

NPDES Permit No. IL0024201

Notice No. GY:11061901.bah

Public Notice Beginning Date: **August 30, 2011**

Public Notice Ending Date: **September 29, 2011**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

Village of Mokena
11004 Carpenter Street
Mokena, Illinois 60448

Name and Address of Facility:

Village of Mokena WWTP
11400 West 191st Street
Mokena, Illinois 60448
(Will County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Getie Yilma at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic wastewater for the Village of Mokena.

The length of the Permit is approximately 5 years.

The main discharge number is 001. The seven day once in ten year low flow (7Q10) of the receiving stream, East Branch Marley Creek is 0 cfs.

The design average flow (DAF) for the existing facility is 2.5 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 6.5 MGD. Treatment consists of screening, grit removal, activated sludge, clarification, sand filtration, disinfection/dechlorination, aerobic digestion, liquid sludge storage tanks and land application of sludge.

The design average flow (DAF) for the proposed facility is 3.3 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 8.0 MGD. Treatment consists of screening, grit removal, biological nutrient removal (BNR) activated sludge, clarification, sand filtration, disinfection/dechlorination, chemical phosphorus removal, aerobic digestion, liquid sludge storage tanks and land application of sludge.

This reissued Permit increases the facility's DAF, DMF, concentration limits, and /or load limits.

Application is made for existing discharge(s) which is (are) located in Will County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
001	East Branch Marley Creek	41° 32' 37" North	87° 53' 46" West	General Use	C
002	East Branch Marley Creek	41° 32' 39" North	87° 53' 27" West	General Use	C

To assist you further in identifying the location of the discharge(s) please see the attached map.

The stream segment(s) (tributary to segment GGB-01) receiving the discharge from outfall 001 is not on the 303 (d) list of impaired waters.

The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): 001 Main WWTP Outfall (Existing Plant)

Load limits computed based on a design average flow (DAF) of 2.5 MGD (design maximum flow (DMF) of 6.5 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

<u>Parameter</u>	<u>LOAD LIMITS lbs/day</u> <u>DAF (DMF)*</u>			<u>CONCENTRATION</u> <u>LIMITS mg/L</u>			<u>Regulation</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	
CBOD ₅	209 (542)		417 (1084)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids	250 (651)		500 (1301)	12		24	35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen: March	31 (81)		65 (168)	1.5		3.1	35 IAC 355 and 35 IAC 302
April-May/Sept.-Oct.	23 (60)		60 (157)	1.1		2.9	
June-August	8.3 (22)	21 (54)	38 (98)	0.4	1.0	1.8	
Nov.-Feb.	46 (119)		92 (239)	2.2		4.4	
Phosphorus	Monitor Only						35 IAC 304.123
Total Nitrogen	Monitor only						35 IAC 309.146
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July				N/A	6.0	5.0	35 IAC 302.206
August-February				5.5	4.0	3.5	

*Load Limits are calculated by using the formula: $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$

The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): 001 Main WWTP Outfall (Proposed Plant)

Load limits computed based on a design average flow (DAF) of 3.3 MGD (design maximum flow (DMF) of 8.0 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

		LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			
Parameter	Annual Average	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Regulation
CBOD ₅	209	275 (667)		550 (1334)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids	250	330 (801)		661 (1601)	12		24	35 IAC 304.120 40 CFR 133.102
pH		Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform		Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual							0.05	35 IAC 302.208
	Period Average							
Ammonia Nitrogen: March		41 (100)		85 (207)	1.5		3.1	35 IAC 355 and 35 IAC 302
April-May/Sept.-Oct.		30 (73)		80 (193)	1.1		2.9	
June-August	17	11 (27)	28 (67)	50 (120)	0.4	1.0	1.8	
Nov.-Feb.	46	61 (147)		121 (294)	2.2		4.4	
Mar.-May/Sept.-Oct.	23							
Phosphorus		28 (67)			1.0			35 IAC 304.123
Total Nitrogen		Monitor only						35 IAC 309.146
					Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July					N/A	6.0	5.0	35 IAC 302.206
August-February					5.5	4.0	3.5	

*Load Limits are calculated by using the formula: $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$.

This Permit contains an authorization to treat and discharge excess flow as follows:

Discharge Number(s) and Name(s): 002 Excess Flow Bypass (flows greater than 6.5 MGD)

	CONCENTRATION LIMITS (mg/L)	
<u>Parameter</u>	<u>Monthly Average</u>	<u>Regulation</u>
BOD ₅	30	40 CFR 133.102
Suspended Solids	30	40 CFR 133.102
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 mL	35 IAC 304.121
pH	Shall be in the range of 6 to 9 Standard Units	35 IAC 304.125
Chlorine Residual	0.75	35 IAC 304.208

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.
2. Operation of the facility by or under the supervision of a certified operator.
3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
4. More frequent monitoring requirement without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.
5. Prohibition against causing or contributing to violations of water quality standards.
6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
7. The provisions of 40 CFR Section 122.41(m) & (n) are applicable and are hereby incorporated by reference.
8. Effluent sampling point location.
9. Seasonal fecal coliform limits.
10. Monitoring for arsenic, barium, cadmium, hexavalent chromium, total chromium, copper, weak acid dissociable cyanide, total cyanide, fluoride, dissolved iron, total iron, lead, manganese, mercury, nickel, oil, phenols, selenium, silver and zinc is required to be conducted semi-annually beginning 3 months from the effective date.
11. The Permittee is required to monitor for zinc twice monthly for five months beginning three months after the effective date of this Permit.
12. Submission of annual fiscal data.
13. A requirement for biomonitoring of the effluent.
14. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
15. Notify Agency of Plant Completion.
16. Total Nitrogen Monitoring.
17. Controlling the sources of infiltration and inflow into the sewer system.
18. Stream monitoring upstream and downstream of outfall.
19. Participation in Hickory Creek Watershed Planning Group.

Antidegradation Assessment for Mokena STP
NPDES Permit No. IL0024201 Will County

The subject facility has applied for an NPDES permit for an expanded treatment plant with a DAF increasing from 2.5 to 3.3 MGD. The expanded plant will include biological nutrient removal with a back-up chemical phosphorus removal system. The discharge will remain to the East Branch Marley Creek. Information concerning the antidegradation assessment was provided by the applicant in two documents: Village of Mokena, Illinois Wastewater Treatment Expansion Engineering Design Report, April 2009 and Village of Mokena, Illinois Wastewater Treatment Expansion Engineering Design Report Supplement, January 2011, both by AECOM.

Identification and Characterization of the Affected Water Body.

East Branch Marley Creek (tributary to segment GGB-01) has a 7Q10 flow of zero cfs and is a General Use water. The stream is not listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List as Illinois EPA has not as yet assessed this stream for integrated report purposes. East Branch Marley Creek is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, but is given an integrity rating of "C" in that report. East Branch Marley Creek is not designated as an enhanced water pursuant to the dissolved oxygen water quality standard. The IDNR WIRT system does not list any state threatened or endangered aquatic species as residing in the receiving stream. Illinois EPA performed a Facility Related Stream Survey of the East Branch Marley Creek in 2008 and characterized the stream as having a slight impairment below the Mokena STP outfall. The USGS Illinois Streamstats basin characteristics program gives a watershed size of 4.87 square miles at the discharge point.

The applicant conducted a dissolved oxygen sag analysis, comparing the existing plant's effect on the dissolved oxygen levels in the receiving stream with the expanded plant's projected influence. It was concluded that the expanded plant would not result in a significant decline in dissolved oxygen. The reaeration capacity of the receiving stream was found to be large relative to the deoxygenation rate of either discharged effluent.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The treated domestic waste that characterizes this proposed effluent would be similar to other treated effluents of largely domestic origin. Ammonia limits in the permit will be set at water quality standards: As the result of negotiations between Mokena and environmental advocacy groups, seasonal ammonia effluent limits based on the existing seasonal monthly average load limits have been included in the permit as a period average. Biochemical oxygen demand (BOD) permit limits will be set at the most restrictive effluent standards present in 35 IAC 304.120. Due to negotiations between Mokena and environmental advocacy groups, an annual average based on the existing monthly average BOD load limit has been included in the permit.

Phosphorus and nitrogen loading will not increase as the expanded plant will be designed to remove nutrients. A monthly average phosphorus limit of 1.0 mg/L will apply. The Illinois Nutrient Standards Workgroup has been convened to develop nutrient standards and will strive to keep NPDES permitted dischargers aware of its findings, allowing them to anticipate future nutrient permit limits. A future NPDES permit for this facility may be subject to limits based on these yet to be developed standards.

Fate and Effect of Parameters Proposed for Increased Loading.

The BOD and ammonia discharged by this facility will decay into simpler and harmless byproducts by naturally occurring organisms in the receiving stream. Some of the nitrogen originating in the ammonia will remain in the stream in the form of nitrates or organic nitrogen. Ammonia and dissolved oxygen standards will not be exceeded by this discharge.

Purpose and Social & Economic Benefits of the Proposed Activity.

The expanded wastewater treatment plant allows for community growth. The Village's population is projected to be 27,065 in 2030 while the 2008 population was estimated at 19,405.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

The plans for construction of a nitrifying treatment plant with nutrient removal capabilities are consistent with appropriate technology for this size and type of project. Treatment plant specifications have been selected to avoid or minimize environmental impacts. They also represent an economically reasonable design taking into consideration both initial capital costs and ongoing maintenance expenses. Viable alternatives to the selected treatment process do not exist for this project.

Land application was considered. This option was rejected because there is no land within five miles available for large scale irrigation. Reuse of effluent is currently practiced on Village owned land. Effluent will be made available to contractors in the future. Transporting effluent to the nearest golf course was investigated but found to be impractical due to the distance from the sewage treatment plant.

No large industrial users are in the vicinity of the treatment plant.

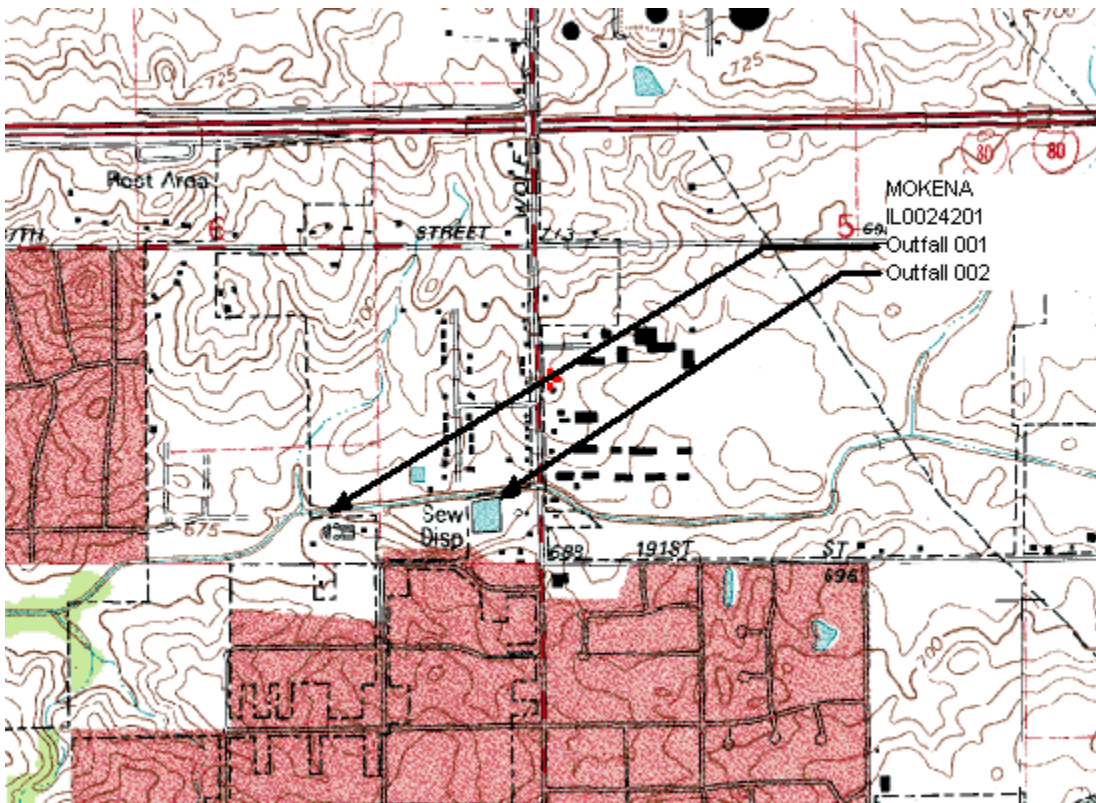
Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

The Illinois Department of Natural Resources was consulted regarding threatened and endangered species issues. Consultation was terminated in a January 10, 2011 letter from IDNR.

The Northeastern Illinois Planning Commission (CMAP) approved the expansion in 1995.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing sewage treatment for future community growth. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.



NPDES Permit No. IL0024201

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Village of Mokena
11004 Carpenter Street
Mokena, Illinois 60448

Facility Name and Address:

Village of Mokena WWTP
11400 West 191st Street
Mokena, Illinois 60448
(Will County)

Receiving Waters: East Branch Marley Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

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

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

SAK:GY:11061901.bah

NPDES Permit No. IL0024201

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 Main WWTP Outfall (Existing Plant)

Load limits computed based on a design average flow (DAF) of 2.5 MGD (design maximum flow (DMF) of 6.5 MGD).

Excess flow facilities (if applicable) shall not be utilized until the main treatment facility is receiving its maximum practical flow.

From the effective date of this Permit until the operation of the proposed plant or expiration date, whichever comes first, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			Sample Frequency	Sample Type
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	
CBOD ₅ **	209 (542)		417 (1084)	10		20	1 Day/Week	Composite
Suspended Solids	250 (651)		500 (1301)	12		24	1 Day/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						1 Day/Week	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						1 Day/Week	Grab
Chlorine Residual***						0.05	1 Day/Week	Grab
Ammonia Nitrogen: March	31 (81)		65 (168)	1.5		3.1	1 Day/Week	Composite
April-May/Sept.-Oct.	23 (60)		60 (157)	1.1		2.9	1 Day/Week	Composite
June-August	8.3 (22)	21 (54)	38 (98)	0.4	1.0	1.8	1 Day/Week	Composite
Nov.-Feb.	46 (119)		92 (239)	2.2		4.4	1 Day/Week	Composite
Phosphorus	Monitor Only						1 Day/Month	Composite
Total Nitrogen	Monitor only						1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July				N/A	6.0	5.0	1 Day/Week	Grab
August-February				5.5	4.0	3.5	1 Day/Week	Grab

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

**Carbonaceous BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

***See Special Condition 9.

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

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

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

Chlorine Residual shall be reported on DMR as daily maximum value.

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

Phosphorus and Total Nitrogen shall be reported on the DMR as daily maximum value.

NPDES Permit No. IL0024201

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 001 Main WWTP Outfall (Proposed Plant)

Load limits computed based on a design average flow (DAF) of 3.3 MGD (design maximum flow (DMF) of 8.0 MGD).

Excess flow facilities (if applicable) shall not be utilized until the main treatment facility is receiving its maximum practical flow.

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

		LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L				
Parameter	Annual Average	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sample Frequency	Sample Type
Flow (MGD)								Continuous	
CBOD ₅ **	209	275 (667)		550 (1334)	10		20	3 Days/Week	Composite
Suspended Solids	250	330 (801)		661 (1601)	12		24	3 Days/Week	Composite
pH		Shall be in the range of 6 to 9 Standard Units						3 Days/Week	Grab
Fecal Coliform***		Daily Maximum shall not exceed 400 per 100 mL (May through October)						3 Days/Week	Grab
Chlorine Residual***							0.05	3 Days/Week	Grab
	Period Average								
Ammonia Nitrogen: As (N) March		41 (100)		85 (207)	1.5		3.1	3 Days/Week	Composite
April-May/Sept.-Oct.		30 (73)		80 (193)	1.1		2.9	3 Days/Week	Composite
June-August	17	11 (27)	28 (67)	50 (120)	0.4	1.0	1.8	3 Days/Week	Composite
Nov.-Feb.	46	61 (147)		121 (294)	2.2		4.4	3 Days/Week	Composite
Mar.-May/Sept.-Oct.	23							3 Days/Week	Composite
Phosphorus		28 (67)			1.0			1 Day/Week	Composite
Total Nitrogen****		Monitor only						1 Day/Week	Composite
					Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July					N/A	6.0	5.0	3 Days/Week	Grab
August-February					5.5	4.0	3.5	3 Days/Week	Grab

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

**Carbonaceous BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

***See Special Condition 9.

****See Special Condition 16.

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

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

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

Chlorine Residual shall be reported on DMR as daily maximum value.

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

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

The annual average values shall be computed monthly beginning the 12th month after operational attainment of the proposed plant. The period average values for ammonia shall be computed in October, August and February of each year.

NPDES Permit No. IL0024201

Effluent, Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): 002 Excess Flow Bypass (flows greater than 6.5 MGD)

These flow facilities shall not be utilized until the main treatment facility is receiving its maximum practical flow.

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

	CONCENTRATION LIMITS (mg/L)		
<u>Parameter</u>	<u>Monthly Average</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Total Flow (MG)		Daily When Discharging	Continuous
BOD ₅	30	Daily When Discharging	Grab
Suspended Solids	30	Daily When Discharging	Grab
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL	Daily When Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units	Daily When Discharging	Grab
Chlorine Residual	0.75	Daily When Discharging	Grab

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

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

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

Chlorine Residual shall be reported on the DMR as monthly average.

NPDES Permit No. IL0024201

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency*</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD ₅	1 Day/Week	Composite
Suspended Solids	1 Day/Week	Composite

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

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

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

*The sample frequency for the proposed plant shall be 3 Days/Week.

Special Conditions

SPECIAL CONDITION 1. 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 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

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

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and Without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.

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

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

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

The Permittee may choose to submit electronic DMRs (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/index.html>.

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

Permittees not using eDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

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

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are applicable and are hereby incorporated by reference.

SPECIAL CONDITION 8. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 9. Fecal Coliform limits for Discharge Number 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The total residual chlorine limit is applicable at all times. If the Permittee is chlorinating for any purpose during the months of November through April, sampling is required on a daily grab basis. Sampling frequency for the months of May through October shall be as indicated on effluent limitations, monitoring and reporting page of this Permit.

SPECIAL CONDITION 10. The Permittee shall conduct semi-annual monitoring of the effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (weak acid dissociable) (grab)	5.0 ug/L

Special Conditions

00720	Cyanide (total) (grab not to exceed 24 hours)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/L *
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

*1.0 ng/L = 1 part per trillion.

**Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

SPECIAL CONDITION 11. The Permittee shall monitor the effluent for the following parameters twice a month for a period of five (5) consecutive months, beginning three (3) months from the effective date of this Permit. This Permit may be modified with public notice to establish effluent limitations if appropriate, based on information obtained through sampling. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on the DMR's to IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET</u> <u>CODE</u>	<u>PARAMETER</u>	<u>Minimum</u> <u>reporting limit</u>
01092	Zinc	0.025 mg/L

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

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

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

SPECIAL CONDITION 13. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:
 - a. Fish - 96 hour static LC₅₀ Bioassay using fathead minnows (*Pimephales promelas*).
 - b. Invertebrate 48-hour static LC₅₀ Bioassay using *Ceriodaphnia*.
2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.
3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.

Special Conditions

4. Toxicity - Should a bioassay result in toxicity to >20% of organisms test in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to \geq 50% of organisms tested in the 100% effluent treatments, the Permittee may wish to contact the IEPA to request the discontinuance of further sampling at which time the IEPA may require the Permittee to begin the toxicity reduction evaluation and identification as outlined below.
5. Toxicity Reduction Evaluation - Should the results of the biomonitoring program identify toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 14. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

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

SPECIAL CONDITION 15. The Permittee shall notify the IEPA in writing once the treatment plant expansion has been completed. A letter stating the date that the expansion was completed shall be sent to the following address within fourteen (14) days of the expansion becoming operational:

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

Special Conditions

SPECIAL CONDITION 16. The Permittee shall operate the expanded facilities designed for biological nutrient removal (BNR). Monitoring for Total Nitrogen is required to document the actual total nitrogen effluent concentration. Once the plant expansion becomes operational, the Permittee shall monitor the effluent for total nitrogen once per week. The monitoring shall be a composite sample and the results reported as a daily maximum on the Permittee's Discharge Monitoring Forms.

The Permittee shall notify the IEPA in writing of any operational deficiencies and corrective measures to be taken if the treatment plant exceeds the concentration values of 7 mg/L of Total Nitrogen in the effluent. Correspondence shall be directed to:

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

Illinois Environmental Protection Agency
Bureau of Water
Des Plaines Field Office
9511 West Harrison Street
Des Plaines, Illinois 60016

SPECIAL CONDITION 17. This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 18. The Permittee shall conduct monthly water quality sampling in the receiving stream both upstream and downstream of the NPDES outfall for the following parameters: BOD, TSS, pH, temperature, total phosphorus, total nitrogen, ammonia and dissolved oxygen.

SPECIAL CONDITION 19. The Permittee will participate with other watershed stakeholders in the Hickory Creek Watershed Planning Group. The permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) study or upon completion of an alternate water quality study.