Exhibit A

COMMONWEALTH OF KENTUCKY
ENERGY AND ENVIRONMENT CABINET
DIVISION OF ENFORCEMENT
CASE NO. DOW 24-3-0002

IN RE: Bluegrass Water Utility Operating Company, LLC
Yung Farm Estates HOA
5600 Cutters Trace
Melbourne, KY 41059
AI No. 675
Activity ID No. ERF20240001

AGREED ORDER

* * * * * * * * * * * *

WHEREAS, the parties to this Agreed Order, the Energy and Environment Cabinet (hereinafter "Cabinet") and Bluegrass Water Utility Operating Company, LLC (hereinafter "BWUOC") state:

STATEMENTS OF FACT

1. The Cabinet is charged with the statutory duty of enforcing KRS Chapter 224 and the regulations promulgated pursuant thereto.

2. BWUOC is an active Kentucky Limited Liability Company in good standing that owns and operates utilities and whose principal address, according to the Kentucky Secretary of State is 1650 Des Peres Road, Suite 303, St. Louis, Missouri 63131.

3. The Yung Farm Estates Home Owners Association (HOA) Wastewater Treatment Plant (hereinafter "Yung Farm Estates HOA WWTP" or "facility"), is located at Eight Mile Road, Melbourne, Kentucky 41059. The facility has a design capacity of 0.0025 million gallons per day and discharges to an unnamed tributary of Fourmile Creek.

4. The facility is currently owned and operated by the Yung Farm Estates HOA. The facility's discharges are permitted under Kentucky Pollutant Discharge Elimination Systems

(hereinafter "KPDES") permit number KY0092843, issued by the Cabinet's Division of Water (hereinafter "DOW").

5. BWUOC has indicated to the Cabinet that it will acquire the facility, provided it receives from the Kentucky Public Service Commission ("Commission") all approvals required to make the acquisition. Upon approval from the Commission, BWUOC plans to assume ownership and operation of the facility on or around January 2024.

6. BWUOC has contracted with a third-party firm to produce an engineering memorandum detailing the status of and repairs needed at the facility (Exhibit A).

7. Upon Commission approval, BWUOC has indicated to the Cabinet that it plans to make substantial repairs and/or upgrades to the facility to address the deficiencies noted in Exhibit A.

NOW THEREFORE, in the interest of providing corrective actions to the facility, the parties hereby consent to the entry of this Agreed Order and agree as follows:

REMEDIAL MEASURES

8. BWUOC shall notify the Cabinet in writing that it has assumed ownership and operation within fifteen (15) days of acquiring the facility.

9. Within fifteen (15) days of assuming ownership and operation of the facility, BWUOC shall submit a "Change in Ownership Certification" to the Cabinet.

10. At all times, commencing with assuming ownership of the facility, BWUOC shall provide for proper operation and maintenance of the facility in accordance with 401 KAR 5:065 Section 2(1).

11. Following the initial ninety (90) days of its operation of the facility, BWUOC shall submit to the Cabinet for review and acceptance, a written Corrective Action Plan (hereinafter

"CAP") to bring the facility into compliance with its KPDES permit and correct the deficiencies noted in Exhibit A. The CAP shall include, but not be limited to, an identification of actions BWUOC shall implement to ensure compliance that includes; proper operation and maintenance to its sewage treatment system, collection system, and disinfection unit. The CAP shall also include a list of all actions necessary to ensure the completion of upgrades to its facility including a list of completion dates for each action. Include in the CAP a final compliance date for completion of all remedial measures listed;

A. Upon review of the CAP, the Cabinet may, in whole or in part, (1) accept or (2) decline and provide comments to the BWUOC identifying the deficiencies. Upon receipt of Cabinet comments, the BWUOC shall have ninety (90) days to revise and resubmit the CAP for review and acceptance. Upon resubmittal, the Cabinet may, in whole or in part, (1) accept or (2) disapprove and provide comments to the BWUOC identifying the deficiencies. Upon such resubmittal, if the CAP is disapproved, the Cabinet may deem the BWUOC to be out of compliance with this Agreed Order for failure to timely submit the CAP. The parties to this Agreed Order may also agree in writing to further extend the period in which the BWUOC and the Cabinet accept a revised and resubmitted CAP.

B. The BWUOC may request an amendment of the accepted CAP by writing the Assistant Director of the Division of Enforcement at 300 Sower Blvd., Frankfort, Kentucky 40601 and stating the reasons for the request. If granted, the amended CAP shall not affect any provision of this Agreed Order unless expressly provided in the amended CAP. This does not require an amendment

request pursuant to paragraph 19 of this Agreed Order.

C. Upon Cabinet acceptance of all or any part of the CAP, the amended CAP or any accepted part thereof (provided that the accepted part is not dependent upon implementation of any part not yet accepted), shall be deemed incorporated into this Agreed Order as an enforceable requirement of this Agreed Order. This does not require an amendment request pursuant to paragraph 19 of this Agreed Order.

12. So long as BWUOC is in compliance with the terms and conditions of this Agreed Order, the Cabinet's Division of Enforcement agrees to hold any formal enforcement action for numeric permit parameter violations for the KPDES permit described in paragraph 4, in abeyance. However, in the event that such numeric permit parameter violation results in immediate and irreparable harm to human health or the environment, the Cabinet may issue an Abate and Alleviate Order or seek a temporary injunction from a court. Should BWUOC fail to comply with the terms and conditions of this Agreed Order or if conditions warrant immediate relief as specified above, the Cabinet may seek formal enforcement action that would have otherwise been held in abeyance.

13. By the final compliance date in the accepted CAP, BWUOC shall be in full compliance with its KPDES permit.

14. All submittals required by the terms of this Agreed Order shall be submitted to: Division of Enforcement, Attention: Assistant Director, 300 Sower Blvd., Frankfort, Kentucky, 40601.

MISCELLANEOUS PROVISIONS

15. This Agreed Order shall be of no force and effect unless BWUOC assumes ownership and operations of the facility.

16. This Agreed Order addresses only the items described above. Other than the matters agreed to by entry of this Agreed Order, nothing contained herein shall be construed to waive or to limit any remedy or cause of action by the Cabinet based on statutes or regulations under its jurisdiction and BWUOC reserves its defenses thereto. The Cabinet expressly reserves its right at any time to issue administrative orders and to take any other action it deems necessary that is not inconsistent with this Agreed Order, including the right to order all necessary remedial measures, assess penalties for violations, or recover all response costs incurred, and BWUOC reserves its defenses thereto.

17. This Agreed Order shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit to BWUOC. BWUOC reserves its defenses thereto, except that BWUOC shall not use this Agreed Order as a defense.

18. BWUOC waives its right to any hearing on the matters admitted herein. However, failure by BWUOC to comply strictly with any or all of the terms of this Agreed Order shall be grounds for the Cabinet to seek enforcement of this Agreed Order in Franklin Circuit Court and to pursue any other appropriate administrative or judicial action under KRS Chapter 224 and the regulations promulgated pursuant thereto.

19. The Agreed Order may not be amended except by a written order of the Cabinet's Secretary or her designee. BWUOC may request an amendment by writing the Assistant Director of the Division of Enforcement at 300 Sower Blvd., Frankfort, Kentucky 40601, and stating the reasons for the request. If granted, the amended Agreed Order shall not affect any provision of this Agreed Order unless expressly provided in the amended Agreed Order.

20. The Cabinet does not, by its consent to the entry of this Agreed Order, warrant or

aver in any manner that BWUOC's complete compliance with this Agreed Order will result in compliance with the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Notwithstanding the Cabinet's review and approval of any plans formulated pursuant to this Agreed Order, BWUOC shall remain solely responsible for compliance with the terms of KRS Chapter 224 and the regulations promulgated thereto, this Agreed Order, and any permit and compliance schedule requirements.

21. BWUOC shall give notice of this Agreed Order to any purchaser, lessee or successor in interest prior to the transfer of ownership and/or operation of any part of the facility occurring prior to termination of this Agreed Order, shall notify the Cabinet that such notice has been given, and shall follow all statutory requirements for a transfer.

22. This Agreed Order applies specifically and exclusively to the unique facilities referenced herein and is inapplicable to any other facility.

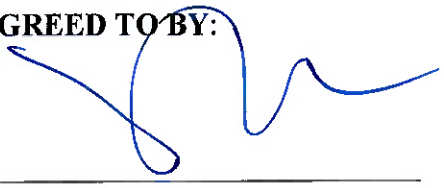
23. Compliance with this Agreed Order is not conditional on the receipt of any federal, state, or local funds.

24. This Agreed Order shall be of no force and effect unless and until it is entered by the Secretary or his designee as evidenced by his signature thereon. If this Agreed Order contains any date by which BWUOC is to take any action or cease any activity, and the Secretary enters the Agreed Order after that date, then BWUOC is nonetheless obligated to have taken the action or ceased the activity by the date contained in this Agreed Order.

TERMINATION

25. This Agreed Order shall terminate upon BWUOC's completion of all requirements described in this Agreed Order. BWUOC may submit written notice to the Cabinet when it believes all requirements have been performed. The Cabinet shall notify BWUOC in writing whether it concurs that all requirements of this Agreed Order have been completed. The Cabinet reserves its right to enforce this Agreed Order, and BWUOC reserves its right to file a petition for hearing pursuant to KRS 224.10-420(2) contesting the Cabinet's determination.

AGREED TO BY:



2-9-24

Josiah Cox, President
Bluegrass Water Utility Operating Company, LLC

Date

APPROVAL RECOMMENDED BY:

Philip E. Kejzlar

Philip Kejzlar, Assistant Director
Division of Enforcement

2/13/24
Date

Sarah E. Noble for jn

Joseph A. Newberg, General Counsel
Office of Legal Services

02.13.24
Date

ORDER

Wherefore, the foregoing Agreed Order is entered as the final Order of the Energy and Environment Cabinet this 14th day of February, 2024.

ENERGY AND ENVIRONMENT CABINET

John S. Lyons

John S. Lyons, Deputy Secretary
Authorized Designee, Rebecca W. Goodman, Secretary
Energy & Environment Cabinet

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing **AGREED ORDER** was mailed, postage prepaid, to the following this 14th day of February, 2024.

Bluegrass Water Utility Operating Company, LLC
1650 Des Peres Road, Suite 303
St. Louis, MO 63131

And ~~mailed, messenger to~~: Electronically mailed to:

Philip Kejzlar, Assistant Director
Division of Enforcement
300 Sower Blvd.
Frankfort, Kentucky 40601

Joseph A. Newberg, General Counsel
Office of General Counsel
Energy and Environment Cabinet
300 Sower Blvd.
Frankfort, Kentucky 40601

Dana Lowe
DOCKET COORDINATOR

Distribution:
DOW

Exhibit A

Yung Farm Estates WWTP KY0092843
Kentucky
Engineering Memorandum
Date: March 11, 2021

Introduction

The Yung Farm Estates wastewater treatment facility is located in Camp Springs, Kentucky approximately 10 miles southeast of Cincinnati. This facility services 21 single family residences and operates under NPDES Permit number KY0092843 and Agency Identification Number 675.

Existing Flows and Loadings and Projections

There is no data on wastewater flow available, however, the existing facility has a design capacity of 8,400 gpd according to the NPDES permit. The subdivision serviced by the plant is fully built out. There is no flow data available for the system, but based on the total number of residential connections, the average daily flow for the Yung Farm Estates wastewater facility is estimated to be approximately 6,000-8,000 gpd on average. We believe the extended aeration package plant has excess capacity to handle existing flows and is oversized.

Permit Limitations and Historical Compliance Performance

A summary of the permitted effluent limits is described below:

- CBOD5 – 25/37.5 mg/L (Monthly Average/Daily Maximum)
- TSS – 30/45 mg/L
- NH_3-N – 4/6 mg/L (May 1 – Oct 31)
- NH_3-N – 10/15 mg/L (Nov 1 – Apr 30)
- E. Coli – 130/240 #/100 mL
- Dissolved Oxygen – 7 mg/L (Nov-Apr)
- Total Residual Chlorine – 0.011/0.019 mg/L

According to the Echo EPA Online Database, the facility has had no violations identified within the past twelve quarters.

Wastewater Treatment Facility Existing Conditions

The facility includes the following features:

- One 8" PVC gravity influent line entering the plant downstream from the manhole south of Lakewood Drive.
- 23,000 Gal. Aeration tank, 9.5-foot depth
- There is a single 3 HP 230 V, 45 URAIH Roots Rotary Positive Displacement Blower (second one is out of order) to provide oxygen. The blower is currently running via a timer mechanism located on the control panel. The timer settings are 30 minutes on and 30 minutes off during the day; 45 minutes on and 30 minutes off at night.
- 140 S.F. dual hopper clarifier with a weir trough, air lifts for RAS and scum return, 9.5-foot depth
- A 950 Gal. Chlorine Contact Tank with a dechlorination tablet feeder downstream
- The site is equipped with single phase power.
- There is currently no means of wasting or digesting sludge at the plant. According to the operator, sludge is wasted via a vac truck twice a year.

Functionality of the Existing System

The functionality of the existing plant is similar to other extended aeration activated sludge systems. Raw sewage is conveyed by gravity into the extended aeration basin for biological treatment. The plant is oversized for the expected daily flow values which can cause difficulty in terms of maintaining the treatment conditions necessary for the removal of constituents, such as MLSS concentration and Food to Microorganism Ratio. This can cause settleability issues that stem from bulking sludge, and the starvation of healthy floc forming bacteria.

Additionally, the lack of sludge wasting capabilities can amplify the issues caused by the aeration basin being oversized. With a dedicated digester, the operator will have the capability to adjust the solids concentration in the system, preventing the overpopulation that causes issues with settleability and biological treatment. With no digester, the operators will have a difficult time maintaining the proper balance of incoming constituents and microorganisms.

Following biological treatment in the aeration basin, wastewater flows by gravity into the dual hopper clarifier for solids removal. Although not as much of an issue as the aeration basin being oversized, the clarifier is also oversized relative to incoming flows. The retention time during even peak hourly flow conditions is excessively high, which can cause the sludge blanket below the supernatant layer to become anaerobic/anoxic. A major issue that arises from this is the existence of denitrification in the sludge, causing carbon dioxide gas to form and allowing solids to rise to the surface and float over the effluent weir into the tertiary treatment processes downstream. This causes increased BOD and TSS concentrations in the effluent and increases chlorine demand in the contact tank, inhibiting the removal of harmful infectious agents such as coliform bacteria.

- The plant was initially equipped with a bar screen below the invert of the influent line; however, it has since rotted away. The absence of a bar screen could cause issues involving rags or plastics clogging portions of the treatment process.
- Currently there is only one operating blower, and because there is no VFD, it is either on or off and its speed does not vary. Additionally, the current location of the blower enclosures on the

top of the tank does not give adequate space for maintenance. The walkways placed over the top of the tank are unsafe and forming rust, and their proximity to the surface of the wastewater could cause them to fail over time due to corrosion caused by hydrogen sulfide gas.

Initial Triage Improvements Proposed

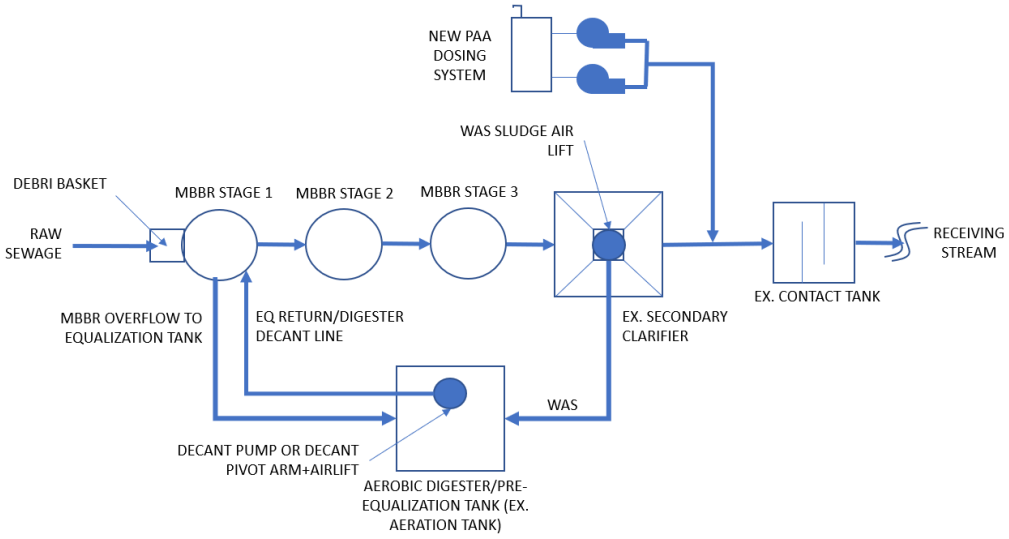
- Install an ultrasonic level transducer and V-Notch Weir for flow measurement in the chlorine contact tank, as well as a remote monitoring system to record flow data prior to system improvements.
- Install a new electrical distribution panel and a manual transfer switch to allow for the use of a portable generator for use in emergency situations.
- Gravel access road grading and construction is needed off 8 Mile Road.
- The top of the existing plant is approximately 2-3 feet above grade, and there is no means of safe access. A ships ladder should be added to the side of the tank, and new walkway will need to be installed at the top of the tank to allow for proper maintenance access.

Wastewater Treatment Facility Recommended Improvements

- Due to the aeration basin being oversized, we recommend the installation of a 3 stage MBBR for biological treatment and converting the existing aeration basin into a combination flow equalization/aerobic digestion tank. A decant pump should be installed in the converted tank for conveying equalized flow back into the MBBR and decanting the supernatant from the top layer of the tank. The first stage of the MBBR will include an overflow line to feed the EQ/Digester tank when the water level is high enough. The new MBBR will be routed to the existing clarifier.
- A new standby blower will be necessary to provide redundancy in the converted tank. Additionally, a new control panel with a VFD should be installed, allowing the blowers to be throttled downwards or upwards as necessary to increase energy efficiency. This will help to reduce operational costs over time.
- New blowers and control panels for the MBBR, as well as the existing blower and new standby blower/control panel for the converted tank, should be installed on a concrete pad on grade next to the plant.
- We recommend the addition of new density current baffles in the clarifier to inhibit the release of floating solids into the effluent.
- A 3/4” flex cap diffuser should be installed in the existing chlorine contact tank to allow the plant to consistently meet its dissolved oxygen minimum of 7.0 mg/L.
- A peroxyacetic acid (PAA) disinfection system should be used in lieu of the existing chlorine/dechlorination system.

The preliminary process flow diagram for the proposed process is illustrated below:

YUNG FARM ESTATES WWTP PROCESS FLOW DIAGRAM



Wastewater Collection System Understanding

The collection system consists solely of gravity sewer. The plant is fed via the manhole on Lakewood Drive just north of the package plant.

Wastewater Collection System Recommended Improvements

- GIS shapefiles should be developed for future maintenance. System mapping at the fingertips of the operators will enhance the level of service and timing of responses to emergency and customer issues.
- Install flow monitoring, perform smoke testing, perform video inspection at selected locations, evaluate systems and create GIS based maintenance priority list to help understand and reduce the effect of I and I on the system.

Total Project Cost Estimate

YUNG FARM ESTATES WWTF NARUC COST ESTIMATE SPREADSHEET

Item	NARUC Category	EXPENSES	FIXED ASSETS	TOTAL
Install New Manual Transfer Switch and Electrical Distribution Panel	Sewer - General Plant	$0	$36,000	$36,000
Install Mission Monitoring (Plant)	Sewer - General Plant	$0	$18,000	$18,000
Move Blowers and Install Them on Concrete Slab	Sewer - General Plant	$0	$12,000	$12,000
Access Road Grading and Construction	Sewer - General Plant	$0	$24,000	$24,000
Clear and Grub Site	Sewer - General Plant	$0	$12,000	$12,000
Fence Replacement	Sewer - General Plant	$0	$6,000	$6,000
MBBR Installation	Sewer - Treatment and Disposal	$0	$60,000	$60,000
Additional Process Piping	Sewer - Treatment and Disposal	$0	$24,000	$24,000
Install Debri Basket	Sewer - Treatment and Disposal	$0	$6,000	$6,000
Decant Pump or Decanting Pivot Arm with Airlift	Sewer - Treatment and Disposal	$0	$9,000	$9,000
New Blowers and Control Panels with VFDs	Sewer - Treatment and Disposal	$0	$48,000	$48,000
Clarifier Density Current Baffles	Sewer - Treatment and Disposal	$0	$6,000	$6,000
New PAA Disinfection System	Sewer - Treatment and Disposal	$0	$18,000	$18,000
TOTAL		**$0**	**$279,000**	**$279,000**

APPENDIX

Aeration Tank

Clarifier

RAS, Scum, and Air Header Lines

RAS and Influent Lines

Chlorine Disinfection

Access Road