semi-public[1] aeration discharging systems, or any HSTS that is directly connected to an MS4 covered by the Franklin County NPDES Storm Water Permit (storm sewers and ditches owned by the County and Townships), are identified. FCPH is identifying these systems and will use these data to determine if these systems are causing a public health nuisance as defined by ORC 3718 and Franklin County Public Health Regulation 720.
3. As required by Ohio law and the OEPA under the authority of the Franklin County NPDES Storm Water Permit, FCPH will enforce the public health nuisance statute as defined in ORC Chapter 3718 and Franklin County Public Health Regulation 720.
4. It is recommended that citizens and property owners monitor their access to and exposure in ditches and streams that may be contaminated with bacteria from aeration discharging systems, and to test their well water frequently if there is any concern that contamination may be occurring from any source, including soil absorption systems.
    a. Bacterial contamination standards for streams and ditches are set by the OEPA and are applied to exposures (ingestion of surface water) from recreational use of that stream or other waterways such as canoeing, fishing, wading, and swimming.
5. Franklin County officials will continue to work with townships, surrounding communities, and the City of Columbus to identify pollution sources from these jurisdictions entering Franklin County's MS4s, opportunities for sewer extensions, and alternatives for treating household sewage. County officials will also continue to look for funding opportunities to finance sewer

extensions as well as address economic hardship situations for low-income residents to connect to sanitary sewer or to upgrade or replace their HSTS.

6. FCPH and the FSWCD will develop long-range strategies to eliminate illicit discharges and promote proper operation/maintenance of HSTS countywide. Franklin County officials realize that any long-range plan needs to be flexible and reviewed annually to adapt to changes in the regulatory environment, the availability of funding mechanisms, and other unforeseen social, political, or economic conditions.
7. FCPH maintains an operation/maintenance program for all aeration treatment systems that discharge to MS4s, watercourses, field tiles or other sources. This program includes permitting, annual observations of the discharging system, and enforcement of aeration treatment systems that create illicit discharges and/or public health nuisances.
8. FCPH is evaluating the development of a countywide operation/maintenance program for all soil absorption systems. This program may require owners of soil absorption systems to have an operation permit. The permit period and frequency of inspections is to be determined.
9. FCPH has been granted authority by Ohio EPA through a MOU to conduct inspections of semi-pubic treatment systems in Franklin County. FCPH also has authority under ORC 3718 to inspect small-flow treatment systems. Some of these treatment systems are discharging systems. These systems are to be inspected on an annual basis and enforcement of public health nuisances caused by these systems is the responsibility of FCPH.

See **Figure 3.1 HSTS in unincorporated Franklin County**, below, for a graphic showing the distribution of various types of HSTS throughout Unincorporated Franklin County.

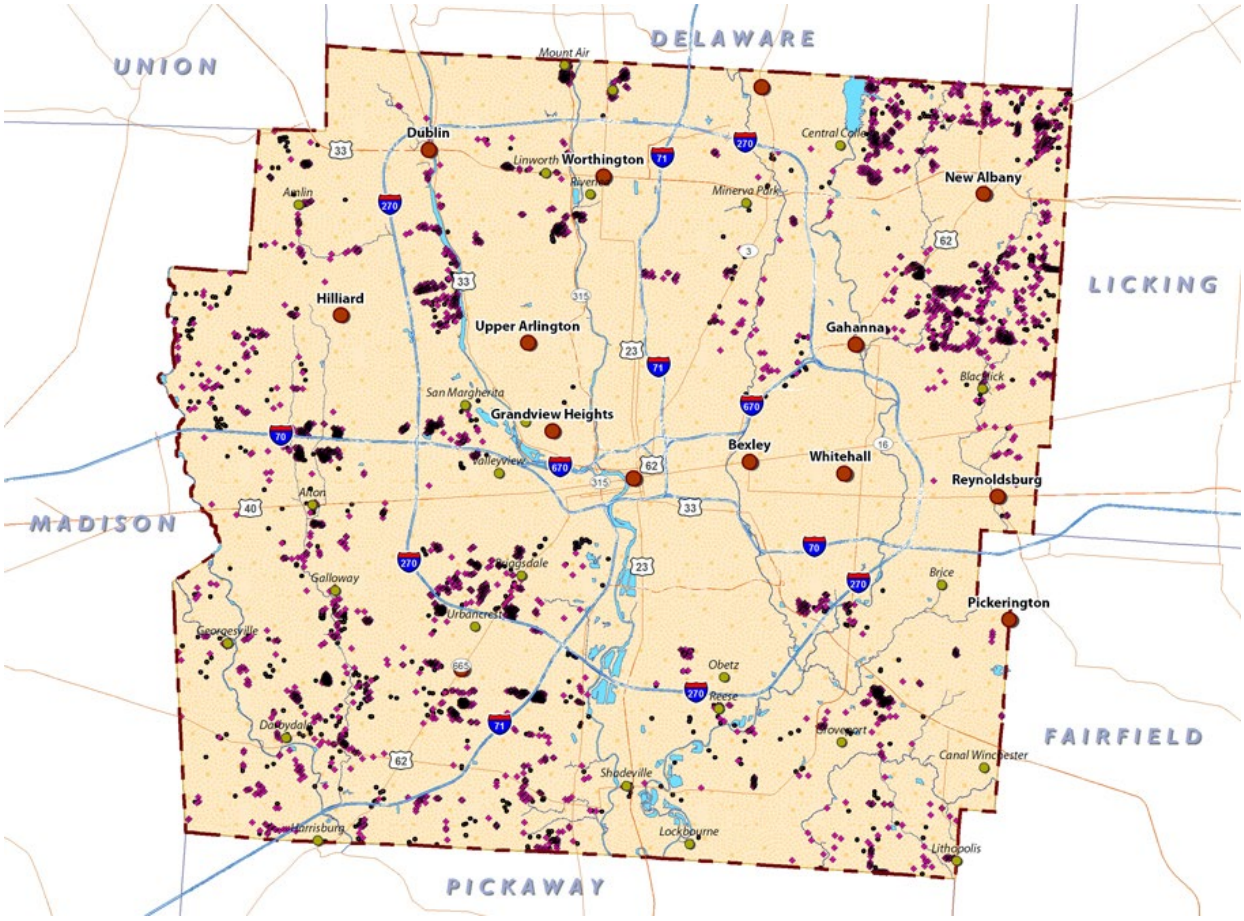

Figure 3.1 – HSTS in unincorporated Franklin County

SECTION 3.0 General Permit Information

This document was produced in accordance with the NPDES Small MS4 Stormwater General Permit (OHQ000002) issued to Franklin County by Ohio Environmental Protection Agency (OEPA). This permit was made effective on January 30, 2009, and is to remain in effect until January 29, 2014. This document is subject to periodic updates as progress is made with the various requirements of the permit and as OEPA clarifies or modifies the language of the permit.

> "*As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches…. Since its introduction in 1972, the NPDES permit program is responsible for significant improvements to our Nation's water quality."* (Source: http://cfpub.epa.gov/npdes/index.cfm)

For the NPDES Small MS4 Stormwater General Permit issued to Franklin County, the Franklin County Commissioners are the Permittee with the County Engineer and the 17 townships as Co-Permittees. With this arrangement, a more comprehensive approach and leverage of resources is utilized to meet, or exceed the regulations of this permit. The County Engineer is the primary contact for all concerns related to the NPDES Permit.

In accordance with Part III of the NPDES Small MS4 Stormwater General Permit, a Stormwater Management Program (SWMP) was developed to outline the methodology and rational to be used to satisfy the appropriate water quality requirements of Ohio Revised Code (ORC) Chapter 6111 on water pollution control and the Federal Clean Water Act. This SWMP includes management practices, control techniques, system designs, and engineering methods and addresses the following six Minimum Control Measures (MCM):

1) public education and outreach
2) public participation / involvement,
3) illicit discharge detection and elimination (IDDE)
4) construction site runoff control
5) post-construction runoff control
6) pollution prevention / good housekeeping for municipal operations.

This document is required as specified in Part III, Section 3.e of the NPDES Small MS4 Stormwater General Permit, with Section 3 being the IDDE minimum control measure.

SECTION 3.1 Supporting Documents

This document does not stand in isolation. It is part of a much larger stormwater management effort and as such, should be considered in coordination with the following documents and programs:

Federal Clean Water Act

NPDES Small MS4 Stormwater General Permit (OHQ000002)

Ohio Revised Code

Franklin County Commissioners' Storm Water Program

Franklin County Stormwater Management Manual

Franklin County and Township Stormwater Management Program

Franklin County and Township IDDE Communication and Outreach Plan

SECTION 3.2 Coordinating Agencies

This document reflects the cooperative effort by several departments and agencies dedicated to addressing public health issues and protecting and managing water resources. The following partner agencies are involved with this effort:

Franklin County Commissioners
Franklin County Engineer (FCE)
Franklin County Drainage Engineer (FCDE)
Franklin County Townships:
Blendon, Brown, Clinton, Franklin, Hamilton, Jackson, Jefferson, Madison, Mifflin, Norwich, Perry, Plain, Pleasant, Prairie, Sharon, Truro, Washington
Franklin County Sanitary Engineer (FCSE)
Franklin County Public Health (FCPH)
Franklin Soil and Water Conservation District (FSWCD)
Franklin County Economic Development and Planning (FCEDP)
Franklin County Public Facilities Management (FCPFM)
Franklin County Fleet Management (FCFM)
Mid Ohio Regional Planning Commission (MORPC)

SECTION 4.0.0 Illicit Discharge: Definition

Stormwater regulations define an "illicit discharge" as:

"any discharge to a municipal separate storm sewer (MS4) that is not composed entirely of stormwater."

Common sources of non-stormwater, dry weather discharges in urban areas include apartments and homes, car washes, restaurants, airports, landfills, and gas stations, to name but a few. These so-called "generating sites" discharge sanitary wastewater, septic system effluent, vehicle wash water, washdown from grease traps, motor oil, antifreeze, gasoline and fuel spills, among other substances. Although these illicit discharges can enter the storm drain system in various ways, they generally result from either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system, spills, or "midnight dumping"). Illicit discharges can be further divided into those discharging continuously and those discharging intermittently. (Source: EPA. http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=111)

SECTION 4.0.1 Public Health Nuisance

Franklin County Public Health staff has the authority to enforce Franklin County Public Health Regulation 720 (http://myfcph.org/pdfs/regs/720Sewage.pdf) and Ohio Revised Code 3718.011 and 6111 for the resolution of illicit discharges determined to be causing a public health nuisance.

SECTION 4.1 Illicit Discharge Exceptions

The following are discharges NOT considered to be Illicit Discharges under the County's MS4 Permit.

- air conditioning condensation
- dechlorinated swimming pool waters
- discharges from potable water sources
- discharges or flows from fire fighting activities
- diverted stream flows
- flow from riparian habitats and wetlands
- footer drains
- foundation drains
- individual residential car washing
- landscape irrigation/lawn watering
- rising ground waters
- springs
- street wash water
- uncontaminated groundwater infiltration (not inflow)
- uncontaminated pumped groundwater
- water from crawl spaces and sump pumps
- water from firefighting activities
- water from footer drains
- waterline flushing

SECTION 4.2 Municipal Separate Storm Sewer System (MS4): Definition

An MS4, as defined by Environmental Protection Agency (EPA) is:

> "the conveyance or system of conveyances (including roads, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a public body, designed and used for collecting storm water, is not a combined sewer, and is not part of a Publically Owned Treatment Works (POTW)."

SECTION 5.0 Enacted Stormwater Legislation and Legal Authority

A Franklin County Stormwater Partnership and program was initiated in 2003 to join local programs related to drainage management, water quality management, and stormwater regulation compliance, including the NPDES Small MS4 Stormwater General Permit (OHQ000002). The partnership was formed between the Franklin County Engineer, Franklin County Economic Development and Planning, Franklin County Sanitary Engineer, Franklin County Public Health, Franklin Soil and Water Conservation District and 17 townships. More recently, Franklin County Public Facilities Management (FCPFM), Franklin County Fleet Management (FCFM), and Mid Ohio Regional Planning Commission (MORPC) have joined the partnership.

The related stormwater regulations are authorized by the Federal Clean Water Act, mandated by the US EPA and executed by the OEPA, Division of Surface Water. This Franklin County Stormwater Partnership is part of a progressive effort to reduce the volume of stormwater and manage pollution captured by stormwater that is conveyed through MS4s to community ditches and streams.

Legislation enabling stormwater regulations:

Clean Water Act (Federal law)

A complete copy of Chapter 26 of Title 33 of the United States Code, also known as the Clean Water Act, is available through Cornell University: http://www.law.cornell.edu/uscode/33/ch26.html. In addition, a brief history is provided by United States Environmental Protection Agency: http://www.epa.gov/lawsregs/laws/cwa.html

Ohio Revised Code (State laws)

The following is a list of Ohio Revised Code chapters related to programs in the Division of Surface Water. These chapters can be referenced or downloaded from http://codes.ohio.gov/.

ORC Chapter 3745: Environmental Protection Agency
Creates and establishes powers of the Ohio EPA

ORC Chapter 6111: Water Pollution Control
Specifies powers of the Ohio EPA with regard to water pollution control.

ORC Chapter 6117: Sewer Districts; County Sewers
Authorizes the establishment of sewer districts

ORC Chapter 6119: Regional Water and Sewer Districts
Authorizes the establishment of regional water and sewer districts

SECTION 5.1 Local Controls Related to Stormwater Regulation

Ohio Revised Code; Chapters:

3707

3709

3718

3767

Franklin County Public Health Regulation 720

SECTION 6.0 HSTS, and MS4 Mapping

Franklin County Phase II NPDES Stormwater Permit partner agencies have made significant strides in mapping our MS4s and HSTS in the unincorporated areas of Franklin County. This effort has developed as four separate, but interactive and overlapping efforts which used "*Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments"*, developed by Center for Watershed Protection as a guiding document at the inception of the efforts.

To date, these four efforts are referred to as: 1. Stream Resource Geodatabase, 2. Outfall Reconnaissance Inventory (ORI) 3. Dry Weather Screening (DWS), and 4. County Stormwater Mapping. Each of these efforts were developed by means of a Geographic Information System (GIS) utilizing, field data, engineering plans, geo-referenced aerial photography, and various other shared digital data sets.

SECTION 6.1 Stream Resource Geodatabase

The Stream Resource Geodatabase project was initiated in 1995 to map petition drainage in Frankly County. The petition drainage layer along with the Franklin County Auditor's primary and secondary hydrology layers was utilized as the base data for the first generation NPDES permit. From 2001 through 2007, this dataset was greatly expanded in conjunction with the ORI (See below) to include a much higher resolution drainage layer developed from field verification work and increased access to high-resolution aerial photography. This enhanced dataset includes directionality of flow, United States National Hydrography Dataset nomenclature, stormwater connectors, and a variety of other descriptive attributes. This dataset documents the 'Waters of the State' as defined in the NPDES permit as well as subsurface drainage components when these data layers are available.

The connectivity and directionality inherent in this data set allows users to discern directions of flow for all segments of the dataset. This ability allows users to determine where the stormwater will flow from any given location, as well as the structures and/or features that contribute flow to any given location. All of the features within this dataset are associated with stream names as well as the larger watersheds.

This dataset continues to be updated daily as additional data is obtained through field work and as new stormwater sewer locations are made available. FSWCD has dedicated a full time staff position to this effort since 2001.

SECTION 6.2 Outfall Reconnaissance Inventory (ORI)

The ORI was undertaken from 2001 through 2007. This project required extensive field work, as Franklin Soil and Water staff walked over 1,600 miles of stream collecting the geospatial location and descriptive attributes of drainage features with Global Positioning System (GPS) data loggers with sub-meter accuracy. All data was differentially corrected, manually adjusted to match current aerial photography and imported into a file geodatabase with links to digital photos from the field. This point database is currently comprised of over 40,000 data points categorized by watershed.

SECTION 6.3.0 Dry Weather Screening (DWS)

To identify illicit discharges, a process known as DWS is utilized. This process requires field inspection of drainage features (components of the MS4) during periods of dry weather. Dry weather for this screening is defined as having a maximum of 0.1" of rain during the previous 72 hours. This 'dry weather' protocol helps to minimize flows due to rain or snow melt events and highlights illicit discharges.

DWS entails recording a variety of characteristics for each feature screened, including a physical description of the drainage feature, any indicators suggesting an illicit discharge, and a digital photograph of the feature. GPS data loggers are used to record the location and descriptive information of the features. This data is then processed, analyzed, and mapped utilizing GIS. The analysis assists in determining which drainage features are likely to contain illicit discharges. **(Refer to Appendix D for the specific characteristics recorded for the various drainage features during DWS)**

The groups of features screened during this process are:

Flowing Pipes: outfalls with flow at the time of screening

Note: outfalls with flow within catch basins are included in this group

Non-Flowing Pipes: outfalls with no flow at the time of screening

Note: outfalls without flow within catch basins are included in this group

Flowing Channels: constructed or man-made channels with flow at the time of screening

Non-Flowing Channels: constructed or man-made channels without flow at the time of screening

Catch Basins: catch basins with or without flow at the time of screening

Generic Points: locations not fitting into the above categories, but which are of interest to stormwater management and illicit discharges: i.e. seeps, unknown water sources, dump sites, etc.

In addition to the features dry weather screened, the locations of crossovers (drainage passing under roadways or structures), and manholes are collected to assist in developing stormwater flow lines in the Stream Resource Geodatabase. To allow efficient referencing and tracking of the features dry weather screened, a nomenclature was developed for the various types of features screened which associated

each feature with the year it was screened and the township in which it is located**.** FSWCD has coordinated with FCPH on the DWS since 2006 and has dedicated one full time employee and at least two additional seasonal staff on a yearly basis to this effort. **(Refer to Appendix C for an explanation of the nomenclature used with DWS)**

SECTION 6.3.1 *Identifying Potential Illicit Discharges*

Features are categorized by their potential to be a source of illicit discharge and whether or not they are an obvious (severe) source of an illicit discharge. The criteria used to identify potentially illicit discharges are considered stand-alone indicators. These are odor, color, floatables, poor pool quality, benthic growth, and deposits and stains. The presence of at least one of these criteria can designate the outfall as potentially illicit.

It is important to identify obvious (severe) sources of illicit discharge during dry weather screening, because the presence of obvious indicators (e.g. raw sewage) allows that feature to be prioritized for future follow-up investigation and resolution. For a location to be determined as an obvious (severe) source of an illicit discharge, it must have at least one of several specific, pre-defined stand-alone indicators. **(Refer to Appendix E for criteria used for classifying illicit discharges)**

SECTION 6.3.2 *Effluent Sampling*

To better understand what was being observed during dry weather screening and to verify the accuracy of the dry weather screening effort, follow-up effluent sampling of potential illicit discharges were done for the first several years dry weather screening as funding and planning allowed. These water samples were processed at an OEPA certified lab to determine the amounts of pollutants such as Ammonia, Ammonia Nitrogen, E.Coli, Fecal Strep, Fecal Coliform, Methylene Blue Active Substances (MBAS), and Ortho Phosphates. These lab results were included in the GIS and provided to FCPH.

This additional step confirmed the accuracy of the dry weather screening process and due to this has been discontinued as part of the screening process.

The following is a brief description of the substances sampled:

E. coli - Escherichia coli, is a species of fecal coliform bacteria that is specific to fecal material from humans and other warm-blooded animals. EPA recommends E. coli as the best indicator of health risk from water contact in recreational waters. Ohio's surface water quality standards are in the process of being revised. In the Draft Revisions to Water Quality Standards Ohio Administrative Code (OAC) Chapter 3745-1 E. coli will be used as the sole indicator for public health nuisances. Results reported in colony forming units per 100 milliliters (cfu/100 mL).

MBAS - Methylene Blue Active Substances (surfactant): detergent indicator. Results reported in milligrams per liter (mg/L).

NH3 - Ammonia: pollutant and an indicator of sewage. Results reported in milligrams per liter (mg/L).

NH3N - Ammonia Nitrogen: pollutant and an indicator of sewage. Results reported in milligrams per liter (mg/L).

Total Plate Count - The number of bacterial colonies that develop on a medium in a petri dish seeded with a known amount of inoculum. Results reported in colony count (#CC).

SECTION 6.3.3 Dry Weather Screening and Mapping Schedule

Dry weather screening continues on an annual basis and as the MS4 mapping develops new locations are visited as needed. A comprehensive review off all dry weather screening and the initiation of a long-term monitoring plan for the MS4 is expected to be completed in 2018.

SECTION 6.4 County Stormwater Mapping

Starting in 2010, a cooperative effort between the FCDE and FSWCD was initiated to develop stormwater sewer mapping (MS4) for areas of Franklin County and the 17 townships. This mapping involves referencing engineering drawings as well as field verification of features and feature locations for the development of several GIS data layers. This data is being developed for incorporation into the existing Stream Resource Geodatabase, and will be added to the Stream Resource Geodatabase as the data becomes available.

This effort will also require cooperation and coordination with the townships due to the lack of storm sewer mapping through a majority of the township jurisdictions. There is considerable institutional knowledge on the location and condition of the storm sewers, but this knowledge has not historically been translated into plans (hard copy or digital).

SECTION 7.0 FCPH Operation and Maintenance Program

FCPH maintains an operation/maintenance program for all aeration treatment systems that discharge to MS4s, watercourses, field tiles or other sources. This program includes permitting, annual observations of the discharging system, and enforcement of aeration treatment systems that create public health nuisances and/or illicit discharges. Water Quality environmental health technicians conduct annual observations of all aeration treatment units in Franklin County as per the operation/maintenance program. If by the second observation, the system does not appear to be functioning correctly, a referral to the IDDE Program occurs for further investigation and enforcement by sanitarians.

Section 7.1 FCPH IDDE Program Investigations and Enforcement

IDDE Program staff sanitarians are responsible for investigating all sewage nuisance complaints. The nuisance complaints investigated by staff sanitarians come from the FCPH Operation and Maintenance Program, complaints from the general public, and referrals from partner agencies. When it is alleged or a complaint is made that an HSTS is causing a public health nuisance as defined in R.C. 3718.011 and/or Regulation 720, then Public Health has the authority to investigate such complaints and allegations. Upon staff verification of a public health nuisance , the enforcement process for public health nuisances will be followed, whether or not it is an illicit discharge as defined by OPEA, is outlined in Appendix H and the "Franklin County And Township Stormwater Management Program 2009 – 2013" document.

Section 7.2 Connection to Central Sanitary Sewer

Public Health possesses the authority to require that whenever a central sanitary sewerage system is determined to be available and accessible to a property with an HSTS, the household sewage treatment system shall be abandoned and the house sewer directly connected to the central sewerage system. This authority applies regardless of the manner by which the sanitary sewerage system was constructed, or the operational condition of the HSTS. A similar process of enforcement will be followed as outlined in the "Franklin County And Township Stormwater Management Program 2009 – 2013" document, which may include issuing to the property owner Notice(s) of Violation, a Board of Health Order, or filing for injunctive relief in Franklin County Municipal Court, Environmental Division.

SECTION 7.3 *Identified Areas of Concern*

In addressing the topic of prioritizing IDDE activities, a historical perspective of public health risks and sanitary sewers needs in Franklin County needs to be explored. Efforts were initiated in 1990 by the FCSE to address several areas identified as having the worst 'known' sewage problems. It must be remembered that at this point in time, there were no comprehensive datasets or objective analysis of these problems; these areas were derived from subjective interpretation of the then-current staff. These areas were known as Water Quality Partnership Areas (WQP). These WQP areas were divided into Tier I and Tier II areas. The Tier I areas consisted of 21 locations for which the City of Columbus agreed that they would provide sanitary sewer services without requiring annexation to the City of Columbus.

In addition to the 21 Tier I areas, eight areas were identified as Tier II areas. These areas had the same severity of pollution issues as the Tier I areas, however the City of Columbus would not agree to provide sanitary sewer services to these areas unless they agreed to be annexed into the City of Columbus.

Between 1990 and 2010, all but 5 of these Tier I and Tier II areas received sanitary sewers, or had active sanitary sewer projects. This effort, while not originally part of the NPDES purview, served as a point of origin for the efforts which are now part of the NPDES Small MS4 Stormwater General Permit (OHQ000002). As the ORI and DWS of the first and second generation permits started to take form, it was discovered that there were many other locations in Franklin County, aside from the original 28 WQP areas, that had discharging and non-discharging (soil absorption) HSTS that were aging and potentially causing public health nuisances. As the terminology of the NPDES permits were refined and better understood by OEPA and agency partners, these sewage issues became known as illicit discharges. By default, as plans were implemented to provide sanitary sewer services to these areas, hundreds of discharging HSTS were removed from the MS4s, which are the focus of the current NPDES permit.

Through the DWS activities, it became apparent that there were areas throughout Franklin County that equaled or exceeded the number and/or density of illicit discharges of the original WQP areas, and it was decided that a means of evaluating the amassing DWS data (though only showing conditions at one specific point in time) needed to be developed. Starting in 2010 an analysis was undertaken in an attempt to define relative health risk related to environmental variables for the unincorporated areas of Franklin County. This analysis took into account variables related to the results of the DWS, locations of aeration HSTS (Figure 3.1), and density of housing. Through this risk-based analysis, it was not only determined that there were areas throughout Franklin County that equaled or exceeded the original water quality partnership areas in public health risks, but it also made apparent the fact that a multitude of approaches was needed to address the illicit discharges. A ranked list of Identified Areas of Concern was developed using these three variables.

This analysis provided a more holistic understanding of potential HSTS issues throughout unincorporated Franklin County which the county has been able to use to continue outreach to and education of county residents. As FCPH advances its IDDE Program Investigations and Enforcement activities, these areas will be used as a reference for assisting with planning and approaches to investigating and addressing HSTS related issues. Refer to **Appendix G** for a map of the Identified Areas of Concern. The lower area numbers (i.e. 1,2,3) are the locations with the 'highest' rankings.

SECTION 7.4 *Public Health Nuisance Abatement Process*

Franklin County and its co-permittees, have made great strides in documenting and analyzing the extent of illicit discharges in Franklin County – the overwhelmingly predominant issue being HSTS. In addressing the health risks to Franklin County residents, and in keeping pace with the NPDES permit

requirements, a thorough, cooperative, multi-faceted approach between FCDE, FCSE, FCPH, FSWCD and each of the 17 townships to address these illicit discharges is underway.

Franklin County Public Health staff has the authority to enforce Franklin County Public Health Regulation 720 (http://myfcph.org/pdfs/regs/720Sewage.pdf) and Ohio Revised Code 3718.011 and 6111 for the resolution of illicit discharges determined to be causing a public health nuisance.

FCPH will continue to investigate all public health nuisance complaints related to failed or failing HSTSs reported by normal channels, though the failed HSTS hotline, FCPH website and e-mail as they are received **whether or not the complaints are affecting the MS4**. Any aeration treatment system that fails its annual observations/inspections will be referred to IDDE Program sanitarians to investigate and determine if a public health nuisance exists. Enforcement and abatement processes will proceed as outlined in Appendix H and *"Franklin County And Township Stormwater Management Program 2009 – 2013"*.

See Appendix H for a flow chart of the Public Health Nuisance Abatement Process

SECTION 8.0 Identifying Aeration systems Connected to the MS4

During 2011 and 2012, FCPH Water Quality Program staff verified aeration system connections to the MS4 using various investigation methods. Please note that the complete inventory of Franklin County MS4's have not been identified and mapped as of 2013 and it is expected that the effort for the first pass at mapping with take several additional years. Staff used a current billing list of all aerators on the FCPH annual operational inspection program. They reviewed permit records for notations regarding the discharge point of the aeration system (storm sewer, ditch, stream, waterway, etc.). Staff field verify any aeration systems that they could not be 100% certain were connected to the MS4. To field verify these potential connections, staff may have used dye tests, probing for discharge pipes, and sampling results from the Dry Weather Screening of storm sewer outfalls. Upon the determination of connections to the MS4, staff from FCPH created a database layer that will be mapped using Geographic Information System (GIS) software to meet Minimum Control Measure (MCM) requirements. These identified potential connections to MS4s will be routinely checked, and this list further refined by staff of the IDDE and Water Quality Programs as routine aeration treatment system observations and complaint investigations are conducted.

SECTION 9.0 Communication and Outreach

The success of the IDDE plan depends, in part, on communicating it to the stakeholders and the public affected, and on providing the opportunity for community participation and input from various venues. The goal of this communication and outreach is for the community to understand the IDDE plan, why it is required and its purpose, who is responsible for its implementation, when and how it will be implemented, and how it may affect their lives.

Franklin Soil and Water Conservation District is facilitating a communication and outreach advisory group composed of the Public Information Officers (PIO's) from FCPH, the County Commissioners, and FSWCD. The purpose of this group is to prepare consistent messages and communication strategies for the agencies involved in meeting the requirements of the Franklin County NPDES Storm Water Permit to use in outreach and educational efforts for the community.

The following is the Communication Planning Tool that will be used to guide our outreach and education efforts.

SECTION 9.1 IDDE Communication Plan

Communication Goal

Franklin County will continue to provide education and outreach regarding the operation, maintenance, and discharge of home sewage treatment systems. Citizens and property owners living within unincorporated Franklin County (with a focus on the urbanized areas subject to the Franklin County Phase II Storm Water Permit) will have a better understanding of the environmental and public health concerns associated with illicit discharges such as hazardous chemicals and failed Household Sewage Treatment Systems (HSTS) and semi-public sewage treatment systems discharging into a MS4. This understanding will include: the NPDES Storm Water Permit requirements that require specific actions by homeowners of failing HSTS, including application to Ohio EPA for new HSTS systems; the scientific facts about the risks associated with failed HSTS; the options available to residents in areas at higher risk for exposure to waterborne pathogens as a result of failing systems to protect their health and the environment; and where citizens can report illicit discharges and failed HSTS.

Communication Objectives

Franklin County, through its contracts with FCPH and the FSWCD will meet the goal of the communication plan by continuing to develop and maintain resources and activities in the form of written materials for community forums, websites, mailings, brochures, news releases, and displays. FCPH and the FSWCD will make these resources available to county and township partners for use in conjunction with their community outreach and education programs and venues.

Future Communication and Outreach

This communication plan outlines action steps for the second-generation permit. Franklin County intends this Plan to serve as a blueprint for its activities, but recognizes that communication plans often require adjustment to deliver effective messages. As such, it intends to review this plan periodically to ensure effective outreach and education. The central hub of the communication plan is an IDDE information website hosted at FCPH (myfcph.org) with a link to the Franklin County Storm Water Program website. This website provides education and information for the public including definitions, background of the problem, areas of concern for public health risks from failing HSTS, tips for homeowners to reduce their risk of disease, and plans for addressing these concerns.

Educational brochures, displays, and presentations for property owners and communities will supplement these websites. These educational tools will increase awareness about identifying and reporting illicit discharges, eliminating illicit discharges, and managing private and semi-public sewage treatment systems to minimize environmental and public health risks.

As previously stated, communication planning will continue to evolve with input from the Franklin County Storm Water Executive Committee (FCSWEC) and county agency Public Information Officers to educate communities and individuals on the implementation of the broader IDDE Plan and other NPDES Permit requirements.

a) Communication to all Residents of Townships

The general requirement in the NPDES Permit mandating communications on illicit discharges is to inform our citizens of the hazards associated with illegal discharges and improper disposal of waste.

FCPH has developed a website dedicated to providing an overview of the County's NPDES Storm Water Permit, information about HSTS, the process of identifying and eliminating failing HSTS, health risks associated with failing HSTS, enforcement methodology being employed by FCPH and an interactive map showing identified areas of concern related to concentrations of HSTS. This website will be periodically updated and can be found on the web at: http://myfcph.org/npdes.php

Brochures, designed by FCPH, focus on operation and maintenance of HSTS, especially those HSTS that discharge to the MS4. These brochures include information about the potential for public health risks caused by failing HSTS, and how citizens can identify and report public health nuisances caused by failing HSTS. FCPH will provide a phone number, e-mail address, and web address for reporting failing HSTS or for additional information on questions or concerns related to HSTS

b) Direct communication to owners of aeration treatment systems

Beginning in 2013, FCPH will include an educational brochure in all annual operation and maintenance permit applications for aeration treatment systems. This brochure will focus on how to maintain an aeration treatment system, prevent water pollution, and how to report failing HSTSs.

SECTION 10.0 Reporting Illicit Discharges

The IDDE Program benefits from citizen reports regarding spills, illegal dumping, sewage and other observed pollution. Various avenues for reporting are available to the community depending on the material or liquid being discharged. The Franklin County Engineer, Franklin County Drainage Engineer, Franklin Soil and Water Conservation District, Franklin County Economic Development and Planning, Franklin County Sanitary Engineer and Franklin County Public Health receive reports regarding pollution in storm sewers, ditches and waterways. The corresponding agencies take this information and forward it to the responsible agency. Specific information on agency responsibility can be found below and is published in educational information found on websites and in brochures.

Citizens are encouraged to report any water pollution related complaint or concern outside of HSTS and emergency chemical spills to Franklin Soil and Water Conservation District (614) 486-9613.

Non- emergencies can also be report to Ohio EPA Central District Office at 1-800-686-2330.

Questions or concerns regarding the county storm water management program can be reported to the county drainage engineer's office at 614-525-3030.

In addition, the Board of Commissioners' new Franklin County app has a water-pollution-reporting function that can send location information and a photograph directly to FSWCD for dissemination to appropriate agencies. There is an iOS version and an Android version of the app available for download.

SECTION 10.1 Reporting Chemical Spills and Illegal Dumping Into Storm Sewers

The OEPA maintains a task force of responders for complaints of emergency chemical spills into the waters of the state. The toll-free 24/7 hotline is 800-282-9378. More information can be found at http://www.epa.ohio.gov/derr/ersis/er/er.aspx. FCPH has an after-hours emergency phone number for calls outside of business hours for emergency chemical spills **affecting the Franklin County MS4** at 614-525-3965.

SECTION 10.2 Reporting Sewage in Storm Sewers from Aeration Treatment Systems or Failed HSTS

This pollution source is a priority pollutant for our IDDE program. The Franklin County Engineer, the Franklin County Drainage Engineer, the Franklin Soil and Water Conservation District, and Franklin County Public Health will receive complaints about sewage found in storm water or storm sewers. The pollution source may be a non-functioning aeration treatment system or a failed HSTS. If the complainant calls any one of these agencies, the complaint will be forwarded to the IDDE Program at FCPH for investigation. Intra-agency referrals from Water Quality Program staff or other program staff at FCPH of non-functioning aeration system may also be forwarded to the IDDE Program.

Franklin County Public Health, IDDE Program is responsible for addressing pollution reports related to sewage. They can be contacted by calling 614-525-HSTS, reporting online at https://form.jotform.us/FCPH280/sewage-problem-or-sewage-discharge or e-mailing HSTS@franklincoluntyohio.gov.

SECTION 11 Complaint Management, Tracking and Response

Upon receiving sewage related complaints, IDDE Program staff at FCPH will log the complaint into an EH tracking software system which automatically assigns a unique complaint number to track it until abated or dismissed. All the activity related to that complaint number will be logged and tracked using the same software package and/or additional software as necessary. Staff will determine the source of the sewage by dye testing or other methods, and work to remove or mitigate the pollution source from the MS4 by education, notice of violations, Board of Health orders, or legal mechanisms though the court system if necessary. In addition, the Franklin County Engineer is developing a Service Request Manager for use in the IDDE program to track complaints and coordinate and track responses from the Franklin County Stormwater Partnership agencies.