

DUE TO COVID-19 WEARING MASK OR FACE COVERING IS MANDATORY

**EAST SEVIER COUNTY UTILITY DISTRICT BOARD OF
COMMISSIONERS MEETING**

March 11, 2021

5:30 P.M.

AGENDA

- 1) Call to Order by President Roy Ivey
- 2) Introductions of Commissioners, Alliance Personnel and ESCUD Manager
- 3) Motion to approve the minutes of the previous Board meeting
- 4) Persons to be Heard (you must reserve time 2 days prior to meeting date)
 - ****ONE AT A TIME AS RECOGNIZED****
 - When it is your turn to speak, please stand state your name, address and phone number prior to your discussion. Time limit is 10 minutes.
 - Please be considerate of others that may wish to speak by keeping your comments brief.
 - Customers that interrupt others speaking may be asked to leave meeting.

REPORTS

- 5) Motion to approve the Accounts Payable Listing in total as submitted.
- 6) Alliance Water Resources – Financial Report / Operations

OLD BUSINESS

- 7) None

NEW BUSINESS

- 8) Project Update: Engineering Agreement, Amendment #1
- 9) Adjournment – Next regular Board Meeting to be held on Thursday, April 8, 2021- 5:30 pm

****Anyone without the authority or knowledge of ESCUD and/or water systems should refrain from giving instructions to other customers****

MINUTES

BOARD OF COMMISSIONERS OF THE EAST SEVIER COUNTY UTILITY DISTRICT

Thursday, February 11, 2021

The Board of Commissioners of the East Sevier County Utility District met at 5:30 p.m. on Thursday, February 11, 2021, in the Office of the East Sevier County Utility District, 1529 Alpine Drive, Sevierville, TN 37876. Commissioners present were Roy Ivey, President; Barbara Darby, Secretary/Treasurer; and Janice Brooks–Headrick.

President Roy Ivey called the meeting to order at 5:30 p.m. for any old or new business.

Introductions were made to acquaint visitors with ESCUD and Alliance staff.

A motion to approve the minutes of the January 14, 2021, meeting was made by Barbara Janice seconded the motion. Motion carried.

Lisa Hawthorne of 1519 Lin Creek Road asked why her water is brown. James said that over the last few months the tanks at Well D had been producing less and less water because the six tanks in the filtration system are allowing less water to pass through. They had put so much pressure on the pump, that it went out. We had to replace it. Aqua Clear is bringing new replacement tanks next Tuesday, February 16, which will eliminate the tinted water..

Lisa said the water is nasty and is ruining her clothes from discoloration. She said she can't drink it or give it to her animals. ESCUD needs to either compensate customers or bring the rates back down. She claimed that when the rates were last raised, the customers were promised that the rates would come back down once the improvements were done. Sharon Crabb said she is having the same problem. She had purchased new monogrammed towels that have been discolored by the water.

Another topic Lisa brought up was that ESCUD should not charge customers for usage if the water is not being used. Even if a customer has no meter or has had their water shut off, they still get a bill. Roy said that the State had mandated that when the Utility was being formed so that there would be enough revenue to support it. There were fewer customers on the Mountain at that time. Lisa said it is time to change that.

Louie Fromm, in representation of the English Mountain Volunteer Fire Department, asked if a 3' x 4' sign could be place on the corner of ESCUD property at Lin Creek and Alpine. It will show the fire hazard rating so customers will know when it is safe to burn

lawn clippings, branches, etc. The Board came to a consensus to allow the placement of the sign as requested.

Sharon Crabb of 1541 Wilhite Creek Road spoke on behalf of her sister, Yolanda Tyson, of 1535 Wilhite Creek Road. Yolanda's usage was 18,380 gallons for January 2021. Yolanda lives out of State and did not realize there was a leak. Staff had turned her water off as her property was on the leak report, which was generated when meters were read on January 26, 2021. The gauge on the meter was spinning when they looked at it, which meant water was moving through the meter. The Commissioners agreed to allow a once-in-twelve-month forgiveness for half of the water overage and all of the sewer overage.

Tony Paquin of 1549 Lin Creek Road requested a once-in-twelve-month forgiveness on his January 2021 bill; his usage was 87,990 gallons. His last forgiveness was January 2020, He said he could not find a leak anywhere and thought that the meter might not be working correctly. Heavy vehicles had been driven over the meter box so often that the meter box sunk into the ground, and the meter was not reading electronically. Staff could not reach it to read the meter manually so for the previous two months the charges were estimated. During the last meter read in January, the actual reading came through. Barbara asked that the staff go to his property. Staff had actually gone out earlier in the week to put the meter back in place and verified that the dial was not spinning, meaning there is not a leak. James and the staff are to go out to investigate the situation before the Board will allow a credit.

Barbara motioned, and Janice seconded the motion, to approve the accounts payable listing in total as submitted.

James Ford, Local Manager, asked if there were any questions concerning the financial report. Since no one had any questions, Barbara motioned to approve the financials for December 2020. Janice seconded the motion; motion carried.

On the Mountain, the emergency bypass system for the Well D filtration system, which wasn't working correctly, was approved by TDEC. New media tanks have been ordered and hoses were replaced on a stenner pump. A staff member has been communicating with a homeowner and contractor to ensure that a future sewer tap will go as planned. We are still working to improve the water loss situation at the Preserve. Wells A, B, and C are functioning properly. A water main was repaired on John Sevier. The January safety meeting topics were PPE and Workplace violence. James has been looking in his office for bids John Haak had received for a larger tank for Well D and generators for use during future power outages.

Offsite, staff replaced a pump at the Lashbrooke subdivision and installed a pump kit at Hibernation Station. A sewer line was repaired at Sherwood Forest.

Old Business

None

New Business

Included in the Board packet is a *Notice of Award* sent to J.S. Haren Company of 1175 Highway 11, North Athens, TN 37303. Their bid of \$926.260 was accepted. They will be contracted to assemble the new WWTP on the Mountain, which will arrive in sections. Barbara motioned to approve the acceptance of the bid; Janice seconded the motion. Motion carried.

James explained that there will be an overage above and beyond the bid amount. Janice motioned to agree to be responsible for any overage; Barbara seconded the motion. Motion carried. Barbara went on to explain to the visitors the challenges of seeking financial assistance from State and Federal agencies.

James discussed with the Board a memo sent from Tony Sneed, VP/Director of Operations for Alliance Water Resources, Inc. The memo discusses the American Water Infrastructure Act of 2018 (AWIA), which requires the District to 1) Develop a risk and resiliency assessment (RRA) and 2) Develop or update the District's emergency response plan (ERP). The deadline for the RRA is June 30, 2021; the deadline for the (ERP) is December 30, 2021. Both must be recertified every five years. The memo goes into more detail about RRA and ERP.

The next regular meeting will be held on Thursday, March 11, 2021, at 5:30 p.m.

Adjournment

Roy motioned and Barbara seconded the motion, to adjourn at 6:14 p.m. Motion carried.

Secretary-Treasurer

East Sevier County Utility District
List of Bills
11-Mar-21

Regular Checking for Consideration		Total
Barbara Darby	Meeting fee	\$ 266.05
Janice Brooks-Headrick	Meeting fee	\$ 277.05
Roy Ivey	Meeting fee	\$ 266.05
Barbara Darby	Insurance payment	\$ 350.00
Janice Brooks-Headrick	Insurance payment	\$ 350.00
Roy Ivey	Insurance payment	\$ 350.00
Alliance Water Resources, Inc	Inv# 9291, March 2021 Services	\$ 43,932.00
First Horizon Bank	Alpine Fund Drive	\$ 2,000.00
The Mountain Press	Meeting Announcement Ad# 30924025	\$ 25.88
English Mountain Spring Water	Inv# 815099/815686, 140 cases of water, Jan21, 26 cases remaining	\$ 609.00
Power Pumping	Inv# 9354, Pump and haul 1 load, February 2021	\$ 700.00
Mission Communications	Inv# 1048622, Annual Service Packages, 03/01/21 to 02/28/22, SCADA	\$ 1,690.20
Big Orange Electric	Inv# 2149, Service calls Jan21, work complete	\$ 1,425.00
	Inv# 2150, Service calls Jan21, work complete	\$ 190.00
	Inv# 2151, Service calls Jan21, work complete	\$ 380.00
	Inv# 2152, New installs Jan21, work complete	\$ 2,100.00
Heavyquip	Inv #79893701, Backhoe bucket repair, start 01/26/21, end 02/21	\$ 1,491.50
Aqua Clear Water Systems	Inv# 668870, balance due on tank replacement, work completed, Feb21	\$ 5,490.00
GEOServices, LLC	Inv# 36008, WWTP project, ongoing, Feb21	\$ 3,800.00
Hungate Engineering, P.C.	Inv# 13346, WWTP project engineering, dated 02/22/21	\$ 460.00
McGill Associates, P. A.	Inv# 15.06204-10488, Well C preliminary and final design, 100 % complete	\$ 2,340.00
Robbie Day	Refund, deposit plus overpayment	\$ 226.76
Ron Dalleske	Refund, deposit	\$ 105.00
Heather Gregg	Refund deposit minus balance due	\$ 49.20
Cory King, 5-26150-2	Refund deposit	\$ 105.00
Total Regular Checking for Consideration		\$ 68,824.49

Charges and Bills Paid from Regular Checking Since February 11, 2021

TDEC	Permits, Bouldercrest Villas and Timberlake Bay	\$ 1,500.00
Treasurer, State of TN	Re-examination fee, Darrell Baker, 01/31/21-02/28/26	\$ 100.00
Sevier County Electric	Utility	\$ 4,875.00
Sevier County Water	Utility	\$ 42.25
City of Pigeon Forge Water & Sewer	Utility	\$ 29.12
Appalachian Electric	Utility	\$ 126.94
USDA	Loan Repayment, November	\$ 2,076.00
State of Tennessee	Sales tax	\$ 1,860.00
IRS	Payroll tax	\$ 382.64
Bank fee	Analysis Service Charge	\$ 229.14
Total Regular Checking Charges and Bills Paid		\$ 9,621.09

Grand Total Regular Checking **\$ 78,445.58**

Charges and Bills Paid from Alpine Drive fund Since February 11, 2021

Total Alpine Drive Fund Checking Charges and Bills Paid **\$ -**

Charges and Bills Paid from WWTP fund Since February 11, 2021

Total WWTP Fund Checking Charges and Bills Paid **\$ -**

East Sevier County Utility District
Balance Sheet
January 31, 2021

	01/31/2021	01/31/2020
ASSETS		
CURRENT ASSETS		
Checking Account - Operations	\$345,652.91	\$293,342.02
Checking Account - Alpine Rd Funding	97,869.85	110,157.85
Cash on Hand	100.00	60.00
Cash-Restricted-Customer Deposits	(58,219.49)	0.00
Total Cash	<u>385,403.27</u>	<u>403,559.87</u>
Accounts Receivable	189,847.21	151,265.93
Allowance for Doubtful Accts	(44,166.69)	(27,371.49)
Unbilled Accounts Receivable	10,539.00	6,045.00
Inventory	67,391.09	18,306.81
Prepaid Expenses	3,659.92	31,110.44
Total Current Assets	<u>612,673.80</u>	<u>582,916.56</u>
PROPERTY, PLANT & EQUIPMENT		
Land	31,657.80	31,657.80
Distribution & Collection System	2,960,448.61	2,182,058.19
Buildings	69,235.68	69,235.68
Machinery & Equipment	122,963.26	119,884.26
Vehicles & Trailer(s)	88,334.99	61,272.58
Construction Work in Progress	165,335.63	797,921.47
Less: Accumulated Depreciation	(1,218,956.17)	(1,111,521.00)
Net Property, Plant & Equipment	<u>2,219,019.80</u>	<u>2,150,508.98</u>
RESTRICTED CASH		
Construction Account - Waste Wtr Project	833.37	833.37
Cash-Restricted-Customer Deposits	58,219.49	0.00
Total Restricted Cash	<u>59,052.86</u>	<u>833.37</u>
OTHER ASSETS		
Deposits	14,370.00	14,370.00
Total Other Assets	<u>14,370.00</u>	<u>14,370.00</u>
Total Assets	<u><u>\$2,905,116.46</u></u>	<u><u>\$2,748,628.91</u></u>

East Sevier County Utility District
Balance Sheet
January 31, 2021

	01/31/2021	01/31/2020
<i>LIABILITIES AND DISTRICT'S EQUITY</i>		
<i>CURRENT LIABILITIES</i>		
Accounts Payable	\$49,435.61	\$34,813.01
Sales Tax Payable	1,860.68	1,840.37
Payroll Taxes Payable	382.60	382.50
Unearned Revenue	30,420.85	26,417.05
Long Term Debt-Current	8,163.56	0.00
Accrued Interest Payable	10,424.19	5,414.71
Customer Deposits	58,219.49	39,865.00
<i>Total Current Liabilities</i>	<i>158,906.98</i>	<i>108,732.64</i>
<i>LONG-TERM DEBT</i>		
USDA 2018 Loan #1	152,506.25	172,237.97
USDA 2017 Loan #2	284,643.74	288,695.57
USDA 2017 Loan #3	259,721.96	263,800.98
Less: Current Portion of L-Term Debt	(8,163.56)	0.00
<i>Total Long-Term Debt</i>	<i>688,708.39</i>	<i>724,734.52</i>
<i>Total Liabilities</i>	<i>847,615.37</i>	<i>833,467.16</i>
<i>DISTRICT'S EQUITY</i>		
Retained Earnings	1,960,517.59	1,397,784.62
YTD Net Income	96,983.50	517,377.13
<i>Total District's Equity</i>	<i>2,057,501.09</i>	<i>1,915,161.75</i>
<i>Total Liabilities and District's Equity</i>	<i>\$2,905,116.46</i>	<i>\$2,748,628.91</i>

East Sevier County Utility District
Statements of Revenues and Expenses
For the Seven Months Ending January 31, 2021
Actual vs Budget

<u>January</u>			<u>YTD</u>		<u>Annual Budget</u>
<u>Actual</u>	<u>Budget</u>		<u>Actual</u>	<u>Budget</u>	
		Operating Revenues			
\$18,775	\$19,574	Water Sales	\$139,019	\$135,327	\$237,263
51,145	42,467	Sewer Charges	365,222	286,984	503,224
0	0	Connection Fees - Water	2,500	1,250	2,500
3,000	1,500	Connection Fees - Sewer	18,500	8,750	16,250
0	926	Late Charge Fees	0	6,479	11,107
13,888	7,222	Reconnect/Meter Sets/Other Fees	86,881	50,556	86,668
0	200	Miscellaneous Income	1,200	1,400	2,400
86,808	71,889	Total Operating Revenues	613,322	490,746	859,412
		Operating Expenses			
159	167	Payroll Taxes	1,062	1,167	2,000
43,932	43,932	Management & Operations Contract	307,524	307,524	527,184
5,288	4,000	Utilities	29,340	28,000	48,000
2,450	2,000	Insurance	17,336	14,000	24,000
2,791	4,417	Repairs & Maintenance	58,374	30,917	53,000
0	417	Professional Outside Services	0	2,917	5,000
2,082	2,083	Directors' Fees	13,875	14,583	25,000
0	1,000	Legal Expenses	8,845	7,000	12,000
0	0	Accounting	7,350	7,300	7,300
1,167	1,167	Bad Debts	8,167	8,167	14,000
0	0	Dues	0	825	825
0	0	Office Expense	(47)	0	0
26	0	Advertising Expense	188	0	0
4,250	894	Permits	4,662	4,306	5,200
838	250	Miscellaneous Expense	4,922	1,750	3,000
62,983	60,327	Total Operating Expenses	461,598	428,456	726,509
23,825	11,562	Net Income B/4 Other (Inc) & Exp	151,724	62,290	132,903
		Other Income (Expenses)			
(481)	(1,792)	Interest Expense	(11,341)	(12,542)	(21,500)
(6,200)	(6,200)	Depreciation	(43,400)	(43,400)	(74,400)
0	(83)	Bond Issue Costs	0	(583)	(1,000)
(6,681)	(8,075)	Total Other Income (Expenses)	(54,741)	(56,525)	(96,900)
\$17,144	\$3,487	Net Income(Loss)	\$96,983	\$5,765	\$36,003

**East Sevier County Utility District, TN
Treasury Report**

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Billing Charges For the Month of:	Jan-21	
Water Revenue		18,775.18
Sewer Revenue		52,022.66
Installment Billing -Offsite Sewer Arrears		754.72
Sales Taxes		1,834.79
Late Charges		-
Installation Fees-Water		-
Installation Fees-Sewer		3,000.00
Other Miscellaneous Fees		13,887.50
Returned Checks		205.50
Deposits Applied/Adjustments		(105.00)
Customer Refunds Paid		367.00
Total Billing Charges		<u>90,742.35</u>
Water Gallons Billed		<u>749,854</u>
Water Customers Billed		<u>249</u>
Sewer Gallons Billed		<u>455,580</u>
Sewer Customers Billed		<u>825</u>
<hr/>		
Accounts Receivable	Jan-21	
Beginning Balance		170,001.15
Billing Charges		90,742.35
Bad Debt Recoveries (Write Offs)		-
Accounts Receivable Collections		(96,451.08)
End of Month Accounts Receivable		<u>164,292.42</u>
<hr/>		
Water Revenue Checking	Jan-21	
Beginning Balance		330,759.46
Deposits:		
Accounts Receivable Collections		96,451.08
Customer Deposits		<u>1,900.00</u>
		98,351.08
Disbursements:		
Accounts Payable Checks		(71,572.64)
Auto Debit Charges-Utilities		(4,642.68)
USDA Loan Payment		(2,076.00)
Transfer to Alpine Road Funding		(2,000.00)
TN TAP - Sales Tax		(2,134.00)
Payroll Taxes		(243.26)
Refund Checks		(417.00)
Charge backs		(205.50)
Bank fees		<u>(166.55)</u>
End of Month Balance		345,652.91
Cash Receipts Collected To Date in:	Feb-21	96,887.27
Auto Debited Utilities in:	Feb-21	(5,073.31)
Bills Submitted for Payment in:	Feb-21	<u>(111,266.05)</u>
Available Balance		<u><u>326,200.82</u></u>

**East Sevier County Utility District, TN
Treasury Report
Summary of Cash and Investments
January 31, 2021**

Bank Account / Security	Maturity Date	Beginning Balance	Deposits	Interest Earned	Payments	Ending Balance
Checking Acct-Operations		330,759.46	98,351.08	-	(83,457.63)	345,652.91
Checking Acct-Alpine Road Funding		95,869.85	2,000.00	-	-	97,869.85
Checking Acct-Waste Water Plant		833.37	-	-	-	833.37
Cash on Hand		100.00	-	-	-	100.00
Total Cash and Investments		427,562.68	100,351.08	-	(83,457.63)	444,456.13

**EAST SEVIER COUNTY UTILITY DISTRICT
BILLING SUMMARY**

DATE	WATER REVENUE		WATER GALLONS (000s)		NO. OF CUSTMRS
	TOTAL	YTD TOTAL	TOTAL	YTD TOTAL	
Jan-21	19,944	156,352	750	8,352	249
Dec-20	21,862	136,408	1,227	7,602	250
Nov-20	20,126	114,546	935	6,375	250
Oct-20	19,644	94,420	817	5,440	250
Sep-20	19,440	74,776	854	4,623	245
Aug-20	19,566	55,337	841	3,769	249
Jul-20	35,771	35,771	2,928	2,928	247
Jun-20	19,948	241,664	1,032	12,014	247
May-20	19,393	221,715	911	10,982	247
Apr-20	19,479	202,322	956	10,071	246
Mar-20	20,417	182,843	979	9,115	248
Feb-20	18,829	162,426	761	8,136	246
Jan-20	19,615	143,597	931	7,375	246

**EAST SEVIER COUNTY UTILITY DISTRICT
BILLING SUMMARY**

DATE	SEWER REVENUE		SEWER GALLONS (000s)		NO. OF CUSTMRS	W&S CUSTMR RECEIPTS
	TOTAL	YTD TOTAL	TOTAL	YTD TOTAL		
Jan-21	52,376	374,338	456	4,934	825	96,451
Dec-20	54,364	321,963	859	4,478	827	110,401
Nov-20	52,333	267,599	572	3,619	824	69,016
Oct-20	51,849	215,266	492	3,047	824	79,482
Sep-20	51,729	163,417	502	2,555	824	70,655
Aug-20	51,329	111,689	499	2,053	820	98,021
Jul-20	60,359	60,359	1,554	1,554	816	85,621
Jun-20	49,449	572,773	621	7,531	814	95,517
May-20	48,576	523,324	528	6,910	811	82,140
Apr-20	48,098	474,748	576	6,382	806	86,379
Mar-20	48,235	426,650	569	5,806	799	78,211
Feb-20	46,901	378,415	452	5,237	788	79,590
Jan-20	47,529	331,514	605	4,785	784	68,926

OUR MISSION

We partner with communities to deliver the finest water and wastewater services available at a competitive price. We are committed to keeping water safe and clean while serving people and taking care of communities with improved technical operations, careful management and financial oversight, and ensured regulatory compliance.

Alliance Water Resources, Inc.

**206 S. Keene
St. Columbia,
MO 65201**

(573)874-8080

OPERATIONS REPORT – East Sevier County Utility District

February – 2021

Administrative

Alliance staff has developed relationships with personnel at the Hartford Welcome Center, TDEC, and Pace Analytical Laboratories to ensure all regulatory requirements are met at the welcome center.

Treatment

Treatment at the wells is monitored daily. All testing results have been within regulatory compliance.

Treatment at the wastewater plant is effective. All monthly parameters were within permit limits.

Collection/Distribution

The new tanks and media have been installed at Well D.

A Mission SCADA technician will be performing maintenance at Well C.

A new injector was installed in the Well C treatment system.

Replaced floats at a residence in Douglas Lake.

Installed a pump kit at Sherwood Forest.

Customer Service

Staff members met with a seasonal customer to ensure his home had water when he returned to the mountain.

Project Updates

Alliance staff will be performing daily site inspection on the wastewater plant project to help keep costs down.



OPERATIONS REPORT – East Sevier County Utility District

Safety

Bloodborne pathogens and a CPR refresher were February’s safety topics.

Regulatory

Monthly Water and Wastewater reports were successfully submitted to the Tennessee Department of Environment and Conservation.

Concerns for the Month

Improving the performance of our SCADA system.

Improving the water loss situation at the Preserves

Positives for the Month

Offsite performance is ensuring strong relationships with our clients.

Leak Repairs

A sewer main line was repaired at Douglas Lake Resort.

Alliance Year-to-Date Capped Expenses through December 31, 2020			
	Actual (12 months)	Budget (12 months)	Over (Under) Budget
Repair Expense	\$23,630	\$19,944	\$3,686
Chemical Expense	\$2,384	\$6,102	(\$3,718)

February 15, 2021

Roy Ivey, Chairman
East Sevier County Utility District
1529 Alpine Drive
Sevierville, TN 37876

RE: Engineering Agreement
Amendment #1
Wastewater Treatment Plant Improvements

Dear Mr. Ivey:

In reviewing our contract dated July 7, 2015 with the Utility District, we have continued to perform significant work outside the original scope of the contract regarding the wastewater system improvements. The work described herein has been in good-faith with the Owner and Alliance Water Resources and was made because of additional TDEC requests that were outside the Owner, Alliance, or the Engineer's control and were for specific stipulations related to the current status of the TDEC Order with the utility.

McGill Associates was contracted to prepare engineering plans and specs for a new wastewater treatment plant and appurtenances. Upon submitting "assumed" FINAL construction plans to TDEC on October 19, 2018 for review/comment/approval, the TDEC regulator in charge (George Garden) requested that we exhaust other design options (recirculating sand filter/drip field) prior to their approval of a proposed steel package plant design. This request was made by TDEC due to the small size of the proposed steel package plant, with the 45,000 GPD being close to the threshold of TDEC's "preferred" steel package plant sizes. Those conversations are shown in the attached PDF files and represent the dates from January 2019 through September 2019.

Once the recirculating sand filter/drip field option was exhausted, further conversations were held with TDEC to discuss other options/requirements that would be acceptable to TDEC. McGill Associates' staff evaluated several re-design options during this period prior to a final discussion with TDEC. Of those options, TDEC made a concession to allow a "smaller than normal" steel package plant but with increased design conditions of an over-sized equalization basin, increased ammonia limit, SCADA, and operations and maintenance items. This was agreed upon by all parties in an email from TDEC on January 16, 2020. From that time forward, McGill Associates' staff moved forward with revised drawings to meet these specific conditions. The 2nd FINAL plans submission to TDEC occurred in May 2020 but was pending the revised NPDES permit approval. The FINAL approval of these plans was approved by the Knoxville Environmental Field Office on September 29, 2020. Immediately thereafter, USDA became involved relative to bidding process.

To help reduce costs, it was agreed upon by McGill Associates and the Owner (via Alliance) that a savings could be made with separate construction plans and specifications for an independent bid of the steel package plant vendor and the general contractor. At that time, a lengthy process through USDA was started to perform this task. The timeframe for this work was from June 2020 to December 2020. Steel package plant vendor bids were eventually concurred by USDA and the Owner in mid-December 2020. The general contractor bid was opened on January 14, 2021 with an award accepted in February 2021.

Based on the chain of events, out-of-scope work can be summarized as follows (and recorded as such with USDA):

- 1) Recirculating Sand Filter
(Dates of work performed: 05/2019 to 08/2019),
- 2) Re-Design of WWTP
(Dates of work performed: 02/2019 to 05/2019) (09/2019 to 07/2020),
- 3) Bid/Award (Package Plant Vendor only)
(Dates of work performed: 08/2020 to 01/2021),
- 4) Bid/Award (General Contractor only)
(Dates of work performed: 08/2020 to present),
- 5) General Contractor & Package Plant Vendor negotiations
(Dates of work performed: 01/2021 to present)

Please let me know if you have any questions or need additional information.

Sincerely,

McGILL ASSOCIATES, P. A.



Jamie Carden, P.E.
Principal

This is **EXHIBIT K**, consisting of 2 pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated July 7, 2015.

AMENDMENT NO. 1 TO OWNER-ENGINEER AGREEMENT

1. Background Data

- a. Effective Date of Owner-Engineer Agreement: July 7, 2015
- b. Owner: East Sevier County Utility District
- c. Engineer: McGill Associates, P.A.
- d. Project: Wastewater Treatment Plant Improvements

2. Nature of Amendment

- Additional Services to be performed by Engineer
- Modifications to Services of Engineer
- Modifications to Responsibilities of Owner
- Modifications to Payment to Engineer
- Modifications to Time(s) for rendering Services
- Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Amendment to the Agreement for Engineering Services dated July 7, 2015 for:

Exhibit J: Article 2 – C2.01 Compensation for Basic Services, Section A (2)
(ADDED scope of services; INCREASE in fee)

Exhibit J: Article 2 – C2.04 Compensation Packet RPR-2, Section C:
(DELETED scope of services; DECREASE in fee)

Attachments:

- 1) Letter dated February 15, 2021 from Jamie Carden, PE of McGill Associates to Utility District

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this or previous Amendments remain in effect. The Effective Date of this Amendment is February 15, 2021.

OWNER:

East Sevier County Utility District

By: Roy Ivey

Title: Chairman

Signature: _____

Date: _____

ENGINEER:

McGill Associates, P.A.

By: Jamie Carden, PE

Title: Principal/Office Manager

Signature: _____

Date: 02/15/21



MODIFICATIONS

The Scope of Services currently authorized to be performed by Engineer in accordance with the Agreement dated July 7, 2015 and previous amendments, if any, is modified as follows:

EXHIBIT J:

ARTICLE 2, C.2.01 (COMPENSATION FOR BASIC SERVICES), A (2) shall be modified by the following change in the scope of services:

SCOPE OF SERVICES CHANGE FOR: Compensation for Basic Services

McGill Associates was contracted to prepare engineering plans and specs for a new wastewater treatment plant and appurtenances. Upon submitting “assumed” FINAL construction plans to TDEC on October 19, 2018 for review/comment/approval, the TDEC regulator in charge (George Garden) requested that we exhaust other design options (recirculating sand filter/drip field) prior to their approval of a proposed steel package plant design. This request was made by TDEC due to the small size of the proposed steel package plant, with the 45,000 GPD being close to the threshold of TDEC’s “preferred” steel package plant sizes. Those conversations are shown in the attached PDF files and represent the dates from January 2019 through September 2019.

Once the recirculating sand filter/drip field option was exhausted, further conversations were held with TDEC to discuss other options/requirements that would be acceptable to TDEC. McGill Associates’ staff evaluated several re-design options during this period prior to a final discussion with TDEC. Of those options, TDEC made a concession to allow a “smaller than normal” steel package plant but with increased design conditions of an over-sized equalization basin, increased ammonia limit, SCADA, and operations and maintenance items. This was agreed upon by all parties in an email from TDEC on January 16, 2020. From that time forward, McGill Associates’ staff moved forward with revised drawings to meet these specific conditions. The 2nd FINAL plans submission to TDEC occurred in May 2020 but was pending the revised NPDES permit approval. The FINAL approval of these plans was approved by the Knoxville Environmental Field Office on September 29, 2020. Immediately thereafter, USDA became involved relative to bidding process.

To help reduce costs, it was agreed upon by McGill Associates and the Owner (via Alliance) that a savings could be made with separate construction plans and specifications for an independent bid of the steel package plant vendor and the general contractor. At that time, a lengthy process through USDA was started to perform this task. The timeframe for this work was from June 2020 to December 2020. Steel package plant vendor bids were eventually concurred by USDA and the Owner in mid-December 2020. The general contractor bid was opened on January 14, 2021 with an award accepted in February 2021.

Based on the chain of events, out-of-scope work can be summarized as follows (and recorded as such with USDA):

- 1) Recirculating Sand Filter (Dates of work performed: 5/2019 to 08/2019),
- 2) Re-Design of WWTP (Dates of work performed: 2/2019 to 05/2019) (09/2019 to 07/2020),
- 3) Bid/Award (Package Plant Vendor only) (Dates of work performed: 08/2020 to 01/2021),
- 4) Bid/Award (General Contractor only) (Dates of work performed: 08/2020 to present),
- 5) General Contractor & Package Plant Vendor negotiations (Dates of work performed: 01/2021 to present)

Therefore, said document shall be amended as follows:

Final Design Phase	\$ 26,800 (increase)
Bid Phase	\$ 21,200 (increase)
Resident Project Representation	\$ 48,000 (decrease)

From: [Timothy Hill](#)
To: [George Garden](#); [Jamie Carden](#)
Cc: [Robert Ramsey](#); [Angela Jones](#); [Steven Holman](#)
Subject: RE: 190311_RE: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837
Date: Friday, March 22, 2019 12:25:26 PM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)

I would be inclined to concur with the proposed activated sludge design for a few simple reasons above all else:

1. The design for a replacing the current steel activated sludge process with an almost identical system has been the preferred option since the original proposal in 2013/2014. The activated sludge system currently at the site has worked well for ESCUD even running at half the original design (the treatment plant was built with two parallel units, but only one was ever operational and English Mountain is very unlikely to grow past its pre-conceived population). The permit flow is above the prohibition.
2. Timing. Specs are already drawn up and funding timeline is being pushed. The current plant needs to be replaced soon for safety concerns.
3. Operator requirements. Presently, the treatment plant calls for a Grade 1. I don't know if an MBR would change that and though their current staff are licensed well-above that level, given the location of ESCUD, it keeps them flexible in future hiring.
4. The current treatment plant has tertiary filters and I was surprised the proposed designs did not include them, but I am sure they could be easily added. If I read the SPARROW model correct, nutrient limits are not planned for Whilthe Creek at this time.
5. What are the backwashing requirements of an MBR? Though there have been significant upgrades to ESCUDs water supply, it has not been the most reliable in the past.

I understand most of the above opinions are not rooted in pure science and engineering judgement and do not exactly answer the questions. I don't know how significant the physical limitations of the site are for a conventional plant vs an attached growth system (other than a RSF). I would imagine there would be some additional geological obstacles to a deep excavation in that area.



Tim Hill | Environmental Protection Specialist
Division of Water Resources
3711 Middlebrook Pike
Knoxville, TN 37921
p. 865-594-5560
timothy.hill@tn.gov

From: George Garden
Sent: Monday, March 11, 2019 3:45 PM
To: Jamie Carden
Cc: Timothy Hill; Robert Ramsey; Angela Jones; Steven Holman
Subject: 190311_RE: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837

Advantex and RSFs have very large footprints; attached growth MBBRs or MBRs in combination with Bioclere type units can achieve satisfactory results. Based on our 190128 email attached, if Bob and Tim agree that **all** attached growth options should be eliminated, and a solution to give a reasonable

probability of containing solids during wet weather events, such as, adequate EQ and oversized clarifiers **OR** a tertiary filter, can be added to the activated sludge system, we can agree to the suspended growth activated sludge options.

Who is operating the WWTP for ESCUD?



George C Garden, PE BCEE | Deputy Director/Chief Engineer,

Division of Water Resources

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p. 615-253-9934 c. 615-416-0164

email. george.garden@TN.gov

From: Jamie Carden [mailto:jamie.carden@mcgillassociates.com]

Sent: Monday, March 11, 2019 1:40 PM

To: George Garden

Cc: Timothy Hill; Robert Ramsey

Subject: RE: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837

***** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. *****

George

Do you have a time this week that we could speak on this? I would like to include Tim and Robert in the conversation if possible.....maybe a conference call from their office?

Just some thoughts/clarifications from a previous, brief email exchanges that we have had.....

a. In regards to an Advantex-Orenco style unit:

The Advantex-Orenco was evaluated and the number of units and space required for the 45,000 gpd design flow make the system selected more economical. In addition the extended aeration, package type system specified is the current system in place for the utility and the operators are familiar with the operation.

b. In regards to a RSF:

The WWTP improvements are designed for the NPDES permit flow of 45,000 gpd. The use of a RSF at this flow is prohibited due to inadequate space at the current WWTP. There is inadequate room to build the influent separation tank, dosing tank, sand filter, effluent tank and disinfection tank. In addition additional tankage would be required for flow equalization.

c. Vendors:

Three package plant vendors (Evoqua, Legacy, and Envirotech) were selected based on operating characteristics and space available; each system will provide dual train capabilities with a dual train aeration/biological treatment and secondary clarification prior to disinfection and discharge.

d. The Knoxville EFO also felt that the systems outlined in the preliminary design submittal review were the best scenario for the conditions and people involved in the operation of any wastewater process in the East Sevier Co UD service area; an Evoqua product was shown at that time as a possible design solution; thus the final submittal of same treatment vendors

- e. The most recent DMRs, Dec 2018, Jan 2019, do not show/report any bypassing: (influent ADF min of 25,000 GPD, influent max 68,000 GPD, and effluent avg of 44,000 GPD); waiting for Feb 2019 DMR
- f. There is zero intention to increase the current permitted discharge of 45,000 GPD.



Jamie Carden, PE

Knoxville Office Manager

McGill Associates, P.A.

2240 Sutherland Ave. Suite 2, Knoxville, TN 37919

T 865.540.0801

C 423.307.7365

jamie.carden@mcgillassociates.com

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We launched a refreshed brand. Please note email / web address changes above.

From: George Garden <George.Garden@tn.gov>

Sent: Monday, January 28, 2019 1:57 PM

To: Jamie Carden <jamie.carden@mcgillengineers.com>

Cc: Chris Rhodes <Chris.Rhodes@tn.gov>; Michael Atchley <Michael.Atchley@tn.gov>; Maybelle Sparks <Maybelle.Sparks@tn.gov>; Wade Murphy <Wade.Murphy@tn.gov>; Vojin Janjic <Vojin.Janjic@tn.gov>; Timothy Hill <Timothy.Hill@tn.gov>

Subject: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837

While the Division appreciates the long time that this project has been in the works and significant delays in review and approval exacerbating funding arrangements, critical issues for the approval of the final construction documents still exist:

Rule 0400-40-02-.03(3)subparagraphs (a&b) state:

(a) Activated sludge plants for design flows of 30,000 to 100,000 gallons per day will only be approved if other treatment schemes have been demonstrated to be impractical due to non-economic considerations including but not limited to available space.

(b) No activated sludge plants will be approved for design flows less than 30,000 gallons per day. ”

As the Rule states, we should consider issues including limited space; right now the documentation does not indicate the plants proposed have sufficient EQ to handle existing rainfall induced influent flows even when the maximum EQ volumes are considered and non-economic issues such as space limitations have not been addressed in favor of a suspended growth activated sludge package plant in the ER. (The PERs (May 2013 and Amendment of March 2014) do not justify the activated package plant selection in the terms required by the Rule subparagraphs cited above.)

Ancillary issues include:

1. The PERs indicated that I&I problems would be addressed. Recent data does not include evidence of a high degree of success in that regard or that an effort will be included in the existing project to reduce I&I so that the proposed plant will be chronically overloaded hydraulically.
2. The Design Memorandum provides average monthly influent data considerably outside the ranges cited in the specifications for the vendor design.

We do not believe that this plant would have to do more than hold the line with respect to TN and TP. That does mean that the next permit would have TN and TP reporting data to establish discharge characteristics and if the permitted flow increases beyond 45,000 then there could be proportional limits on TN and TP added. I recommend that the system selected be able to be modified in the future for TN removal, particularly, if and when it is expanded beyond 45k gpd.

From: [Tony Sneed](#)
To: [Jamie Carden](#); [Evan Romo](#)
Cc: [Bill Hunigan](#)
Subject: RE: ESCUD - Soils info (from Jamie Carden - "wanne-be" soils scientist) [Email 2 of 2]
Date: Friday, September 6, 2019 8:35:23 AM
Attachments: [image001.png](#)
[image002.png](#)

Jamie,

I tend to agree, let me review in more detail this weekend before I/we pull the plug on this option.

Thanks,

Tony

From: Jamie Carden <jamie.carden@mcgillassociates.com>
Sent: Friday, September 6, 2019 7:28 AM
To: Tony Sneed <tsneed@alliancewater.com>; Evan Romo <eromo@alliancewater.com>
Cc: Bill Hunigan <Bill.Hunigan@mcgillassociates.com>
Subject: RE: ESCUD - Soils info (from Jamie Carden - "wanne-be" soils scientist) [Email 2 of 2]

Guys

From my review of the site from info available online, this is my summary.

In general, soils are considered:
NEGATIVE if they have a rating of 1.0 (a letter grade of "F")
BEST PERFORMING with a rating of 0.0. (a letter grade of "A")

I have highlighted the ratings that would affect the site based on the online information I put together.

My "I slept in a Holiday Inn Express opinion" from the attached files show the soils are not where we want them to be, based on the NEGATIVE to BEST PERFORMING scale. Now maybe I'm wrong but if you have someone with the knowledge, would definitely be worth the review. I have highlighted the points in each attachment for my 2 cents.....

The only other opinion I have is the footprint of property available. Seems like we are short by about 0.5 acres for an appropriate drip field.

Today is opinion Friday and I have done more than my fair share.....Let me know your thoughts and we can get on a call or other.



Jamie Carden, PE

Principal - Knoxville Office Manager

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We launched a refreshed brand. Please note email / web address changes above.

From: Jamie Carden <jamie.carden@mcgillassociates.com>

Sent: Friday, September 6, 2019 8:20 AM

To: Tony Sneed (Reg Mgr for ESCUD) <tsneed@alliancewater.com>; Evan Romo (Maint Mgr for ESCUD) <eromo@alliancewater.com>

Cc: Bill Hunigan <Bill.Hunigan@mcgillassociates.com>

Subject: ESCUD - Soils info (from Grant Dunn - Soils Scientist) [Email 1 of 2]

Guys

I received this file last night. In looking at it, I am not sure that there is much to glean from it. I don't know if he is holding back (because we have not made it clear of work that will be 100% needed) OR if he is very capable of the work we need (I kinda lean in this direction). Look over and pass on.

I did my own soils reconnaissance and will send in the next email.



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We launched a refreshed brand. Please note email / web address changes above.

From: [George Garden](#)
To: [Jamie Carden](#); "eromo@alliancewater.com"
Cc: [Timothy Hill](#); [Robert Ramsey](#); [Angela Jones](#); [Maybelle Sparks](#); [Wade Murphy](#); [Rebecca Rush](#); [Maybelle Sparks](#); [Anastasia Sharp](#)
Subject: 200116_RE: 190411_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837
Date: Thursday, January 16, 2020 6:32:10 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[WPC16-0036 East Sevier County Utility District Letter.pdf](#)
[200116_Rush_East Sevier County order items completed due.msg](#)

This email reflects discussion today with Evan Romo of Alliance Water and Jamie Carden of McGill and Associates in preparation for the phone call tomorrow at 9 AM CST/10 AM EST. The purpose of the phone call is to resolve issues raised in the October 9, 2019 letter from Roy Ivey, President of ESCUD. Rebecca Rush of TDEC-DWR-Compliance and Enforcement provided a summary of the ESCUD Order conformance in the attached email. The previous email below reflects discussions on the plans submitted in the spring of 2019. Some of these conditions and comments remain appropriate.

Since the email below, Alliance Water requested a delay in the design schedule to investigate other options. Having found none, the Utility District is requesting reconsideration of a 45,000 gpd capacity activated sludge plant. TDEC-DWR Rule 0400-40-02 in section 0.03-(3) states that:

(a) Activated sludge plants for design flows of 30,000 to 100,000 gallons per day will only be approved if all other treatment schemes have been demonstrated to be impractical due to non-economic considerations including but not limited to available space.

Based on discussions concerning other options and the recommendation of the Knoxville-EFO, the Division is willing to consider the activated sludge proposal with the following stipulations:

1. A letter signed by the engineer of record and the Utility District satisfying the Rule condition above is submitted to the Division in the next 30 days;
2. The existing plant after construction and commissioning of the new plant is gutted and turned into a EQ basin capable of delivering a system capable of containing and treating the influent flow representative of the 24 hour 2 year storm as projected from recent events.
3. The proposed project including upgrade of the influent flow meter to be capable of 2.5x the design flow and the capability of recording and retrieving instantaneous flows over a 96 hour period in 5 minute increments.
4. Plans and specifications provide EQ basin management and treatment capable of meeting maximum daily limits during the same projected influent flow for the 24 hour 2 year storm with equalization engaged.
5. Nothing in these requirements changes the sewer availability moratorium consequences of 5 overflows or plant bypasses at any collection system location or WWTP influent.
6. O&M shall be required as part of the Engineer's contract or the vendor's contract including the entire plant and specifying operating recommendations for the plant during the 24 hour 2 year storm with current loading and the design conditions of 80% of 45,000 gpd with less than 10% I&I. The O&M manual shall predict adequate F/M ratios and appropriate sludge age over the range of operating values.

7. Application for the NPDES Permit Renewal for TN0060569 shall be submitted in 30 days including the results of all required influent and effluent testing. In the meantime if design of the replacement plant needs to proceed, the design agent should assume that ammonia limits could be 1/2 current limits. The Division will endeavor to give proposed limits to ESCUD 30 days after receipt of a complete application. The plant shall be designed for the permit projected to be applicable with the revised discharge limits.

If the above stipulations are accepted:

1. Submit request for a revised schedule for the Order deadlines in 30 days
2. Submit the permit renewal application in 30 days
3. Submit the activated sludge plant justification in 30 days
4. Submit electronically a revised engineering report/basis of design for the configuration new system (addressing stipulated concerns above); final bid documents (plans and specifications) in accordance with approved Order schedule

Minutes for the January 17 meeting shall replace this proposal if changes are agreed upon.

Paper copies of sewage works construction plans and documents are no longer required, as DWR is converting to an electronic plans review process. Visit <https://www.tn.gov/environment/permit-permits/water-permits1/plans-review-and-approval-for-sewage-works-construction-projects.html> and click "How to Submit Plans" for instructions and the TNCloud upload link. Note the new Wastewater Plans Review Fee Worksheet (CN-1457).

Review the status of your project here: http://tdec.tn.gov:8080/pls/enf_reports/f?p=9034:34514



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External Customers: We value your feedback! Please complete our [customer satisfaction survey](#).

From: George Garden
Sent: Thursday, April 11, 2019 10:39 AM
To: Jamie Carden
Cc: Timothy Hill; Robert Ramsey; Angela Jones; Steven Holman
Subject: 190411_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837

This reports the results of a phone conference on April 11, 2019.

The following reflects content and consequences of the phone conversation:

- The three vendor versions of the activated sludge package plants (45,000 gpd design flow) had varying size EQ basins in the submitted design packages.
- The existing plant influent flow meter is suspect at high flows but recorded a maximum daily flow of 100,000+ gpd in February 2019.
- Arguments have been proposed and accepted by DWR Knoxville EFO and this author that a 45,000 gpd activated sludge plant is an appropriate option given space and economic factors and adequate pre-treatment flow equalization.
- It is the Division's position that the only acceptable package plants shall possess the capability to meet permit requirements at 45,000 gpd and not violate maximum daily discharge parameters during the 2 year 24 hour storm characteristic inflow. Approval of the plans and specifications shall therefore be contingent on:
 - The proposed project including upgrade of the influent flow meter to be capable of 2.5x the design flow and the capability of recording and retrieving instantaneous flows over a 96 hour period in 5 minute increments;
 - Proposal and acceptance by TDEC of the influent flow representative of the 24 hour 2 year storm as projected from recent events. The projection shall be sufficiently conservative such that measurements of influent flows with the new meter could result in compliance schedules in the next permit to reduce rainfall derived inflow and infiltration to the proposed value.
 - Specifications require all vendors to provide EQ and treatment capable of meeting maximum daily limits during the same projected influent flow for the 24 hour 2 year storm.
- It is anticipated that the next permit *could* require:
 - Special composite influent and effluent samples for NH₃-N, TSS, and e.coli shall be taken at least once during a minimum 24 hr 1 year storm in the two years after commissioning to demonstrate the system capability or similar provisions as agreed upon.
 - A commitment to maintain or improve I&I such that the rainfall induced I&I/inch of rainfall during a 2 year 24 hour storm does increase or similar provisions as agreed upon.
- Nothing in these requirements changes the sewer availability moratorium consequences of 5 overflows or plant bypasses at any collection system location or WWTP influent.

Please provide confirmation of acceptance of these conditions.



George C Garden, PE BCEE | Deputy Director/Chief Engineer,
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Nashville TN 37243-1102
p. 615-253-9934 c. 615-416-0164
email. george.garden@TN.gov

From: George Garden
Sent: Monday, March 11, 2019 2:45 PM
To: Jamie Carden
Cc: Timothy Hill; Robert Ramsey; Angela Jones; Steven Holman
Subject: 190311_RE: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837

Advantex and RSFs have very large footprints; attached growth MBBRs or MBRs in combination with Bioclere type units can achieve satisfactory results. Based on our 190128 email attached, if Bob and Tim agree that **all** attached growth options should be eliminated, and a solution to give a reasonable probability of containing solids during wet weather events, such as, adequate EQ and oversized clarifiers **OR** a tertiary filter, can be added to the activated sludge system, we can agree to the suspended growth activated sludge options.

Who is operating the WWTP for ESCUD?



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Division of Water Resources
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p. 615-253-9934 c. 615-416-0164
email. george.garden@TN.gov

From: Jamie Carden [mailto:jamie.carden@mcgillassociates.com]
Sent: Monday, March 11, 2019 1:40 PM
To: George Garden
Cc: Timothy Hill; Robert Ramsey
Subject: RE: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most

recently 18.0837

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George

Do you have a time this week that we could speak on this? I would like to include Tim and Robert in the conversation if possible.....maybe a conference call from their office?

Just some thoughts/clarifications from a previous, brief email exchanges that we have had.....

a. In regards to an Advantex-Orenco style unit:

The Advantex-Orenco was evaluated and the number of units and space required for the 45,000 gpd design flow make the system selected more economical. In addition the extended aeration, package type system specified is the current system in place for the utility and the operators are familiar with the operation.

b. In regards to a RSF:

The WWTP improvements are designed for the NPDES permit flow of 45,000 gpd. The use of a RSF at this flow is prohibited due to inadequate space at the current WWTP. There is inadequate room to build the influent separation tank, dosing tank, sand filter, effluent tank and disinfection tank. In addition additional tankage would be required for flow equalization.

c. Vendors:

Three package plant vendors (Evoqua, Legacy, and Envirotech) were selected based on operating characteristics and space available; each system will provide dual train capabilities with a dual train aeration/biological treatment and secondary clarification prior to disinfection and discharge.

d. The Knoxville EFO also felt that the systems outlined in the preliminary design submittal review were the best scenario for the conditions and people involved in the operation of any wastewater process in the East Sevier Co UD service area; an Evoqua product was shown at that time as a possible design solution; thus the final submittal of same treatment vendors

e. The most recent DMRs, Dec 2018, Jan 2019, do not show/report any bypassing: (influent ADF min of 25,000 GPD, influent max 68,000 GPD, and effluent avg of 44,000 GPD); waiting for Feb 2019 DMR

f. There is zero intention to increase the current permitted discharge of 45,000 GPD.



Jamie Carden, PE

Knoxville Office Manager

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jamie.carden@mcgillassociates.com

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From: George Garden <George.Garden@tn.gov>

Sent: Monday, January 28, 2019 1:57 PM

To: Jamie Carden <jamie.carden@mcgillengineers.com>

Cc: Chris Rhodes <Chris.Rhodes@tn.gov>; Michael Atchley <Michael.Atchley@tn.gov>; Maybelle Sparks <Maybelle.Sparks@tn.gov>; Wade Murphy <Wade.Murphy@tn.gov>; Vojin Janjic <Vojin.Janjic@tn.gov>; Timothy Hill <Timothy.Hill@tn.gov>

Subject: 190128_East Sevier Co UD - WWTP Plans Review TN0060569 WPC 16.0036 and most recently 18.0837

While the Division appreciates the long time that this project has been in the works and significant delays in review and approval exacerbating funding arrangements, critical issues for the approval of the final construction documents still exist:

Rule 0400-40-02-.03(3)subparagraphs (a&b) state:

(a) Activated sludge plants for design flows of 30,000 to 100,000 gallons per day will only be approved if other treatment schemes have been demonstrated to be impractical due to non-economic considerations including but not limited to available space.

(b) No activated sludge plants will be approved for design flows less than 30,000 gallons per day. ”

As the Rule states, we should consider issues including limited space; right now the documentation does not indicate the plants proposed have sufficient EQ to handle existing rainfall induced influent flows even when the maximum EQ volumes are considered and non-economic issues such as space limitations have not been addressed in favor of a suspended growth activated sludge package plant in the ER. (The PERs (May 2013 and Amendment of March 2014) do not justify the activated package plant selection in the terms required by the Rule subparagraphs cited above.)

Ancillary issues include:

1. The PERs indicated that I&I problems would be addressed. Recent data does not include

evidence of a high degree of success in that regard or that an effort will be included in the existing project to reduce I&I so that the proposed plant will be chronically overloaded hydraulically.

2. The Design Memorandum provides average monthly influent data considerably outside the ranges cited in the specifications for the vendor design.

We do not believe that this plant would have to do more than hold the line with respect to TN and TP. That does mean that the next permit would have TN and TP reporting data to establish discharge characteristics and if the permitted flow increases beyond 45,000 then there could be proportional limits on TN and TP added. I recommend that the system selected be able to be modified in the future for TN removal, particularly, if and when it is expanded beyond 45k gpd.