

**IN THE TENNESSEE PUBLIC UTILITY COMMISSION
AT NASHVILLE, TENNESSEE**

IN RE:)	
)	
PETITION OF CARTWRIGHT CREEK,)	
LLC TO EXTEND CAPITAL)	DOCKET NO. 19-00097
IMPROVEMENTS SURCHARGE.)	
)	
)	
)	

DIRECT TESTIMONY

OF

DAVID N. DITTEMORE

November 19, 2019

IN THE TENNESSEE PUBLIC UTILITY COMMISSION
AT NASHVILLE, TENNESSEE

IN RE:

PETITION OF CARTWRIGHT
CREEK, LLC TO EXTEND
CAPITAL IMPROVEMENTS
SURCHARGE

)
)
)
)
)
)

DOCKET NO. 19-00097

AFFIDAVIT

I, David N. Dittemore, on behalf of the Consumer Advocate Unit of the Attorney General's Office, hereby certify that the attached Direct Testimony represents my opinion in the above-referenced case and the opinion of the Consumer Advocate Unit.


DAVID N. DITTEMORE

Sworn to and subscribed before me
this 19th day of November, 2019.


NOTARY PUBLIC

My commission expires: March 22, 2023



Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION FOR THE RECORD.

A1. My name is David N. Dittmore. My business address is Office of the Tennessee Attorney General, War Memorial Building, 301 6th Ave. North, Nashville, TN 37243. I am a Financial Analyst employed by the Consumer Advocate Unit in the Financial Division of the Tennessee Attorney General's Office ("Consumer Advocate").

Q2. PLEASE PROVIDE A SUMMARY OF YOUR BACKGROUND AND PROFESSIONAL EXPERIENCE.

A2. I received a Bachelor of Science Degree in Business Administration from the University of Central Missouri in 1982. I am a Certified Public Accountant licensed in the state of Oklahoma (#7562). I was previously employed by the Kansas Corporation Commission ("KCC") in various capacities, including Managing Auditor, Chief Auditor and Director of the Utilities Division. For approximately four years, I was self-employed as a Utility Regulatory Consultant representing primarily the KCC Staff in regulatory issues. I also participated in proceedings in Georgia and Vermont, evaluating issues involving electricity and telecommunications regulatory matters. Additionally, I performed a consulting engagement for Kansas Gas Service ("KGS"), my subsequent employer during this time frame. For eleven years I served as Manager and subsequently Director of Regulatory Affairs for KGS, the largest natural gas utility in Kansas serving approximately 625,000 customers. KGS is a division of One Gas, a natural gas utility serving approximately two million customers in Kansas, Oklahoma and Texas. I joined the Tennessee Attorney General's Office in September 2017 as a Financial Analyst. Overall, I have thirty years' experience in the field of public utility regulation. I have presented testimony as an expert witness on many occasions. Attached as Exhibit DND-1 is a detailed overview of my background.

Q3. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION (TPUC)?

A3. Yes. I have submitted testimony in a number of TPUC dockets.

Q4. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A4. The purpose of my testimony is to provide the Consumer Advocate's recommendations regarding the request by Cartwright Creek, LLC (Company or Cartwright Creek) to extend, for an additional 36 months, its Capital Improvement Surcharge (Surcharge), which is in the amount of \$7.50 per month. Cartwright Creek, through its Petition, discovery responses, and testimony of Mr. Bruce Meyer, has summarized the Company's request. In the interest of brevity, I will not further summarize its request here, but I will instead focus on our reasoning for support of the extension of the Surcharge, and our concerns regarding the multitude of repair and replacement projects for Cartwright Creek's systems, the plan for financing these projects, and a transaction involving an equity conversion to debt.

Q5. DOES THE CONSUMER ADVOCATE SUPPORT THE EXTENSION OF THE SURCHARGE FOR AN ADDITIONAL 36 MONTHS?

A5. Yes, with significant qualification.

Q6. CAN YOU EXPLAIN THE CONSUMER ADVOCATE'S REASONING IN ITS SUPPORT OF AN EXTENSION OF TIME ON THE SURCHARGE?

A6. Yes, but I think it would be helpful for me to summarize Cartwright Creek's TPUC docket activity in 2019 since there are several dockets in various stages of the administrative process.

In TPUC Docket No. 19-00034, Cartwright Creek requested and received approval from the Commission to increase its tap fees from \$5,000 to \$10,000. In support of its petition, Cartwright Creek refers to a Notice of Violation (NOV) from the Tennessee Department of Environment and Conservation (TDEC) regarding the nitrogen exceedances from the Grassland Treatment System, and the requirement to submit a corrective action plan.¹ To address TDEC's NOV, Cartwright Creek identified a project to "comprehensively rehabilitate selected areas" of the system at an estimated cost of \$505,800.² Also, during

¹ *Petition for Cartwright Creek, LLC to Increase Tap Fees to Address Environmental Issues Raised by the Tennessee Department of Environment and Conservation*, Exhibit B, TPUC Docket No. 19-00034 (March 13, 2019).

² *Id.* at p. 2. In order to provide clarification on nomenclature in this docket, please note that Cartwright Creek first identified this project and terms it the *Collection System Infiltration Reduction Project* in its list of projects for repairs and upgrades, which was provided in its most recent rate case. *Exhibit of the Direct Testimony of Bruce Meyer*, TPUC Docket No. 16-00127 (November 11, 2016). This project was more fully defined in the report

1 discovery, the Consumer Advocate requested an update on the Company's table of projects
2 for repairs and system upgrades for three of the Company's systems which was first
3 provided to the Commission in TPUC Docket No. 16-00127.³ In its response, Cartwright
4 Creek's table shows it has spent approximately \$157,000 of an estimated \$448,000 on
5 various repairs and upgrades, which includes the cost of the report recommending the
6 Collection System Infiltration Reduction Project (CSIRP) of the Grasslands system.⁴
7 Unfortunately, Cartwright Creek has many projects it has yet to begin addressing or
8 completing and which amount to a total of almost \$3.8-4.8 million in projected costs.⁵

9 In TPUC Docket No. 19-00035, Cartwright Creek and Limestone Water Utility Operating
10 Company, LLC (Limestone) filed a *Joint Application of Cartwright Creek, LLC, and*
11 *Limestone Water Utility Operating Company, LLC, for Authority to Sell or Transfer Title*
12 *to the Assets, Property and Real Estate of a Public Utility and for a Certificate of Public*
13 *Convenience and Necessity* (Joint Petition).⁶ In this Joint Petition, Limestone and its parent
14 company, Central States Water Resources, state that they are willing and able to make the
15 needed investments to Cartwright Creek's systems.⁷ However, the Parties subsequently
16 withdrew this application.⁸

entitled *Cartwright Creek: Collection System Review* by Inflo Design Group (June 2018) (Inflo Report). In the Inflo Report itself, it referred to the project as the recommendation for a "comprehensive rehabilitation in the areas noted is Section 3". *Petition for Cartwright Creek, LLC to Increase Tap Fees to Address Environmental Issues Raised by the Tennessee Department of Environment and Conservation*, Exhibit A, TPUC Docket No. 19-00034 (March 13, 2019).

³ *Exhibit of the Direct Testimony of Bruce Meyer*, TPUC Docket No. 16-00127 (November 11, 2016). The projects can be grouped into three categories:

- i. Treatment system replacement of the Grasslands system estimated at a cost of approximately \$3-4 million (p. 6, Item 23);
- ii. CSIRP of the Grasslands system estimated at a cost of approximately \$500,000 (p. 6, Item 22); and
- iii. Various repairs and upgrades at all three systems estimated at a cost of approximately \$448,000 (pp. 1-5, Items 1-21).

At the time of TPUC Docket No. 16-00127, the Company's Hardeman Springs development was not in existence and, therefore, no projects are listed for it.

⁴ Response to the Consumer Advocate's Discovery Request No. 2-5, TPUC Docket No. 19-00034 (May 14, 2019).

⁵ The total includes \$3-4 million for the replacement of the Grasslands system plus the \$500,000 for the CSIRP of the Grasslands system and \$291,000 in various repairs and upgrades to three systems. *Id.*

⁶ *Joint Application of Cartwright Creek, LLC, and Limestone Water Utility Operating Company, LLC, for Authority to Sell or Transfer Title to the Assets, Property and Real Estate of a Public Utility and for a Certificate of Public Convenience and Necessity*, TPUC Docket No. 19-00061 (March 14, 2019).

⁷ *Id.* at p. 6.

⁸ *Withdrawal of Joint Application*, TPUC Docket No. 19-00035 (October 4, 2019).

1 In TPUC Docket No. 19-00042, Cartwright Creek is seeking to expand its existing
2 Troubadour⁹ development located in Williamson County, Tennessee to include two parcels
3 of property called the “Wilson Parcel” and the “Garrett Parcel”.¹⁰ According to the
4 Company, the Troubadour has been redesigned, resulting in a reduction of the total number
5 of homes. The result is that the total number of homes is 375, which includes the addition
6 of the Wilson and Garrett Parcels.¹¹ The Hearing Officer did not grant Cartwright Creek’s
7 request to waive certain minimum filing requirements, and in response, Cartwright Creek
8 filed a Petition for Declaratory Ruling.¹² The Commission has not acted upon the request
9 to expand the Troubadour development since it is being held in abeyance pending the
10 outcome of Petition for Declaratory Ruling.¹³

11 In TPUC Docket No. 19-00049, Cartwright Creek requested approval from the
12 Commission on the expenditure of funds for the CSIRP of the Grasslands system.
13 Although the Commission has not yet acted on the Company’s request, the Company
14 received bids on the project, identified the lowest bid, and engaged Inflo Design Group to
15 oversee the contractor.¹⁴ The lowest bid amount for the project is \$458,650.¹⁵ In his
16 testimony, Mr. Bruce Meyer states that the Surcharge’s current account balance was
17 \$189,028 and that the Escrow’s current account balance was \$148,083.¹⁶ These balances
18 are insufficient to cover the cost of the CSIRP.

19 In TPUC Docket No. 19-00061, Cartwright Creek filed a Petition for Declaratory Ruling
20 concerning the applicability of Tenn. Code Ann. § 65-4-201(a) regarding the expansion of
21 Cartwright Creek’s Troubadour development to include the Wilson and Garrett Parcels.¹⁷

⁹ The Troubadour development was previously called Stillwater and then Hideaway. *Supplemental Information in Support of the Petition and Request for Waiver of Some Filing Requirements*, p. 2, TPUC Docket No. 19-00042 (May 10, 2019).

¹⁰ *19-00042 Petition* at pg. 1.

¹¹ *Supplemental Information in Support of the Petition and Request for Waiver of Some Filing Requirements*, p. 2, TPUC Docket No. 19-00042 (May 10, 2019).

¹² *Order Holding Proceeding in Abeyance*, pp. 2-3, TPUC Docket No. 19-00042 (September 30, 2019).

¹³ *Id.* at 3.

¹⁴ *Cartwright Creek, LLC Lowest Bid and Contract*, TPUC Docket No. 19-00049 (August 13, 2019).

¹⁵ *Id.*

¹⁶ Bruce Meyer’s Direct Testimony, p. 3, A.8, TPUC Docket No. 19-00097 (October 21, 2019).

¹⁷ *Petition of Cartwright Creek, LLC for Declaratory Ruling*, TPUC Docket No. 19-00061 (July 22, 2019).

1 The Hearing Officer conducted a hearing on the Petition for Declaratory Ruling on October
2 14, 2019. The Hearing Officer has not yet issued her decision.

3 **Q7. NOW THAT YOU HAVE PROVIDED A SUMMARY OF CARTWRIGHT**
4 **CREEK'S TPUC DOCKET ACTIVITY IN 2019, CAN YOU EXPLAIN WHY THE**
5 **CONSUMER ADVOCATE IS SUPPORTING AN EXTENSION OF THE**
6 **SURCHARGE FOR AN ADDITIONAL 36 MONTHS?**

7 **A7.** Yes, I can. Cartwright Creek is currently the subject of a Director's Order and Assessment
8 by TDEC for violations of the terms and conditions of its State Operating Permit for the
9 Grasslands system.¹⁸ The Company states that it is currently in settlement negotiations
10 with TDEC, and the Parties have tentatively set a deadline for "substantial compliance" by
11 December 31, 2023.¹⁹

12 Although, Cartwright Creek is working with TDEC officials on a settlement agreement, a
13 recently issued NOV by TDEC highlights the dire condition of the Grasslands system.²⁰
14 In this NOV, TDEC described the Inflow and Infiltration (I/I) that has "plagued" the
15 Grassland system and is so severe that "small mammals and lacrosse balls from the
16 adjacent elementary school enter the plant from the influent stream."²¹ TDEC explains that
17 the I/I "must be resolved before necessary facility upgrades that would address reoccurring
18 effluent violations can be made. Additionally, the possibility of connecting to another
19 WWTP is not an option without first addressing the I/I."²²

20 Based on the language in the NOV, the first step in addressing the problems at the
21 Grasslands system is correcting the I/I. To this end, Cartwright Creek has identified a
22 project to address the majority of the I/I, identified as the CSIRP.²³ Further, Cartwright
23 Creek has requested approval from the Commission on the expenditure of funds for this

¹⁸ Tennessee Department of Environment and Conservation, Director's Order and Assessment, No. WPC18-0100 (April 29, 2019). A copy of the Director's Order and Assessment is identified as Exhibit AB-1 in Alex Bradley's Direct Testimony, TPUC Docket No. 19-00034 (May 15, 2019).

¹⁹ *Petition of Cartwright Creek, LLC to Extend Capital Improvements Surcharge*, p. 2, TPUC Docket No. 19-00097 (October 21, 2019).

²⁰ *Compliance Sampling Inspection and Notice of Violation*, NPDES Permit No. TN0027278 (July 17, 2019). A copy of this NOV is attached as Exhibit DND-1. This NOV is a separate TDEC action and issued at a later date than the NOV referenced in Docket No. 19-00034.

²¹ *Id.* at p. 3.

²² *Id.*

²³ See Summary of TPUC Docket No. 19-00034 at pp. 4-5 of this testimony.

1 project.²⁴ Although the Commission has not yet approved the expenditures of the fund, the
2 Company has received bids on the project, identified the lowest bid, and engaged Inflo
3 Design Group to oversee the contractor.

4 Although Cartwright Creek has asked approval for the expenditure of funds for the CSIRP,
5 the Surcharge account balance and the Escrow account balance are currently insufficient
6 to cover the cost of this project.²⁵ The Commission approved an increase in the tap fees
7 for Cartwright Creek from \$5,000 to \$10,000, but funds generated from tap fees are not
8 consistent due to the ebb and flow of construction. Currently, the Company has a defined
9 capital project that needs to be implemented as quickly as possible. While the
10 responsibility for obtaining the necessary funding for this project clearly rests with the
11 owners²⁶ of Cartwright Creek, the owners' inability or unwillingness to provide funding
12 for the system is causing a delay in resolving the issues described above. Due to the
13 urgency and significant environmental need, we believe continuation of the Surcharge
14 represents the best opportunity to implement the CSIRP project as quickly as possible.

15 **Q8. IS THE COLLECTION SYSTEM INFILTRATION REDUCTION PROJECT THE**
16 **ONLY PROJECT THAT CARTWRIGHT CREEK HAS IDENTIFIED FOR**
17 **REPAIRS AND UPGRADES?**

18 **A8.** No. Cartwright Creek has identified approximately \$291,000 of various repairs and
19 upgrades at three of its four systems.²⁷ Although the timing for implementing these various
20 projects is unclear, it is possible that some of these projects may also need to be addressed
21 during the time that the CSIRP is being implemented.

22 Additionally, Cartwright Creek has estimated the cost to replace the Grasslands system to
23 be approximately \$3-4 million. As stated in the recently issued NOV, the "treatment units

²⁴ See Summary of TPUC Docket No. 19-00049 at p. 6 of this testimony.

²⁵ See Summary of TPUC Docket No. 19-00049 at p. 6 of this testimony, and Bruce Meyer Direct Testimony, p. 3, TPUC Docket No. 19-00097 (October 21, 2019).

²⁶ These comments in no way reflect concerns about the field operations of the Company, directed by Mr. Myers. The CA has had very positive interactions with Mr. Myers. The concerns expressed above are limited to the actions of the owners of the Company.

²⁷ See Summary of TPUC Docket No. 19-00034 at pp. 4-5 of this testimony.

1 have surpassed their useful lifetime.”²⁸ The description by TDEC of the condition of the
2 system is extremely concerning. Some examples include:

- 3 • “An interior wall of the digester has collapsed due to corrosion and is no longer
4 in use.”²⁹
- 5 • “The metal aboveground treatment unit, associated piping and equipment are
6 severely corroded. Corrosion has progressed to the point that large flakes of
7 metal are falling off the surfaces. The structural integrity of the treatment unit
8 walls and equipment is questionable.”³⁰
- 9 • “There is no screening at the plant headworks. The primary clarifier does not
10 have a skimmer arm but does have a bottom rake. Grease balls, rising bubbles,
11 pin floc, floating trash and debris were observed in the clarifier. . . Since there
12 is no screening, Mr. Reed manually removes trash and debris with a strainer
13 and disposes of it in a dumpster that goes to the landfill.”³¹

14 The officials with TDEC did note that “while the condition of the clarifier is poor, the
15 effluent observed flowing over the weirs appeared to be clear and free of solids.”³² In fact,
16 TDEC officials commend the work by Mr. Reed in his “ability to operate the sewer
17 treatment plan in its current state of disrepair.”³³ The Consumer Advocate appreciates the
18 hard work of the personnel of Cartwright Creek to operate the system; however, it appears
19 that it is time for a plan to be put in place to address the replacement of the Grasslands
20 system.

21 **Q9. IN ITS PETITION, CARTWRIGHT CREEK STATES THAT IS GATHERING**
22 **COST ESTIMATES FOR REPLACEMENT OF THE GRASSLANDS**
23 **TREATMENT SYSTEM BY 2023. IS THIS THE TYPE OF PLAN YOU ARE**
24 **REFERRING TO IN YOUR ANSWER ABOVE?**

25 **A9.** No. While a cost estimate is an important part of a plan, an equally important part is how
26 such a project will be financed. As the Consumer Advocate previously stated, the

²⁸ Exhibit DND-1, p. 5.

²⁹ *Id.* at p. 2.

³⁰ *Id.*

³¹ *Id.* at pp. 2-3.

³² *Id.* at p. 3.

³³ *Id.* at p. 5.

1 Company has the responsibility to make necessary investments for repairs and
2 replacements of its systems.³⁴ However, Cartwright Creek states that “[n]either Sheaffer
3 or Cartwright Creek has access to the capital necessary to fund these plant upgrades and
4 replacements.”³⁵ It is unlikely that an increase in tap fees and an extension of the surcharge
5 will be sufficient to address the projects outlined by Cartwright Creek, especially the
6 projects for the Grasslands system in the timeframe of December 2023. Accordingly, the
7 Consumer Advocate approached Cartwright Creek with a request to open a separate docket
8 to address the long-term plan for the Grasslands system. Cartwright Creek agreed with the
9 Consumer Advocate, and in its Petition, the Company requested a new docket be opened
10 “for the purpose of discussion and monitoring the long-term plan to replace the Grasslands
11 treatment system and how it will be financed.”³⁶ I strongly urge the Commission to open
12 such a docket.

13 **Q10. IN ITS PETITION, CARTWRIGHT CREEK AGREED TO A “MONITORING**
14 **PROCESS” THAT INCLUDES PROVISIONS ADOPTED IN TPUC DOCKET NO.**
15 **16-00097. CAN YOU SUMMARIZE THE PURPOSE OF SUCH PROVISIONS**
16 **AND YOUR EXPERIENCE WITH THEM?**

17 **A10.** The Consumer Advocate agrees with the description provided by Cartwright Creek that the
18 “Overspending Protection” provision in TPUC Docket No. 16-00096 was a process by
19 which a utility can regularly update both the Commission and the Consumer Advocate on
20 the progress of the work on specific projects and the costs involved with the projects.³⁷
21 The provisions include a requirement for notice by the utility within three business days of
22 when it spends 80% of the total amount budgeted for a project and sets out the specific
23 details to be included in the notice. The Consumer Advocate found the regular reports
24 from the utility extremely helpful in understanding the progress of the projects at issue, and
25 the process allowed timely discussions of concerns or issues among the Parties. In light of
26 the cost and importance of the CSIRP at the Grasslands system, the Consumer Advocate

³⁴ Alex Bradley Direct Testimony, p. 3, lines 12-14, TPUC Docket No. 19-0004 (May 15, 2019).

³⁵ Bruce Meyer Direct Testimony, p. 3, A7, TPUC Docket No. 19-00097 (October 21, 2019).

³⁶ *Petition of Cartwright Creek, LLC to Extend Capital Improvements Surcharge*, p. 2, TPUC Docket No. 19-00097 (October 21, 2019).

³⁷ See also, *Stipulation and Settlement Agreement, In RE: Petition of Tennessee Wastewater Systems, Inc. for Approval of Capital Improvement Surcharges and Financing Arrangements*, p. 10, ¶20, TPUC Docket No. 16-00096 (July 25, 2017).

believes that the implementation of an Overspending Protection process, tailored to Cartwright Creek, would also be helpful for both the Commission and Consumer Advocate to monitor the progress on the project and the costs associated with it.

Q11. IN ITS REVIEW OF DOCUMENTS FOR THIS DOCKET, DOES THE CONSUMER ADVOCATE HAVE ANY OTHER CONCERNS?

A11. Yes. In reviewing the Company's 2018 Annual Report, the Consumer Advocate determined that there had been a material change in the balance of the Companies balance of Total Capital. Specifically, the balance had declined \$564,687 during 2017, with a corresponding increase in 'Other Liabilities'. The Consumer Advocate attempted to determine the substance behind such a large change in these Balance Sheet accounts. The Company responded that an adjusting entry was made on its books to convert substantially all of the owner's equity to debt in order to place Cartwright Creek's minority and primary owners on an equal footing for the disposition of any proceeds from the expected sale. Clearly, there are many unanswered questions that remain concerning this material change in account balances.³⁸

Q12. IS THE AMOUNT OF THIS ADJUSTMENT MATERIAL TO THE COMPANY?

A12. Yes. This adjustment modified the balances of Total Capital in 2017 from (\$507,145) to (\$1,054,365). It is important to clarify that both balances reflect negative capital. The balance of Capital at the end of 2018 is (\$1,089,952), therefore this additional level of debt remains on the books.

Q13. WHAT IS THE SIGNIFICANCE OF THE NEGATIVE BALANCE OF CAPITAL?

A13. The Company's liabilities exceed its assets by the amount of negative capital, or in excess of \$1 million.

Q14. BESIDES THE LACK OF TRANSPARENCY CONCERNING THIS MATERIAL TRANSACTION DO YOU HAVE ANY OTHER COMMENTS REGARDING THE ADDITIONAL DEBT REFLECTED ON THE COMPANY'S BOOKS?

³⁸ This transaction may be an attempt to shield ratepayers from their share of any gain on the sale resulting from a prospective sale.

1 **A14.** Yes. The Company has referenced this transaction as one that increases the debt of the
2 Company. Further, the impact of this transaction has remained on the books of the
3 Company throughout 2018. This raises the question of whether the Company is in
4 compliance with Tenn. Code Ann. § 65-4-109 **“Issuance of stocks or other evidences of**
5 **indebtedness”** which states:

6 No public utility shall issue any stocks, stock certificates, bonds debentures,
7 or other evidences of indebtedness payable in more than one year from the
8 date thereof, until it shall have first obtained authority from the commission
9 for such proposed issue. It shall be the duty of the commission after hearing
10 to approve any such issue maturing more than one year from the data thereof
11 upon being satisfied that the prosed issue, sale and delivery is to be made in
12 accordance with law and the purpose of such be approved by the
13 commission.

14 While there are other questions, we have concerning this transaction, one legal question is
15 whether the referenced transaction triggered the statute referenced above.

16 **Q15. SHOULD THE SURCHARGE CONTINUE TO BE SUBJECT TO THE TERMS AND**
17 **CONDITIONS APPROVED BY THE COMMISSION IN DOCKET NO. 16-00127?**

18 **A15.** Yes. The Commission approved the Surcharge subject to the terms and conditions
19 set forth on pages 3-5 of the Joint Petition in Docket No. 16-00127.³⁹ The terms
20 and conditions are as follows:

- 21 a. The Surcharge shall automatically and without further action of the
22 [Commission] terminate immediately after the thirty-sixth (36th)
23 month of collection of the \$7.50 monthly charge per customer;
- 24 b. Notwithstanding the foregoing, the [Commission], in the exercise of
25 its discretion, may terminate the Surcharge upon the issuance of a
26 termination order;
- 27 c. The funds collected under the Surcharge, as well as all cash
28 contributions in aid of construction received by Cartwright during
29 the Surcharge's thirty-six (36) month collection period, shall be
30 deposited and held in a separate FDIC insured state authorized
31 interest-bearing bank account ("Capital Account") from which

³⁹ Order Approving Rate Increase, p. 6, TPUC Docket No. 16-00127 (January 10, 2017).

1 funds shall not be expended without Cartwright seeking and
2 obtaining from the [Commission] (in a specified amount and for a
3 specified purpose), prior to expenditure of such funds, an order by
4 the [Commission] specifically authorizing the expenditure of such
5 funds in a specified amount and for a specified purpose; provided,
6 however, that in exigent circumstances requiring expenditures of
7 funds from the Capital Account, Cartwright may expend funds from
8 such account after obtaining the required approval in accordance
9 with the exigent circumstances procedures described below. The
10 [Commission] order authorizing expenditure(s) of funds from the
11 Capital Account shall state the purpose(s) and amount(s) of such
12 expenditure(s), and may impose additional restrictions upon such
13 expenditure(s) in the discretion of the [Commission];

- 14 d. If, in the reasonable view of Cartwright, exigent circumstances exist
15 requiring the use of funds held in the Capital Account, Cartwright
16 shall, prior to the expenditure of such funds, seek approval of the
17 Chief of the [Commission]'s Utilities Division or his/her designee
18 by submitting a letter request to [TPUC] (in a specified amount and
19 for a specified purpose) with appropriate support and documentation
20 for the request, including without limitation an explanation of how
21 any amount requested was calculated;
- 22 e. Cartwright will clearly and conspicuously state on each bill sent to
23 its customer the Surcharge for capital improvements as a separate
24 line item; and
- 25 f. Cartwright shall file with [TPUC] on the 10th business day of the
26 month after the end of each calendar quarter a report on the balance
27 in the Capital Account, including copies of the bank statements for
28 such account for the prior three month period, and the expenditure(s)
29 of any amount(s) from such account. Upon request, Cartwright shall
30 provide additional information related to the Capital Account,
31 including documentation supporting deposits to and withdrawals
32 from such account.

34 In TPUC Docket No. 16-00127, the Commission stated that the Surcharge was “essential
35 in funding facility improvements and upgrades.”⁴⁰ Because of the condition of the
36 Grasslands system, the Consumer Advocate recommends that the Surcharge funds
37 collected during the extension of the Surcharge should only be used for the identified
38 system improvements at the Grassland System. Further, these funds should be recorded to
39 its own unique regulatory liability account.

⁴⁰ *Id.* at p. 5.

1 **Q16. DOES THIS CONCLUDE YOUR TESTIMONY?**

2 **A16.** Yes, although I reserve the right to supplement my testimony if new information becomes
3 available.



**STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources**

Nashville Environmental Field Office
711 R.S. Gass Blvd.

Nashville, Tennessee 37216

Phone 615-687-7000 Statewide 1-888-891-8332 Fax 615-687-7078

July 17, 2019

Mr. Bruce Meyer
6545 Cox Road
College Grove TN, 37046

7015 1660 0000 5465 0132
Certified Mail Tracking Number
Return Receipt Requested

RE: Compliance Sampling Inspection and Notice of Violation
Cartwright Creek – Grasslands STP
NPDES Permit No. TN0027278
Williamson County

Dear Mr. Myer,

From May 20 through May 23, a Compliance Sampling Inspection of Cartwright Creek – Grasslands STP was conducted. The purpose of this inspection was to determine compliance with the terms of NPDES permit TN0027278, with a particular emphasis on the facility's sampling self-monitoring program. The final sample result was received on June 27, 2019; this date marks the completion of the inspection. Discharges from the facility continue to be authorized through administrative extension of the expired permit. The permit became effective on November 1, 2010, and was scheduled to expire on October 22, 2010. The time period covered by this inspection is April 1, 2016, through April 30, 2019. The inspection was conducted by Division of Water Resources (the Division) staff, Ms. Virginia Lawrence and Ms. Lilia Sewell. During the inspection, you and Mr. Delmar Reed provided assistance. The Division is appreciative of everyone's time and courtesy demonstrated during the course of the inspection.

Record Review

A record review of the self-monitoring data submitted by the facility via NetDMR was conducted as part of the inspection. A summary of violations report was also pulled from the EPA's Integrated Compliance Information System (ICIS) which indicated that the following effluent violations were reported from April 2016 through March 2019:

- Four total suspended solids, April 2017, February 2018, March 2018

Cartwright Creek Grasslands STP LLC. NPDES # TN0027278 CSI

July 17, 2019

Page 2 of 10

- Nine suspended solids percent removal, December 2016, April 2017, December 2017, January 2018, February 2018, April 2018, January 2019
- Seventeen total nitrogen, May 2016, June 2016, July 2016, August 2016, September 2016, October 2016, May 2017, June 2017, August 2017, September 2017, October 2017, May 2018, June 2018, July 2018, August 2018, September 2018, October 2018,
- Three nitrogen ammonia, August 2017, September 2017
- Forty-Six carbonaceous biological oxygen demand, April 2016, May 2016, December 2016, July 2017, December 2017, January 2018, February 2018, March 2018, April 2018, May 2018, June 2018, July 2018, November 2018, December 2018, January 2019
- Fourteen carbonaceous oxygen demand percent removal, December 2016, May 2017, August 2017, December 2017, January 2018, February 2018, April 2018, May 2018, June 2018
- One overflow, March 2019

Record keeping, data reporting, and calculations, have improved since the previous inspection. No discrepancies were found in the transfer of data when comparing laboratory bench sheets to Cartwright Creek's monthly operation Reports on file with the Division. Additionally, no errors were observed in the calculation of weekly averages, as documented in previous inspections. A Standard Operating Procedure has been put in place at the Cartwright STP Laboratory establishing a QA/QC program that has reduced reporting, transcription, and calculation errors. At this time, reporting of effluent violations is occurring as outlined in the permit. However, effluent violations are a violation of the NPDES permit and the Water Quality Act of Tennessee. Please see section 1.0- Effluent Limitation and Monitoring Requirements.

Site Review

The treatment of domestic sewage at Cartwright Creek Grasslands STP consists of extended aeration activated sludge, tertiary filtration and treated effluent chlorination and dechlorination.

The influent stream enters a compartmentalized aboveground aeration treatment unit. The above ground aeration treatment unit contains an aeration basin, a clarifier, and one digester unit. An interior wall of the digester has collapsed due to corrosion and is no longer in use. Chlorine gas is used for disinfection and gas sulfur dioxide for de chlorination, prior to discharge in the Little Harpeth River.

The metal aboveground treatment unit, associated piping and equipment are severely corroded. Corrosion has progressed to the point that large flakes of metal are falling off the surfaces. The structural integrity of the treatment unit walls and equipment is questionable. This issue has been a continuing problem noted in previous inspections.

There is no screening at plant headworks. The primary clarifier does not have a skimmer arm but does have a bottom rake. Grease balls, rising bubbles, pin floc, floating trash, and debris were observed in the clarifier. Disturbance of the sludge blanket caused by the bottom rake likely released

Cartwright Creek Grasslands STP LLC. NPDES # TN0027278 CSI

July 17, 2019

Page 3 of 10

the observed bubbles since detention time in the clarifier is too short to facilitate denitrification. A pipe opening at the surface of the primary clarifier relocates some of the floating debris into the aeration basin, where it returns to the influent stream with the RAS (Return Activated Sludge). Since there is no screening, Mr. Reed manually removes trash and debris with a strainer and disposes of it in a dumpster that goes to the landfill.

The weirs around the clarifier had some buildup of algae. Mr. Reed indicated that he cleans them biweekly with a hose, not a brush. While the condition of the clarifier is poor, the effluent observed flowing over the weirs appeared to be clear and free of solids.

The influent coming into the plant was very dilute; the facility has a documented history of a collection system plagued with Inflow and Infiltration (I/I). The I/I is so severe that small mammals and lacrosse balls from the adjacent elementary school enter the plant in the influent stream.

During the inspection, surface injection of chlorine gas was observed; the odor was strong enough to create noticeable nasal and throat irritation. Mr. Reed indicated that he occasionally injects chlorine gas into the clarifier weir trough to increase disinfection detention time and to prevent algae from building up on the sides of the unit walls. Mr. Reed indicated that he utilizes surface injection of chlorine gas biweekly; he typically injects chlorine gas below the water's surface and has the ability to switch between modes. Exposure to chlorine gas through surface injection is a significant health risk. Additionally, regular exposure to chlorine gas will accelerate corrosion of the metal treatment unit. Surface injection of chlorine gas must be discontinued.

The storage of chlorine and sulfur dioxide, including storage of extra cylinders, both full and empty, are contained in the same room with a dividing wall in the southeast corner of the control building. The room is secure and equipped with a ventilation system and cylinders are properly secured with chains.

Outfall 001 was observed during the inspection. Effluent discharged from outfall 001 was clear and no observable impact on the receiving waters was noted. The information displayed on the signs posted at the outfall is current and visible from the receiving waters and the facility.

Collection System Review

Based on a discussion of the collection system, majority of the I/I is localized to Grasslands Middle School, Grasslands Shopping Center, and near the facility. A proposed plan to resolve approximate 50% of the I/I was developed in 2018. However, funding for the project was removed abruptly. As an L.L.C., Cartwright Creek is not eligible for a State revolving loan. However, the I/I must be resolved before necessary facility upgrades that would address reoccurring effluent violations can be made. Additionally, the possibility of connecting to another WWTP is not an option without first addressing the I/I. At this time, a private utility company has established their interest in purchasing the facility with the intent to rehab the collection system and to upgrade the sewer treatment plant. Please continue to keep the Division informed in regards to this potential purchase and transfer of ownership. Please refer to Section 2.2, CHANGES AFFECTING THE PERMIT, in your NPDES permit.

The facility's pump stations were reviewed. There is one pump station next to the facility and two pump stations located off Sneed Road. None of the stations have telemetry or audio alarms, only visual alarms. Inspection of the lift and pump stations do not occur daily but an effort has been made to increase visits to multiple times a week. Records for pump station visits were available for review and found to support the current inspection schedule. The Division's engineering design criteria requires an audiovisual alarm device at stations for external observation when telemetry is not used. Please review Chapter 2, Sewers and Wastewater Pumping Stations, Part 2.5.6, Alarm Systems, in The Division's Design Criteria for Sewage Works.

Pump station # 1 serves a subdivision on Gardenridge Drive. The perimeter fence and control panel were locked, the visual alarm is positioned on top of the wooden perimeter fence. Vegetation overgrowth was noted around the wet well. The lid to the wet well was very corroded, though the interior of the well was in good condition. Some grease was noted in the wet well.

Pump station #2 is located at the Old Natchez Country Club and receives flow from pump station #1. The wet well cover had been replaced, but the hinges are broken, making it difficult to reposition the cover without it falling in the wet well. The lining of pump station no. 2 was extremely corroded.

The manholes behind 1035 Boxwood Drive were reviewed during this inspection. An overflow occurred at these manholes in March 2019 due to a mechanical failure at the pump station near the plant. The overflow followed the contour of the walking trail in a wooded area behind the River Rest soccer field and entered Cartwright Creek. At the time of the inspection, debris and dried rags and empty bags of lime were observed. It appeared that a skid steer was used to remove debris from the trail, however, additional clean up needs to take place. Please rake and dispose of the remaining overflow debris and empty bags of lime.

Sampling and Laboratory Review

The lab was reviewed during the inspection. Standard Operating Procedures were available for the analyses conducted on site. Temperature ranges for incubators and ovens were within the appropriate range and standard solutions were in date. Overall, the lab was clean and well-organized. Lab bench sheets and daily records contained the appropriate information including the analysis method number, lab technician's initials, date, and time of analysis.

Discussion of composite sampling indicated that the influent sampler is programmed to collect time based samples and the effluent sampler is programmed to collect flow proportioned samples. Mr. Reed indicated that due to the variability in influent flow, he is unable to collect enough sample for his analyses when the influent sampler is programmed to collect flow proportioned samples. Please review flow proportioned programming in your Sentinel M96 Automatic Sampler user manual and review and Section 1.2.3, subpart (c.), Test Procedures in your NPDES Permit.

On May 22, 2019, composite samples were collected by the Division for TSS, CBOD 5-day, Total Phosphorus, Nitrogen Ammonia, Total Kjeldal Nitrogen, Nitrate and Nitrite, and Total Organic Nitrogen post treatment and prior to disinfection. Results for pH and dissolved oxygen were obtained using a Hydrolab MS5 Meter. The results for Total Residual Chlorine were obtained using a Hach pocket colorimeter. E.coli and Settleable Solids were collected as grab samples on May 23, 2019 and just downstream of disinfection. The samples were delivered to the Department of Health's State

Cartwright Creek Grasslands STP LLC. NPDES # TN0027278 CSI
 July 17, 2019
 Page 5 of 10

Laboratory on May 22, 2019. The grab sample for E.coli was delivered on May 23, 2019. Below are the results of the analysis:

Cartwright Creek – Grasslands STP (TN00027278) Sampling Results Parameters	Effluent Permit Limitations		Analytical Results			
			(State Lab)		(Cartwright Creek STP Lab)	
		units		units		units
<i>E.coli</i> (daily max.)	941/100	CFU/100mL	13/100	CFU/100mL	11/100mL	CFU/100mL
CBOD, 5-day (daily max.)	20	mg/L	<3.33	mg/L	2.00	mg/L
Total Suspended Solids (daily max.)	45	mg/L	1.81 J	mg/L	<2.5	mg/L
Settleable Solids (daily max.)	1.0	ml/l	<0.215	ml/l	N/A	ml/l
Nitrogen, Ammonia (daily max.)	4	mg/L	.999	mg/L	1.03	mg/L
Total Kjeldahl Nitrogen	report	mg/L	1.41	mg/L	N/A	mg/L
Nitrate and Nitrite	report	mg/L	2.13	mg/L	N/A	mg/L
Total Phosphorus	report	mg/L	.374	mg/L	N/A	mg/L
pH	6.0-9.0	standard unit	6.98	standard unit	7.24	mg/L
Dissolved oxygen (daily max.)	report	mg/L	8.06	mg/L	N/A	mg/L
Total Residual Chlorine	0.24	mg/L	0.02	mg/L	0.00	mg/l
Effluent Flow (May 2019 mo. Avg.)	report	MGD	N/A	MGD	0.273	MGD
Influent Flow (May 2019 mo. Avg)	report	MGD	N/A	MGD	0.311	MGD

All of the sampling results were well within the acceptable limits for the permit. A copy of the laboratory results is included in this letter.

Conclusion

Corrosion, I/I, lack of maintenance, and effluent violations, are ongoing issues at the treatment plant. The treatment units have surpassed their useful lifetime. Failure to provide proper operation and maintenance of the wastewater treatment plant, and exceeding effluent limits are violations of the permit and the TN Water Quality Control Act.

Facility personnel have made a concerted effort towards improving the storage conditions of Chlorine gas and Sulphur dioxide with limited space and have improved composite sampler maintenance. Other areas of improvement include laboratory procedures, record keeping, data calculation, routine flow meter calibrations, and conducting more frequent pump station visits. Mr. Reed's ability to operate the sewer treatment plant in its current state of disrepair is commendable.

Cartwright Creek Grasslands STP LLC. NPDES # TN0027278 CSI
July 17, 2019
Page 6 of 10

Action Items and Recommendations

Effluent limit exceedances are a violation of the NPDES permit and the Water Quality Act of Tennessee. Please review section 1.0 for Effluent Limitation and Monitoring Requirements in your NPDES permit.

Proper operation and maintenance of the facility must improve. There is no influent screening at plant headworks and the clarifier does not have a surface skimmer. Due to the severity of corrosion, some basin walkways are unsafe to access. Please review section 2.1.4 for Proper Operation and Maintenance in your NPDES permit.

Surface injection of chlorine gas must be discontinued.

Begin collecting flow proportioned influent composite samples. Please review flow proportioned programming in your Sentinel M96 Automatic Sampler user manual and review section 1.2.3, subpart (c.), Test Procedures in your NPDES Permit.

Please rake and dispose of the remaining overflow debris and empty bags of lime from the March 2019 overflow behind 1035 Boxwood Drive. This cleanup must occur within 30 days of receipt of this letter and photo documentation of the cleanup must be submitted with the corrective action plan.

Please provide a **written corrective action plan within 30 days** detailing what corrective actions have been taken or will be taken to address the aforementioned action items. The plan should also update the Division on the current status of the potential sale and transfer in ownership of Cartwright Creek Grasslands STP L.L.C. If you have questions or concerns about the inspection or this letter, you can contact Virginia Lawrence at (615) 687-7123, or via e-mail at Virginia.Lawrence@tn.gov.

Sincerely,



Michael P. Murphy
Program Coordinator
Division of Water Resources

Enclosure:

eCopy: efile

Jessica Murphy, Compliance and Enforcement unit manager,
Jessica.Murphy@tn.gov
Lilia Sewell, DWR - NEFO, Lilia.Sewell@tn.gov
Delmar Reed, Certified Wastewater Operator, dreed19612@gmail.com

Cartwright Creek Grasslands STP LLC. NPDES # TN0027278 CSI
 July 17, 2019
 Page 7 of 10

Lab-Sample Number: N1905211-01
 Project Name: TNPR0043
 Sample Description: Cartwright Creek Grasslands

External Id #:

Sampler Project Name: N/A

Project Site No.:

Station No.:

Date/Time Collected: 05/22/2019 10:20

Sampler's Name: Virginia Lawrence

County: Williamson - 94

Sample Matrix: Water

EFO: Nashville EFO

Sampling Agency: TDEC-DWR

Billing Code: EN00018034

Agency Invoiced: TDEC-DWR

Send Report To:

Priority Date: 06/16/2019

Date/Time Received: 05/22/2019

Received By: Heather Streckert

Date/Time Received: 05/22/2019

Received By: Heather Streckert

TEST: Ammonia				METHOD: 350.1			
PERFORMING LAB: Nashville Central Laboratory							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Ammonia	0.999	mg/L		0.0262	0.100	Michael Chen	5/28/2019

TEST: Residue, Suspended-ESC				METHOD: 2540-D			
PERFORMING LAB: ESC Lab Sciences							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Total Suspended Solids	1.81	mg/L	J	0.350	2.50	Michael Chen	5/29/2019

TEST: Total Phosphorus				METHOD: 365.1			
PERFORMING LAB: Nashville Central Laboratory							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Phosphorus	0.374	mg/L		0.00758	0.0500	Patrick Leathers	5/30/2019

TEST: Total Kjeldahl Nitrogen				METHOD: 351.2			
PERFORMING LAB: Nashville Central Laboratory							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Total Kjeldahl Nitrogen	1.41	mg/L		0.111	0.500	Patrick Leathers	5/31/2019

TEST: Nitrate and Nitrite				METHOD: 353.2			
PERFORMING LAB: Nashville Central Laboratory							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Inorganic nitrogen (nitrate and nitrite)	2.13	mg/L		0.0195	0.100	Michael Chen	5/28/2019

TEST: CBOD-ESC				METHOD: 5210-B			
PERFORMING LAB: ESC Lab Sciences							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
CBOD5	<3.33	mg/L	U	3.33	3.33	Michael Chen	5/24/2019

Cartwright Creek Grasslands STP LLC. NPDES # TN0027278 CSI
 July 17, 2019
 Page 8 of 10

TEST: Total Organic Nitrogen			METHOD: 351.2				
PERFORMING LAB: Nashville Central Laboratory							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Organic Nitrogen	0.411	mg/L	J	0.111	0.5	Patrick Leathers	

Lab Sample Number: N1905218-01 External Id #:
 Project Name: N/A
 Sample Description: Cartwright Creek GrasslandsSTP

Sampler Project Name: N/A
 Project Site No.:
 Station No.:
 Date/Time Collected: 05/23/2019 09:45
 Sampler's Name: Virginia Lawrence
 County: Williamson - 94
 Sample Matrix: Water
 EFO: Nashville EFO
 Sampling Agency: TDEC-DWR
 Billing Code: EN00018034 Agency Involved: TDEC-DWR
 Send Report To:
 Priority Date: 06/17/2019
 Date/time Received: 05/23/2019 Received By: Holly Jones

TEST: Coliforms by QT			METHOD: 9223-B		
PERFORMING LAB: Nashville Central Laboratory					
ANALYTE	RESULT	UNITS	Qual	ANALYZED BY	DATE
Escherichia coli	13	MPN/100mL		Marka Smith	5/23/2019

Date/time Received: 05/23/2019 Received By: Holly Jones

TEST: Residue, Settleable			METHOD: 2540-F				
PERFORMING LAB: Nashville Central Laboratory							
ANALYTE	RESULT	UNITS	Qual	MDL	MQL	ANALYZED BY	DATE
Settleable Solids	<0.215	mL/L	U	0.215	0.215	Patrick Leathers	5/23/2019

Qualifier	Description	QUALIFIERS	
MDL	Method Detection Limit		
MQL	Method Quantitation Limit		
J	Result is less than the MQL but greater than or equal to the MDL and the concentration is an approximate value.		
U	Result is less than the MDL		

[illegible]

[illegible]