

NPDES Permit No. IL0079537

Notice No. BDF:11051601.bah

Public Notice Beginning Date: **August 26, 2011**

Public Notice Ending Date: **September 26, 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:

Loda SD - Bayles Lake Subdivision
1601 Lakeview Drive
Loda, Illinois 60948

Name and Address of Facility:

Bayles Lake STP
Bayles Lake Subdivision
Loda, Illinois
(Iroquois 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 Brant Fleming 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 Bayles Lake Subdivision.

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, Spring Creek is 0 cfs.

The design average flow (DAF) for the facility is 0.105 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 0.420 MGD. Treatment consists of individual septic tanks with common recirculating tanks, sand filters and disinfection.

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 new discharge(s) which is located in Iroquois County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

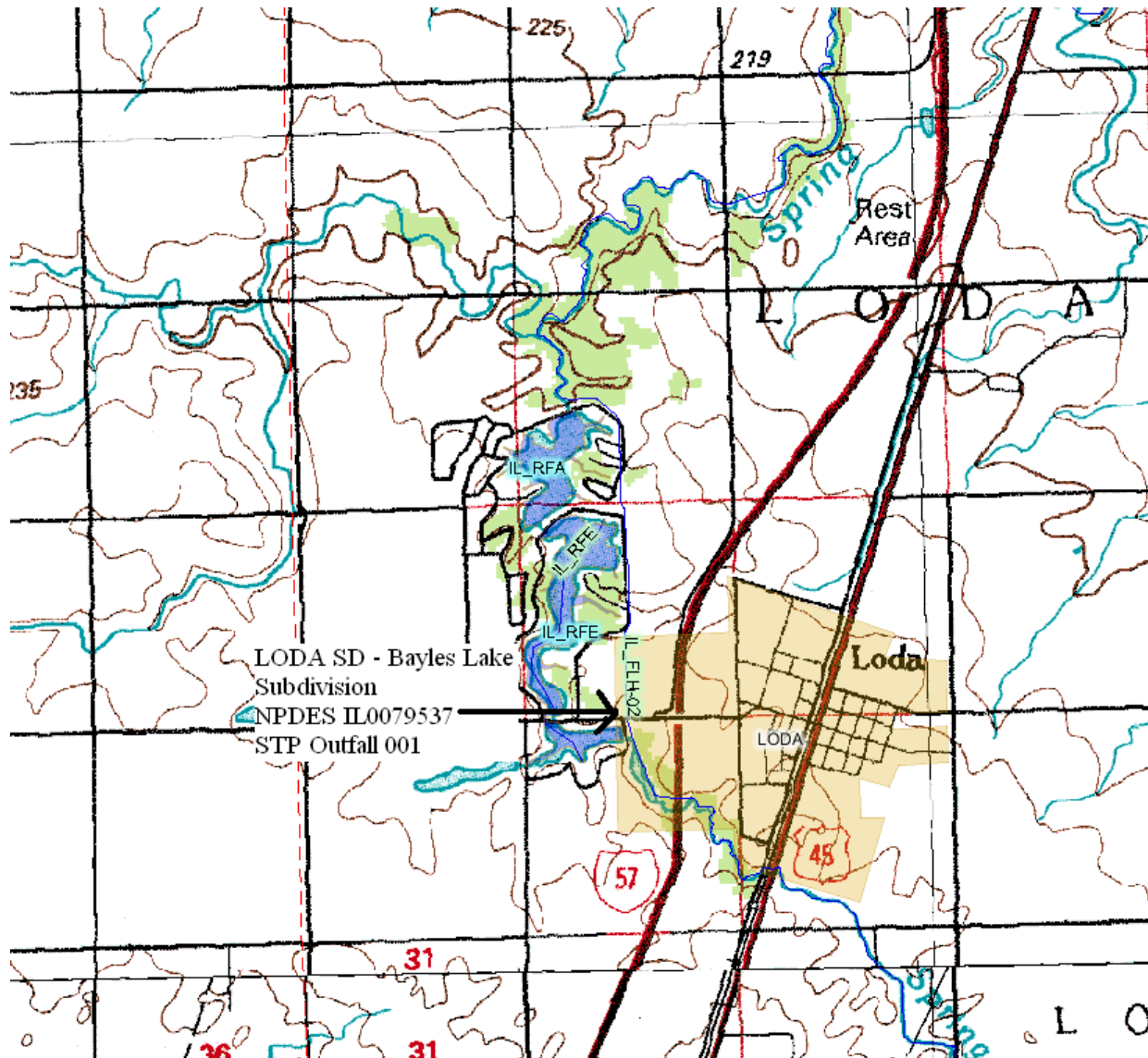
Discharge Number	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Spring Creek	40° 31' 6" North	88° 5' 32" West	General Use	Not Rated

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

The stream segment(s) FLH-02 receiving the discharge from outfall(s) 001 is (are) on the 2010 303 (d) list of impaired waters.

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

Potential Causes	Uses Impaired
Cause unknown, dissolved oxygen (non-pollutant), and sedimentation/siltation	Aquatic life



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 0.105 MGD (design maximum flow (DMF) of 0.420 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	8.8 (35)		18 (70)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids	11 (42)		21 (84)	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						35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen: March-May/Sept.-Oct.	1.4 (5.6)	3.5 (14)	5.6 (22)	1.6	4.0	6.4	35 IAC 355 and 35 IAC 302
June-August	1.4 (5.6)	3.5 (14)	10 (41)	1.6	4.0	11.7	
Nov.-Feb.	3.1 (12)		4.5 (18)	3.5		5.1	
				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 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. Submission of annual fiscal data.
10. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
11. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.

Antidegradation Assessment
NPDES Permit No. IL0079537

The Bayles Lake subdivision is an unsewered community with private septic tank systems. The subject facility has applied for an NPDES permit for a recirculating sand filter with a design average flow of 0.105 MGD. The Bayles Lake Subdivision wastewater is primarily treated by on-site septic tank systems, which provide removal of solid waste and discharges effluent into a series of gravity tiles and pump stations, ultimately discharging at seven locations along Spring Creek. The existing system provides primary treatment only. Some on-site wastewater treatment systems for homes adjacent to Bayles Lake reportedly discharge effluent directly into Bayles Lake after primary treatment utilizing "multi-flow" systems or other mechanical aerator systems.

After evaluation of the existing sanitary system by the Ford – Iroquois Health Department, pollutant levels within effluent discharging into Spring Creek were determined to be in excess of allowable concentrations under current regulations. Therefore, no further development will be allowed by the Health Department until pollutant levels comply with current regulations.

Samples were taken from 4 discharges; the ammonia ranged from 4.9 mg/L to 17 mg/L with an average of 9.6 mg/L, the BOD ranged from less than 4 mg/L to 29 mg/L with an average of 17.5 mg/L, and the fecal coliform ranged from 4500 cfu/100 ml to greater than 80,000 cfu/100 ml with an average of 38,150 cfu/100 ml. It is anticipated that loading of these parameters will decrease when the recirculating sand filter is operational.

The information in this antidegradation assessment came from the January 2010 Facility Plan prepared by Berns, Clancy and Associates and a March 4, 2001 e-mail from John Lyons of Berns, Clancy and Associates.

Identification and Characterization of the Affected Water Body.

The subject facility discharges (proposes to discharge) to Spring Creek at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. Spring Creek is classified as a General Use Water. Spring 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*, nor is it given an integrity rating at this location; however, approximately 2 miles downstream Spring Creek is rated "C". Spring Creek, Waterbody Segment, FLH-02, is listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as cause unknown, dissolved oxygen (non-pollutant), and sedimentation/siltation. Spring Creek is not subject to enhanced dissolved oxygen standards.

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. Biochemical oxygen demand (BOD) permit limits will be set at the appropriate effluent standards present in 35 IAC 304.120. Since untreated or poorly treated sewage is currently being discharged to local waterways due to the lack of a centralized sewage treatment system, loadings of BOD and ammonia making their way into streams may be reduced once the treatment plant and collection system is operational, however, the amount of reduction is not known.

Likewise, phosphorus loading may or may not increase given the aforementioned existing condition. Any phosphorus load increase that possibly will occur will be extremely small. Phosphorus may decrease as it is necessary for microbial growth that occurs in treatment plant processes. No phosphorus effluent standard applies to the planned facility. 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. The nutrients discharged will be absorbed by aquatic or riparian terrestrial plants or will remain in the stream. Ammonia and dissolved oxygen standards will be met in the effluent prior to discharge to the receiving stream.

Purpose and Social & Economic Benefits of the Proposed Activity.

The proposed project will provide sewage collection and centralized treatment facilities for the Bayles Lake Subdivision and will eliminate potential health hazards associated with the current treatment systems and will provide treatment capacity for future growth associated with development of existing lots.

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

The facilities Plan investigated the feasibility of land application; however, it was determined to not be cost effective.

A nearby golf course has been contacted seeking interest in seasonal land application of portions of the Bayles Lake Subdivision wastewater. Representatives of the golf course appear to be interested in seasonal land application of the wastewater. At this time a final decision by the golf course regarding land application has not been reached. If the golf course agrees to utilize the wastewater for irrigation purposes, appropriate changes will be made to plans and specification to include seasonal land application.

Regionalization was considered with the Lake Iroquois Sewage Treatment Plant. Currently, the Lake Iroquois Sewage Treatment Plant does not have the capacity to treat the wastewater from 300 homes in addition to the plant's current service area. Unfortunately, the Lake Iroquois residents determined that it was in their best interest to remain independent. The city of Paxton was approached and they were not willing to accept additional wastewater from Bayles Lake Subdivision.

During the facility planning stage, the Infrastructure Financial Assistance Section, of the Agency, determined that the total resulting monthly customer bill would be approximately \$106.17, was considered to be unaffordable for residents under current Agency standards. Therefore, any additional treatment required for removal of total nitrogen and total phosphorus would also not be affordable and would subsequently be a substantial impact and an undue financial burden on the residents.

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

On January 2, 2009, the IDNR EcoCAT web-based tool was used and indicated that there were no aquatic endangered/threatened species present in the vicinity of the discharge. While the IDNR EcoCAT web-based tool did not terminate the consultation because of the near by presence of a Illinois Natural Area Inventory (INAI) site and a Nature Preserve, IDNR terminated the consultation request on January 5, 2009.

Since the consultation is only good for two years, another consultation was submitted on February 9, 2011 and the IDNR EcoCAT web-based tool was used and indicated that there were no aquatic endangered/threatened species present in the vicinity of the discharge. While the IDNR EcoCAT web-based tool did not terminate the consultation because of the near by presence of a Illinois Natural Area Inventory (INAI) site and a Nature Preserve, future termination is likely.

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 eliminating potential health hazards associated with the current treatment systems and providing treatment capacity for future growth associated with development of existing lots. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0079537

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:

Loda SD - Bayles Lake Subdivision
1601 Lakeview Drive
Loda, Illinois 60948

Facility Name and Address:

Bayles Lake STP
Bayles Lake Subdivision
Loda, Illinois
(Iroquois County)

Receiving Waters: Spring 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

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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 0.105 MGD (design maximum flow (DMF) of 0.420 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 **	8.8 (35)		18 (70)	10		20	1 Day/Week	Composite
Suspended Solids	11 (42)		21 (84)	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						1 Day/Week	Grab
Chlorine Residual						0.05	1 Day/Week	Grab
Ammonia Nitrogen: As (N)								
March-May/Sept.-Oct.	1.4 (5.6)	3.5 (14)	5.6 (22)	1.6	4.0	6.4	1 Day/Week	Composite
June-August	1.4 (5.6)	3.5 (14)	10 (41)	1.6	4.0	11.7	1 Day/Week	Composite
Nov.-Feb.	3.1 (12)		4.5 (18)	3.5		5.1	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	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.

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.

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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/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.

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. 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 10. 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.

Special Conditions

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

