ANDY BESHEAR
GOVERNOR

REBECCA W. GOODMAN
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601

April 25, 2022

Louisville & Jefferson Co MSD
Hillview WWTP
Blue Lick Rd
Brooks, KY 40229

Re: KPDES Final Permit Issuance
KPDES No.: KY0103900
Hillview WWTP
AI ID: 4288
Bullitt County, Kentucky

Dear Mr. Bingham:

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.

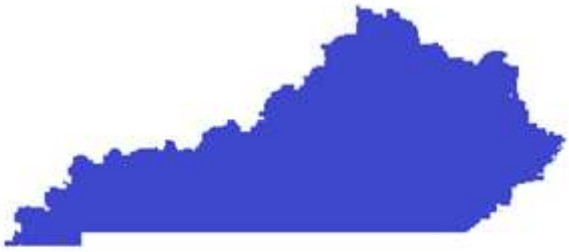
If you have any questions regarding the KPDES decision, please contact the Surface Water Permits Branch by phone at (502) 564-3410 or via email at SWPBSupport@ky.gov. Further information on procedures and legal matters pertaining to the hearing request may be obtained by contacting the Office of Administrative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

Sincerely,

Jason M. Hurt, P.E.
Manager, Surface Water Permits Branch
Division of Water

JMH: asw
Enclosure

KPDES



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT

AUTHORIZATION TO DISCHARGE UNDER THE
KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT NO.: KY0103900

AGENCY INTEREST NO.: 4288

Pursuant to Authority in KRS 224,

Louisville & Jefferson Co. MSD
700 W. Liberty St.
Louisville, Kentucky, 40203

is authorized to discharge from a facility located at

Hillview Wastewater Treatment Plant
Blue Lick Road
Hillview, Bullitt County, Kentucky

to receiving waters named

UT to Brooks Run

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

This permit shall become effective on June 1, 2022.

This permit and the authorization to discharge shall expire at midnight, May 31, 2027.

Date Signed: April 25, 2022

Carey M. Johnson, Director
Division of Water

THIS KPDES PERMIT CONSISTS OF THE FOLLOWING SECTIONS.

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 location and description 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	38.0611°	85.705°	UT to Brook Run	Domestic Wastewater from a Publicly Owned Treatment Works

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 (lb/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
Flow, Effluent	MGD	Report	Report[1]	N/A	N/A	N/A	N/A	Continuous	Recorder
Flow, Influent	MGD	Report	Report[1]	N/A	N/A	N/A	N/A	Continuous	Recorder
pH	SU	N/A	N/A	6.0	N/A	N/A	9.0	1/Week	Grab
$CBOD_5$[2], Effluent	mg/l	12.51	18.765	N/A	10	15	N/A	1/Week	24-Hr Composite[3]
$CBOD_5$[2], Influent	mg/l	N/A	N/A	N/A	Report	Report	N/A	1/Week	24-Hr Composite[3]
$CBOD_5$[2] Percent Removal[4]	%	N/A	N/A	N/A	85	N/A	N/A	1/Month	Calculated[3]
TSS[5], Effluent	mg/l	37.53	56.295	N/A	30	45	N/A	1/Week	24-Hr Composite[3]
TSS[5], Influent	mg/l	N/A	N/A	N/A	Report	Report	N/A	1/Week	24-Hr Composite[3]
TSS[5], Percent Removal[4]	%	N/A	N/A	N/A	85	N/A	N/A	1/Month	Calculated[4]
Nitrogen, ammonia total (as N)									
May 1 – October 31	mg/l	N/A	N/A	N/A	3.0	4.5[1]	N/A	1/Week	24-Hr Composite[3]
November 1 – April 30	mg/l	N/A	N/A	N/A	8.0	12[1]	N/A	1/Week	24-Hr Composite[3]
Dissolved Oxygen	mg/l	N/A	N/A	7.0	N/A	N/A	N/A	1/Week	Grab
E. coli[6]	#/100 ml	N/A	N/A	N/A	130[7]	240[8]	N/A	1/Week	Grab

TABLE 2.									
EFFLUENT LIMITATIONS								MONITORING REQUIREMENTS	
Effluent Characteristic	Units	Loadings (lb/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
Total Nitrogen[10], Effluent	mg/l	N/A	N/A	N/A	Report	Report[1]	N/A	1/Week	24-Hr Composite[3]
Total Nitrogen[10], Influent	mg/l	N/A	N/A	N/A	Report	Report[1]	N/A	1/Week	24-Hr Composite[3]
Total Phosphorus, Effluent									
May 1 – October 31	mg/l	N/A	N/A	N/A	0.75	1.125[1]	N/A	1/Week	24-Hr Composite[3]
November 1 – April 30	mg/l	N/A	N/A	N/A	1.0	Report[1]	N/A	1/Week	24-Hr Composite[3]
Total Phosphorus, Influent	mg/l	N/A	N/A	N/A	Report	Report[1]	N/A	1/Week	24-Hr Composite[3]
[1]Daily Maximum									
[2] $CBOD_5$ – Carbonaceous Biochemical Oxygen Demand, 5-day									
[3]A 24-hour composite is a sample collected using an automated sampler set to collect equal volume aliquots of at least 100 ml each every 15 minutes over a 24 hour period. The sample must be maintained at between 0° C and 6° C at all times.									
[4]Percent Removal is calculated using the following equation: $\text{Percent Removal} = \left[\frac{(\text{Monthly Average Influent} - \text{Monthly Average Effluent})}{\text{Monthly Average Influent}}\right] \times 100$									
[5]TSS – Total Suspended Solids									
[6]E. coli – *Escherichia coli* Bacteria									
[7]Thirty (30) day Geometric Mean									
[8]Seven (7) day Geometric Mean									
[9]Conditional Monitoring. Sampling for Total Residual Chlorine is required only when chlorine disinfection is used during the monitoring period. If chlorine disinfection is not used during the monitoring period, report NODI Code 9: "Conditional Monitoring – Not Required for this period" on the DMR.									
[10]Total Nitrogen is the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen									

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.

1.4. Application Monitoring for Outfall 001

POTWs are required to complete application Form A which requires a minimum of three (3) samples to be collected and analyzed. To ensure that sufficient samples are collected and analyzed, DOW shall impose minimum annual sampling during years two (2) through four (4) of the permit term, for those parameters required to be analyzed and reported on the application (See table below). Of the three (3) samples, two (2) shall be taken no closer than four (4) months together

and no greater than eight (8) months apart. The results of the application monitoring shall be submitted on an annual Discharge Monitoring Repot (DMR) and summarized on the renewal application. The permittee shall report NODI Code 9: "Conditional Monitoring – Not Required for this period" on the DMR for years 1 and 5 of the permit.

TABLE 3.
RENEWAL APPLICATION MONITORING REQUIREMENTS

Effluent Characteristic	Units	Concentrations		Frequency	Sample Type
		Average	Maximum		
Temperature (May 1- October 31)	°F	Report	Report	3/5 years	Grab
Temperature (November 1- April 30)	°F	Report	Report	3/5 years	Grab
Total Kjeldahl Nitrogen (TKN)	mg/l	Report	Report	3/5 years	24-Hr Composite[1]
Nitrate Plus Nitrite Nitrogen	mg/l	Report	Report	3/5 years	24-Hr Composite[1]
Oil & Grease	mg/l	Report	Report	3/5 years	24-Hr Composite[1]
Phosphorus (Total)	mg/l	Report	Report	3/5 years	24-Hr Composite[1]
Total Dissolved Solids (TDS)	mg/l	Report	Report	3/5 years	24-Hr Composite[1]

SECTION 2

COLLECTION SYSTEM REQUIREMENTS

2. COLLECTION SYSTEM REQUIREMENTS

2.1. Prohibitions

The following prohibitions apply to the collection system and its users:

(1) There shall be no sanitary sewer overflows (SSOs);
(2) No user shall introduce any pollutant or pollutants that will cause pass through or interference with the operation of the POTW and the collection system; or
(3) No user shall introduce any of the following pollutants:
   a) Pollutants which create a fire or explosion hazard, including but not limited to, waste streams with a closed cup flashpoint of less than 140 ^{o}F (60 ^{o}C);
   b) Pollutants which will cause corrosive structural damage or have a pH less than 5.0 standard units unless the POTW is designed to accommodate such pH levels;
   c) Solid or viscous pollutants in amounts that would obstruct the flow to the POTW thus resulting in interference;
   d) Any pollutant released in a discharge at such a volume or strength as to cause interference in the POTW;
   e) Heat in such quantities that the temperature at the POTW treatment plant exceeds 104 ^{o}F (40 ^{o}C) unless the POTW requests and the Approval Authority grants alternate temperature limits;
   f) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;
   g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,
   h) Any trucked or hauled waste except, at discharge points designated by the POTW.

All POTW's, in cases where pollutants contributed by user(s) of the collection system are likely to result in reoccurring interference or pass-through, shall develop and enforce specific effluent limits for industrial user(s), and all other users, as appropriate, which, together with appropriate changes in the POTW treatment plant's facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's KPDES permit or sludge use or disposal practices. POTW's with approved Pretreatment Programs meet this requirement.

2.2. Capacity, Management, Operation and Maintenance (CMOM) Program

2.2.1. Applicability

These conditions apply to all permittees with sewage infrastructure including the sewer system and wastewater treatment plant.

2.2.2. Goals

The goals of a comprehensive CMOM Program are:

(1) To better manage, operate, and maintain the collection system;
(2) Investigate capacity constrained areas of the collection system;
(3) Proactively prevent or minimize SSOs;
(4) Respond to SSO events; and
(5) Proactively prevent or minimize the potential for the release of pollutants from ancillary activities through plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from storage areas.

To achieve these goals, the permittee shall complete a CMOM self-assessment using the checklist in the "Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems," EPA 305-B-05-002 to determine the scope of the CMOM program. The guide is available at: http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf. Upon completion of the checklist, the permittee shall develop a proposed plan of action to achieve the goals of the CMOM program.

2.2.3. CMOM Plan of Action

At a minimum the plan of action shall include the following:

(1) Self-Assessment Summary (including recommended improvements and schedules);
(2) Collection System Diagram;
(3) Sewer Overflow Response Protocol (SORP);
(4) Best Management Practices (BMPs); and
(5) Any other constituent programs necessary to achieve the goals of the CMOM program

2.2.4. Collection System Diagram

The collection system diagram shall include the following:

(1) Scale;
(2) North arrow;
(3) Date the map was drafted and most recent revision;
(4) Street names;
(5) Surface waters;
(6) Service area boundaries;
(7) Manholes and other access points (including structure IDs);
(8) Sewer lines;
(9) Pump stations (including structure IDs);
(10) Wastewater treatment plants;
(11) Permitted discharge points or outfalls (including CSO outfalls);
(12) CSO regulators, for combined sewer systems; and
(13) Locations of recurring SSOs that occurred within the last five (5) years prior to the effective date of this permit.

2.2.5. Sewer Overflow Response Protocol (SORP)

At a minimum the SORP shall include the following elements:

(1) An overflow response procedure including designated responders for the permittee, response times, and cleanup methods;
(2) A public advisory procedure;
(3) A regulatory agency notification procedure;
(4) A manhole and pump station inspection schedule;
(5) A procedure for addressing discharges to buildings caused by blockage, flow condition, or other malfunction in sewer infrastructure owned or operationally-controlled by the permittee; and
(6) A requirement to include the structure ID for reported incidents.

2.2.6. Best Management Practices (BMPs)

BMPs are schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in Section 2.1 of this permit. BMPs also

include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

2.2.7. Implementation

Unless this is the first issuance of the permit, the permittee shall have completed implementation of the CMOM program upon the effective date of this permit. A new facility receiving the first issuance of a permit shall implement the CMOM program as soon as possible, but no later than one year from the effective date of the permit or as specified in the schedule of compliance for this permit.

2.2.8. Documentation

The permittee shall maintain all applicable CMOM program documents at the facility and make them available upon request to EEC personnel. Initial copies and modification thereof shall be sent to DOW upon request.

2.2.9. Modification

The permittee shall amend CMOM Programs documentation whenever there is a change in the facility or change in operation of the facility which materially affects the requirements specified in applicable documents.

2.2.10. Modification for Ineffectiveness

If any of the CMOM programs prove to be ineffective in achieving the general objective of preventing and eliminating SSOs and other unauthorized discharges, the permit, and/or specific CMOM programs shall be subject to modification to address deficiencies. If at any time following the issuance of this permit any of the CMOM programs are found to be inadequate pursuant to a state or federal site inspection or review, affected CMOM program documents shall be modified to incorporate such changes necessary to resolve concerns.

2.3. Pretreatment Program

At the present time, neither the current wastewater treatment system operated by the permittee nor the current users meet the conditions that require the development and implementation of a pretreatment program. Although current conditions do not require a pretreatment program, the permittee shall continue to enforce the prohibitions listed elsewhere in this permit.

In the event the permittee becomes aware of a new industrial user or modification to an existing industrial user that would require the development of a pretreatment program as required by 40 CFR Part 403, the permittee shall, within thirty days, notify DOW of the determination and provide a schedule not to exceed one year for the development and implementation of the pretreatment program.

SECTION 3

STANDARD CONDITIONS

3. STANDARD CONDITIONS

The following conditions apply to all KPDES permits.

3.1. 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.

3.2. 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.

3.3. 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.

3.4. 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.

3.5. 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.

3.6. 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.

3.7. Property Rights

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

3.8. 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.

3.9. 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.

3.10. 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.

3.11. 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.

3.12. Reporting Requirements

3.12.1. 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.

3.12.2. 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.

3.12.3. 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].

3.12.4. 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.

3.12.5. 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.

3.12.6. Twenty-Four-Hour Reporting

1) The permittee shall report any noncompliance which may endanger health or the environment to the DOW Regional Office. 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 five (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 [40 CFR 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.

4) The permittee is assigned to the Department for Environmental Protection's Louisville Regional Field Office.

a. Reporting shall be as required in paragraphs 1 through 3 of this subsection except that, if a spill or release of pollutants or contaminants, bypass, upset, or other event of non-compliance occurs that may present an imminent or substantial danger to the environment or the public health or welfare, the permittee shall immediately notify the regional field office by calling the Louisville Regional Field Office at: (502) 429-7122.
b. If a report required by this subsection is made during other than normal business hours, it shall be made through the **twenty-four (24) hour environmental emergency telephone number at (800) 928-2380.**
c. The reporting requirements of this subsection does not relieve the permittee of reporting required under other laws, regulations, programs, or emergency response plans.

3.12.7. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under Sections 3.12.1, 3.12.4, 3.12.5 and 3.12.6, at the time monitoring reports are submitted. The reports shall contain the information listed in Section 3.12.6.

3.12.8. 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.

3.13. Bypass

3.13.1. 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.

3.13.2. 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 3.13.3 and 3.13.4.

3.13.3. 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 3.12.6.

3.13.4. 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 3.13.3.

(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 3.13.4.

3.14. Upset

3.14.1. 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.

3.14.2. 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 3.14.3 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.

3.14.3. 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 3.12.6; and

(4) The permittee complied with any remedial measures required under Section 3.4.

3.14.4. Burden of Proof

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

SECTION 4

OTHER CONDITIONS

4. OTHER CONDITIONS

4.1. Schedule of Compliance

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

4.2. 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.

4.3. 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).

4.4. Anti-degradation

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 approved regional facility plan.

4.5. 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.

4.6. Sludge Disposal

The disposal or final use of sewage sludge generated during the treatment of domestic sewage by a POTW shall be disposed of in accordance with state and federal requirements [401 KAR Chapter 45 and 40 CFR 503].

4.7. Certified Operators

The wastewater treatment plant shall be under the primary responsibility of Class II Wastewater Treatment Plant Certified Operators or higher.

The collection system shall be under the primary responsibility of Class II Collection System Certified Operators or higher.

SECTION 5

MONITORING AND REPORTING REQUIREMENTS

5. MONITORING AND REPORTING REQUIREMENTS

5.1. 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.

5.2. Monthly Operating Reports (MORs)

In addition to the monitoring of effluent as specified by the permit, the permittee shall conduct process control monitoring on a daily basis. Process control monitoring is that monitoring performed by the operators of the wastewater treatment plant to determine if the wastewater system is operating at its optimum efficiency. This monitoring includes but is not limited to influent and effluent quality and quantity monitoring, chemical usage, sludge monitoring including volume produced, wasted, and disposed, and monitoring of internal units such as aeration basins and oxidation ditches.

The data is recommended to be recorded using the Microsoft EXCEL-based Monthly Operating Report (MOR) workbook available on the Department for Environmental Protection's Forms webpage at:

https://eec.ky.gov/Environmental-Protection/Water/PermitCert/KPDES/Documents/Municipal%20MORs%20Master.xlsx.

Alternatively, the permittee may choose to use their own electronic or paper MOR workbook, as long as it includes the information required by the above form and/or is approved by the Division's Regional Field Office Supervisor.

The updated workbook shall be maintained on-site and made available upon request by Cabinet personnel.

5.3. 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 a 40 CFR 136 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 40 CFR 136 approved method with a 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.

5.4. 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.

5.5. 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.

5.6. DMRs and Permit-Authorized Change for Total Residual Chlorine

The permittee may request removal of Total Residual Chlorine (TRC) monitoring if the permittee has, through a DOW-authorized construction permit, eliminated a chlorine-based disinfection system and completed its replacement. The request shall be submitted in writing to the Division of Water's Surface Water Permit Branch. The permittee shall continue to complete DMRs for TRC until the Surface Water Permits Branch has removed TRC from the DMR(s). A DMR may be completed with a pollutant specific No Data Indicator (NODI) code of "Not Required this Monitoring Period" if chlorine-based disinfection was not utilized during the monitoring period.

KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

FACT SHEET

KPDES No.: KY0103900
AI No.: AI 4288
Hillview Wastewater Treatment Plant
Blue Lick Road
Hillview, Bullitt County, Kentucky

Date: April 25, 2022

Public Notice Information

Public Notice Start Date: March 14, 2022

Comment Due Date: April 13, 2022

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.

THIS KPDES FACT SHEET CONSISTS OF THE FOLLOWING SECTIONS:

SECTION 1

FACILITY SYNOPSIS

1. FACILITY SYNOPSIS

1.1. Name and Address of Applicant

Louisville & Jefferson Co. MSD
700 W. Liberty St.
Louisville, Kentucky, 40203

1.2. Facility Location

Hillview Wastewater Treatment Plant
Blue Lick Road
Hillview, Bullitt County, Kentucky

1.3. Description of Applicant's Operation

Publicly-Owned Treatment Works (POTW) and associated collection system.

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	0.0403	0.150	Domestic Wastewater	Extended Aeration System with UV Disinfection.

1.5. Permitting Action

This is a reissuance of a minor KPDES permit for an existing POTW [SIC Code 4952].

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 anti-degradation 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 for non-support of uses in Kentucky's most recently approved *Integrated Report to Congress on the Condition of Water Resources in Kentucky*. The 305 (b) List identifies stream segments that do not support their use designation. However, Outstanding State Resource Waters, Exceptional Waters, and waters found only as mercury or methylmercury impaired for fish consumption shall not be categorized as impaired *for anti-degradation purposes*[401 KAR 10:030].

The following table lists the stream use classifications and anti-degradation category associated with this permit.

TABLE 2.

Receiving Water Name	Use Designation	Antidegradation Category	7Q10 Low Flow (cfs)	Harmonic Mean Flow (cfs)
UT to Brooks Run	WAH PCR SCR DWS	HQ	0.0	0.0
The receiving water is categorized as High Quality Water. The Discharge is within the Floyds Fork Watershed, which is impaired for organic enrichment and low dissolved oxygen. A TMDL titled " Development of and Ultimate Oxygen Demand (UOD) TMDL for Floyds Fork and its Tributaries" was approved on September 4, 1997. The TMDL addressed Organic Enrichment and Low Dissolved Oxygen.				

2.2. Intake Waters – Nearest Downstream Intake

TABLE 3.						
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	Evansville Water Utility, Indiana	37.957651°	87.574393°	195.3	12900	60900

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	38.0611°	85.705°	UT to Brooks Run	Domestic Wastewater from a Publicly Owned Treatment Works.

3.2. Reported Values

The following table summarizes the reported values for Outfall 001:

TABLE 5.							
Reported Parameters	**Units**	**EFFLUENT**					
		Loadings (lb/day)		**Concentrations**			
		Monthly Average	**Maximum Weekly Average**	**Minimum**	**Monthly Average**	**Maximum Weekly Average**	**Maximum**
Flow, Effluent	MGD	0.0403	0.0601[1]	N/A	N/A	N/A	N/A
Flow , Influent	MGD	0.0402	0.0693[1]	N/A	N/A	N/A	N/A
pH	SU	N/A	N/A	6.1	N/A	N/A	8.71
$CBOD_5$[2], Effluent	mg/l	2.27	3.845	N/A	7.46	12.72	N/A
$CBOD_5$[2], Influent	mg/l	86.707	129.983	N/A	271.360	3.76.114	N/A
$CBOD_5$[2], Percent Removal	%	N/A	N/A	N/A	97.18	N/A	N/A
TSS[3], Effluent	mg/l	4.387	8.63	N/A	14.49	28.13	N/A
TSS[3], Influent	mg/l	62.705	132.218	N/A	207.78	439.377	N/A
TSS[3], Percent Removal	%	N/A	N/A	N/A	90.96	N/A	N/A
Nitrogen, ammonia total (as N)							
May 1 – October 31	mg/l	N/A	N/A	N/A	12.1	20.24[1]	N/A
November 1 – April 30	mg/l	N/A	N/A	N/A	10.793	18.132[1]	N/A
Dissolved Oxygen	mg/l	N/A	N/A	1.2	N/A	N/A	N/A
E. coli[4]	#/100 ml	N/A	N/A	N/A	43.17[5]	152.306[6]	N/A
Total Nitrogen[7], Effluent	mg/l	N/A	N/A	N/A	34.147	44.016[1]	N/A
Total Nitrogen[7], Influent	mg/l	N/A	N/A	N/A	NR	NR[1]	N/A
Total Phosphorus, Effluent	mg/l	N/A	N/A	N/A	2.427	3.63[1]	N/A

TABLE 5.							
Reported Parameters	Units	EFFLUENT					
		Loadings (lb/day)		Concentrations			
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum
May 1 – October 31	mg/l	N/A	N/A	N.A	2.426	3.63[1]	N.A
November 1 – April 30	mg/l	N/A	N/A	N/A	1.77	2.54[1]	N/A
Total Phosphorus, Influent	mg/l	N/A	N/A	N/A	NR	NR[1]	N/A
[1]Daily Maximum							
[2]$CBOD_5$ – Carbonaceous Biochemical Oxygen Demand, 5-day							
[3]Total Suspended Solids							
[4]E. coli – *Escherichia coli* Bacteria							
[5]Thirty (30) day Geometric Mean							
[6]Seven (7) day Geometric Mean							
[7]Total Nitrogen is the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen							

The above values are based on 5-year DMR averages from 05/11/16 to 4/22/2021.

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 (lb/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
Flow, Effluent	MGD	Report	Report[1]	N/A	N/A	N/A	N/A	Continuous	Recorder
Flow, Influent	MGD	Report	Report[1]	N/A	N/A	N/A	N/A	Continuous	Recorder
pH	SU	N/A	N/A	6.0	N/A	N/A	9.0	1/Week	Grab
$CBOD_5$[2], Effluent	mg/l	12.51	18.765	N/A	10	15	N/A	1/Week	24-Hr Composite[3]
$CBOD_5$[2], Influent	mg/l	N/A	N/A	N/A	Report	Report	N/A	1/Week	24-Hr Composite[3]
$CBOD_5$[2] Percent Removal[4]	%	N/A	N/A	N/A	85	N/A	N/A	1/Month	Calculated[3]
TSS[5], Effluent	mg/l	37.53	56.295	N/A	30	45	N/A	1/Week	24-Hr Composite[3]

TABLE 6.									
EFFLUENT LIMITATIONS								**MONITORING REQUIREMENTS**	
Effluent Characteristic	**Units**	**Loadings (lb/day)**		**Concentrations**				**Frequency**	**Sample Type**
		Monthly Average	**Maximum Weekly Average**	**Minimum**	**Monthly Average**	**Maximum Weekly Average**	**Maximum**		
TSS[5], Influent	mg/l	N/A	N/A	N/A	Report	Report	N/A	1/Week	24-Hr Composite[3]
TSS[5], Percent Removal[4]	%	N/A	N/A	N/A	85	N/A	N/A	1/Month	Calculated[4]
Nitrogen, ammonia total (as N)									
May 1 – October 31	mg/l	N/A	N/A	N/A	3.0	4.5[1]	N/A	1/Week	24-Hr Composite[3]
November 1 – April 30	mg/l	N/A	N/A	N/A	8.0	12[1]	N/A	1/Week	24-Hr Composite[3]
Dissolved Oxygen	mg/l	N/A	N/A	7.0	N/A	N/A	N/A	1/Week	Grab
E. coli[6]	#/100 ml	N/A	N/A	N/A	130[7]	240[8]	N/A	1/Week	Grab
Total Nitrogen[10], Effluent	mg/l	N/A	N/A	N/A	Report	Report[1]	N/A	1/Week	24-Hr Composite[3]
Total Nitrogen[10], Influent	mg/l	N/A	N/A	N/A	Report	Report[1]	N/A	1/Week	24-Hr Composite[3]
Total Phosphorus, Effluent									
May 1 – October 31	mg/l	N/A	N/A	N/A	0.75	1.125[1]	N/A	1/Week	24-Hr Composite[3]
November 1 – April 30	mg/l	N/A	N/A	N/A	1.0	Report[1]	N/A	1/Week	24-Hr Composite[3]
Total Phosphorus, Influent	mg/l	N/A	N/A	N/A	Report	Report[1]	N/A	1/Week	24-Hr Composite[3]

[1]Daily Maximum

[2] $CBOD_5$ – Carbonaceous Biochemical Oxygen Demand, 5-day

[3]A 24-hour composite is a sample collected using an automated sampler set to collect equal volume aliquots of at least 100 ml each every 15 minutes over a 24 hour period. The sample must be maintained at between 0° C and 6° C at all times.

[4]Percent Removal is calculated using the following equation: $\text{Percent Removal} = \left[\frac{(\text{Monthly Average Influent} - \text{Monthly Average Effluent})}{\text{Monthly Average Influent}}\right] \times 100$

[5]TSS – Total Suspended Solids

[6]E. coli – *Escherichia coli* Bacteria

[7]Thirty (30) day Geometric Mean

[8]Seven (7) day Geometric Mean

[9]Conditional Monitoring. Sampling for Total Residual Chlorine is required only when chlorine disinfection is used during the monitoring period. If chlorine disinfection is not used during the monitoring period, report NODI Code 9: "Conditional Monitoring – Not Required for this period" on the DMR.

TABLE 6.									
EFFLUENT LIMITATIONS								MONITORING REQUIREMENTS	
Effluent Characteristic	Units	Loadings (lb/day)		Concentrations				Frequency	Sample Type
		Monthly Average	Maximum Weekly Average	Minimum	Monthly Average	Maximum Weekly Average	Maximum		
[10]Total Nitrogen is the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen									

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.

es from POTWs are subject to the technology-based effluent limitations (TBELs) known as the Secondary Treatment Standards. Both state and federal regulations establish the requirements for secondary treatment [401 KAR 5:045 and 401 KAR 5:080, Section 8(3) – 40 CFR 133.102 – respectively].

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

TABLE 8.				
Federal Defined Secondary Treatment Standards				
Pollutant or Pollutant Characteristic	**Minimum**	**30-day average**	**7-day average**	**Maximum**
BOD_5 (mg/l)	N/A	30	45	N/A
BOD_5 Percent Removal (%)	N/A	85	N/A	N/A
$CBOD_5$ (mg/l)	N/A	25	40	N/A
$CBOD_5$ Percent Removal (%)	N/A	85	N/A	N/A
TSS (mg/l)	N/A	30	45	N/A
TSS Percent Removal (%)	N/A	85	N/A	N/A
pH (standard units)	6.0	N/A	N/A	9.0

3.4.1. Water Quality-Based Effluent Limitations and/or Monitoring

The following table lists those pollutants and/or pollutant characteristics of concern that DOW has determined exhibit reasonable potential to cause or contribute to an excursion of a water quality-based criterion, and the basis of DOW's determination. These determinations are consistent with the DOW's reasonable potential analysis (RPA) procedures outlined in *Permitting Procedures For Determining "Reasonable Potential"* Kentucky Division of Water May 1, 2000. This table may also include pollutants for which DOW has found the existence of reasonable potential to be indeterminate or for which DOW needs additional study.

TABLE 9.	
Pollutant or Pollutant Characteristic	**Basis**
No additional Pollutants	The RPA and SSTWAM analysis showed no reasonable potentials.

3.4.2. Calculation of Water Quality-Based Effluent Limitations

These calculations were performed using a Microsoft EXCEL based workbook developed by DOW. The workbook is designed to compare effluent data to the applicable water quality standards while also incorporating the characteristics of the receiving water and any regulatory ZID and/or MZ. The following table summarizes the results of these calculations for this outfall: 001

The RPA and SSTWAM analysis showed no reasonable potentials.

3.4.3. Nutrients

These effluent characteristics are generally associated with sanitary wastewaters and organic effluents. While this facility treats wastewater that includes domestic wastewater and/or wastewater from organic sources, these constituents are present in quantities that demonstrate reasonable potential to cause or contribute to an excursion of the narrative water quality standard. As discussed in the DOW's General Procedures for Limitations Development, the applicable factors in 40 CFR 122.44(d)(1) and the designated uses established in 401 KAR 10:026 were considered in making this determination.

The DOW has considered whether this facility was designed for and was previously issued a construction permit requiring achievement of a numerical limit.

Accordingly, this permit contains a limitation for phosphorus as an indicator parameter.

The reasonable potential analysis for nutrients considers the average total effluent phosphorus loading, the ratio of stream flow to effluent flow, and whether the receiving waterbody is impaired.

In this instance, the Division of Water found that the average phosphorus loading is 0.8157 lb per day, using the following calculation:

$$P\ \left(\frac{lb}{day}\right) = C_P\left(\frac{mg}{l}\right) x\ Q_E\ (MGD)\ x\ 8.345 = 2.427\ x\ 0.0403\ x\ 8.345 = 0.8157\ (\frac{lb}{day}).$$

The DOW further found that the 7Q10 stream flow/effluent flow ratio is 0.00, using the following calculation:

$$Q_r\ = \left[\frac{Q_S(MGD)}{Q_E\ (MGD)}\right] x100\% = \left(\frac{0.0}{0.04403}\right) x100\%\ .\ =\ 0.00$$

The numerical limitations established for phosphorous are consistent with the "Development of an Ultimate Oxygen Demand (UOD) TMDL for Floyds Fork and its Tributaries" TMDL approved by EPA on September 4, 1997.

3.5. Justification of Requirements

The Title 401 Chapters 5 and 10 of the Kentucky Administrative Regulations (KARs) and Title 40 of the Code of Federal Regulations (CFR) cited in the following have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes (KRSs) and the Clean Water Act (CWA) respectively.

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 WQBELs [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(d)]. The WQBELs included in this permit are based upon the KYWQS [401 KAR 10:031]

3.5.1. Aliquot Size

All sampling for reportable monitoring is required to be representative of the discharge. The federal Environmental Protection Agency has found that collection of aliquots of less than 100 ml can lead to sediment bias in the sample. The minimum aliquot size required by the permit is consistent with the NPDES Compliance Inspection Manual, No. 305-K-17-001 Revised Jan 2017 and with 401 KAR 5:065 Section 2 [40 CFR 122.41 (j).

3.5.2. Flow (Effluent & Influent)

The monitoring requirements for these parameters 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].

3.5.3. $CBOD_5$ (Effluent)

The limitations for this parameter are consistent with the secondary treatment standards for POTWs as defined in both state and federal regulations [401 KAR 5:045, Section 3, 401 KAR 5:080, Section 8(3) – 40 CFR 133.102]. These effluent limitations are also consistent with KYWQS [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. The final limit is based upon water quality criteria.

3.5.4. TSS (Effluent)

The limitations for this parameter are the secondary treatment standards for POTWs as defined in both state and federal regulations [401 KAR 5:045, Section 3, 401 KAR 5:080, Section 8(3) – 40 CFR 133.102 respectively]. These effluent limitations are also consistent with KYWQS [401 KAR 10:031, Section 4(1)(g)].

3.5.5. $CBOD_5$ (Influent) and TSS (Influent)

The monitoring requirements for these parameters 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)(i)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 – 40 CFR 122.48].

3.5.6. $CBOD_5$ (Percent Removal) and TSS (Percent Removal)

The limitations for these parameters are the secondary treatment standards for POTWs as defined in federal regulations[401 KAR 5:080, Section 8(3) – 40 CFR 133.102].

3.5.7. 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)].

3.5.8. E. coli

The limitations for *E. coli* are consistent with the KYWQS [401 KAR 10:031, Section 7].

3.5.9. pH

The limitations for this parameter are both TBELs and WQBELs. The limitations are consistent the secondary treatment standards for POTWs as defined in federal regulations and the KYWQS [401 KAR 5:080, Section 8(3) – 40 CFR 133.102, and 401 KAR 10:031, Sections 4(1)(b) and 7 – respectively].

Sections 4(1)(k)].

3.5.10. Nitrogen, Ammonia Total

The limitations for this parameter is consistent with Kentucky's Water Quality Standards [401 KAR 10:031, Section 6].

3.5.11. Total Phosphorus (Effluent & Influent)

The numerical limitations established for this pollutant are consistent with the "Development of an Ultimate Oxygen Demand (UOD) TMDL for Floyds Fork and its Tributaries" TMDL approved by EPA on September 4, 1997 [40 CFR 130.7 and 401 KAR 10:031, Section 1].

3.5.12. Total Nitrogen (effluent & Influent)

The monitoring requirements for this pollutant 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)(i)] and requirements for recording and reporting of monitoring results [401 KAR 5:050, Section 4 – 40 CFR 122.48].

SECTION 4

COLLECTION SYSTEM REQUIREMENTS

4. COLLECTION SYSTEM REQUIREMENTS

4.1. General Prohibitions

The following prohibitions apply to the collection system and its users:

(1) There shall be no sanitary sewer overflows (SSOs);
(2) No user shall introduce any pollutant or pollutants that will cause pass through or interference with the operation of the POTW and the collection system; or
(3) No user shall introduce any of the following pollutants:
   a. Pollutants which create a fire or explosion hazard, including but not limited to, waste streams with a closed cup flashpoint of less than 140 ^{o}F (60 ^{o}C);
   b. Pollutants which will cause corrosive structural damage or have a pH less than 5.0 standard units unless the POTW is designed to accommodate such pH levels;
   c. Solid or viscous pollutants in amounts that would obstruct the flow to the POTW thus resulting in interference;
   d. Any pollutant released in a discharge at such a volume or strength as to cause interference in the POTW;
   e. Heat in such quantities that the temperature at the POTW treatment plant exceeds 104 ^{o}F (40 ^{o}C) unless the POTW requests and the Approval Authority grants alternate temperature limits;
   f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;
   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,
   h. Any trucked or hauled waste except, at discharge points designated by the POTW.

All POTWs, in cases where pollutants contributed by user(s) of the collection system are likely to result in reoccurring interference or pass-through, shall develop and enforce specific effluent limits for industrial user(s), and all other users, as appropriate, which, together with appropriate changes in the POTW treatment plant's facilities or operation, are necessary to ensure renewed and continued compliance with the POTW's KPDES permit or sludge use or disposal practices.

These prohibitions are consistent with Kentucky's general prohibition against water pollution, the Combined Sewer Overflow Control Policy of 1994 (CSO Policy), and the national pretreatment standards prohibited discharges applicable to all POTW collection systems [KRS 224.70-110, 33 U.S.C. 1342 (q) and 401 KAR 5:055, Section 11 – 40 CFR 403.5 respectively]

4.2. Capacity, Management, Operation and Maintenance (CMOM) Programs

The permittee shall develop and implement CMOM programs that: (1) better manages, operates, and maintains collection systems, (2) investigates capacity constrained areas of the collection system, (3) proactively prevents or minimizes SSOs, and (4) responds to SSO events.

Guidance for the development of effective CMOM programs is available at the following EPA web address: http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf

This requirement replaces the requirement to develop and implement a Best Management Practices (BMP) plan imposed in prior permits. The imposition of this requirement is consistent with the standard conditions applied to all permits regarding the proper operation and maintenance of all facilities and systems of treatment and control including all related appurtenances [401 KAR 5:065, Section 2(1) – 40 CFR 122.41(e)].

4.3. Pretreatment Program

Pretreatment regulations apply to the discharge of pollutants from non-domestic sources subject to National Pretreatment Standards. These sources, if present, are indirectly discharged into or transported by truck or rail to a POTW. The objectives of pretreatment regulations are to prevent the introduction of pollutants into a POTW that will interfere with the operation of the POTW, pass through the POTW, be incompatible with the POTW, or interfere with the use or disposal of the POTW sludge [401 KAR 5:055 – 40 CFR 403].

This facility does not have an approved pretreatment program and has no known Significant Industrial Users that would currently require development of a Pretreatment Program. The permit contains conditions that require the permittee to develop a Pretreatment Program if a Pretreatment Program becomes necessary [401 KAR 5:055 – 40 CFR 403].

SECTION 5

OTHER CONDITIONS

5. OTHER CONDITIONS

5.1. Schedule of Compliance

The permittee will comply with all effluent limitations by the effective date of the permit except as specified below [401 KAR 5:050, Section 3 – 40 CFR 122.47].

5.2. Anti-degradation

The conditions of Kentucky's Anti-degradation 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. from a POTW. The POTW has developed an approved regional facility plan in accordance with state wastewater planning requirements for regional planning agencies [401 KAR 5:006]. This approved plan constitutes compliance with socioeconomic demonstration and alternatives analysis of the Anti-degradation Policy Implementation Methodology [401 KAR 10:030, Section 1(3)(b)2b].

5.3. Sludge Disposal

The disposal or final use of sewage sludge generated during the treatment of domestic sewage by a POTW shall be disposed of in accordance with state and federal requirements [401 KAR Chapter 45 and 40 CFR 503].

5.4. 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].

5.5. 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 (ML) shall be at or below the effluent limit. In that instance where a 40 CFR 136 approved method does not exist that has a ML at or below the established effluent limitation, the permittee shall: (1) use the method specified in the permit; or (2) the 40-CFR 136 approved method with a ML that is nearest to the established effluent limit [401 KAR 5:065, Section 2(4) – 40 CFR 122.44(i)].

5.6. Certified Laboratory

All environmental analysis to be performed by a certified laboratory is consistent with the certified wastewater laboratory requirements [401 KAR 5:320, Section1].

5.7. 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].

5.8. Application Monitoring

POTWs are required to complete application Form A which requires a minimum of three (3) samples to be collected and analyzed. To ensure that sufficient samples are collected and analyzed, DOW placed sampling requirements within the permit. The results of the application monitoring shall be submitted on an annual DMR and summarized on the renewal application [401 KAR 5:065, Section 2(1) – 40 CFR 122.41(j) and 401 KAR 5:050, Section 4 – 40 CFR 122.48].

Additional application monitoring, if any, is for parameters not listed on Form A. The state has an applicable water quality standard for this parameter or has concluded that the monitoring is appropriate for specific parameters on a case-by-case basis [401 KAR 5:060, Section 2 (3) – 40 CFR 122.21 (j) (4)(iv)].

5.9. Monthly Operating Reports (MORs)

In addition to the monitoring of effluent as specified by the permit, the permittee shall conduct process control monitoring on a daily basis. Process control monitoring is that monitoring performed by the operators of the wastewater treatment plant to determine if the wastewater system is operating at its optimum efficiency. This monitoring includes but is not limited to influent and effluent quality and quantity monitoring, chemical usage, sludge monitoring including volume produced, wasted, and disposed, and monitoring of internal units such as aeration basins and oxidation ditches.

The data is recommended to be recorded using the Microsoft EXCEL-based Monthly Operating Report (MOR) workbook available on the Department for Environmental Protection's Forms webpage at:

https://eec.ky.gov/Environmental-Protection/resources/Pages/Forms-Library.aspx.

Alternatively, the permittee may choose to use their own electronic MOR workbook, as long as it includes the information required by the above form and/or is approved by the Division's Regional Field Office Supervisor.

The updated workbook shall be maintained on-site and made available upon request by Cabinet personnel.

These additional monitoring requirements are consistent with state and federal regulations that require the permit to include as appropriate monitoring requirements to assure compliance with the permit limitations [401 KAR 5:050, Section 4 – 40 CFR 122.48].

5.10. Location Map