The Village of Riverside – Public Works Department

Combined Sewer System Overflow Manual

Updated 2007

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OVERVIEW

The Village of Riverside's combined sewer system is characterized by a single-pipe network which collects and transports domestic wastewater and storm water runoff. Flow rates during dry periods are generally less than 5 percent of the hydraulic capacity of the combined sewer pipe. Since combined sewers carry both sewage and storm water in the same conduit, flow rates are greatly increased during periods or storm water runoff. During a significant storm event, when the flows exceed the capacity of the Village's sewer system, flow is directed into the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Tunnel and Reservoir Project (TARP); flows in excess of TARP capacity are discharged directly into the Des Plaines River as combined sewer overflows (CSOs).

The Environmental Protection Agency has issued an NPDES/CSO permit which requires implementation of nine minimum controls. These control requirements are intended to minimize the impacts on the environment and public health by CSO occurrences. The nine minimum controls are as follows:

A) Proper operation and maintenance programs for the sewer system and CSOs.

B) Maximum use of the collection system for storage.

C) Review and modification of pretreatment requirements to assure CSO impacts are minimized.

D) Maximization of flow to Publicly Owned Treatment Works (POTW) for treatment.

E) Prohibition of CSOs during dry weather.

F) Control of solids and floatable materials in CSOs.

G) Pollution prevention programs which focus on source control activities.

H) Public notification to ensure that citizens receive adequate information regarding CSO occurrences and CSO impacts.

I) Monitoring to characterize impacts and efficiency of CSO controls

In 1999, Earth Tech (Formerly known as Rust Environment & Infrastructure) completed an engineering study of the combined sewer system. Earth Tech evaluated the system and identified which sewers were separate from the combined system and which combined sewer overflows were active, which were tributary to the Tunnel and Reservoir Program (TARP), and which overflows were storm outfalls. From this study the Village of Riverside generated an Operation and Maintenance Plan, a Pollution Prevention Plan, a Public Notification Plan, and an updated sewer map to assist the Village to gain a better understanding of their system to minimize the discharge of pollutants from CSO outfalls.

The Village of Riverside Operation and Maintenance Plan and the Pollution Prevention Plan, outline proper maintenance, regulation, inspection, and monitoring of the combined sewer system to ensure that the nine minimum controls are met. The nine minimum controls are addressed as follows:

A) Proper Operations & Maintenance (O&M) programs for the combined sewer system and CSOs. The operations and maintenance plan has been developed, and is currently being implemented. The plan will be updated as appropriate and is on file at the Village Public Works Department. The O&M plan includes:

1) Collection system inspection as addressed in section 1.4.1 of the O&M Plan.

2) Sewer and catch basin cleaning and maintenance as addressed in section 1.4.2 of the O&M Plan.

3) Collection system replacement, where necessary as addressed in section 1.3.0 of the O&M Plan.

4) Detection and elimination of illegal sewer connections as addressed in section 1.4.1 of the O&M Plan.

5) Detection and elimination of dry weather overflows as addressed in section 1.4.3 of the O&M Plan.

6) The operation of the system to maximize storage capacity and delay water into the system as addressed. The Village's ordinance revision as described in Paragraph C. below, addresses this issue.

7) That treatment and collection systems are operating to maximize treatment as addressed in section 1.4.0 of the O&M Plan. The treatment system is operated by the MWRDGC.

B,D,F) Maximize storage within system, minimize CSO discharges including floatables and solids, and optimize flow to the POTW for treatment by adhering to the objectives set forth in the O&M Plan. Noncompliance such as dry weather overflows or any endangerment of health or environment will be reported as outlined in section 4.3 of the O&M Manual.

C) The sewer use ordinance has been reviewed and is being modified by the Village to meet pretreatment requirements as to minimize CSO impacts. The ordinance will include provisions to:

1) Prohibit introduction of new inflow sources to the sanitary system.

2) Require new construction to be designed to minimize and/or delay inflow to the combined sewer.

3) Require that inflow sources on the combined sewer be connected to a storm sewer within a reasonable amount of time, if a storm sewer becomes available.

4) Provide that any new building domestic waste connection be separate from the building inflow connection to facilitate future separation of sewers.

5) Assure that CSO impacts from non-domestic sources are minimized by determining where non-domestic discharges are tributary to the combined sewer and by reviewing the ordinance to control pollutants from these discharges. Prohibit dry weather overflow as addressed in section 1.4.3 of the O&M Plan. There is no history of dry weather overflows occurring at the Village's outfalls.

G) A pollution prevention program is being implemented and is addressed throughout section 2.0.0 of the CSO Manual.

H) A public notification program of CSO occurrences and impacts is being implemented by the Village and is included in section 3.0.0 of the CSO Manual.

I) The Village is implementing the monitoring and reporting requirements of the permit.

OPPERATIONAL PLAN

1.1.0 INTRODUCTION

This manual is a CSO Operations and Maintenance (O&M) Plan prepared to provide the staff of the Village of Riverside Department of Public Works with the information needed to operate and maintain the combined sewer system to minimize the occurrence of system surcharging resulting in basement backups and combined sewer overflows.

1.1.1 BACKGROUND

The Village of Riverside is generally served by a combined sewer system throughout the entire community. Several locations in the Village have separate storm sewers or relief sewers that eventually drain into the combined sewer system downstream. Although these areas have separate sewers, they are treated as combined sewers because they empty into the combined system. The Village sewer map in section V of the Operational Plan provides information about the system.

The Village sewer system consists of about 40 miles of clay and reinforced concrete pipe ranging in size from 6" to 66" in diameter. The system conveys sanitary sewage and storm water runoff through the Village-owned trunk sewers to the MWRDGC interceptor that runs along the Des Plaines River and First Avenue; the interceptor flows to the MWRDGC Stickney Water Reclamation Plant in Stickney, Illinois.

The community is approximately two square miles of fully developed residential area, mostly of 2 to 4 single family homes per acre. There are not any commercial or industrial districts with a high percentage of impervious areas located within the Village limits. Open space consists of Village owned parks, schools, residential yards, and church property. This area is bound by the Des Plaines River on the west and south, Harlem Avenue to the east, and 26th Street to the north.

The Village maintenance staff reports that the original sewers are in a condition typical of systems 100 years of age. The pipes are in serviceable condition, few collapses are reported, and

there are nor any bottlenecks. However, root intrusion, leaking joints, structural cracks, and grit buildups are common. The Village generally follows a proactive maintenance approach, under which sewers are cleaned and televised on a regular basis. Sewer problems are corrected when they become severe enough to threaten stoppage of flow. Manholes, catch basins, and inlets are being replaced on a proactive basis.

1.1.2 SENSITIVE AREAS

The four outfalls in the corporate limits of the Village of Riverside discharge upstream of Segment G 39 of the Des Plaines River. This segment has been identified as "impaired" in the "Illinois Water Quality Report, 2002". The use impairments are identified as:

ACTIVITIES	SUPPORT
Aquatic Life	Partial
Fish Consumption	Partial
Overall Use	Partial
Primary Contact (Recreation)	Non-support

Primary contact for activities including swimming, wading, and water skiing are limited by the following conditions:

Inadequate Water Depth)

The water depth within 15 feet of the banks is generally 3 feet or less. During high flow periods increased depths are accompanied by currents in excess of 8 feet per second.

Physical Obstacles)

Presence of steep banks, log snags, and vegetation hinder access to the water body. A non-navigable dam (Hofmann Dam, vicinity Barrypoint Road) restricts passage by motor craft. Numerous shoals/submerged rocks also limit passage by motorized craft. The river bed is generally not suitable for swimming area development.

Adjacent Land Uses)

The Village of Riverside prohibits picnicking, fishing and boat launching from Village controlled lands fronting on the river.

1.1.3 OBJECTIVES

The objective of this plan is to reduce the total of loading of pollutants entering the Des Plaines River receiving stream as part of the Village's NPDES CSO permit collections. Elements of the plan include:

- Maintenance, inspection, and monitoring procedures.
- Sewer, catch basins, manhole, inspection and maintenance.
- Determination of the need for any collection system replacements.
- Detection and elimination of dry weather overflows.

1.2.0 SEWER SYSTEM DESCRIPTIONS

A description of the Village of Riverside's combined sewer system and normal operation of the facilities is provided in this section. Facilities include separate and combined sewers and the overflow structures to the Des Plaines River. The system is entirely gravity drained.

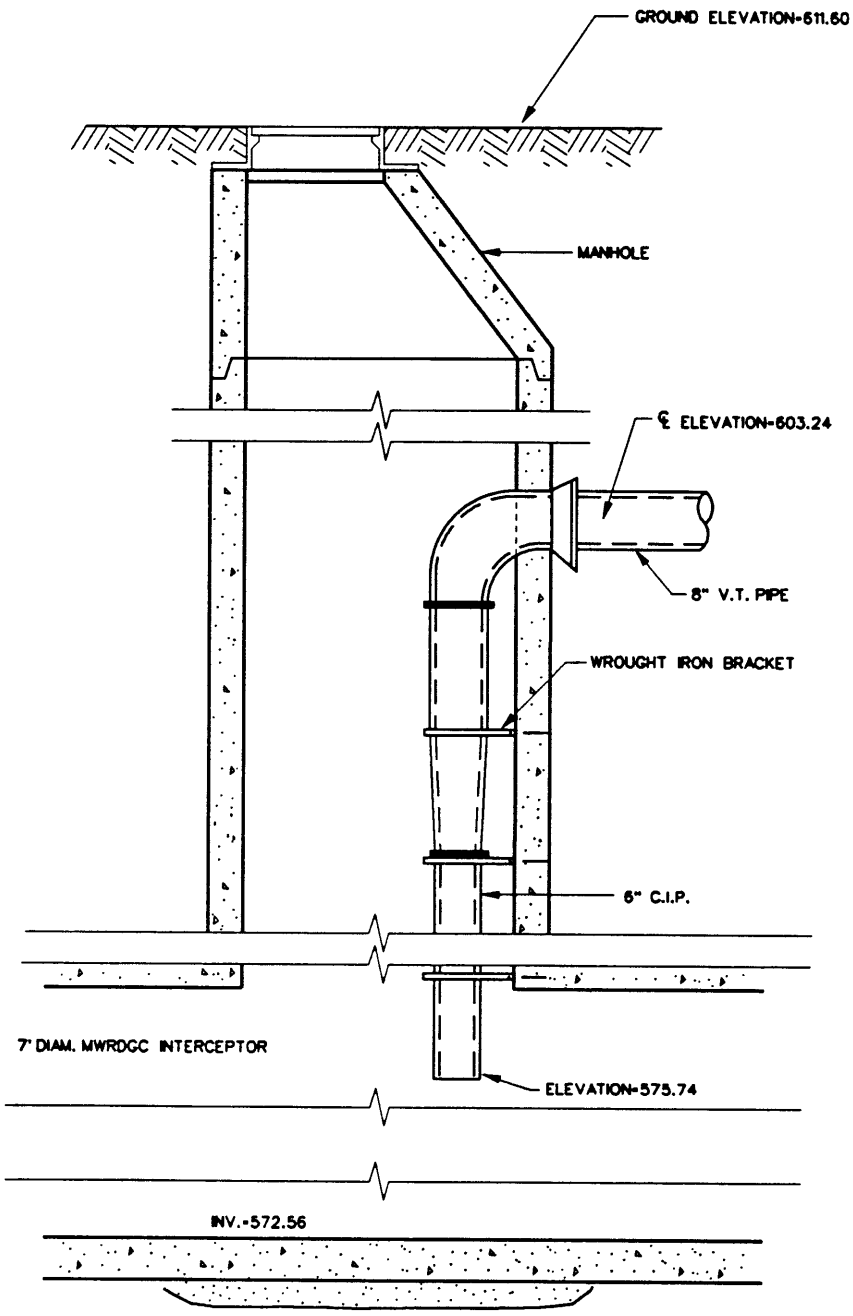
1.2.1 COMBINED SEWER SYSTEMS

The combined sewer system consists of about 38 miles of pipe ranging in the size from 6" to 66" in diameter. The system conveys sanitary sewage and storm water runoff to the MWRDGC interceptor. Drop pipe assembly diversion structures allow for the maximum diversion into the interceptor. The interceptor lines are at a lower elevation than from the sewer lines. Flow from the Village sewers drops to the interceptor during normal conditions. When the interceptor is full, the connection will fill up and prevent inflow from the Village sewers; see figure 2-1. The flow then bypasses the connection to the interceptor. The flow continues downstream to the next connection point. If all the interceptor diversion structures are full, the flow will back up and spill over into the relief sewer system and eventually drain to TARP or the CSOs.

1.2.2 SEPARATE SEWER SYSTEMS

The separate sewer system is divided into three categories: separate storm sewers, separate storm sewers upstream of combined sewers, and relief sewers. First is the separate storm sewers that convey only storm water runoff collected from street inlets. These are piecemeal sewers that are completely separate from the rest of the Village system and discharge directly into the Des Plaines River.

Second are the separate sewers that are upstream of the combined system. The Village of Riverside was constructed in several phases; it is apparent that the storm sewers from each phase were connected in the most convenient manner to the closest pipe with the required hydraulic capacity, whether to existing storm sewers or to existing combined sewers.



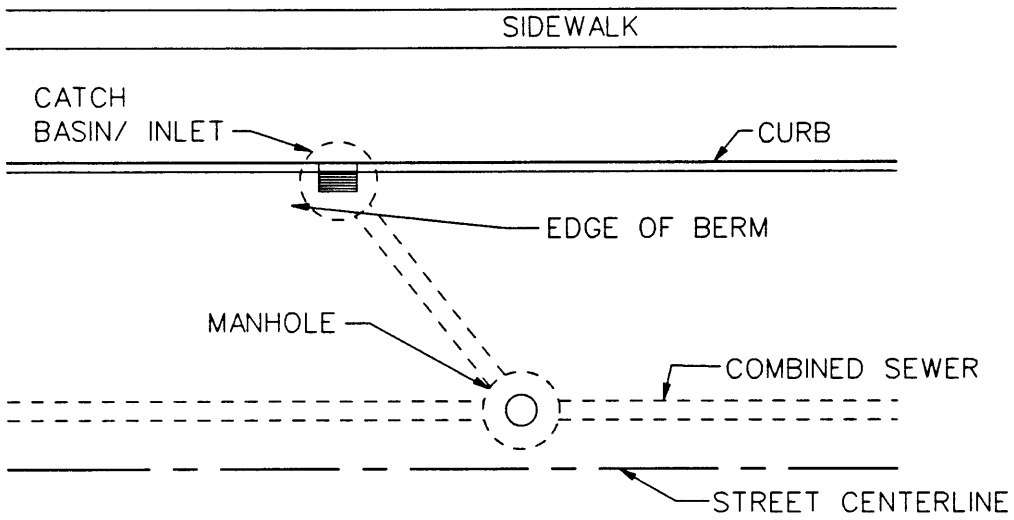
NOT TO SCALE

DETAIL FROM
1948 AS-BUILT PLANS
CONSOER TOWNSEND ASSOC.

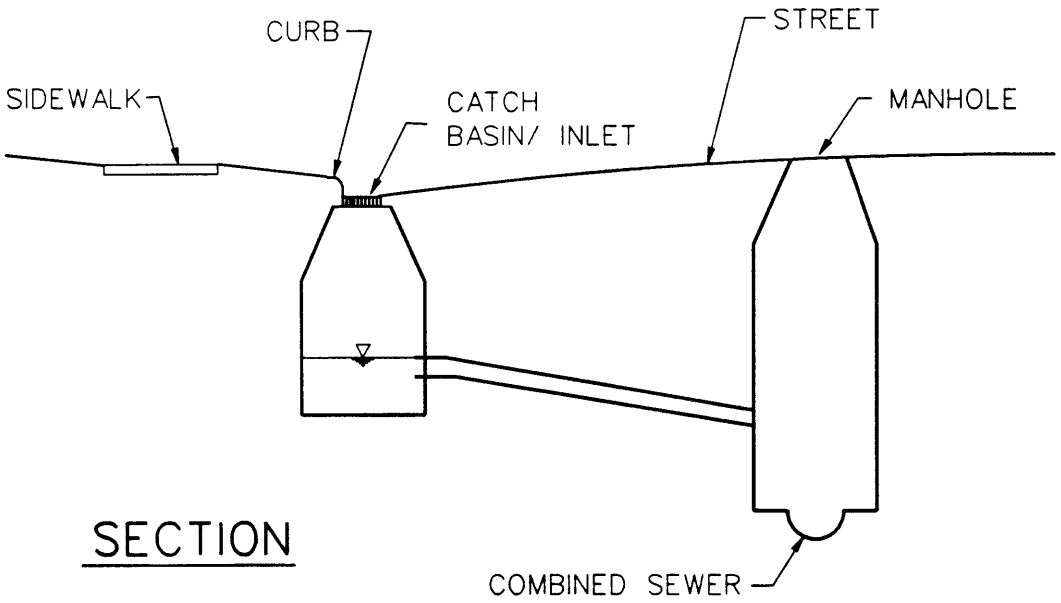
DATE: 01-99
PROJECT NO.: 101883

EARTH TECH
A tyco INTERNATIONAL LTD. COMPANY
3121 BUTTERFIELD ROAD
OAK BROOK, IL 60521
PHONE 630.574.2006

FIGURE 2-1
DROP PIPE ASSEMBLY TO
MWRDGC INTERCEPTOR
Riverside, Illinois



PLAN



SECTION

NOTES
1. DRAWING NOT TO SCALE
2. EXAGGERATED VERTICAL SCALE

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FIGURE 2-2
TYPICAL STREET DRAINAGE
SYSTEM CONFIGURATION
Riverside, Illinois

During a storm event, the combined sewers will reach capacity and back up into the relief sewer system that drains to the MWRDGC interceptors. If the interceptor system is full, the flow will be diverted to the TARP drop shafts or the CSO.

1.2.3 OUTFALLS

During periods of normal operation, all combined flows drain into the MWRDGC interceptors that run along the Des Plaines River and First Avenue for treatment at the Stickney Water Reclamation Plant. When the capacity of the system is exceeded, flows are directed to TARP. MWRDGC maintains connections to the TARP system via drop shafts, located along the Des Plaines River. When the gates to TARP are closed by MWRDGC, the flow is diverted to the combined sewer overflow structures, Nos. 9, 10, 12, and 14. Outfalls, Nos. 7 and 13, do not connect to TARP; these overflow when the MWRDGC interceptor reaches capacity. These outfalls are located at the Des Plaines River and at intersections shown below.

1.2.4 LATITUDE AND LONGITUDE OF OUTFALLS

NAME	LOCATION	ASSUMED TARP CONNECTION	LATITUDE	LONGITUDE
CSO # 014	Forest Bridge	D-66	41° 49' 41.65" N	87° 49' 34.25" W
CSO # 013	Maplewood Road		41° 50' 05.85" N	87° 49' 34.97" W
CSO # 012	Ogden Avenue	D-41	41° 49' 16.38" N	87° 48' 37.89" W
CSO # 010	Gage Road	D-44	41° 49' 30.94" N	87° 48' 55.37" W
CSO # 009	Burling Road	D-43	41° 49' 33.57" N	87° 49' 10.79" W
CSO # 007	Barrypoint Bridge		41° 49' 17.71" N	87° 49' 19.31" W

1.3.0 MAINTENANCE PROCEDURES

The Village of Riverside Department of Public Works is responsible for maintaining the sewer system. Proper maintenance is required for the system to perform at an optimum level with a minimum occurrence of CSOs. An effective preventive maintenance program attempts to predict the problems that will be encountered and what preventative measures must be scheduled. Preventive maintenance schedules must be flexible and should be periodically modified based on their effectiveness and the ability to accomplish maintenance objectives. This section contains information on standard procedures to be followed to maintain the system components.

1.3.1 SEWER SYSTEM

All sewers are to be cleaned on a 5-year program. Problem areas that are addressed during inspection may need to be cleaned more frequently or replaced if inspection of the line reveals severe problems. Some of the older sewers may have significant root infiltration and debris and may require additional cleaning. Newly constructed sewers will require less frequent cleaning. Frequency of cleaning should be adjusted over time such that a minimum of maintenance is required to prevent blockages.

Guidelines for cleaning catch basins and manholes are as follows:

- Clean catch basins that have grit or floating material accumulations. After cleaning a catch basin, refill it with water from the Vac-All truck, but be careful not to put any solids back into the catch basin.
- Ponded water near a catch basin is an indicator of a clogged inlet.
- If a street area is flooded because of a clogged inlet, dewater the area and catch basins with a Pump.
- Clear the clogged inlet or trap by removing and replacing it, or by rodding. Use confined space entry procedures if a person has to enter the catch basin structure for any reason.
- Record inspection and maintenance data on the form provided.

Street cleaning reduces debris that may be washed into the combined sewer system. The Village of Riverside conducts street cleaning following standard operating procedures for street cleaning. Street cleaning will be conducted on a semiannual basis (spring and fall). Additional need for street cleaning to remove leaves during the fall months (September through November) will be evaluated on a monthly basis and conducted as needed.

The interceptors are operated and maintained by the MWRDGC; the Village is not allowed access to these sewer lines or manholes. The connections to the TARP drop shafts and the control structures are all maintained by the District.

1.4.0 INSPECTION AND MONITORING PROCEDURES

The following inspection program is an important means to ensure that the collection system is operated as to optimize transport of wastewater flows and minimize CSO discharges. Inspection procedures are an essential part of preventive maintenance which is the primary means of implementing the nine minimum controls required in the NPDES CSO permit. The defects identified during a continuous inspection program can be scheduled for routine repair before it becomes necessary to make expensive emergency repairs.

Inspections will reveal blockages, identify structural defects and potential hazards, locate sources of inflow and infiltration, and identify maintenance needs. A continuous inspection program serves to identify potential system failures that may lead to CSOs and basement backups. The program also includes inspection of private buildings for illegal connection to the combined sewer system.

Figure 4-1 shows defects and private building connections that typically allow infiltration and inflow (I/I) to enter the sewer system. A continuous inspection program will identify sources such as these to that they can be corrected in a timely and cost effective manner.

Flow at the outfalls to the Des Plaines River must be monitored during all significant rainfall events. A significant rainfall event is characterized as an event that produces at least one inch of rain in a 24-hour period. Frequency (number of discharges per month), duration (estimate in hours), and date of each discharge from each outfall will be monitored by Village field personnel. Estimates of storm duration and total rainfalls shall be provided for each storm event. All discharges from the same storm or occurring within 24 hours shall be reported as one. Reports will be provided to the IEPA once a month on their forms.

1.4.1 SEWER SYSTEM

As the sewer system becomes older, the pipes are subject to deterioration and damage. Several such reasons are poor construction practices during installation, improper connection of private service laterals, corrosion, poor maintenance, high live loads, and freeze thaw cycles. Sewers are

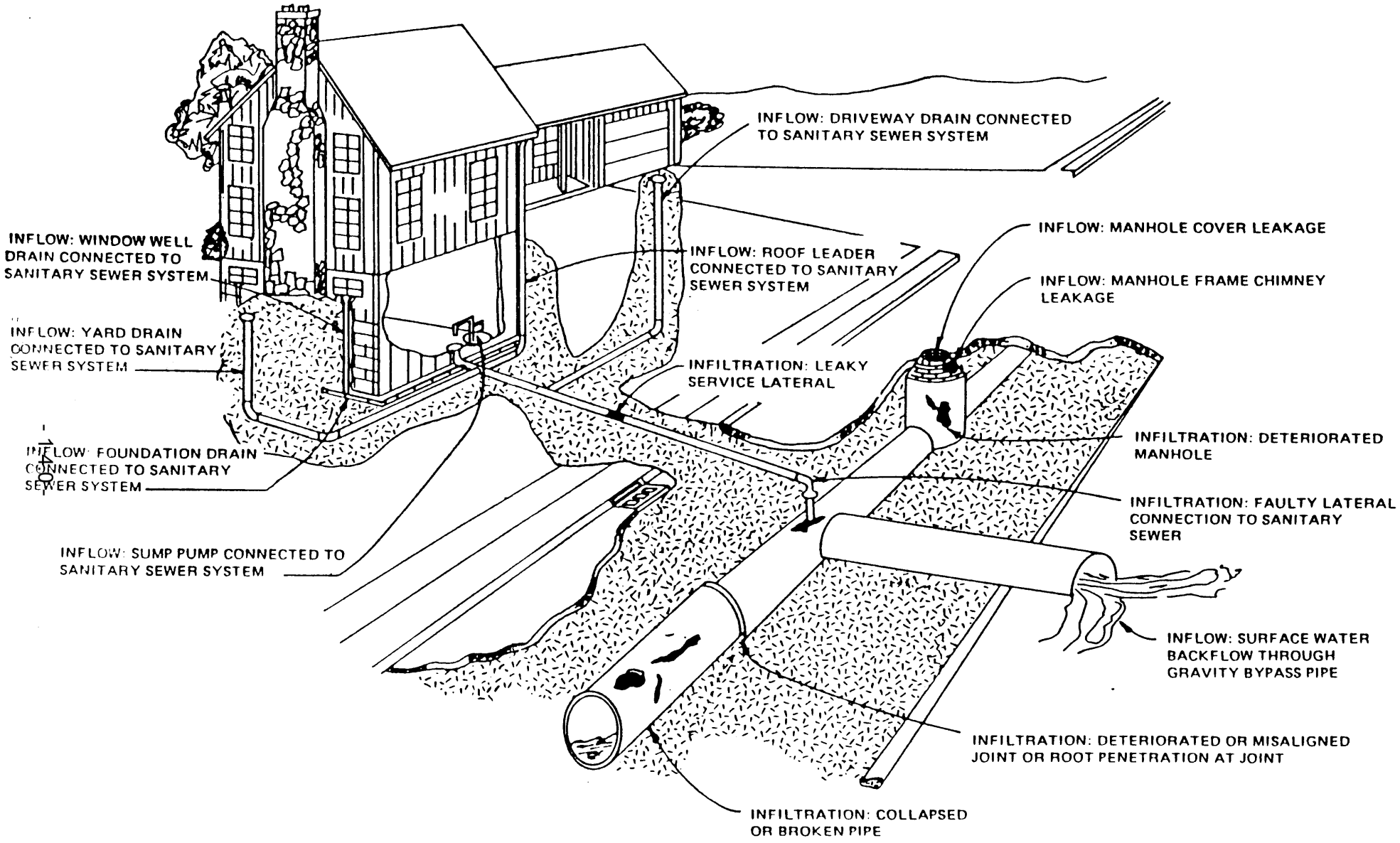


FIGURE 4-1. TYPICAL SOURCES OF INFILTRATION AND INFLOW

DATE:_____

Sewer Segment No._____

Upstream MH ID No. _____ Rim/Inv El:_____/_____

Downstream MH ID No. _____ Rim/Inv El:_____/_____

Length of Sewer_____feet Pipe Material:_____

Pipe Diameter_____inch Joints:_____

Date Installed:_____

Cleaning Equipment Used: _____

_____

Debris Severity Observed:_____

Types of Debris Observed:

- ☐ Grit
- ☐ Grease
- ☐ Roots
- ☐ Broken Pipe
- ☐ Other _____

Comments: _____

_____

_____

Debris Severity

0 - None 1 - Minor 2 - Moderate 3 - Severe 4 - Blockage

SEWER CLEANING FORM

DATE:_____

Sewer Segment No._____

Upstream MH ID No._____ Rim/Inv El:_____/_____

Downstream MH ID No._____ Rim/Inv El:_____/_____

Length of Sewer_____ feet Pipe Material:_____

Pipe Diameter_____inch Joints:_____

Date Installed:_____

Type of Rehabilitation Completed:

- ☐ Service Connection Repair
- ☐ Spot Replacement
- ☐ Sewer Grouting (indicate number of joints) Sliplining
- ☐ Inversion Lining
- ☐ Manhole-to-Manhole Replacement
- ☐ Other _____

Exact location of work:_____

Crew Size Used: _____

Manhours Used:_____

Equipment Used: _____

Replacement/Repair Materials Used:_____

_____

Comments:_____

_____

_____

SEWER SEGMENT REHABILITATION FORM

inspected on a routine basis. This frequency of inspection is required due to the age of the system.

Sewer inspections can be done by looking into a sewer segment from inside a manhole, by walking through the line if the pipe is large enough, or by pulling a closed circuit television camera through. Visual inspections may be adequate for short terms inspections or to indicate if infiltration or blockages exist, but visual inspections is limited to segments adjacent to manholes and warrants periodic televising of the entire system.

Sewer line inspections require entering confined spaces which may have dangerous atmospheres. Use confined space entry procedures if a person has to enter the sewer system for any reason.

Anticipated inspection procedures are as followed. Specific methods to be used will be determined based on the characteristics of the sewers to be inspected.

Closed circuit television (CCTV) inspection is the most effective means of inspection and gives permanent visual record of the sewer conditions. A TV camera is pulled through the sewer pipe while the picture is shown on a monitor and observed at ground level. CCTV inspection is applicable to sewers four to forty-eight inches in diameter. Light sewer cleaning is usually required prior to inspection to allow the camera to pass freely through each line giving an unobstructed view. The tape should be provided with an audio portion in order that the technician may record and comments on pipe conditions.

This method allows inspection of the structural conditions and observations of pipe or joint separations, drops, ruptures, leaks, service connections, obstructions, corrosion, misalignments, and root intrusion. Damage can be identified that may have occurred during construction or excavation on other utilities, roads, or buildings. This also provides a means for determining flow rates of I/I, recording illegal connections, examination of newly installed segments, and helps evaluate the effectiveness of corrective measures.

VIDEO TAPE NO. _____

COMMUNITY _____ DATE: _____

PIPE LOCATION _____

SURFACE OVER SEWER: ASPHALT CONCRETE GRASS OTHER _____

PIPE SIZE / DEPTH / MAT'L _____ / _____ / _____

WEATHER: SUNNY RAIN SNOW TEMP: _____

CLEANING: NONE JET ROOT CUTTING OTHER _____

IN CONJUNCTION WITH DYE-FLOODING: YES NO

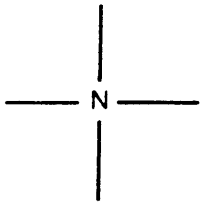
CREW CHIEF: _____

MH# MH#

0 · · · · · · 0

DIRECTION OF FLOW _____

DIRECTION OF CAMERA _____



FOOTAGE	SERVICE CONNECTIONS	REMARKS	I/I (gpm)

EXAMPLE REMARKS:

Brick demortared, but still intact
Brick missing, backfill showing
Camera blocked; unable to proceed
Camera submerged
Crack in pipe - lateral
Crack in pipe - transverse
Corrosion (indicate severity)
Collapsed pipe
Damage (specify type)
Debris accumulated in invert
Distorted shape
Flow depth
Infiltration flow rate
Inflow rate
Grease accumulation
Invert damage (specify)
Offset joint
Separated joint
Leakage observed
Mineral deposits
Root intrusion
Sagged line
Abandoned tap
Protruding tap
Tap with roots
Structural damage (spalled concrete, loose bricks)

SEWER INSPECTION DATA SHEET

An important part of every sewer inspection is the set up procedure of all observations on the inspection record. The following information should be recorded:

- The date, weather conditions, ground water level if applicable, type of ground surface above the sewer line, and the name of the technician.
- The length, size, type, depth of invert, and structural condition of the sewer main as well as all service lateral connections, and other tap-ins. Provide an estimate of the amount of work required or preventive maintenance needed.
- The depth of flow for assessment of pipe capacity, and detection of extraneous inflow of water.
- Extent of root intrusion and suggested control techniques.
- Type and depth of deposits and recommended cleaning methods.
- The location and estimated flow rate of I/I sources such as open or misaligned joints, cracked pipes, and mineral deposits.
- Any special problems or conditions such as collapsed pipe, sagging sewers, and corrosion.

Televised inspection is the most acceptable method of identifying illegal sewer connections to the sewer system. If an illegal connection is suspected, then the lateral should be identified and verified with dye testing. If dye testing verifies an illegal connection, then connection will be eliminated and reconnection built to the combined or sanitary system.

Dye testing requires entering confined spaced which may have dangerous atmospheres. Use confined space entry procedures if a person has to enter the sewer system for any reason. The building owner of the suspected illegal connection should be notified of impending dye testing procedures. Use fluorescent dyes that are safe to handle, easy to see in low concentrations, non-reactive with soils or debris in the sewer and are biodegradable. Pour dye water down the suspected drain (until maximum capacity of the drain is reached) and check the sewer flow for the presence of dye at the first downstream manhole in the system.

DATE: _____

COMMUNITY: _____ JOB NO. _____

SET-UP LOCATION: _____

START/END TIME: ____/____ CREW: _____

TYPE OF SET UP: STORM SEWER DIA. _____ CATCH BASIN _____
DITCH _____

PRIVATE SECTOR TEST: DOWNSPOUT _____ DRIVEWAY DRAIN _____
WINDOW WELLS _____ OTHER _____

TEST(MH/MH): ____/_____

FLOW DEPTH BEFORE FLOOD (MH/TIME/DEPTH): ____/____/____ INCH

FLOW DEPTH FOLLOWING DYE OBSERVATIONS (MH/TIME/DEPTH): ____/____/____ INCH

CONCENTRATION OF DYE OBSERVATION: TRACE MEDIUM HEAVY

NO DYE OBSERVED (MH/TIME): ____/____

SKETCH

LEGEND

SANITARY SEWER

STORM SEWER

CATCH BASIN

FIRE HYDRANT

FL FILLING LOCATION

X PLUG

SKETCH OF SET UP

REMARKS: _____

_____

_____

DYED WATER TESTING DATA SHEET

Record the following data:

- The date, weather conditions, and the name of the testing technicians.
- The location of the setup. A sketch should be included on the data sheet which clearly indicates what was flooded with dyed water and the relationship to the combined sewer or storm water system. The sketch should include manhole numbers where dye was checked for.
- The time that flooding began and ended.
- The time that dye was observed and the concentration of the dye.
- The time that checking for dye was ended if no dye was observed.
- Flow measurements or depth of flow before testing began and during the time dye was observed in the sewer.
- Sewer length and diameter.
- The amount of water used for the setup.
- Soil conditions, previous weather conditions, unusual observations, problems with the testing.
- Type and description of private property fixture that was used.

1.4.2 CATCH BASINS AND MANHOLES

Catch basins and manholes are subject to a variety of forces which cause them to structurally deteriorate over time allowing for I/I to enter the system. The most common sources of deterioration include traffic vibration, freeze-thaw cycles, and ground settlement. A common problem is the deterioration of brick manholes where bricks become loose and fall into the sewer, causing blockages. Manholes and catch basins will be routinely inspected. In areas subject to heavy traffic, inspections should be completed more frequently. Use confined space entry procedures if a person has to enter the catch basin or manhole structure for any reason.

MANHOLE INSPECTION FORM

MH # _____ LOCATION _____

INSPECTOR _____ DATE _____

RAIN: NONE____ LIGHT____ HEAVY____ / SNOW: NONE ____ FROZEN ____ MELTING ____

1. Surface at Manhole: Gravel Turf Concrete Blacktop Other
2. Subject to Ponding/Flooding: YES NO
3. Cover: Standard _____ Watertight _____
   Pickhole Size _____ Number of Holes _____
4. Atmospheric Conditions in Manhole prior to Ventilation: _____
   _____
5. Manhole Diameter _____ inches
6. Frame alignment and Seal: Good Fair Poor
7. Construction Type: Brick Block Precast Other
8. Structural condition: Good Fair Poor
9. Rim/Invert Elevations: _____
10. Evidence of Infiltration: Leaks Stains None
11. Frame Grade: Above Below Flush
12. Manhole Steps: None Corroded Loose Other Safe _____ Unsafe _____
13. Bench: Flat Steep None Condition _____
14. Invert: Shaped Properly _____ Shaped Improperly _____
15. Number and Sizes of Sewers Entering Manhole Number _____ Sizes _____
16. Direct Service Connections Entering Manhole Number _____ Direction: N S E W
17. Equipped with Groundwater Gauge: YES NO
18. Groundwater Level Above Sewer Invert _____ inches
19. Surcharge Evidence: Waterline Height _____
20. Debris: None Minor Needs Cleaning
21. Describe Debris: _____
22. Manhole Type: Standard Drop
23. a) Seal at Manhole Frame: GOOD NEEDS REPAIR
    b) Seal at Riser Joints: GOOD NEEDS REPAIR
    c) Seal at Bench: GOOD NEEDS REPAIR
24. Remarks _____
    _____

DATE:_____

Manhole ID No._____

Rim/Inv El:_____/_____

Street Address/Location:_____

Manhole Type:_____

Cover:_____

Installation Date:_____

Sketch of Inlet and Outlet Piping:

Flow Measuring Equipment:

- ☐ Dip Stick
- ☐ Weir
- ☐ Flume
- ☐ Flow Monitor (specify type)

Flow Measurement:_____ gpd

Time of Reading:_____ Weather:_____

Indicate weather conditions on the 3 days prior to this measurement:

_____

Comments:_____

_____

_____

VISUAL FLOW CHECK FORM

DATE:_____

Manhole ID No._____

Rim/Inv El:_____/_____

Street Address/Location:_____

Manhole Type:_____

Cover Type:_____

Installation Date:_____

Type of Rehabilitation Completed:

- ☐ Cover Replacement
- ☐ Frame Seal
- ☐ Wall Repairs
- ☐ Pipe Connection Repair
- ☐ Replacement
- ☐ Bench and Channel Repairs

Equipment Used:_____

Crew/Contractor:_____

Time Required to Complete:_____

Replacement/Repair Materials Used:_____

Comments: _____

_____

_____

MANHOLE REHABILITATION FORM

Inspection of catch basins and manholes require entry into the manhole. Use the following inspection procedures to identify defects:

- Check the area around the lid for proper drainage away from the lid for a manhole and proper drainage into the inlet for cases of catch basins. Use a straight edge to see if the rim is at proper elevation and grade with the surrounding ground. Note defects in the lid that may prohibit a tight fit.
- Check for combustible gases inside the catch basin before removing the manhole cover.
- Inspect all surface and joints inside for cracks, breaks, offsets, misalignments, root intrusions, Corrosion, or other sources of I/I.
- Inspect for grease accumulation around the arch or inside of sewers.
- Inspect for gravel and debris in the invert, on the shelf, and steps.
- Check the condition of the steps, grout bed of the frame, frame seal, and grade rings.
- Note any backed up water or sluggish flows. Compare flows between adjacent manholes and catch basins. If low flow is found downstream of a structure that has greater flows, this may indicate a blockage.
- With a sounding pole, check the structure for an accumulation of grit in the catch basin. There should be no accumulation of grit within one foot of the bottom of the orifice. Excessive floating material in the catch basin that reaches the orifice inlets should be removed.
- Note any condensation on the walls that may indicate the ground water level.
- Clean the ledge of the manhole ring and inspect for cracks in the metal parts. Like sewer inspections, every manhole or catch basin requires a detailed inspection record on which the following typical information should be recorded:
- Structure identification and location, date of inspection, weather conditions, and name of the inspector.
- Materials and conditions of the manhole / catch basin including construction type, cover, ring, frame seal, cone, chimney, wall, steps, lift holes, benches, and channels.

- Depth below grade, structure size, the number and size of holes in the lid, and the alignment of the frame grade.
- I/I sources, evidence of leaks or backups, level of high water narks (for manholes only), ground water level, description of debris found, and any specific problems.

1.4.3 DETECTION AND ELIMINATION OF DRY WEATHER OUTFLOWS

There are no known locations where dry weather overflows occur. Efforts to monitor the CSO frequency and impacts as well as efficiency of the CSO controls: This is directly related to the monitoring program. The following section includes suggestions for monitoring CSO flow volumes. Village staff will monitor outfalls to identify dry weather overflows.

If dry weather overflows are discovered by whatever means, then the incident must be reported to IEPA within 24 hours of discovery. The report should include the circumstances behind the dry weather overflow as well as the corrective action that was implemented to rectify the problem. The following form should be used to collect all critical information.

The cause of dry weather overflow must be determined. The sewer plans should be reviewed to determine which areas are suspect to causing the overflow and note any citizen complaints of basement backups or problems. The suspicious areas of the sewer system should then be inspected using the procedures outlined in chapter 3 of the Operations and Maintenance Manual.

Upon determination of the reason for the dry weather overflow, the Village will take action to eliminate the dry weather overflow. Once corrective actions have been taken, the outfall will be closely monitored to make sure that the problem has been solved.

Flow at the Des Plaines River outfalls must be monitored during all significant rainfall events. A significant rainfall event is characterized as an event that produces at least one inch of rain in a 24-hour period. The Village staff can determine, after some experience, which storm events are producing CSOs at the outfalls and then determine when staff should be sent to the outfall to monitor flow. Alternately, the Village can install flow monitoring devices at the outfall which

Village of Riverside
Department of Public Works

Dry Weather Overflow
Discovery Summary

Date:_____ Time:_____

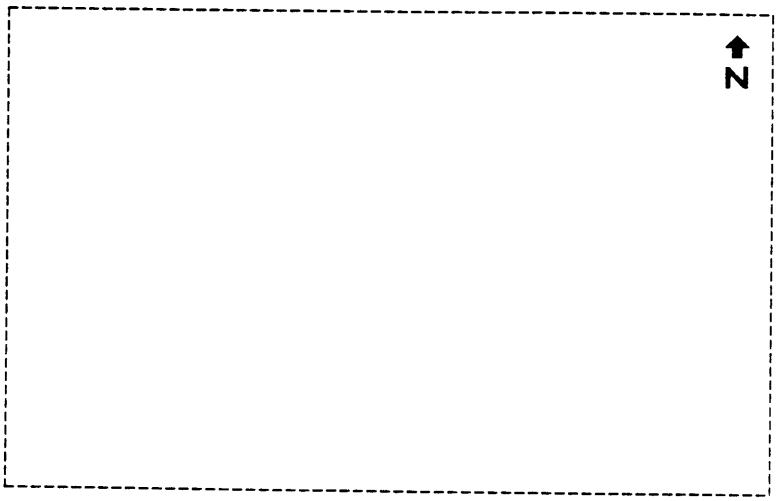
Weather:_____ Temp:_____

CSO I.D. Number:_____

Location:_____

Sketch:

Notes:_____



Method of Discovery:_____

Resident Complaints/ Concerns:_____

Suspected Cause:_____

Suspected Sewers Upstream :

Sizes:_____ Locations:_____

Corrective Action Employed:_____

_____ _____

Field employee/ Workman Supervisor/ Crew Chief

would automatically measure flows. If flow is monitored on a continuous basis, then dry weather overflow may be more easily detected and then eliminated. The following methods should be reviewed by the Village staff and a decision on the best way to handle the monitoring of the outfalls can be made.

The Village can send staff to the outfall to monitor occurrence of CSOs during a storm event. They can periodically check the outfall for dry weather overflows, or monitoring devices can be installed at the outfall. Most of the flow monitoring devices require regular maintenance and need to be placed at a manhole or other access area such as at the diversion structure. Placing the monitoring devices at the inflow or outflow ends of the diversion pipe is not recommended due to turbulent flows produced at the ends of the pipe. These devices would work best at a new manhole installed at the midpoint of the diversion pipe. This may have to be coordinated with the District and access to the diversion structures may need to be granted to the Village of Riverside.

1.4.4 INSPECTION AND REPORTING AFTER SIGNIFICANT RAINFALL EVENT

Flows at the outfalls to the Des Plaines River must be monitored during all significant rainfall events. A significant rainfall event is characterized as an event that produces at least one inch of rain in a 24-hour period. Frequency and duration of the discharges must be monitored by the Village in cooperation with the MWRDGC.

The Village staff will monitor which storm events are producing CSOs at the outfalls. Frequency (number of discharges per month), duration (estimate in hours), and date of each discharge from each outfall will be monitored and reported to the IEPA once a month. Estimates of storm duration and total rainfall shall also be provided for each storm event. All discharges from the same storm or occurring within 24 hours shall be reported as one. Reports will be made on IEPA designated forms and covering the same time span as the Discharge Monitoring Reports (DMR).

If any CSO discharge points are eliminated or new ones discovered, the IEPA will be notifies in writing within one (1) month of the elimination or discovery. Such notification will be in the form of a request to modify the permit.

1.5.0 RECORD KEEPING

Record keeping is important to the short term and long term operational and financial performance of the combined sewer system. Records are useful to the Public Works personnel, Village officials, consulting engineers, and regulatory agencies. For this reason, all records must be accurate and complete.

Daily operational reports should summarize maintenance and/or inspections performed that day and any special or unusual occurrences. All complaints and resident concerns should be addressed in order that repairs and/or adjustments are made to decrease the likelihood of any CSO occurrence during wet or dry conditions. These reports should be used in conjunction with the inspection and maintenance records in chapter 4.0.

Daily reports should be combined into a monthly summary along with the monthly CSO monitoring and kept on file at the Village Public Works. The monthly report should include the following information:

- Identify any collapsed or blocked sewers and any other abnormal collection system problems. Record the date of discovery, location and segment identification, and the means by which the collapse or block was discovered. Describe when and how the sewer was repaired or replaced.
- Identify basement backups and any other abnormal collection system complaints. Record date, time, and weather conditions. Note any other collection system problems that the complaint may have alerted Village staff to; for example, a backed up basement may have alerted to a collapsed or blocked sewer.
- Record abnormal street flooding (other than designed street ponding). Record date, location, and weather conditions. Record course of action taken to correct the problem.
- All failing inspections of street berms, ponding areas, and all sewer components. Describe locations, etc., and corrective measures taken.
- Record date, locations and identification of all passing inspections.
- Record all CSO occurrences as outlined in chapter 4.

Village of Riverside
Department of Public Works

Daily Report & Maintenance Summary

Report Number:_____

Page:_____of_____

Date:_____

Time:_____

Weather:_____ Temp:_____

Rain:_____

Summary of Daily Events:_____

_____

_____

_____

_____

_____

_____

Inspection and Maintenance Performed:_____

_____

_____

_____

See attached inspection and maintenance records for details and locations.

Resident Complaints/ Concerns:_____

_____

_____

_____

Signatures:

_____ _____

Field employee/ Workman Supervisor/ Crew Chief

L:\WORK\1035o3\ENGR DAILY.WPD

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
CSO DISCHARGE MONITORING REPORT (DMR)

MONITORING PERIOD:_____/_____
MONTH YEAR

NO CSO DISCHARGES OCCURRED: ☐

NAME: **PERMIT NUMBER:**

ADDRESS:

CITY: **STATE:** **ZIP CODE:** **TELEPHONE:**

RAIN EVENT START DATE:	ESTIMATED DURATION OF EVENT (IN HOURS):	ESTIMATED AMOUNT OF RAINFALL (IN INCHES):	CSO OUTFALLS THAT DISCHARGED:		ESTIMATED DURATION OF CSO DISCHARGE (IN HOURS):
			OUTFALL NUMBER:	OUTFALL DESCRIPTION:	

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			DATE		
TYPED OR PRINTED	I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. SEE 18 USC § 1001 AND 33 USC § 1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years)	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	MO	DAY	YEAR

This Agency is authorized to require this information under Illinois Revised Statutes, 1991, Chapter 111 ½, Section 1039. Disclosure of this information is required under that Section. Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

L 532 2471
PC 659 Jan-96

PAGE ☐ OF ☐

1.6.0 SAFETY

The Village of Riverside Department of Public Works maintains a Safety Manual with standard procedures to be followed when performing maintenance on facilities. Topics of concern that should be reviewed by all workers performing maintenance procedures include:

- Traffic Control
- Worksite Safety
- Confined Space Entry
- Safety Equipment
- Emergencies, First Aid, and Hygiene

These topics are discussed in the Village of Riverside Safety Manual, which is incorporated into this Operations and Maintenance Manual by reference.

POLLUTION PREVENTION PLAN

2.1.0 POLICY AND SERVICES

The Village of Riverside has implemented a variety of policies, programs and services to limit the amount of floatables and contamination of CSO. Programs include an aggressive street cleaning program, mulching in substitute of fertilizers, minimization of herbicide use, and public education.

2.1.1 STREET CLEANING

The village has an aggressive street sweeping program which begins early spring, Mid-March, and runs until the late fall, end of November. During this period the entire village is swept on a routine basis, about once a week. Sweeping rids streets of residue salt in the spring and removes significant amount of leaves and other debris in the fall. The result is a significant reduction in floatables and contamination at outfalls during significant rainfall events.

The village also has a policy prohibiting residents from dumping leaves onto the street in the fall. Instead residents are instructed to bag leaves, which can be picked up during normally yard waste collection. This prevents clogging of catch basins and reduces floatables during significant rainfall events.

After every significant rainfall event village maintenance workers will scan village streets to pick up downed braches and other debris.

2.1.2 FERTILIZERS AND PESTICIDES

The village does not use fertilizer for public parkways. Instead cut grass and fallen leaves are mulched into the lawn. Herbicides are used on a limited basis at the lowest concentration practicable.

2.1.3 WATER CONSERVATION

The village administers a fee for water use as a way to conserve water. The high level of water rates acts as an effective conservation measure. The Village has a land disturbance ordinance in place which requires downspouts to be splashed to overland flow and flows directed towards areas which maximize infiltration and evapotranspiration as water dissipation measure. This practice also reduces requirements for lawn/garden irrigation.

2.1.4 PUBLIC EDUCATION

Riverside educates the public through the use of brochures, website, and direct contact. The village website contains a page on CSO, street cleaning, recycling, and waste collection. Also residents have access to the Village Forester on advice for pesticides and herbicides. Residents can also contact the Public Works Department for instruction and advice at any time.

2.2.0 SOLID WASTE COLLECTION

The Village of Riverside in cooperation with Allied Waste provides a recycling and solid waste disposal program. Collection schedule is as follows:

- Refuse pick-up – Tuesday and Friday
- Recyclables pick-up – Tuesday
- Yard Waste pick-up – Tuesday

2.2.1 RECYLCING EFFORT

Recycling is offered throughout the village through Allied Waste. There is no limit to the amount of containers. Items that can be recycled include: newspaper, magazines, junk mail, paper, cardboard (corrugated and non-corrugated), plastic bottles (# 1, 2, 3, 4, 5, and 7), aluminum, glass, and beverage cartons.

2.2.2 ILLEGAL DUMPING

Illegal dumping is prohibited by Village code. Compliance is monitored by both Police and Public Works personnel.

2.2.3 BULK REFUSE

One bulky item such as an appliance or furniture can be collected per week on a regularly scheduled collection day at no additional cost. Construction and building materials, loose materials, or additional bulky items require a special pickup. Residents are instructed to call Allied Waste at (708) 345-7050 to get a quote on the cost of this additional service.

2.2.4 HAZARDOUS WASTE

The Village of Riverside participates in the West Cook County Solid Waste Agency (WCCSWA) “Household Hazardous Waste” Program offered twice a year. Materials such as pesticides, poisons, cleaning solvents, gasoline, used oil and automotive fluids, and other flammable, toxic, or corrosive liquid material can be dropped off at designated locations.

The village publishes this information on the website and also distributes this information in a solid waste and recycling program brochure. More information is available by contacting WCCSWA directly by phone (708) 450-0100 or by going to their website at www.westcook.org/wccswa.

2.3.0 HARMFUL PRODUCT RESTRICTIONS AND CONTROLS

Discharges of harmful chemicals to Village sewer system is prohibited by Code.

2.3.1 COMMERCIAL AND INDUSTRIAL DISCHARGE

Currently the Village of Riverside does not have any commercial and industrial discharging. The establishment of any such industry would require a change to village zoning code.

PUBLIC NOTIFICATION PLAN

3.1.0 INTRODUCTION

Public Notification Plan ensures that the public receives adequate notification of Combined Sewer System Outfalls, and overflow occurrences and impacts. Notification of a CSO will reduce the potential risk of adverse public health effects and increases public awareness thereby enhancing the public's willingness to support CSO control programs. Plan development involved affected public, and regional coordination.

3.1.1 IDENTIFYING AFFECTED PUBLIC

The Village solicited comments and feedback from the affected public in the development of the CSO Public Notification Plan. The Village considers the affected public to include governmental organizations, civic groups, recreational groups or any public citizen with an interest in or responsibility for the condition of the Des Plaines River.

The identified affected public may contribute comments at the public meeting (required by NPDES permit), through responses to the Village web site, or through written correspondence.

3.1.2 COORDINATION WITH MWRD AND OTHER MUNICIPALITIES

The Village involved upstream and downstream neighboring communities as well as the Metropolitan Water Reclamation District (MWRD) in its CSO Public Notification Plan. The Village installed signage at all four CSO outfall located in the village limits, including two which are controlled by MWRD. In addition, the Village has linked its web page to the MWRD CSO notification web page.

3.2.0 PUBLIC NOTIFICATION AND COMMUNICATION TOOLS

The village's Public Notification Plan involves variety of methods for CSO information distribution including: public meetings, posted notifications and signage, e-mail, and web-pages.

3.2.1 PUBLIC MEETINGS

In accordance with the Special Conditions (SC) 10.12, on March 1st, 2004, a public meeting was held to discuss the National Pollutant Discharge and Elimination System Permit. During the meeting the affected public was informed about CSO occurrences and impacts and able to aid in the development and revision of the Public Notification Plan. The agenda was as follows:

- National Pollution Discharge Elimination System Overview
- Permit Requirements
- Pollution Prevention Plan
- Operation and Maintenance Plan
- Public Notification Plan
- Questions & Comments

The village intends to use public meetings when new CSO information or plan revisions require such meetings.

3.2.2 SIGNAGE AT CSO OUTFALLS

The Village has installed signage at all five CSO outfall locations within its limits. These signs are weatherproof, and identify the outfall number. Signage format is as follows:

> Combined Sewer Outfall #___ Avoid Contact With Discharge. Report Dry-Weather Discharge to RPWD at 442-3590.

3.2.3 NOTIFICATION OF CSO OVERFLOWS

Each time an overflow occurs at one of the Village's CSOs, a notice will be posted at that outfall. Announcements will be posted in the Village Hall. The format for the announcement will be as follows:

> There has been a combined sewage overflow into the Des Plaines River near Gage Road and Riverside Drive As a result of the storm event that occurred on Sunday, January 17, 1999. The Village's combined sewer system is designed to overflow into the river when the capacity of the system is exceeded. The Des Plaines River is not a source of drinking water, however the public is advised to avoid direct contact with the river as to minimize the potential for any health risks.
>
> The Village of Riverside is served by combined sewers which transport wastewater and storm water. Flow rates during dry periods are generally less than 5 percent of the pipe's capacity. However, flow rates greatly increase after significant rainfalls. The village's system is connected to the MWRDGC's TARP Deep Tunnel which allows more flow out of the system and minimizes system overloading. When capacity of TARP is exceeded, the combined sewage will discharge to the Des Plaines River as has just occurred.
>
> Please call the Village's Public Works Department if you have any questions regarding the impacts of this occurrence.

A suggested format for the on-site notices is as follows:

> Please be advised that there has been a combined sewer overflow into the Des Plaines River near Gage Road and Riverside Drive from the Village of Riverside and MWRDGC sewer system as a result of the storm event that occurred on Sunday, January 17, 1999. Combined sewage consists of wastewater diluted with storm water. A health risk has been issued for this body of water until further notice. Please call the Village if you have any questions regarding the impacts of this occurrence. Thank you.

3.2.4 WEB ADDRESS BOOK

The Village also has developed an electronic "Address Book" containing a list of email addresses of interested parties. These parties will be sent an email alert in the event of a CSO. The interested parties will include those stakeholders identified before and after the public meeting is held. The Address Book will be updated on an as-needed basis as other members of the affected public are identified.

3.2.5 MWRD WEBPAGE

The District is creating a web page on the MWRDGC website (www.mrwd.org) to inform the general public of the occurrences of CSOs on the Chicago area waterways system. A color-coded

graphic representation of the waterways (copy attached) will appear on the web page depicting the occurrence of CSOs and waterway diversions to Lake Michigan. This map will be updated on a daily basis seven days per week.

Upon occurrence of a CSO in a given waterway segment, the color of the segment shown on the map will be changed from blue to red. The color of several waterway segments downstream of the segment on which a confirmed CSO has occurred will, by default, also be changed to red, indicating that the water quality of that segment may be affected as well.

The map will be updated on a daily basis between 5 a.m. and 6 a.m. to reflect CSO/floodwater discharge activity in the preceding 24-hour period. It will provide the public with a rolling seven-day record of CSO/floodwater discharge events in the Chicago area waterway system. The seven most current daily maps will be retained on the website with the oldest being deleted when a new map is added. A user will be able to select and display any one of the seven maps stored on the web page at a given time.

3.2.6 VILLAGE WEBPAGE

The Village web page will contain both general information on CSOs and notices of specific CSO events. The general information will include questions/answers below:

What is a combined sewer overflow(CSO)? A CSO is a discharge from a combined sewer system directly into a waterway. A combined sewer system is designed to collect a mixture of rainfall runoff, domestic and industrial wastewater in the same pipe for conveyance to a wastewater treatment plant. A CSO may occur during heavy rainfalls when the inflow of combined wastewater exceeds the capacity of the combined sewer system and the wastewater treatment plant. The CSO outfalls to the waterway act as relief points for the excess flow in the sewers, thereby reducing the frequency and severity of sewer backups and flooding.

What are the impacts of CSOs? Although CSOs may contain highly diluted sewage, they may cause temporary water quality degradation in the waterways. Contact with waterways should be avoided following the occurrence of CSOs.

Why does Riverside have CSOs? Riverside and other older suburbs, have a combined sewer system, in which both sanitary waste and storm water are conveyed in the same pipe. Suburbs built since 1950 have separate sanitary and storm sewer systems.

Where do CSOs occur? When CSOs occur, discharge to the river may be at any or all of 4 points. At the 31st Street Desplaines River Bridge, the Barrypoint Bridge, Riverside Road in the vicinity of Gage and the Ogden Ave Bridge.

What is being done to reduce the occurrence of CSOs? The MWRDGC's ongoing Tunnel and Reservoir Plan (TARP) Project was implemented to alleviate the polluting effects of CSOs and to provide relief from local flooding by providing holding capacity for 18 billion gallons of combined sewage in its tunnels and reservoirs until it can to be pumped to the water reclamation plant for full treatment. The Village system is linked to TARP.

CSO OPERATIONAL PLAN CHECKLIST AND CERTIFICATION

(To be Completed by Permittee)

Facility Name_____ **NPDES No. IL**_____

Section I. *The following information should be included in the CSO Operational Plan.*

General Information

	Included Yes	No	N/A	Administrative Acceptance	
Describe the collection system including all outfalls and overflows, control (diversion) structures, treatment facilities, pumping stations, and associated capacities	☒	☐	☐	☐	1.2.0
Describe the relationship to other collection entities, esp. other CSO collection entities	☒	☐	☐	☐	1.1.0
Has the Illinois Pollution Control Board issued any orders, currently in effect, regarding any of these outfalls? If yes, include a copy of the Board Order with the Plan	☐	☒	☐	☐	
Are any of these outfalls to sensitive areas (designated Outstanding National Resource Waters, National Marine Sanctuaries, bathing beaches, shellfish beds, waters with threatened or endangered species and their habitat, contact recreation, or drinking water intakes)? If yes, explain as indicated at the end of Section II	☒	☐	☐	☐	1.1.2
Describe efforts undertaken to minimize the discharge of pollutants from all CSO outfalls	☒	☐	☐	☐	2.0.0
Describe efforts undertaken to maximize storage of pollutants in the collection system	☒	☐	☐	☐	1.2.0
Describe the pollution prevention aspects of this Operational Plan	☒	☐	☐	☐	2.0.0
Describe efforts to monitor CSO impacts and the efficacy of CSO controls	☒	☐	☐	☐	1.4.0
Describe the public notification program for CSO occurrences and impacts.	☒	☐	☐	☐	3.0.0
Latitude and longitude information given for each outfall	☒	☐	☐	☐	1,2,4

Maintenance

Schedule for regular street cleaning in combined sewer areas	☒	☐	☐	☐	1.3.0
Added emphasis for leaf removal	☒	☐	☐	☐	1.3.0
Schedule for catch basin cleaning	☒	☐	☐	☐	1.3.0
Schedule for routine cleaning of trunk and interceptor sewers	☒	☐	☐	☐	1.3.0
Stop planks at highest level practical without causing basement backups or excessive street flooding	☐	☐	☒	☐	
Date system stop planks last adjusted _____ (month) (day) (year)	☐	☐	☒	☐	
Describe your procedures for:					
Cleaning screening equipment after and, if necessary, during each storm	☐	☐	☒	☐	
Regulating diversion and bypass valves	☐	☐	☒	☐	
Reducing solids deposition in the combined sewer system	☒	☐	☐	☐	1.3.0

Inspections and Monitoring

Schedule to inspect regulator and diversion structures included	☒	☐	☐	☐	1.4.0
Routine pump/lift station inspection and preventive maintenance discussed	☐	☐	☒	☐	
Schedule to inspect manholes and sewers (e.g., televise, etc.) included	☒	☐	☐	☐	1.4.0
Schedule to inspect surface water anti-intrusion devices (e.g., flapgates, etc.)	☐	☐	☒	☐	
Describe your procedures for finding and eliminating illegal sewer connections	☒	☐	☐	☐	1.4.0
Describe your procedures for finding and eliminating dry-weather overflows	☒	☐	☐	☐	1.4.0

Section II. *Information in the following section should be included in the Plan and kept on file by the permittee. This information will be verified by IEPA during a facility inspection. The* ***submission of the information in Section II to the Agency should only be done when requested. DO NOT SUBMIT THE INFORMATION REQUESTED IN THE FOLLOWING SECTION WITH THE CSO OPERATIONAL PLAN.***

Maps and Diagrams

	Included Yes	No	N/A	IEPA Field Verification	
Sewer system map included	☒	☐	☐	☐	4.4.0
Combined sewers and sanitary sewers tributary to combined sewers marked	☒	☐	☐	☐	4.4.0
Storm sewers using combined sewers as a transport link marked	☒	☐	☐	☐	4.4.0
All major interceptors and trunk sewers marked	☒	☐	☐	☐	4.4.0
Sewer sizes, slope, and material indicated	☒	☐	☐	☐	4.4.0
Manholes and catch basins identified	☒	☐	☐	☐	4.4.0
All CSOs, treatment plant bypasses, outfalls, and their receiving waters identified	☒	☐	☐	☐	4.4.0
All control (diversion) structures, including valves, marked	☐	☐	☒	☐	
All pump and lift stations and their capacities marked	☐	☐	☒	☐	
Diagram of CSO Treatment Facilities	☐	☐	☒	☐	
All unit processes and associated capacities identified	☐	☐	☒	☐	

CSO OPERATIONAL PLAN CHECKLIST AND CERTIFICATION (CONT'D)

(To be Completed by Permittee)

Section II. (cont'd)

	Included Yes	No	N/A	IEPA Field Verification
Sewer System Characterization				
Drainage area and population tributary to each overflow indicated	☒	☐	☐	☐ 1.1.1
Sewer capacity immediately upstream and downstream of each overflow indicated	☒	☐	☐	☐ 1.1.1
Description of structural and physical condition of sewer system	☒	☐	☐	☐ 1.1.1
Age of system included	☒	☐	☐	☐ 1.1.1
Bottlenecks in the system included	☒	☐	☐	☐ 1.1.1
Average dry weather flow rate through sewer at each overflow (diversion structure)	☐	☐	☒	☐
Year last monitored	☐	☐	☒	☐
Land use and zoning classification in the vicinity of each overflow indicated	☒	☐	☐	☐ 1.1.1
Projected growth tributary to each overflow indicated	☒	☐	☐	☐ 1.1.1
List of non-residential sewer users tributary to each overflow	☒	☐	☐	☐ 1.1.1
Dischargers of toxics indicated	☐	☐	☒	☐
Dischargers of high strength wastewater indicated	☐	☐	☒	☐
High-volume dischargers indicated	☐	☐	☒	☐
Percent pervious area developed and kept current for each sewerage basin	☒	☐	☐	☐ 1.1.1
Record Keeping				
Logs should be maintained on the following subjects:				
Collapsed and blocked sewers	☒	☐	☐	☐ 1.5.0
Basement backups, street flooding, and other collection system complaints	☒	☐	☐	☐ 1.5.0
Regulator and diversion structure inspections	☒	☐	☐	☐ 1.5.0
CSO and excess flow retention basin levels	☒	☐	☐	☐ 1.5.0

Explain all 'No' and 'N/A' (and 'Yes' for the question on sensitive areas) on a separate sheet and attach.

I attest that this form has been completed by me or by others under my direct supervision and that the information contained herein is, to the best of my knowledge, true and complete.

_____ _____ _____

(Signature) (Title) (Date)

NOTE: Signature should be authorized according to 35 Ill. Adm. Code 309.103(e).

Contact Person: _____ Title: _____

Address: _____ Phone: _____

_____

_____

----------SPACE BELOW RESERVED FOR IEPA USE ONLY----------

ADMINISTRATIVE REVIEW FIELD VERIFICATION

_____ _____

(Signature) (Date) (Signature) (Date)

IL 532-2544
WPC 681 Rev. 1/2004

Information required by this form must be provided to comply with 415 ILCS 5/39 (1994). Failure to so provide may result in penalties of up to $10,000. This form has been approved by the Forms Management Center.

EXPLANATION OF "NO" AND "N/A" ANSWERS

- The Illinois Pollution Control Board has not issued any orders regarding the outfalls in Riverside.
- The Village does not own any treatment equipment or facilities that have stop planks or screening equipment.
- The MWRDGC maintains the backflow preventer in the diversion structures at the connections to TARP. The Village is not responsible for this inspection.
- The Village does not own any treatment facilities.
- There are not any excess flow retention basins at the outfalls.
- There are no industries, commercial or industrial, connected to the village CSO

CSO POLLUTION PREVENTION PLAN CERTIFICATION

(To be Completed by Permittee)

Facility Name_____ **NPDES No. IL**_____

Additional information on each of the following items can be found in Chapter 8 of Combined Sewer Overflows, Guidance for Nine Minimum Controls, USEPA, May, 1995 (EPA 832-B-95-003). Copies are available from USEPA or can be downloaded from the internet at http://www.epa.gov/npdes/pubs/owm0030.pdf.

	Included Yes	No	N/A	Administrative Acceptance
Describe any street cleaning efforts performed on a regular basis	☒	☐	☐	☐ 2.1.1
Describe any efforts aimed at educating the public including anti-litter campaigns, proper disposal of sanitary and personal hygiene items, and proper application of fertilizers, pesticides and herbicides.	☒	☐	☐	☐ 2.1.4
Describe solid waste collection procedures	☒	☐	☐	☐ 2.2.0
Describe any recycling efforts	☒	☐	☐	☐ 2.2.1
Describe any efforts undertaken to ban or substitute products that do not degrade in the environment such as polystyrene (see Section 8.1.4)	☒	☐	☐	☐ 2.3.0
Describe any efforts to control product use such as fertilizers, pesticides, de-icing salts that are under the control of the Permittee (see Section 8.1.5)	☒	☐	☐	☐ 2.1.2
Describe efforts taken to control illegal dumping	☒	☐	☐	☐ 2.2.2
Describe any efforts to collect bulk refuse (see Section 8.1.7)	☒	☐	☐	☐ 2.2.3
Describe any hazardous waste collection programs offered from time to time in the Permittee's service area.	☒	☐	☐	☐ 2.2.4
Describe any water conservation efforts in the Permittee's service area	☒	☐	☐	☐ 2.1.3
Describe any pollution prevention activities required of commercial or industrial dischargers	☒	☐	☐	☐ 2.3.1

Explain all 'No' and 'N/A' on a separate sheet and attach.

I attest that this form has been completed by me or by others under my direct supervision and that the information contained herein is, to the best of my knowledge, true and complete.

_____ _____ _____

(Signature) (Title) (Date)

NOTE: Signature should be authorized according to 35 Ill. Adm. Code 309.103(e).

Contact Person: _____ Title: _____

Address: _____ Phone: _____

_____

_____

SPACE BELOW RESERVED FOR IEPA USE ONLY

ADMINISTRATIVE REVIEW

_____

(Signature) (Date)

FIELD VERIFICATION

_____

(Signature) (Date)

IL 532-2784
WPC 728 1/2004

Information required by this form must be provided to comply with 415 ILCS 5/39 (1994). Failure to so provide may result in penalties of up to $10,000. This form has been approved by the Forms Management Center.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR RENEE CIPRIANO, DIRECTOR

217/782-0610

May 19, 2004

Director of Public Works
Village of Riverside
27 Riverside Road
Riverside, Illinois 60546-2299

Re: Village of Riverside Combined Sewer Overflows
NPDES Permit No. ILM580015
Modification of Authorization to Discharge under NPDES General Permit

Dear Sir or Madam:

The Agency received your application to modify your authorization to discharge under NPDES General Permit No. ILG58015. The final decision of the Agency is to modify your authorization to discharge as follows:

Discharge Numbers 009 and 011 have been removed from your permit and Discharge Number 013 is now included in your authorization to discharge.

The Permittee is authorized to discharge from the following overflows provided the diversion structure is located on a combined sewer and the terms and conditions of the permit are met:

Discharge Number	Location	Receiving Water
007	Barrypoint Road (East #1)	Des Plaines River
010	Gage Road	Des Plaines River
012	Ogden Avenue	Des Plaines River
013	Maplewood Road	Des Plaines River

This modification to your authorization to discharge under this General Permit is applied to your discharge effective on the date of this letter. You have the right to appeal the Agency's decision to cover your discharge by the General Permit to the Illinois Pollution Control Board within a 35 day period following the date of this letter.

Should you have questions concerning the Permit, please contact Landon Niedringhaus at the telephone number indicated above.

Sincerely,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SAK:ELN J:/Riverside CSO Mod Letter

Attachment: Final Permit

cc: General Superintendent, MWRDGC
Records
DesPlaines Regional Office
CAS
DJS

NPDES Permit No. ILM580015

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Expiration Date: May 31, 2008

Issue Date: April 25, 2003
Effective Date: June 1, 2003

New General (NPDES) Permit
for
Discharges from Combined Sewer Overflows

Coverage under this Permit

This Permit can cover discharges from combined sewer overflows (CSOs) which are owned by municipalities in the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) Tunnel and Reservoir Plan (TARP) service area and which discharge into General Use or Secondary Contact Waters.

Eligibility

This Permit can cover CSOs, tributary to the TARP operated by the MWRDGC, that are publicly owned by entities that do not operate treatment facilities themselves and have had or currently have an NPDES permit. Municipalities not previously covered under an individual or general NPDES permit cannot be authorized to discharge under this General Permit.

Receiving Waters: General Use and Secondary Contact Waters of the State in the Suburban Chicago Area

To receive authorization to discharge under this General Permit, a facility owner or operator must submit the proper application forms to the IEPA. Authorization, if granted, will be by letter and include a copy of this Permit.

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

Toby Frevert, P.E.
Manager
Division of Water Pollution Control

TDF:DJS\ILM580.WPD

Special Conditions

SPECIAL CONDITION 1.

AUTHORIZATION OF
COMBINED SEWER OVERFLOW DISCHARGES

The IEPA has determined that at least a portion of the collection system consists of combined sewers. References to the collection system and the sewer system refer only to those parts of the system which are owned and operated by the Permittee. This Permit contains provisions implementing the federal CSO Control Policy of 1994 (*Federal Register* 18688) and recognizes TARP, now under construction by MWRDGC, as the long-term control plan for Permittees authorized to discharge under this General Permit. The Permittee may discharge from the overflow(s) listed in the letter authorizing the Permittee to discharge under this General Permit provided the diversion structure is located on a combined sewer and the following terms and conditions are met:

Transport and Treatment Requirements

1. All combined sewer overflows shall be given sufficient treatment by the proper treatment authority to prevent pollution and the violation of applicable water quality standards. This program may be performed in cooperation with MWRDGC.

2. All dry weather flows, the first flush of storm flows, and at least ten (10) times average dry weather flows shall be conveyed to the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) for treatment.

3. All CSO discharges authorized by this Permit shall be treated by the proper treatment authority, in whole or in part, to the extent necessary to prevent accumulations of sludge deposits, floating debris and solids in accordance with 35 Ill. Adm. Code 302.203 and to prevent depression of dissolved oxygen levels below the applicable water quality standard. This program may be performed in cooperation with MWRDGC.

4. Overflows during dry weather are prohibited. Dry weather overflows, if discovered, shall be reported to the IEPA pursuant to Standard Condition 12(e) of this Permit (24 hour notice).

5. The collection system shall be operated to optimize storage and transport of wastewater flows and to minimize CSO discharges. This program may be performed in cooperation with MWRDGC.

Nine Minimum Controls

6. The Permittee shall comply with the nine minimum controls contained in the National CSO Control Policy published in the *Federal Register* on April 19, 1994. The nine minimum controls are:

   a. Proper operation and maintenance programs for the sewer system and the CSOs (Compliance with this Item shall be met through the requirements imposed by Paragraph 8 of this Special Condition);

   b. Maximum use of the collection system for storage (Compliance with this Item shall be met through the requirements imposed by Paragraphs 5 and 8 of this Special Condition);

   c. Review and modification of pretreatment requirements to assure CSO impacts are minimized (Compliance with this Item is under the control of the treatment authority--the Metropolitan Water Reclamation District of Greater Chicago, MWRDGC);

   d. Maximization of flow to the POTW for treatment (Compliance with this Item shall be met through the requirements imposed by Paragraphs 5 and 8 of this Special Condition);

   e. Prohibition of CSO's during dry weather (Compliance with this Item shall be met through the requirements imposed by Paragraph 4 of this Special Condition);

   f. Control of solids and floatable materials in CSO's (Compliance with this Item shall be met through the requirements imposed by Paragraphs 3 and 8 of this Special Condition);

   g. Pollution prevention programs which focus on source control activities (Compliance with this Item shall be met through the requirements imposed by Paragraph 6 of this Special Condition, **See Below**);

   h. Public notification to ensure that citizens receive adequate information regarding CSO occurrences and CSO impacts (Compliance with this Item shall be met through the requirements imposed by Paragraphs 7 and 12 of this Special Condition); and,

   i. Monitoring to characterize impacts and efficiency of CSO controls (Compliance with this Item shall be met through the requirements imposed by Paragraphs 10 and 11 of this Special Condition).

   Unless already completed, the Permittee shall develop a pollution prevention plan and present it to the general public at a public

Special Conditions

information meeting conducted by the Permittee within nine (9) months of the date of the authorization to discharge under this General Permit. Such plan may be developed in cooperation with MWRDGC. The Permittee shall submit documentation that the pollution prevention plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the date of the authorization to discharge under this General Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "Pollution Prevention Plan Certification", one (1) with original signatures. Following the public meeting, the Permittee shall implement the pollution prevention plan within one (1) year and shall maintain a current pollution prevention plan, updated to reflect system modifications, on file at the municipal clerk's office or other acceptable location and made available to the public. The pollution prevention plan shall be submitted to the IEPA upon written request. The Permittee shall also submit a copy of the Pollution Prevention Plan and all subsequent updates to MWRDGC.

The Permittee, within six (6) months of the date of the authorization to discharge under this General Permit, shall post notice, for each CSO, as indicated in Paragraph 7 of this Special Condition, which discharges to a sensitive area. If Paragraph 7 of this Special Condition requires the submittal of information, then, the Permittee, within six (6) months of the IEPA's response to such submittal, shall post notice, for each CSO which discharges to a sensitive area as indicated in the IEPA's response. Notice shall be posted at the point of discharge and/or potentially impacted downstream sensitive areas, as determined by the IEPA. In the event that the Permittee is not in control of the potentially impacted downstream areas and does not have the legal authority to compel the posting of such notices, the Permittee shall address this issue pursuant to the requirements of Special Condition 1.12 of this Permit. The public notification program shall specifically identify this problem and detail a specific resolution.

Sensitive Area Considerations

7. Sensitive areas are any water likely to be impacted by a CSO discharge and designated as an Outstanding National Resource Water, found to contain either shellfish beds or threatened or endangered aquatic species or their habitat, used for primary contact recreation, or within the protection area for a drinking water intake structure. Primary contact uses are protected for all general use waters whose physical configuration permits such use.

   Unless already completed, within six (6) months of the date of the authorization to discharge under this General Permit, the Permittee shall submit documentation indicating which of the CSOs discharging to general use waters do not discharge into sensitive areas. Such documentation shall include information regarding the use or potential use of the receiving water for primary contact activities (swimming, water-skiing, etc.). If the Permittee believes that it is not possible for primary contact recreation to occur in the vicinity of waters likely to be impacted by a CSO discharge authorized through this General Permit, then justification as to why primary contact recreation is not possible shall be submitted. Adequate justification includes, but is not limited to (1) inadequate water depth; (2) presence of physical obstacles sufficient to prevent access or primary contact activities; and, (3) uses of adjacent land sufficient to discourage primary contact activities. The IEPA will make a determination based on this documentation and other information available to the IEPA. Should the IEPA determine that any of the CSOs discharge into sensitive areas, the Permittee will be notified in writing. Within three (3) months of the date of notification, or such other date contained in the notification letter, the Permittee shall submit two (2) copies of either a schedule to relocate, control, or treat discharges from these outfalls. If none of these options are possible, the Permittee shall submit adequate justification at that time as to why these options are not possible. Such justification shall be in accordance with Section II.C.3 of the National CSO Control Policy.

   The IEPA has determined that the CSOs discharging to secondary contact waters do not discharge to sensitive areas. However, if information becomes available that causes the IEPA to reverse this determination or if any of the CSOs that discharge to General Use Waters are determined to discharge to a sensitive area, the IEPA will notify the Permittee in writing. Within three (3) months of the date of notification, or such other date contained in the notification letter, the Permittee shall submit two (2) copies of either a schedule to relocate, control, or treat discharges from these outfalls. If none of these options are possible, the Permittee shall submit adequate justification at that time as to why these options are not possible. Such justification shall be in accordance with Section II.C.3 of the National CSO Control Policy.

   Additionally, if any of the CSOs authorized for discharge under this General Permit are determined to discharge to sensitive areas, the IEPA may require the Permittee to submit an individual NPDES permit application based on this documentation and information. An individual NPDES permit may be issued to include additional CSO controls for such outfalls and to include a schedule for relocating, controlling, or treating CSO flows to sensitive areas. If none of these options are possible, the Permittee shall submit adequate justification at that time as to why these options are not possible. Such justification shall be in accordance with Section II.C.3 of the National CSO Control Policy.

Operational and Maintenance Plans

8. Unless already completed, a CSO operational and maintenance plan ("CSO O&M plan") shall be developed and presented to the general public at a public information meeting conducted by the Permittee within nine (9) months of the date of the authorization to discharge under this General Permit. The CSO O&M plan shall be consistent with the MWRDGC CSO O&M plan and may be developed in cooperation with MWRDGC. The Permittee shall submit documentation that the CSO O&M plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the date of the authorization to discharge under this General Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue and shall identify any modifications made to the plan

Special Conditions

as a result of the public information meeting along with a brief description of the CSO O&M plan, and two (2) copies of the "CSO Operational Plan Checklist and Certification", one (1) with original signatures. Following the public meeting, the Permittee shall implement the CSO O&M plan within one (1) year and shall maintain a current CSO O&M plan, updated to reflect system modifications, on file at the municipal clerk's office or other acceptable location and made available to the public. A copy of the CSO O&M plan and all subsequent updates hall be submitted to MWRDGC. The CSO O&M plan shall be submitted to the IEPA upon written request.

The objectives of the CSO O&M plan are to reduce the total loading of pollutants entering the receiving stream and to ensure that the Permittee ultimately achieves compliance with water quality standards.. These plans, tailored to the local government's collection and waste treatment systems, shall include mechanisms and specific procedures where applicable to ensure:

a. Collection system inspection on a regular scheduled basis;

b. Sewer, catch basin, manhole, and regulator cleaning and maintenance on a regular scheduled basis;

c. Inspections are made and preventative maintenance is performed on all pump/lift stations;

d. Collection system replacement, where necessary;

e. Detection and elimination of illegal connections;

f. Detection, prevention, and elimination of dry weather overflows;

g. The collection system is operated to maximize storage capacity and the combined sewer portions of the collection system are operated to delay storm water entry into the system; and,

h. The collection system is operated to maximize treatment.

Sewer Use Ordinances

9. The Permittee, within six (6) months of the date of this of the authorization to discharge under this General Permit, shall review and where necessary, modify its existing sewer use ordinance to ensure it contains provisions addressing the conditions below. If no ordinance exists, such ordinance shall be developed and implemented within six (6) months of the date of the authorization to discharge under this General Permit. Sewer use ordinances are to contain specific provisions to:

   a. prohibit introduction of new inflow sources to a sanitary sewer;

   b. require that new construction tributary to the combined sewer system to be designed to minimize and/or delay inflow contribution to the combined sewer system;

   c. require that inflow sources on the combined sewer system be connected to a storm sewer, within a reasonable period of time, if a storm sewer becomes available; and,

   d. provide that any new building domestic waste connection shall be distinct from the building inflow connection, to facilitate disconnection if a storm sewer becomes available.

   Upon completion of the review of the sewer use ordinance(s), the Permittee shall submit two (2) copies of a completed "Certification of Sewer Use Ordinance Review", one with original signatures, to the IEPA. A copy of the sewer use ordinance and all subsequent updates shall be submitted to MWRDGC. The Permittee shall submit copies of the sewer use ordinance(s) to the IEPA upon written request.

   The Permittee shall enforce the applicable sewer use ordinances.

Compliance with Water Quality Standards

10. Pursuant to Section 301 of the federal Clean Water Act and 40 CFR § 122.4, discharges from the CSOs authorized under this General Permit shall not cause or contribute to violations of applicable water quality standards or cause use impairment in the receiving waters. Should information become available which indicates the CSO discharges cause violations of applicable water quality standards or cause use impairment, the Permittee shall develop and implement a plan to assess and abate impacts from CSO discharges. This plan may be developed in conjunction with MWRDGC. Two (2) copies of this plan shall be submitted to the IEPA within six (6) months of notification and shall contain a schedule for its implementation and provisions for re-evaluating compliance with applicable standards and regulations after implementation. A copy of this plan and all subsequent updates shall be submitted to MWRDGC.

Special Conditions

Monitoring, Reporting and Notification Requirements

11. The Permittee shall monitor the frequency of discharge (number of discharges per month) and estimate the duration (in hours) of each discharge from each outfall authorized under this General Permit. Estimates of storm duration and total rainfall shall be provided for each storm event. The frequency and duration monitoring requirement for discharges may be coordinated with the MWRDGC program.

    For frequency reporting, all discharges from the same storm, or occurring within 24 hours, shall be reported as one. The date that a discharge commences shall be recorded for each outfall. Reports shall be in the form specified by the IEPA and on forms provided by the IEPA. These forms shall be submitted to the IEPA monthly with the DMRs and covering the same reporting period as the DMRs.

12. A public notification program in accordance with Section II.B.8 of the federal CSO Control Policy of 1994 shall be developed employing a process that actively informs the affected public. This program may be developed in conjunction with MWRDGC. The program shall include at a minimum public notification of CSO occurrences and CSO impacts, shall include mass media and/or internet notification and provisions shall be made to include modifications of the program when necessary and notification to any additional affected public. The Permittee shall also consider signs near any CSO outfall with appropriate language warning the general public. The program shall be presented to the general public at a public information meeting conducted by the Permittee. The Permittee shall conduct the public information meeting within nine (9) months of the date of the authorization to discharge under this General Permit. The Permittee shall submit documentation that the public information meeting was held, shall submit a summary of all significant issues raised by the public and the Permittee's response to each issue and shall identify any modifications to the program as a result of the public information meeting along with a brief description of the final notification program. This information shall be submitted to the IEPA and the public notification program implemented within twelve (12) months of the date of the authorization to discharge under this General Permit. A copy of the public notification program and all subsequent updates shall be submitted to MWRDGC.

13. If any of the CSO discharge points listed in the authorization to discharge under this General Permit are eliminated, or if additional CSO discharge points, not listed in the authorization to discharge under this General Permit, are discovered, the Permittee shall notify the IEPA in writing within one (1) month of the respective outfall elimination or discovery. Such notification shall be in the form of a request for the appropriate modification to discharge under this General Permit.

Summary of Compliance Dates in this CSO Special Condition

14. The following summarizes the dates that submittals contained in this Special Condition are due at the IEPA (unless otherwise stated):

Submission of CSO Monitoring Data (Paragraph 11)	**15th of every month**
Elimination of a CSO or Discovery of Additional CSO locations (Paragraph 13)	1 month from discovery or elimination
Documentation of CSO locations (Paragraph 7)	6 months from the date of the authorization to discharge under this General Permit
Certification of Sewer Use Ordinance Review (Paragraph 9)	6 months from the date of authorization to discharge under this General Permit
Conduct Public Meeting on Pollution Prevention Plan, O&M Plan, and PN Plan (Paragraphs 6, 8, and 12) **No Submittal Required for this Milestone**	9 months from the date of the authorization to discharge under this General Permit
Submission of Documentation on Public Meeting for Pollution Prevention Plan, O&M Plan, and PN Plan (Paragraphs 6, 8, and 12)	12 months from the date of the authorization to discharge under this General Permit
CSO Abatement Plan (Paragraph 10)	6 months from IEPA notification

All submittals listed in this paragraph shall be mailed to the following addresses:

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
Attention: CSO Coordinator, CAS

Illinois Environmental Protection Agency
DesPlaines Regional Office
Division of Water Pollution Control
9511 West Harrison Street
DesPlaines, Illinois 60016

Metropolitan Water Reclamation District of Greater Chicago
General Superintendent
100 East Erie Street
Chicago, Illinois 60611-3154

Special Conditions

Reopening and Modifying this Permit

15. The IEPA may require the completion and submittal of an individual NPDES permit application at any time. Individual NPDES permit issuance would be to include requirements and compliance dates which have been submitted in writing by the Permittee and approved by the IEPA, or other requirements and dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Clean Water Act, or regulations promulgated under those Acts. Public Notice of such issuance and opportunity for public hearing shall be provided.

SPECIAL CONDITION 2. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws, regulations, or judicial orders. The IEPA will Public Notice the permit modification.

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 effluent, alone or in combination with other sources, shall not cause or contribute to causing a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 5. The Permittee shall record monitoring results on Discharge Monitoring Report forms using one such form for each discharge each month. The completed Discharge Monitoring Report form shall be submitted monthly to IEPA, no later than the 15th of the following month to the following address:

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

SPECIAL CONDITION 6. Requiring an individual permit or an alternative general permit.

a. The IEPA may require any person authorized by this Permit to apply for and obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the IEPA to take action under this paragraph. The IEPA may require any owner or operator authorized to discharge under this Permit to apply for an individual NPDES permit only if the owner or operator has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the owner or operator to file the application, and a statement that on the effective date of the individual NPDES permit or the alternative general permit as it applies to the individual Permittee, coverage under this General Permit shall automatically terminate. The IEPA may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit in a timely manner an individual NPDES permit application required by the IEPA under this paragraph, then the applicability of this Permit to the individual NPDES Permittee is automatically terminated at the end of the day specified for application submittal.

b. Any owner or operator authorized by this Permit may request to be excluded from the coverage of this Permit by applying for an individual NPDES permit. The owner or operator shall submit an individual application with reasons supporting the request, in accordance with the requirements of 40 § CFR 122.21, to the IEPA. The request shall be granted by issuing of any individual permit or an alternative general permit if the reasons cited by the owner or operator are adequate to support the request.

c. When an individual NPDES permit is issued to an owner or operator otherwise subject to this Permit, or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this Permit to the individual NPDES Permittee is automatically terminated on the issuance date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an owner or operator otherwise subject to this Permit, or the owner or operator is denied for coverage under an alternative NPDES general permit the applicability of this Permit to the individual NPDES Permittee is automatically terminated on the date of such denial, unless otherwise specified by the IEPA.

SPECIAL CONDITION 7.

Authorization: To receive authorization to discharge under this General Permit, applicants must complete and submit NPDES Forms 1 and 2A (EPA Forms 3510-1 and 3510-2A). Upon review of the application, the IEPA may deny coverage under this General Permit and draft an individual NPDES permit.

In order to receive authorization to discharge beyond the expiration date of this Permit, the Permittee shall re-apply by completing and submitting NPDES Forms 1 and 2A as required by the IEPA not later than one hundred and eighty (180) days prior to the expiration date.

Special Conditions

Change in Contact Person, Ownership or Operators: In the event that the contact person for this facility is changed or in the event of a change in ownership or operator for a facility authorized to discharge under this Permit, an updated application shall be filed with the IEPA within thirty (30) days of such change. Upon review of an application, the IEPA may deny coverage under this Permit or require any person otherwise authorized to discharge under this Permit to apply for and obtain either an individual NPDES permit or an alternative general NPDES permit.

Attachment H

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 requirement.

(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. 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, 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. This period may be extended by request of the Agency 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.

(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.

(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) **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.

(d) **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.

(e) **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) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours.

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

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

(g) **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.

(13) **Transfer of permits.** A permit may be automatically transferred to a new permittee if:

(a) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and

(c) 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.

(14) 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.

(15) 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.

(16) 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.

(17) 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.

(18) 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.

(19) 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.

(20) 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 $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 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.

(21) 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 permit 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.

(22) 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 shall, 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.

(23) 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.

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

(25) 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.

(26) 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. 3-13-98)