

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of

Electronic Proposed Acquisition by Bluegrass)
Water Utility Operating Company, LLC and)
the Transfer of Ownership and Control of)
Assets by: Center Ridge Water District, Inc.;)
Joann Estates Utilities, Inc.; and River Bluffs,)
Inc.)
)
)
)
)

No. 2019-00360

Notice of Compliance Filing

Condition # 15 of the Appendix to the Commission’s Order dated February 17, 2020, required filing of the most recent permit for Joann Estates Utilities, Inc. (“Joann Estates”). Please take notice that Bluegrass Water Utility Operating Company, LLC (“Bluegrass Water”) hereby complies with Condition # 15 by attaching and filing the following three documents, comprising the Kentucky Pollutant Discharge Elimination System Permit received by Joann Estates for the Timberland subdivision.

Respectfully submitted,

/s/ *Kathryn A. Eckert*

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ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

December 19, 2019

Mr. Brian Waid
Joann Estates Utilities Inc.
6500 Old Hwy 60
West Paducah, KY 42001

Re: KPDES Final Permit Issuance
KPDES No.: KY0083755
Timberland Subdivision
AI ID: 3070
McCracken County, Kentucky

Dear Mr. Waid:

Enclosed is the Kentucky Pollutant Discharge Elimination System (KPDES) permit for the above-referenced facility. This action constitutes a final permit issuance under 401 KAR 5:075, pursuant to KRS 224.16-050.

This permit will become effective on the date indicated in the attached permit provided that no request for adjudication is granted. All provisions of the permit will be effective and enforceable in accordance with 401 KAR 5:075.

Any demand for a hearing on the permit shall be filed in accordance with the procedures specified in KRS 224.10-420, 224.10-440, 224.10-470 and any regulations promulgated thereto. Any person aggrieved by the issuance of a permit final decision may demand a hearing, pursuant to KRS 224.10-420(2), within thirty (30) days from the date of the issuance of this letter. Two (2) copies of request for hearing should be submitted in writing to the Energy and Environment Cabinet, Office of Administrative Hearings, 211 Sower Boulevard, Frankfort, Kentucky 40601 and the Commonwealth of Kentucky, Energy and Environment Cabinet, Division of Water, 300 Sower Boulevard, Frankfort, Kentucky 40601. For your record keeping purposes, it is recommended that these requests be sent by certified mail. The written request must conform to the appropriate statutes referenced above.

If you have any questions regarding the KPDES decision, please contact the Surface Water Permits Branch by phone at (502) 564-3410 or via email at SWPBSupport@ky.gov. Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative Hearings at (502) 564-7312.

Sincerely,

A handwritten signature in black ink, appearing to read "Carey M. Johnson".

Carey Johnson, Acting Director
Division of Water

CJ: JMH: asw
Enclosure



KPDES



**KENTUCKY POLLUTANT
DISCHARGE ELIMINATION
SYSTEM**

PERMIT

**AUTHORIZATION TO DISCHARGE UNDER THE
KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM**

PERMIT NO.: KY0083755

AGENCY INTEREST NO.: 3070

Pursuant to Authority in KRS 224,

Joann Estates Utilities Incorporated
6500 US Highway 60 W
Paducah, KY 42001-9083

is authorized to discharge from a facility located at

Timberland Subdivision
Timberland Drive
Paducah, McCracken County, Kentucky

to receiving waters named

West Fork Massac Creek

in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

This permit shall become effective on February 1, 2020.

This permit and the authorization to discharge shall expire at midnight, January 31, 2025.

December 19, 2019

Date Signed

A handwritten signature in black ink, appearing to read "Carey M. Johnson".

Carey Johnson, Acting Director

Division of Water

THIS KPDES PERMIT CONSISTS OF THE FOLLOWING SECTIONS:

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS.....4

1.1. Compliance Monitoring Locations (Outfalls) 4

1.2. Effluent Limitations and Monitoring Requirements 4

1.3. Standard Effluent Requirements 5

2. STANDARD CONDITIONS.....7

2.1. Duty to Comply 7

2.2. Duty to Reapply..... 7

2.3. Need to Halt or Reduce Activity Not a Defense..... 7

2.4. Duty to Mitigate..... 7

2.5. Proper Operation and Maintenance..... 7

2.6. Permit Actions..... 7

2.7. Property Rights 7

2.8. Duty to Provide Information 7

2.9. Inspection and Entry 8

2.10. Monitoring and Records 8

2.11. Signatory Requirement 9

2.12. Reporting Requirements..... 9

2.13. Bypass 10

2.14. Upset 11

3. OTHER CONDITIONS14

3.1. Schedule of Compliance..... 14

3.2. Other Permits..... 14

3.3. Continuation of Expiring Permit..... 14

3.4. Antidegradation 14

3.5. Reopener Clause 14

3.6. Connection to Regional Sewer System 14

3.7. Certified Operators 14

3.8. Outfall Signage 14

3.9. Agreed Order 15

4. MONITORING AND REPORTING REQUIREMENTS17

4.1. KPDES Outfalls..... 17

4.2. Sufficiently Sensitive Analytical Methods 17

4.3. Certified Laboratory Requirements 17

4.4. Submission of DMRs 17

SECTION 1

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.1. Compliance Monitoring Locations (Outfalls)

The following table lists the outfalls authorized by this permit, the latitude and longitude of each and the DOW assigned KPDES outfall number:

TABLE 1.					
Outfall No.	Outfall Type	Latitude (N)	Longitude (W)	Receiving Water	Description of Outfall
001	External	37.07917°	88.78111°	West Fork Massac Creek	Domestic Wastewater

1.2. Effluent Limitations and Monitoring Requirements

Beginning on the effective date and lasting through the term of this permit, discharges from Outfall 001 shall comply with the following effluent limitations:

TABLE 2.									
EFFLUENT LIMITATIONS								MONITORING REQUIREMENTS	
Effluent Characteristic	Units	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
Flow	MGD	Report	Report ¹	N/A	N/A	N/A	N/A	1/Month	Instantaneous
pH	SU	N/A	N/A	6.0	N/A	N/A	9.0	1/Month	Grab
CBOD ₅ ²	mg/l	N/A	N/A	N/A	10	15	N/A	1/Month	Composite ³
Total Suspended Solids	mg/l	N/A	N/A	N/A	30	45	N/A	1/Month	Composite ³
Ammonia (as mg/l NH ₃ N)									
May 1 – October 31	mg/l	N/A	N/A	N/A	2.0	3.0 ¹	N/A	1/Month	Composite ³
November 1 – April 30	mg/l	N/A	N/A	N/A	9.0	13.5 ¹	N/A	1/Month	Composite ³
Dissolved Oxygen	mg/l	N/A	N/A	7.0	N/A	N/A	N/A	1/Month	Grab
E. Coli ⁴	#/100 ml	N/A	N/A	N/A	130 ⁵	240 ⁶	N/A	1/Month	Grab
Total Residual Chlorine	mg/l	N/A	N/A	N/A	0.011	0.019 ¹	N/A	1/Month	Grab

¹Daily Maximum

²CBOD₅ – Carbonaceous Biochemical Oxygen Demand, 5-day

³A sample composed of four or more equal or flow-proportional aliquots collected over a period of no less than eight and no more than twenty-four hours and aggregated so that the aggregate sample reflects the average water quality of the effluent during the compositing or sample period

⁴E. Coli – Escherichia Coli Bacteria

TABLE 2.

EFFLUENT LIMITATIONS								MONITORING REQUIREMENTS	
Effluent Characteristic	Units	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
⁵ Thirty (30) day Geometric Mean									
⁶ Seven (7) day Geometric Mean									

1.3. Standard Effluent Requirements

The discharges to Waters of the Commonwealth shall not produce floating solids, visible foam or a visible sheen on the surface of the receiving waters.

SECTION 2

STANDARD CONDITIONS

2. STANDARD CONDITIONS

The following conditions apply to all KPDES permits.

2.1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of KRS Chapter 224 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Any person who violates applicable statutes or who fails to perform any duty imposed, or who violates any determination, permit, administrative regulation, or order of the Cabinet promulgated pursuant thereto shall be liable for a civil penalty as provided at KRS 224.99.010.

2.2. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit.

2.3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2.4. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

2.5. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2.6. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

2.7. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

2.8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

2.9. Inspection and Entry

The permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

2.10. Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 401 KAR 5:065, Section 2(10) [40 CFR 503]), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

- a) The date, exact place, and time of sampling or measurements;
- b) The individual(s) who performed the sampling or measurements;
- c) The date(s) analyses were performed;
- d) The individual(s) who performed the analyses;
- e) The analytical techniques or methods used; and
- f) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 401 KAR 5:065, Section 2(8) [40 CFR 136] unless another method is required under 401 KAR 5:065, Section 2(9) or (10) [40 CFR subchapters N or O].

(5) KRS 224.99-010 provides that any person who knowingly violates KRS 224.70-110 or other enumerated statutes, or who knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall be guilty of a Class D felony and, upon conviction, shall be punished by a fine of not more than \$25,000, or by imprisonment for not less than one (1) year and not more than five (5) years, or by both fine and imprisonment for each separate violation. Each day upon which a violation occurs shall constitute a separate violation.

2.11. Signatory Requirement

(1) All applications, reports, or information submitted to the Director shall be signed and certified pursuant to 401 KAR 5:060, Section 4 [40 CFR 122.22].

(2) KRS 224.99-010 provides that any person who knowingly provides false information in any document filed or required to be maintained under KRS Chapter 224 shall be guilty of a Class D felony and upon conviction thereof, shall be punished by a fine not to exceed twenty-five thousand dollars (\$25,000), or by imprisonment, or by fine and imprisonment, for each separate violation. Each day upon which a violation occurs shall constitute a separate violation.

2.12. Reporting Requirements**2.12.1. Planned Changes**

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

(1) The alteration or addition to a permitted facility may meet one (1) of the criteria for determining whether a facility is a new source in KRS 224.16-050 [40 CFR 122.29(b)]; or

(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under KRS 224.16-050 [40 CFR 122.42(a)(1)].

(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2.12.2. Anticipated Noncompliance

The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

2.12.3. Transfers

This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under KRS 224 [CWA; see 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory].

2.12.4. Monitoring Reports

Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

(2) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 401 KAR 5:065, Section 2(8) [40 CFR 136], or another method required for an industry-specific waste stream under 401 KAR 5:065, Section 2(9) or (10) [40 CFR subchapters N or O], the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

2.12.5. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

2.12.6. Twenty-four-Hour Reporting

(1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(2) The following shall be included as information which must be reported within twenty-four (24) hours under this paragraph.

- a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See §122.41(g))
- b) Any upset which exceeds any effluent limitation in the permit.
- c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within twenty-four (24) hours.

(3) The Director may waive the written report on a case-by-case basis under 40 CFR 122.41 (l), if the oral report has been received within twenty-four (24) hours.

2.12.7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Sections 2.12.1, 2.12.4, 2.12.5 and 2.12.6, at the time monitoring reports are submitted. The reports shall contain the information listed in Section 2.12.6.

2.12.8. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

2.13. Bypass

2.13.1. Definitions

(1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

(2) 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.

2.13.2. 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 Section 2.13.3 and 2.13.4.

2.13.3. Notice

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section 2.12.6.

2.13.4. Prohibition of Bypass

(1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

- a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- b) There were 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
- c) The permittee submitted notices as required under Section 2.13.3.

(2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three (3) conditions listed above in Section 2.13.4.

2.14. Upset**2.14.1. Definition**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2.14.2. Effect of an Upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section 2.14.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2.14.3. Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated; and
- (3) The permittee submitted notice of the upset as required in Section 2.12.6; and

(4) The permittee complied with any remedial measures required under Section 2.4.

2.14.4. Burden of Proof

In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

SECTION 3

OTHER CONDITIONS

3. OTHER CONDITIONS

3.1. Schedule of Compliance

The permittee shall attain compliance with all requirements of this permit on the effective date of this permit unless otherwise stated.

3.2. Other Permits

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

3.3. Continuation of Expiring Permit

This permit shall be continued in effect and enforceable after the expiration date of the permit provided the permittee submits a timely and complete application in accordance with 401 KAR 5:060, Section 2(4).

3.4. Antidegradation

For those discharges subject to the provisions of 401 KAR 10:030, Section 1(3)(b)5, the permittee shall install, operate, and maintain wastewater treatment facilities consistent with those identified in the Socioeconomic Demonstration and Alternatives Analysis (SDAA) submitted with the KPDES permit application.

3.5. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved in accordance with 401 KAR 5:050 through 5:080, if the effluent standard or limitation so issued or approved:

- (1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- (2) Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

3.6. Connection to Regional Sewer System

This WWTP is temporary and in no way supersedes the need of a regional sewer system. The permittee shall eliminate the discharge and WWTP plant by connection to a regional sewer system when it becomes available as defined in 401 KAR 5:002.

3.7. Certified Operators

The wastewater treatment plant shall be under the primary responsibility of a Class I Wastewater Treatment Plant Certified Operator or higher.

3.8. Outfall Signage

This KPDES permit establishes monitoring points, effluent limitations, and other conditions to address discharges from the permitted facility. In an effort to better document and clarify these locations, the permittee should place and maintain a permanent marker at each of the monitoring locations.

3.9. Agreed Order

Issuance of this permit does not supersede any requirements of Agreed Order DOW No. 130132, executed February 10, 2014. The permittee is responsible to comply with the conditions of the Agreed Order and the requirements of this permit.

SECTION 4

MONITORING AND REPORTING REQUIREMENTS

4. MONITORING AND REPORTING REQUIREMENTS

4.1. KPDES Outfalls

Discharge samples and measurements shall be collected at the compliance point for each KPDES Outfall identified in this permit. Each sample shall be representative of the volume and nature of the monitored discharge.

4.2. Sufficiently Sensitive Analytical Methods

Analytical methods utilized to demonstrate compliance with the effluent limitations established in this permit shall be sufficiently sensitive to detect pollutant levels at or below the required effluent limit, i.e. the Method Minimum Level shall be at or below the effluent limit. In the instance where an EPA-approved method does not exist that has a Method Minimum Level at or below the established effluent limitation, the permittee shall:

- (1) Use the method specified in the permit; or
- (2) The EPA-approved method with an ML that is nearest to the established effluent limit.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

4.3. Certified Laboratory Requirements

All laboratory analyses and tests required to demonstrate compliance with the conditions of this permit shall be performed by a laboratory holding the appropriate general or field-only certification issued by the Cabinet pursuant to 401 KAR 5:320.

4.4. Submission of DMRs

The completed DMR for each monitoring period must be entered into the DOW approved electronic system no later than midnight on the 28th day of the month following the monitoring period for which monitoring results were obtained.

For more information regarding electronic submittal of DMRs, please visit the Division's website at: <https://eec.ky.gov/Environmental-Protection/Water/SubmitReport/Pages/NetDMR.aspx> or contact the DMR Coordinator at (502) 564-3410.

KPDES



**KENTUCKY POLLUTANT
DISCHARGE ELIMINATION
SYSTEM**

FACT SHEET

KPDES No.: KY0083755
AI No.: 3070
Timberland Subdivision
Timberland Drive
Paducah, McCracken County, Kentucky

Date: December 19, 2019

Public Notice Information

Public Notice Start Date: October 19, 2019

Comment Due Date: November 18, 2019

General information concerning the public notice process may be obtained on the Division of Water's Public Notice Webpage at the following address:

<https://eec.ky.gov/Environmental-Protection/Water/Pages/Water-Public-Notices-and-Hearings.aspx>.

Public Notice Comments

Comments must be received by the Division of Water no later than 4:30 PM on the closing date of the comment period. Comments may be submitted by e-mail at: DOWPublicNotice@ky.gov or written comments may be submitted to the Division of Water at 300 Sower Blvd, Frankfort, Kentucky 40601.

Reference Documents

A copy of this proposed fact sheet, proposed permit, the application, other supporting material and the current status of the application may be obtained from the Department for Environmental Protection's Pending Approvals Search Webpage:

http://dep.gateway.ky.gov/eSearch/Search_Pending_Approvals.aspx?Program=Wastewater&NumDaysDoc=30.

Open Records

Copies of publicly-available documents supporting this fact sheet and proposed permit may also be obtained from the Department for Environmental Protection Central Office. Information regarding these materials may be obtained from the Open Records Coordinator at (502) 782-6849 or by e-mail at EEC.KORA@ky.gov.

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
Division of Water, 300 Sower Blvd, Frankfort, Kentucky 40601

Printed on Recycled Paper

THIS KPDES FACT SHEET CONSISTS OF THE FOLLOWING SECTIONS:

1. FACILITY SYNOPSIS.....4

1.1. Name and Address of Applicant.....4

1.2. Facility Location.....4

1.3. Description of Applicant’s Operation.....4

1.4. Wastewaters Collected and Treatment4

1.5. Permitting Action4

2. RECEIVING / INTAKE WATERS.....6

2.1. Receiving Waters.....6

2.2. Intake Waters – Nearest Downstream Intake.....6

3. OUTFALL 0018

3.1. Outfall Description8

3.2. Reported Values.....8

3.3. Effluent Limitations and Monitoring Requirements9

3.4. Pertinent Factors.....10

3.5. Justification of Requirements.....10

4. OTHER CONDITIONS.....13

4.1. Schedule of Compliance.....13

4.2. Antidegradation13

4.3. Standard Conditions.....13

4.4. Sufficiently Sensitive Analytical Methods13

4.5. Certified Laboratory13

4.6. Connection to Regional Sewer System.....13

4.7. Certified Operators13

4.8. Location Map.....14

SECTION 1

FACILITY SYNOPSIS

1. FACILITY SYNOPSIS

1.1. Name and Address of Applicant

Joann Estates Utilities Incorporated
 6500 US Highway 60 W
 Paducah, KY 42001-9083

1.2. Facility Location

Timberland Subdivision
 Timberland Drive
 Paducah, McCracken County, Kentucky

1.3. Description of Applicant’s Operation

The applicant operates a domestic wastewater treatment plant serving a subdivision.

1.4. Wastewaters Collected and Treatment

The following table lists the actual average flow reported, the facility’s approved long-term average design treatment capacity, the wastewater types collected, and the treatment type for each outfall:

TABLE 1.				
Outfall No.	Avg. Flow (MGD)	Design Capacity (MGD)	Wastewater Types Collected	Treatment Type
001	0.0071	0.025	Domestic (Sanitary)	Activated Sludge, 1 Cell Lagoon, Disinfection (Chlorine), Dechlorination,

1.5. Permitting Action

This is a reissuance of a minor KPDES permit for an existing domestic wastewater treatment plant [SIC Code 4952]. Joann Estates Utilities Inc and the Energy and Environment Cabinet entered into Agreed Order DOW No. 130132 on February 10, 2014. The facility is not connected to the Paducah-McCracken County Joint Sewer Agency sewer system, thus the need for a KPDES permit remains.

SECTION 2

RECEIVING/INTAKE WATERS

2. RECEIVING / INTAKE WATERS

2.1. Receiving Waters

All surface waters of the Commonwealth have been assigned stream use designations consisting of one or more of the following designations: Warmwater Aquatic Habitat (WAH), Primary Contact Recreation (PCR), Secondary Contact Recreation (SCR), Domestic Water Supply (DWS), Coldwater Aquatic Habitat (CAH) or Outstanding State Resource Water (OSRW)[401 KAR 10:026].

All surface waters of the Commonwealth are assigned one of the following antidegradation categories: Outstanding National Resource Water (ONRW), Exceptional Water (EW), Impaired Water (IW) or High Quality Water (HQ)[401 KAR 10:030].

Surface waters categorized as an IW are listed in Kentucky’s most recently approved Integrated Report to Congress on the Condition of Water Resources in Kentucky - Volume II. 303(d) List of Surface Waters.

The following table lists the stream use classifications associated with this permit.

Receiving Water Name	Use Designation	Antidegradation Category	7Q10 Low Flow (cfs)	Harmonic Mean Flow (cfs)
West Fork Massac Creek	DWS WAH PCR SCR	HQ	0.0	1.5
West Fork Massac Creek is not listed as impaired in the 2016 303(d) List of Waters for Kentucky.				

2.2. Intake Waters – Nearest Downstream Intake

Intake Water Name	Public Water Supply Name	Latitude (N) Decimal Degrees	Longitude (W) Decimal Degrees	Miles Downstream	7Q10 Low Flow (cfs)	Harmonic Mean Flow (cfs)
Ohio River	Cairo, IL	37.02112°	89.17889°	44.2	51,000	175,000

SECTION 3

OUTFALL 001

3. OUTFALL 001

3.1. Outfall Description

The following table lists the outfall type, location, and description:

TABLE 4.				
Outfall Type	Latitude (N)	Longitude (W)	Receiving Water	Description of Outfall
External	37.07917°	88.78111°	West Fork Massac Creek	Domestic Wastewater

3.2. Reported Values

The following table summarizes the reported values for Outfall 001:

TABLE 5.							
Reported Parameters	Units	EFFLUENT					
		Loadings (lbs/day)		Concentrations			
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum
Flow	MGD	0.0071	0.0071 ¹	N/A	N/A	N/A	N/A
pH	SU	N/A	N/A	7.1	N/A	N/A	7.1
CBOD ₅ ²	mg/l	0.05	0.05	N/A	0.7	0.7	N/A
Total Suspended Solids	mg/l	0.37	0.37	N/A	6.3	6.3	N/A
Ammonia (as mg/l NH ₃ N)							
May 1 – October 31	mg/l	0.09	0.09	N/A	2.11	2.11 ¹	N/A
November 1 – April 30	mg/l	0.13	0.13	N/A	1.86	1.86 ¹	N/A
E. Coli ³	#/100 ml	N/A	N/A	N/A	15 ⁴	15 ⁵	N/A
Dissolved Oxygen	mg/l	N/A	N/A	7.3	N/A	N/A	N/A
Total Residual Chlorine	mg/l	N/A	N/A	N/A	ND	ND ¹	N/A
¹ Daily Maximum							
² CBOD ₅ – Carbonaceous Biochemical Oxygen Demand, 5-day							
³ E. Coli – Escherichia Coli Bacteria							
⁴ Thirty (30) day Geometric Mean							
⁵ Seven (7) day Geometric Mean							

The above values are averages of 5-year DMR values from 11/30/14 to 08/31/19. ND=Non-detect.

3.3. Effluent Limitations and Monitoring Requirements

The following table summarizes the effluent limitations and monitoring requirements for Outfall 001:

TABLE 6.									
EFFLUENT LIMITATIONS								MONITORING REQUIREMENTS	
Effluent Characteristic	Units	Loadings (lbs/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
Flow	MGD	Report	Report ¹	N/A	N/A	N/A	N/A	1/Month	Instantaneous
pH	SU	N/A	N/A	6.0	N/A	N/A	9.0	1/Month	Grab
CBOD ₅ ²	mg/l	N/A	N/A	N/A	10	15	N/A	1/Month	Composite ³
Total Suspended Solids	mg/l	N/A	N/A	N/A	30	45	N/A	1/Month	Composite ³
Ammonia (as mg/l NH ₃ N)									
May 1 – October 31	mg/l	N/A	N/A	N/A	2.0	3.0 ¹	N/A	1/Month	Composite ³
November 1 – April 30	mg/l	N/A	N/A	N/A	9.0	13.5 ¹	N/A	1/Month	Composite ³
Dissolved Oxygen	mg/l	N/A	N/A	7.0	N/A	N/A	N/A	1/Month	Grab
E. Coli ⁴	#/100 ml	N/A	N/A	N/A	130 ⁵	240 ⁶	N/A	1/Month	Grab
Total Residual Chlorine	mg/l	N/A	N/A	N/A	0.011	0.019 ¹	N/A	1/Month	Grab
¹ Daily Maximum									
² CBOD ₅ – Carbonaceous Biochemical Oxygen Demand, 5-day									
³ A sample composed of four or more equal or flow-proportional aliquots collected over a period of no less than eight and no more than twenty-four hours and aggregated so that the aggregate sample reflects the average water quality of the effluent during the compositing or sample period									
⁴ E. Coli – Escherichia Coli Bacteria									
⁵ Thirty (30) day Geometric Mean									
⁶ Seven (7) day Geometric Mean									

3.4. Pertinent Factors

The effluent limitations for this outfall were developed in accordance with DOW’s General Procedures for Limitations Development located on DOW’s webpage at: <https://eec.ky.gov/Environmental-Protection/Forms%20Library/General%20Procedures%20for%20Limitations%20Development.pdf>.

3.4.1. Secondary Treatment Standards

Discharges of biochemically degradable wastes are subject to technology-based effluent limitations (TBELs) known as the Secondary Treatment Standards. Both state and federal regulations establish the requirements for secondary treatment. State regulations for secondary treatment only apply to non-POTWs [401 KAR 5:045].

TABLE 7. State Defined Secondary Treatment Standards		
Pollutant or Pollutant Characteristic	30-day average	7-day average
BOD ₅ (mg/l)	30	45
TSS (mg/l)	30	45

3.4.2. Agreed Order

Issuance of this permit does not supersede any requirements of Agreed Order DOW No. 130132 executed February 10, 2014. The permittee is responsible to comply with the conditions of the Agreed Order and the requirements of this permit.

3.5. Justification of Requirements

Chapters 5 and 10 of Title 401 of the Kentucky Administrative Regulations (KARs), cited in the following, have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

At a minimum, all permits shall contain technology-based effluent limitations (TBELs) [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(a)]. When necessary to achieve water quality standards, all permits shall contain water quality-based effluent limitations (WQBELs) [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(d)]. Any WQBELs included in this permit are based upon the Kentucky Water Quality Standards (KYWQS) [401 KAR 10:031].

3.5.1. Flow

The monitoring requirements for this parameter are consistent with the KPDES permit program requirements for establishing effluent limitations, standards, and permit conditions [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(i)(1)(ii)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 – 40 CFR 122.48].

3.5.2. CBOD₅

The limitations for this parameter are consistent with the secondary treatment standards for biochemically degradable wastes as defined in state regulations [401 KAR 5:045, Section 3]. DOW found that it was necessary to impose WQBELs for this parameter in order to achieve water quality standards. [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(d)]. These effluent limitations are also consistent with Kentucky’s Water Quality Standards [401 KAR 10:031, Section 4(1)(e) & (i) respectively]. The EPA’s River and Stream Water Quality Model (QUAL 2E/K) was used to develop these limitations.

3.5.3. Total Suspended Solids

The limitations for this parameter are consistent with the secondary treatment standards for biochemically degradable wastes as defined in state regulations [401 KAR 5:045, Section 3]. These effluent limitations are also consistent with Kentucky's Water Quality Standards [401 KAR 10:031, Section 4(1)(g)].

3.5.4. Ammonia and Dissolved Oxygen

The limitations for these parameters are WQBELs developed using the EPA's River and Stream Water Quality Model (QUAL 2E/K) [401 KAR 10:031, Section 4(1)(e) & (i)].

3.5.5. E. Coli

The limitations for this parameter are consistent with Kentucky's Water Quality Standards [401 KAR 10:031, Section 7].

3.5.6. pH

The limitations for this parameter are consistent Kentucky's Water Quality Standards [401 KAR 10:031, Section 4(1)(b) and Section 7].

3.5.7. Total Residual Chlorine

The limitations for this parameter are consistent with Kentucky's Water Quality Standards [401 KAR 10:031, Section 4(1)(k)].

SECTION 4

OTHER CONDITIONS

4. OTHER CONDITIONS

4.1. Schedule of Compliance

The permittee is required to comply with all effluent limitations by the effective date of the permit unless a compliance schedule is included with the permit. A schedule of compliance, if included with this permit, is consistent with the regulatory provisions for establishing a schedule of compliance [401 KAR 5:050, Section 4 and 40 CFR 122.47].

4.2. Antidegradation

The conditions of Kentucky's Antidegradation Policy have been satisfied [401 KAR 10:029, Section 1]. This permitting action is a reissuance of a KPDES permit that does not authorize an expanded discharge.

4.3. Standard Conditions

The conditions listed in the Standard Conditions Section of the permit are consistent with the conditions applicable to all permits [401 KAR 5:065, Section 2(1) – 40 CFR 122.41].

4.4. Sufficiently Sensitive Analytical Methods

Analytical methods utilized to demonstrate compliance with the effluent limitations established in this permit shall be sufficiently sensitive to detect pollutant levels at or below the required effluent limit [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(i)].

4.5. Certified Laboratory

All environmental analysis is to be performed by a certified laboratory is consistent with the certified wastewater laboratory requirements [401 KAR 5:320, Section 1].

4.6. Connection to Regional Sewer System

In accordance with 401 KAR 5:005, Section 4 if a sewer system served by a regional facility becomes available, the WWTP shall be abandoned and the influent flow shall be diverted to the regional facility.

4.7. Certified Operators

Wastewater treatment plants and wastewater collection systems that accept wastewaters containing domestic sewage are to be operated by a certified operator [401 KAR 5:010].

4.8. Location Map



Legend

-  Active
-  Inactive
-  DOW KPDES Outfalls
-  Drinking_Water_Intakes
-  DOW Permitted Water Withdrawals
-  DOW River Mile Points
-  NHD Flowline Features
-  Sewer Lines