

NPDES Permit No. IL0077496

Notice No. SKT:11052501.daa

Public Notice Beginning Date: **August 5, 2011**

Public Notice Ending Date: **September 6, 2011**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

PUBLIC NOTICE/FACT SHEET
of
Draft New 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 Golconda
City Hall
118 North Monroe Street
Golconda, Illinois 62938

Name and Address of Facility:

Golconda STP
West on State Route 146
Golconda, Illinois
(Pope 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 Surinder Tandon 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 Golconda.

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, unnamed tributary of Miller Creek is 0 cfs.

The design average flow (DAF) for the facility is 0.125 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 0.650 MGD. Treatment consists of primary lagoon, secondary lagoon and rock filter.

Application is made for the new discharge(s) which is located in Pope 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	Unnamed tributary of Miller Creek	37° 21' 46" North	88° 29' 36" 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) receiving the discharge from outfall(s) 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 STP Outfall

Load limits computed based on a design average flow (DAF) of 0.125 MGD (design maximum flow (DMF) of 0.650 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	26 (136)	42 (217)		25	40		35 IAC 304.120 40 CFR 133.102
Suspended Solids	39 (201)	47 (244)		37	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	Monitor Only (May through October)						35 IAC 309.146
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen: March-May/Sept.-Oct.	4.2 (22)	10 (54)	16 (81)	4.0	10.0	15.0	35 IAC 355 and 35 IAC 302
June-August	1.5 (13)	6.3 (33)	16 (81)	2.4	6.0	15.0	
Nov.-Feb.	7.4 (33)	--	16 (81)	7.1	--	15.0	
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July					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 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. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used.
11. Submission of annual fiscal data.

Antidegradation Assessment for Golconda New STP
NPDES Permit No. IL0077496 Pope County

The subject facility applied for an NPDES permit to change from an existing 0.15 MGD mechanical sewage treatment plant to a 0.125 MGD lagoon plant. This is an after the fact analysis given the new lagoon became operational June 27, 2000 and was constructed prior to this date without Agency permit. The Illinois Attorney General has ordered Golconda to obtain an NPDES permit for the new lagoon.

Identification and Characterization of the Affected Water Body.

The previous plant discharged to the Ohio River. The lagoon discharges to an unnamed tributary of Miller Creek, a zero 7Q10 flow stream approximately one-half mile upstream of the confluence with Miller Creek. Neither the unnamed tributary nor Miller Creek are rated under the Agency's Biological Stream Characterization program. Likewise, neither is listed on the 2004 303(d) list. The unnamed tributary runs along a railroad before entering Miller Creek. The Illinois Natural History Survey does not list either stream as a biologically significant stream in the publication *Biologically Significant Illinois Streams* published in 1992. The Wetland Impact Review Tool does not indicate that endangered or threatened species are found in the area.

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 purely domestic origin. Ammonia limits in the permit will be set at water quality standards. Given that the previous mechanical plant had failed and was not designed to comply with ammonia water quality standards even when functional, ammonia loading to the environment is expected to decrease with the activation of the lagoon system. Miller Creek and its unnamed tributary will experience an increase in ammonia loading due to the relocation of the discharge point. Biochemical oxygen demand (BOD) permit limits will be set at the appropriate effluent standards present in 35 IAC 304.120. The new receiving water body will nonetheless experience an increase in BOD loading due to the new effluent discharge. The environment as a whole will see a decrease in BOD loading due to the replacement of the failed plant. It is the Agency's belief that the actual discharge of pollutants to the environment is less now than was occurring while the mechanical plant was operating. Although the average load limits are slightly higher for suspended solids and the daily maximum load limits are higher than the previous maximum load limits, actual loadings to the environment should decrease due to the mechanical plant being unable to comply with permitted limits.

Additionally, loading of nutrients will increase to the receiving stream as a result of this effluent. However, nutrient loading to the environment in general will decrease with the decrease in DAF of the lagoon compared to the previous plant. The Agency is developing state water quality standards that will formulate the basis for future nutrient management strategies. Upon adoption of state standards and development of a management strategy, there may be nutrient reduction requirements imposed on this source. At the present time however, the incremental nutrient loading anticipated to result from this project is not expected to increase algae or other noxious plant growth, diminish the present aquatic community or otherwise aggravate existing stream conditions. Therefore no permit limits for nutrients are recommended at this time. 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.

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. The nutrients discharged will be absorbed by aquatic or riparian terrestrial plants or will remain in the stream. Some of the nitrates not absorbed into the biota will be denitrified. The phosphorus that is not absorbed will persist in the stream continuum. Ammonia and dissolved oxygen standards will not be exceeded by this discharge.

Purpose and Anticipated Benefits of the Proposed Activity.

The previous sewage treatment plant was at the end of its useful life and needed to be replaced. The lagoon system was an affordable choice for this small community to provide adequate sewage treatment for its residents.

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

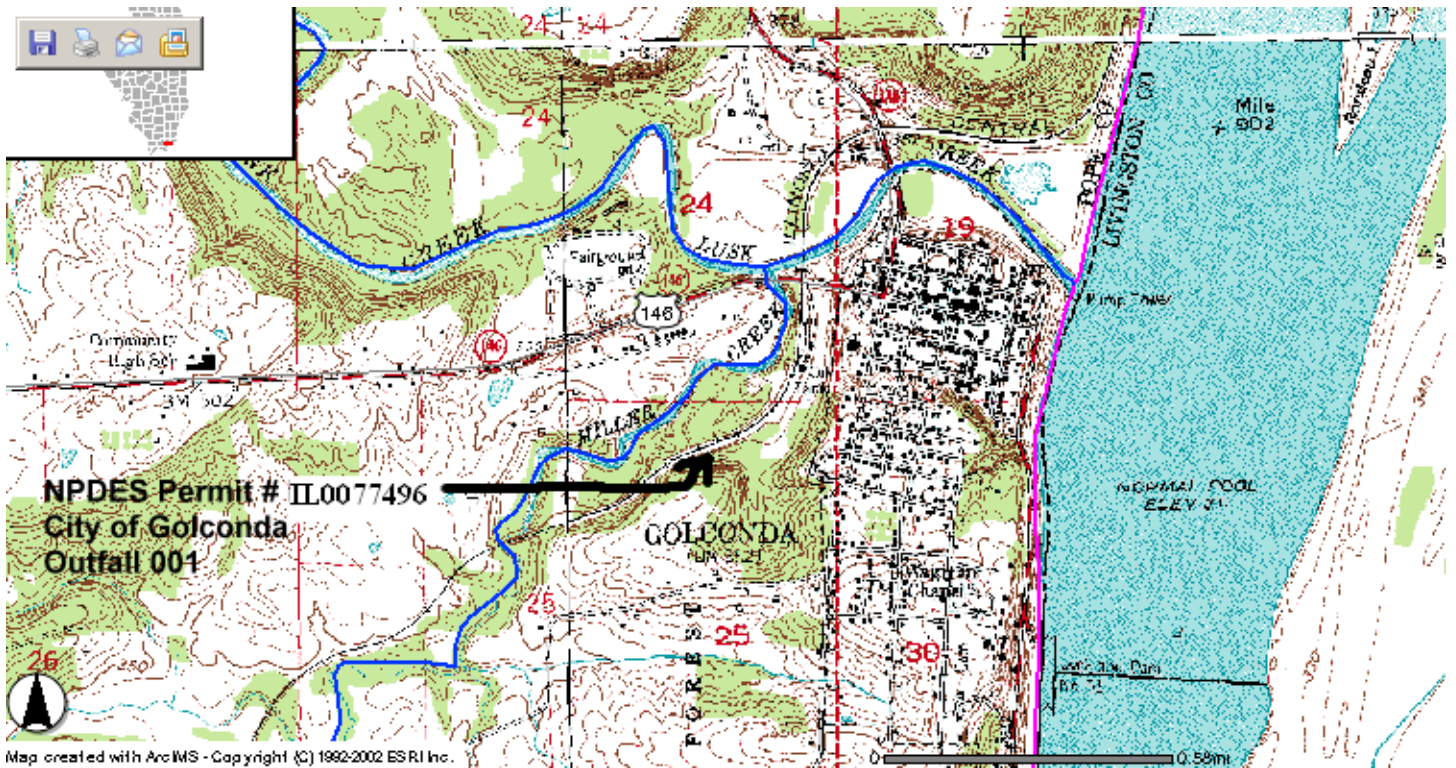
The June, 2000 nondegradation evaluation found that the lagoon system was consistent with the nondegradation standard existing at that time. If the community were planning a new treatment plant at this time, under the antidegradation standard adopted in 2002 they would have been required to assess alternatives to the lagoon system. In this after-the-fact analysis, it is fruitless to conduct such an assessment. The order from the Attorney General that an NPDES permit be obtained becomes an important factor in this analysis. The community could not afford to abandon the new lagoon if an alternatives analysis showed that some other choice of treatment was most appropriate under the new regulation.

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

IDNR was sent materials pertinent to this issue in order for them to complete an endangered and threatened species consultation. IDNR comments, if any, may be registered during the public notice process for the permit.

Agency Conclusion.

This assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard). We find that the proposed activity will result in the attainment of water quality standards. All existing uses will be protected. 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. This activity will benefit the community at large by allowing the continued operation of the sewage treatment lagoon and satisfying the requirement that an NPDES permit be obtained. The proposed activity is therefore compliant with the Antidegradation standard.



NPDES Permit No. IL0077496

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

New (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

City of Golconda
City Hall
118 North Monroe Street
Golconda, Illinois 62938

Facility Name and Address:

Golconda STP
West on State Route 146
Golconda, Illinois
(Pope County)

Receiving Waters: Unnamed tributary of Miller 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:SKT:11052501.daa

NPDES Permit No. IL0077496

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 0.125 MGD (design maximum flow (DMF) of 0.650 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:

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 **	26 (136)	42 (217)		25	40		1 Day/Month	Grab
Suspended Solids	39 (201)	47 (244)		37	45		1 Day/Month	Grab
pH	Shall be in the range of 6 to 9 Standard Units						1 Day/Month	Grab
Fecal Coliform***							1 Day/Month	Grab
Chlorine Residual						0.05	****	Grab
Ammonia Nitrogen: As (N) March-May/Sept.-Oct.	4.2 (22)	10 (54)	16 (81)	4.0	10.0	15.0	1 Day/Month	Grab
June-August	1.5 (13)	6.3 (33)	16 (81)	2.4	6.0	15.0	1 Day/Month	Grab
Nov.-Feb.	7.4 (33)	--	16 (81)	7.1	--	15.0	1 Day/Month	Grab
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July					6.0	5.0	1 Day/Month	Grab
August-February				5.5	4.0	3.5	1 Day/Month	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.

***Fecal Coliform shall be monitored May through October with sample results reported as a daily maximum value on the DMR.

****See Special Condition 10.

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

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

Dissolved oxygen shall be reported on the DMR as a minimum 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	1 Day/Month	Composite
Suspended Solids	1 Day/Month	Composite

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

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

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 4 operator.

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

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR Section 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. For Discharge No. 001, any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

SPECIAL CONDITION 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".