

NPDES Permit No. IL0020541

Notice No. MRA:11092001.bah

Public Notice Beginning Date: **December 9, 2011**

Public Notice Ending Date: **January 9, 2012**

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:

City of Savanna
333 Chicago Avenue
Savanna, Illinois 61074

Name and Address of Facility:

City of Savanna STP
Broderick Drive
Savanna, Illinois
(Carroll 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 Mark R. Ashrafi 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 City of Savanna.

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, Mississippi River is 13,730 cfs.

The design average flow (DAF) for the facility is 0.858 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 2.521 MGD. Treatment consists of screening, comminutor, primary clarification, packed biological reactor, final clarification, chlorination, aerobic digestion, sludge holding tank, drying beds, and aerated excess flow lagoon.

This reissued permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

Pursuant to the waiver provisions authorized by 40 CFR § 123.24, this draft permit is within the class, type, and size for which the Regional Administrator, Region V, has waived his right to review, object, or comment on this draft permit action.

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

| Discharge Number | Receiving Stream | Latitude | Longitude | Stream Classification | Integrity Rating |
|------------------|-------------------|------------------|-------------------|-----------------------|------------------|
| 001 | Mississippi River | 42° 5' 26" North | 90° 9' 25.4" West | General Use | Not Rated |

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

The stream segment(s) (segment M-02) receiving the discharge from outfall(s) 001 is on the 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

| Potential Causes | Uses Impaired |
|------------------|---|
| Mercury and PCBs | Fish consumption |
| Manganese | Public and food processing water supply |

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 STP Outfall

Load limits computed based on a design average flow (DAF) of 0.858 MGD (design maximum flow (DMF) of 2.521 MGD).

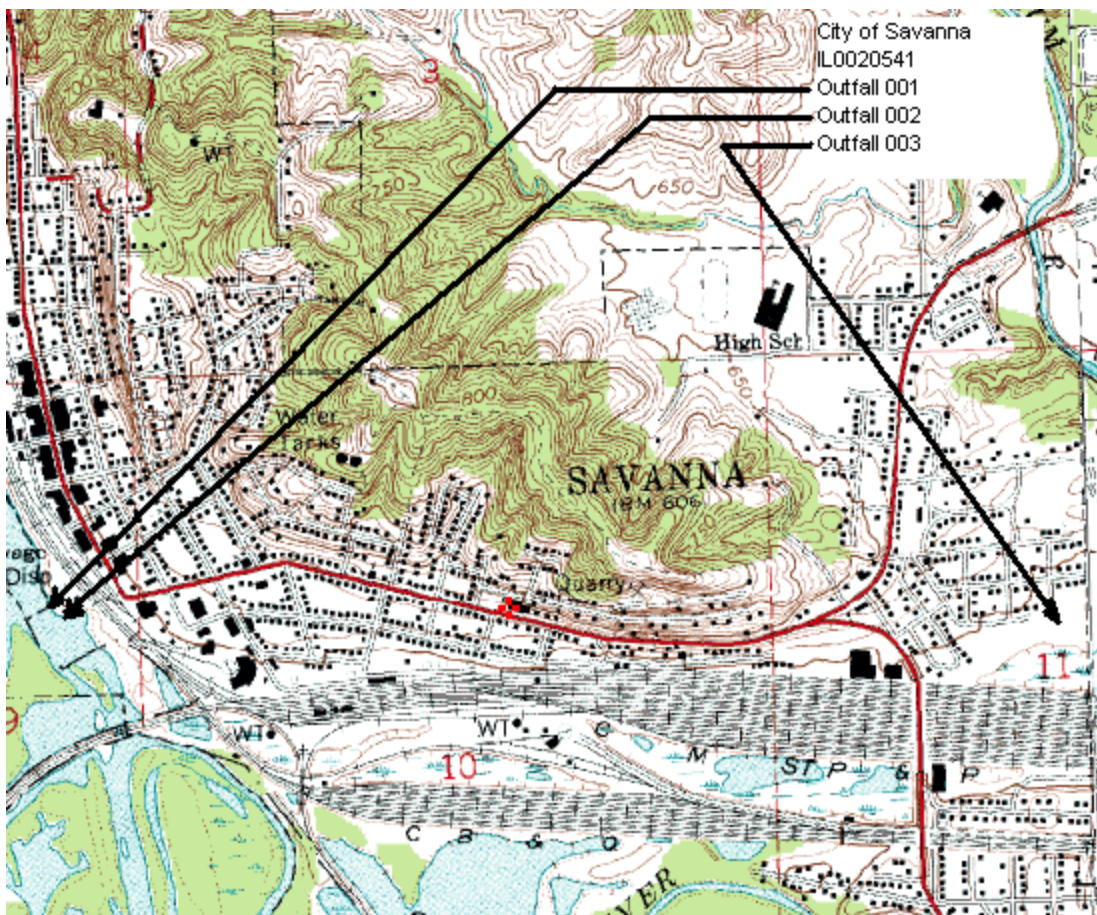
The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

| Parameter | LOAD LIMITS lbs/day DAF (DMF)* | | | CONCENTRATION LIMITS mg/L | | | Regulation |
|-------------------|--|-------------------|------------------|------------------------------|-------------------|------------------|----------------------------------|
| | Monthly Average | Weekly Average | Daily Maximum | Monthly Average | Weekly Average | Daily Maximum | |
| CBOD ₅ | 179 (526) | 286 (841) | | 25 | 40 | | 35 IAC 304.120 40 CFR 133.102 |
| Suspended Solids | 215 (631) | 322 (946) | | 30 | 45 | | 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 | | | | | | 35 IAC 304.121 |
| Chlorine Residual | | | | | | 0.75 | 35 IAC 302.208 |

*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 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. At minimum of 85% removal of CBOD₅ and suspended solids.
10. Controlling the sources of infiltration and inflow into the sewer system.
11. Submission of annual fiscal data.
12. Conditional authorization to discharge from high level emergency bypass(es) based on 40 CFR.
13. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
14. Zone of Initial Dilution (ZID) and Mixing Zone.
15. Evaluation to eliminate discharge from Excess Flow Outfall.



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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:

City of Savanna
333 Chicago Avenue
Savanna, Illinois 61074

Facility Name and Address:

City of Savanna STP
Broderick Drive
Savanna, Illinois
(Carroll County)

Receiving Waters: Mississippi River

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

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Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 0.858 MGD (design maximum flow (DMF) of 2.521 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 expiration date, 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>Sample</u> <u>Frequency</u> | <u>Sample</u> <u>Type</u> |
|----------------------|---|---------------------------------|--------------------------------|--|---------------------------------|--------------------------------|-----------------------------------|------------------------------|
| | <u>Monthly</u> <u>Average</u> | <u>Weekly</u> <u>Average</u> | <u>Daily</u> <u>Maximum</u> | <u>Monthly</u> <u>Average</u> | <u>Weekly</u> <u>Average</u> | <u>Daily</u> <u>Maximum</u> | | |
| Flow (MGD) | | | | | | | Continuous | |
| CBOD ₅ ** | 179 (526) | 286 (841) | | 25 | 40 | | 2 days/week | Composite |
| Suspended Solids | 215 (631) | 322 (946) | | 30 | 45 | | 2 days/week | Composite |
| pH | Shall be in the range of 6 to 9 Standard Units | | | | | | 2 days/week | Grab |
| Fecal Coliform | Daily Maximum shall not exceed 400 per 100 mL | | | | | | 2 days/week | Grab |
| Chlorine Residual | | | | | | 0.75 | 2 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.

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.

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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 | 2 days/week | Composite |
| Suspended Solids | 2 days/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.

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 3 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. Final Conditions - For Discharge No. 001 BOD₅ and Suspended Solids (85% removal required): The arithmetic mean of the values for effluent samples collected in a period of one calendar month shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period, except during those periods when the influent is diluted because of high flows if the tributary sewer system is combined. The percent removal need not be reported to the IEPA on DMR's but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD₅ concentration to determine the effluent BOD₅ concentration.

SPECIAL CONDITION 10. 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 11. 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 12. Discharge Number 002 (treatment plant bypass) and 003 (in-system storage lagoon overflow) are emergency high level bypasses. Discharges from these overflows are subject to the following conditions:

Special Conditions

- (1) Definitions
 - (i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (2) Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (3) and (4) of this section.
- (3) Notice
 - (i) Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
 - (ii) Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in Standard Condition 12(e) of this Permit (24-hour notice).
- (4) Prohibition of bypass. Bypass is prohibited, and the IEPA may take enforcement action against a Permittee for bypass, unless:
 - (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (ii) There was no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (iii) The Permittee submitted notices as required under Standard Condition 12(e) of this Permit.
- (5) Emergency Bypass when discharging, shall be monitored daily by grab sample for BOD₅ and Suspended Solids. The Permittee shall submit the monitoring results on Discharge Monitoring Report forms using one such form for each month in which bypassing occurs. The Permittee shall specify the number of discharges per month that occur and shall report this number in the quantity daily maximum column. The Permittee shall report the highest concentration value of BOD₅ and Suspended Solids discharged in the concentration daily maximum column.

SPECIAL CONDITION 13. 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.

Special Conditions

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 14. A zone of initial dilution (ZID) is recognized for chlorine with dimensions of 5.2 feet across the width of the river from the end-of-pipe and 5.2 feet downstream from this point. Within the ZID, 38.5:1 dilution is afforded. A mixing zone is recognized with dimensions extending 9.1 feet across the width of the river and 9.1 feet downstream. Within the mixing zone, 67:1 dilution is afforded.

SPECIAL CONDITION 15. The Permittee shall prepare and implement an evaluation plan to evaluate and eliminate discharges from the Excess Flow Outfalls 002 and 003 or provide an economic analysis demonstrating that no feasible alternative exists. The evaluation plan elements shall include identification and development of an elimination schedule of infiltration and inflow sources and the evaluation of a storage basin, equalization basin and additional wastewater treatment. The plan shall be developed within two (2) years from the effective date of this permit and submitted to the IEPA to the below address for approval. The plan shall include a project implementation schedule, project completion dates and expected results of project completion.

The Permittee shall submit the analysis described above in accordance with the following schedule:

| | |
|--|---|
| 1. Progress Report | 6 months from effective date of permit |
| 2. Interim Report on System Characterization | 12 months from effective date of permit |
| 3. Interim Report Evaluating Potential Measures to Reduce Diversions | 18 months from effective date of permit |
| 4. Submit No Feasible Alternative Analysis | 24 months from effective date of permit |

All reports shall be submitted to 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