

**IN THE TENNESSEE REGULATORY AUTHORITY  
AT NASHVILLE, TENNESSEE**

<b>IN RE:</b>	)	
	)	
<b>PETITION OF TENNESSEE</b>	)	
<b>WASTEWATER SYSTEMS, INC. FOR</b>	)	<b>DOCKET NO. 14-00136</b>
<b>APPROVAL OF CAPITAL</b>	)	
<b>IMPROVEMENT SURCHARGES AND</b>	)	
<b>FINANCING ARRANGEMENTS</b>	)	

**DIRECT TESTIMONY**

**OF**

**BRITTON DOTSON**

**AT THE REQUEST OF THE**

**CONSUMER ADVOCATE AND PROTECTION DIVISION**

**OF THE**

**OFFICE OF ATTORNEY GENERAL**

**APRIL 30, 2015**

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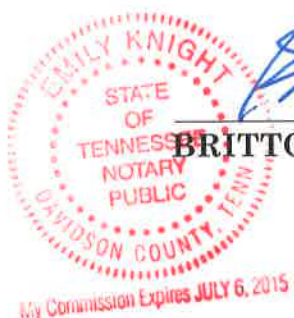
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AFFIDAVIT

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I, Britton Dotson, with the Tennessee Department of Environment and Conservation, on behalf of the Tennessee Department of Environment and Conservation, hereby certify that the attached Direct Testimony represents my opinion in the above-referenced case.

  
\_\_\_\_\_  
BRITTON DOTSON



Sworn to and subscribed before me  
this 27<sup>th</sup> day of April, 2015.

  
\_\_\_\_\_  
NOTARY PUBLIC

My commission expires: July 6, 2015

**Q.1 State your name, business address and occupation for the record.**

A.1 Britton Dotson, William R. Snodgrass TN Tower, 312 Rosa L. Parks Ave., 11<sup>th</sup> Floor, Nashville, TN 37243, Technical Fellow, Division of Water Resources, Department of Environment and Conservation ("TDEC").

**Q.2 Provide a summary of your background and professional experience.**

A.2 I received a Bachelor of Science Degree in Geology from Western Kentucky University and a Master of Science Degree in Geography, with an emphasis in Karst Hydrology, from Western Kentucky University. I have worked for TDEC since 1998 in various positions, including Deputy Director and Division Director in TDEC's central office in Nashville. A detailed description of my professional experience is attached as Attachment 1.

**Q.3 On whose behalf are you testifying?**

A.3 My testimony was requested by the Consumer Advocate and Protection Division of the Attorney General's Office.

**Q.4 Have you provided testimony before the Tennessee Regulatory Authority ("TRA") in any previous cases concerning Tennessee Wastewater Systems, Inc. ("TWSI"), Adenus or any affiliate of Adenus?**

A.4 No.

**Q.5 Have you provided testimony before any other administrative agency, legislative body, or court concerning TWSI, Adenus or any affiliate of Adenus?**

A.5 Yes. I provided deposition testimony in the cases involving the Logue Road Treatment Facility in Wilson County and the Logue Road Force Main Extension in Wilson County. I provided testimony in the case involving Michael Davis's property in Wilson County that was heard by the Water Quality Board, circa 2005.

**Q.6 What is the purpose of your testimony in this proceeding?**

A.6 My testimony was requested because of my position with the Division of Water Resources ("DWR") and my familiarity with the sites and the record for the sites considered in TRA Docket 14-00136. The purpose of my testimony is to accurately communicate the history

1 and current condition of each of these sites relative to TDEC's permitting and enforcement  
2 authorities.

3 **Q.7 What documents have you reviewed in preparation of your testimony?**

4 A.7 I reviewed the TRA documents submitted on behalf of the petition that is the basis of TRA  
5 Docket 14-00136. I accessed this information through the TRA's portal. I reviewed the  
6 TRA documents filed in association with the CCNs granted for each of the four sites. I  
7 accessed this information through TRA's portal.

8 I reviewed the TDEC documents filed in TDEC's database (Waterlog) for each of the four  
9 sites. The State Operating Permit ("SOP") for each of the four sites is: Maple Green (SOP-  
10 01028); Smoky Village (SOP-05033); Summit View (SOP-06035); and, Cedar Hill (SOP-  
11 05039). Waterlog permit information can be accessed through the following URL:

12 [http://environment-](http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9034:34001:386983027739)  
13 [online.state.tn.us:8080/pls/enf\\_reports/f?p=9034:34001:386983027739](http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9034:34001:386983027739).

14 I reviewed the TDEC documents filed in TDEC's Enforcement Database for each of the  
15 four sites. The enforcement order numbers for each of the four sites is: Maple Green  
16 (WPC14-0020); Smoky Village (WPC09-0102); Summit View (WPC14-0092); and,  
17 Cedar Hill (OGC11-0078). This information can be accessed through the following  
18 URL:[http://environment-](http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9001:610:15640874984614::NO::P610_SELECT_SEARCH:1)  
19 [online.state.tn.us:8080/pls/enf\\_reports/f?p=9001:610:15640874984614::NO::P610\\_SELECT\\_SEARCH:1](http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=9001:610:15640874984614::NO::P610_SELECT_SEARCH:1).  
20

21 **Q.8 Are you familiar with the properties named in TWSI's petition – Maple Green, Cedar**  
22 **Hill, Smoky Village, and Summit View?**

23 A.8 I personally have only visited the Maple Green site. However, because of my  
24 responsibilities at TDEC, I am also familiar with administrative actions taken by DWR  
25 (described more fully below with respect to all of the above-mentioned properties).

26 **Q.9 How did you become aware of these properties?**

27 A.9 Maple Green (SOP-01028): I first became aware of the Maple Green site when I was  
28 provided a TWSI response to a TDEC Notice of Violation ("NOV") issued on September

1 26, 2013. Field staff requested my perspective on the substance of TWSI's response. In  
2 the September 26, 2013 NOV, TDEC requested the following actions be taken by TWSI:  
3 1) a Corrective Action Plan ("CAP") be submitted within 30 days; 2) the lagoon be cleared  
4 of woody vegetation; 3) a water level monitoring system be installed and a monitoring plan  
5 prepared; 4) the drip lines to be installed in the permitted area; and 5) specific actions and  
6 completion dates. TWSI's response to the NOV communicated that the installation of the  
7 drip line had been placed into the construction schedule and that the Division would be  
8 contacted when the installation was to start. Furthermore, they indicated that the outside  
9 of the lagoon would be bush hogged within 30 days – weather permitting.

10 Subsequently, I became more familiar with the Maple Green site when the lagoon collapsed  
11 sometime during the night of January 31, 2014, or early morning of February 1, 2014.  
12 Reportedly, seven (7) million gallons of wastewater were lost during this event. A  
13 representative with the Tennessee Wildlife Resources Agency ("TWRA") identified the  
14 incident from a bridge and later reported the incident to the local emergency management  
15 agency who in turn reported the incident to TDEC. TDEC responded to the site the  
16 afternoon of February 1, 2014. Over the course of the next several days, there were  
17 numerous TDEC staff involved in the follow up. An Emergency Order was issued on  
18 February 5, 2014. Multiple site inspections and sampling events were also conducted  
19 within the first several days. During the first week following the collapse of the lagoon,  
20 we began to meet with TWSI representatives on immediate corrective measures.  
21 Subsequently, over the course of the next several months we reviewed and responded to  
22 the alternate treatment technology (free-surface wetland or "FSW") proposed by the TWSI  
23 design engineer, Roy Denney. In August of 2014, TDEC approved the plans. The letter  
24 accompanying plan approval indicated that the Division was not supportive of applying  
25 this technology to multiple sites until such time that the success of the technology can be  
26 demonstrated. See the Direct Testimony of Brad Harris of TDEC for additional information  
27 regarding the Division's analysis of the technology proposed for the Maple Green site.

28 Cedar Hill (SOP-05039): I first became aware of the Cedar Hill treatment facility when a  
29 problem with lagoon integrity was discovered in December of 2010. This matter was  
30 discussed in TDEC Director's meetings. At that time, I was the Director of the Division

1 of Ground Water Protection. The divisions of Ground Water Protection, Water Supply,  
2 and Water Pollution Control were integrated into the Division of Water Resources in late  
3 2012 to early 2013. In May of 2013, TWSI notified TDEC that the lagoon was not holding  
4 and that exploratory excavation was underway. Subsequently, I reviewed information  
5 developed during a seismic study and a dye trace. The initial CAP involved repairing the  
6 lagoon and installing a synthetic liner. However, in October of 2014, TDEC received  
7 construction plans for the installation of a free-surface wetland. TDEC declined approval  
8 of the proposed use of this technology for the Cedar Hill site.

9 Summit View (SOP-06035): I first became aware of the Summit View facility when the  
10 TRA provided TDEC a copy of a complaint TRA received from the Summit View Home  
11 Owners Association. Following a site visit, TDEC issued a NOV on July 9, 2014. This  
12 NOV requested the submittal of a CAP within 30 days. A response was received by TWSI  
13 on August 1, 2014. The response announced that the facility will need to be expanded and  
14 additional area will need to be acquired, designed and approved. A Director's Order was  
15 issued on September 17, 2014. This Order established a moratorium on further  
16 connections, required the submittal of a CAP within 30 days, required the reduction of  
17 potential for public exposure within 15 days, and to complete all corrective measures by  
18 June 30, 2015. Plans for treatment system expansion and drip field expansion were  
19 received on April 10, 2015.

20 Smoky Village (SOP-05033): I first became engaged in the issue of the Smoky Village  
21 facility when it was announced as one of the four sites in TRA Docket# 14-00136. My  
22 familiarity with this facility is a result of a review of TDEC's Waterlog database and TRA  
23 dockets associated with the facility.

24 **Q.10 Explain the nature of TDEC's role with respect to these properties.**

25 A.10 Pursuant to the Water Quality Control Act, TDEC's regulatory role with respect to these  
26 properties is to protect and preserve the water resources of the state. This primarily involves  
27 the issuance of permits to construct wastewater treatment facilities, and permits to operate  
28 wastewater treatment facilities. Furthermore, TDEC's role involves addressing violations  
29 through enforcement actions.

**Q.11 Is inability to fund necessary corrections a valid reason for not addressing an environmental compliance issue?**

A.11 No. Tenn. Code. Ann. § 69-3-114(c) states “[t]he plea of financial inability to prevent, abate, or control pollution shall not be a valid defense under this part.”

**Q.12 What is a Notice of Violation (“NOV”)?**

A.12 A Notice of Violation (“NOV”) is a document produced by staff within the Division of Water Resources that announces to the responsible party(s) violations of the Water Quality Control Act. Among other acts, violating any provision of any permits issued pursuant to the Water Quality Control Act is unlawful (Tenn. Code Ann. § 69-3-114(b)).

**Q.13 Did TDEC issue a Notice(s) of Violation regarding any of the properties named in TWSI’s petition? If so, which one(s).**

A.13 Yes. Summit View, Smoky village and Cedar Hill have been the subject of multiple NOV’s. Maple Green has been the subject of one NOV.

**Q.14 With respect to each property, explain how the violation occurred.**

A.14 Smoky Village (SOP-05033): The March 2009 NOV concerned violations of permitted treatment level thresholds. The June 2009 NOV concerned violations relating to effluent treatment limits, ponding of effluent, signage, and maintenance.

Summit View (SOP-06035): The March 2009 NOV concerned violations of permitted treatment level thresholds. The May 2009 NOV concerned violations of permitted treatment level thresholds. The July 2014 NOV concerned violations on site (ponding and overflow of effluent from drip field).

Cedar Hill (SOP-05039): The February 2011 NOV concerned issues associated with lagoon performance and maintenance (large willows in the lagoon berm in the vicinity of sinkhole excavation and access road). At the time of the visit exploratory excavation was taking place in the area of a suspected sinkhole. The September 2012 NOV concerned records, signage, and access road.

1 Maple Green (SOP-01028): The September 2013 NOV concerned issues associated with  
2 ponding of effluent, lagoon maintenance (woody vegetation), and failure to install drip  
3 field lines as permitted.

4 **Q.15 What do you consider to be the cause of the violation(s) at each of these properties?**

5 A.15 Smoky Village (SOP-05033): The primary compliance issue at Smoky Village pertains to  
6 soil suitability. The soils in the area currently utilized by TWSI are heavily influenced by  
7 natural surface water and ground water and do not have the capacity to manage the  
8 dispersal of treated wastewater. When a soil is already saturated or partially saturated with  
9 naturally-occurring water, the addition of more volume results in ponding on the surface  
10 of the ground, or downslope surface outbreaks of the liquid. Excessive ponding of treated  
11 wastewater in the drip field area, or downslope surface outbreaks may result in discharge  
12 of sewage into waters, or a location from which it is likely that the discharged substance  
13 will move into waters. Discharge of this nature would be in violation of the state operating  
14 permit because the state operating permit does not provide for discharge to waters. A SOP  
15 is a non-discharging permit. Other permits provide for discharge of sewage or other waste  
16 to surface waters or ground waters after the sewage or waste has been treated. For example,  
17 a NPDES permit, the type that most municipalities have, allows for discharge directly to  
18 surface water.

19 Summit View (SOP-06035): The primary compliance issues at Summit View are  
20 considered to be treatment system overload and dispersal field overload. The system is  
21 designed to be supportive of a daily flow of 8,000 gallons per day. Daily flow is reported  
22 as a monthly average flow in gallons per day on the monthly operating reports. Data from  
23 October 2013 through September 2014 have been considered with respect to reported  
24 gallons per day flow. Daily flow averages range from a low of 965 gallons per day in  
25 March 2014 to a high of 7,213 gallons per day in January 2014. The average daily flow  
26 from October 2013 through September 2014 was 4,220 gallons per day.

27 Reportedly, the majority of the flow over the course of a week is experienced from Fridays  
28 through Sundays rather than throughout the week, and since the collection system does not  
29 have storage capacity, the treatment system and dispersal system are overloaded in

1 response to these days. For example, if the facility received 180,000 gallons over the  
2 course of a 30-day month the daily average would be 6,000 gallons – which is lower than  
3 the system’s design (8,000 gallons per day). However, if the flow only occurred on  
4 Fridays, Saturdays and Sundays over the course of the month (12 days) the average daily  
5 flow for the example would be 15,000 gallons which is above the system’s design.

6 Cedar Hill (SOP-05039): The primary compliance issue at the Cedar Hill property is  
7 considered to be loss of lagoon integrity. The lagoon is the current treatment component  
8 of the facility and has experienced waste water losses. These waste water losses have been  
9 attributed to the karst system surrounding and underlying the lagoon. Limestone, such as  
10 the bedrock underlying the Cedar Hill facility, develops joints and fractures which, with  
11 time, enlarge by dissolution. These features allow the passage of liquid and solids into the  
12 underlying bedrock. As a result of this process, voids develop at the soil/bedrock interface.  
13 As the voids increase in size, their ability to support the overlying soil is diminished. Often,  
14 the evidence of this activity is seen in the form of a soil collapse in which the overlying  
15 soil drops into the void. These events are very catastrophic and easily noticed. At other  
16 times, loss of liquid from a lagoon into the underlying system may be chronic in nature and  
17 not as easily noticed. This type of loss could be through liner inconsistencies or through  
18 root channels or other breaches of the liner. Left unaddressed, chronic losses through  
19 discrete features may also result in catastrophic collapses of the lagoon causing significant  
20 loss of wastewater outside the treatment facility.

21 Maple Green (SOP-01028): The primary compliance issue at the Maple Green property is  
22 considered to be loss of lagoon integrity. The lagoon was the original treatment component  
23 of the facility and experienced a catastrophic failure in February 2014. Reportedly, seven  
24 (7) million gallons of wastewater were lost during this event. The failure has been attributed  
25 to the karst system surrounding and underlying the lagoon. Limestone, such as the bedrock  
26 underlying the Maple Green facility, develops joints and fractures which, with time,  
27 enlarge by dissolution. These features allow the passage of liquid and solids into the  
28 underlying bedrock. As a result of this process, voids develop at the soil/bedrock interface.  
29 As the voids increase in size, their ability to support the overlying soil is diminished. Often,

1 the evidence of this activity is seen in the form of a soil collapse in which the overlying  
2 soil drops into the void. These events are very catastrophic and easily noticed. At other  
3 times, loss of liquid from a lagoon into the underlying system may be chronic in nature and  
4 not as easily noticed. This type of loss could be through liner inconsistencies or through  
5 root channels or other breaches of the liner. Left unaddressed, chronic losses through  
6 discrete features may also result in catastrophic collapses of the lagoon causing significant  
7 loss of wastewater outside the treatment facility.

8 **Q.16 Did TDEC take any further enforcement action regarding any of the properties? If**  
9 **so, which ones?**

10 A.16 Yes. All of the properties have been the subject of further enforcement action.

11 **Q.17 With respect to each property, explain the nature of the enforcement action.**

12 A.17 Smoky Village (SOP-05033): In August of 2009 a Director's Order (WPC# 09-0102) was  
13 issued for failure to comply with terms and conditions of their state operating permit.

14 Summit View (SOP-06035): In September of 2009 a Director's Order (WPC# 14-0092)  
15 was issued for failure to comply with terms and conditions of their state operating permit.

16 Cedar Hill (SOP-05039): In September of 2011 a Commissioner's Order (OGC11-0078)  
17 was issued pertaining to failure to comply with terms and conditions of its permit and by  
18 discharging wastewater from a location other than a permitted outfall.

19 Maple Green (SOP-01028): In February of 2014 an Emergency Order (WPC#14-0020)  
20 was issued pertaining to the loss of lagoon contents through a sinkhole collapse.

21 **Q.18 What is the next step for a permittee after an enforcement action?**

22 A.18 The next step for a permittee after receiving notice of enforcement action would be to  
23 comply with the steps outlined in the correspondence. NOVs and Orders contain language  
24 that outlines the expectations of the division with respect to achieving compliance. These  
25 expectations may include the obligation to immediately address any situation representing  
26 an imminent public health threat, cessation of any further connections, and a written  
27 response outlining the specific corrective measures along with a timeline for completion.  
28 The written response from the permittee is typically requested in the form of a Corrective

1 Action Plan (“CAP”) - especially in situations requiring large scale modifications or  
2 repairs.

3 **Q.19 What is a Corrective Action Plan (“CAP”)?**

4 A.19 In general a CAP describes the measures to be taken to correct a situation of  
5 noncompliance. This plan may include alternate considerations. The plan would also be  
6 expected to project a timeline of completion of corrective measures. Most requests for  
7 CAPs, particularly those associated with an order, provide a detailed description of  
8 elements to be included in the CAP. Following notification of approval of the submitted  
9 CAP, more detailed plans and specifications may be required. Approval of final plans and  
10 specifications is communicated by letter to the person making the submittal.

11 **Q.20 Has TWSI implemented corrective measures for any of these properties? If so, which**  
12 **ones?**

13 A.20 Yes. Smoky Village, Maple Green and Cedar Hill.

14 Smoky Village (SOP-05033): TDEC entered into an Agreed Order with TWSI pertaining  
15 to Smoky Village in August 2010. The resulting CAP identified appropriate corrective  
16 measures. These measures were implemented over the course of 2010. A site visit in  
17 November 2010 did not identify any problems. However, a complaint was received in  
18 August of 2012 and the resulting investigation identified the system as still being  
19 problematic with respect to the performance of the drip field. In May of 2013, TDEC  
20 received a set of plans that propose to utilize additional drip field area located on an  
21 adjacent property. These plans were approved in December 2013. The operating permit  
22 authorizing the modification of the permit to include the additional soil area was issued in  
23 November 2013. Upon information and belief, TWSI has yet to install the additional drip  
24 field contemplated by the modified permit.

25 Maple Green (SOP-01028): TWSI implemented temporary measures following the  
26 collapse of the lagoon to address further discharge into the open collapse features and to  
27 accomplish the level of treatment prescribed in the operating permit. In 2014, the drip field  
28 as originally permitted in 2002 was installed. The Division confirmed the drip field  
29 installation in October 2014. In February 2014, TWSI proposed a free-surface wetland

1 treatment system as a replacement for the deep cell effluent lagoon treatment system. The  
2 Division approved the wetland system plans in July 2014, citing however the lack of  
3 examples and performance data supporting the proposed design. The approval letter stated  
4 that the Division was not supportive of applying this technology to multiple sites until such  
5 time that the success of the technology can be demonstrated. Upon information and belief,  
6 no construction of the wetland system has been initiated.

7 Cedar Hill (SOP-05039): The earliest reports of lagoon failure surfaced in late 2010.  
8 Immediate measures were implemented to reduce the potential for further release. An  
9 engineering report was submitted to the Division in June 2011. This plan was approved in  
10 July 2011. Upon information and belief, the proposed corrective measures were  
11 implemented. However, in May 2013, TDEC was notified that the lagoon was not holding  
12 and exploratory work was being undertaken. In June 2013, another CAP was submitted by  
13 TWSI that described seismic work and a dye trace study along with measures proposed for  
14 the installation of a liner. In September of 2013, the Division responded to the proposed  
15 CAP and requested modifications. In December of 2013, TWSI responded to our request  
16 for CAP modifications; however, a modified CAP was not provided. In October of 2014,  
17 TWSI submitted plans for a free-surface wetland treatment system at Cedar Hill instead of  
18 repairing the lagoon. In November 2014, the Division denied the plans for the wetland  
19 system. The denial referenced the Maple Green letter in that the Division was not  
20 supportive of applying this technology to multiple sites until the success of the technology  
21 can be demonstrated.

22 **Q.21 Have you reviewed the report by Geotek regarding Maple Green, attached to the**  
23 **company's petition? Do you have any concerns about the report?**

24 A.21 Yes, I have reviewed the report provided by Geotek. I do have concerns about the report.  
25 Development of karst features, both on the surface and in the sub-surface, is an ongoing,  
26 dynamic and fundamentally natural process. In the case of the development of the features  
27 in the base of the Maple Green lagoon, my opinion is summarized as follows:

- 28 • Limestone bedrock is present at some depth below the base of the lagoon.  
29 Limestone bedrock contains joints, fractures and bedding planes. Water moves

1 through these features rather than through the massive bedrock. As this water  
2 moves through these features, the features are enlarged through dissolution or  
3 chemical erosion.

- 4 • The soil overlying these enlarged features, particularly the joints and fractures, is  
5 carried into these features with the flowing water or by fluctuating water table  
6 levels. With time a void forms between the base of the soil column and the top of  
7 bedrock.
- 8 • As these voids develop, their ability to support the overlying load is diminished.  
9 Eventually the voids become so large that the overlying soil collapses and what we  
10 see on the surface, or in this case the bottom of the lagoon, is commonly called a  
11 sinkhole. They are more appropriately referenced as a collapse feature.
- 12 • Collapse features often are associated with saturated soil conditions. Not only is  
13 the weight of saturated soil greater than dry soil, the water also acts to lubricate the  
14 soil particles allowing greater potential for slippage.

15 Per their report, Geotek was asked to evaluate the cause of the formation of sinkholes in  
16 the Deep Cell Effluent Lagoon. The report references information provided by TWSI's  
17 engineer Roy Denney to Geotek. Per the information provided to Geotek by Mr. Denney,  
18 Geotek conducted a geotechnical evaluation on December 17, 2001. Furthermore, per the  
19 information provided by Mr. Denney to Geotek, on February 6, 2002, TDEC approved the  
20 final plans and specifications and, TDEC confirmed that the construction of the effluent  
21 lagoon was in compliance on March 6, 2007. Mr. Denney also provided a copy of a plan  
22 sheet titled "Overall Site Layout" dated January 31, 2001. It was noted in this portion of  
23 Geotek's report that the drip lines were installed at a different location than shown on the  
24 plan sheet. And, since construction, there has been no sinkhole problem. The recent  
25 sinkholes formed on February 1, 2014.

26 Geotek's opinion was: "Based on our observations and the above information, it is our  
27 present opinion that the sinkholes formed due to natural karst-sinkhole activity unrelated  
28 to any alleged maintenance issues or to the location of the drip lines."

Concerns regarding statements in this report include:

- The fact that no collapse features had appeared prior to the date they appeared does not establish a defense that the activities on the site did not influence the development of the collapse features. In fact if the activities on site influenced the development of the collapse features there would have likely been a time interval between the two.
- The report indicates that Geotek made observations at the site on February 4, 2014, and that Geotek performed a geotechnical evaluation on December 17, 2001. No discussion was provided in the report which compared the results of the 2001 evaluation to the 2014 observations.
- No discussion was provided regarding what role drip line utilization along the lagoon berm may have played in the development of the collapse features other than the opinion that the two were unrelated. Per the facility's monthly operating reports for 2013, an average of 26,500 gallons of treated wastewater was discharged per day through the drip tubing that had been installed around the outside of the lagoon berm. Furthermore, as documented in a September 2013, NOV to TWSI, an area of very wet soil and an area of ponding were identified during an August 2013 site visit. Also, Mr. Carter, TWSI representative on site during the site visit, indicated that he was not aware of how many drip zones there were and that there was not a pressure sensor on the drip zones.
- Information pertaining to "large willow trees along the inside of the levee" as identified in the September 2013 Notice of Violation to Charles Hyatt with TWSI was either not provided to Geotek or not referenced in their report.
- The only comments pertaining to the lagoon in the March 6, 2007, letter to TWSI were: "1) There were approximately 70 to 80 wastewater customers. The Mapco service station on Highway 49 has its domestic wastewater and its oil/water separator discharge service lines also connected. The lagoon appeared to be about 65% to 75% full. There was no odor or other adverse wastewater conditions

1 observed; and, 2) The location of the lagoon on a topographic elevation was such  
2 that storm water runoff flows downslope away from the lagoon. The vegetation in  
3 the disturbed areas around the lagoon is rather sparse; it is suggested that the area  
4 be re-seeded to stabilize the soil and improve erosion control.” There was no  
5 statement made by TDEC in this letter which “certified that construction of the  
6 effluent lagoon was in compliance”.

- 7 • They provided no opinion on whether the presence or operation of the lagoon  
8 influenced the development of the sinkholes.

9 **Q.22 Are the current fixes at the Maple Green property stable?**

10 A.22 Upon information and belief, the current fixes at the site are stable.

11 **Q.23 Do any of these sites represent an ongoing threat to public health? If so, which ones?**

12 A.23 Yes. All of the sites.

13 Summit View (SOP# 06-035): To my knowledge the drip field continues to overflow  
14 across an open area into a small pond located in a common recreational area. The  
15 Director’s Order required, in part, that within 15 days of receipt of the order TWSI take  
16 immediate measures to reduce potential for public exposure to treated effluent. With  
17 respect to this section of the Director’s Order, TWSI states “the moratorium and other  
18 conditions of the Order and Assessment be stayed unless and until Respondent receives a  
19 hearing as provided in Tenn. Code Ann. 69-3-110(a).” Upon information and belief, the  
20 Division is unaware of any efforts on the part of TWSI to reduce the potential for public  
21 exposure to treated effluent.

22 Smoky Village (SOP# 05-033): Upon information and belief the area of the drip field and  
23 recirculating sand filter continue to pond water with treated effluent. This liquid is leaving  
24 the site through a culvert under a road and flowing onto another property.

25 Maple Green (SOP-01028): The western end of the lagoon continues to be used for the  
26 storage of treated wastewater. Upon information and belief, no measures have been  
27 implemented to prevent collapse features from occurring in this portion of the lagoon.

1        Cedar Hill (SOP-05039): The northwestern end of the lagoon continues to be used for the  
2        treatment of wastewater. Upon information and belief, no measures have been  
3        implemented to prevent collapse features from occurring in this portion of the lagoon.

4        **Q.24    Would the Division consider recirculating sand filter technology appropriate for the**  
5        **Maple Green and Cedar Hill properties?**

6        A.24    Yes.

7        **Q.25    Does this complete your testimony?**

8        A.25    Yes.

# **ATTACHMENT 1**

**BRITTON DOTSON**

**RESUME**

## **Professional Resume**

Carl Britton Dotson

Office Phone: (615) 532-0774      Email: [britton.dotson@tn.gov](mailto:britton.dotson@tn.gov)

### **Professional Achievements**

- Managed the Water Quality Branch of the newly-formed Division of Water Resources.
- Conducted a division-wide assessment of services and related fees.
- Managed a rule change relating to adjustment of fees relative to services provided.
- Developed rationale for assessing workload and staffing distribution in support of three staff reductions.
- Directed the development of a system to track monthly expenditures and revenue and to project the status of each for the entire year.
- Successfully developed and defended significant changes to the Division of Ground Water Protection program rules.
- Developed and implemented the first division-wide evaluation of staff performance pertaining to program standards and document quality.
- Built departmental relationships that resulted in utilizing division staff in support of non-divisional program goals (cross connection, radon, decentralized wastewater systems).
- Built relationships with representatives of the regulated community (TOWA, TAR, SSAT), associated industries, and academic and testing institutions (UT, NSF).
- Streamlined existing variance request process.
- Communicated effectively and productively with members of the State Legislature.
- Prepared technical policies and guidance documents.
- Identified online application and payment capabilities as critical toward the programmatic evolution of the Division of Ground Water Protection and participated in the development of this capability and its introduction to the regulated community.
- Professional Geologist, State of TN, #2759

### **Work History**

- Tennessee Department of Environment and Conservation, Division of Water Resources, December 2014 to present, Technical Fellow.
- Tennessee Department of Environment and Conservation, Division of Water Resources, 2012 to present. Deputy Director, Water Quality Branch.
- Tennessee Department of Environment and Conservation, Division of Ground Water Protection – 1998 to 2012. Environmental Specialist 3 and 4, Wilson County; Environmental Specialist 6, Nashville Regional Environmental Field Office; Program Manager 1, Nashville Central Office; Deputy Director, Nashville Central Office; Division Director, Nashville Central Office.
- EnSafe, 1993-1998 (Environmental Engineering and Consulting Firm). Project Manager and Project Geologist.
- Roy F. Weston, 1991-1993 (Environmental Engineering and Consulting Firm). Project Manager and Project Geologist in support of U.S. EPA Environmental Response Team.

### **Education**

- Bachelor of Science Degree in Geology from Western Kentucky University
- Master of Science Degree in Geography from Western Kentucky University emphasizing Karst Hydrology

## **Publications**

- The Use of Groundwater-Level Measurements and Dye Tracing to Determine the Route of Groundwater Flow from a Hazardous Waste Site in an Area of Karst in Hardin County, KY. C. Britton Dotson, Nicholas C. Crawford and Mark J. Rigatti. Proceedings of the Third Conference on Hydrogeology, Ecology, Monitoring, and Management of Ground Water in Karst Terranes; December 4-6, 1991 Nashville, TN.