CITY OF RUSHVILLE
COLLECTION SYSTEM

CAPACITY, MANAGEMENT, OPERATION, AND MAINTENANCE (CMOM) PLAN

Prepared by

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Exhibits

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SECTION 1 -

Introduction

1.1 Background

As part of the City of Rushville's recently renewed National Pollutant Discharge Elimination System (NPDES) Permit (# IL0021717) for their wastewater treatment plant, Special Condition 13 requires the City to develop, implement, and submit a Capacity, Management, Operation, and Maintenance (CMOM) plan in accordance with guidelines set forth by the Illinois Environmental Protection Agency (IEPA). Benton & Associates, Inc. (B&A) has assisted the City in developing this plan provided herein. The major objectives of Rushville's CMOM program include:

- Manage, operate, and maintain the sanitary sewer collection system so that the system complies with the Clean Water Act

- Provide sufficient capacity to convey base and peak flows without sanitary sewer overflows for all parts of the collection system.

- Provide a capacity assessment of the sewer system where there is history of SSO and sewage backups or they are likely to occur (**Section 3**).

- Provide timely notifications to the public of sanitary sewer overflows as part of the Third-Pary Notification Plan. (**Section 2**)

- Develop procedures to monitor effectiveness of CMOM and maintain a summary of CMOM activities (**Section 5**).

- Update the CMOM program on an annual basis. If any major changes are required, the CMOM will be updated as needed.

1.2 Rushville Sanitary Sewer System

1.2.1 General

The City of Rushville initially started its wastewater collection facilities in the early first half of the 20th century. The first systems installed were combined collection systems that essentially collected wastewater and storm water and conveyed it away from the City. The effluent literally flowed away from the City with the only treatment being dilution from rain showers.

The City's first "sanitary only" collection and treatment system was installed in 1948. The work consisted of the extension of existing combined sewers and the construction of trunk lines to convey flows from the combined sewers to the treatment plant. City crews and contractors have periodically extended the system since then. The first wastewater treatment plant installed was an Imhoff Tank with a trickling filter. These were widely installed throughout the country and were relatively easy to operate. Some are still in

operation today, although as effluent standards become more stringent and populations expand, they are being phased out.

In 1972, a new wastewater treatment plant was installed that consisted of a barscreen structure, a proportional weir flow measurement device, raw sewage and excess flow pumps, two (2) 180,000 gallon per day contact stabilization activated sludge package plants with aerobic digesters, a micro screen filtration system and chlorination. Portions of the original plant were utilized for excess flow. The old trickling filter was converted to a settling basin for storm flows. The package sludge plant had troubles meeting effluent guidelines due to the large amounts of infiltration and inflow the system experiences. The City was under pressure from IEPA to remedy the deficiencies since they were still discharging untreated flows to the environment.

In 1976, an infiltration and inflow (I/I) analysis was completed of the City of Rushville sewer system. The analysis confirmed that excess I/I was present within the community. It was recommended that a sanitary sewer evaluation survey (SSES) be completed in the City. In 1979, portions of the City's sewer collection system were analyzed. A second SSES survey was completed in 1985 for additional subsections of the City. The SSES evaluation included the following services:

- Flow Isolation for 81% of the system
- Manhole inspections for 85% of the system
- Smoke testing for 20% of the system
- Cleaning of 23% of the system
- Internal inspection of 20% of the system

The City's sanitary sewer system was divided into a series of drainage areas and evaluated independently. The report listed the amount of inflow and infiltration that was entering the system for average rainfalls. The inspection portions of the SSES identified sources of infiltration and inflow and associated costs with the rehabilitation of each.

The conclusion of the study stated that even with the current facility operating at maximum efficiency, the effluent would fail to meet the then current environmental standards. **It also concluded that the City would not see a significant reduction in flows to the wastewater plant by removing infiltration to the sewer system, but could see noticeable results by removing the sources of inflow from the collection system.**

The City continued to have violations of their NPDES permit due to flows exceeding the design capacity of the treatment facilities. In 1987, the National Municipal Policy established by the United States Environmental Protection Agency and codified in Section 301(i) of the Federal Clean Water Act required that Municipalities meet final effluent limitations as specified in their NPDES permits by July 1, 1988. Municipalities whose wastewater treatment discharges were in violation of their NPDES permits were required to submit a Municipal Compliance Plan. As a result, the City was required to create a Municipal Compliance Plan to bring the treatment works into compliance. The Municipal Compliance Plan was drafted in two stages. The first stage was to bring the City into compliance and allow them to meet effluent regulations. The second stage of the plan ensured that the City stay in compliance for the design life of the plant. Of the

alternatives discussed, improvements to the existing treatment facility to meet the effluent regulations were estimated to cost approximately $2.94 million dollars. The recommended plan to upgrade the lagoons was estimated to cost 58% of that or $1.7 million. The recommended plan was contingent upon the Water Pollution Control Board's approval of a request by Illinois EPA for communities up to 5,000 population equivalents to utilize lagoon treatment as their primary source of treatment. The first stage of the Municipal Compliance Plan was approved in March of 1987 and the first phase of the upgrades to the City's wastewater treatment facilities were permitted and completed. Improvements included the elimination of the last true combined sewer in the collection system, the addition of a new headworks including grit removal, flow measurement, comminution, and excess flow pumping facilities to the newly leased lagoons south of Rushville. A rock filter was added to the lagoons and chlorination facilities were added to the effluent.

In the late 1980's, IEPA amended their regulations to allow communities up to 5,000 population equivalents to utilize lagoons with effluent requirements consistent with that type of treatment facility. The second phase of the Municipal Compliance Plan was submitted and approved in 1992, which included the City abandoning their package plant and utilize the lagoons as their primary treatment plant. The lagoons were cleaned out and deepened, aeration equipment was added, the headworks were modified slightly at the old wastewater treatment plant, and the flows were transferred over to the lagoons. The City has been utilizing the lagoons ever since.

1.2.2 Wastewater Collection System

The City of Rushville wastewater collection system consists of approximately 18.4 miles of piping ranging from 4" to 24" in diameter. There are six lift stations and approximately 3.5 miles of forcemain. There are approximately 325 manholes in the system. The existing collection system is shown in ***Exhibit 1.***

The majority of the sewer lines are constructed of vitrified clay with an average depth of nine feet. Line depths range from four feet to twenty feet. There are also segments made from asbestos cement, ductile iron, ABS truss pipe, and Orangeburg. The more recent installations have been constructed of heavy wall PVC sanitary sewer main.

As currently configured, the collection system consists of ten (10) sanitary sewer sheds, five (5) with corresponding lift stations that provide a hydraulic lift to a downstream manhole. These sewer sheds and lift stations are further described and evaluated in Section 3 of this report and a sewer shed map is included in ***Exhibit 2.***

The collection system was originally installed as a combined sewer system. The waste would be conveyed to the outskirts of town where it would be discharged. When it would rain, the combined system would essentially be flushed out. This style of sewer system was common prior to the use of treatment plants.

After the construction of the City's first wastewater treatment plant, the combined connections were slowly disconnected. The last remaining combined sewer was separated by installing approximately 3,200 LF of new 8" sanitary sewer along South Congress and Liberty Street in 1988. A collection system age man is included in ***Exhibit 3.***

Asset	Quantity	Percentage
Lift Stations	5 EA	-
Forcemains	+/-3.5 Miles	-
Gravity Sewer <1948	10,700	11%
Gravity Sewer 1948	23,400	24%
Gravity Sewer 1948-1970	41,500	43%
Gravity Sewer 1973	4,800	5%
Gravity Sewer 1977	1,600	2%
Gravity Sewer 1988	7,000	7%
Gravity Sewer 1999	1,600	2%
Gravity Sewer 2001-2002	6,300	7%
Total Gravity Sewer	96,900	100%

Figure 1.1 – Collection System Asset Summary

1.2.3 Wastewater Pumping Facilities

The City of Rushville currently has and operates six sanitary lift stations. The lift stations have been named based upon their location within the City. They are as follows:

- Northwest Lift Station
- Southwest Lift Station
- South Master Lift Station
- Cemetery Master Lift Station
- Sullivan Road Lift Station
- Scripps Park Lift Station

Northwest Lift Station:

The Northwest lift station is located on the northwest side of Rushville north of County Farm Road. The lift station was initially installed to serve the new Illinois Youth Center, but during the design process, the depth of the lift station was increased, and a service area was identified. The Northwest lift station is now capable of serving approximately 117 acres in addition to serving the new youth center. The lift station has emergency standby power in the form of a diesel generator and an automatic transfer switch. The capacity of the lift station is listed in ***Exhibit 4***.

Southwest Lift Station:

The Southwest lift station is the oldest lift station that the City operates. The station was constructed in 1973 in order to serve the Robinwood area of Rushville. The station consists

of a wet well where the wastewater is collected and a dry well where the pumps are located. There is a building over the dry well where the electrical panels are located. The original configuration of the lift station pumped the wastewater upstream to a breakpoint in the gravity flow system and that water flowed by gravity to the existing wastewater plant. Due to infiltration and inflow, the gravity sewer mains would back up and the lift station would essentially be recirculating its flow during rain events. During the wastewater system improvements in 2001/02, the forcemain from the southwest lift station was redirected to the new south master lift station. After the forcemain was installed, the City installed new pumps to replace the aging pumps. The new pumps are rated submersible so if there ever was a flooding event in the dry well, the pumps would be unaffected. In addition to installing new pumps and redirecting the lift stations flow, the following upgrades were completed:

- A new roof was installed over the control building. The brick building is in good shape, but the flat roof was in dire need of replacement. It was replaced with a hipped roof and shingles. The building is now watertight again.
- The original electrical service was abandoned, and a new electrical service was run from the South Master lift station to the Southwest lift station. The lift station is served by three-phase power and connected to a standby power source.
- The valving in the lift station was replaced. The original valving could no longer be closed completely, and the check valves were malfunctioning.

The capacity of the lift station is listed in ***Exhibit 4.***

South Master Lift Station:

The South Master lift station is located along the east side of U.S. Rte. 67 south of Rushville. The lift station was constructed as part of the wastewater system improvements from 2001/02. The lift station was originally planned as an excess flow lift station to handle wet weather flows. The station was originally to be installed at a junction manhole at the end of the first phase of the Town Branch Sewer System Improvements. After exploring some of the options for servicing the proposed Illinois Youth Center, as well as considering future expansion south of Rushville, the lift station was in its current location. The lift station receives the flow from approximately one-half of the City of Rushville. By diverting the flow, from half of the City, the effect of surcharging in the City is reduced during rain events. This became evident when the City received an 8.3-inch rain event in July of 2003. Areas of town that continually experienced basement backups did not get flooded. The station also receives flows from the Northwest lift station and the Southwest lift station. The forcemains of the two lift stations discharges into the first manhole upstream of the wet well. The lift station has emergency standby power in the form of a diesel generator and an automatic transfer switch. As was listed above, the standby power also feeds the southwest lift station during power outages. The capacity of the lift station is listed in ***Exhibit 4.***

Cemetery Master Lift Station:

The Cemetery lift station was installed when the City built their new wastewater treatment facilities. The lift station was originally designed to pump all of the flows from

the City to the new lagoons. The station consists of a pair of normal flow pumps and a pair of storm pumps. The station is located on the site of the City's original wastewater treatment facilities. The station has standby power and handles the flows that the South Master lift station does not pump. The capacity of the lift station is listed in ***Exhibit 4.***

The Cemetery Master lift station originally pumped all the water from the City of Rushville to the treatment plant. The South Master lift station narrative stated that half of the City's flows were diverted away from the Cemetery Master Lift Station. During the sewer system improvements in 2001-2002, a manhole at the end of the Town Branch Sewer was replaced with a transfer structure, which has the capability of throttling the flows to the South Master lift station and redirect them to the Cemetery Master lift station. That means that all flows could be diverted from the South Master lift station with the exception of the Southwest and Northwest lift stations. This allows the City flexibility in system operation and an opportunity for lift station maintenance without expensive bypass pumping.

Sullivan Road Lift Station:

The Sullivan Road lift station is a small lift station that was turned over to the City when a new dialysis center was constructed. The lift station currently serves two sanitary customers and pumps waste from the wet well, through a 2 ½" forcemain to an 8" gravity sewer along U.S. Rte. 67. The capacity of the lift station is listed in ***Exhibit 4.***

1.2.4 Wastewater Treatment Facilities

The City of Rushville currently operates a two cell treatment lagoon system. The system consists of the following components:

- Cell 1 – Aerated Cell, 13,620,000 Gallon Capacity, (10 ft deep, 81 Draft Tube Aerators)
- Cell 2 – Aerated Cell, 11,400,000 Gallon Capacity, (10 ft deep, 34 Draft Tube Aerators)
- Rock Filter – Approximately 3555 CY of Rock
- Reaeration, 1 Draft Tube Aerator
- Effluent piping and Parshall Flume for flow measurement
- Transfer piping for controlling the flow between cells and bypassing cells
- Blower building with three positive displacement blowers (2 on 1 off operating configuration)
- Rip-Rap erosion protection around the interior embankment of the cells

The treatment plant currently discharges its flow to an unnamed tributary to the Town Branch Creek. The detention time at the designed daily average flow of 0.63 MGD is 39.8 days. The City's current NPDES permit expires November 30, 2026. The current effluent guidelines are as follows:

The treatment plant treats the wastewater to below the effluent limits. Graphs of select effluent data for the past 14 years are included in ***Exhibit 5.***

Parameter	Load Limits DAF (DMF)	Load Limits DAF (DMF)	Concentration Limits (mg/L)	Concentration Limits (mg/L)
	Monthly Avg.	Weekly Avg.	Monthly Avg.	Weekly Avg.
Flow	0.63 (3.6) MGD	0.63 (3.6) MGD	0.63 (3.6) MGD	0.63 (3.6) MGD
CBOD5	131 (751)	210 (1201)	25	40
Suspended Solids	158 (901)	236 (1351)	30	45
pH	6-9	6-9	6-9	6-9
Dissolved Oxygen	Monthly Avg.	Weekly Avg.	Daily Min.	
	not less than	not less than		
March -July	N/A	6.0	5.0	
August - Feb.	5.5	4.0	3.5	

Figure 1.2 – NPDES Permit Summary

1.3 Rushville Organizational Structure

The Rushville sewer department is staffed by two full-time employees assigned to operate and maintain the sanitary and storm sewer systems. The City also has 4 employees that can fill in or assist as needed. These employees are provided with training and professional development opportunities such as Continuing Education Units (CEU), on the job (OTJ) training, and membership to the Illinois Rural Water Association. In addition, the City Engineer assists with mapping, permitting, and improvements of the sanitary and storm sewer systems. Figure 1-2 shows the organizational staffing structure for the wastewater facilities.

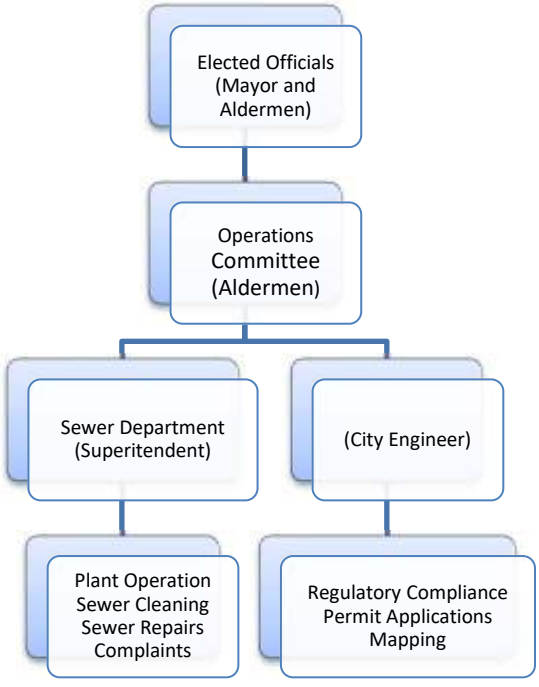

Figure 1.2 – Rushville Organizational Structure

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SECTION 2 -

Sewer System Operations & Maintenance

2.1 Regulatory Compliance

Rushville's operations, first and foremost, must comply with state and federal regulations as well as regulations set forth by their municipal code. **Sections 2.1.1 and 2.1.2** provide details on these regulatory measures.

2.1.1 State and Federal Compliance through the City's NPDES Permit

What may be discharged from the Rushville wastewater treatment plant (WWTP) is governed by the City's National Pollutant Discharge Elimination System Permit, or NPDES Permit ***(Exhibit 6 – Rushville's Current NPDES Permit)***. The permit governs parameters to be reported in the Discharge Monitoring Reports (DMRs), types of tests to be performed on the effluent, as well as the number of tests and other reporting provisions. Accordingly, IEPA takes collection system operation conditions into account as a part of the NPDES, since collection system condition and activities directly impact the flow rates and constituent concentrations of the wastewater that is treated and discharged to the receiving surface waters surrounding Rushville. The following is stated within Special Condition 13 of the City's current NPDES permit:

> *The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement back-ups and ensuring that overflows or back-ups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. Overflows from sanitary sewers are expressly prohibited by this permit, Section 301(a) of the Clean Water Act, and by Ill. Adm. Code 306.304. As part of the process to ultimately achieve compliance through the elimination of and mitigating any adverse impacts of any such overflows, the Permittee shall (A) identify and report to IEPA all SSOs that do occur, and (B) develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan which includes an Asset Management strategy within twenty-four (24) months of the effective date of this Permit and update annually thereafter and maintain it at the facility for review during Agency Field Operation Section inspections. The CMOM shall be submitted electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0021717 Special Condition 13" as the subject of the email and posted to the permittee's website by March 31 of each year. The Permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they are designed.*

The CMOM plan shall include the following elements:

A. Measures and Activities:

1. *A complete map and system inventory for the collection system owned and operated by the Permittee;*
2. *Organizational structure; budgeting; training of personnel; legal authorities; schedules for maintenance, sewer system cleaning, and preventative rehabilitation; checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;*
3. *Documentation of unplanned maintenance;*
4. *An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; use flow monitoring and/or sewer hydraulic modeling, as necessary;*
5. *Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee;*
6. *Operational control, including scheduled inspections and testing;*
7. *The Permittee shall develop and implement an Asset Management strategy to ensure the long-term sustainability of the collection system. Asset Management shall be used to assist the Permittee in making decisions on when it is most appropriate to repair, replace or rehabilitate particular assets and develop long-term funding strategies; and*
8. *Asset Management shall include but is not limited to the following elements:*
    a. *Asset Inventory and State of the Asset;*
    b. *Level of Service;*
    c. *Critical Asset Identification;*
    d. *Life Cycle Cost; and*
    e. *Long-Term Funding Strategy.*

B. Design and Performance Provisions:

1. *Monitor the effectiveness of CMOM;*
2. *Upgrade the elements of the CMOM plan as necessary; and*
3. *Maintain a summary of CMOM activities.*

C. Overflow Response Plan:

1. *Know where overflows and back-ups within the facilities owned and operated by the Permittee occur;*
2. *Respond to each overflow or back-up to determine additional actions such as clean up;*
3. *Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow/infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan;*

D. System Evaluation Plan:

1. *Summary of existing SSO and Excessive I/I areas in the system and sources of contribution;*
2. *Evaluate plans to reduce I/I and eliminate SSOs;*

4. Special provisions for Pump Stations and force mains and other unique system components; and
5. Construction plans and schedules for correction.

E. Reporting and Monitoring Requirements:
1. Program for SSO detection and reporting; and
2. Program for tracking and reporting basement back-ups, including general public complaints.

F. Third Party Notice Plan:
1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
3. Identifies who shall receive the notification;
4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
5. Includes a description of the lines of communication; and
6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

This CMOM plan aims to discuss and analyze ongoing operational and maintenance activities performed by the City. The objectives listed in **Section 1.1** and included herein discuss ways in which processes can be improved and plans can be implemented to work towards no SSO and basement back-up occurrences.

2.1.2 City Sewer Use and Wastewater Regulations

In addition to the state and federal regulations, Rushville has its own regulations on wastewater discharge. The City's regulations cover sewer use and wastewater regulations, private wastewater disposal, and building sewer connections.

The Rushville sewers and sewage disposal code is included under Section 74, Article IV ***(Exhibit 7).*** The Ordinance is divided into five divisions, "Generally," "Building Sewers and Connections," and "Service Charges; Billing and Collection," "Shuy-Rush Lake Watershed Area," and "Abandoned Water and Sewer Service Connections." Section 74-341 provides detailed requirements which are generally summarized below:

A. The system shall have no connection of roof downspouts, exterior foundation drains, areaway drains or other sources of surface runoff or ground water to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.
B. No gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid shall be discharged.

C. No waters or wastes containing toxic or poisonous solids, liquids, or gases shall be discharged.
D. No waters or wastes having a pH lower than 5.5 or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel shall be discharged as well as any waters or wastes having a pH in excess of 9.5.
E. No liquid or vapor shall be discharged having a temperature higher than 150° F shall be discharged.
F. Garbage must be properly shredded.
G. Any waters or wastes containing strong acid, iron, chromium, copper, zinc and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the superintendent for such materials, shall not be discharged.
H. No waters or wastes containing iron, chromium, copper, zinc and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the superintendent for such materials, shall not be discharged.
I. No waters or wastes containing phenols or other taste- or odor-producing substances, in such concentrations exceeding limits which may be established by the superintendent as necessary, after treatment of the composite sewage, to meet the requirements of the state, federal or other public agencies of jurisdiction for such discharge to the receiving waters, shall be discharged.
J. No radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the superintendent in compliance with applicable state or federal regulations shall be discharged.
K. No waters or wastes containing unusual concentrations of inert suspended solids or dissolved solids, excessive discoloration, unusual BOD or chlorine requirements, or unusual volume of flow or concentration of wastes constituting slugs shall be discharged.
L. No mercury of any of its compounds in excess of 0.0005mg/l as Hg or cyanide in excess of 0.025 mg/l shall be discharged except as permitted by the superintendent.
M. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters. Grease, oil, and sand interceptors shall be provided when, in the opinion of the City's Sanitary Sewer Superintendent, they are necessary.
N. Property owners and industrial customers are subject to measurement, testing, and inspection if deemed necessary by the City.

The City receives revenue for wastewater collection and treatment through monthly billings based on water usage rates. Rushville currently has a base charge of $22.20 for the first 4,000 gallons of flow volume and a $3.37 for each additional 1,000 gallons of flow volume beyond that for in-city users. Within Rushville's sewer ordinance, the City may add surcharges to sewer bills for wastewater exceeding normal concentrations of BOD and Suspended Solids.

The City's operational staff must work diligently to monitor collection system performance in relation to these regulatory measures. The following is a discussion how the City staff achieves this through utilization of existing processes and systems.

2.2 Communication Systems, Monitoring, and Reporting

Land line telephones and cell phone communication are the primary means in which the City, its operations staff, and its customers communicate with one another. Elected officials and operational staff communicate also via email. Between phone and email, residents and customers have the ability to report sewer back-ups as they occur.

When a complaint is received by the City, the sewer department is immediately notified and takes action to address the problem. During business hours, calls are received by the sewer department. During non-business hours, calls are received by Police Dispatch who contacts the emergency call-out person for the sewer department. They sewer department staff then respond to the complaint and log a report describing what was observed and what the response was.

It is the responsibility of the sewer department staff to notify the public or other officials as needed when overflows occur. The City communicates with the public with an All-Call System where specific locations can be notified of sewer problems or the whole community can be easily notified by automated phone calls. The City also utilized a community Facebook page to reach its citizens.

In the event of a Sanitary Sewer Overflow (SSO), the IEPA is contacted as required within 24 hours by telephone, fax, email, or voicemail if staff are unavailable. Within 5 days of the occurrence, a written report is provided describing the overflow or bypass, including all information requested on the Sanitary Sewer Overflow or Bypass Notification Summary Report form. In the event of potential widespread impact beyond the city limits of Rushville, the County Engineer and or the Shuy-Rush Lake manager will be contacted. For a current list of emergency contacts see ***Exhibit 8.***

The City operates and maintains five (5) sanitary sewer lift stations built between 1973 and 2002. A lift station summary report (***Exhibit 4***) was developed during facility planning for the proposed collection system improvements and will be updated when lift stations are either rehabilitated or replaced. Currently, each pump is pulled and checked for maintenance by an outside contractor.

The City monitors and documents flows at the WWTP via a flume with an ultrasonic HydroRanger 200 level sensor at the plant's effluent structure. This measurement also gives an indication of the magnitude of the I/I problem the City has. In conjunction with customer complaints and lift station run times, the City has data to utilize in identifying where I/I occurs within the system and which areas would most benefit from collection system rehabilitation and replacement efforts. The plan and continued efforts for identifying where I/I occurs within the collection system is further presented **Section 3.3.**

The wastewater plant is well maintained by City staff utilizing a preventative maintenance schedule designed to optimize outfall water quality. Blower rotations, maintenance, and various samples to be conducted are clearly defined for each day of the year.

2.3 Collection System Maintenance Activities

The City currently performs maintenance both scheduled and on an "as needed" basis; including cleaning lines with excess fats, oils, and grease (FOG) build-up, performing point sewer main repairs, and servicing lift station equipment. Preventative jetting of sanitary sewer mains is performed as City staff was available. The City has compiled and maintains a list of problem areas which are flushed or jetted on a monthly basis and a record of these activities is available upon request. Further documentation of unplanned sewer maintenance is available in the form of work-orders which are kept in a separate file for sewer collection system related work.

Sewer Collection system assets used to perform maintenance activities include a 2013 Sewer Machine, 1990 Sewer Machine, Case Loader, John Deere Backhoe, and a 2013 Chevrolet 3500 truck.

2.4 Emergency Preparedness and SSO Response

When a sewer backup notification from a customer is received, a process is initiated which starts with same day emergency relief, condition assessment of the line, and development of remedial measures. The purpose of the process is to identify specific causes of line stoppages, such as root, grease, debris, or structural defects, and develop remedial measures to correct the problem. The program consists of the following elements:

1. Initiation (customer complaint is received)
2. Emergency relief (e.g. using pumps, vac truck, cleaning equipment)
3. Internal inspection
4. Evaluation
5. Response

When a dry weather back-up occurs, the City's sewer cleaning equipment is used to clean the blocked sewer. If that effort is unsuccessful, internal closed-circuit television equipment, from an outside contractor, is used to inspect the pipe to determine the cause of the obstruction. If cleaning and root removal are not enough to fix the problem, then the pipe is excavated to make the necessary repair.

When a wet weather overflow or basement backup occurs, City staff first check downstream sewers to see if they are surcharged. If downstream sewers are surcharged, the line with the sanitary sewer overflow or basement backup will be flagged for an internal televised pipe inspection to attempt to identify infiltration and inflow sources. The upstream portion of the collection system may also undergo smoke testing, sump-pump inspections, or dye water testing to determine the source of inflow and infiltration.

2.5 New Construction Procedures

New construction is monitored and reviewed by the City as outlined in the Sewer Ordinance. The introduction of new flows to the collection system must be identified during the planning process and properly reviewed and approved with the City prior to construction. Hydraulic loads are

requested and analyzed to determine if downstream collection system components are sufficiently sized to handle the additional flows. All sewer construction must be consistent with applicable local codes, including federal, state, and local standards for sewer.

2.6 Summary of Operational Needs

Within this section of the CMOM Plan, the City's existing regulations and operations were identified and described with the goal of developing a better plan to operate and maintain the City's sanitary sewer collection system. The following is a short list of needs that this plan will provide a framework for implementing improvements:

I. **Collection System Asset Management** – While compiling a comprehensive collection system map was an important first step for the City, utilizing this map to document SSOs, basement back-ups, inspection activities, and maintenance activities is important moving forward. Tracking this data over time will highlight areas of greatest need in the collection system for repairs and improvements to increase capacity and reduce inflow and infiltration. The City has a growing interest in transitioning to GIS based utility mapping, and have the goal to document overflow events, backups, remediation efforts, and maintenance activities with live updates to GIS mapping software.

II. **Hydraulic Capacity Assessment –** Occurrences of backups of overflows, and their cause, should be tracked and analyzed to see if specific improvements are needed to reduce the hydraulic load on the system, or increase the hydraulic capacity of certain portions of the system.

III. **Rehabilitation and Replacement Program –** Plans for future smoke testing and inspections are being developed in order to determine the areas in greatest need of rehabilitation or replacement.

SECTION 3 -

Sewer System Evaluation

3.1 Evaluation Introduction

The sanitary sewer collection system is evaluated to determine the following:

1. **Hydraulic Capacity –** Is the system sized properly to transmit permitted flows through the piping and pumping network to the sanitary sewage treatment plant with minimal SSO and basement back-up occurrences?
2. **Condition of Assets –** Are the collection system assets; pipelines, manholes, and pump stations; of sufficient condition to transport sewage to the treatment facility and limit the amount of inflow and infiltration to a hydraulically feasible level?

Exhibit 9 provides a decision process diagram that the City intends on utilizing when evaluating a pipeline for capacity and condition. Further discussion on what evaluation the City has done to date as well as a plan for future evaluation is provided throughout the remainder of this Section of the CMOM Plan.

3.2 Evaluation of Sanitary Sewer Capacity

The sanitary sewer collection system is divided into ten (10) sewer sheds as shown within ***Exhibit 2*** with five (5) sewer sheds terminating at a corresponding lift station. All the wastewater is pumped from two lift stations to the sewer treatment plant. The following preliminary hydraulic analysis attempts to show that the collection system has sufficient capacity and that rare SSO and basement back-up occurrences are primarily the result of excess inflow and infiltration.

3.2.1 Water Usage, Design Sanitary Flows, and WWTP Capacity

The City's NPDES permit at the WWTP allows for daily average flows of 0.63 MGD and daily maximum flows of 3.6 MGD. **Figure 3.1** shows a comparison of these permitted discharge limits to the City's average water usage rates and per capita calculated load.

Description of Flow	FLOW (GPD)
NPDES Design Average Flow at WWTP	630,000
NPDES Design Maximum Flow at WWTP	3,600,000
Average Water Usage by Sewer Customers	383,000
Per Capita Sewage Flow Calculation (100 GPD / person)	320,000
Average Influent Flow at WWTP (2014 – 2020)	940,000

Figure 3.1 – Flow Comparison Chart

Commercial and industrial water and sewer usage within the City account for a very small portion of the total flow.

The NPDES permit provides a guide for average versus peak flows based upon what the WWTP is permitted to discharge. The permitted DMF to DAF ratio is currently 5.7, which means peak flows in the collection system need to be below 5.7 times of the average flow for permitted discharge limits to be achieved at the WWTP. However, typical flows are currently averaging 1.5 times design average flows (0.940 MGD) and peak flows average approximately 2.418 MGD resulting in an actual peaking factor of 2.57.

The most concerning data held within **Figure 3.1** is that the average water usage by sewer customers is less than half of the average influent flow to the WWTP. While the treatment plant is sufficiently sized to handle these loads, it appears the City is currently pumping and treating more stormwater than wastewater.

3.2.2 Capacity of Collection System Transmission Mains

Multiple studies were completed in the late 1970s and in 1985, focused on analysis of the sanitary sewer collection system. Building upon these studies, a Municipal Compliance Plan was written in 1987. The 1987 report showed that, when paired with treatment plant upgrades, only "major" stormwater inflow needed to be removed for the system to meet NPDES permit limits. The Phase 1 project included the removal of the last technically "combined" sewer by installing a separated sanitary sewer along South Congress and Liberty Streets. The Phase 2 project finished upgrades at the wastewater treatment plant and brought the City back into compliance with the NPDES permit.

The sewer system analysis and evaluation reports conducted between 1979 and 1985 identified hundreds of sewer defects, however, only limited improvements have been made since that time. Most recently, the additional of the IDHS Detention Facility on the west side of Rushville spurred some improvements. To serve the additional facility population, a lift station was installed. During this project improvements also took place on the north side of the City to separate storm inlets and provide service to additional customers along North Liberty Street.

The hydraulic capacity has largely been analyzed through observation and maintenance of the sewer system. Through this observation, the following conclusions have been made:

- The City is largely comprised of small sewer sheds with 8" gravity lines or larger that feed the lift stations and are pumped the WWTP. Based on historical observations, under normal sewer flows when blockages do not occur, the size of these gravity lines are of sufficient size and do not need to be upsized.
- The pumps at each lift station appear to be sufficiently sized to transport normal sewer flows and significant peak I/I flows.

The conclusion of this preliminary hydraulic analysis is that the collection system sewer lines, lift station pumps, and force mains are of sufficient capacity to service the City's existing customers for typically expected wastewater flows.

Despite the available hydraulic capacity in the collection system, the City still experiences sanitary sewer overflows and excessively high peak loads at the WWTP during periods of heavy rainfall. To combat these undesired outcomes, the current work order system or a future GIS system may be used to track overflows, backups, and maintenance issues to determine areas of greatest need to reduce inflow and infiltration. Smoke testing throughout Rushville is also being considered as a method to identify areas in need of rehabilitation or replacement. The reduction of stormwater reaching the sewer collection system is shown to be the area of greatest need. If overflows and backups are still occurring after steps have been taken to reduce inflow and infiltration, then the capacity of certain sewer mains within the system may need to be increased.

3.2.3 Existing I/I Concerns

The City's primary concerns are basement backups as well as occasional manhole overflows. Tracking these occurrences has been difficult in the past; however, work order tracking and recent mapping updates will expand the City's ability to track such occurrences, locate high occurrence areas, and determine the cause of the backups or overflows through additional investigation. This will allow the City to focus on the areas of greatest need and make necessary improvement to the collection system.

3.3 Sewer Condition Assessment

All lift stations have been meeting the current pumping demands within the collection system, and regular maintenance is being performed. In order to assess the collection system, the following provides a description of assessment methods the City may use in the future as CMOM efforts are implemented. See ***Exhibit 10*** for a Map and description of known problem areas in the collection system.

3.3.1 Available Assessment Methods

There are numerous assessment methods available to the City for future collection system assessment. The following is a brief discussion on assessment methods that will be considered by the City for different applications.

1. Flow Metering and Monitoring: The City will consider utilizing portable ultrasonic flow meters that can be placed in sewer pipelines to monitor flows in different areas. Flow metering will occur over a duration sufficient to capture data during dry condition flows and wet weather flows. Flow metering is a means in which the City can determine more precisely were the majority of I/I is occurring and where more intensive assessment can be prioritized.

2. Smoke Testing: Smoke testing is a relatively simple and efficient method to identify locations of inflow (direct rainwater discharge) into a sewer system. Smoke testing is done by isolating the test segment, then introducing smoke into the sewer system (typically through manholes). If there are cracks/gaps in the mainline pipe or at the service laterals, smoke will come out and be visible at ground level. Smoke testing is a helpful tool in identifying illegal connections to sewer systems as well.

3. Closed-Circuit Television (CCTV) Inspection: CCTV is an efficient method to visually inspect sanitary sewer pipeline and sewer lateral connection points. CCTV inspection is performed by utilizing a mechanical robot that has a camera attached to it to visually inspect and record observations over a given pipeline segment. The City does not own a CCTV camera robot, so any CCTV inspection performed will have to be completed by a contractor or by renting or purchasing equipment.

   Over the course of the past decade, there has been substantial effort put forth by the sewer inspection and rehabilitation industry to standardize the coding of defects found in pipelines, manholes, and service laterals. NASSCO (National Association of Sanitary Sewer Companies) has emerged as the leader in standardized evaluation coding for sanitary sewer pipelines, manholes, and service laterals. Therefore, when contracting with firms to perform CCTV inspections on sewer pipelines and corresponding service laterals, the City will require all assessments to be performed by and in accordance with PACP and LACP (Pipeline/Lateral Assessment and Certification Program) guidelines.

4. Manhole Inspection: Manhole inspection will be performed predominately by visual inspection from the surface or from a pan/tilt/zoom camera during a CCTV inspection. Guidelines for NASSCO "Level 1" MACP (Manhole Assessment and Certification Program) will be utilized, when feasible, for surface inspections. A copy of the manhole inspection form the City and its staff can utilize in the future to inspect manholes is included as ***Exhibit 11.***

5. Low Voltage Electronic Scanning: This is another emerging technology in the sanitary sewer assessment industry that utilizes low voltage electricity to detect defects that leak within a pipe segment. The technology appears to have two distinct advantages over CCTV: a) The analysis results are more consistent and repeatable (no operator/inspector variance) and b) the companion software is able to calculate an amount of infiltration a defect will allow under different hydraulic conditions. The biggest reservation thus far on the technology is its ability to discern between operational and maintenance (O&M) defects and structural defects. The City has no near term plans to utilize this technology, but will evaluate it as an inspection alternative in the future, particularly for post-CIPP lining warranty inspections.

The City, with input and guidance from its engineering consultants, will utilize the most effective assessment methods for the various assets within the system while also being cognizant of available resources, particularly time and money.

3.3.2 Proposed Evaluation Schedule

A sewer system maintenance work order tracking system has recently been put into practice and future GIS mapping is being considered at this time. The City plans to begin using the new work order tracking system for their sewer collection assessment immediately. Additional methods for evaluating the collection system to determine the areas in greatest need of rehabilitation and replacement are being assessed at this time for implementation. As such, the City has recently digitized its catalog of CCTV inspections to further evaluate the collection system. Furthermore, the City plans to CCTV approximately 1,300 LF at a cost of approximately $5,000 before repairs this year as a part of continued CMOM activity.

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SECTION 4 -

Sewer System Capital Improvements

4.1 Capital Improvement Introduction

Subsequent to each assessment effort, the City will determine what, if any, improvement needs to be done to the collection system asset. ***Exhibit 7*** was introduced in the last section but also applies to this discussion. There are numerous improvement options for collection system assets that all need to be considered as part of a comprehensive operations and maintenance plan. This section presents rehabilitation and replacement methods the City has evaluated for use within its collection system.

4.2 Pipeline Rehabilitation and Replacement Methods

Exhibit 7 contains an abbreviated summary of different replacement and rehabilitation methods for sanitary sewer pipe that the City will consider during the assessment phase. A more detailed description of these methods can be found below:

1. Open Trench Removal and Replacement – Open trench removal and replacement involves digging up the sanitary sewer line and replacing it with modern materials. Typically this is done on severely deteriorated pipe with structural failures or obstructions that cannot be removed by jetting or cutting equipment. Each lateral service is manually reinstated by tapping into the main line. The surface also must be restored and adjacent utilities must be avoided. Open trench removal and replacement has the highest corresponding capital costs in comparison to the others discussed herein.

2. Pipe Bursting – Pipe bursting requires minimal trench excavation at the "launch" and "receiving" pits of the new pipeline. Pipe bursting is a process by which the bursting unit splits and/or fractures the existing pipe while simultaneously installing a new high density polyethylene pipe (HDPE) of the same or larger size into the annulus created by the forward movement of the bursting tool. Service lateral reinstatement also needs to be done manually by digging up the service and connecting it to the new pipe. This method is often performed on structurally deficient pipe with minimal service laterals, such as highway and railroad crossings, or where analysis determines a larger diameter pipe is required. Pipe bursting is typically less costly than open trench removal and replacement but also typically more costly than CIPP or grouting rehab methods.

3. Cured-In-Place Pipeline (CIPP) Lining – CIPP liners were developed 40 years ago in the United Kingdom by Insituform. CIPP is a lining system in which a thermostatic resin is impregnated at the optimum temperature into a flexible tube of fiber reinforcement that is then inverted or winched into the host pipe (Figure 4.1). The flexible tube is held under pressure against the host pipe by compressed air or water, and the tube is then cured by ambient temperature, hot water, steam, or UV light, thus forming a structural composite lining.

CIPP requires no excavation in of itself (see Item 5 for discussion on point repairs) and is therefore substantially less costly than open trench removal and replacement and pipe bursting. Service laterals are reinstated mechanically by a robot in the lined pipe. CIPP is often used on structurally deficient pipeline that does not have any significant intrusions, sags, or deformation of the cross-sectional area of the pipe. CIPP can *help* reduce I/I, but when service laterals are reinstated, this creates a hydraulically vulnerable location for I/I to occur. Therefore, in most instances where CIPP will be utilized, grouting service laterals robotically after the service is reinstated will also occur. Also, all CIPP liners utilized by the City will include hydrophilic end seals to ensure storm water cannot travel along the annular space between the liner and the host pipe and dump into the downstream manhole.

Figure 4.1 – Installation of CIPP Liner (source: Insituform Technologies)

4. Chemical Grout Injection – Chemical grouting is a non-structural rehabilitation method used to prevent infiltration into main line pipe, service laterals, and manholes. Chemical grouting of sewer pipeline and service laterals is performed mechanically by a robot that travels the length of the sewer pipe. A viscous chemical compound, such as acrylamide, is injected through joints that then react and harden with the surrounding soil to provide a waterproof barrier around the pipe. Chemical grout injection is the most economical means to combat groundwater infiltration in sanitary sewer pipes, but its application is limited to structurally sound pipe. Chemical grouting of sanitary sewer main is illustrated in Figure 4.2.

Figure 4.2 – Chemical grouting of Sewer Pipeline (source: Avanti International)

5. Manhole Rehabilitation and Replacement – Like sewer main, manholes can also have a range of structural defects and/or allow significant amounts of storm water inflow and infiltration. The City's manholes are in mostly sound structural condition at the time of this report, and therefore lining systems that prevent infiltration will most likely be utilized on manholes adjacent to pipeline that is being rehabilitated. Lining manholes is an effective means to provide some structural rigidity while eliminating infiltration into the manhole. Lining of manholes is a trenchless technology and therefore is typically one half to one third the price of removing and replacing a manhole. Also, in low areas where rainwater may pond or travel over manhole lids, the City will consider installing sealed lids or cover inserts that will prevent inflow of storm water.

6. Service Lateral Rehabilitation and Replacement – Lateral connections to the sewer main can be inspected using pan and tilt CCTV equipment during inspection of sanitary sewer main. At this time, service laterals will be identified for either rehabilitation or replacement. Replaced lateral connections will utilize new construction materials including gasket wyes and Schedule 40 PVC. Rehabilitated laterals will most probably utilize injection grouting to prevent infiltration at the lateral / main connection point. As mentioned previously, when CIPP lining in the City, grouting of service laterals (up to 3 feet into the lateral) will most likely follow to seal the areas around each service lateral and the annular space between the host pipe and the liner. Figure 4.3 provides an illustration of service lateral grouting.

   A new lateral rehabilitation method involves lining service laterals much like sewer main will also be considered. At this time, this technology is significantly more expensive than lateral grouting, so grouting service laterals will most probably be the preferred alternative for rehabilitation, particularly if the connection is structurally sound.

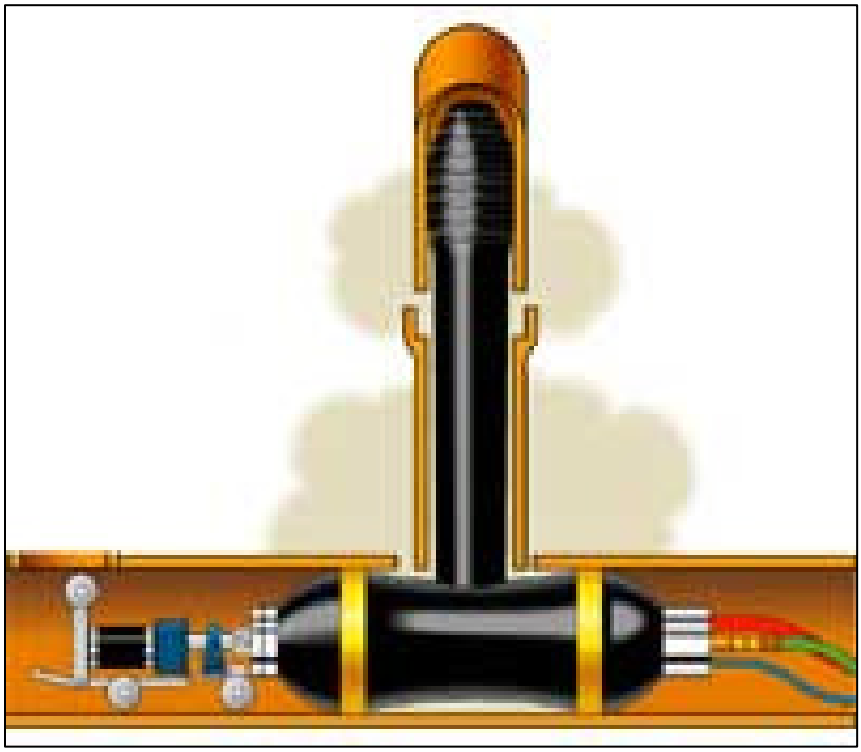


Figure 4.3 – Chemical grouting of Service Lateral (source: Logiball Inc.)

Each of described rehabilitation/replacement methods are not mutually exclusive of each other. For instance, a segment of sewer main may have a broken section spanning 5 feet, but may have less severe structural problems throughout the remaining length of the pipe. In this case, a point repair might be necessary at the broken section followed by a manhole-to-manhole CIPP liner. Also, as mentioned previously, when CIPP lining is implemented, the City will most likely follow up by grouting service laterals.

4.3 Summary of Recent Improvement Efforts

The most recent improvements to the City's collection system were made in 2007 with the replacement of nearly 2000 feet of sewer main on the north side of the City. Other significant improvements include projects late 80s, 90s, and early 2000s. More recent improvement projects have been limited to single manhole or sewer main repairs and upgrades including sealing manholes, raising lids, and repairing storm sewers.

4.4 Proposed Periodic Improvement Schedule

Rushville plans to evaluate and rehabilitate/replace defect collection system assets as problem areas are identified and backups. The recent improvement process has been as a result of reacting to problems as they occur; however, the City plans to use sewer evaluation techniques to begin to identify problem areas. The City is preparing to televised approximately 1,300 LF of sewer main this year in order to address known issues.

SECTION 5 -

Benchmarking and CMOM Plan Updates

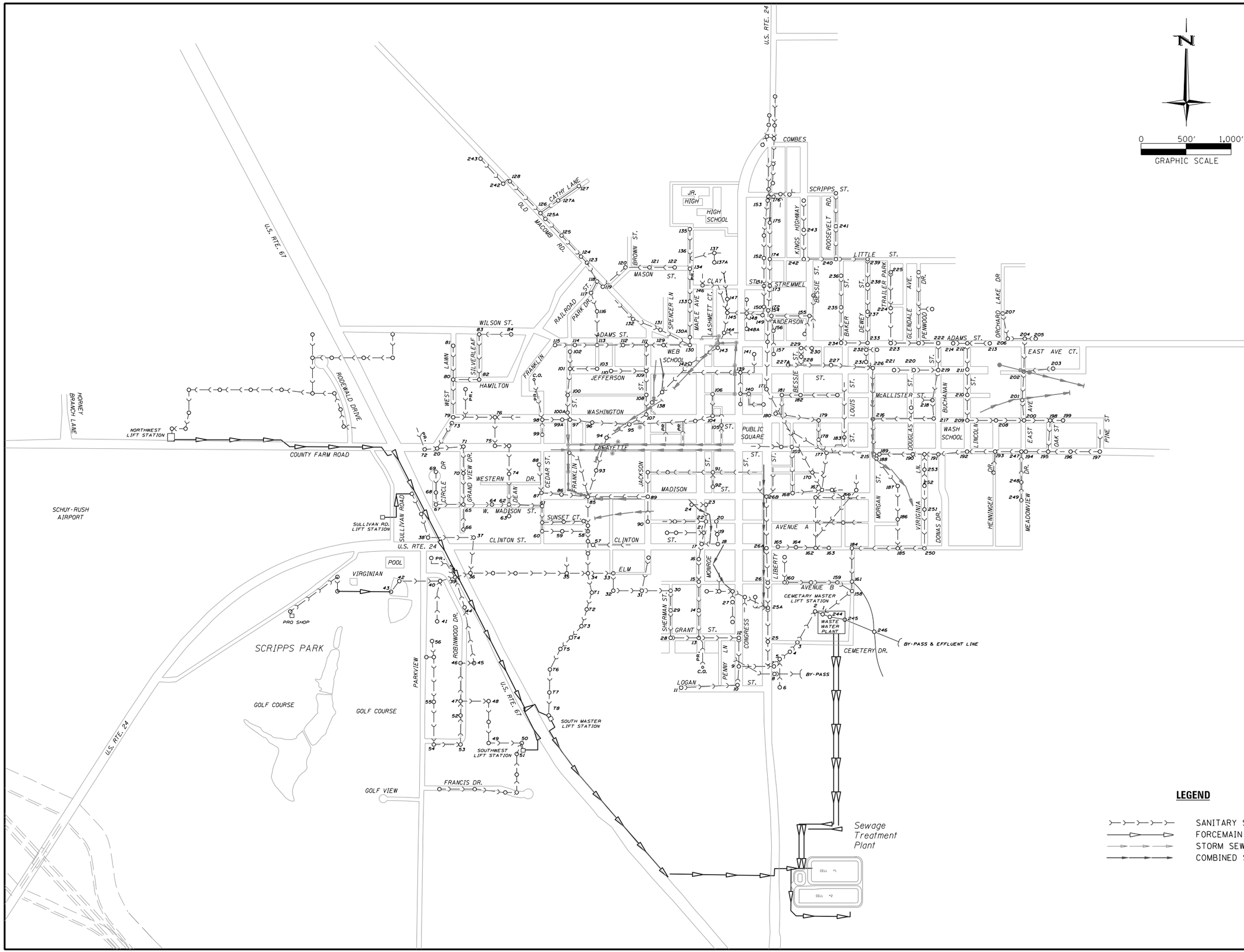
5.1 Performance Provisions and Continued Regulatory Compliance

The CMOM Plan presented herein serves as an initiation of a long-term program with the objective of improving operation and maintenance practices on the wastewater collection system of the City of Rushville. The primary focus of this update to the CMOM plan of the City of Rushville was addressing Special Condition 13 included in the NPDES Permit (as discussed in Section 1). Accordingly, this plan essentially covered collection system capacity and operation and maintenance matters to prevent overflows and basement backups and reduce extraneous flows to the WWTP. Nevertheless, some basic information about the Rushville wastewater department staff and their operational practices were also included herein with this plan. Economics of wastewater collection system management, i.e., budgeting and funding for the wastewater staff and collection system O&M and near-term capital improvement projects were only briefly described herein and are more appropriately addressed in the current facility planning document.

Another goal of the CMOM plan is to set quantifiable performance measures, thereby providing a level of service (LoS) with respect to wastewater collection system operations. The City's intent work towards the goals of achieving no discharges from overflows or basement backups and ensuring that overflows or backups, when they do occur, do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water.

5.2 Benchmarking and Updating the CMOM Plan

The CMOM plan will be reviewed and updated each year in accordance with the City's NPDES permit. During these reviews, the performance measures and goals will be evaluated. If a goal is not met within the targeted timeframe, then reasons for not meeting that goal will be determined, and an alternative action plan will be developed in coordination with the IEPA. New performance measures will be added as the program is updated.



LEGEND

- SANITARY SEWER MAIN
- FORCEMAIN
- STORM SEWER
- COMBINED SEWER

BENTON & ASSOCIATES INC
Illinois Design Firm
Registration No. 184-000852

No.	Description	Date	Appr.

SEWER SYSTEM MAP
CAPACITY, MANAGEMENT, OPERATIONS, & MAINTENANCE (CMOM) PLAN
CITY OF RUSHVILLE
SCHUYLER COUNTY, ILLINOIS

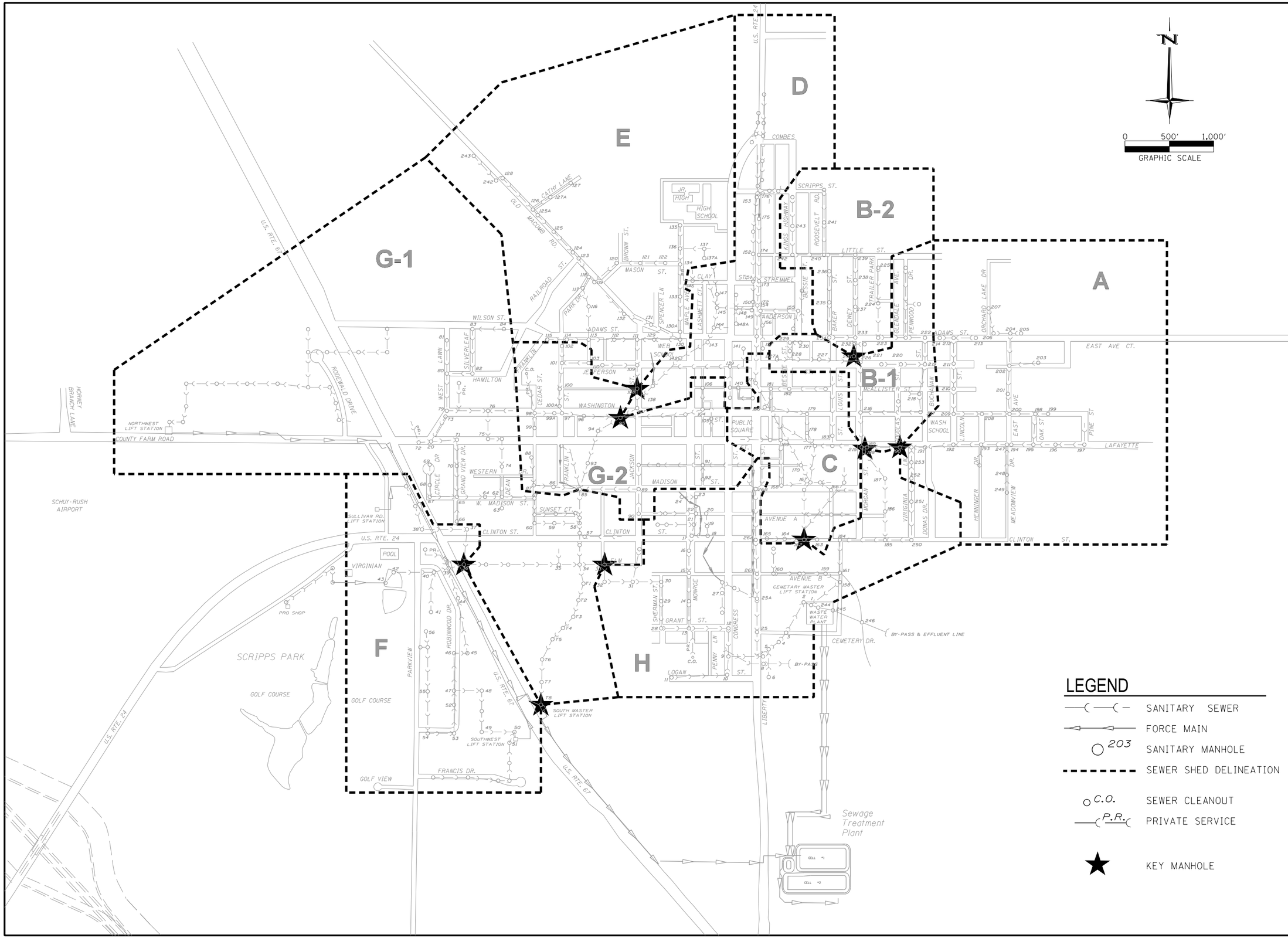
Macomb Illinois
Kirksville Missouri
Kennett Missouri
Rolla Missouri
Lebanon Missouri

BENTON & ASSOCIATES, INC.
1970 Lafayette Avenue, Jacksonville, IL 62650
(217) 245-4146 (217) 245-4149 Fax

Date:	June 2021
Designed by:	JLH
Drawn by:	ELD
Reviewed by:	CCJ
Approved by:	JLH

Job No. 21E3565

Exhibit 1



BENTON & ASSOCIATES INC
Illinois Design Firm
Registration No. 184-000852

No.	Description	Date	Appr.

SEWER SHED MAP
CAPACITY, MANAGEMENT, OPERATIONS, & MAINTENANCE (CMOM) PLAN
CITY OF RUSHVILLE
SCHUYLER COUNTY, ILLINOIS

BENTON & ASSOCIATES, INC.
1970 Lafayette Avenue, Jacksonville, IL 62650
(217) 245-4146 (217) 245-4149 Fax

Macomb Illinois
Kirksville Missouri
Mexico Missouri
Rolla Missouri
Lebanon Missouri

Date:	June 2021
Designed by:	JLH
Drawn by:	ELD
Reviewed by:	CCJ
Approved by:	JLH

Job No. 21E3565

2

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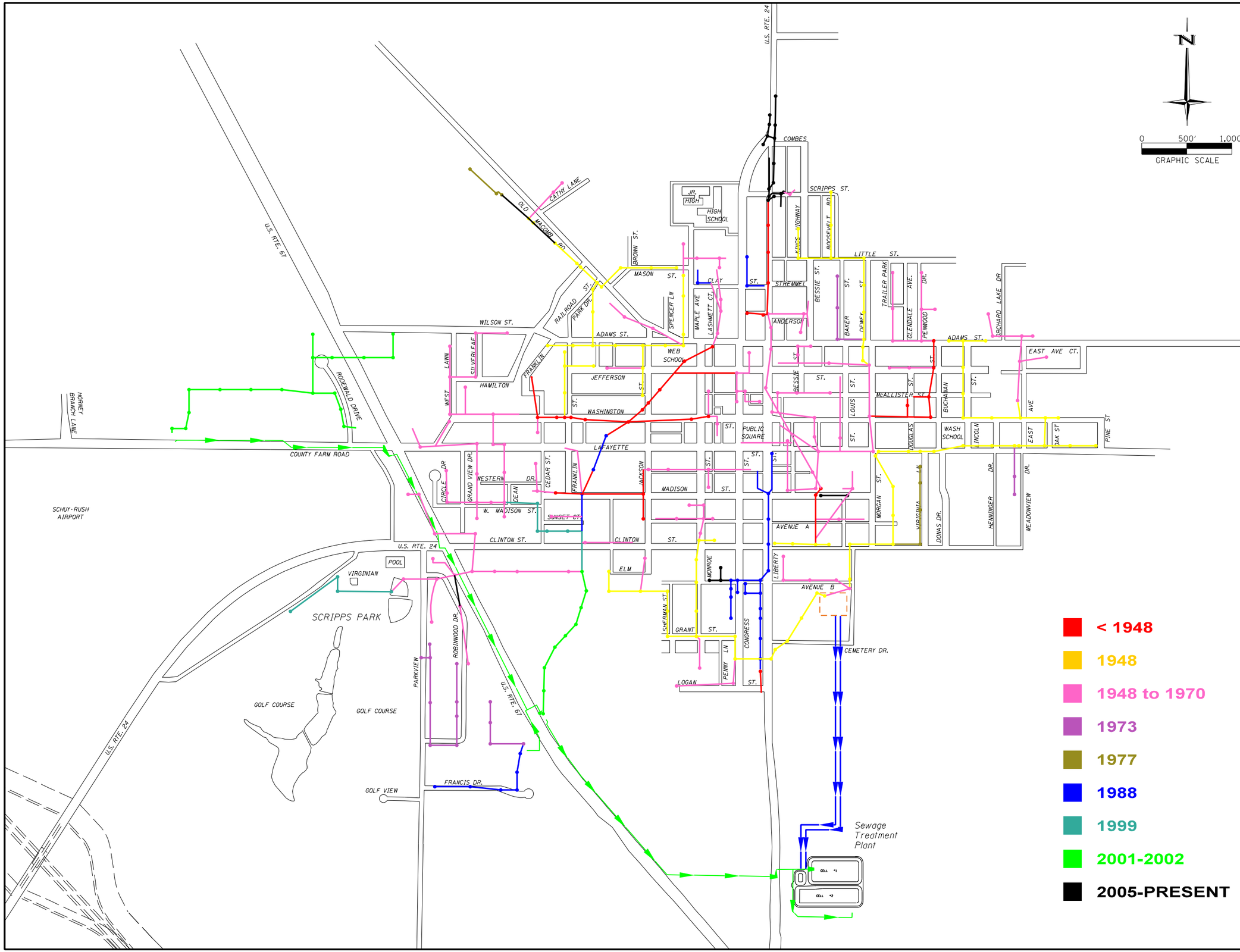

BENTON & ASSOCIATES INC
Illinois Design Firm
Registration No. 184-000852

No.	Description	Date	Appr.

SEWER SYSTEM AGE MAP
CAPACITY, MANAGEMENT, OPERATIONS, & MAINTENANCE (CMOM) PLAN
CITY OF RUSHVILLE
SCHUYLER COUNTY, ILLINOIS

Macomb Illinois
Kirksville Missouri
Mexico Missouri
Rolla Missouri
Lebanon Missouri

BENTON & ASSOCIATES, INC.
1970 Lafayette Avenue, Jacksonville, IL 62650
(217) 245-4146 (217) 245-4149 Fax

Date:	June 2021
Designed by:	JLH
Drawn by:	ELD
Reviewed by:	CCJ
Approved by:	JLH

Job No. 21E3565

Exhibit 3

EXHIBIT 4
RUSHVILLE SEWER LIFT STATION SYSTEM DATA

NORTHWEST LIFT STATION:

Two submersible Flygt N Series Pumps
7.5 Horsepower Three Phase Motors
Capacities:

One pump	334 gpm @ 25 ft TDH
Two pumps	400 gpm @ 28 ft TDH
Ground Elevation	667.4’
Pumps Off Elevation	642.0'
Wet Well Invert	640.8’

Standby Power: 25 kw/31.3 KVA Genset with an automatic transfer switch.

CONDITION:

SOUTHWEST LIFT STATION:

Two submersible Flygt Pumps installed in a drywell setup.
3 Horsepower Three Phase Motors
Capacities:

One pump	182 gpm @ 39 ft TDH
Two pumps	258 gpm @ 43 ft TDH
Ground Elevation	636.0’
Pumps Off Elevation	629.0'
Wet Well Invert	627.0’
Forcemain Discharge Elevation	638.0’

Standby Power: Connected to the South Master Lift Station’s 100 kw / 125 KVA Genset with an automatic transfer switch.

CONDITION:

SOUTH MASTER LIFT STATION:

Three submersible Flygt N Series Pumps
18 Horsepower Three Phase Motors
Capacities:

One pump	1250 gpm @ 43 ft TDH
Two pumps	1775 gpm @ 53 ft TDH
Three pumps	2025 gpm @ 60 ft TDH
Ground Elevation	640.5’
Pumps Off Elevation	622.0'
Wet Well Invert	620.0’
Forcemain Discharge Elevation	652.75’

Standby Power: 100 kw / 125 KVA Genset with an automatic transfer switch.

CONDITION:

CEMETARY LIFT STATION:

Four submersible Flygt N Series Pumps
Two(2) 10 Horsepower Three Phase Motors
Two(2) 35 Horsepower Three Phase Motors

Capacities:

One normal flow pump	500 gpm @ 45 ft TDH
Two normal flow pumps	710gpm @ 55ft TDH
One storm pump	2000 gpm @ 37 ft TDH
Two storm pumps	2840 gpm @ 45 ft TDH
Ground Elevation	647.0’
Pumps Off Elevation	626.0'
Wet Well Invert	624.0’
Forcemain Discharge Elevation	652.25’

Standby Power: 100 kw / 125 KVA Genset with an automatic transfer switch.

CONDITION:

SULLIVAN ROAD LIFT STATION:

One submersible Myers WG Series Grinder Pump (Spare pump on the shelf)
One (1) 2 Horsepower Single Phase

Capacity: One pump	31 gpm @ 36 ft TDH
Ground Elevation	665.0’
Pumps Off Elevation	658.0'
Wet Well Invert	657.0’
Forcemain Discharge Elevation	667.0’

Standby Power: None

CONDITION:

RUSHVILLE STP
NPDES Permit# IL0021717

Effluent Flow - Monthly Average

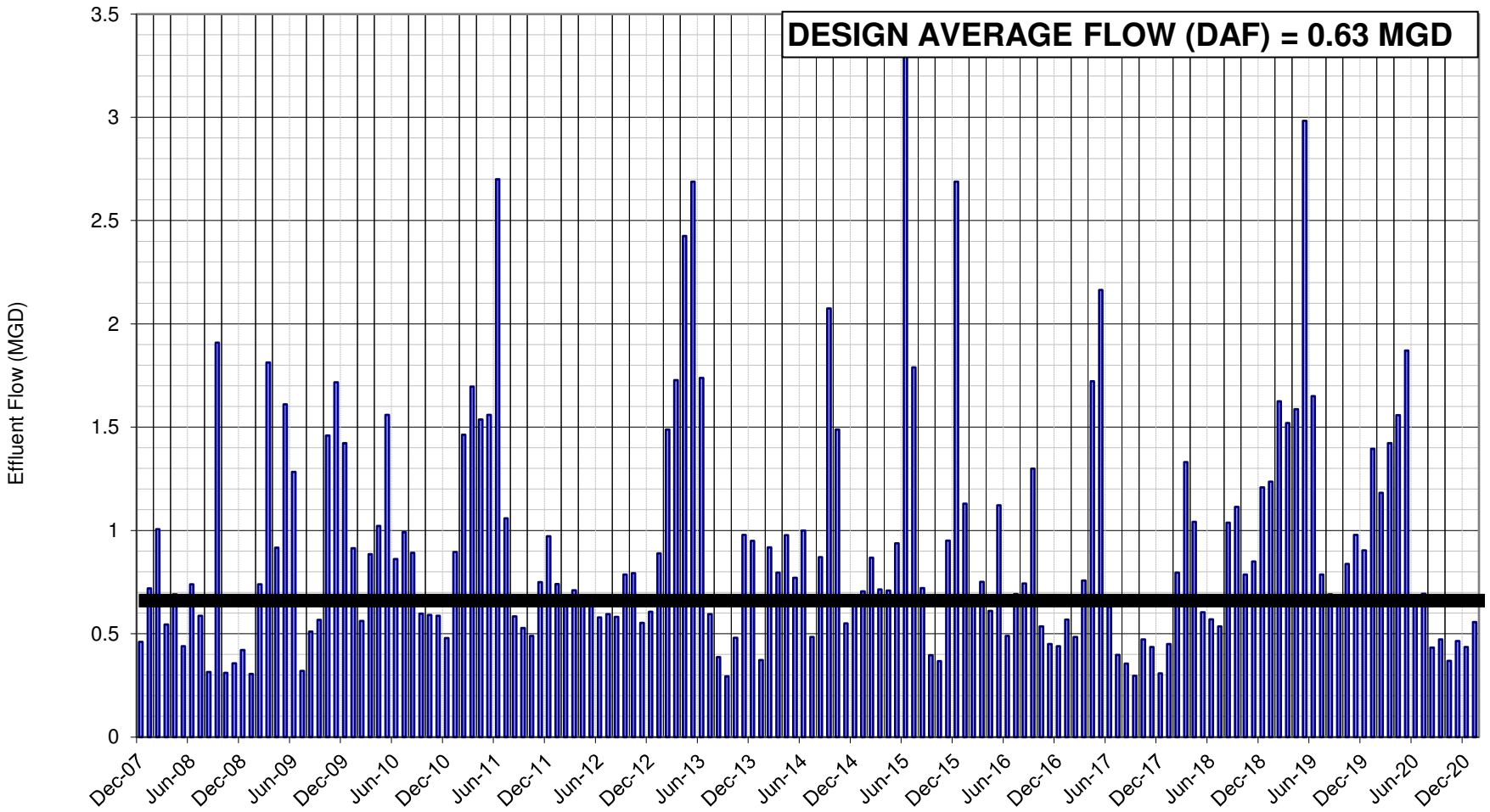

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Exhibit 5

RUSHVILLE STP
NPDES Permit# IL0021717

Effluent Flow - Daily Maximum

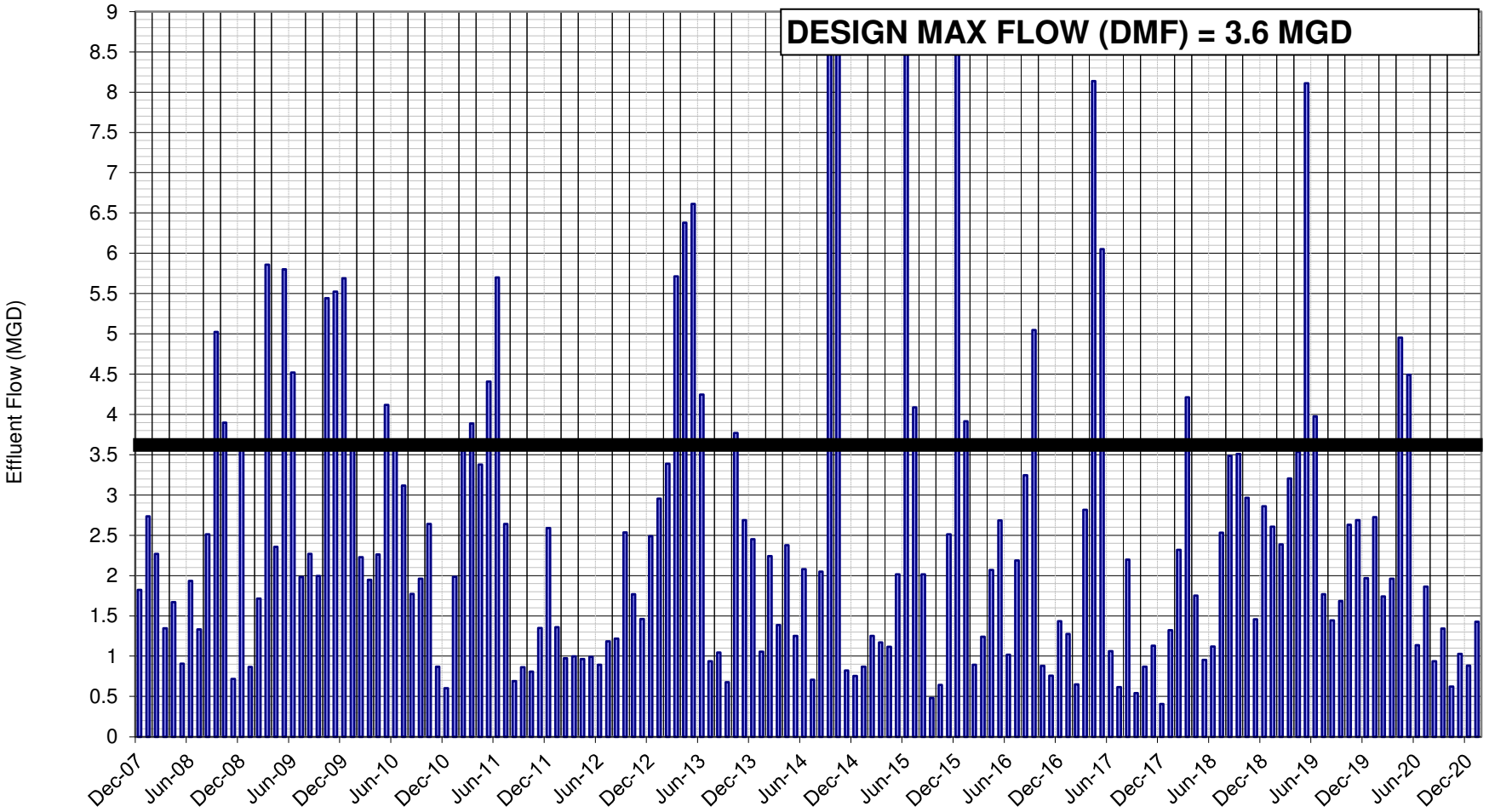

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Exhibit 5

RUSHVILLE STP
NPDES Permit# IL0021717

Effluent Suspended Solids (Loading) - Monthly Average

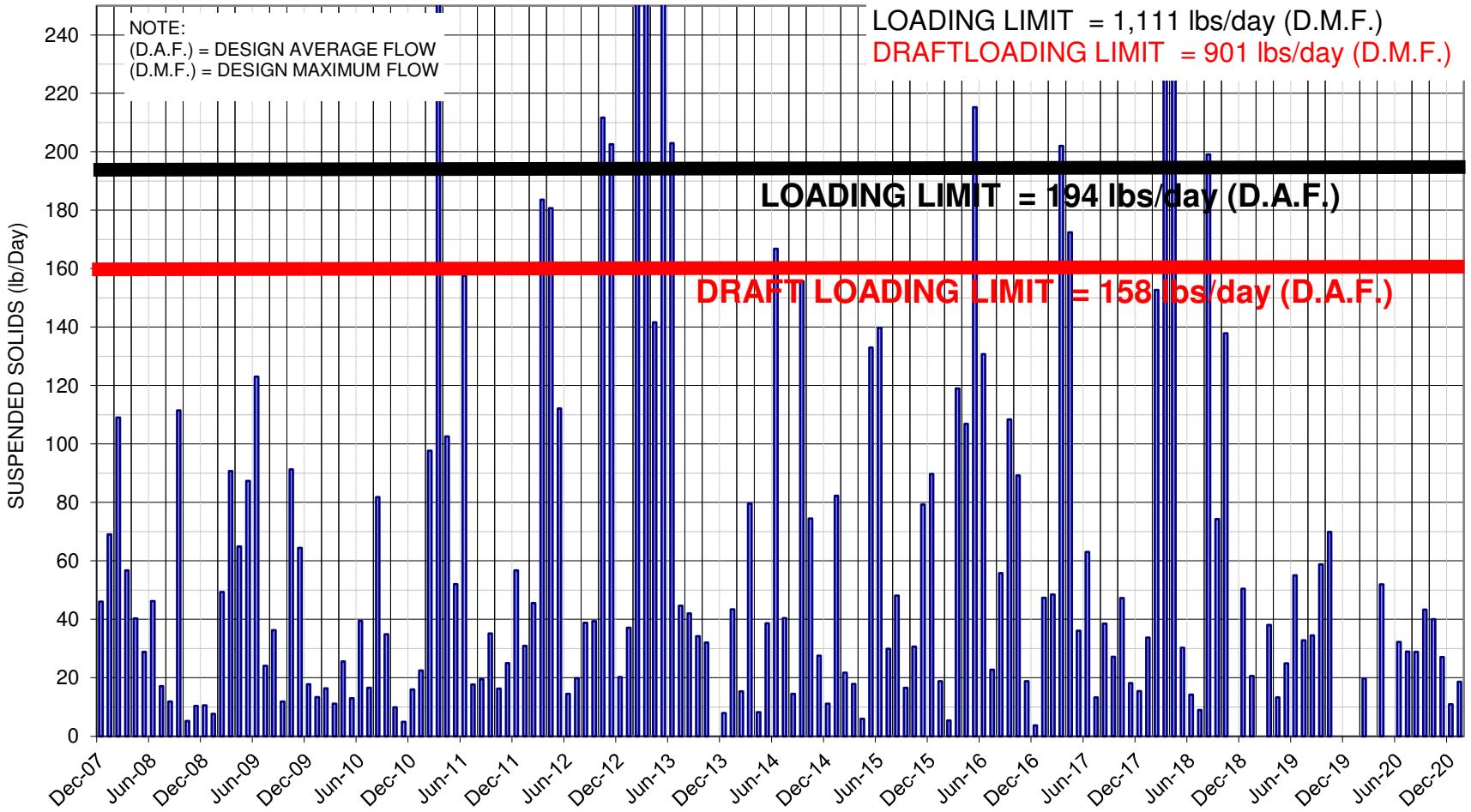

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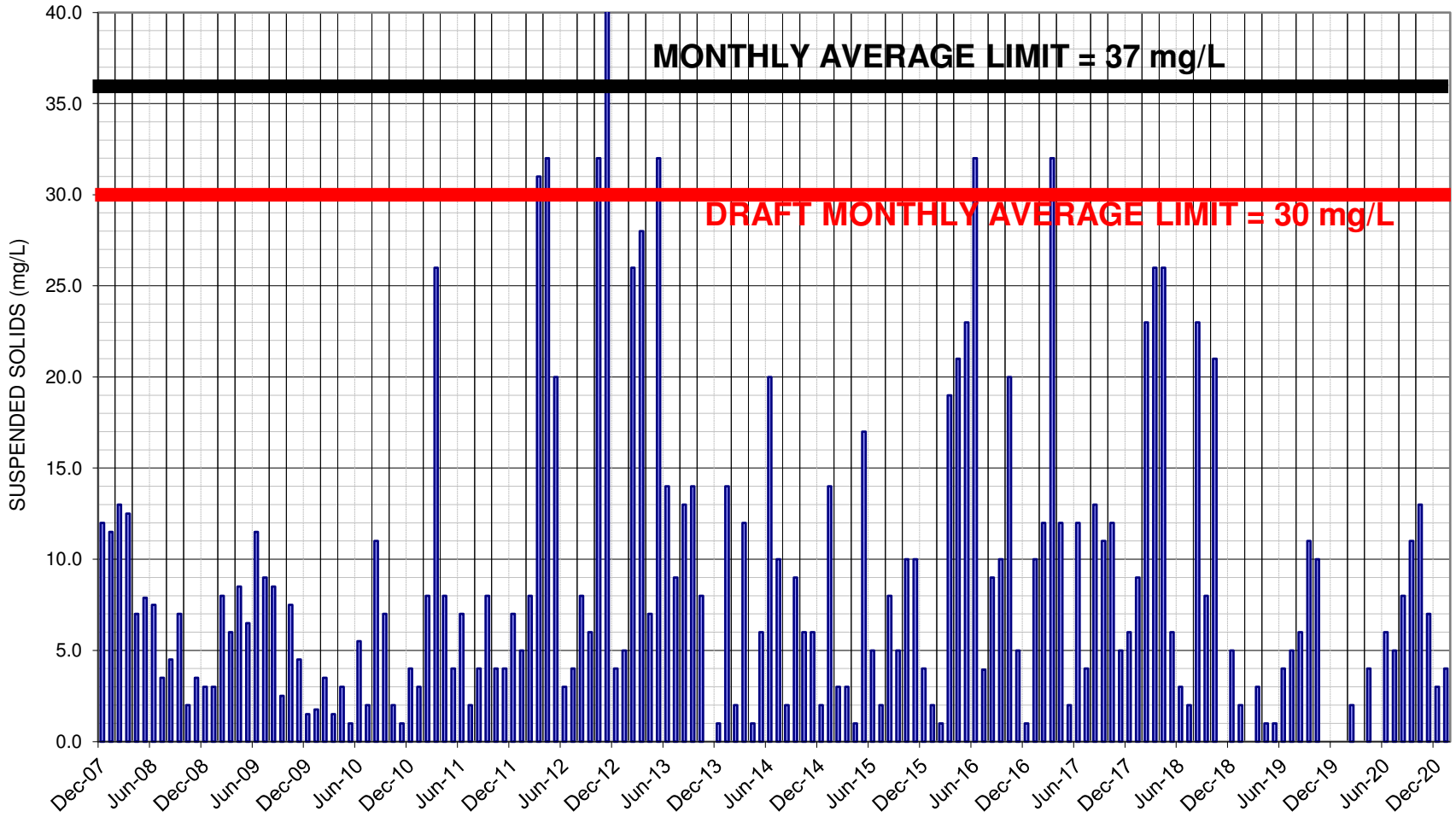
Exhibit 5

RUSHVILLE STP
NPDES Permit# IL0021717

Effluent Suspended Solids (Concentration) - Monthly Average



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

217/782-0610

November 02, 2021

City of Rushville
111 East Washington Street
Rushville, Illinois 62681

Re: City of Rushville STP
NPDES Permit No. IL0021717
Bureau ID W1690200001
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The permittee address was changed as requested.

Pursuant to the Final NPDES Electronic Reporting Rule, 80 FR 64064 October 22, 2015, all permittees must report DMRs electronically unless a waiver has been granted by the Agency. The Agency utilizes NetDMR, a web based application, which allows the submittal of electronic Discharge Monitoring Reports instead of paper Discharge Monitoring Reports (DMRs). More information regarding NetDMR can be found on the Agency website, http://epa.state.il.us/water/net-dmr/index.html. If your facility has received a waiver from the NetDMR program, a supply of preprinted paper DMR Forms will be sent to your facility. Additional information and instructions will accompany the preprinted DMRs. Please see the attachment regarding the electronic reporting rule. For assistance, call 217-782-9720 and ask to speak to the specialist for your region.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

Should you have questions concerning the Permit, please contact Jaime Rabins at 217/782-0610.

Sincerely,

Brant D. Fleming, P.E.
Manager, Municipal Unit, Permit Section
Division of Water Pollution Control

BDF:JAR:21042601

Attachments: Final Permit

cc: Records Unit
Springfield FOS
Compliance Assurance Section
Billing
Benton & Associates, Inc.

NPDES Permit No. IL0021717

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: November 30, 2026

Issue Date: November 02, 2021
Effective Date: December 01, 2021

Name and Address of Permittee:

City of Rushville
111 East Washington Street
Rushville, Illinois 62681

Facility Name and Address:

City of Rushville STP
South Liberty Street
Rushville, Illinois 62681
(Schuyler County)

Receiving Waters: Unnamed Tributary to Town Branch Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the Effluent Limitations, Monitoring, and Reporting requirements: Special Conditions and Attachment H Standard Conditions attached herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Brant D. Fleming, P.E.
Manager, Municipal Unit, Permit Section
Division of Water Pollution Control

BDF:JAR:21042601

Exhibit 6

NPDES Permit No. IL0021717

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 0.63 MGD (design maximum flow (DMF) of 3.6 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L				
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sample Frequency	Sample Type
Flow (MGD)							Continuous	
$CBOD_5$**, ***	131 (751)	210 (1201)		25	40		2 Days/Month	Grab
Suspended Solids****	158 (901)	236 (1351)		30	45		2 Days/Month	Grab
pH	Shall be in the range of 6 to 9 Standard Units						2 Days/Month	Grab
Fecal Coliform	Monitor Only (May thru October)						2 Days/Month	Grab
Chlorine Residual***						0.05	***	Grab
Ammonia Nitrogen (as N)	Monitor Only						1 Day/Month	Grab
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen								
March-July				N/A	6.0	5.0	2 Days/Month	Grab
August-February				5.5	4.0	3.5	2 Days/Month	Grab

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.
**Carbonaceous BOD_5 ($CBOD_5$) testing shall be in accordance with 40 CFR 136.
***See Special Condition 8.
****BOD_5 and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent. The percent removal need not be reported to the IEPA on DMRs but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent $CBOD_5$ concentration to determine the effluent BOD_5 concentration. Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

Ammonia Nitrogen shall be reported on the DMR as a daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

Exhibit 6

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Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency	Sample Type
Flow (MGD)	Continuous	
BOD_5	2 Days/Month	Composite
Suspended Solids	2 Days/Month	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD_5 and Suspended Solids shall be reported on the DMR as a monthly average concentration.

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Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 4 operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302 and 303.

SPECIAL CONDITION 6. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the constructed wetland, except total phosphorus which shall be sampled after the constructed wetland, but prior to entry into the receiving stream.

SPECIAL CONDITION 7. Consistent with permit modification procedures in 40 CFR 122.62 and 63, this Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 8. Any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

SPECIAL CONDITION 9. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on the form titled "Fiscal Report Form For NPDES Permittees" and submitted electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0021717 Special Condition 9" as the subject of the email. Forms are available on the following webpage: *https://www2.illinois.gov/epa/topics/forms/water-forms/Pages/wastewater-compliance.aspx*.

SPECIAL CONDITION 10. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or upon completion of an alternate Water Quality Study.

SPECIAL CONDITION 11. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, *https:www2.illinois.gov/epa/topics/water-quality/surface-water/netdmr/pages/quick-answer-guide.aspx*.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees that have been granted a waiver shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 12. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 13. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement back-ups and ensuring that overflows or back-ups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. Overflows from sanitary sewers are expressly prohibited by this permit and by 35 Ill. Adm. Code 306.304. As part of the process to ultimately achieve compliance through the elimination of and mitigating the adverse impacts of any such overflows if they do occur, the Permittee shall (A) identify and report to IEPA all SSOs that do occur, and (B) develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan which includes an Asset Management strategy within twenty-four (24) months of the effective date of this Permit and update annually thereafter and maintain it at the facility for review during Agency Field Operations Section inspections. The CMOM shall be submitted to the Agency electronically to EPA.PrmtSpecCondtns@illinois.gov with "IL0021717 Special Condition 13" as the subject of the email and posted to the permittees website by March 31 of each year. The Permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible. The Permittee should work as appropriate, in consultation with affected

authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they are designed.The CMOM plan shall include the following elements:

a. Measures and Activities:

1. A complete map and system inventory for the collection system owned and operated by the Permittee;
2. Organizational structure; budgeting; training of personnel; legal authorities; schedules for maintenance, sewer system cleaning, and preventative rehabilitation; checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
3. Documentation of unplanned maintenance;
4. An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and back-ups occur or are likely to occur; use flow monitoring as necessary;
5. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee;
6. Operational control, including documented system control procedures, scheduled inspections and testing;
7. The Permittee shall develop and implement an Asset Management strategy to ensure the long-term sustainability of the collection system. Asset management shall be used to assist the Permittee in making decisions on when it is most appropriate to repair, replace or rehabilitate particular assets and develop long-term funding strategies; and
8. Asset management shall include but is not limited to the following elements:
   a. Asset Inventory and State of the Asset;
   b. Level of Service;
   c. Critical Asset Identification;
   d. Life Cycle Cost; and
   e. Long-Term Funding Strategy.

b. Design and Performance Provisions:

1. Monitor the effectiveness of CMOM;
2. Upgrade the elements of the CMOM plan as necessary; and
3. Maintain a summary of CMOM activities.

c. Overflow Response Plan:

1. Know where overflows and back-ups within the facilities owned and operated by the Permittee occur;
2. Respond to each overflow or back-up to determine additional actions such as clean up; and
3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow /infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.

d. System Evaluation Plan:

1. Summary of existing SSO and Excessive I/I areas in the system and sources of contribution;
2. Evaluate plans to reduce I/I and eliminate SSOs;
3. Special provisions for Pump Stations and force mains and other unique system components; and
4. Construction plans and schedules for correction.

e. Reporting and Monitoring Requirements:

1. Program for SSO detection and reporting; and
2. Program for tracking and reporting basement back-ups, including general public complaints.

f. Third Party Notice Plan:

1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
3. Identifies who shall receive the notification;
4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
5. Includes a description of the lines of communication; and
6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

For additional information concerning USEPA CMOM guidance and Asset Management please refer to the following web site addresses: *http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf* and *http://water.epa.gov/type/watersheds/wastewater/upload/guide_smallsystems_assetmanagement_bestpractices.pdf*

NPDES Permit No. IL0021717

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L. 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means 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.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **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 apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

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

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

10) **Monitoring and records.**
(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA at any time.
(c) Records of monitoring information shall include:
(1) The date, exact place, and time of sampling or measurements;
(2) The individual(s) who performed the sampling or measurements;
(3) The date(s) analyses were performed;
(4) The individual(s) who performed the analyses;
(5) The analytical techniques or methods used; and
(6) The results of such analyses.
(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.
(a) **Application.** All permit applications shall be signed as follows:
(1) For a corporation: by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;
(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.
(b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:
(1) The authorization is made in writing by a person described in paragraph (a); and
(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and
(3) The written authorization is submitted to the Agency.
(c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
(d) **Certification.** Any person signing a document under paragraph (a) or (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.

12) **Reporting requirements.**
(a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.
Notice is required when:
(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29(b); or
(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42(a)(1).
(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
(b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
(c) **Transfers.** This permit is not transferable to any person except after notice to the Agency.
(d) **Compliance schedules.** 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 14 days following each schedule date.
(e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; 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 reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(2) Any upset which exceeds any effluent limitation in the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12)(d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

3) Bypass.

(a) Definitions.

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

(2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

(b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).

(c) Notice.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).

(d) Prohibition of bypass.

(1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:

(i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(ii) 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

(iii) The permittee submitted notices as required under paragraph (13)(c).

(2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) Upset.

(a) Definition. 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) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for a demonstration of upset. 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 that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated; and

(3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).

(4) The permittee complied with any remedial measures required under paragraph (4).

(d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

Standard Conditions

15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:
   (a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
   (b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:
      (1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
      (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
      (3) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

16) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
      (1) One hundred micrograms per liter (100 ug/l);
      (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.
      (3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or
      (4) The level established by the Agency in this permit.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

17) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:
   (a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
   (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   (c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

18) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:
   (a) User charges pursuant to Section 204 (b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;
   (b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and
   (c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(19) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(20) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(21) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(22) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.
Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).

(23) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

(24) The Clean Water Act 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 non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(25) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(27) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board or any court with jurisdiction.

(28) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

(Rev. 7-9-2010 bah)

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(b) Upon the superintendent taking steps to notify customers as set forth in subsection (a) of this section, a customer shall be presumed to have notice and shall take steps to comply with this division, except a customer may rebut such presumption by showing that the customer did not, in fact, have notice of the directions to comply with the provisions of this division.
(Ord. No. 832, § III, 9-3-1991)

Secs. 74-242—74-260. Reserved.

Subdivision V. Compliance

Sec. 74-261. Required.

(a) All persons who receive city water service shall be entitled to receive such water service only upon strict compliance with provisions of this division.

(b) It shall be unlawful for any person to violate the mandatory provisions of this division when such person is directed to reduce or curtail their use of water as set forth in section 74-204. A direction to reduce or curtail use of water shall be presumed when notice is given as set forth in this division.
(Ord. No. 832, § IV, 9-3-1991)

Secs. 74-262—74-279. Reserved.

ARTICLE IV. SEWERS AND DRAINS

DIVISION 1. GENERALLY

Sec. 74-280. Definitions.

Unless the context specifically indicates otherwise, the meaning of terms used in this article shall be as follows:

"*Administrator*" means the Administrator of the U.S. Environmental Protection Agency.

"*Approving authority*" means the City of Rushville or their designee.

"*Basic user charge*" shall mean the basic assessment levied on all users of the public sewer system.

"*BOD*" *(biochemical oxygen demand)* shall mean the quantity or oxygen utilized in the biochemical oxidation of organic matter under standards laboratory procedure in five days at 20° C, expressed in milligrams per liter.

"*Building drain*" shall mean that part of the lowest piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer or other approved point of discharge, beginning five feet (1.5 meters) outside the inner face of the building wall.

"*Building sewer*" shall mean the extension from the building drain to the public sewer or other place of disposal.

"*Capital improvement charge*" shall mean a charge levied on users to improve, extend or reconstruct the sewage treatment works.

"*City*" means the City of Rushville.

"*Combined sewer*" shall mean a sewer which is designed and intended to receive wastewater, storm, surface and groundwater drainage.

"*Commercial user*" shall include transit lodging, retail and wholesale establishments or places engaged in selling merchandise, or rendering services.

"*Control manhole*" shall mean a structure located on a site from which industrial wastes are discharged. Where feasible, the manhole shall have an interior drop. The purpose of a "control manhole" is to provide access for the City of Rushville's representative to sample and/or measure discharges.

"*Debt service charge*" shall be the amount to be paid each billing period for payment of interest, principal and coverage of (loan, bond, etc.) outstanding.

"*Director*" means the Director of the Illinois Environmental Protection Agency.

"*Easement*" shall mean an acquired legal right for the specific use of land owned by others.

"*Effluent criteria*" are defined in any applicable "NPDES permit".

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"*Federal Act*" means the Federal Clean Water Act (33 U.S.C. 466 et seq.) as amended, (Pub. L. 95-217).

"*Federal grant*" shall mean the U.S. government participation in the financing of the construction of treatment works as provided for by Title II-Grants for Construction of Treatment Works of the Act and implementing regulations.

"*Floatable oil*" is oil, fat, or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. A wastewater shall be considered free of floatable fat if it is properly pretreated and the wastewater does not interfere with the collection system.

"*Garbage*" shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage and sale of food.

"*Industrial users*" shall include establishments engaged in manufacturing activities involving the mechanical or chemical transformation of materials of substance into products.

"*Industrial waste*" shall mean any solid, liquid or gaseous substance discharged, permitted to flow or escaping from any industrial, manufacturing, commercial or business establishment or process or from the development, recovery or processing of any natural resource as distinct from sanitary sewage.

"*Institutional/governmental use*" shall include schools, churches, penal institutions, and users associated with federal, state, and local governments.

"*Local capital cost charge*" shall mean charges for costs other than the operation, maintenance and replacement costs, i.e. debt service and capital improvement costs.

"*Major contributing industry*" shall mean an industrial user of the publicly owned treatment works that: (a) Has a flow of 50,000 gallons or more per average work day; or (b) has a flow greater than ten percent of the flow carried by the municipal system receiving the waste; or (c) has in its waste, a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Federal Act; or (d) is found by the permit issuant authority, in connection with the issuance of the NPDES permit to the publicly owned treatment works receiving the waste, to have significant impact, either singly or in combination with other contributing industries, on that treatment works or upon the quality of effluent from that treatment works.

"*May*" is permissible.

"*Milligrams per liter*" shall mean a unit of the concentration of water or wastewater constituent. It is 0.001 g of the constituent in 1,000 ml of water. It has replaced the unit formerly used commonly, parts per million, to which it is approximately equivalent, in reporting the results of water and wastewater analysis.

"*Natural outlet*" shall mean any outlet into a watercourse, pond, ditch, lake, or other body of surface or groundwater.

"*NPDES permit*" means any permit or equivalent document or requirements issued by the administrator, or, where appropriated by the director, after enactment of the Federal Clean Water Act to regulate the discharge of pollutants pursuant to Section 402 of the Federal Act.

"*Ordinance*" means this ordinance [Ordinance 801, adopted November, 7, 1988].

"*Person*" shall mean any and all persons, natural or artificial including any individual, firm, company, municipal, or private corporation, association, society, institution, enterprise, governmental agency or other entity.

"*pH*" shall mean the logarithm (base 10) of the reciprocal of the hydrogen-ion concentration expressed by one of the procedures outlined in the IEPA Division of Laboratories Manual of Laboratory Methods.

"*ppm*" shall mean parts per million by weight.

"*Population equivalent*" is a term used to evaluate the impact of industrial or other waste on a treatment works or stream. One population equivalent is 100 gallons of sewage per day, containing 0.17 pounds of BOD and 0.22 pounds of suspended solids.

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"*Pretreatment*" shall mean the treatment of wastewaters from sources before introduction into the wastewater treatment works.

"*Properly shredded garbage*" shall mean the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half-inch (1.27 centimeters) in any dimension.

"*Public sewer*" shall mean a sewer provided by or subject to the jurisdiction of the City of Rushville. It shall also include sewers within or outside the city corporate limits that serve one or more persons and ultimately discharge into the city's sanitary, even though those sewers may not have been constructed with city funds.

"*Replacement*" shall mean expenditures for obtaining and installing equipment, accessories, or appurtenances which are necessary during the useful life of the treatment works to maintain the capacity and performance for which such works were designed and constructed. The term "operation and maintenance" includes replacement.

"*Residential user*" shall mean all dwelling units such as houses, mobile homes, apartments, permanent multi-family dwellings.

"*Sanitary sewer*" shall mean a sewer that conveys sewage or industrial wastes or a combination of both, and into which storm, surface, and ground waters or polluted industrial wastes are not intentionally admitted.

"*Sewage*" is used interchangeably with "wastewater".

"*Sewer*" shall mean a pipe or conduit for conveying sewage or any other waste liquids, including storm, surface and groundwater drainage.

"*Sewerage*" shall mean the system of sewers and appurtenances for the collection, transportation and pumping of sewage.

"*Sewerage fund*" is the principal accounting designation for all revenues received in the operation of the sewerage system.

"*Shall*" is mandatory.

"*Slug*" shall mean any discharge of water, sewage or industrial waste which in concentration of any given constituent or in quantity of low exceeds for any period of duration longer than 15 minutes more than five times the average 24-hour concentration or flows during normal operation.

"*State Act*" means the Illinois Anti-Pollution Bond Act of 1970.

"*State grant*" shall mean the State of Illinois participation in the financing of the construction of treatment works as provided for by the Illinois Anti-Pollution Bond Act and for making such grants as filed with the Secretary of State of the State of Illinois.

"*Storm sewer*" shall mean a sewer that carries storm, surface and groundwater drainage but excludes sewage and industrial wastes other than unpolluted cooling water.

"*Stormwater runoff*" shall mean that portion of the precipitation that is drained into the sewers.

"*Surcharge*" shall mean the assessment in addition to the basic user charge and debt service charge which is levied on those persons whose wastes are greater in strength than the concentration values established in this article.

"*Suspended solids*" *(SS)* shall mean solids that either float on the surface of, or are in suspension in water, sewage, or industrial waste, and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in the IEPA Division of Laboratories Manual of Laboratory Methods.

"*Unpolluted water*" is water quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the sanitary sewers and wastewater treatment facilities provided.

"*Useful life*" shall mean the estimated period during which the collection system and/or treatment works will be operated.

"*User charge*" shall mean a charge levied on users of treatment works for the cost of operation, maintenance and replacement.

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"*User class*" shall mean the type of user "residential, institutional/governmental, commercial", or "industrial" as defined herein.

"*Wastewater*" shall mean the spent water or a community. From this standpoint of course, it may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions, together with any groundwater, surface water, and stormwater that may be present.

"*Wastewater facilities*" shall mean the structures, equipment, and processes required to collect, carry away, and treat domestic and industrial wastes and transport effluent to a watercourse.

"*Wastewater service charge*" shall be the charge per quarter or month levied on all users of the wastewater facilities. The service charge shall be computed as outlined in division 3 of this article and shall consist of the total or the basic user charge, the local capital cost and a surcharge, if applicable.

"*Wastewater treatment works*" shall mean an arrangement of devices and structures for treating wastewater, industrial wastes, and sludge. sometimes used as synonymous with "waste treatment plant" or "wastewater treatment plant" or "pollution control plant".

"*Water quality standards*" are defined in the Water Pollution Regulations of Illinois.

"*Watercourse*" shall mean a channel in which a flow of water occurs, either continuously or intermittently.
(Ord. No. 801, App. 1, §§ 1—13, 11-7-1988)

Sec. 74-281. Supervision by committee on sewers.

All sewers and drains in any of the public streets, alleys or public places of the city shall be under the care and control of the city council and the committee on sewers. The council or committee shall see that they are kept in good repair and order and clear from obstruction, and shall cause the receiving basins, culverts and openings used in connection therewith to be kept free. The council or committee shall prescribe the mode of openings of any of the sewers or drains, and the form, size and material thereof. The council and committee shall have authority to make lateral connections therewith.
(Code 1988, § 20-136)

Cross reference—Duties of committee on sewers, § 2-58.

Sec. 74-282. Superintendent of sewers; duties generally.

The superintendent of sewers shall, under the direction of the committee on sewers, have the immediate control and management of all sewers and drains in any of the public streets, alleys, and public places of the city or which are parts of the sewer system of the city. He shall, in addition, perform such other duties as may be required of him by ordinance or resolution of the city council or under the direction of the committee on sewers.
(Code 1988, § 20-136.1)

Sec. 74-283. Superintendent of wastewater treatment plant; duties generally.

The superintendent of the wastewater treatment plant shall, under the direction of the committee on sewers, have the immediate control and management of the wastewater treatment plant of the city and all machinery and equipment used in connection therewith. He shall, in addition, perform such other duties as may be required of him by ordinance or resolution of the city council or under the direction of the committee on sewers.
(Code 1988, § 20-136.2)

Sec. 74-284. Records and accounts.

The committee on sewers acting with the city clerk shall keep a record of all permits granted for connections with sewers and drains, in which they shall enter the names of all persons from whom they receive money for such permits, with the amount received from each person and the time when it was received. Amounts so received shall be paid over to the city treasurer, who shall give his receipt therefor, and reported to the city council at the first regular meeting in each month.
(Code 1988, § 20-137)

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Sec. 74-285. Main sewer lines.

All main sewer lines shall be laid according to the project engineer's specifications.
(Code 1988, § 20-138)

Sec. 74-286. Property outside corporate limits.

Upon application made and permission granted, sewer taps shall be allowed for the use of property outside the corporate limits for property which also receives metered water service from the city. All conditions and requirements pertaining to sewer taps inside corporate limits shall apply.
(Ord. No. 894, § 2, 11-17-1997; Ord. No. 1007, 10-20-2003)

Sec. 74-287. Laterals.

Branches from the main sewer line shall be known as sewer service laterals. Extensions to the main sewer line and service laterals may be secured by a petition to the city council. All sewer service laterals shall be of schedule PVC-DWV glued plastic pipe. All sewer service laterals shall be provided with service connections so located as to serve each property passed in the most practical manner. No lateral shall be less than eight inches in diameter.
(Code 1988, § 20-139)

Sec. 74-288. Service branches.

All service connections shall be connected to a house sewer at the property line, shall be of the same class of material and specifications as laterals, and shall not be smaller than four inches in diameter. Such connections shall be known as service branches. Service branches may be secured only by application in writing to the committee on sewers or the city clerk on regular application forms provided for that purpose. Such an application shall be accompanied by the sewer service connection fee charged against the property to be served. The city shall lay such service branches as applied for within ten days from the date of the granting of the application whenever possible. All service branches, service connections, laterals, and main sewers shall be platted by the superintendent of waterworks; and such plats shall be filed with the clerk when installation has been completed. All service branches laid shall be for the use of the property described in the application, and no other property connected shall be permitted without a separate regular service branch application, accompanied by the regular fee and property description.
(Code 1988, § 20-140)

Sec. 74-289. Unlawful deposits.

It shall be unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the city or in any area under the jurisdiction of the city, any human or animal excrement, garbage or other objectionable waste.
(Ord. No. 801, ch. 0, art. I, § 1, 11-7-1988)

Sec. 74-290. Obstruction of sewer or drain prohibited.

No person shall obstruct any city or private sewer or drain in the city.
(Code 1988, § 20-144)

Sec. 74-291. Yoke required.

(a) No tap shall be made upon any of the sewers in the city other than by the use of a yoke.

(b) The installation of the yoke upon the sewer system shall be approved by the superintendent of the sewerage department of the city upon inspection by the superintendent or any of his agents so authorized.
(Code 1988, § 20-145)

Sec. 74-292. Sewer tap fee.

The fee for any tap onto any sewer line of the city shall be $300.00 during the work week and $550.00 on weekends and holidays.
(Ord. No. 894, § 1, 11-17-1997; Ord. No. 1218, 7-7-2014)

Sec. 74-293. Permit required to lay certain tiles or sewers.

No person shall lay any tile or sewer:

(1) In or across any street or alley of the city; or

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(2) In such a manner that the tile or sewer will discharge or drain into any street or alley of the city;

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without first obtaining permission of the committee on sewers.
(Code 1988, § 20-146)

Sec. 74-294. City authority and supervision required for excavations.

Any digging and excavation for sewers and drains in the public streets and alleys except that done under the authority and supervision of the city is prohibited.
(Code 1988, § 20-148)

Sec. 74-295. Inspection.

(a) The sewer plant superintendent and other duly authorized employees of the city, the state environmental protection agency, and the U.S. Environmental Protection Agency, bearing proper credentials and identification, shall be permitted to enter all properties for the purposes of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this article.

The sewer plant superintendent or his representative shall have no authority to inquire into any processes, including metallurgical, chemical, oil refining, ceramic, paper, or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterway or facilities for waste treatment.

(b) While performing the necessary work on private properties referred to in subsection (a) above, the sewer plant superintendent or duly authorized employees of the city, the Illinois Environmental Protection Agency, and the U.S. Environmental Protection Agency shall observe all safety rules applicable to the premises established by the company and the company shall be held harmless for injury or death to the city employees and the city shall indemnify the company against liability claims and demands for personal injury or property damage asserted against the company and growing out of the gauging and sampling operating, except as such may be caused by negligence or failure of the company to maintain conditions as required in section 74-345(a).

(c) The sewer plant superintendent and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter all private properties through which the city holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the sewage works lying within the easement. All entry and subsequent work, if any, on the easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved.
(Ord. No. 801, ch. 0, art. VI, §§ 1—3, 11-7-1988)

Sec. 74-296. Violation.

(a) Any person found to be violating any provision of this article shall be served by the city with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations. The city may revoke any permit for sewage disposal as a result of any violation of any provision of this article.

(b) Any person who shall continue any violation beyond the time limit provided for in subsection (a) of this section, shall be guilty of a misdemeanor, and on conviction thereof shall be punished as provided in section 1-12 for each violation. Each day in which any such violation shall continue shall be deemed a separate offense.

(c) Any person violating any of the provisions of this article shall become liable to the city by reasons of such violation.
(Ord. No. 801, ch. 0, art. VII, §§ 1—3, 11-7-1988)

Secs. 74-297—74-320. Reserved.

DIVISION 2. BUILDING SEWERS AND CONNECTIONS

Sec. 74-321. Permit required.

No unauthorized person shall uncover, make any connections with, or opening into, use, alter,

or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the sewer plant superintendent.
(Ord. No. 801, ch. 0, art. III, § 1, 11-7-1988)

Sec. 74-322. Permit classes; application; fee; supervision.

(a) There shall be two classes of building sewer permits:

(1) For residential, wastewater service; and

(2) For commercial, institutional/governmental or industrial wastewater service.

(b) In either case, the owner or his agent shall make application on a special form furnished by the city.

(c) The permit application shall be supplemented by any plans, specifications, or other information considered pertinent in the judgment of the sewer plant superintendent. A permit and inspection fee of $60.00 for a residential or commercial building sewer permit shall be paid to the city at the time the application is filed. The industry, as a condition of permit authorization, must provide information describing its wastewater constituents, characteristics, and type of activity.

(d) All such connections shall be made by or under the direct supervision of the superintendent of sewers. No such service connection shall be made until the service connection fee has been paid. All such fees, when collected, shall be placed and deposited by the clerk, into a separate account to be used by the city in the maintenance of its sewer system.

(e) In no case shall any service connection be laid, prepared or constructed for the use of any property or building other than the one particular property or building for which the application for sewer connection was made.
(Ord. No. 801, ch. 0, art. III, § 3, 11-7-1988; Code 1988, § 20-141)

State law reference—Connection charges, 65 ILCS 5/11-150-1.

Sec. 74-323. Separate, independent sewer required for each building; exception.

A separate and independent building sewer shall be provided for every building, except where one building stands at the rear of another or an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the building sewer from the front building may be extended to the rear building and the whole considered as one building sewer.
(Ord. No. 801, ch. 0, art. III, § 6, 11-7-1988)

Sec. 74-324. City permission required to backfill or cover up tile lines.

No person shall backfill or cover up any tile line or series of tile lines installed on land within the city until the lines have been inspected and approved and permission has been granted by the superintendent of sewers or a person authorized by him.
(Code 1988, § 20-160)

Sec. 74-325. Liability of contractor and property owner for violation of section 74-292(b) or 74-324.

The contractor, any of his employees who perform the work, and the owner of the land involved shall each separately be equally liable for violation of section 74-324.
(Code 1988, § 20-161)

Sec. 74-326. Trailer parks.

(a) The city shall make available to the owner or manager of any trailer park within the city limits one sewerage disposal tap on existing sewer mains for the furnishing of sewerage disposal to the residents of the trailer park.

(b) The owner of the trailer park shall be liable for the installation fee of such sewerage disposal tap.

(c) The owner of any trailer park within the city limits shall be liable for all sewerage disposal fees.
(Code 1988, § 20-163)

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Sec. 74-327. Connection to sources of surface runoff or groundwater.

No person shall make connection of roof downspouts, exterior foundation drains, areaway drains, or other sources of surface runoff or groundwater to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.
(Ord. No. 801, ch. 0, art. III, § 10, 11-7-1988)

Sec. 74-328. Use of public sewers required.

(a) *[Discharge of sewage to natural outlets.]* It shall be unlawful to discharge to any natural outlet within the city, or in any area under the jurisdiction of the city, any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this division.

(b) *[Privy, privy vault, septic tank, cesspool or other facility.]* Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage.

(c) *[Suitable toilet facilities.]* The owner of all the houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes situated within the city and abutting on any street, alley, or right-of-way in which there is not located or may in the future be located any public sanitary (or combined) sewer of the city, is hereby required at his expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of this division, within 90 days after date of official notice to do so, provided that said public sewer is within 100 feet of the property line.
(Ord. No. 801, ch. 0, art. I, §§ 2—4, 11-7-1988)

Sec. 74-329. Discharge of groundwater or other similar substances to sanitary sewers.

No person shall discharge, or cause to be discharged, any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water, or unpolluted industrial process waters to any sanitary sewer.
(Ord. No. 801, ch. 0, art. IV, § 1, 11-7-1988)

Sec. 74-330. Notification of superintendent of readiness of sewer for inspection.

An applicant for a building sewer permit shall notify the sewer plant superintendent when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the sewer plant superintendent or his representative.
(Ord. No. 801, ch. 0, art. III, § 12, 11-7-1988)

Sec. 74-331. Payment by city for sewerage services.

The city shall pay into the sewerage fund for services rendered to the city by the sewerage system a reasonable charge for the services received each month by the city from the sewerage system.
(Code 1988, § 20-154)

Sec. 74-332. Private sewage disposal.

(a) Where a public sanitary (or combined) sewer is not available under the provisions of section 74-328(c), the building sewer shall be connected to a private sewage disposal system complying with the provisions of this section.

(b) Before commencement of construction of a private sewage disposal system the owner shall first obtain a written permit signed by the sewer plant superintendent. The application for such permit shall be made on a form furnished by the city, which the applicant shall supplement by any plans, specifications and other information as deemed necessary by the sewer plant superintendent. A permit and inspection fee of $60.00 shall be paid to the city at the time the application is filed.

(c) A permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the sewer plant superintendent. He shall be allowed to inspect the work at any stage of construction and,

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in any event, the applicant for the permit shall notify the sewer plant superintendent when the work is ready for final inspection, and before any underground portions are covered. The inspection shall be made within 36 hours of the receipt of written notice by the sewer plant superintendent.

(d) The type, capacities, location, and layout of a private sewage disposal system shall comply with all recommendations of the State of Illinois Private Sewage Disposal Licensing Act and Code and with the State of Illinois Environmental Protection Agency. No permit shall be issued for any private sewage disposal system employing subsurface soil absorption facilities where the area of the lot is less than 7,500 square feet. No septic tank or cesspool shall be permitted to discharge to any natural outlet.

(e) At such time as a public sewer becomes available to a property served by a private sewage disposal system, as provided in section 74-328(c), a direct connection shall be made to the public sewer in compliance with this division, and any septic tanks, cesspools, and similar private sewage disposal facilities shall be abandoned and filled with suitable material.

(f) The owner shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times, and at no expense to the city.

(g) No statement contained in this article shall be construed to interfere with any additional requirements that may be imposed by the city health officer.

(h) When a public sewer becomes available, the building sewer shall be connected to said sewer within 60 days and the private sewage disposal system shall be cleaned of sludge and filled with clean bank-run gravel or dirt.
(Ord. No. 801, ch. 0, art. II, §§ 1—8, 11-7-1988)

Sec. 74-333. Unlawful disposal.

All disposal by any person into the sewer system is unlawful except those discharges in compliance with Federal Standards promulgated pursuant to the Federal Act and more stringent state and local standards.
(Ord. No. 801, ch. 0, art. III, § 2, 11-7-1988)

Sec. 74-334. Reserve capacity.

A building sewer permit will only be issued and a sewer connection shall only be allowed if it can be demonstrated that the downstream sewerage facilities, including sewers, pump stations and wastewater treatment facilities, have sufficient reserve capacity to adequately and efficiently handle the additional anticipated waste load.
(Ord. No. 801, ch. 0, art. III, § 4, 11-7-1988)

Sec. 74-335. Owner responsible for costs and expense.

All costs and expense incident to the installation and connection of the building sewer shall be borne by the owner. The owner shall indemnify the city from any loss or damage that may directly or indirectly be occasioned by the installation of the building sewer.
(Ord. No. 801, ch. 0, art. III, § 5, 11-7-1988)

Sec. 74-336. Old building sewers.

Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the sewer plant superintendent, to meet all requirements of this division.
(Ord. No. 801, ch. 0, art. III, § 7, 11-7-1988)

Sec. 74-337. Conformance to applicable requirements.

The size, slope, alignment, materials of construction of a building sewer, and the methods to be used in excavating, placing of the pipe, jointing, testing, and backfilling the trench, shall all conform to the requirements of the building and plumbing code or other applicable rules and regulations of the city. In the absence of code provisions or in amplification thereof, the materials and procedures set forth in appropriate specifications of the American Society of Testing Materials, Water Pollution Control Federation Manual of Practice No. 9, and Standard Specifications for Water and Sewer Main Construction in Illinois shall apply.
(Ord. No. 801, ch. 0, art. III, § 8, 11-7-1988)

Sec. 74-338. Building sewer elevation.

Whenever possible, the building sewer shall be brought to the building at an elevation below the

basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by a means which is approved in accordance with section 74-333, and discharged to the building sewer.
(Ord. No. 801, ch. 0, art. III, § 9, 11-7-1988)

Sec. 74-339. Connection of building sewer into public sewer.

The connection of the building sewer into the public sewer shall conform to the requirements of the building and plumbing code, or other applicable rules and regulations of the city, or the procedures set forth in appropriate specifications for the American Society of Testing Materials, Water Pollution control Federation Manual of Practice No. 9, and Standard Specifications for Water and Sewer Main Construction in Illinois. All such connections shall be made gastight and watertight. Any deviation from the prescribed procedures and materials must be approved by the sewer plant superintendent before installation.
(Ord. No. 801, ch. 0, art. III, § 11, 11-7-1988)

Sec. 74-340. Excavation for building sewer installation.

All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the city.
(Ord. No. 801, ch. 0, art. III, § 13, 11-7-1988)

Sec. 74-341. Discharged substances.

(a) Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as combined sewers or storm sewers, or to a natural outlet approved by the sewer plant superintendent. Industrial cooling water of unpolluted process waters may be discharged on approval of the sewer plant superintendent, to a storm sewer, combined sewer, or natural outlet.

(b) No person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

(1) Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid, or gas.

(2) Any waters or wastes containing toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in the receiving waters of the sewage treatment plant.

(3) Any waters or wastes having a pH lower than 5.5 or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage works.

(4) Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.

(c) No person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes if it appears likely in the opinion of the sewer plant superintendent that such wastes can harm either the sewers sewage treatment process or equipment; have an adverse effect on the receiving stream; or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the sewer plant superintendent will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treatability of

wastes in the sewage treatment plant, and maximum limits established by regulatory agencies. The substances prohibited are:

(1) Any liquid or vapor having a temperature higher than 150 degrees Fahrenheit (65° C).

(2) Any water or wastes containing toxic or poisonous materials; or oils, whether emulsified or not, in excess of 100 mg/l or containing substances which may solidify or become viscous at temperatures between 32 and 150 degrees Fahrenheit (0 and 65° C).

(3) Any garbage that has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of three-fourths horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the sewer plant superintendent.

(4) Any waters or wastes containing strong acid, iron pickling wastes, or concentrated plating solution whether neutralized or not.

(5) Any waters or wastes containing iron, chromium, copper, zinc, or similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage at the sewage treatment works exceeds the limits established by the sewer plant superintendent for such materials.

(6) Any waters or wastes containing phenols or other taste of odor-producing substances, in such concentrations exceeding limits which may be established by the sewer plant superintendent as necessary after treatment of the composite sewage, to meet the requirements of the state, federal, or other public agencies of jurisdiction for such discharge to the receiving waters.

(7) Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the sewer plant superintendent in compliance with applicable state of federal regulations.

(8) Any wastes or waters having a pH in excess of 9.5.

(9) Any mercury or any of its compounds in excess of 0.0005 mg/l as Hg at any time except as permitted by the sewer plant superintendent in compliance with applicable state and federal regulations.

(10) Any cyanide in excess of 0.1 mg/l at any time except as permitted by the sewer plant superintendent in compliance with applicable state and federal regulations.

(11) Materials which exert or cause:

a. Unusual concentrations of inert suspended solids (such as, but not limited to, Fullers earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate);

b. Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions);

c. Unusual BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works;

d. Unusual volume of flow or concentrations of wastes constituting "slugs" as defined herein.

(12) Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of agencies having jurisdiction over discharge to the receiving waters.

(d) If any waters or wastes are discharged or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in section

74-341(c), and/or which are in violation of the standards for pretreatment provided in 40 CFR 403, June 26, 1978 and any amendments thereto, and which in the judgment of the sewer plant superintendent may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the sewer plant superintendent may:

(1) Reject the wastes;

(2) Require pretreatment to an acceptable condition for discharge to the public sewers;

(3) Require control over the quantities and rates of discharge; and/or

(4) Require payment to cover the added costs of handling and treating the wastes not covered by existing taxes or sewer charges, under the provisions of section 74-346.

If the sewer plant superintendent permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the sewer plant superintendent, and subject to the requirements of all applicable codes, ordinances, and laws.

(Ord. No. 801, ch. 0, art. IV, §§ 2—5, 11-7-1988)

Sec. 74-342. Grease, oil, and sand interceptors.

Grease, oil, and sand interceptors shall be provided when, in the opinion of the sewer plant superintendent they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the sewer plant superintendent, and shall be located as to be readily and easily accessible for cleaning and inspection.

(Ord. No. 801, ch. 0, art. IV, § 6, 11-7-1988)

Sec. 74-343. Preliminary treatment or flow-equalizing facilities.

Where preliminary treatment or flow-equalizing facilities are provided, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.

(Ord. No. 801, ch. 0, art. IV, § 7, 11-7-1988)

Sec. 74-344. Control manhole.

Each industry shall be required to install a control manhole and, when required by the sewer plant superintendent, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such manhole, when required, shall be accessibly and safely located, and shall be constructed in accordance with plans approved by the sewer plant superintendent. The manhole shall be installed by the owner at his expense, and shall be maintained by him so as to be safe and accessible at all times.

(Ord. No. 801, ch. 0, art. IV, § 8, 11-7-1988)

Sec. 74-345. Laboratory analysis.

(a) The owner of any property serviced by a building sewer carrying industrial wastes shall provide laboratory measurements, tests, and analysis of waters and wastes to illustrate compliance with this division and any special conditions for discharge established by the city or regulatory agencies having jurisdiction over the discharge.

The number, type, and frequency of laboratory analysis to be performed by the owner shall be as stipulated by the city, but no less than once per year the industry must supply a complete analysis of the constituents of the wastewater discharge to assure that compliance with the federal, state, and local standards are being met. The owner shall report the results of measurements and laboratory analysis to the city at such times and in such a manner as prescribed by the city. The owner shall bear the expense of all measurements, analysis, and reporting required by the city. At such times as deemed necessary the city

reserves the right to take measurements and samples for analysis by an outside laboratory service.

(b) All measurements, tests, and analysis of the characteristics of waters and wastes to which reference is made in this division shall be determined in accordance with the latest edition of IEPA Division of Laboratories Manual of Laboratory Methods, and shall be determined at the control manhole provided, or upon suitable samples taken at said control manhole. In the event that no special manhole has been required the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and to determine the existence of hazards to life, limb, and property. The particular analysis involved will determine whether a 24-hour composite of all outfalls of a premises is appropriate or whether a grab sample of samples should be taken. Normally, but not always, BOD and suspended solids analysis are obtained from 24-hour composites of all outfalls, whereas pH's are determined from periodic grab samples.
(Ord. No. 801, ch. 0, art. IV, §§ 9, 10, 11-7-1988)

Sec. 74-346. Special agreement or arrangement.

No statement contained in this article shall be construed as preventing any special agreement or arrangement between the city and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the city for treatment, subject to payment therefore, in accordance with division 3 of this article, by the industrial concern provided such payments are in accordance with federal and state guidelines for user charge system.
(Ord. No. 801, ch. 0, art. IV, § 11, 11-7-1988)

Sec. 74-347. Protection of sewage works from damage.

No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, or tamper with any structure, appurtenance, or equipment which is a part of the sewage works. Any person violating this provision shall be subject to immediate arrest under charge of disorderly conduct.
(Ord. No. 801, ch. 0, art. V, § 1, 11-7-1988)

Secs. 74-348—74-350. Reserved.

DIVISION 3. SERVICE CHARGES; BILLING AND COLLECTION

Sec. 74-351. Bills.

(a) Rates or charges for services under this article shall be payable monthly or bimonthly depending on the classification of service for which bills are rendered. The owner of the premises, the occupant thereof and the user of the service shall be jointly and severally liable to pay for the service to such premises and the service is furnished to the premises by the city only upon the condition that the owner of the premises, occupant and user of the services are jointly and severally liable therefor to the city.

(b) Bills for sewer service shall be sent out by the city clerk on the first day of the month succeeding the period for which the service is billed.

(c) All sewer bills are due and payable 15 days after being sent out. A penalty of ten percent shall be added to all bills not paid by the 15th day after they have been rendered.
(Ord. No. 801, ch. 00, art. II, § 1, 11-7-1988)

Sec. 74-352. Delinquent bills.

If the charges for services under this article are not paid within 30 days after the rendition of the bill for such services, such services shall be discontinued without further notice and shall not be reinstated until all claims are settled.
(Ord. No. 801, ch. 00, art. II, § 2, 11-7-1988)

Sec. 74-353. Lien; notice of delinquency.

(a) Whenever a bill for sewer service remains unpaid for 45 days after it has been rendered, the city clerk shall file with the county recorder of deeds a statement of lien claim. This statement shall contain the legal description of the premises

served, the amount of the unpaid bill, and a notice that the city claims a lien for this amount as well as for all charges subsequent to the period covered by the bill.

(b) If the user whose bill is unpaid is not the owner of the premises and the city clerk has notice of this, notice shall be mailed to the owner of the premises if his address is known to the clerk, whenever such bill remains unpaid for a period of 45 days after it has been rendered.

(c) The failure of the city clerk to record such lien or to mail such notice or the failure of the owner to receive such notice shall not affect the right to foreclose the lien for unpaid bills.
(Ord. No. 801, ch. 00, art. II, § 3, 11-7-1988)

Sec. 74-354. Revenues.

(a) All revenues and moneys derived from the operation of the sewerage system shall be deposited in the sewer and water checking account of the city. All such revenues and moneys shall be held separate and apart from their private funds and separate and apart from all other funds of the city and all of such sum, without any deductions whatever, shall be delivered to the city clerk not more than ten days after receipt of the same, or at such more frequent intervals as may from time to time be directed by the mayor and city council.

(b) The city clerk shall receive all such revenues from the sewerage system and all other funds and moneys incident to the operation of such system as the such revenues and all other funds and moneys may be delivered to them and deposit the revenues and all other funds and moneys in the account of the fund designated as the "sewer and water checking account of the city." The clerk shall administer such fund in every respect in the manner provided by statute of the Revised Cities and Villages Act, effective January 1942.
(Ord. No. 801, ch. 00, art. II, § 5, 11-7-1988)

Sec. 74-355. Accounts.

(a) The city clerk shall establish a proper system of accounts and shall keep proper books, records, and accounts in which complete and correct entries shall be made of all transactions relative to the sewerage system, and at regular annual intervals he shall cause to be made an audit by an independent auditing concern of the books to show the receipt and disbursements of the sewerage system.

(b) In addition to the customary operating statements, the annual audit report shall also reflect the revenues and operating expenses of the wastewater facilities, including a replacement cost, to indicate that sewer service charges do in fact meet these regulations. In this regard, the financial information to be shown in the audit report shall include the following:

(1) Flow data showing total gallons received at the wastewater plant for the current fiscal year.

(2) Billing data to show total number of gallons billed per fiscal year.

(3) Number of users connected to the system.

(4) Number of nonmetered users.

(5) A list of users discharging nondomestic and industrial wastes and volume of waste discharged.

(Ord. No. 801, ch. 00, art. II, § 6, 11-7-1988)

Sec. 74-356. Wastewater service charge not applied to water not discharged to system under certain conditions.

There shall be no wastewater service charge for metered water consumption for that portion of the water consumption that is not discharged into the wastewater service of a nonresidential user if:

(1) A separate water consumption meter (new or rebuilt) is installed and maintained at the users expense in such a manner that it can be conclusively shown that no water passing through that meter is discharged or under any circumstances might be discharged into the wastewater service facility. Each such meter shall be certified at the users expense as to accuracy prior to installation and every fifth year thereafter. The city may test at any time at the city's expense.

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(2) Application is made annually to the city clerk setting forth the name and address of the applicant, the proposed location of the separate water consumption meter, the size of any proposed separate line, and a statement as to the use of such water, and such application is approved by the city council.

(Ord. No. 801, ch. 00, art. I, § 2, 11-7-1988; Ord. No. 807, 7-7-1989)

Sec. 74-357. Notice to landowners of sewer charges.

A copy of any ordinance establishing charges and rates for the use and service of the sewerage system of the city and providing for the collection thereof, properly certified to by the city clerk, shall be filed in the office of the recorder of deeds of the county and shall be deemed notice to all owners of real estate of their liability for service supplied to any user of the service of the sewerage system on their properties.

(Code 1988, § 20-156)

Sec. 74-358. Basis for wastewater service charges.

The wastewater service charge for the use of and for service supplied by the wastewater facilities of the city shall consist of a basic user charge for operation and maintenance plus replacement.

(1) The basic user charge shall be based on water usage as recorded by water meters and/or sewage meters for wastes having the following normal domestic concentrations:

a. A five day, 20 degree centigrade (20° C) biochemical oxygen demand (BOD of 200 mg/l).

b. A suspended solids (SS) content of 250 mg/l.

(2) It shall consist of operation and maintenance costs plus replacement and shall be computed as follows:

a. Estimate wastewater volume, pounds of SS and pounds of BOD to be treated.

b. Estimate the projected annual revenue required to operate and maintain the wastewater facilities including a replacement fund for the year, for all works categories.

c. Proportion the estimated OM&R costs to each user class by volume, suspended solids and BOD.

d. Proportion the estimated operation, maintenance and replacement (OM&R) costs to wastewater facility categories by volume, suspended solids and BOD.

e. Compute costs per 1,000 gal. for normal sewage strength.

f. Compute surcharge costs per pound per 1,000 gal. in excess of normal sewage strength for BOD and SS.

A surcharge will be levied to all users whose waters exceed the normal domestic concentrations of BOD (200 mg/l) and SS (250 mg/l). The surcharge will be based on water usage as recorded by water meters and/or sewage meters for all wasted which exceed the 200 mg/l and 250 mg/l concentration for BOD and SS respectively. Section 74-362 specifies the procedure to compute a surcharge.

The adequacy of the wastewater service charge shall be reviewed, not less often than annually, by certified public accountants for the city in their annual audit report. The wastewater service charge shall be revised periodically to reflect a change in operation and maintenance costs including replacement costs.

The users of wastewater treatment services will be notified annually, in conjunction with a regular bill, of the rate and that portion of the user charges which are attributable to the wastewater treatment operation, maintenance and replacement.

(Ord. No. 801, ch. 00, art. I, § 1, 11-7-1988)

Sec. 74-359. Basic user rates.

(a) *Users within the corporate limits:*

(1) There shall be and there is hereby established a minimum charge and a basic user

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rate for the use of and for service supplied by the wastewater facilities of the City of Rushville. A minimum charge of $15.56 billed bimonthly shall be applied to all users whose water consumption does not exceed 4,000 gallons bi-monthly.

(2) A basic user rate of $3.18 per 1,000 gallons shall be applied to all users for water consumption in excess of 4,000 gallons bi-monthly.

(3) All non-metered residential type users of the wastewater facilities shall pay a minimum flat rate charge per bi-monthly billing period adequate to cover the minimum service charge of $15.56 per 4,000 gallons used bi-monthly. The flat rate charge will allow a maximum of 4,000 gallons per bi-monthly period.

(b) *Users outside the corporate limits:*

(1) A minimum charge of $31.11 billed bimonthly shall be applied to all users of the wastewater facilities of the City of Rushville whose water consumption does not exceed 4,000 gallons per bi-monthly period.

(2) A basic user rate of $6.36 per 1,000 gallons shall be applied to all users for water consumption in excess of 4,000 gallons per bi-monthly period.

(3) All non-metered residential type users of the wastewater facilities shall pay a minimum flat rate charge per bi-monthly billing period adequate to cover the minimum service charge of $31.11 per 4,000 gallons used bi-monthly.

(4) In the event use of the wastewater facilities is determined by the City of Rushville to be in excess of 4,000 gallons per bimonthly period, the City of Rushville may require such flat rate user to install metering devices on the water supply or sewer main to measure the amount of service supplied.

(Ord. No. 801, ch. 00, art. I, § 3, 11-7-1988; Ord. No. 1065, ch. 00, art. I, § 3, 11-20-2006; Ord. No. 1099, ch. 00, art. I, § 3, 8-18-08; Ord. No. 1141, ch. 00, art. I, § 3, 5-2-2011; Ord. No. 1167, ch. 00, art. I, § 3, 7-2-2012)

Sec. 74-360. Surcharge rate.

The rates of surcharges for BOD and SS shall be as follows:

Per lb of BOD: $0.50

Per lb of SS: $0.40

(Ord. No. 801, ch. 00, art. I, § 4, 11-7-1988; Ord. No. 1065, ch. 00, art. I, § 4, 11-20-2006; Ord. No. 1099, ch. 00, art. I, § 4, 8-18-08; Ord. No. 1141, ch. 00, art. I, § 4, 5-2-2011; Ord. No. 1167, ch. 00, art. I, § 4, 7-2-2012)

Sec. 74-361. Computation of surcharge.

The concentration of wastes used for computing surcharges shall be established by waste sampling. Waste sampling shall be performed as often as may be deemed necessary by the city and shall be binding as a basic for surcharges.
(Ord. No. 801, ch. 00, art. I, § 5, 11-7-1988)

Sec. 74-362. Computation of wastewater service charge.

The wastewater service charge shall be computed by the following formula:

$$CW = CM + (Vu\text{-}X)\ CU + CS$$

Where:

CW = Amount of waste service charge ($) per billing period.

CM = Minimum Charge for Operation, Maintenance and Replacement (section 74-359).

Vu = Wastewater Volume for the billing period.

X = Allowable consumption in gallons for the minimum charge (section 74-359).

CU = Basic user Rate for Operation, Maintenance and Replacement (section 74-359).

CS = Amount of Surcharge (sections 74-360 and 74-361).

(Ord. No. 801, ch. 00, art. I, § 6, 11-7-1988)

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Sec. 74-363. Notice of rates; penalty; access to records.

(a) *Notice of rates:* Each user will be notified by the city in conjunction with a regular bill, of the rate and that portion of the user charges which are attributable to wastewater treatment services, including the financial information of section 74-355.

(b) *Penalty:* Any person, firm or corporation violating any provisions of this article shall be fined not less than $50.00 nor more than $500.00 for each offense.

(c) *Access to records:* The IEPA or its authorized representative shall have access to any books, documents, papers and records of the city which are applicable to the city system of user charges for the purpose of making audit, examination, excerpts and transcriptions thereof to insure compliance with the terms of the Build Illinois Grant.
(Ord. No. 801, ch. 00, art. II, §§ 7—9, 11-7-1988)

Sec. 74-364. Operation, maintenance and replacement (OMR) of facilities.

Ten percent of sewer use charges collected pursuant to this ordinance shall be used for the operation, maintenance, and replacement (OMR) of wastewater facilities and infrastructure not covered by the existing OMR fund.
(Ord. No. 1065, ch. 00, art. I, § 7, 11-20-2006; Ord. No. 1099, ch. 00, art. I, § 7, 8-18-08; Ord. No. 1141, ch. 00, art. I, § 7, 5-2-2011; Ord. No. 1167, ch. 00, art. I, § 7, 7-2-2012)

Secs. 74-365—74-380. Reserved.

DIVISION 4. SCHUY-RUSH LAKE WATERSHED AREA

Sec. 74-381. Sanitary disposal system.

(a) *Definition.* The term "sanitary disposal system," as used in this division, shall mean sanitary sewerage disposal system, drain, or other structure designed or used to dispose of sewage or wastewater from any dwelling or structure located within three miles of the high water mark of Schuy-Rush Lake.

(b) *Permit required.* Prior to the construction of a sanitary disposal system the person owning the land on which the sanitary disposal system is about to be built or started shall secure permission and written approval for the construction and installation of the proposed sanitary disposal system from the city council.

(c) *Keeping, using or constructing system not complying with minimum requirements or rules.* No person directly or by the actions of officers, agents or employees shall permit to remain on his property, use, construct, or cause to be constructed any sanitary disposal system that does not meet the minimum requirements, rules and regulations of the U.S. Environmental Protection Agency, the state, and the state department of public health.

(d) *Inspection.*

(1) After the construction and installation of a sanitary disposal system, pursuant to the approval of the city council, such system shall be inspected by a person designated by the council before such construction and installation is backfilled, covered with earth or otherwise.

(2) The inspector is authorized to give or withhold approval of such construction and installation. If approval is withheld, the construction and installation shall not be covered up or backfilled. Appeal from the inspector's designation shall be directed to the council, which may approve, reverse or modify the inspector's decision.

(3) An inspection fee shall be paid in cash at the time permission for construction of the sanitary disposal system is filed with the city clerk.

(e) *Not to serve more than one family unit.* No sanitary disposal system shall serve more than one family unit.

(f) *Annual fee.* The city, through its authorized representative, shall make an inspection of all property controlled by this division at least once each year, or more often at the option of the city, for compliance with the terms of this division and for proper operation of the septic tanks and disposal fields. The fee for such inspection shall be

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paid by the landowner. The amount of such fee shall from time to time be established by the city council by resolution.
(Code 1988, §§ 20-176—20-181)

Sec. 74-382. Copy of state law and rules attached to ordinance.

Exhibit A, labeled "Private Sewage Disposal Licensing Act and Code, State of Illinois, Department of Public Health, 1974," consisting of 26 pages, attached to Ordinance No. 660, is incorporated in this section and made a part of this division. The sections of the exhibit shall be known as subsections of this section.
(Code 1988, § 20-182)

Secs. 74-383—74-400. Reserved.

ARTICLE V. ABANDONED WATER AND SEWER SERVICE CONNECTIONS

Sec. 74-401. To be properly sealed.

Any user or other person or entity that changes the location of a water or sewer service connection, that disconnects such connection, or otherwise abandons such connection shall cause such connection to be properly sealed. All such connections shall be inspected by the public works director, or his designee, prior to backfill. Any user violating the provisions of this article shall, after due notice, be subject to termination of water service. If the public works director, or his designee, determines that there is an immediate and imminent likelihood that water or sewage may be discharged from an improperly sealed service connection, then water service to that location may be immediately terminated, subject to notice and hearing as soon as practicable. All hearings under this article shall be held by the mayor. The decision of the mayor shall be final unless the user, within three days of the mayor's decision, requests review by the full city council, in which event the mayor's decision shall remain in force until the council meeting following the user's request for review.
(Ord. No. 916, § 1, 6-7-1999)

Exhibit 7

Rushville Sanitary Sewer

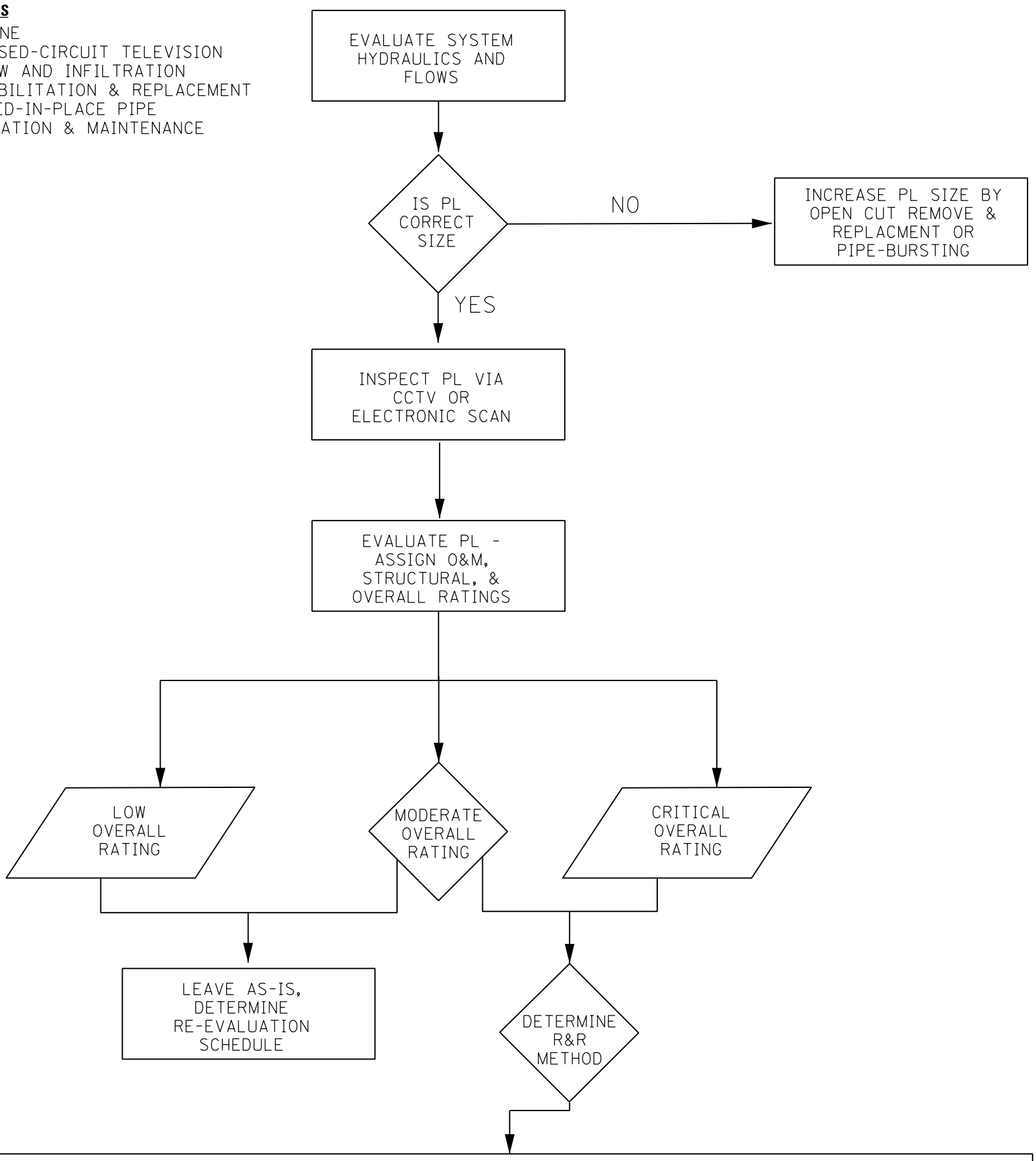
Monitoring, Reporting, and 3rd Party Notifications

Public Notification to City Officials	City Notification to 3rd Parties
City of Rushville Clerk - Stacey Briney (217) 322-3833	**All-Call System** Specify Impacted Areas
After-hours Contact Police Dispatch (217) 322-6633	**IEPA Springfield Field Office** (217) 524-3300 Sanitary Sewer Overflow or Bypass Notification Summary Report form
Direct Calls To: Mayor Carson Klitz (217) 322-3833	**Shuy-Rush Lake Manager** Don Toumbs (217) 322-6628
Supt. of Public Works Nathan Cambell (217) 322-3833	**County Engineer** David Schneider, PE (217) 322-6029

P:\21E3565\Documents\Reports\CMOM\[Various Figures_CMOM.xlsx]Emergency Contacts

ABBREVIATIONS

PL: PIPELINE
CCTV: CLOSED-CIRCUIT TELEVISION
I/I: INFLOW AND INFILTRATION
R&R: REHABILITATION & REPLACEMENT
CIPP: CURED-IN-PLACE PIPE
O&M: OPERATION & MAINTENANCE



REPLACEMENT METHODS:

PL OPEN TRENCH REMOVAL & REPLACEMENT - FOR SEVERELY DETERIORATED PIPE, PROVIDES NEW PL AND SERVICE CONNECTIONS. HIGHEST CAPITAL COSTS

PIPE BURSTING - REPLACEMENT METHOD WITH MINIMAL TRENCH EXCAVATION REQUIRED; TRENCH REQUIRED AT LAUNCH PIT AND ALL SERVICES. TYPICALY CHEAPER THAN OPEN TRENCH R&R BUT MORE COSTLY THAN MOST REHAB METHODS.

POINT REPAR R&R - LIMITED OPEN CUT TO LENGTH OF POINT REPAIR, COMPATIBLE WITH OTHER REHAB METHODS.

REHABILTATION METHODS:

CIPP LINING - FOR STRUCTURALLY DEFICIENT PIPE THAT CAN BE RESTORED TO NEARLY NEW PIPE PROPERTIES AND HYDRAULIC CAPCACITY. TRENCHLESS TECHNOLOGY THAT IS APPROXIMATELY HALF THE COST OF OPEN CUT REMOVAL AND REPLACEMENT.

CHEMICAL GROUTING - FOR STRUCTURALLY SUFFICIENT PIPE THAT HAS INFLOW AND INFILTRATION AT VARIOUS LOCATIONS WITHIN THE PIPE, INCLUDING LATERAL CONNECTIONS AND PIPE JOINTS. APPROXIMATELY HALF THE COST OF CIPP.

DETERMINE RE-EVALUATION SCHEDULE

NOTES:

1. INCLUDED WITHIN THIS FLOW CHART ARE THE MOST COMMONLY UTILIZED R&R METHODS. PERFORMANCE CRITERIA WILL BE PROVIDED WITHIN A COLLECTION SYSTEM IMPROVEMENT PROGRAM TO ALLOW EQUIVALENT METHODS AND MATERIALS.

2. MANY R&R METHODS CAN BE USED CONGRUENTLY WITH EACH OTHER; EX. A CIPP REHABBED PIPLINE IS OFTEN ALSO GROUTED TO PREVENT I/I AT SERVICE LATERALS.

EXHIBIT 9

Job No. 2le3565

Date: March 2022
Designed by: DJE
Drawn by: SJF
Reviewed by: TWD
Approved by: CGJ

FLOW CHART FOR EVALUATION AND CAPITAL IMPROVEMENTS
RUSHVILLE CMOM PLAN

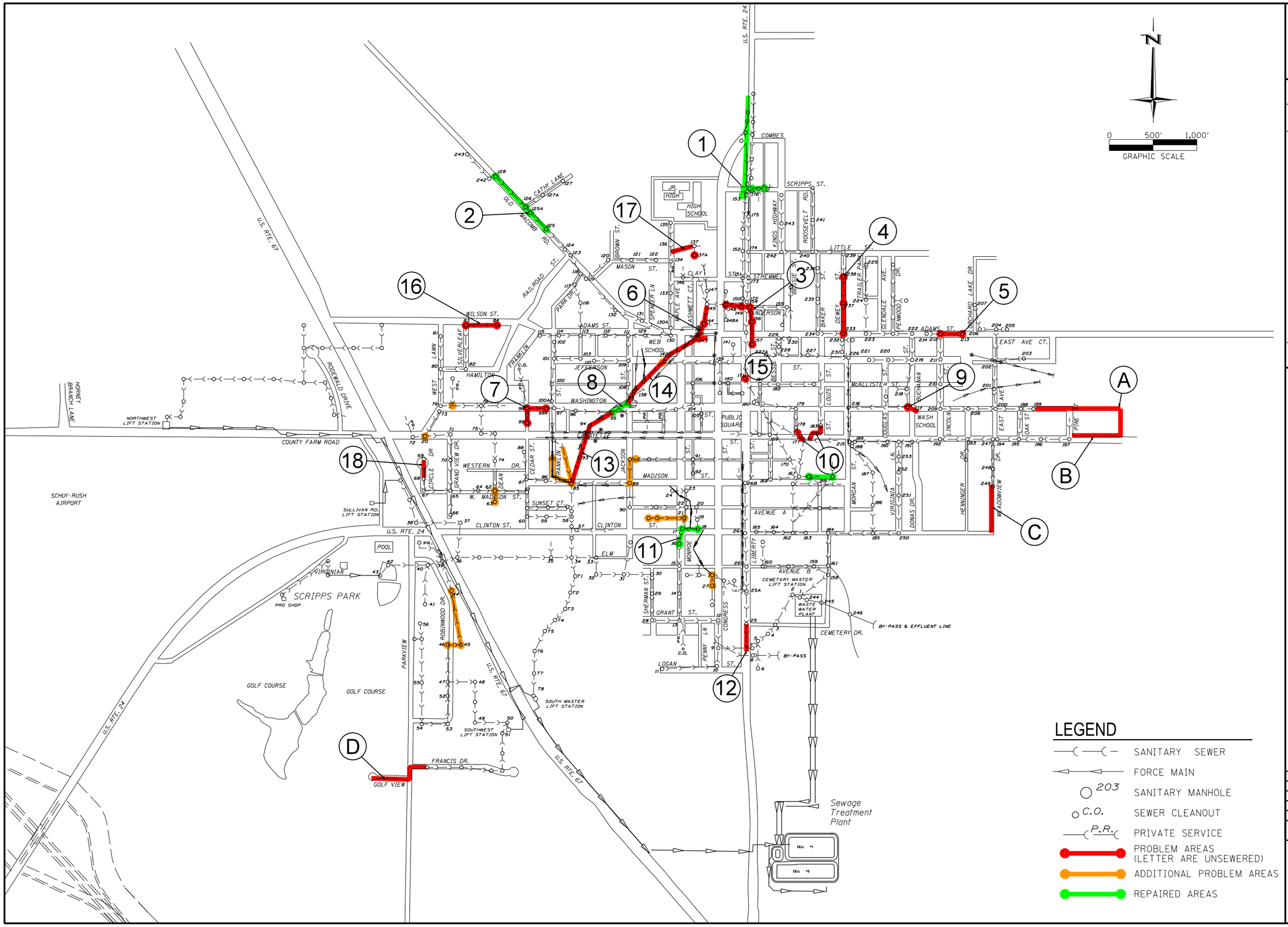
RUSHVILLE, IL

BENTON & ASSOCIATES, INC.
1970 Lafayette Ave., Jacksonville IL 62650
(217) 245-4146 (217) 245-4149 Fax

Macomb Illinois
Kirksville Missouri
Macon Missouri
Rolla Missouri
Lebanon Missouri

BENTON & ASSOCIATES INC
Illinois Design Firm
Registration No. 184-000852

No.	Description	Date	Appr.



BENTON & ASSOCIATES INC
Illinois Design Firm
Registration No. 184-000852

No.	Description	Date	Appr.

PROBLEM AREAS MAP
CAPACITY, MANAGEMENT, OPERATIONS, & MAINTENANCE (CMOM) PLAN
CITY OF RUSHVILLE
SCHUYLER COUNTY, ILLINOIS

BENTON & ASSOCIATES, INC.
1970 Lafayette Avenue, Jacksonville, IL 62650
(217) 245-4146 (217) 245-4149 Fax

Macomb Illinois
Canton Missouri
Kirksville Missouri
Rolla Missouri
Lebanon Missouri

Date:	June 2021
Designed by:	JLH
Drawn by:	ELD
Reviewed by:	CCJ
Approved by:	JLH

Job No. 21E3565

Exhibit 10

P:\21E3565\Design\Graphics\Exhibit 10 - Rushville WW Problem Areas Map.dgn
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5/6/2022

Exhibit 10
Problem Areas and Narrative Description

1. CORRECTED: North Liberty Street and Scripps Street Sewers: Currently an unsewered area. There are customers on a shotgun sewer in the area. The shotgun sewer discharges to a waterway and then into a lake.

   CORRECTED: In addition, there is a 4" tile that runs from the antique store at the junction of Liberty Street and U.S. Rte. 24. The tile leaks severely and during a rain event, the tile runs full with rainwater.

   CORRECTED: There is an unmaintainable connection where the Scripps Street sewer ties into the Liberty Street sewer. There is a 90 degree drop in the middle of the street that is failing and will eventually collapse. Inserting a manhole at this location will allow the sewer to be maintained.

2. CORRECTED: Old Macomb Road Sewer: Currently, between manholes 125 and 125A, there is a vertical change in elevation within the sewer main. This area experiences backups and due to the drop in the line, the sewer is unmaintainable. The locating of the drop and the installation of a proper drop manhole would alleviate the problem. The City may wish to replace the entire sewer from manhole to manhole due to it being part of the 1948 sewer system.

3. The Anderson Street/Liberty Street Sewer: Currently there is an unmaintainable sewer that runs behind the houses on the east side of Liberty Street from a location south of Adams Street to where it bends to the west at Anderson Street. The sewer has several vertical changes in elevation and several horizontal changes in direction, all without manholes. The sewer has had troubles in the past and is hard to maintain. The removal and replacement of the sewer with manholes at the proper locations would greatly benefit this area.

4. The Dewey Street Sewer: The Dewey Street sewer is one of the City's 1948 sanitary sewers. It is clay and is currently failing between manholes 233 and 238. Photographs of the sewer show that it has a sag in it. Due to the sag, sediment builds up and reduces the capacity of the sewer. The Dewey Street sewer has Little Street, Roosevelt Road, and Kings Highway all tributary to it. The removal and replacement of the sanitary sewer between the three manholes would restore grade and improve flow in the area.

5. The Adams Street Sewer: The Adams Street Sewer has a failed section between manholes 212 and 213. The removal of the section and the replacement of the section would improve hydraulics in the area and prevent the street from eventually collapsing from the failure.

6. The Adams Street/Lashment Court Sewer: During the investigation of the sewers, there is an excessive amount of flow that passes through manhole 143. The Liberty Street sewer drains into this manhole and could be the reason for the backing up of the manhole. The manhole does have a stub in it that runs east and is dry when it isn't raining. The sanitary sewer map does not show a sanitary sewer running to the east and it could be a source of stormwater. The current recommendation is to complete the Liberty Street project first and see if the reduction in stormwater will allow the water level in the manhole to drop enough to determine if there is stormwater entering from the east.

   There is another possibility. The sanitary sewer could be backed up to manhole 143 and the backup isn't allowing water to flow downstream.

7. The Cedar Street and Washington Street Sewer: The sanitary sewer along Cedar makes a double 45 degree bend without a manhole. The sanitary sewer along Cedar Street was installed between 1948 and 1970 and the sanitary sewer along Washington Street was part of the Pre-1948 sanitary sewer. Due to the age of the sanitary sewer in this area, the removal and reinstallation of the sanitary sewer with manholes at the proper locations would result in a new sewer at the head end of a sanitary sewer run and allow for maintenance.

8. CORRECTED: The Washington/Jackson Street Sewer: This sewer is one of the main trunk lines in the City and upon inspection of the sanitary sewer and the storm sewer; the Superintendent located a direct connection between the two. A hole had been broken into the bottom of the storm sewer and a pipe was installed between it and the sanitary sewer. The purpose of the connection is unknown, but what is certain is that storm water is entering the sanitary sewer at this location. The City will be addressing this issue by plugging the hole and concreting it in.

9. Manhole 217 and the Washington Street/Buchanan Street Sewer: During investigations of the City's sanitary sewer system, manhole 217 was inspected due to its age and location. The manhole has a lid with holes drilled into it which would allow surface water to enter. There was a fair amount of street material in the manhole and several pipes entering the hole which appeared suspect. The manhole invert appeared to be in poor condition. The Superintendent had not televised this section of sanitary sewer and stated it was a good candidate for further inspection. The Superintendent also stated that there used to be a storm water inlet on the southeast corner of the intersection and now there isn't one. There was a pipe in the manhole that headed in that direction and could be a source of stormwater infiltration.

10.1 There are two storm water catch basins that a previous Superintendent verified are connected to the sanitary sewer system. A typical inlet like the ones connected to the sanitary sewer could be responsible for between 1000 and 2000 gallons per minute each. It varies depending on the rain event. The removal of the inlets could greatly reduce the amount of flow entering the sanitary sewer plant, could

reduce pumping costs, and restore capacity to the system. As a comparison, the new prison facility is expected to have a flow of 46 gallons per minute.

10.2 The St. Louis Street sewer is un-maintainable do to lack of manhole access at bends and connections

11. The Clinton Street/Monroe Street Sewer: The sanitary sewer at the intersection of Clinton and Monroe Street has had a failure in the past. Where the main crosses Clinton, a bypass has been installed that angles out to the west and back in between the manholes. The original sewer under Clinton has partially collapsed. The bypass however ties into the old sewer at a location higher than the original profile. As a result, the water backs up and silts in and is very difficult to maintain.

The sewer on the north side of Clinton that runs to the east has a section that has collapsed completely. It is just a matter of time before the ditchline collapses and the sewer ceases to function. The sanitary sewer on Monroe and Clinton is part of the 1948 and Pre-1948 sewers. A complete replacement of both would prevent serious problems in the future such as Clinton Street collapsing.

12. South Liberty Street Sewer: The sanitary sewer at the south end of Liberty Street was not replaced in 1988. It was proposed as a future replacement since there is a stub at the end of the 1988 project heading south. Currently, the sewer is on the monthly maintenance list and continues to plug up. The stub heading south is at a much greater depth and sufficient grade can be maintained for the stretch of sewer. It is recommended that the sanitary sewer be removed and replaced at a deeper depth.

13. This area has been identified by the City as a “bottleneck.”

14. This area has been identified by the City as a location subject to surcharging during rain events.

15. This area has been identified as having a storm sewer under Roger’s Bakery and is subject to flooding. Further, manhole #171 is known to have a grated lid to reduce flooding conditions in this area.

16. This area has been identified as sewer main constructed of Orangeburg pipe and is therefore failing.

17. The Garden Lane Apartments sewer is unmaintainable due to lack of manholes at bends and connection points

18. The Circle Drive sewer is thought to be undersized and or collapsed near manhole 69.

Unsewered Areas

A. Washington Street Extension: Currently, the far eastern part of this street is unsewered. The terrain in the area would necessitate the installation of a lift station

B. Lafayette Street Extension: Currently, the far eastern part of this street is unsewered. The terrain in the area would necessitate the installation of a lift station, likely able to serve both Washington and Lafayette.

C. Meadowview Sewer Extension: Currently, the southern end of Meadowview is unsewered. Several customers pump their waste to the end of the sewer.

D. Golf View Drive Sewer: The plans for a sewer collection system are drawn up. It is just a matter of renewing the permit and getting it built.

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MANHOLE INVESTIGATION REPORT

CITY _____ JOB #_____ DATE_____

LOCATION _____ MH#_____ INVESTIGATOR _____

GENERAL

RIM TO INVERT _____ FT

RIM TO GRADE _____ FT OR INCHES

LOCATION CODE STREET/ALLEY NON-STREET ROW DITCH OTHER

COORDINATES (NORTHING, EASTING (IF APPLICABLE) _____

OTHER LOCATION DETAILS (DESPRESSED AREA, ETC) _____

EVIDENCE OF INFLOW IN MANHOLE YES NO

EVIDENCE OF SURCHARGING YES NO _____ FT ABOVE INVERT

MANHOLE COVER

GENERAL CONDITION/OBSERVATIONS _____

CONDITION OF FIT: LOOSE TIGHT SEALED BOLTED

DIAMETER OF COVER / CLEAR OPENING _____ INCHES

NO. & SIZE OF HOLES IN COVER _____ INCH

EVIDENCE OF LEAKAGE YES NO

MANHOLE FRAME

CONDITION: SOUND BROKEN

SEAL/GASKET CONDITION IF APPLICABLE _____

OFFSET ON CHIMNEY/CONE (INCHES OFF CENTER) _____

EVIDENCE OF INFILTRATION/ROOTS YES NO

IF YES: STAINS WEEPER DRIPPER RUNNER GUSHER

CHIMNEY, CONE, AND WALLS

CONSTRUCTION: BRICK PRECAST OTHER _____

CONDITION CODING (IF VISIBLE): GOOD CRACK

FRACTURE BROKEN/COLLAPSE MULTIPLE

DEPTHS AND CLOCK POSITION OF WORST CONDITION: _____

EVIDENCE OF INFILTRATION/ROOTS YES NO

IF YES: STAINS WEEPER DRIPPER RUNNER GUSHER

DEPTHS AND CLOCK POSITIONS IF VISIBLE: _____

APRON

CONDITION: _____

EVIDENCE OF INFILTRATION/ROOTS YES NO

IF YES: STAINS WEEPER DRIPPER RUNNER GUSHER

DEPOSITION: NONE MUD DEBRIS SLUDGE

DEPTH OF DEPOSITS: _____ INCHES

STEPS

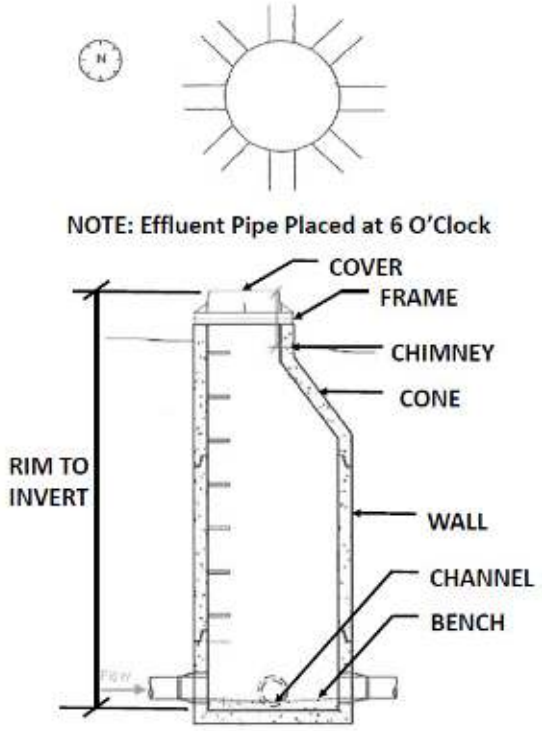
STEP NUMBER AND MATERIAL: _____

OTHER OBSERVATIONS (MISSING?) _____

CHANNEL

MATERIAL & CONDITION: _____

OTHER CHANNEL NOTES: _____



PIPE NO.	CLOCK POSITION	RIM TO INVERT	INFL. OR EFFL.	MATERIAL	SHAPE	SIZE (DIA., ETC.)	PIPE CONDITION	SEAL CONDITION	DROP? INT OR EXT?

OTHER COMMENTS / NOTES: _____

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