BEFORE THE TENNESSEE REGULATORY AUTHORITY

IN RE:)	Filed Electronically 05/01/2015
CARTWRIGHT CREEK, LLC,)	P.O.O.F./P.O. N.O. 4.4.000.04.4
REQUEST TO UTILIZE ALTERNATIVE FINANCIAL SECURITY PURSUANT TO)	DOCKET NO. 14-00034
TENN. COMP. R. & REGS.)	
1220-4-1307(5))	
)	
CARTWRIGHT CREEK, LLC,)	
REQUEST TO UTILIZE ALTERNATIVE)	DOCKET NO. 15-00052
FINANCIAL SECURITY PURSUANT TO)	
TENN. COMP. R. & REGS.)	
1220-4-1307(5) (2015))	

PETITION FOR ALTERNATE FINANCIAL SECURITY

Pursuant to TRA Rule 1220-4-13-.07(5), Cartwright Creek, LLC ("Cartwright") petitions the Tennessee Regulatory Authority ("TRA" or "the Authority") to accept as alternate financial security an irrevocable letter of credit in an amount sufficient to pay the operating expenses of the utility for six weeks in the event that the Authority assumes control of the utility. Cartwright will work with the TRA's Compliance Division to determine the amount needed but initially estimates that it will be in the range of \$25,000 to \$30,000. See Exhibit 2 attached.

Furthermore, Cartwright will provide the Authority with detailed customer information that will allow the Authority to bill customers for service if the Authority assumes control. Revenue from the monthly bills should be sufficient to maintain the company's operations.

As directed by the Authority in its Order issued January 6, 2015, Cartwright also files with this Petition responses to the questions listed at pp. 8-10 of that Order. Cartwright will supplement those responses if requested and will respond to any additional, follow-up data requests related to the financial security issue. These answers provide the "detailed financial

information" which the Authority found was missing from the "Joint Petition for Alternate Security" previously submitted by Cartwright and the TRA's Compliance Division.

In addition to complying with the Authority's Order in Docket 14-00034, this filing is also intended to fulfill the utility's obligation to make another filing, due by May 1, 2015, requesting the Authority's approval of an alternative financial security arrangement.

As shown in the responses to the TRA's questions, Cartwright cannot reasonably obtain a letter of credit in an amount equal to the utility's annual revenue as required by TRA Rule 1220-4-13-.07. Therefore, the utility asks that the TRA approve as an alternative the posting of financial security sufficient to operate the utility for six weeks and the provision of billing information, as described above.

Respectfully submitted,

Henry Walker (B.P.R/No. 000272) Bradley Arant Boult Cummings, LLP

1600 Division Street, Suite 700

Nashville, TN 37203 Phone: 615-252-2363

Email: hwalker@babc.com



- If Cartwright Creek chooses to file another petition requesting an alternative financial security, the panel directed the Company to include the following information to assist in the Authority's evaluation of whether the proposed alternative security is in the public interest:
- 1) Information, including all supporting documentation, related to the actions taken by Cartwright Creek since July 1, 2011 to comply with TRA Rule 1220-4-13-.07 and the Authority's Order Denying Petition and Ordering Cartwright Creek, LLC to Provide Security filed in TRA Docket No. 11-00066 on October 5, 2011;

Arthur J. Gallagher provides Professional Liability and Pollution Liability insurance to Cartwright Creek through its office in Itasca, IL. Tom Kolschowsky, Corporate Counsel for Sheaffer Wastewater Solutions, LLC and Cartwright Creek, LLC in Illinois has a nine-year working relationship with Gallagher for insurance on a number of companies. Bonnie Kristoferson is our Customer Service Agent. Our Glen Ellyn, IL office provided Bonnie with all the Cartwright Creek information. The end result was a denial letter. See attached Exhibit "1".

I contacted Alan Scarboro, Business Relationship Manager of First Tennessee Bank's business division in Franklin, TN. First Tennessee is also a Grasslands customer of Cartwright Creek. He did not think the letter of credit would be feasible. He said to check with local insurance firms about the possibility of a bond. He mentioned Anderson-Benson Insurance and Risk Management in Nashville, TN as one possibility.

I contacted Reno Benson at Anderson-Benson. He immediately recommended that we contact our current insurer and our bank (both of which we already had done.) Mr. Benson stated that in order to get a written yes/no he would need a complete application, financials, etc and some time to process. He also said that there would be a high likelihood that the owner's personal guaranty would be required. Since that is not an option, we did not pursue it further.

- 2) Information, including all supporting documentation, related to Cartwright Creek's efforts since July 1, 2011 to obtain financial security in the amount of the Company's gross annual revenue, as well as the results of such efforts;
- Arthur J. Gallagher provides Professional Liability and Pollution Liability insurance to Cartwright Creek through its office in Itasca, IL. Tom Kolschowsky, Corporate Counsel for Sheaffer Wastewater Solutions, LLC and Cartwright Creek, LLC in Illinois has a nine-year working relationship with Gallagher for insurance on a number of companies. Bonnie Kristoferson is our Customer Service Agent. Our Glen Ellyn, IL office provided Bonnie with all the Cartwright Creek information. The end result was a denial letter. See attached Exhibit "1".

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3) Information, including all supporting documentation, related to Cartwright Creek's efforts since July 1, 2011 to obtain financial security in any amount, as well as the results of such efforts;

Arthur J. Gallagher provides Professional Liability and Pollution Liability insurance to Cartwright Creek through its office in Itasca, IL. Tom Kolschowsky, Corporate Counsel for Sheaffer Wastewater Solutions, LLC and Cartwright Creek, LLC in Illinois has a nine-year working relationship with Gallagher for insurance on a number of companies. Bonnie Kristoferson is our Customer Service Agent. Our Glen Ellyn, IL office provided Bonnie with all the Cartwright Creek information. The end result was a denial letter. See attached Exhibit "1".

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I contacted Reno Benson at Anderson-Benson. He immediately recommended that we contact our current insurer and our bank (both of which we already had done.) Mr. Benson stated that in order to get a written yes/no he would need a complete application, financials, etc and some time to process. He also said that there would be a high likelihood that the owner's personal guaranty would be required. Since that is not an option, we did not pursue it further.

4) If such proposed alternative financial security provides for an amount that is less than the Company's gross annual revenue reported in its 2013 Annual Report, information and analysis concerning whether the proposed amount is sufficient to cover the managerial, legal and operational costs of continuing wastewater utility services to Cartwright Creek's customers should the Authority need to assume control of the system and/or petition for the appointment of a receiver to assume control of the system;

Cartwright Creek is proposing an alternative financial security amount based upon the financial information provided in Exhibit "2". The first column of page 1 of the exhibit shows Cartwright Creek's expenses by vendor for the previous fiscal year, 2014. The second column on page 1 is the estimated monthly expenses for items essential to keep the facility running and to keep accounting for customer billing and collection functional. It includes operator time and expenses, accountant's time and expenses, utilities, and laboratory expenses.

5) If such proposed alternative security provides for an assignment of the Company's accounts receivable or the furnishing of customer account and billing records, information and analysis demonstrating how such assignment or records would reduce the amount of financial security otherwise required by the TRA's financial security rule;

The proposed alternative security would provide for assignment of all off the company's account information. There is an established system for billing and collection for sewer service, for monitoring customer accounts, and for payment of utility operating bills. These would be immediately available and usable by TRA and an operating receivership, if required. It would make funds for continued operation immediately available.

The company's accounting information and billing system is based upon the QuickBooks Online service. It can be accessed from any computer location by users with the proper security. The system contains not only customer accounts, but also records of expenses and vendor names and addresses. It is also used to print the monthly service bills to customers.

Most customers mail their monthly payments to a dedicated lock box at Pinnacle bank and checks are deposited daily into Cartwright Creek's bank account. Some customers have elected for monthly automatic withdrawals from checking (ACH). These are automatically withdrawn monthly by Pinnacle Bank into Cartwright Creek's account. Pinnacle updates deposit information daily. Cartwright Creek's accountant uses this information to regularly update customer accounts.

The Company also maintains corresponding customer lists that include the address, customer names, phone numbers, and billing amounts. If desired by TRA, Cartwright Creek could begin submitting the customer lists to TRA on an ongoing quarterly basis.

The above described existing systems would allow the TRA and a contract operator immediate access to manage the Cartwright Creek receivables and payments.

6) Information concerning the present financial condition of the Company, including, but not limited to, information and analysis of its current assets, current liabilities, and cash flows by month for the preceding twelve (12) months;

See attached Exhibit "3".

7) Information concerning the present condition and state of repair or disrepair of Cartwright Creek's system, including, but not limited to, information and analysis of maintenance and repairs made to the system during the preceding twelve (12) months, and a projection of maintenance, repairs and upgrades that need to be made to the system during the next three (3) years;

The current condition of the Grasslands wastewater treatment facility and the collection system is described in documents recently submitted to TDEC. Exhibit "4" contains a copy of Cartwright Creek's Nutrient Management Plan (NMP) submitted to TDEC in March 2014. The NMP also includes a Cartwright Creek Corrective Action Plan (CAP) submitted to TDEC in

February 2015. Both the NMP and CAP contain descriptions of the existing collection system and wastewater treatment systems current status, including flow and monitoring data.

As discussed in these documents, the treatment system is 40+ years old and the collection system is 20 to 40 years old. The wastewater treatment system effluent regularly meets the current permits discharge limits for all parameters in the current NPDES permit except for Total Nitrogen in the summer months. The collection system has significant infiltration.

Total Nitrogen and Total Phosphorus limits were added to Cartwright Creek's permit in the last renewal, issued by TDEC in 2010. The Cartwright Creek Grasslands facility will require substantial upgrades to comply with existing and proposed nutrient limits and replace and repair aging equipment.

Currently, repairs are made to equipment, such as pumps or controls, as they are identified and as funds permit. Since January 2014, the maintenance and repair items at the Grasslands system are:

- February April 2014, Bouchard, rebuilding both of the main pump station pumps, \$21,000.
- February September 2014, Southern Sales and Instruments Direct, installation of new influent and effluent flow monitors, plus rental of temporary meters \$18,000
- May 2014, Water and Waste Equipment, replacement of one pump at Old Natchez pump station, \$4,500
- January 2014, Contracting Services Inc., collection line repair at creek, \$2,300
- May 2014, Sanitec, jetting and TV inspection of collection line along Boxwood Drive, \$1,400
- May 2014, March 2015, Labtronix, maintenance and calibration of lab equipment \$1,000
- November 2014, March 2015, Bouchard, replacement of top and rewiring of one pump station at Old Natchez, \$8,000
- August 2014, Bouchard, replace backwash line at wastewater plant, \$1,300
- February 2015, Bouchard, repair air system piping at and around wastewater treatment plant, \$5,000
- May 2014, September 2014, Environmental Services, jetting and TV inspection of collection line section near creek, \$3,500
- January 2014, Wascon, replacement of emergency notification system on main pump station, \$3,000
- Plus smaller individual purchases of pipe, motors, paint, and other maintenance parts and supplies purchased and installed by Cartwright Creek staff. Estimated total of \$2,000

The above maintenance expenses total \$71,000.

The planned maintenance items are:

- For late 2015, replacement of the top and rewiring of the other Old Natchez pump station including general maintenance on fence and interior grounds, estimated cost \$10,000.

8) Information concerning the status of Cartwright Creek's compliance with permitting requirements administered by the Tennessee Department of Environment and Conservation ("TDEC"), including, but not limited to, all communications between the Company and TDEC during the preceding twelve (12) months;

The Cartwright Creek Grasslands wastewater treatment facility operates under an NPDES permit issued by TDEC (Permit No. TN0027278). TDEC issued a permit renewal in September 2010. Due to the length of the renewal process, the permit expiration date was November 2011. In July 2011, Cartwright Creek submitted a renewal application to TDEC. The NPDES permit renewals for three dischargers on the Harpeth River, Cartwright Creek, Berrys Chapel LLC and the City of Franklin are being processed simultaneously. A draft permit renewal for each facility was issued in April 2013. Permit holder and public comments were submitted and public hearings were held in 2013. It is Cartwright Creek's understanding that the draft permit and other retaliated information for all three facilities is being reviewed by US EPA. TDEC has not informed Cartwright Creek of the expected date for issuing the final permit renewal.

Cartwright Creek's wastewater treatment system had been in substantial compliance with the NPDES permits in effect prior to 2010. The 2010 reissuance contained new summer (May through October) limits for nutrients (Total Nitrogen and Total Phosphorus). As described in the attached Nutrient Management Plan, the current wastewater treatment facility cannot meet the Total Nitrogen standards without significant upgrades. Since the permit reissuance in late 2010, except for short periods of time that the plant may experience an upset due to weather or equipment issues, the wastewater treatment system has met the permit limits for discharge parameters except summer months Total Nitrogen.

During 2104, Cartwright Creek negotiated and signed two separate but related Settlement Agreements regarding the Grasslands wastewater treatment facility.

On April 23, 2014 TDEC issued a Commissioner's Order and Assessment to Cartwright Creek for possible violations of the Tennessee Water Quality Control Act. On August 21, 2014, Cartwright Creek and TDEC entered into a Settlement Agreement and Consent Order (Exhibit "5"). It required Cartwright Creek to prepare and submit revisions to monthly discharge monitoring reports and other plans to monitor and control the treatment and collection system. It also required payment of a \$4,684.35 and for Cartwright Creek to be in full compliance with its discharge permit by December 31, 2015.

On January 13, 2014, Southern Environmental Law Center (SELC), on behalf of the Harpeth River Watershed Association, filed three "60-Day Notice of Violation and Intent to File Citizen Suit under Section 505 of the Clean Water Act" against three dischargers on the Harpeth River that included the City of Franklin, Berrys Chapel, LLC, and Cartwright Creek, LLC. On

On November 4, 2014, Cartwright Creek entered into a Consent Decree with HWRA (Exhibit "6"). In the Consent Decree, Cartwright Creek agreed to participate in and help fund a Supplemental Environmental Project (SEP), led by the Tennessee Wildlife Resources Foundation, to further study the Harpeth River quality. Cartwright Creek agreed to annual

grants for the SEP that would total \$40,000 over four years. Cartwright Creek also agreed to participate in a Stakeholders Group to create a watershed restoration plan and design river studies that would further the protection of the Harpeth River. And Cartwright Creek was required to prepare and submit a Nutrient Management Plan to TDEC.

Cartwright Creek has completed the following items by the required dates in either the TDEC or HWRA agreements:

- Payment of the first SEP grant to TWRA on November 9, 2014
- Revisions to monthly Discharge Monitoring Reports (DMR) for 2011 through 2013 were submitted to TDEC at various points in 2014.
- Sewer Overflow Response Plan on December 18, 2014
- Corrective Action Plan on February 17, 2015
- Nutrient Management Plan on March 9, 2-15

To date, Cartwright Creek has not received TDECs approval of the SORP, CAP or NMP, and has not received a request to participate in the SEP or Stakeholders group.

9) Information concerning whether any liquid assets or collateral are accessible to the Company that could be used to meet the Authority's financial security requirements on a temporary or permanent basis, including the sources of such assets or collateral;

None.

10) Information concerning whether an escrow account or other reserve should be established, maintained, or monitored in order to assure the availability of funds that could be used to address any unanticipated financial or operational hardships, including the various mechanisms or sources available to fund such an account or reserve; and

An escrow account could provide funds for repairs to or replacement of specific equipment items at Cartwright Creek. The only funding mechanism for would be available to Cartwright Creek would be a tariff revision that would add a fixed amount to each customer's monthly bill. The amount of escrow raised by this method could, over a length of time, provide for upgrades to individual equipment items, such as pump stations or blowers. For example, a \$10 per month escrow fee on each users account would make available approximately \$5,000 a month or \$60,000 annually. This would be sufficient for a partial refurbishing of one of the two smaller Cartwright Creek pump stations. However, the amount of funds available using this approach would not be sufficient for major upgrades required to meet the nutrient standards in the current and proposed NPDES permits or eliminate infiltration in the collection system.

11) Any other information or analysis concerning the present operational and financial condition of Cartwright Creek's system, the availability of Company resources, the Company's access to capital and financial services markets, or any other information the Company deems pertinent to its request for alternative financial security.

None.

EXHIBIT 1



The Cincinnati Insurance Company • The Cincinnati Indemnity Company
The Cincinnati Casualty Company • The Cincinnati Specialty Underwriters Insurance Company
The Cincinnati Life Insurance Company

November 3, 2014

Dear Bonnie,

Thank you for letting me review the Tennessee Regulatory Authority wastewater facility bond for Cartwright Creek, LLC. Based on the financial information provided, Cartwright Creek, LLC does not qualify with us due to a lack of financial capital.

Let me know if you have any questions.

Thank you.

Tim Schroder

EXHIBIT 2

Exhibit "2"

Summary of Sheaffer WWS Charges 2014 Cash Basis

		ì	Required Monthly Expense	-
Operations Manager	\$ 73,748.65		0	
Lead Operator	\$ 59,714.03	\$	4,976.17	
Health Insurance for above	\$ 34,691.19	\$	1,445.47	Operator only
Accounting and billing	\$ 15,219.31	\$	1,268.28	
Postage and Delivery Expense	\$ 828.00	\$	69.00	
Data Processing	\$ 1,822.80	\$	151.90	
Reimb for Amex Payment	\$ (1,570.46)			-
	\$ 184,453.52	\$	7,910.81	

EXHIBIT "2" CARTWRIGHT CREEK LLC Expenses by Vendor Summary January - December 2014

Recriticad	Monthly	Expense	1,000.00 Allocated portion of vehicle fuel expenses, cell phone for operator	One time insurance payment	Repairs to Irrigation System at Arrington Retreat	Professioinal Liability Insurance	Legal fees related to HWRA Consent Decree	Renewal of Operators Licenses	One time clearing of brush and debris at Grasslands	One time charges for water bills	Repair of Grasslands collection line at Creek	8.31 Distilled water in Grasslands Laboratory	Copier rental in CC business office	One time survey of manholes near plant	428.10 Wastewater disinfection chemicals at Grasslands	Cleaning and inspection of sewer lines at Grasslands	Cleaning and inspection of sewer lines at Grasslands	55.27 Potable water for Grasslands	151.23 Lab testing supplies at Grasslands	Repair of underground collection lines at Arrington	Annual taxes accounting	Rebuilding of main pump station pumps at Grasslands	182.00 Lab testing supplies and equipment callibration	3,591.82 Electric bills both sites	Repair of underground service line at Arrington	Cleaning and inspection of sewer lines at Grasslands		911.91 Part time lab assistant at Grasslands	Repair and service work on blowers at Arringon Retreat		7,910.81 See Attached Spreadsheet	Legal fees related to TDEC Settlement and Agreeed Order	Portion of costs for flow monitor refurbishing	One time payment of water bill	Francise Tax Payment	Permit Renewal Fees	TRA Inspection Fee for 2013
		Total	33,242.95	127.00	480.00	1,880.28	8,903.75	160.00	412.50	298.66	2,293.00	89.68	1,042.77	350.00	5,137.15	3,556.50	4,015.00	663.21	1,814.77	8,603.18	637.50	21,779.15	2,184.04	43,101.81	135.00	1,620.00	36,800.00	10,942.94	1,268.22	1,362.40	157,368.29	18,738.74	1,794.96	120.16	2,855.00	1,730.00	1,849.00
January - December 2014			American Express	Arthur J Gallagher Risk Management	B&E Irrigation & Landscaping	BankDirect/A J Gallagher Risk Management Services Inc	Bradley Arant Boult Cummings, LLP	Bruce Meyer-Expenses	Buck Parham	CITIBUSINESS CARD	Contracting Services Inc	Crystal Springs	Digitec, LLC	Dividing Line Survey Services	DPC Enterprises LP	ENVIRONMENTAL SERVICES LLC	First Response Environmental Group	Franklin Water and Wastewater Dept.	IDEXX Laboratories	Jacobs Construction LLC		John Bouchard & Sons, Co.	LabtronX Inc.(code720)	Middle Tennessee Electric Membership Corp	Paul Hasty & Son Plumbing Co	PIPELINE INNOVATION	Poynor Septic Service	Robert Schaaf	Rock City Machine Co.	Sani-Tech JetVac Services, LLC	Sheaffer Wastewater Solutions, LLC	Smith Cashion & Orr, PLC	Southern Sales Company, Inc.	Stahelin Enterprises L.P	Tennessee Department of Revenue	Tennessee Dept Environment & Conservation	l ennessee Regulatory Authority



Exhibit"3"

CARTWRIGHT CREEK LLC Profit and Loss January - December 2014

	Total
Income	
521 Flat rate revenues	26.10
521.1 Residential Revenues	267,538.44
521.11 Residential Revenues -Arrington	35,953.73
Total 521.1 Residential Revenues	303,492.17
Total 521 Flat rate revenues	303,518.27
521.6 Forfeited Discounts (late fee)	9,721.56
522.2 Commercial revenues	80,042.83
536 Other sewer revenues-TRA	2,850.12
537 Developer's Operating Subsidy	75,812.29
Total Income	\$471,945.07
Gross Profit	\$471,945.07
Expenses	
711 Sludge removal expense	38,400.00
715 Purchased power	40,615.31
718 Chemicals	5,137.15
720 Materials & supplies	6,944.59
730 Contractual services	
730.1 Engineering	73,748.65
730.2 Plant Management	94,405.22
730.3 Accounting	15,856.81
730.4 Environmental Testing	34,578.62
730.5 Repairs & Maint to plant	32,428.87
730.6 Legal fees	72,890.59
730.7 Consulting fees	5,871.50
Total 730 Contractual services	329,780.26
750 Transportation Expense	8,429.32
753 Telephone Expense	6,463.07
755 Insurance Expense	24,587.52
758 Postage & Delivery Expense	2,504.95
765 Regulatory Commission Expense	1,849.00
770 Bad debt expense	1,896.01
773 Bank charges	6,619.31
775 Miscellaneous expense	
775.01 Industry dues & education	1,335.40
775.02 Data Processing	1,822.80
775.03 Communication service	159.81
775.20 Travel/Meals/Entertainment	524.03
775.25 Office Supplies Expense	4,026.60
775.40 Repair & Maintenance-Routine	2,382.19
775.45 Repair & Maintenance-NonRoutine	25,593.13
-	1,082.03

	Total
775.60 Late Fees	273.85
Total 775 Miscellaneous expense	37,199.84
Total Expenses	\$510,426.33
Net Operating Income	\$ (38,481.26)
Other Income	
Taps & Inspections	6,900.00
Total Other Income	\$6,900.00
Other Expenses	
408 Permits & Taxes non income	15,987.08
409 Income taxes	88.00
426 Misc. Nonutility Expense	
426.08 Penalities for Violations	11,000.00
Total 426 Misc. Nonutility Expense	11,000.00
Total Other Expenses	\$27,075.08
Net Other Income	\$ (20,175.08)
Net Income	\$ (58,656.34)

Wednesday, Apr 29, 2015 11:35:41 AM PDT GMT-5 - Accrual Basis

This report was created using QuickBooks Online Plus.



Cartwright Creek, LLC

Nutrient Management Plan

Initial Submittal: March 4, 2015

<u>Cartwright Creek, LLC – Grasslands Wastewater Treatment Facility</u>

Nutrient Management Plan

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<u>Appendices</u>

Appendix A: NMP Pages from Current NPDES Permit

Appendix B: NMP Pages from Draft NPDES Permit

Appendix C: Page from HWRA Consent Decree

Appendix D: N & P Limits from Existing and Draft NPDES Permits

Appendix E: Corrective Action Plan

Appendix F: Monthly Total N and Total P Summary

Appendix G: Monthly CBOD5, TSS, Ammonia Summary

1.0 Introduction

1.1 Background and Purpose

Cartwright Creek, LLC owns and operates a wastewater treatment system and collection system in an unincorporated area of Williamson County, Tennessee known as the Grasslands area. The facility operates under a NPDES Permit No. TN0027278, issued by the Tennessee Department of Environment and Conservation (TDEC).

In September 2010, TDEC renewed the NPDES permit with a requirement for a Nutrient Management Plan (NMP). In April 2013 TDEC issued a proposed draft NPDES permit renewal also containing requirements for a Nutrient Management Plan. See Appendices A and B for the pertinent pages of those documents.

In November 2014, Cartwright Creek and the Harpeth River Watershed Association (HWRA) entered into a Consent Decree that contained a number of requirements and deliverables for Cartwright Creek. One of the requirements was to submit the NMP to TDEC. See Appendix C for the pertinent page of that Consent Decree.

In related matters, in August 2014, Cartwright Creek and TDEC signed a "Settlement Agreement and Consent Order" covering Cartwright Creek's Grasslands Wastewater Treatment Facility and related collection system. While the NMP was not a addressed in this Settlement Agreement, it required Cartwright Creek to prepare and submit various reports and documents. The Sewer Overflow Response Plan (SORP), which was submitted to TDEC in December 2014. A Corrective Action Plan (CAP) was submitted to TDEC in February 2015. The CAP is included herein as Appendix E and will be referenced in this NMP.

1.2 Scope

Appendices A and B contain pages from the current and proposed NPDES permits that lists what the NMP should address, essentially outlining data review, engineering studies, laboratory work and sampling to determine how to modify the physical or operational conditions of an existing treatment system to reduce Nitrogen and Phosphorus levels.

This document addresses these requirements to the extent possible at this point in time. It also discusses the issues affecting the ability of Cartwright Creek to complete the required analyses.

2.0 Existing Collection System and Wastewater Treatment Facility

Section 2 of the Corrective Action Plan, included in Appendix E contains a description of the existing collection system and treatment facility.

3.0 Existing System Performance

3.1 Nutrient Removal

Appendix F contains a table listing the monthly flows and Total Nitrogen and Phosphorus results from 2011 through 2014.

Total Phosphorus: The data in Appendix F indicates that the facility consistently meets the total Phosphorus limits.

Total Nitrogen: The data in Appendix F indicates that the facility did not meet the Total Nitrogen limits in the summer months for concentration and annual average maximum pounds per month.

3.2 CBOD5, TSS, Ammonia

Appendix G contains a table reviewing the monthly MOR permit exceedances for CBOD5, TSS, and Ammonia. This table shows that these parameters are normally within the permit limits.

3.3 Summary of Current Performance

The wastewater treatment system consistently complies with all treatment limits with the exception of Total Nitrogen, primarily in the summer.

There are three technical issues that need to be addressed to achieve short and long term requirements for nutrient reduction and to meet the effluent limits in the existing and proposed NPDES permits: these are infiltration reduction, additional treatment to remove Nitrogen removal and refurbishing or replacement of the existing treatment system.

4.0 Impact of Infiltration

The design average flow of the Grasslands Facility is 250,000 gallons/day. Based upon the number of current customers, the plant should receive approximately 150,000 gallons/day. As Appendix F shows, the average monthly flow from 2011 to 2014 was 470,000 gallons/day. During periods of heavy rainfall, peak daily flows have reached in excess of 1 MGD.

4.1 Impact on Process Improvements

The impact of these flow swings cause difficultly in day to day operations and cause intermittent collection system overflows.

In addition, the infiltration complicates nutrient control evaluation and reduction. If unaddressed, it would more than double the size and cost of any process additions to remove nutrients. The infiltration also causes wide swings in the quality of the influent wastewater making it difficult to consistently meet the stringent effluent nutrient limits. Infiltration needs to be significantly reduced to make additional treatment equipment cost effective and before a nutrient reduction system is selected, designed and installed.

The US EPA "Nutrient Control Design Manual, State of Technology Review Report" (EPA/600/R-09/012, January 2009) mentions the effect of infiltration in a number of places, including the following paragraph beginning on page 43:

"Wet weather events can increase inflow and infiltration into the collection system and subsequently increase the hydraulic load to the wastewater treatment plant. This can in turn reduce the SRT leading to reduced performance of nitrification process units. In addition, wet weather flows have different characteristics than typical wastewater influent flow and can be less favorable for nitrification and denitrification. Conditions that are less favorable for nitrification include decreased alkalinity and sudden temperature drops. Lower biodegradable COD concentrations and increased DO make wet weather flows less amenable to denitrification."

4.2 Impact on Further Sampling and Analyses

The NMP elements described in the attachments to the existing and proposed NPDES permits (Appendices A and B) list testing and additional sampling activities that should be conducted, including treatability testing on existing influent wastewater, sampling and analyses to determine insoluble/soluble amounts and extensive intra-process monitoring. Since reduction of the infiltration must be accomplished as the first step, the quality of the influent wastewater will significantly change, invalidating the results of any testing at this time.

5.0 Potential Nutrient Control Additions Existing System

The existing extended aeration system was selected and installed in the early 1970's when the Clean Water Act was being initially developed and when effluent nutrient limits were not in effect. The facility was not designed to meet today's standards for Total Nitrogen and Total Phosphorus.

From the data available at the Grasslands facility and from technical literature in general, the existing extended aeration process will effectively nitrify. If the infiltration is addressed and the existing Grasslands facility is refurbished (Section 6.2.1), a separate denitrification stage would need to be added to the existing facility to achieve the Total Nitrogen limits. Most likely this would occur in the addition of an anoxic treatment step prior or post aerobic treatment.

Technical literature such as the US EPA Nutrient Removal Design Manual describes many technologies, proven and emerging, that that could potentially be used for denitrification.

Although the current Grasslands facility meets the existing effluent limits for total Phosphorus, Phosphorus limits will likely be reduced in the future. Phosphorus removal can be accomplished by biological methods or chemical methods. These sometimes can be incorporated into the denitrification process or sometimes require a separate treatment step.

The evaluation and selection of the optimum process modifications for Nitrogen and Phosphorus removal cannot be cost effectively conducted until the infiltration is significantly reduced, as discussed in the following sections.

6.0 Long Term Nutrient Control

6.1 Reduction of Infiltration

The excessive infiltration must be controlled to make any short and long term Nutrient Control strategy cost effective. It also must be controlled to reduce operating costs and the costs to upgrade the existing 40 year old system

The steps to begin to accomplish this are:

- Complete the field work and engineering to prepare drawings of the entire collection system. Conduct a field survey of all the manholes and collection lines.
- Conduct a sewer I&I survey, including visual inspection, wet and dry weather flow monitoring, smoke testing and video inspection. The survey will identify the size and type of infiltration points.
- Evaluation and select infiltration remediation plan. Develop costs and determine the resultant influent flows.
- Retain contractors to complete the repairs in a repair projects

This work would be completed when funding permits.

6.2 Wastewater Treatment Options

As described, the current Grasslands facility is 40 years old. While it currently meets a majority of the effluent standards except Total Nitrogen, to meet existing and future effluent standards it needs to be overhauled, upgraded or eliminated. Cartwright Creek is proposing to evaluate the following options as part of the NMP. Note that elimination of substantial I&I must be accomplished for each of these options.

6.2.1 Refurbishing or Replacing the Existing System

An engineering and cost evaluation is needed to determine whether the existing system should be refurbished (and combined with a Nitrogen removal step as described in Section 5.0) or the existing treatment system equipment should be entirely replaced with upgraded technology that would include Nitrogen removal.

The evaluation needs to include the feasibility and nutrient control impact of reuse. The nearby Old Natchez Golf course has expressed interest in reuse water. The athletic fields of the Grasslands schools are relatively close as are common greenspace areas in River Rest.

The evaluation of refurbishing the existing system would include upgrading the existing tankage, clarifier, aeration system, final filter, piping and controls to determine if the system could be refurbished to effectively treat wastewater for 25 or more years.

The evaluation of replacing the existing system would include replacing the system inkind with a similar extended aeration system and filter. The evaluation would also include newer technologies such as a membrane bioreactor (MBR) technology that could be designed to include nutrient removal.

The result of the above evaluations would be identification of the preferred option to rebuild or replace and an associated cost.

An engineering firm would be retained to complete the above when funding permits.

6.2.2 Pumping to another Utility

There are three neighboring wastewater systems that might accept the untreated Cartwright Creek wastewater: the City of Franklin, Harpeth Valley Utility District and the Harpeth Wastewater Cooperative. The infiltration will have to be substantially eliminated and the main pump station at the Grasslands facility will need to be replaced for any of these to be practical.

The feasibility of pumping to each will depend upon technical issues such as available treatment capacity, the cost of the force main from Cartwright Creek and the capacity of the receiving branch of the respective collection system. For example, the receiving collection system, including underground piping and pump stations, may need to be upgraded to be capable of receiving Cartwright Creek's wastewater and these costs need to be included in the evaluation. There will also be a cost and management component of the evaluation to determine if the neighboring utility will indeed accept Cartwright Creek wastewater and, if so, related costs.

Cartwright Creek believes that the closest connection point to the Franklin collection system is on Hillsboro near Spencer Creek Road. It would require a 3.25 mile, 10" diameter force main, primarily along Hillsboro Road.

The closest connection point for the Harpeth Wastewater Cooperative system would be at a pump station on the corner of Hillsboro Road and Berrys Chapel Road, requiring a force main approximately 2.75 miles long, primarily down Hillsboro Road.

The closest connection for the Harpeth Valley Utility District (HVUD) is in the Waterstone community across Sneed Road near the Old Natchez subdivision (which Cartwright Creek serves). It would require an approximately 1.5 mile long force main, primarily in green space in River Rest and across the golf course. Cartwright Creek has been told that HVUD evaluated the acceptance of Cartwright Creek's wastewater approximately five years ago and the evaluation concluded that it would require substantial upgrades. But Cartwright Creek has seen nothing verbally or in writing from HVUD to confirm this.

As part of the NMP Cartwright Creek will begin making contact with these utilities to start the evaluation process.

7.0 Closing

The existing Grasslands facility is 40 years old. It currently meets its discharge limits with the exception of Total Nitrogen in the summer months. Process upsets and/or infiltration cause it to occasionally miss other effluent limits.

The facility needs to be upgraded or replaced but evaluation and selection of the best option cannot be accomplished until the infiltration is addressed.

Funding for improvements could be partially obtained through rate cases and special assessments that would increase customer charges as well as significantly increase tap fees.

Appendix A

NMP Pages from Current NPDES Permit

Pages from Cartwright Creek's Current NPDES Permit

3.4 PLACEMENT OF SIGNS

Within sixty (60) days of the effective date of this permit, the permittee shall place and maintain a sign(s) at each outfall and any bypass/overflow point in the collection system. For the purposes of this requirement, any bypass/overflow point that has discharged five (5) or more times in the last year must be so posted. The sign(s) should be clearly visible to the public from the bank and the receiving stream. The minimum sign size should be two feet by two feet (2' x 2') with one-inch (1") letters. The sign should be made of durable material and have a white background with black letters.

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Pollution Control. The following is given as an example of the minimal amount of information that must be included on the sign:

Permitted CSO or unpermitted bypass/overflow point:

UNTREATED WASTEWATER DISCHARGE POINT
Cartwright Creek LLC, - Grasslands STP
(615) 261-8600
NPDES Permit NO. TN0027278
TENNESSEE DIVISION OF WATER POLLUTION CONTROL
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

NPDES Permitted Municipal/Sanitary Outfall:

OUTFALL 001 - TREATED MUNICIPAL/SANITARY WASTEWATER
Cartwright Creek LLC, - Grasslands STP
(615) 261-8600
NPDES Permit NO. TN0027278
TENNESSEE DIVISION OF WATER POLLUTION CONTROL
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

No later than sixty (60) days from the effective date of this permit, the permittee shall have the above sign(s) on display in the location specified.

3.5 NUTRIENT MANAGEMENT PLAN (NMP)/REPORTING

Pursuant to the requirements delineated in Attachment 1, the permittee shall develop/implement a Nutrient Management Plan (NMP) with reporting for its wastewater treatment plant.

Attachment 1

NUTRIENT MANAGEMENT PLAN (NMP)/REPORTING

At a minimum, the permittee shall develop/implement as soon as possible the Nutrient Management Plan (NMP) requirements presented in this attachment for enhanced control of the Outfall 001 treated wastewater total nitrogen and phosphorus. The NMP shall be oriented toward maximizing the use of its existing facilities such that changing operations/usages may result in decreases in the discharged treated wastewater total nitrogen and phosphorus. The division acknowledges that the existing treatment system may not have the flexibility to achieve biological denitrification without the addition of supplementary unit processes. As such, the permit includes a 18 month compliance schedule for achieving the total nitrogen and total phosphorus Outfall 001 discharge requirements (based on the assumption that the elevated inflow/infiltration (I/I) problem will not be solved during the permit's duration). If the permittee were able to substantially reduce its I/I, the division may reopen and modify the permit total nitrogen and total phosphorus limits/monitoring requirements, subject to applicable public participation. Additionally, the division may modify the permit (during its term or upon renewal) to include higher total nitrogen and/or total phosphorus concentrations without triggering antibacksliding provisions.

The permittee's NMP at a minimum shall address the following elements to maximize wastewater nutrients removal:

- Develop a list of potentially applicable nutrient control mechanisms for additional total nitrogen and total phosphorus removal. This evaluation must include investigational options/requirements, and timing/schedule/performance considerations.
- Evaluation of permittee's historical wastewater characteristics, e.g. variations in strength and mass loadings, especially treatment plant performance during the summer season (May through October).
- Results from literature and discussions with others, including municipalities, consultants will be evaluated in developing/implementing the permittee's enhanced nutrients control program.
- Treatability/testing results from bench, pilot and/or the full-scale wastewater treatment plant regarding improved summer season nutrient control, e.g., operation at alternative food:microorganism ratios or sludge ages, alternative/supplementary basin(s)/facilities usage/temporary pumping, chemicals addition, and supplementary monitoring.
- Identification of increased permittee treatment system monitoring to provide for enhanced nutrient control, e.g., multi-point dissolved oxygen monitoring points to ensure satisfactory operating conditions in anoxic zones, biological nitrification/denitrification regions, and multi-point pH/alkalinity monitoring/supplementing.
- Ongoing correlations of the wastewater treatment plant's operational/treatment data to provide for an increased understanding of the nature of the wastewater nutrients, control methods and cost-effectiveness.
- Define treated effluent TSS characteristics in terms of insoluble total nitrogen and phosphorus contents, variability and additional control options.

The following are NMP enhancement requirements for the treated effluent:

- Total Nitrogen treatment enhancements/advanced controls are expected to be required to consistently achieve the TMDL's 15 lb/day total nitrogen annual average limitation and 1.9 mg/l average monthly discharge requirement.
- Total Phosphorus identify treatment enhancements/advanced controls to consistently achieve for the summer season a monthly average treated effluent of 3.5 mg/l as P.

The permittee shall develop and submit a NMP report to the division's Water Pollution Control - Permits Section (Nashville Environment Field and Central Offices) within 9 months from the permit's effective date, and updated annually for a calendar year submittal. The NMP report(s) must be submitted to the division by February 15.

Appendix B

NMP Pages from Draft NPDES Permit

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following is given as an example of the minimal amount of information that must be included on the sign:

Permitted CSO or unpermitted bypass/overflow point:

UNTREATED WASTEWATER DISCHARGE POINT
Cartwright Creek LLC, - Grasslands STP
(615) 261-8600
NPDES Permit NO. TN0027278
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

NPDES Permitted Municipal/Sanitary Outfall:

OUTFALL 001 - TREATED MUNICIPAL/SANITARY WASTEWATER Cartwright Creek LLC, - Grasslands STP (615) 261-8600 NPDES Permit NO. TN0027278 TENNESSEE DIVISION OF WATER RESOURCES 1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

No later than sixty (60) days from the effective date of this permit, the permittee shall have the above sign(s) on display in the location specified.

3.5. NUTRIENT MANAGEMENT PLAN (NMP)/REPORTING

Pursuant to the requirements delineated in Attachment 1, the permittee shall develop/implement a Nutrient Management Plan (NMP) with reporting for its wastewater treatment plant.

3.6. ANTIDEGRADATION

Pursuant to the Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.06, titled "Tennessee Antidegradation Statement," and in consideration of the department's directive in attaining the greatest degree of effluent reduction achievable in municipal, industrial, and other wastes, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other state or federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.

Attachment 1

NUTRIENT MANAGEMENT PLAN (NMP)/REPORTING

At a minimum, the permittee shall develop/implement the Nutrient Management Plan (NMP) requirements presented in this attachment for enhanced control of the Outfall 001 treated wastewater total nitrogen and phosphorus. The NMP shall be oriented toward maximizing the use of its existing facilities such that changing operations/usages may result in decreases in the discharged treated wastewater total nitrogen and phosphorus. The division acknowledges that the existing treatment system may not have the flexibility for effective nutrients control e.g., to achieve biological denitrification without the addition of supplementary unit processes. As such, the permit includes a 18 month compliance schedule for achieving the total nitrogen and total phosphorus Outfall 001 discharge requirements (based on the assumption that the elevated inflow/infiltration (I/I) problem may not be solved during the permit's duration). If the permittee were able to substantially reduce its I/I, the division may reopen and modify the permit total nitrogen and total phosphorus limits/monitoring requirements, subject to applicable public participation.

The permittee's NMP at a minimum shall address the following elements to maximize wastewater nutrients removal:

- Develop a list of potentially applicable nutrient control mechanisms for additional total nitrogen and total phosphorus removal. This evaluation must include investigational options/requirements, and timing/schedule/performance considerations.
- Evaluation of the permittee's historical wastewater characteristics, e.g. variations in strength and mass loadings, especially treatment plant performance during the summer season (May through October).
- Results from literature and discussions with others, including municipalities, consultants will be evaluated in developing/implementing the permittee's enhanced nutrients control program.
- Treatability/testing results from bench, pilot and/or the permittee's full-scale WWTP regarding improved summer season nutrient control, e.g., operation at alternative food:microorganism ratios or sludge ages, alternative/supplementary basin(s)/facilities usage/temporary pumping, chemicals addition, and supplementary monitoring.
- Identification of increased permittee's treatment system monitoring to provide for enhanced nutrient control, e.g., multi-point dissolved oxygen monitoring points to ensure satisfactory operating conditions in anoxic zones, biological nitrification/denitrification regions, and multi-point pH/alkalinity monitoring/supplementing.
- Ongoing correlations of permittee's operational/treatment data to provide for an increased wastewater nutrients understanding, control methods/options, and cost-effectiveness. The permittee shall also investigate as possible the relationship between its discharged nutrient loadings and potential instream impacts, e.g., based on diurnal variations in dissolved oxygen concentration and pH. This assessment needs to address flow and temperature also.
- Define treated effluent TSS characteristics in terms of insoluble total organic nitrogen and phosphorus contents, variability and additional control options.

Cartwright Creek - Grasslands STP NPDES Permit TN0027278 Page 30

The permittee shall develop and submit a NMP report to the division's Water Resources - Permits Section (Nashville Environment Field and Central Offices) within 18 months from the permit's effective date, and updated annually for calendar year submittal thereafter. The NMP report(s) must be submitted to the division by February 15.

The permittee may want to participate in a division – approved Technical Advisory Committee which has been proposed to assist in coordinating Harpeth River monitoring programs, which may result in discharge permit simplifications.

Appendix C

Page from HWRA Consent Decree

- 11. <u>Nutrient Management Plan</u>. Defendant agrees to diligently pursue the development and implementation of a Nutrient Management Plan to the satisfaction of the Tennessee Department of Environment and Control ("TDEC"), in accordance with the terms of Section 3.5 and Attachment 1 of its currently effective NPDES Permit.
- a. Defendant shall demonstrate diligence by presenting TDEC with a Nutrient Management Plan within one hundred twenty (120) Days of the entry of this Consent Decree. Defendant shall diligently pursue written confirmation of TDEC's acceptance or rejection of the proposed Nutrient Management Plan. Defendant shall submit a report to TDEC about the status of implementation of the Nutrient Management Plan one hundred eighty (180) Days after receiving TDEC's written approval of the Nutrient Management Plan. In accordance with the anticipated terms of the NPDES Permit, Defendant shall, twelve Months after issuance of the NPDES Permit, update the Nutrient Management Plan and submit a report of such updates to TDEC on February 15 of each subsequent year thereafter.
- b. The Parties acknowledge that on April 23, 2013, TDEC published a draft renewed NPDES Permit for Defendant's facility, which the parties expect to be issued in final form after the U.S. Environmental Protection Agency has completed its review. Defendant further agrees to comply with the Nutrient Management Plan provisions contained in the forthcoming reissued NPDES Permit No. TN0027278, provided that Defendant reserves the right to appeal the provisions of the Permit related to Nutrient Management Plans only in the event such terms are materially different than the terms of the Draft Permit. If Defendant asserts that the NPDES permit's Nutrient Management Plan terms are "materially different" than the draft permit, Defendant shall notify Plaintiff, and the Parties shall follow the dispute resolution procedures outlined in Section VII.

Appendix D

N & P Limit Pages from Existing and Draft NPDES

Existing NPDES Permit

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.1 NUMERIC AND NARRATIVE EFFLUENT LIMITATIONS

The Cartwright Creek - Grasslands STP is authorized to discharge treated domestic wastewater from Outfall 001 to the Harpeth River at mile 68.8. Discharge 001 consists of treated municipal wastewater from a treatment facility with a design capacity of 0.25 MGD. Discharge 001 shall be limited and monitored by the permittee as specified below:

				- Constitution of the Cons	**************************************	2			
Effluent CharacterIstics			Effu	Effluent Limitations		na n	Monit	Monitoring Requirements	ts
	Monthly	Monthly	Weekiy	Weekly	Daily	Daily			:
	Average	Average	Average	Average	Maximum	Minimum	Measurement	Sample	Sampling
	Conc.	Amount	Conc.	Amount	Conc.	Percent	Frequency	Type	Point
*****	(mg/l)	(lb/day)	(l/bm)	(lb/day)	(mg/l)	Removal			
CBOD _s (summer)	5.0	10	7.5	15	10.0	40	3/week	composite	effluent
	Report				Report	*****	3/week	composite	influent
CBODs (winter)	10.0	72	15.0	31	20.0	1	3/week	composite	effluent
	Report		***************************************		Report		3/week	composite	influent
Ammonia as N (summer)	2.0	4	3.0	9	4.0		3/week	composite	effluent
Ammonia as N (winter)	5.0	10	7.5	16	10.0	The second secon	3/week	composite	effluent
Total Nitrogen (a) (summer) - 0. Beuse	1.9 (b)	Report			Report		2/month	composite	effluent
Total Nitronen (a) (summer) - Tier 1 Beuse	2.1 (b)	Report			Report	-	2/month	composite	effluent
Total Nitroden (a) (summer) - Tier 2 Reuse	3.0 (b)	Report		***************************************	Report	***************************************	2/month	composite	effluent
Total Nitroden (a) (winter)	Report	Report		***************************************	Report	and the same of th	2/month	composite	effluent
Insoluble TKN (summer)	Report				COLUMN TO THE PROPERTY OF THE		2/month	composite	effluent
Total Phosphorus (as P) (summer) – 0 Beuse	3.5 (c)	Report	-		Report		2/month	composite	effluent
Total Phosphorus (as P) (summer) - Tier 1 Reuse	4.0 (c)	Report			Report	adadrasi-11	2/month	composite	effluent
Total Phosphorus (as P) (summer) – Tier 2 Reuse	5.7 (c)	Report			Report		2/month	composite	effluent
Total Phosphorus (as P) (winter)	Report	Report			Report		2/month	composite	effluent
localible Phoenhorus (as P) (summer)	Report				The same of the sa		2/month	composite	effluent
Chananded Colide) (S) (S) (S)	63	40	83	45	40	3/week	composite	effluent
ממשת מת המשת המשת המשת המשת המשת המשת המ	Benort	3 1		***************************************	Report		3/week	composite	influent
Canifory Comer Overflows Total Occurrences		A		Report		And the same of th	continuous	visual	NA
Der Weether Overflows, Total Occurrences				Report		Panalana and a second a second and a second	continuous	· visual	NA
Diy Wealtier Overnows, 10tal Octuments				Bennt			continuous	visual	NA
Bypass of lifeatment, Total Occurrences				neper.	***************************************	The state of the s		LAGUETTE AND THE PROPERTY OF THE PARTY OF TH	

Note: Summer = May 1 - Oct, 31 and winter = Nov. 1 - Apr. 30. The permittee shall achieve CBODs and TSS of at least 85 percent removals, on a monthly average basis.

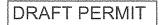
Total Nitrogen and total phosphorus monitoring – report quarterly influent and effluent average concentrations, mass loadings, and percentage removals based on quarterly monitoring.

The permittee shall achieve the indicated total hitrogen limits for summer conditions, along with an annual average treated effluent total nitrogen limit < 15 lb/day, after 18 months from the permit's (g

effective date. In the meanwhile prior to the 18 month deadline, the permittee shall monitor and report its total nitrogen mass loading discharged pursuant to 2/month monitor and report the total nitrogen values after 18 months from the permit's effective date. For the first 18 months of the permittee shall monitor and report the total nitrogen. The permittee shall achieve the total phosphorus values after 18 months from the permit's effective date. For the first 18 months of the permit, the permittee shall monitor and report the total 99

Tier 1 Reuse = >0.0 to 0.10 mgd reuse Tier 2 Reuse = >0.10 to 0.25 mgd reuse

phosphorus.



EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS 1.0

1.1 **NUMERIC AND NARRATIVE EFFLUENT LIMITATIONS**

The permittee is authorized to discharge treated domestic wastewater from Outfall 001 to the Harpeth River at mile 68.8. Discharge 001 consists of treated municipal wastewater from a treatment facility with a design capacity of 0.25 MGD. Discharge 001 shall be limited and monitored by the permittee as specified below:

Description: External Outfall, Number: 001, Monitoring: Dry Weather, Season: All Year

<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	Statistical Base
Overflow use, occurrences	Report	-	occur/mo	Occurrences	Continuous	Monthly Total
Description : External Ou	tfall, Numl	per: 001	, Monitorin	g : Effluent Gro	ss, Season	: All Year
<u>Parameter</u>	Qualifier	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	Statistical Base
Chlorine, total residual (TRC)	<=	0.24	mg/L	Grab	Five Per Week	Instantaneous Maximum
E. coli, MTEC-MF	<=	941	#/100mL	Grab	Three Per Week	Daily Maximum
E. coli, MTEC-MF	<=	126	#/100mL	Grab	Three Per Week	Monthly Geometric Mean
Flow	Report	-	Mgal/d	Continuous	Daily	Monthly Average
Flow	Report	-	Mgal/d	Continuous	Daily	Daily Maximum
Nitrogen, total (as N)	<=	15	lb/d	Composite	Three Per Week	Annual Monthly Average
Oxygen, dissolved (DO)	>=	6.0	mg/L	Grab	Five Per Week	Instantaneous Minimum
Phosphorus, total (as P)	<=	7.5	lb/d	Composite	Three Per Week	Annual Monthly Average
Settleable Solids	<=	1.0	mL/L	Composite	Five Per Week	Daily Maximum
Total Suspended Solids (TSS)	<=	30.0	mg/L	Composite	Three Per Week	Monthly Average
Total Suspended Solids (TSS)	<=	40.0	mg/L	Composite	Three Per Week	Weekly Average
Total Suspended Solids (TSS)	<=	45.0	mg/L	Composite	Three Per Week	Daily Maximum
Total Suspended Solids (TSS)	<=	63	lb/d	Composite	Three Per Week	Monthly Average
Total Suspended Solids (TSS)	<=	83	lb/d	Composite	Three Per Week	Weekly Average
pH	>=	6.0	SU	Grab	Five Per Week	Minimum
pH	<=	9.0	SU	Grab	Five Per Week	Maximum

Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: Summer

<u>Parameter</u>	Qualifier	<u>Value</u>	Unit	<u>Sample Type</u>	<u>Frequency</u>	<u>Statistical Base</u>
CBOD, 5-day, 20 C	<=	5.0	mg/L	Composite	Three Per Week	Monthly Average
CBOD, 5-day, 20 C	<=	7.5	mg/L	Composite	Three Per Week	Weekly Average
CBOD, 5-day, 20 C	<=	10.0	mg/L	Composite	Three Per Week	Daily Maximum
CBOD, 5-day, 20 C	<=	10	lb/d	Composite	Three Per Week	Monthly Average
CBOD, 5-day, 20 C	< =	15	lb/d	Composite	Three Per Week	Weekly Average
Nitrogen, Ammonia total (as N)	<=	2.0	mg/L	Composite	Three Per Week	Monthly Average
Nitrogen, Ammonia total (as N)	<=	3.0	mg/L	Composite	Three Per Week	Weekly Average
Nitrogen, Ammonia total (as N)	<=	4.0	mg/L	Composite	Three Per Week	Daily Maximum
Nitrogen, Ammonia total (as N)	<=	4	lb/d	Composite	Three Per Week	Monthly Average
Nitrogen, Ammonia total (as N)	<=	6	lb/d	Composite	Three Per Week	Weekly Average
Nitrogen, Organic,Total insoluble	Report	<u>-</u>	mg/L	Composite	Twice Per Month	Monthly Average
Nitrogen, total (as N)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
Nitrogen, total (as N)	<=	1.9	mg/L	Composite	Twice Per Month	Monthly Average
Nitrogen, total (as N)	Report	<u>1</u>	mg/L	Composite	Twice Per Month	Daily Maximum
Phosphorus, insoluble	Report	-	mg/L	Composite	Twice Per Month	Monthly Average
Phosphorus, total (as P)	Report	-	mg/L	Composite	Twice Per Month	Daily Maximum
Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
Phosphorus, total (as P)	<=	3.5	mg/L	Composite	Twice Per Month	Monthly Average

Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: Winter

<u>Parameter</u>	Qualifier	<u>Value</u>	<u>Unit</u>	Sample Type	<u>Frequency</u>	Statistical Base
CBOD, 5-day, 20 C	<=	10.0	mg/L	Composite	Three Per Week	Monthly Average
CBOD, 5-day, 20 C	<=	15.0	mg/L	Composite	Three Per Week	Weekly Average
CBOD, 5-day, 20 C	<=	20.0	mg/L	Composite	Three Per Week	Daily Maximum
CBOD, 5-day, 20 C	<=	21	lb/d	Composite	Three Per Week	Monthly Average
CBOD, 5-day, 20 C	<=	31	lb/d	Composite	Three Per Week	Weekly Average
Nitrogen, Ammonia total (as N)	<=	5.0	mg/L	Composite	Three Per Week	Monthly Average
Nitrogen, Ammonia total (as N)	<=	7.5	mg/L	Composite	Three Per Week	Weekly Average
Nitrogen, Ammonia total (as N)	<=	10.0	mg/L	Composite	Three Per Week	Daily Maximum
Nitrogen, Ammonia total (as N)	<=	10	lb/d	Composite	Three Per Week	Monthly Average
Nitrogen, Ammonia total (as N)	<=	16	lb/d	Composite	Three Per Week	Weekly Average
Nitrogen, total (as N)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
Nitrogen, total (as N)	Report	-	mg/L	Composite	Twice Per Month	Monthly Average
Nitrogen, total (as N)	Report	-	mg/L	Composite	Twice Per Month	Daily Maximum
Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
Phosphorus, total (as P)	Report		mg/L	Composite	Twice Per Month	Monthly Average
Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Daily Maximum

Description: External Outfall, Number: 001, Monitoring: Percent Removal, Season: All Year

<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	Statistical Base
CBOD, 5-day, 20 C, % removal	>=	40	%	Calculated	Three Per Week	Minimum Percent Removal
CBOD, 5-day, 20 C, % removal	>=	85	%	Calculated	Three Per Week	Average
TSS, % removal	>=	40	%	Calculated	Three Per Week	Minimum Percent Removal
TSS, % removal	>=	85	%	Calculated	Three Per Week	Average

Description: External Outfall, Number: 001, Monitoring: Raw Sewage Influent, Season: All Year

<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	Statistical Base
CBOD, 5-day, 20 C	Report	-	mg/L	Composite	Three Per Week	Daily Maximum
CBOD, 5-day, 20 C	Report	_	mg/L	Composite	Three Per Week	Monthly Average
Flow	Report	-	Mgal/d	Continuous	Daily	Daily Maximum
Flow	Report	-	Mgal/d	Continuous	Daily	Monthly Average
Total Suspended Solids (TSS)	Report	-	mg/L	Composite	Three Per Week	Daily Maximum
Total Suspended Solids (TSS)	Report	-	mg/L	Composite	Three Per Week	Monthly Average

Description: External Outfall, Number: 001, Monitoring: See Comments, Season: Summer

<u>Parameter</u>	Qualifier	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	Frequency	Statistical Base
Nitrogen, total (as N) - Tier 1	<=	2.1	mg/L	Composite	Twice Per Month	Monthly Average
Nitrogen, total (as N) – Tier 2	<=	3.0	mg/L	Composite	Twice Per Month	Monthly Average
Phosphorus, total (as P) – Tier 1	<=	4.0	mg/L	Composite	Twice Per Month	Monthly Average
Phosphorus, total (as P) – Tier 2	<=	5.7	mg/L	Composite	Twice Per Month	Monthly Average

Description: External Outfall, Number: 001, Monitoring: Wet Weather, Season: All Year

<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	Sample Type	<u>Frequency</u>	Statistical Base
Bypass of Treatment	Report	-	occur/mo	Occurrences	Continuous	Monthly Total
Overflow use, occurrences	Report	-	occur/mo	Occurrences	Continuous	Monthly Total

Note: pH and total residual chlorine (TRC) analyses must be completed within 15 minutes from sample collection.

Tier 1 – For reuse water (>0.0 to 0.10 MGD)

Tier 2 – For reuse water (>0.10 to 0.25 MGD)

Nutrient limits to be achieved within 18 months from the permit's effective date.

Reuse Treated Wastewater

Description: External Outfall, Number: 002, Monitoring: Internal Monitoring Point, Season: All Year

<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	Statistical Base
Chlorine, total residual (TRC)	Report		mg/L	Grab	Quarterly	Average
Chlorine, total residual (TRC)	Report		mg/L	Grab	Quarterly	Maximum
E. coli, MTEC-MF	Report	-	#/100mL	Grab	Quarterly	Maximum
E. coli, MTEC-MF	Report	-	#/100mL	Grab	Quarterly	Average
Flow	Report	-	Mgal/d	Continuous	Daily	Daily Maximum
Flow	Report	_	Mgal/d	Continuous	Daily	Monthly Average

Description: External Outfall, Number: 002, Monitoring: Prior to Reuse, Season: All Year

<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	Statistical Base
Chlorine, total residual (TRC)	>==	1	mg/L	Grab	Daily When Discharging	Daily Minimum
E. coli, MTEC-MF	<=	23	#/100mL	Grab	Daily When Discharging	Daily Maximum

The wastewater discharge must be disinfected to the extent that viable coliform organisms are effectively eliminated. Non-compliance with established *E. coli* limits should be reported by the permittee only when the concentration of the *E. coli* group in any individual sample exceeds 126 per 100 ml and when the monthly average exceeds 23 per 100 ml as a running 30 day average. The permittee must submit records of the 30 day running average with their monthly operating reports (MORs).

(a) 1/week monitoring frequency applies if a separate disinfection process dedicated to the reuse water is used. When the *E. coli* monitoring requirement is less than 5 samples per month, the permittee shall report minimum, arithmetic average, and maximum values.

The wastewater discharge must be disinfected to the extent that viable coliform organisms are effectively eliminated. The concentration of the *E. coli* group after disinfection shall not exceed 126 cfu per 100 ml as the geometric mean calculated on the actual number of samples collected and tested for *E. coli* within the required reporting period. The permittee may collect more samples than specified as the monitoring frequency. Samples may not be collected at intervals of less than 12 hours. For the purpose of determining the geometric mean, individual samples having an *E. coli* group concentration of less than one (1) per 100 ml shall be considered as having a concentration of one (1) per 100 ml. In addition, the concentration of the *E. coli* group in any individual sample shall not exceed a specified maximum amount. A maximum daily limit of 487 cfu per 100 ml applies to lakes and Exceptional Tennessee Waters. A maximum daily limit of 941 cfu per 100 ml applies to all other recreational waters.

There shall be no distinctly visible floating scum, oil or other matter contained in the wastewater discharge. The wastewater discharge must not cause an objectionable color contrast in the receiving stream.

Appendix E

Corrective Action Plan

Cartwright Creek, LLC

Corrective Action Plan

Initial Submittal: February 17, 2015

<u>Cartwright Creek, LLC – Grasslands Wastewater Treatment Facility</u>

Corrective Action Plan

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1.0 Introduction

1.1 Background and Purpose

Cartwright Creek, LLC owns and operates a wastewater treatment system and collection system in an unincorporated area of Williamson County, Tennessee known as the Grasslands area. The facility operates under a NPDES Permit No. TN0027278, issued by the Tennessee Department of Environment and Conservation (TDEC).

In August 2014, Cartwright Creek and TDEC signed a "Settlement Agreement and Consent Order" covering Cartwright Creek's Grasslands Wastewater Treatment Facility and related collection system. The Settlement Agreement required Cartwright Creek to prepare and submit various reports and documents. For the collection system, submittals included a Sewer Overflow Response Plan (SORP), which was submitted to TDEC in December 2014, and a Corrective Action Plan (CAP), which is the subject of this document. Therefore, the purpose of this document is to present the Corrective Action Plan (CAP) for Cartwright Creek, LLC Grasslands Wastewater Treatment Facility (Grasslands Facility).

1.2 Scope

Appendix A contains pages from the aforementioned Settlement Agreement that describe the Corrective Action Plan. In summary, paragraph 2 on page 11 states that the Corrective Action Plan shall:

- Include measures to improve data integrity
- Include measures to bring the STP in compliance with their permit
- Focus on the overflow problems in and around the River Rest Subdivision that lead directly to Cartwright Creek.

These items will be discussed in this Corrective Action Plan.

2.0 Existing Collection System and Wastewater Treatment Facility

2.1 Collection System

2.1.1 Service area: Cartwright Creek's Grasslands Facility treats wastewater from an area west of Franklin, Tennessee that is called the Grasslands area. Cartwright Creek approximately 500 residential and 35 commercial customers in developments that include

River Rest, Hunterwood, Old Natchez, a short portion of Old Hillsboro Road, Grasslands Middle and Elementary Schools, the Battlewood Shopping Center, and shops and businesses on the West side of Hillsboro Road. A small number of homes and businesses (approximately 15) not in these developments, but adjacent to Cartwright Creek's collection lines, have been connected.

The Cartwright Creek Grasslands service territory approved by the Tennessee Public Service Commission (Appendix B) is much larger than the current area served. It encompasses in excess of 3400 acres, extending to the east of the current area served.

2.1.2 History: The initial portion of the collection system, in the River Rest subdivision, was constructed during the early 1970's in conjunction with the wastewater treatment facility. Then as new subdivisions were created, collection lines were extended: Battlewood Shopping Center in the mid-1980's; Grasslands schools in the mid-1980's and mid-1990's; Hunterwood in approximately the mid-1990's; and Old Natchez in the late 1990's. Individual homes and small businesses were added through the years, including as recently as 2013.

With the recent upswing in the economy and housing market in the Nashville area, there have been increasing inquiries about sewer availability.

2.1.3 Gravity Lines/Pump stations: A majority of the collection system is gravity.

There are three pump stations. The main pump station, at the treatment facility, receives all wastewater and pumps to the treatment facility.

Gravity lines at homes in Old Natchez flow into a pump station that discharges through a force main into another lift station near and serving the Old Natchez Country Club. The force main from this lift station runs across the golf course to a gravity sewer along Moran Road.

With the exception of approximately five individual grinder pumps serving single family homes and a business, wastewater from all of the other Cartwright Creek customers is collected by gravity.

Collection system lines are clay, PVC, and ductile iron. Sizes range from 4" to 18". All manholes observed to date are concrete with cast iron covers. Covers in areas prone to flooding are equipped with interior watertight covers.

As discussed in the following portions of this CAP, the collection system is 20 to 40 years old, depending upon the section, and has large volumes of I&I.

An overview drawing of the collection system is included as Appendix C.

2.2 Wastewater Treatment Facility

The Grasslands facility was constructed in the early 1970s by the previous owners of Cartwright Creek Utility District. The company owned land in and around the Grasslands area and needed to provide wastewater treatment so that the land could be developed. The system components are typical of the packaged wastewater plants that were state of the art at that time. The Grasslands facility equipment, including the adjacent main pump station mentioned in Section 2.1, were manufactured by Clow Corporation. Appendix D contains flow diagram and Appendix E contains an aerial view.

The main treatment unit is a circular, activated sludge system utilizing the extended aeration process. The circular tank is approximately 32 feet overall diameter and 16 feet deep. The aeration zone is on the outside circumference of the tank with the 16 foot diameter clarifier zone in the center. Also along the outside circumference of the main tank are separate digester and chlorine contact zones. Effluent from the main unit passes through the final filter and then flows by gravity to the discharge in the Harpeth River.

3.0 Improvements to Data Integrity

Cartwright Creek has addressed three areas of data integrity: The monthly DMR/MOR reports, laboratory data and flow data.

3.1. DMR/MOR

3.1.1 Background

Beginning in late 2013, verbal and written communications from TDEC and others identified deficiencies in Cartwright Creek's preparation and filing of the combined monthly Discharge Monitoring Reports (DMR) and Monthly Operating Reports (MOR). Cartwright Creek immediately began to address these concerns and worked throughout 2014 to submit revisions to TDEC. The August 21, 2014 Settlement Agreement and Consent Order summarized the requirements going forward from that date. See Appendix A)

3.1.2 DMR/MOR Revisions and Improvements

During 2014 Cartwright Creek completed the following

- In early 2014 developed and began to use new procedures for data management and entry and preparation of the DMR/MOR, including use of additional outside resources to enter and check data (see Appendix F)
- At the same time, checked and corrected the internal Excel spreadsheets used to enter data and prepare the DMR/MOR, including addition of a weekly average spreadsheet.
- Checked the laboratory data previously entered into the spreadsheets from 2011 through 2013 against the laboratory "bench sheets" to make sure the data was entered properly.
- Prepared and resubmitted revised MOR/DMR for 2012 and 2013 on March 28, 2014 and for 2011 on September 24, 2014. Changes from the previously submitted DMR/MOR were noted.
- Reviewed and commented on a revision to the DMR format requested by TDEC, modified the internal Excel spreadsheets to correspond to the change, and began using the revised format in November 2014.

At this point, Cartwright Creek has submitted all the requested DMR revisions to TDEC and is using the DMR forms with the proper format.

3.2. Laboratory Data

3.2.1 Background

Over the past few years, TDEC has stressed the compliance with US EPA's "Method Rule", which requires significantly more personnel time and resources to comply with laboratory equipment calibration and data recording than did previously acceptable methods. Audits of Cartwright Creek's laboratory by TDEC staff have pointed out needed areas of procedural and equipment improvements

3.2.2 Improvements

Cartwright Creek has done the following in to improve the laboratory and testing data and comply with new requirements.

- Purchased new laboratory equipment including: new Idexx E.Coli testing system, pH/Ammonia test meter and probes, drying oven, and laboratory scale.
- Began part-time employment of a licensed wastewater operator to assist Cartwright Creek's Lead Operator with laboratory analyses, data entry, and inspections.
- Due to the complexity of the "Method Rule", Cartwright Creek began using an outside laboratory (Test America) for CBOD5, Ammonia Nitrogen, and Suspended Solids analyses in late 2012. The data from the outside lab is consistent with historical analyses data from Cartwright Creek's laboratory.
- In late 2010, Cartwright Creek began utilizing an outside lab for the Total Nitrogen,
 Total Phosphorus, and other tests required in the new NPDES permit

All of the capital costs and monthly operating cost additions for the above improvements were implemented after the last tariff revision in 2009.

3..3 Flow Data

3.3.1 Background

TDEC raised concerns in previous site reviews about the two flow meters monitoring and recording the wastewater treatment faculty's influent and effluent flow. The ultrasonic level system and weir configuration were not standard and there was a concern that the measurements were inaccurate.

3.3.2 Improvements

Both the influent and effluent flow meters have been replaced and the monitoring locations improved. Cartwright Creek hired Southern Sales, a wastewater service company to improve the effluent flow measurement system by modifying the effluent weir and installing a new ultrasonic level measurement device for the effluent. Southern Sales also installed a new clamp-on in-pipe ultrasonic flow device on the influent line to the plant. In addition, the old flow totalizers in the building were replaced with digital readouts. New wiring was also pulled to the devices. The work was completed in August 2014.

One other improvement is underway which should improve flow data. There are sample pumps on both the effluent and influent that pump to two automatic samplers in the treatment building. These flows drain back into the main lift station resulting in double measurement on the influent flow and contribute to differences between influent and effluent values. Re-routing of the sample lines to discharge into the treatment system

instead of the pump station will be completed in spring 2015 and will eliminate the double measurement.

4.0 Compliance with Permit

This section discusses the existing wastewater treatment system's ability to meet the effluent discharge quality requirements in its NPDES permit.

4.1 Background

From its construction in the early 1970's until the change in ownership in 2005 the Grasslands facility was operated by a part time operator and repair work was essentially "as needed". There was no requirement to set funds aside for upgrades or replacements.

In 2005, the new ownership planned on replacing the aging system with a Sheaffer system, utilizing funds from rate increases and tap fees from new developments. In 2008, the economy caused new development to come to a standstill. In 2009, a tariff change was granted by the TRA, but not at the levels required for significant improvements even if the economy rebounded. Costs to operate the facility and comply with regulatory requirements and repairs have continued to increase.

But even given the above, the existing facility and the collection system infiltration, the plant continues to treat wastewater. With the exception of the effluent nutrient limits for total Nitrogen and Phosphorus (added in the 2010 NPDES permit), the effluent quality from the Cartwright Creek wastewater treatment facility has been in substantial compliance with NPDES permit.

There have been instances of individual effluent parameters being exceeded for short periods, usually one day or one sample, due to a plant upset condition caused by equipment failure, weather extremes, or other problems. Cartwright Creek takes these instances seriously and addresses them when they occur.

Cartwright Creek has openly discussed the current issues with the wastewater treatment and collection system in writing and in meetings with TDEC, HWRA, TRA and others.

The technical challenges are meeting the nutrient limits, the age of the current facility, and infiltration in the collection system. Meeting the technical challenges will require funding that Cartwright Creek has been unable to obtain.

4.2 Improvements

4.2.1 Ongoing Maintenance

Cartwright Creek will continue to maintain and repair mechanical equipment in the wastewater treatment facility. A large portion of the regular maintenance is accomplished by the Company's full-time operator. Larger maintenance items and emergencies are handled by outside service firms.

4.2.2 Long Term Solutions

A long term solution is needed to meet the current and future permit limits as well as the demand for additional sewer service. Cartwright Creek will more fully discuss the evaluation of long term options in a Nutrient Management Plan (NMP) that will be submitted to TDEC in March 2015.

The options that will be included:

- Collection system:
 - o Elimination of a majority of the I&I
 - o Rebuilding of the main pump station
- Existing Wastewater Treatment Facility:
 - Addition of a nutrient removal process step
 - Upgrades to the existing facility to lengthen the life
 - Replacement of the existing facility
- Pumping the Cartwright Creek wastewater to another treatment facility

Note that repair of the collection system items will be required whether the treatment facility is upgraded or the wastewater is pumped to another facility.

5.0 Overflows

5.1 Background

5.1.1 General Causes of Overflows

Overflows at Cartwright Creek do not occur frequently, but each is considered a serious event. Reiterating a description from the previously submitted Sewer Overflow Response

Plan: Overflows of untreated sewage have been and could be caused by a number of problems, sometimes combined, which include:

Pump station problems: Electrical or mechanical failure of one or more lift station pumps; failure of instrumentation and controls that operate the pumps; lightning or other external factors causing electrical failure; debris or grease in the lift station creating a pump or instrumentation failure; failure of the main power supply.

Collection Line Blockage: Plugging of blockage of one or more collection system gravity lines or force mains due to debris, silt, grease or other items.

Damage: Damage to collection lines and manholes caused by external factors such as contractors, vandalism, and nature,

Excessive rainfall infiltration: Excessive single rainfall events (for example, two to three inches of rain in a 6 hour period) that create large surges of infiltration may cause localized overflows from manholes. Overflows do not occur every time it rains heavily.

There have been 3 overflows reported in since January 2014, none since April 2014.

5.1.2 Boxwood Drive

During the last two years, two homeowners on Boxwood Drive have reported overflow incidents which Cartwright Creek believes TDEC is referring to in the Settlement Agreement and Consent Order.

The home at 1011 Boxwood Drive has a storm drain pipe visible in the backyard. The pipe carries rainwater from one side of Boxwood Drive to the other and discharges into a drainage swale leading to Cartwright Creek. This pipe crosses under the Cartwright Creek's gravity collection line running under the center of Boxwood Drive. In February 2013, the homeowner reported to TDEC and Cartwright Creek that sewage was coming out of the rainwater drainage pipe. There was sewage odor a white, debris-containing liquid discharge coming out of the line. It initially was thought that there could be an obstruction or a break in Cartwright Creek's collection line adjacent to the drainage pipe.

Upon Cartwright Creek's investigation, the main collection line was not plugged nor was there an above-ground visible explanation. Cartwright Creek subsequently had the portion of the collection line video inspected. No breaks in the collection line or manhole were seen. Samples taken from the drainage pipe upstream and downstream of the point it crosses under the Cartwright Creek main line under Boxwood Drive both had E.coli above 4500.

Farther to the north on Boxwood, the Cartwright Creek collection line along Boxwood turns toward the treatment facility between two homes at 1037 and 1035 Boxwood. After passing through two manholes, it becomes visible as it crosses Cartwright Creek. There are two manholes behind 1037 Boxwood, one approximately 125' from the home and visible in a common area and the other approximately 175' from the home hidden in brush. There were approximately 3 instances in the last year that Cartwright Creek is aware of when main pump station problems and/or excessive rain caused discharges from these manholes.

5.2 Improvements

5.2.1 Ongoing Improvements

Cartwright Creek has and will continue to repair specific collection system issues. Here are examples of recent work.

In early 2014, both of the main lift station pumps were rebuilt at a cost of over \$20,000. These pumps and underground valve are subject to severe service conditions and have been serviced similarly a number of times.

In mid-2014, the off-site notification alarm on the main pump station was replaced with a cellular based unit. We have also continued to replace parts in the pump station such as the level controls. When there is an indication of a main sewer plug, outside service companies have been brought in to jet and televise the line.

Cartwright Creek has authorized the company Bouchard and Sons to rebuild the top cover of one pump station and improve the wiring at one of the two pump stations service the Old Natchez development. When funds are available, the second pump station will be similarly improved. Again, when funds are available, remote alarm notification systems will be installed on both stations.

Cartwright Creek scoping and obtaining quotes replace the original level control system in the main pump station, which has been problematic. As other similar projects are identified and are affordable, they will be competed. In 2009, a 1000 foot section of mainline collection sewer near the plant was slip-lined at a cost of \$75,000.

5.2.2 Long Term Solutions

The long term solution to overflows, similar to other collection systems, is to reduce the I&I. This will require engineering studies and repairs that Cartwright Creek will need funding for.

5.2.3 Boxwood Drive Area

The drainage pipe behind 1011 Boxwood will continue to be monitored. Cartwright Creek has not seen evidence of subsequent similar discharges and nothing has been reported by the homeowner.

For the manholes behind the home at 1037 Boxwood, Cartwright Creek retained a surveyor to determine the top elevations of the manholes both there and across Cartwright Creek in a wooded area. The elevations indicate that the manholes are the local low points. If the tops of the two manholes were raised approximately 2 feet and the manhole across the creek was lowered by approximately a foot, the manhole across the creek, located in a less accessible wooded common area would be the low point. The area can be accessed from the Cartwright Creek treatment facility and inspected regularly. In the event of an overflow, signs and barricades can be posted, in accordance with the Sewer Overflow Response Plan. While not eliminating overflows entirely, this will reduce the chance of an overflow in a more accessible area.

6.0 Closing

Cartwright Creek believes the content in this report addresses the requirements of the Corrective Action Plan described in the Settlement Agreement. The company welcomes TDEC's comments.

Appendix A

Excerpt from Settlement Agreement

- (1) The alteration of the physical, chemical, radiological, biological, or bacteriological properties of any waters of the state;
- (3) The increase in volume or strength of any wastes in excess of the permissive discharges specified under any existing permit:
- (6) The discharge of sewage, industrial wastes, or other wastes into water, or a location from which it is likely that the discharged substances will move into waters;

T.C.A. §69-3-114(b)

In addition, it is unlawful for any person to act in a manner or degree which is violative of any provision of this part or of any rule, regulation, or standard of water quality promulgated by the board or of any permits or orders issued pursuant to the provisions of this part; or fail or refuse to file an application for a permit as required in §69-3-108; or to refuse to furnish, or to falsify any records, information, plans, specifications, or other data required by the board or the Commissioner under this part.

ORDER AND ASSESSMENT

XXIV.

WHEREFORE, PREMISES CONSIDERED, the Commissioner Orders AND the Respondent agrees that:

1. Within 90 days of execution of this ORDER, the Respondent shall review all MOR and DMR data from the time period of January 1, 2011, through the current reporting period. All corrections, updated MORs and DMRs, shall be submitted for approval by the Division. The Respondent shall report all future information on Division supplied DMRs, once the permit issued, using the existing forms to retroactively report the required information. The Respondent shall submit the documents in duplicate to the manager of the Division's Nashville Environmental Field Office (EFO-N), located at 711 R.S. Gass Boulevard, Nashville, Tennessee,

37243, and to the manager of the Compliance and Enforcement Unit of Water Resources at the William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243. All correspondence regarding this Order shall include the Respondent's name, order number, and county name.

- 2. Within 180 days of execution of this ORDER, the Respondent shall submit a corrective action plan (CAP) to the Division. The CAP shall include measures designed to insure data integrity, as well as measures to bring the STP into compliance with their permit. The CAP shall also focus on the overflow problems in and around the River Rest Subdivision that lead directly to Cartwright Creek. The Respondent shall submit the documents in duplicate to the manager of the Division's Nashville Environmental Field Office (EFO-N), located at 711 R.S. Gass Boulevard, Nashville, Tennessee, 37243, and to the manager of the Compliance and Enforcement Unit of Water Resources at the William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243. All correspondence regarding this Order shall include the Respondent's name, order number, and county name.
- 3. Within 120 days of execution of the ORDER, the Respondent shall submit for approval by the Division, a sewer overflow response plan (SORP). The SORP shall include procedures for minimizing health impacts and shall include measures to be taken when overflows discharge onto local streets or other public areas. The SORP shall also include appropriate measures for the notification of

affected property owners and stream users, and shall include notification of the news media when necessary to protect public health. The SORP shall state specific procedures for notifying known downstream users in the event that untreated wastewater is discharged to waters of the state by sanitary sewer overflow (SSO). These procedures shall include, but not be limited to, provisions for posting warning signs at places where the general public could gain access to polluted waters. Further, posted signs shall remain in place until in-stream monitoring reveals that the water body has returned to normal background conditions. In the event that the Division requires the Respondent to modify/revise the SORP, the Respondent shall submit the modified/revised SORP to the Division within thirty days of the date of notification. The SORP shall be submitted to the EFO-N and a copy to the manager of the Compliance and Enforcement Unit at the respective addresses in Item 1. The SORP shall be initiated within 30 days of written approval by the Division.

- 4. The Respondent shall come into compliance with their permit no later than December 31, 2015, and submit a final report summarizing all actions taken to achieve compliance.
- The Respondent shall, within 30 days of execution of this ORDER, pay damages
 to the Division in the amount of FOUR THOUSAND, SIX HUNDRED EIGHTYFOUR DOLLARS AND THIRTY-FIVE CENTS (\$4,684.35).

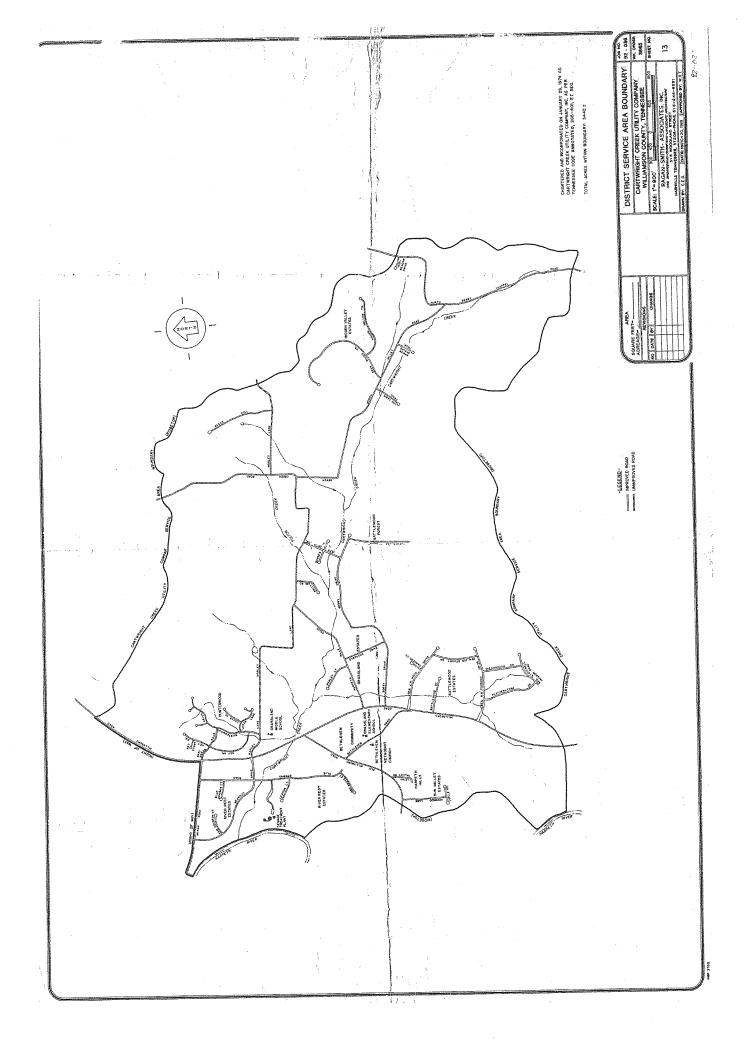
- 6. The Respondent shall complete a Supplemental Environmental Project ("SEP") in lieu of paying an assessed CIVIL PENALTY of FORTY-TWO THOUSAND, SEVEN HUNDRED DOLLARS (\$42,700.00) in this case. The Division reserves the right to pursue the full civil penalty if the Respondent defaults on completion of the SEP after timely notice from the Division.
- 7. The SEP, attached as Exhibit A, has been approved by the Division and will be implemented accordingly. If the SEP is not approved by the Department of Justice or the U.S. District Court for the Middle District of Tennessee—as part of the proposed Consent Decree between the Respondent and the Harpeth River Watershed Association—the Respondent will so notify the Division to discuss further options for a SEP.

RESERVATION OF RIGHTS

By agreeing to and entering into this SETTLEMENT AGREEMENT AND CONSENT ORDER, Respondent wishes to settle and resolve this matter as expeditiously and efficiently as possible. The Respondent neither admits nor denies the factual allegations or the alleged violations of law contained in this SETTLEMENT AGREEMENT AND CONSENT ORDER. Respondent agrees to comply with this SETTLEMENT AGREEMENT AND CONSENT ORDER, in order to avoid the cost of protracted litigation and to voluntarily promote greater environmental protection. Respondents reserve the right to contest the factual allegations and alleged violations of law contained in this SETTLEMENT AGREEMENT AND CONSENT ORDER in any

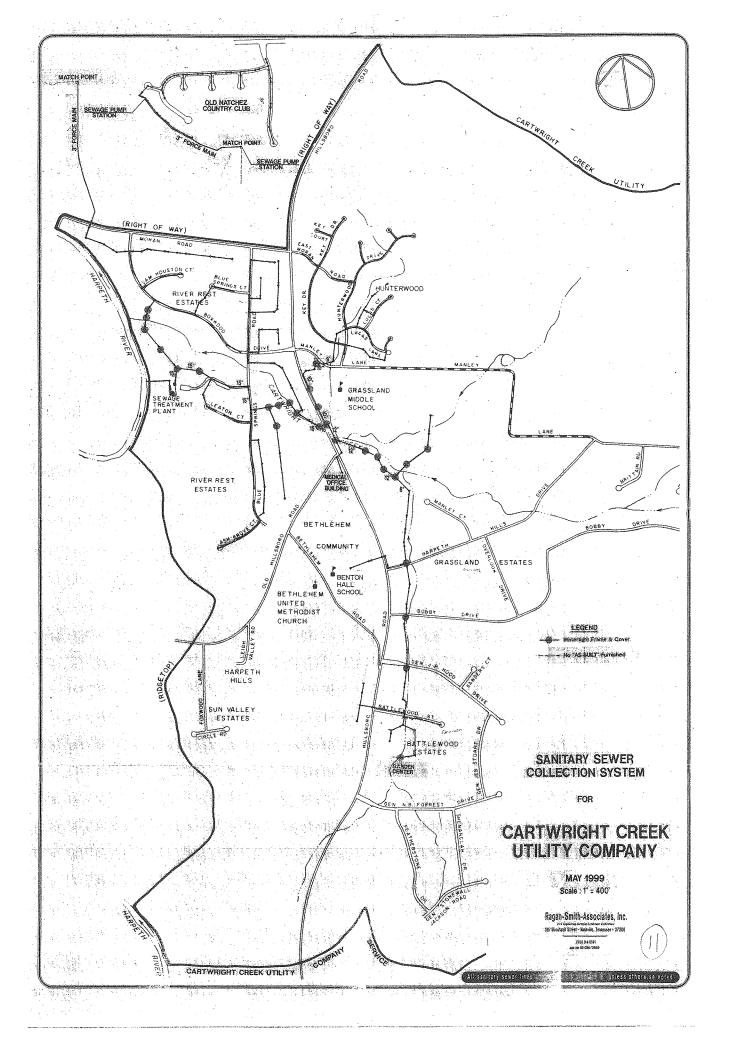
Appendix B

Service Territory Map



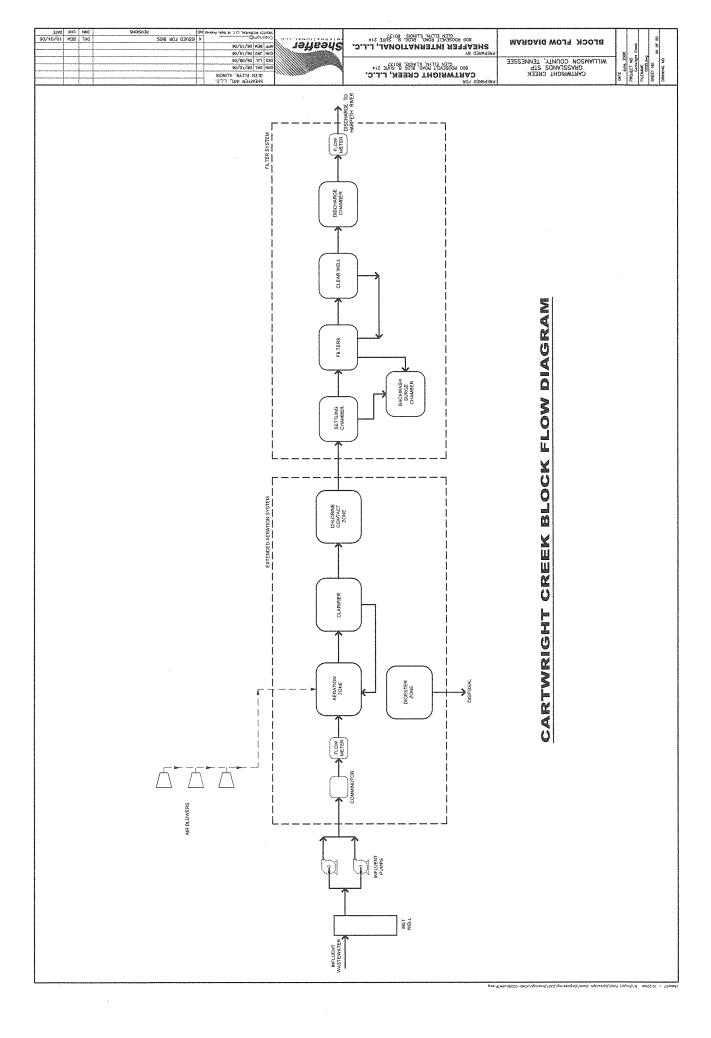
Appendix C

Collection System Map



Appendix D

Treatment System Flow Diagram

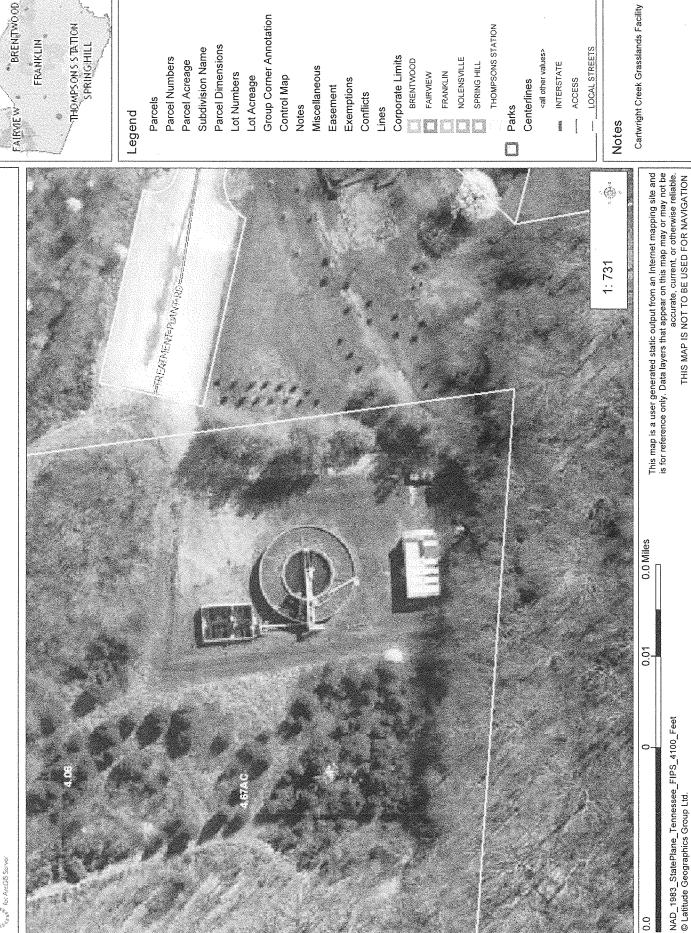


Appendix E

Aerial View of Treatment Facility



Tools & Features Demonstration Site



0.0

Appendix F

DMR/MOR Procedures

Cartwright Creek, LLC

Steps for checking/revising resubmitting the 2012 and 2013 monthly DMRs

Original issue: 2/21/14

The following steps apply to each month's revision:

- 1. Make electronic copy of original Excel spreadsheet, rename, and save in designated electronic file on hard drive. On top of the DMR form, note that this is revised.
- 2. Locate 20+ page hand written bench sheets in hard copy file (reorganize and re-staple if required).
- 3. Obtain electronic files (one or two 2 per month) from Test America, open each file and print only the page or pages with the client data.
- 4. Using the bench sheets (approximately 400 individual numbers interspersed with the 2000+ other data numbers on the bench sheets) and the Test America results (taking care that the results are used from the lab sheets and not standards) check every number entered in the MOR tab of the electronic file. If an entry is mistaken, missing, or changed use crosshatching in the electronic spreadsheet to note.
- 5. Hand list missing data, problems, questions so that these can be reviewed and addressed later.
- 6. Check formulas on the bottom of the MOR form (approximately 200). Again note changes with crosshatching.
- 7. Go to DMR. Check references in each cell (except 6 weekly averages cells) to make sure it refers to the proper cell on the MOR. Correct and crosshatch if needed.
- 8. Create a new workbook tab and copy and paste the weekly average spreadsheet into it. Enter the month and year in the appropriate spots. Make sure the days of the month correspond are on the proper days of the week. Add the days of the previous and subsequent months.
- 9. Copy and paste the effluent flow, CBOD, TSS, and Ammonia data to the newly created weekly averages spreadsheet either in the Summer or Winter months columns.
- 10. If the first week of the month is Sunday, go to the next step. If not on Sunday, then find hard copy of previous month's DMR/MOR and hand enter the data for effluent flow, CBOD, TSS, and Ammonia into the appropriate day or days of the sheet of the month you're working on.
- 11. If the last day of the month is Saturday, go to the next step. If the last day of the month is Sunday-Friday, the weekly averages for the month you are working on do not get included in the WEEKLY AVERAGE EVALUATION for the month you are working on. (But they do get included in the monthly averages calculated on the MOR) So, erase the data from the 5th week ONLY in one row at the bottom of the sheet, approximately row 46). Shade the 7 rows representing the 7 days of the last week of the month to designate that this data is not used but leave the data in.
- 12. Check the equations in the cells on the bottom of the weekly averages spreadsheet to make sure they have the correct formulas.

- 13. Go to the DMR and check/correct the six cells on the DMR that reference weekly averages on the weekly average spreadsheet. Note changes on the DMR with crosshatching.
- 14. Review each line of the DMR for permit violations and note the number on each line in the column provided.
- 15. For the weekly averages on CBOD, TSS, and Ammonia, look on the weekly averages spreadsheet for the number of violations and use that number on the DMR, adding to it any other violations that may be on the same line on the DMR.
- 16. Print out a copy of the revised DMR/MOR total workbook. Do a crosscheck with the originally submitted DMR to ensure that any changes are crosshatched.
- 17. Address the items in #5 above with Operations Manager and determine how to address. Make any changes to the DMR-MOR if required.
- 18. Make a final copy of the revised DMR-MOR and place in file folder with others. Put sticky note on 1st page noting that it is the final.
- 19. If the need for further corrections to the final sheet are discovered prior to submittal to TDEC, they could be made electronically and reprinted. Or if time does not permit accessing the electronic file, mark in red on the filed version and place sticky note on first page indicationg that corrections are required.

<u>Cartwright Creek, LLC</u> <u>Steps for Preparing and Submitting Monthly DMR's</u>

Revised: 2/10/15

The following steps apply to preparation of each month's DMR-MOR: Note that all of the steps below must be completed by post office close of the 14th day of the month following the reporting month.

1. Obtain copies:

- This reporting month's bench sheets from CC laboratory.
- Electronic copy of either the summer or winter master DMR-MOR file (month dependent)
- Electronic files from Test America for the reporting month (approximately 6 to 10)
- 2. Using the master DMR-MOR file, make copy on hard drive or USB drive with the appropriate month's date and year. Open file and enter the month and year in every place supplied.
- 3. Open each Test America file. Find and print the "client data" page or pages. Store this electronic file on the hard drive in a separate folder with a name corresponding to the week and month.
- 4. Comment: The bench sheets contain not only test results, but also many, many other pieces of data corresponding to equipment calibration and other information required by regulatory agencies. Each Test America file contains approximately 15 pages of information including lab QA/QC data. Only one or two pages contain the actual result data from the wastewater sample analyses and even these sheets contain additional QA/QC data.
- 5. For the above reason, take care in this step. Using the bench sheets and the Test America sheets, enter all the data into the MOR form (approximately 400). Check that the correct number (required by the NPDES permit) of samples have been taken each day, week, and/or month. Keep a list of missing data and other questions so that these can be reviewed and addressed later.
- 6. Visually check results on the bottom of each MOR column for averages, maximums, minimums, number of samples to make sure they look correct. Again, hand list problems that you cannot solve and correct.
- 7. Go to the weekly averages spreadsheet. Enter the month and year in the appropriate spots. Make sure the days of the month correspond are on the proper days of the week. Add the days of the previous and subsequent months.
- 8. Copy and paste the effluent flow, CBOD, TSS, and Ammonia data into the correct columns on the weekly averages spreadsheet.
- 9. If the first week of the month is Sunday, go to the next step. If not on Sunday, then find hard copy of previous month's DMR/MOR and hand enter the data for effluent flow, CBOD, TSS, and Ammonia into the appropriate day or days of the sheet of the month you're working on.
- 10. If the last day of the month is Saturday, go to the next step. If the last day of the month is Sunday-Friday, the weekly averages for the month you are working on do not get included in the

WEEKLY AVERAGES for the month you are working on. (But they do get included in the MONTHLY AVERAGES calculated on the MOR) So, erase the data from the 5th week ONLY in one row at the bottom of the sheet, approximately row 46). Shade the 7 rows representing the 7 days of the last week of the month to designate that this data is not used, but leave the data in.

- 11. Check the data and information that has been calculated automatically in the cells on the bottom of the weekly averages spreadsheet to make sure they make sense and no problems have been spotted.
- 12. Review each line of the DMR. Count the permit violations and note the number on each line in the column provided.
- 13. For the weekly averages on CBOD, TSS, and Ammonia, look on the weekly averages spreadsheet for the number of violations and use that number on the DMR, adding to it any other violations that may be on the same line on the DMR.
- 14. Add explanations at bottom of sheet or on separate sheet for each violation.
- 15. If there has been an overflow or other release requiring submittal of the TDEC overflow summary form, have the monthly summary form completed by the Operations Manager and set it aside for submittal with the completed DMR-MOR form. Enter the appropriate number of overflows, either dry weather or wet weather, on the DMR sheet. Add explanation at bottom.
- 16. Make sure the items in your hand list of issues are discussed and addressed with the Operations Manager or the Wastewater Operator. Make any changes to the DMR-MOR if required.
- 17. Do a final check before printing. Look at titles, month, error messages, numbers or words where there shouldn't be numbers or words.
- 18. Print out one final copy of the DMR-MOR with all attachments and give to the Operations Manager for final review.
- 19. After Operations Manager approval. Print out two copies the DMR/MOR total workbook. Include the weekly averages spread sheet with each. Have the Wastewater Operator and Operations Manager sign all sheets at the designated places.
- 20. Make two copies of the signed DMR/MOR package. Give the Wastewater Operator one copy along with a copy of the weekly averages spreadsheet page for the Grasslands site file. Make a copy of the Bench Sheets and return the originals to the Wastewater Operator for filing at the Grassland's facility. File one copy of the DMR package along in the Cartwright Creek office file. Include the Test America client data pages and the copy of the bench sheets.
- 21. Scan the signed MOR-DMR package (including attachments) and save in a separate hard drive folder with a month-specific name that is consistent from month to month on the desktop computer. Email this to the Wastewater Operator and the Operations Manager.

22. Prepare the two mailing envelopes to TDEC at the addresses shown below. Mail before the post office closes no later than the 14th of the following month.

Mailing addresses for DMR/MOR package (one copy each):

Mr. Mike Thornton Tennessee Department of Environment and Conservation Environmental Field Office 711 R.S. Gass Blvd. Nashville, TN 37243

State of Tennessee
Department of Environment and Conservation
Water Based Systems
Compliance and Enforcement Division
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243

Appendix F

Monthly Total N and Total P Summary

Cartwright Creek Total N and Total P Summary

		Average	Total N	litrogen	Total Pho	osporus
		Effluent	Ave	erage	Aver	age
Month	Year	(MGD)	lbs/day	mg/l	lbs/day	mg/l
Dec	2010	0.46	34.3	8.2	3.9	0.9
Jan	2011	0.45	37.5	10.1	4,9	1.3
Feb	2011	0.49	41.8	11.3	4.7	1.3
Mar	2011	0.52	29.5	8.8	3.7	1.1
Apr	2011	0.52	29.9	9.4	4.1	1.3
May	2011	0.47	24.7	7.2	2.8	0.8
Jun	2011	0.37	29.5	9	6.3	1.9
Jul	2011	0.42	19.2	5.5	1.4	0.4
Aug	2011	0.38	42.2	13.8	4.9	1.6
Sep	2011	0.47	34.6	8.7	4	1
Oct	2011	0.37	38.5	14.7	4.9	1.9
Nov	2011	0.48	51.5	10.5	5,9	1.2
Dec	2011	0.58	27.4	5.2	3.8	0.7
Jan	2012	0.55	32.1	6.3	2.4	0.5
Feb	2012	0.53	34.5	9.3	4.2	1.1
Mar	2012	0.55	Note 2	Note 2	Note 2	Note 2
Apr	2012	0.49	27.6	7.7	3.9	1.1
May	2012	0.46	10.7	3.1	0.9	0.3
Jun	2012	0.39	5.6	1.92	5	1.7
Jul	2012	0.45	14.1	3.5	2.7	0.7
Aug	2012	0.38	12.7	4.5	2.1	0.8
Sep	2012	0.47	20.1	4.6	3.2	0.7
Oct	2012	0.48	21.9	5.6	3	0.8
Nov	2012	0.44	29.7	8	2.2	0.6
Dec	2012	0.52	31.9	8.5	1.9	0.5
Jan	2013	0.58	24	4.9	0.59	0.12
Feb	2013	0.56	Note 3		Note 3	
Mar	2013	0.54	· · · september		n na	
Apr	2013	0.54	***************************************		phi) (an instance)	
May	2013	0.52			a frequencia	
Jun	2013	0.46			00000 T T T T T T T T T T T T T T T T T	
Jul	2013	0.48			· .	
Aug	2013	0.46	m-000 de-min Note as			
Sep	2013	0.43	ALCONOMIC TO		al control of the second of th	
Oct	2013	0.41				
Nov	2013	0.45	18.2	6.4	3.2	1.1
Dec	2013	0.56	26.7	6.3	3.9	0.9
Jan	2014	0.46	28.8	6.9	2.5	0.6
Feb	2014	0.58	23.6	4.7	3.7	0.8
Mar	2014	0.48	19.8	4.3	2.3	0.5

Apr	2014	0.62	18.0	3.6	1.7	0.3
May	2014	0.45	29.8	4.4	5.1	1.2
Jun	2014	0.37	9.3	4.7	0.9	0.4
Jul	2014	0.27	3.1	2.1	1.0	0.7
Aug	2014	0.24	8.0	5.3	6.6	4.3
Sep	2014	0.28	9.2	2.8	1.3	0.4
Oct	2014	0.38	16.0	3.7	5.1	1.2
Nov	2014	0.51	10.8	3.6	2.5	0.8
Dec	2014	0.52	Note 1		Note 1	
Count		44	34	34	34	34
Overal	l Ave	0.47	24.4	6.6	3.3	1.0
Max N	onthly	0.62	51.5	14.7	6.6	4.3
Winte		0.52	28.88	7.20	3.30	0.84
Pemit	Limit	N/A	15.00	None	7.50	None
			Note 4		Note 5	
Summ	er Aver	0.41	19.40	5.84	3.40	1.16
Pemit	Limit	N/A	15.00	1.90	7.50	3.50
			Note 4		Note 5	

Notes: 1. Sample not taken.

- 2. Could not find test data for March 2012
- 3. No sampling from Feb to Oct 2013
- 4. 15 lbs/day total N annual average
- 5. Proposed in 2013 draft permit

Appendix G

Monthly CBOD5, TSS, Ammonia Summary

Cartwright Creek, LLC

Excedences of Existing NPDES Updated 2/11/15

	Ammonia	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	
	TSS	0	0	0	0	1	0	. 1	0	0	0	0	1		Н	Ţ	0	0	0	0	0	0	0	0	0	2	
	CBODS	0	0	0	0	0	0	0	0	0	0	0	0	,	0	0	0	0	3	7	0	0	0	0	0	0	
(/15	Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Jan	Feb	Mar	Apr	May	Jun	lul	Aug	Sep	Oct	Nov	Dec	
Updated 2/11/15	Year	2011													2012												

- 1. From monthly DMR/MOR reports
 2. Includes weekly, montlhy, daily aves and max

2013	Jan	0	1	0
	Feb	0	7	2
	Mar	0	T	0
	Apr	2	0	0
	May	0	1	0
	Jun	0	0	0
	Jul	0	0	0
	Aug	0	0	0
	Sep	0	0	0
	Oct	0	0	0
	Nov	1	0	0
	Dec	4	0	0
2014		0	0	0
	Feb	0	0	0
	Mar	1	0	0
	Apr	Ţ	3	0
	May	3	-	5
	Jun	1	0	0
	Jul	2	0	0
	Aug	0	0	5
	Sep	0	0	٦
	Oct	0	0	0
	Nov	0	0	0
	Dec	0	0	0





STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

TDEC Office of General Counsel William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 2nd Floor Nashville, TN 37243 Phone: 615-741-1440

August 22, 2014

CERTIFIED MAIL #
7012 1010 0000 5814 0619

Joshua K. Chesser Smith Cashion & Orr, PLC 231 Third Avenue North Nashville, TN 37201-1603

Re: Settlement Agreement and Consent Order __WPC14-0021

Dear Mr. Chesser:

Enclosed are the Settlement Agreement and Consent Order, along with Attachment A, (the SEP) that was signed by the Commissioner yesterday. This Order will become effective upon your receipt. We want to thank you again for your cooperation.

I will also file a complete copy with Judge LaFevor, along with an Agreed Order of Dismissal, and that will close this case. With your permission, I'll sign for you on the dismissal.

Thanks again, and don't hesitate to call DWR if your client ever has any questions about complying with the Order or the SEP.

Sincerely,

David L. Henry
Assistant General Counsel

ATTACHMENT

STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

IN THE MATTER OF:) DIVISION OF WATER RESOURCES
CARTWRIGHT CREEK, LLC))) DOCKET # 04.30-126158J
RESPONDENT) CASE NO. WPC14-0021

SETTLEMENT AGREEMENT AND CONSENT ORDER

On April 21, 2014, a Commissioner's Order and Assessment was issued to Cartwright Creek, LLC. (Copy attached as Exhibit 1). The Respondent filed a timely appeal on May 22, 2014 (Copy attached as Exhibit 2). Pursuant to Tennessee Code Annotated (T.C.A.) §4-5-105 and §68-212-113(b), the Commissioner and the Respondent have reached a settlement. To implement this settlement (1) the Commissioner has agreed and by entering into this Settlement Agreement and Consent Order does hereby also dismiss the April 21, 2014 Order; and, the Respondent has agreed and by entering into this Settlement Agreement and Consent Order does also hereby waive its right to a contested case hearing before the Board in this matter and withdraws its appeal of the April 21, 2014 Order. This Settlement Agreement and Consent Order resolves and supersedes the April 21, 2014 Order. The Parties stipulate and agree to the following:

PARTIES

To

Robert Martineau, Jr. is the Commissioner of the Tennessee Department of

Environment and Conservation (hereinafter the "Department").

II.

Cartwright Creek (hereinafter the "Respondent") is a municipality in Williamson County, Tennessee. The Respondent operates a sewage treatment plant (STP) and the associated collection system (hereinafter the "system") in Franklin, Tennessee. Service of process may be made on the Respondent through the Mr. Bruce Meyer, located at 1551 Thompson's Station Road West, Thompson Station, Tennessee 37179.

JURISDICTION

III.

Whenever the Commissioner has reason to believe that a violation of Tennessee Code Annotated (T.C.A.) §69-3-101 et seq., the Water Quality Control Act (the "Act"), has occurred, or is about to occur, the Commissioner may issue a complaint to the violator and may order corrective action be taken pursuant to T.C.A. §69-3-109(a) of the Act. Further, the Commissioner has authority to assess civil penalties against any violator of the Act, pursuant to T.C.A. §69-3-115 of the Act; and has authority to assess damages incurred by the state resulting from the violation, pursuant to T.C.A. §69-3-116 of the Act. Department Rules governing general water quality criteria and use classifications for surface waters have been promulgated pursuant to T.C.A. §69-3-105 and are effective as the Official Compilation Rules and Regulations of the State of Tennessee, Chapters 0400-40-03, 0400-40-04, (hereinafter the "Rule"). Pursuant to T.C.A. §69-3-107(13), the Commissioner may delegate to the Director of the Division

any of the powers, duties, and responsibilities of the Commissioner under the Act.

IV.

The Respondent is a "person" as defined at T.C.A. §69-3-103(25) and as herein described, has violated the Act.

V.

The Harpeth River is "waters of the state" as defined by T.C.A. §69-3-103(42). Pursuant to T.C.A. 69-3-105(a)(1), all waters of the state have been classified by the Tennessee Water Quality Control Board for suitable uses. Department Rule 0400-40-4, Use Classifications for Surface Waters, is contained in the Official Compilation of Rules and Regulations for the State of Tennessee. Accordingly, all waters of the state have been classified at a minimum for the following uses: fish and aquatic life, recreation, irrigation, and livestock watering and wildlife, and may additionally be classified for use as industrial water supply, domestic water supply, and navigation.

VI.

Tennessee Code Annotated §69-3-108 requires a person to obtain a permit from the Department prior to discharging into waters of the state, or to a location from which it is likely that the discharged substance will move into waters of the state. Rule 0400-40-5-.08 states in part that a set of effluent limitations will be required in each permit that will indicate adequate operation or performance of treatment units used and that appropriately limit those harmful parameters present in the wastewater. Rule 0400-40-5-

.07 states in part that the permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of the permit. Furthermore, it is unlawful for any person to increase, in volume or strength, any wastes in excess of the permissive discharges specified under any existing permit.

FINDINGS OF FACT

VII.

The Division issued to the Respondent National Pollutant Discharge Elimination System (NPDES) permit number TN0027278 (hereinafter the "permit"). The current permit was modified to include a Carbonaceous Biochemical Oxygen Demand (CBOD) limit that was omitted from the original permit. The modified permit became effective on November 1, 2010, and expired on November 30, 2011. The STP has a design capacity of 0.25 million gallons per day (MGD) and is authorized to discharge treated effluent at outfall 001 into the Harpeth River at mile 68.8.

VIII.

On July 14, 2011, the Nashville Environmental Field Office (N-EFO) received a NPDES renewal application from the Respondent. The N-EFO reviewed the application and forwarded comments to the Central Office and was received on July 20, 2011. In the renewal application, the Respondent failed to include data for Oil & Grease (O & G) and Total Dissolved Solids (TDS).

On August 16, 2011, the Division sent the Respondent a Notification of Incomplete Application (NOIA) letter. The Division requested that the additional information be submitted in duplicate to the N-EFO by September 23, 2011.

X.

On August 24, 2011, the Division received documentation in response to the NOIA. The documentation included analytical results for O&G and TDS along with an updated form to complete the permit application. The Division is still in the process of completing the necessary steps to issue the permit.

XI.

On March 17, 2011, personnel from the Division conducted a Compliance Sampling Inspection (CSI) of the Respondent's STP. A CSI is conducted to determine compliance with the NPDES permit with emphasis on sample collection.

A subsequent letter dated April 25, 2011, detailing the results of the CSI was sent to the Respondent. Observations from the CSI included the following:

- Analytical samples between the Respondent and the state laboratories were generally in good agreement,
- The standard operating procedure (SOP) needed further development, and
- New analytical equipment was ordered or had been received; however a
 new autoclave was still needed.

XII.

On July 23, 2012, the Division issued the Respondent a Notice of Violation (NOV) for multiple late submittals of their required monthly discharge monitoring reports (DMRs) including February of 2011, March of 2011, August of 2011, October of 2011, March of 2012, May of 2012, and June of 2012. Since the Division issued the NOV, the Respondent has submitted subsequent monthly DMRs by the 15th day of the month following the submittal period, as required by the permit.

XIII.

On April 5, 2013, the Division received an electronic message (e-mail) from the Respondent. In the e-mail, the Respondent details their response to a complaint of an overflow in the vicinity of 1035 Boxwood Drive, Franklin, Tennessee. Upon arrival at the scene, representatives from the Respondent observed water flowing around the manhole cover rim but were unable to estimate a total volume. The Respondent stated in the e-mail that they did not believe the overflow to be "continuous or substantial".

XIV.

On July 18, 2013, the Division received an e-mail concerning a complaint that a tree had fallen and ruptured an exposed collection system pipe that crosses Cartwright Creek. In the e-mail the Respondent suggests that the tree fell sometime on the afternoon of Wednesday, July 10, 2013. A representative of the Respondent arrived on site at approximately 3:30 the afternoon of July 12, 2013, and noticed the top of the pipe was dented and liquid was squirting from the top of the pipe. The representative estimated the

flow to be approximately 5 gallons per minute (gpm). After assessing the situation, the Respondent found that the downstream pumps were pumping erratically. Upon investigation, the cause was determined to be the bubbler lines inside the control panels. These were fixed causing the pumps to once again function normally. The Respondent advised the Division that they would be installing a pipe seal jacket to fix the section of pipe damaged by the fallen tree.

XV.

On December 18, 2013, the Division received a complaint about sewage leaking from an aerial sewer line crossing Cartwright Creek. On December 19, 2013, personnel from the Division investigated the complaint, and at the time of the visit, no sewage was discharging from the ductile iron pipe. This section of pipe was the same location that was damaged in July of 2013. During that time the Respondent indicated that the pipe would be repaired by installing a pipe seal jacket. The pipe was subsequently repaired.

XVI.

During the monitoring period of January 2011, to January 2014, the Department discovered numerous alleged, self-reported violations on Respondent's DMRs.

XVII.

Recently division personnel conducted a file review of Cartwright Creek's DMRs and Monthly Operating Reports (MORs). During the review, discrepancies were found between data that was submitted on DMRs and data contained on the MORs. Also

noticed during the review were reporting parameters that were being improperly reported or were not being reported at all. Respondent is currently working toward a reconciliation of the DMRs and MORs which it believes will correct all such discrepancies and other reporting shortcomings within the timeframe prescribed herein.

XVIII.

On February 11, 2014, personnel from the Division conducted a Compliance Sampling Inspection (CSI) of the Respondent's STP. Division personnel met with a representative of the Respondent while conducting the inspection.

A subsequent letter dated April 30, 2014, detailing the results of the CSI was sent to the Respondent including:

- Numerous discrepancies between MORs/DMRs,
- · Problems with influent and effluent meters, and
- Equipment and units in poor condition or not operating at all.

XIX.

On April 2, 2014, the Division received revised and signed DMRs and MORs for the reporting years of 2012 and 2013, but the review is yet to be completed.

XX.

On May 19, 2014, Representatives from the Division's Compliance and Enforcement Unit along with a member from the Office of General Council (OGC) met with the Respondent. During the meeting The Respondent provided documentation

showing that all information required for the permit renewal application had been submitted to the Division.

XXI.

On May 21, 2014, Division personnel identified further mathematical errors contained in the DMRs that were resubmitted by the Respondent. Respondent shall correct any errors and deficiencies in their existing forms; future DMR's will use the newer forms. If Respondent is unsure of any past errors to be corrected, they may contact the Division for assistance.

XXII.

During the investigation, the Division incurred damages in the amount of FOUR THOUSAND SIX HUNDRED, EIGHTY-FOUR DOLLARS AND THIRTY-FIVE CENTS (\$4,684.35).

CONCLUSIONS OF LAW

XXIII.

By discharging wastewater effluent in violation of the terms and conditions of its NPDES permit, as stated herein, the Respondent has violated T.C.A. §§69-3-108(b)(1),(3), and (6), and 69-3-114(b), which state in-part:

T.C.A. §69-3-108(b)

It is unlawful for any person, other than a person who discharges into a publicly owned treatment works or a person who is a domestic discharger into a privately owned treatment works, to carry out any of the following activities, except in accordance with the conditions of a valid permit:

- (1) The alteration of the physical, chemical, radiological, biological, or bacteriological properties of any waters of the state;
- (3) The increase in volume or strength of any wastes in excess of the permissive discharges specified under any existing permit:
- (6) The discharge of sewage, industrial wastes, or other wastes into water, or a location from which it is likely that the discharged substances will move into waters;

T.C.A. §69-3-114(b)

In addition, it is unlawful for any person to act in a manner or degree which is violative of any provision of this part or of any rule, regulation, or standard of water quality promulgated by the board or of any permits or orders issued pursuant to the provisions of this part; or fail or refuse to file an application for a permit as required in §69-3-108; or to refuse to furnish, or to falsify any records, information, plans, specifications, or other data required by the board or the Commissioner under this part.

ORDER AND ASSESSMENT

XXIV.

WHEREFORE, PREMISES CONSIDERED, the Commissioner Orders AND the Respondent agrees that:

1. Within 90 days of execution of this ORDER, the Respondent shall review all MOR and DMR data from the time period of January 1, 2011, through the current reporting period. All corrections, updated MORs and DMRs, shall be submitted for approval by the Division. The Respondent shall report all future information on Division supplied DMRs, once the permit issued, using the existing forms to retroactively report the required information. The Respondent shall submit the documents in duplicate to the manager of the Division's Nashville Environmental Field Office (EFO-N), located at 711 R.S. Gass Boulevard, Nashville, Tennessee,

37243, and to the manager of the Compliance and Enforcement Unit of Water Resources at the William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243. All correspondence regarding this Order shall include the Respondent's name, order number, and county name.

- 2. Within 180 days of execution of this ORDER, the Respondent shall submit a corrective action plan (CAP) to the Division. The CAP shall include measures designed to insure data integrity, as well as measures to bring the STP into compliance with their permit. The CAP shall also focus on the overflow problems in and around the River Rest Subdivision that lead directly to Cartwright Creek. The Respondent shall submit the documents in duplicate to the manager of the Division's Nashville Environmental Field Office (EFO-N), located at 711 R.S. Gass Boulevard, Nashville, Tennessee, 37243, and to the manager of the Compliance and Enforcement Unit of Water Resources at the William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243. All correspondence regarding this Order shall include the Respondent's name, order number, and county name.
- 3. Within 120 days of execution of the ORDER, the Respondent shall submit for approval by the Division, a sewer overflow response plan (SORP). The SORP shall include procedures for minimizing health impacts and shall include measures to be taken when overflows discharge onto local streets or other public areas. The SORP shall also include appropriate measures for the notification of

affected property owners and stream users, and shall include notification of the news media when necessary to protect public health. The SORP shall state specific procedures for notifying known downstream users in the event that untreated wastewater is discharged to waters of the state by sanitary sewer overflow (SSO). These procedures shall include, but not be limited to, provisions for posting warning signs at places where the general public could gain access to polluted waters. Further, posted signs shall remain in place until in-stream monitoring reveals that the water body has returned to normal background conditions. In the event that the Division requires the Respondent to modify/revise the SORP, the Respondent shall submit the modified/revised SORP to the Division within thirty days of the date of notification. The SORP shall be submitted to the EFO-N and a copy to the manager of the Compliance and Enforcement Unit at the respective addresses in Item 1. The SORP shall be initiated within 30 days of written approval by the Division.

- 4. The Respondent shall come into compliance with their permit no later than December 31, 2015, and submit a final report summarizing all actions taken to achieve compliance.
- The Respondent shall, within 30 days of execution of this ORDER, pay damages
 to the Division in the amount of FOUR THOUSAND, SIX HUNDRED EIGHTYFOUR DOLLARS AND THIRTY-FIVE CENTS (\$4,684.35).

- 6. The Respondent shall complete a Supplemental Environmental Project ("SEP") in lieu of paying an assessed CIVIL PENALTY of FORTY-TWO THOUSAND, SEVEN HUNDRED DOLLARS (\$42,700.00) in this case. The Division reserves the right to pursue the full civil penalty if the Respondent defaults on completion of the SEP after timely notice from the Division.
- 7. The SEP, attached as Exhibit A, has been approved by the Division and will be implemented accordingly. If the SEP is not approved by the Department of Justice or the U.S. District Court for the Middle District of Tennessee—as part of the proposed Consent Decree between the Respondent and the Harpeth River Watershed Association—the Respondent will so notify the Division to discuss further options for a SEP.

RESERVATION OF RIGHTS

By agreeing to and entering into this SETTLEMENT AGREEMENT AND CONSENT ORDER, Respondent wishes to settle and resolve this matter as expeditiously and efficiently as possible. The Respondent neither admits nor denies the factual allegations or the alleged violations of law contained in this SETTLEMENT AGREEMENT AND CONSENT ORDER. Respondent agrees to comply with this SETTLEMENT AGREEMENT AND CONSENT ORDER, in order to avoid the cost of protracted litigation and to voluntarily promote greater environmental protection. Respondents reserve the right to contest the factual allegations and alleged violations of law contained in this SETTLEMENT AGREEMENT AND CONSENT ORDER in any

proceeding other than a proceeding brought to enforce the terms of this SETTLEMENT AGREEMENT AND CONSENT ORDER.

NOTICE AND WAIVER OF RIGHT TO APPEAL

By entering into this Settlement Agreement and Consent Order, Respondent waives its statutory rights under T.C.A. §69-3-109 and T.C.A. §4-5-301 <u>et seq</u> to seek review of this Order.

THIS CONSENT ORDER AND AGREEMENT SHALL BE EFFECTIVE UPON BEING SIGNED ON BEHALF OF BOTH PARTIES.

8/21/14 Date

Robert J. Martineau, Jr., Commissioner &

Tennessee Department of Environment and

Conservation

8/20/2014

Date

Joshua K. Chesser

Smith Cashion & Orr, PLC 231 Third Avenue North

Nashville, TN 37201

Counsel for Respondent





August 1, 2014

2 Victory Avenue, Suire 500 Nashville, TN 37213 615-921-9470 Fax 615-921-8011 Southern Environment on

VIA EMAIL Joseph.Sanders@tn.gov & David.Henry@tn.gov

Joseph Sanders
Office of General Counsel
Tennessee Department of Environment and Conservation
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, TN 37243

David L. Henry Office of General Counsel Tennessee Department of Environment and Conservation 312 Rosa L. Parks Avenue, 2nd Floor Nashville, TN 37243

Re: Commissioner's Order in the Matter of Cartwright Creek, LLC, Case No. WPC14-0021

Dear Messrs. Sanders and Henry,

As you are aware, in January 2014, the Harpeth River Watershed Association ("HRWA") sent a notice of intent to sue Cartwright Creek, LLC pursuant to the citizens' suit provision of the Clean Water Act. HRWA alleged that Cartwright Creek's sewage treatment plant was violating its National Pollutant Discharge Elimination ("NPDES") permit issued by the Tennessee Department of Environment and Conservation. Since January, HRWA and Cartwright Creek have been negotiating a settlement of the claims identified by HRWA. The parties have now reached an agreement in principal, and it is anticipated that this agreement will be reflected in a proposed consent decree to be filed in the U.S. District Court for the Middle District of Tennessee, along with the complaint necessary to initiate the case. Of course, the consent decree must be approved by both the Department of Justice and the Court.

It is our understanding that the Commissioner's Order served upon Cartwright Creek in April 2014 by TDEC will be resolved as an Agreed Order between TDEC and Cartwright Creek.

This letter is to inform you that, to resolve the claims asserted by HRWA, Cartwright Creek has agreed to fund Supplemental Environmental Projects ("SEPs") at a cost of \$40,000 over four years. Funding for the SEPs will likely be paid by Cartwright Creek, LLC to the Tennessee Wildlife Resources Foundation ("TWRF"), a 501(c)(3) tax-exempt non-profit organization formed to support the Tennessee Wildlife Resources Agency ("TWRA"). As required, TWRF will have agreed to read the proposed consent decree, spend any monies it receives under the proposed consent decree for the purposes specified in the judgment, and will submit report to the Court and the parties describing how SEP funds were spent.

TDEC Office of General Counsel July 29, 2014 Page 2 of 2

The specific SEP proposal is that TWRF will direct Cartwright Creek's funds to TWRA which, in cooperation with the U.S. Geological Survey ("USGS"), will site water quality gages at locations along the Harpeth River in order to support watershed-level receiving stream investigations and comprehensive data collection. It is the parties' goal that this data can be translated into water quality improvements by relevant regulatory agencies.

Cartwright Creek, LLC will fund the SEP through three annual grants, each estimated at \$10,000 (and not to exceed \$13,333), representing the actual cost per year charged to TWRA by USGS for funding the water quality gages. At the beginning of the fourth year, the balance of the \$40,000 in SEP funds (i.e., those funds not used to fund USGS water quality ages in the first three years) will be used by TWRA to fund water quality monitoring, studies, or improvement projects in the Harpeth River Watershed. In spending the balance of the SEP funds, TWRA will act upon the advice and counsel of a stakeholder group, to include the parties and TDEC and/or EPA, created pursuant to the proposed consent decree.

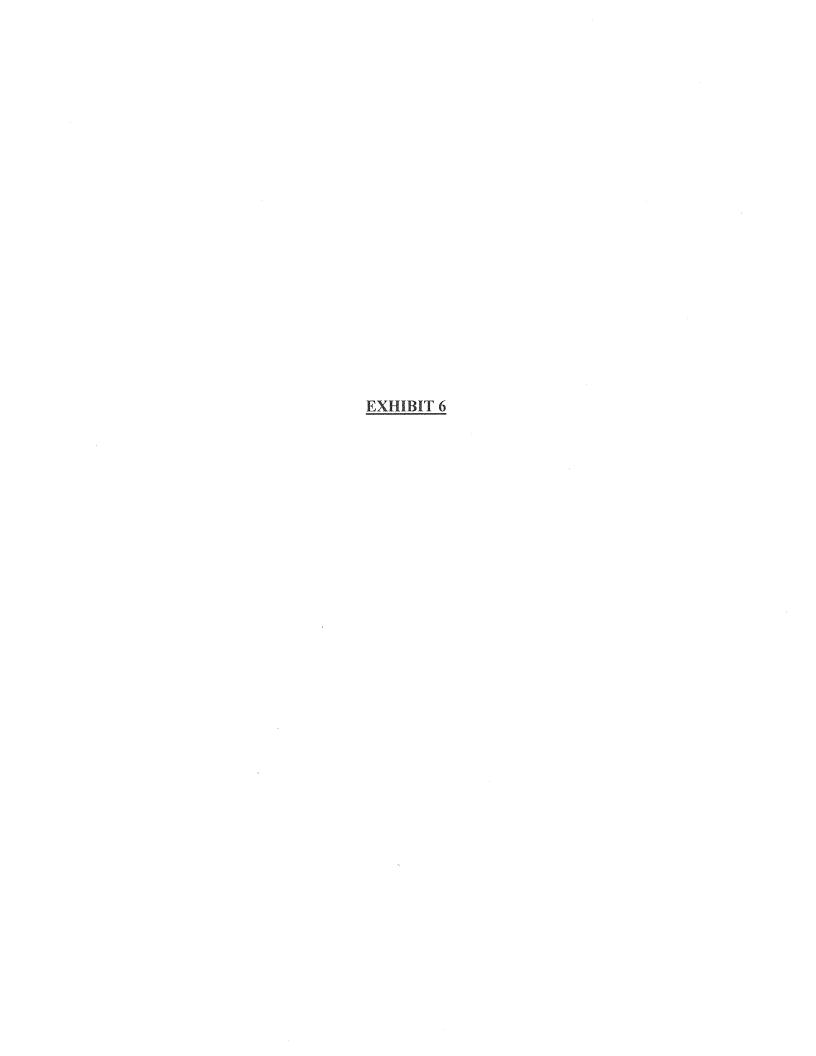
The parties appreciate this opportunity to study and protect the Harpeth River. The proposed water quality monitoring and studies will help to improve water quality in and protect the Harpeth River watershed, an invaluable resource for Williamson County and the State of Tennessee and its citizens.

If the SEP is not approved by the Department of Justice or the U.S. District Court for the Middle District of Tennessee, HRWA will alert TDEC. Please let us know if you need additional information at this time.

Sincerely,

Anne Passino

cc: Joshua Chesser



UNITED STATES DISTRICT COURT MIDDLE DISTRICT OF TENNESSEE NASHVILLE

HARPETH RIVER WATERSHED ASSOCIATION,)
Plaintiff,)
\mathbf{v}_{\cdot}) Civil Action No. 3:14-cu-01772
CARTWRIGHT CREEK, LLC,)))
Defendant.)

CONSENT DECREE

WHEREAS, the parties to this Consent Decree are Plaintiff Harpeth River Watershed Association ("Plaintiff") and Defendant Cartwright Creek, LLC ("Defendant") (collectively, the "Parties");

WHEREAS, Plaintiff is a non-profit corporation based in Williamson County, Tennessee, with members who live and work near the Harpeth River;

WHEREAS, Defendant is a Tennessee manager-managed limited liability company that owns and operates a sewage treatment plant and sewer system in Williamson County, Tennessee; Defendant's principal office is located in Glen Ellyn, Illinois;

WHEREAS, Plaintiff filed a Complaint in this action on August 28, 2014 pursuant to Section 505 of the Clean Water Act ("CWA"), 33 U.S.C. § 1365, alleging certain violations of the National Pollution Discharge Elimination System ("NPDES") permit issued to Defendant pursuant to § 402 of the CWA, 33 U.S.C. § 1342;

WHEREAS, in April 2014, the Tennessee Department of Environment and Conservation ("TDEC") issued a Commissioner's Order against Defendant to address violations of the Tennessee Water Quality Control Act, Tenn. Code Ann. § 69-3-101 et seq.;

WHEREAS, recognizing that it is in the best interest of the Parties to resolve their disputes and protect the Harpeth River, Defendant wishes to compromise and resolve all claims between them without admission of liability or further proceedings;

WHEREAS, the Parties recognize, and the Court, by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties, and that this Consent Decree is an adequate and equitable resolution of the claims in Plaintiff's Complaint; and

WHEREAS, a copy of the proposed Consent Decree was received by the Attorney General of the United States and the Administrator of the United States Environmental Protection Agency ("EPA") before entry of this Consent Decree as required by 33 U.S.C. § 1365(c)(3).

NOW THEREFORE, before the taking of testimony, without trial or determination of any issue of fact or law, without any admission by Defendant of the violations alleged in the Complaint, and in consideration of the mutual promises and covenants contained herein, with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. For purposes of the entry of this Consent Decree, the Parties agree that the Court has subject matter jurisdiction over this action, pursuant to 28 U.S.C. § 1331 or 33 U.S.C. § 1365(a). For purposes of the entry of this Consent Decree, the Parties agree that venue lies in this

District pursuant to Section 505(c)(1) of the CWA, because it is the judicial district in which the alleged violations occurred.

II. APPLICABILITY

- 2. The provisions of this Consent Decree shall apply to, be binding upon, and inure to the benefit of the Parties and their respective successors and/or assigns.
- 3. In the event of a transfer of a portion of the ownership or operation of Defendant's sewage treatment plant or sewer system (collectively "Sewer System"), whether in compliance with the procedures of this Paragraph or otherwise, Defendant shall remain obligated to ensure that the terms of this Consent Decree are implemented with respect to the portion of the ownership or operation of the Sewer System retained by Defendant. Defendant agrees to copy Plaintiff on any notices to TDEC required under its NPDES permit with respect to a change of ownership. Defendant shall require, as a condition of any sale or transfer, that the purchaser or transferee agrees in writing to be bound by this Consent Decree and submit to the jurisdiction of the Court for its enforcement. Any attempt to transfer ownership or operation of the Sewer System without complying with this Paragraph constitutes a violation of this Consent Decree.
- 4. Within fourteen (14) Days after the Effective Date of the Consent Decree, Defendant shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any substantive provision of this Consent Decree, as well as to any contractor retained to perform Work required under this Consent Decree.
- 5. In any action to enforce this Consent Decree, Defendant shall not raise as a defense the failure of any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

6. Defendant agrees not to challenge the terms of this Consent Decree in any bankruptcy proceeding.

III. DEFINITIONS

- 7. Terms used in this Consent Decree that are defined in the Clean Water Act or in regulations promulgated pursuant to the Clean Water Act shall have the meanings assigned to them in the Clean Water Act, 33 U.S.C. §§ 1251 et seq. and regulations promulgated under the Clean Water Act, unless otherwise provided in this Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:
- a. "Certification" or "Certify" when used in this Consent Decree shall require

 Defendant to comply with Paragraph 8 of this Consent Decree.
- b. "Date of Entry" shall mean the date on which this Consent Decree is entered by the United States District Court for the Middle District of Tennessee.
- c. "Day" shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day.
- d. "Deliverable" shall mean any written document required to be prepared and/or submitted by or on behalf of Defendant pursuant to this Consent Decree. Specifically, for purposes of this Consent Decree, "deliverable" shall include (1) the Nutrient Management Plan presented to the Tennessee Department of Environment and Conservation and related annual updates, (2) documentation of the annual grant of funds for the Supplemental Environmental Projects, and (3) reports about the status of the Supplemental Environmental Projects, as required pursuant to Section VII of this Consent Decree.

- e. "Month" shall mean shall mean one calendar month running from the numbered Day to the same numbered Day of the following calendar month, regardless of whether the particular month has 28, 29, 30 or 31 days. In the case where a triggered event would occur on a day of the month which does not exist (for example, on February 30), then the event shall be due on the first (1st) day of the following month (for example, March 1).
- f. "NPDES" shall mean the National Pollutant Discharge Elimination System authorized under Section 402 of the CWA, 33 U.S.C. § 1342.
- g. "NPDES Permit" shall mean NPDES permit No. TN0027278 issued to Defendant pursuant to Section 402 of the Clean Water Act, 33 U.S.C. § 1342, for the Cartwright Creek WWTP, and any future extended, modified, or reissued permits.
- h. "Timely" when applied to the submittal of a Deliverable shall mean submitted no later than the deadline established in this Consent Decree (or in a document approved pursuant to this Consent Decree) and containing all of the elements pertaining to the submittal as set forth in this Consent Decree (or in a document approved pursuant to this Consent Decree). "Timely," when applied to the implementation of any Work shall mean implemented no later than the deadline established in this Consent Decree (or in a document approved pursuant to this Consent Decree) and in accordance with the elements pertaining to such Work as set forth in this Consent Decree (or in a document approved pursuant to this Consent Decree).
- i. "Wastewater Collection and Transmission System" or "WCTS" shall mean the wastewater collection, retention, and transmission systems, including all pipes, Force Mains, Gravity Sewer Lines, lift stations, Pump Stations, manholes and appurtenances thereto, owned or operated by Defendant that are designed to collect and convey municipal sewage (domestic, commercial and industrial) to Defendant's sewage treatment plant.

j. "Work" shall mean all activities Defendant is required to perform under this Consent Decree.

IV. COMPLIANCE REQUIREMENTS

8. <u>Certification</u> In all Deliverables, notices, documents, or reports required to be submitted to Plaintiff, the State of Tennessee, the United States, and this Court pursuant to this Consent Decree, Defendant shall, pursuant to 40 C.F.R. § 122.22, sign and Certify such notices, documents, and reports as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

V. CIVIL PENALTIES

9. The Parties agree that the cost of the Supplemental Environmental Projects described below shall take the place of any civil penalties that might have been awarded for any violations of the CWA that might have been found had this matter progressed to trial.

VI. INJUNCTIVE RELIEF

10. <u>Permit Compliance</u>. This Consent Decree is not and shall not be interpreted to modify any existing permit issued pursuant to any federal, state, or local laws or regulations.

- 11. <u>Nutrient Management Plan</u>. Defendant agrees to diligently pursue the development and implementation of a Nutrient Management Plan to the satisfaction of the Tennessee Department of Environment and Control ("TDEC"), in accordance with the terms of Section 3.5 and Attachment 1 of its currently effective NPDES Permit.
- a. Defendant shall demonstrate diligence by presenting TDEC with a Nutrient Management Plan within one hundred twenty (120) Days of the entry of this Consent Decree. Defendant shall diligently pursue written confirmation of TDEC's acceptance or rejection of the proposed Nutrient Management Plan. Defendant shall submit a report to TDEC about the status of implementation of the Nutrient Management Plan one hundred eighty (180) Days after receiving TDEC's written approval of the Nutrient Management Plan. In accordance with the anticipated terms of the NPDES Permit, Defendant shall, twelve Months after issuance of the NPDES Permit, update the Nutrient Management Plan and submit a report of such updates to TDEC on February 15 of each subsequent year thereafter.
- b. The Parties acknowledge that on April 23, 2013, TDEC published a draft renewed NPDES Permit for Defendant's facility, which the parties expect to be issued in final form after the U.S. Environmental Protection Agency has completed its review. Defendant further agrees to comply with the Nutrient Management Plan provisions contained in the forthcoming reissued NPDES Permit No. TN0027278, provided that Defendant reserves the right to appeal the provisions of the Permit related to Nutrient Management Plans only in the event such terms are materially different than the terms of the Draft Permit. If Defendant asserts that the NPDES permit's Nutrient Management Plan terms are "materially different" than the draft permit, Defendant shall notify Plaintiff, and the Parties shall follow the dispute resolution procedures outlined in Section VII.

- 12. <u>Stakeholder Group</u>. Defendant agrees to participate in a group of stakeholders who have an interest in the use and health of the Harpeth River ("Stakeholder Group") to create a watershed restoration plan and design river studies necessary to further environmental restoration and protection within the Harpeth River Watershed. Groups with an interest in the health and/or study of the Harpeth River shall include non-governmental organizations, governmental agencies, regulated parties, and technical experts from academic institutions or the private sector.
- a. Defendant agrees that one or more representatives of Defendant shall participate in good faith in the activities of the Stakeholder Group and agrees to take no action that would unreasonably delay the Stakeholder Group's progress or completion of the Stakeholder Group's mission and projects.
- b. Defendant acknowledges the need for more comprehensive instream data collection and the translation into viable Harpeth River upgrades.

VII. SUPPLEMENTAL ENVIRONMENTAL PROJECTS

- 13. <u>Continuous In-Stream Monitoring and Water Quality Investigations</u>. Defendant shall pay Forty Thousand Dollars (\$40,000) for Supplemental Environmental Projects ("SEP") to promote water quality monitoring and studies of the Harpeth River. Payments shall be made according to the schedule set forth in subparagraph (d) below.
- a. As set forth more specifically in subparagraph (d) below, Defendant shall make three annual grants of Eleven Thousand Dollars (\$11,000) to the Tennessee Wildlife Resources Foundation ("TWRF"), a non-profit organization, to fund continuous water quality monitoring gages for a period of three (3) years. TWRF will direct the funds to the Tennessee Wildlife Resources Agency ("TWRA") to act as a cooperator with the United States Geological Survey ("USGS") to place and operate water quality gages on the Harpeth River.

- b. Defendant acknowledges that TWRA, in coordination with USGS, will use its expertise to select parameters for study and to site gages at locations to support watershed-level receiving stream investigations and comprehensive data collections. This may include placing gages at either new or existing sites, or both. This may include adding the capacity to study new parameters, such as nutrients, at existing water quality gages. It is agreed that the first monitoring period funded by Defendant's first annual payment may be less than one full year so as to focus on low-flow summer conditions. During this first monitoring period, the monitoring gages may be relocated several times to different sites on the Harpeth River in order to determine the best locations for placement in order to obtain the most relevant data. It is anticipated that monitoring gages will not be relocated during subsequent years.
- c. Defendant acknowledges that at the beginning of the fourth year (thirty-six (36) Months after entry of the consent decree), the balance of Defendant's \$40,000 SEP funds that have not already been used to fund water quality gages during the first three years will be used by TWRA, acting upon the advice and counsel of the Stakeholder Group, see Subsection 6, to fund water quality monitoring, studies or improvement projects in the Harpeth River watershed.

d. SEP Payments:

- (1) <u>First SEP Payment</u>: Eleven Thousand Dollars (\$11,000) to be paid to TWRF on or before the later of (A) the seventh (7th) Day after the Date of Entry of this Consent Decree or (B) forty-five (45) days after the date this Consent Decree is filed with the Court;
- (2) <u>Second SEP Payment</u>: Eleven Thousand Dollars (\$11,000) to be paid to TWRF twelve (12) Months after the Date of Entry of this Consent Decree;

- (3) <u>Third SEP Payment</u>: Eleven Thousand Dollars (\$11,000) to be paid to TWRF twenty-four (24) Months after the Date of Entry of this Consent Decree;
- (4) <u>Fourth SEP Payment</u>: Seven Thousand Dollars (\$7,000) to be paid to TWRF thirty-six (36) Months after the Date of Entry of this Consent Decree, and to be used in accordance with subparagraph (c) above.
- e. Defendant will coordinate with TWRA to submit an annual SEP status report and a final SEP Completion Report at the conclusion of the four year SEP period pursuant to Paragraph 14 below.
- 14. <u>SEP Completion Report</u>. Within thirty (30) Days after the date set for completion of the SEP, Defendant shall submit a SEP completion report to the Court and the entities identified in Section XII. The SEP Completion Report shall contain all of the following information:
- a. A detailed description of the SEP as implemented, based on information provided by TWRA.
- b. An itemized list of TWRA's costs and Defendant's payments pursuant to the SEP.
- c. Certification that the SEP has been fully implemented pursuant to the provisions of this Consent Decree. For purposes of this Consent Decree, "fully implemented" shall mean the payment of \$40,000 toward water quality monitoring and Harpeth River studies as described above.
- d. After receiving the SEP Completion Report, Plaintiff shall notify Defendant whether or not Defendant has satisfactorily completed the SEP.

e. Any public statement, oral or written, in print, film, or other media, made by Defendant making reference to the SEP under this Consent Decree shall include the following language: "This project was undertaken in connection with the settlement of an enforcement action, Harpeth River Watershed Association v. Cartwright Creek, taken on behalf of citizens under the Clean Water Act."

VIII. EFFECTIVE DATE

15. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court.

IX. <u>RETENTION AND PRODUCTION OF RECORDS</u>

- 16. Defendant shall provide to Plaintiff concurrent copies of all required reports and correspondence with the Tennessee Department of Environment and Conservation ("TDEC") and EPA concerning compliance with their NPDES permits for a period of two years from entry of this consent decree.
- 17. Until one (1) year after the termination of this Consent Decree pursuant to Section XIV, Defendant shall retain, and shall instruct their contractors, consultants, and other agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in their or their contractors' or other agents' possession or control, or that come into their contractors' or other agents' possession or control, and that relate in any manner to Defendant's satisfaction of its obligations under this Consent Decree.
- 18. This Consent Decree does not affect any other rights to obtain information, held by Plaintiff pursuant to applicable federal laws, regulations, or permits, nor does it limit or affect

any duty or obligation of Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

X. DISPUTE RESOLUTION

- 19. Unless otherwise expressly provided for in this Consent Decree, the Parties shall attempt to resolve any and all disputes arising under or with respect to this Consent Decree through the dispute resolution procedures of this Section ("Dispute Resolution").
- 20. A dispute shall be considered to have arisen when one party gives Notice of a Dispute to the opposing party pursuant to the requirements of Section XV hereof. Such Notice of Dispute shall state clearly the matter in dispute.
- 21. If after thirty (30) Days after submission of the Notice of Dispute, the complainant concludes that the Parties were unable to resolve the dispute, then the complainant may seek resolution of the dispute by the Court. The Parties may continue to attempt to resolve the Notice of Dispute while the matter is pending before the Court.
- 22. The invocation of Dispute Resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendant under this Consent Decree.

XI. FORCE MAJEURE

- 23. "Force majeure," for purposes of this consent decree, is defined as any event arising from causes beyond the control of Defendant, or any person controlled by defendant, or of Defendant's contractors or consultants, that delays or prevents the performance of any obligation under this Consent Decree despite Defendant's best efforts to fulfill the obligation.
- 24. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a *force majeure* event,

Defendant shall provide notice to Plaintiff, within a reasonable time after Defendant first knew or should have known that the event might cause a delay. Defendant shall also provide an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Defendant's rationale for attributing such delay to a *force majeure* event if it intends to assert such a defense; and a statement as to whether, in the opinion of Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendant shall include with any written notice required by this Section all available documentation.

- 25. If Plaintiff agrees that the delay or anticipated delay is attributable to a *force* majeure event, the time for performance of the obligations under this Consent Decree that are affected by the *force majeure* event may be extended for such time as is necessary to complete those obligations.
- 26. If Plaintiff does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, or does not agree to the extension of time sought by Defendant, then Defendant may invoke Dispute Resolution under Section VIII of this Consent Decree.
- 27. If Defendant invokes Dispute Resolution under Section X of this Consent Decree, Defendant shall have the burden of demonstrating that the delay or anticipated delay has been or will be caused by a *force majeure* event; the number of Days of delay or anticipated delay that was or will be caused by such *force majeure* event; that the duration of the delay or the extension sought was or will be warranted under the circumstances; that Defendant could not have foreseen and prevented such delay; that Defendant exercised best efforts to prevent, avoid,

minimize, and mitigate the delay and its effects; and that Defendant complied with the requirements of this Section.

XII. MODIFICATION

28. The terms of this Consent Decree may be modified only by a subsequent written agreement signed by all the Parties, or by order of the Court. Where the modification constitutes a material change to any term of this Consent Decree, it shall be effective only upon approval by the Court.

XIII. TERMINATION

- 29. This Consent Decree shall be effective for a term of four (4) years after the Effective Date.
- 30. If prior to the fourth (4th) anniversary of the Effective Date, Defendant has completed the requirements of Sections VI and VII of this Consent Decree, Defendant may submit to Plaintiff a Request for Termination, stating that Defendant has satisfied those requirements, together with supporting documentation.
- 31. Following Plaintiff's receipt of Defendant's Request for Termination, the Parties may confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Consent Decree. If Plaintiff agrees that the Consent Decree may be terminated, Plaintiff and Defendant shall jointly execute and file with the Court for the Court's approval a Notice of Termination of Consent Decree stipulating termination of the Consent Decree.
- 32. Plaintiff shall have up to ninety (90) Days to evaluate Defendant's request for termination, but Plaintiff shall not unreasonably withhold its agreement that the Consent Decree

qualifies for termination. However, if Plaintiff determines that the Consent Decree may not be terminated, Defendant may invoke Dispute Resolution under Section X of this Consent Decree.

33. Termination of this Consent Decree does not discharge Defendant of its obligations set forth in Section IX (Retention of Records) of this Consent Decree.

XIV. FINAL JUDGMENT AND RELEASE OF CLAIMS

34. Upon entry, this Consent Decree shall become effective and shall constitute a final judgment of the Court as to the Parties. The Consent Decree shall be deemed to settle all claims asserted by Plaintiff in this case against Defendant. Accordingly, Plaintiff releases and discharges Defendant from any and all claims and causes of action raised in the Complaint in this action and/or the 60-day notice to Defendant related thereto. This release does not waive or release any claims, demands, or liabilities arising under or in connection with the Consent Decree, nor does it waive or release any claims, demands, or liabilities based on future events.

XV. NOTICES

35. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and sent by U.S. Certified Mail, Return Receipt Requested, or nationally recognized overnight delivery service (such as Federal Express or UPS), with all delivery charges paid by the sender and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611

Chief, Clean Water Enforcement Branch

Water Protection Division
U.S Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303

To Environmental Protection Agency:

Chief, Clean Water Enforcement Branch
Water Protection Division
U.S Environmental Protection Agency, Region 4
61 Forsyth Street, S.W.
Atlanta, GA 30303

To the State of Tennessee:

Office of the Attorney General Environmental Division P.O. Box 20207 Nashville, Tennessee 37202

Director, Water Pollution Control Tennessee Department of Environment and Conservation 312 Rosa L. Parks Ave - Tennessee Tower - 2nd Floor Nashville, TN 37243 (615) 532-0109

To the Tennessee Department of Environment and Conservation:

Director, Water Pollution Control Tennessee Department of Environment and Conservation 312 Rosa L. Parks Ave - Tennessee Tower - 2nd Floor Nashville, TN 37243 (615) 532-0109

To the Tennessee Wildlife Resources Foundation:

Executive Director Tennessee Wildlife Resources Foundation 5000 Linbar Drive, Suite 275 Nashville, TN 37211 615.831.9311 office 615.831.9081 fax

To the Tennessee Wildlife Resources Agency:

Instream Flow and Project WILD Coordinator Tennessee Wildlife Resources Agency

P.O. Box 40747 Nashville, Tennessee 37220 (615) 781-6643

To Defendant:

Thomas L. Kolschowsky 800 Roosevelt Road, Suite A120 Building A Glen Ellyn, Illinois 60137-5846

Henry M. Walker
Bradley Arant Boult Cummings LLP
Roundabout Plaza
1600 Division Street, Suite 700
Nashville, TN 37203
P: 615.252.2363
F: 615.252.6363
hwalker@babc.com

To the Plaintiff:

Executive Director Harpeth River Watershed Association P.O. Box 1127 Franklin, TN 37065

Delta Anne Davis Southern Environmental Law Center 2 Victory Avenue, Suite 500 Nashville, TN 37213 P: (615) 921-9470 F: (615) 921-8011 adavis@selctn.org

- 36. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provide above.
- 37. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XVI. SIGNATORIES/SERVICE

38. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XVII. GENERAL PROVISIONS

- 39. The Plaintiff's claims in this action are disputed by Defendant, and this Consent Decree represents the compromise of such disputed claims. This Consent Decree and compliance with this Consent Decree shall not constitute, or be construed as, and are not intended to be, an admission concerning the validity of any such claim, or an acknowledgement by Defendant of any wrongdoing or liability, all such wrongdoing and liability being expressly denied.
- 40. Based upon the entire record herein, the Court hereby finds that this Consent Decree is fair, reasonable, and in the public interest.

ENTER this 4 day of Nov., 2014.

UNITED STATES DISTRICT JUDGE

APPROVED FOR ENTRY:

DELTA ANNE DAVIS

BPR No. 010211

SOUTHERN ENVIRONMENTAL LAW CENTER

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