

COMMONWEALTH OF KENTUCKY
ENERGY AND ENVIRONMENT CABINET
DIVISION OF ENFORCEMENT
CASE NO. DOW 21-3-0030

IN RE: Woodland Acres Utilities, LLC
Woodland Acres WWTP
57 Hemlock Drive
Shepherdsville, KY 40165
AI No. 479
Activity ID No. ERF20210001

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. Woodland Acres Wastewater Treatment Plant (hereinafter “Woodland Acres WWTP” or “facility”), is located at 57 Hemlock Drive, Shepherdsville, Kentucky 40165. The facility has a design capacity of 0.025 million gallons per day and discharges to an unnamed tributary to Mud Run.
4. Woodland Acres WWTP is currently owned and operated by Woodland Acres Utilities, LLC. The facility’s discharges are permitted under Kentucky Pollutant Discharge

Elimination Systems (hereinafter “KPDES”) permit number KY0091600, issued by the Cabinet’s Division of Water (hereinafter “DOW”). The facility’s KPDES permit expires on March 31, 2021.

5. Woodland Acres Utilities, LLC, is an inactive for-profit Kentucky corporation in bad standing, according to the Kentucky Secretary of State.

6. BWUOC has indicated to the Cabinet that it plans to acquire Woodland Acres WWTP, provided it receives from the Kentucky Public Service Commission (“Commission”) all approvals required to make the acquisition. If the Commission approves the acquisition, BWUOC plans to assume ownership and operation of Woodland Acres WWTP on or around March 1, 2021.

7. BWUOC has contracted with a third-party firm to produce an engineering memorandum detailing the status of and repairs needed at Woodland Acres WWTP (Exhibit A). This report was submitted to the Cabinet on or about January 26, 2021.

8. If it receives all required Commission approvals, 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 Woodland Acres WWTP, the parties hereby consent to the entry of this Agreed Order and agree as follows:

REMEDIAL MEASURES

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

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

11. 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).

12. Within thirty (30) days of execution of this Agreed Order, 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 BWUOC identifying the deficiencies. Upon receipt of Cabinet comments, 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 BWUOC identifying the deficiencies. Upon such resubmittal, if the CAP is disapproved, the Cabinet may deem 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 BWUOC and the Cabinet accept a revised and resubmitted CAP.
- B. BWUOC may request an amendment of the accepted CAP by writing the 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 20 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 20 of this Agreed Order.

13. 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. Should BWUOC fail to comply with the terms and conditions of this Agreed Order, the Cabinet may seek formal enforcement action that would have otherwise been held in abeyance.

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

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

MISCELLANEOUS PROVISIONS

16. This Agreed Order shall be of no force and effect unless BWUOC assumes ownership and operations of Woodland Acres WWTP.

17. 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.

18. 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.

19. 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.

20. The Agreed Order may not be amended except by a written order of the Cabinet's Secretary or a designee thereof. BWUOC may request an amendment by writing the 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.

21. 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.

22. 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.

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

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

25. This Agreed Order shall be of no force and effect unless and until it is entered by the Secretary or a designee thereof as evidenced by his or her 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

26. 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:


Josiah Cox (Aug 10, 2021 11:19 CDT)

Josiah Cox, President
Bluegrass Water Utility Operating Company, LLC

Aug 10, 2021
Date

APPROVAL RECOMMENDED BY:

Michael B. Kroeger, Director
Division of Enforcement

Date

Elizabeth U. Natter, Executive Director
Office of General Counsel

Date

ORDER

Wherefore, the foregoing Agreed Order is entered as the final Order of the Energy and Environment Cabinet this ____ day of _____, 2021.

ENERGY AND ENVIRONMENT CABINET

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 _____ day of _____, 2021.

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

And mailed, messenger to:

Michael B. Kroeger, Director
Division of Enforcement
300 Sower Blvd.
Frankfort, Kentucky 40601

Elizabeth U. Natter, Executive Director
Office of General Counsel
Energy and Environment Cabinet
300 Sower Blvd.
Frankfort, Kentucky 40601

DOCKET COORDINATOR

Exhibit A

Woodland Acres – Woodland Acres WWTP KY0096100
Kentucky
Engineering Memorandum
Date: September 11, 2020

Introduction

The Woodland Acres wastewater treatment facility is located in Shepherdsville, Kentucky approximately 17 miles south of Louisville, Kentucky. This facility services 121 parcels. The system operates under Kentucky DEP Permit number KY0096100 and Agency ID number 479.

Wastewater Treatment Facility Existing Conditions

The plant is authorized to discharge up to 25,000 gallons per day (gpd) by the KDEP per the operating permit.

A summary of the existing permit limits are described below:

- BOD5 – 10/15 mg/L (Monthly average/Maximum Weekly Average)
- TSS – 30/45 mg/L
- NH3-N – 4/6 mg/L in Summer
- NH3-N – 10/15 mg/L in Winter
- E-Coli – 130/240 mpn/100 ml
- Total Residual Chlorine – 0.011/0.019 mg/L
- Dissolved Oxygen – 7.0 mg/L minimum

The subdivision has 121 parcels and little additional buildout would seem possible. Based off of the number of possible connections and assuming 250 gpd of flow per customer, 30,000 gpd of average daily flow would be expected when the available lots are fully occupied.

A review was performed of EPA's Echo compliance website which lists violations of wastewater treatment plants across the country. The Woodland Acres wastewater treatment plant has exceeded permit limitations several times in recent months and years for E-Coli, BOD, and Ammonia.



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Potable Water
Wastewater Treatment



Civil Site Design
Construction Support
Transportation
Wastewater Collection

The existing facility includes an extended aeration package plant including a mechanically cleaned bar rack screen, a single aeration basin, equalization basin with two influent pumps (one portable), aerobic digestion, rapid sand filter, and a chlorine contact tank. Dechlorination is utilized downstream of disinfection.

The packaged plant has aged and shows significant signs of wear and corrosion. The blowers and diffusers are in need of replacement, and one of the two RAS lines has broken off into the aeration basin. The basin appears to have been modified over time with changes to original structural components. The basin does not include handrail needed to protect operators or visitors from falling into the package plant.

Functionally, the system also has some limitations:

- The entire community is challenged by high ground water levels. The site visit was conducted during a moderate storm event that resulted in significant stormwater challenges in the streets and wastewater flow challenges at the plant. During the visit the blowers had been turned off to inventory solids, and both influent pumps were continuously pumping at what appeared to be a rate higher than the plant was capable of processing. When the blowers were turned on briefly, the noise was significant and the discharge pressure was likely excessive.
- According to operators, the all gravity collection system results in significant I&I, impacting system performance.
- The blower discharge pressure may be excessively high..
- The operator believes it is necessary to turn off aeration during wet weather events to minimize the loss of solids and to retain a healthy biomass.
- The tertiary treatment basin (rapid sand filter, contact tank and dechlorination tank) is highly corroded.
- There is no ideal place for chlorine tablet addition or dechlorination tablet addition.
- There is no flow monitoring at this time.
- The facility includes significant amounts of exposed wiring.

The fencing around most of the site is generally in relatively good condition, and there is significance footprint available for the addition of improvements.

Currently no remote monitoring is in place at the site. This makes it difficult for the operators to know when the facility is failing. Operational monitoring should be completed to monitor the quality of effluent, which should then be compared to the operating permit.

Wastewater Treatment Facility Recommended Improvements

- The condition of the tank calls for taking the facility off line for structural repair, at a minimum to include the addition of access bridge improvements, safety handrail, welding repairs, and the addition of a new RAS line from one of the hopper bottomed clarifiers to the front end of the plant. Because of this, it makes sense to take advantage of the down time to upgrade the

system to an MBBR treatment system to simplify operations and improve performance during wet weather events. The conversion from extended aeration activated sludge to MBBR will include the addition of baffle walls, new diffusers, new blowers, media, and media retention sieves.

- The smaller footprint MBBR will allow a fraction of the existing tank to be used for digestion. The new system will generate significantly less sludge than the existing extended aeration system as well, so sludge handling needs will significantly decrease.
- The 10' foot deep clarifier is adequate for a fixed film type system, and will function much better in this application than with the existing activated sludge system.
- The effluent from the three stage MBBR will be evenly distributed into and through the clarifier, and the level control in the clarifier will be maintained with the addition of a weir trough and weir.
- A flow meter will be installed in the clarifier effluent piping, in route to the contact tank.
- Peroxyacetic acid will be introduced directly into the contact tank in lieu of attempting to install chlorination and dechlorination tablet feeders in the limited hydraulic profile. The PAA chemical requires less contact time, and will more consistently achieve the necessary disinfection objectives.
- Alum will be introduced into the clarifier to improve settleability when required to consistently achieve solids reduction and in turn, BOD effluent limit compliance.
- The existing chlorine contact tank will be equipped with diffusers to help in meeting the dissolved oxygen effluent limit.
- Three blowers will replace the existing two blowers. One will serve the aeration tank needs, air lift needs, and post-aeration needs; one will serve the digester needs; and one will serve as standby for both applications.

Wastewater Collection System Understanding

While no mapping was provided, the collection system consists of only gravity collection.

According to the operator, the collection system consists of 8" and 10" gravity sewers, and the high groundwater table results in significant peak flow events at the facility. Wastewater enters the wastewater treatment plant through a gravity sewer.

Wastewater Collection System Recommended Improvements

- The system should be evaluated to create mapping and develop GIS shapefiles 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.
- Perform smoke testing, perform video inspection at selected locations, evaluate systems and create GIS based maintenance priority list.

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Civil Site Design
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APPENDIX



Blowers, EQ Basin, and Electrical Cables



**Electrical Boxes and
Electrical Cabling**

1351 Jefferson St., Suite 301
Washington, MO 63090

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636-432-5029

Civil Engineering
Surveying & Mapping
Potable Water
Wastewater Treatment



Civil Site Design
Construction Support
Transportation
Wastewater Collection



**EQ Basin, Portable Pump Discharge,
Digester, Miscellaneous Electrical Cables**



**Clarifier Performance During Wet Weather
(and No Aeration in Aeration Tank)**

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Washington, MO 63090

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Civil Engineering
Surveying & Mapping
Potable Water
Wastewater Treatment



Civil Site Design
Construction Support
Transportation
Wastewater Collection



Chlor/Dechlor Structure



WWTP Electrical Meter

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Washington, MO 63090

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DOW 21-3-0030 - Woodland Acres AO

Final Audit Report

2021-08-10

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By:	Mandy Keubler (mkeubler@cswrgroup.com)
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