

3 HMB Circle US 460 Frankfort, KY 40601 Office: (502) 695-9800 Fax: (502) 695-9810 March 23, 2022

Mr. Matt Fields Division of Water 300 Sower Boulevard, 3rd Floor Frankfort, KY 40601

RE: Request for Waste Load Allocation Grant County Sanitary Sewer District KPDES No. KY0091634 450,000 Gallon per Day WWTP HMB Project No. 4223.01

Dear Sir or Madam,

On behalf of the Grant County Sanitary Sewer District, we would like to request a Waste Load Allocation from your office for the existing GCSSD Wastewater Treatment Plant. The current design capacity is 300,000 Gallons per Day. The District is proposing a WWTP upgrade which will increase the design capacity to 450,000 Gallons per Day. The current discharge point along the Upper Tributary to Ten Mile Creek will remain in the same location.

The existing discharge point is located at approximately 38° 45' 15.8394" N latitude by 84° 37' 22.8" W longitude. The site can be seen on the attached USGS Walton topographic quadrangle map. The proposed improvements would increase treatment capacity and peak flow for domestic, commercial, and industrial waste flows from the population of Crittenden. The proposed improvements for the treatment capacity increase will be based on Ten States Standards recommendations for domestic wastewater flows.

If there are any questions, or if any additional information is needed concerning this request, please contact this office (502) 695-9800. Sincerely,

HMB Professional Engineers, Inc.

P. Benton Hanson, PE Senior Project Engineer

Cc:

Brandon Baxter, PE – HMB Professional Engineers, Inc. Nick Pilcher, EIT – HMB Professional Engineers, Inc.

Highway Engineering

Structural Engineering

Water & Wastewater

Site Development

Right-of-Way

Master Planning

Environmental Planning

Surveying

Project Management

Cost Estimation

Construction Inspection

Aviation Services

Environmental Remediation

Landscape Architecture



ANDY BESHEAR GOVERNOR

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

REBECCA W GOODMAN SECRETARY

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD FRANKFORT, KENTUCKY 40601

March 29, 2022

P. Benton Hanson, PE Senior Project Engineer HMB Professional Engineers, INC 3 HMB Circle US 460 Frankfort, KY 40601

Re: Wasteload Allocation Rerate Request

KPDES No.: KY0091634

AI NO: 1480

Grant Co Sanitary Sewer District

Grant County, Kentucky

Dear Randy Shelley:

This is in response to your recent letter requesting rerated limits for the preliminary limits of the above mentioned facility, located on an Unnamed Tributary of Ten Mile Creek (38.7544° N, 84.623° W) with a design capacity increase from 0.30 MGD to 0.45 MGD. This rerate request is meant to allow for further growth in the city of Crittenden.

Considering the above-mentioned information, applicable effluent limitations are provided below.

Design Capacity = 0.45 MGD / UT to Ten Mile Creek

Parameter	May 1 – October 31	November 1 - April 30
CBODs (Effluent)	20.0 mg/l	20.0 mg/l
CBOD ₅ (Influent)	Report	Report
Total Suspended Solids (Effluent)	30 mg/l	30 mg/l
Total Suspended Solids (Influent)	Report	Report
Ammonia Nitrogen	4.0 mg/l	10.0 mg/l
Dissolved Oxygen	7.0 mg/l	7.0 mg/l
Total Residual Chlorine ²	0.011 mg/l	0.011 mg/l
Total Phosphorus ¹ (Effluent)	Report	Report
Total Phosphorus ¹ (Influent)	Report	Report
Total Nitrogen (Effluent)	Report	Report
Total Nitrogen (Influent)	Report	Report

¹Total Phosphorus will be expressed as an annual average mass effluent limitation on the KPDES permit.

²Only if Chlorine is used for disinfection.

Reliability Classification = Grade C

In addition to the above limits, the monthly average and maximum weekly average values of Escherichia coli shall be at or below 130 colonies per 100 milliliters or 240 colonies per 100 milliliters, respectively, the year around. If a form of chlorine is proposed to disinfect the wastewater, then de-chlorination will likely be needed to achieve the chlorine



In addition to the above limits, the monthly average and maximum weekly average values of Escherichia coli shall be at or below 130 colonies per 100 milliliters or 240 colonies per 100 milliliters, respectively, the year around. If a form of chlorine is proposed to disinfect the wastewater, then de-chlorination will likely be needed to achieve the chlorine residual effluent concentration. Additional effluent limitations and water quality standards are contained in 401 KAR Chapter 5 and 401 KAR Chapter 10.

These preliminary design effluent limitations are valid for one (1) year from the date of this letter, and are subject to change as a result of additional information which may be presented during the public notice phase of the Kentucky Pollutant Discharge Elimination System (KPDES) permitting process. As such, this letter does not convey any authorization or approval to proceed with the construction or operation of the proposed WWTP. Construction and KPDES permit applications must be submitted to request such authorization or approval. Nor does this letter ensure issuance of either permit. During the review processes of these permits the Division of Water will further evaluate the viability of the project.

Should you have any questions regarding this letter, please contact me at (502) 782-6946 or E-mail at Matthew.Fields@ky.gov.

Sincerely,

3/30/2022

Matthew Fields
WLA Coordinator

Signed by: Matthew Fields

thew Fields



ANDY BESHEAR GOVERNOR

ENERGY AND ENVIRONMENT CABINET DEPARTMENT FOR ENVIRONMENTAL PROTECTION

REBECCA W GOODMAN

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD FRANKFORT, KENTUCKY 40601



3 HMB Circle US 460 Frankfort, KY 40601 Office: (502) 695-9800 Fax: (502) 695-9810 March 23, 2022

Mr. Matt Fields Division of Water 300 Sower Boulevard, 3rd Floor Frankfort, KY 40601

RE: Request for Waste Load Allocation Grant County Sanitary Sewer District KPDES No. KY0091634 450,000 Gallon per Day WWTP HMB Project No. 4223.01

Dear Sir or Madam,

On behalf of the Grant County Sanitary Sewer District, we would like to request a Waste Load Allocation from your office for the existing GCSSD Wastewater Treatment Plant. The current design capacity is 300,000 Gallons per Day. The District is proposing a WWTP upgrade which will increase the design capacity to 450,000 Gallons per Day. The current discharge point along the Upper Tributary to Ten Mile Creek will remain in the same location.

The existing discharge point is located at approximately 38° 45' 15.8394" N latitude by 84° 37' 22.8" W longitude. The site can be seen on the attached USGS Walton topographic quadrangle map. The proposed improvements would increase treatment capacity and peak flow for domestic, commercial, and industrial waste flows from the population of Crittenden. The proposed improvements for the treatment capacity increase will be based on Ten States Standards recommendations for domestic wastewater flows.

Highway Engineering

Structural Engineering

Water & Wastewater

Site Development

Right-of-Way

Master Planning

Environmental Planning

Surveying

Project Management

Cost Estimation

Construction Inspection

Aviation Services

Environmental Remediation

If there are any questions, or if any additional information is needed concerning this request, please contact this office (502) 695-9800.

Sincerely.

HMB Professional Engineers, Inc.

P. Benton Hanson, PE Senior Project Engineer

Cc: Brandon Baxter, PE – HMB Professional Engineers, Inc. Nick Pilcher, EIT – HMB Professional Engineers, Inc.