

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

The regular meeting of the Washington County Service Authority Board of Commissioners was called to order by the Chairman at 7:00 PM.

ROLL CALL

Commissioners Present:

Mr. Joe Chase, Chairman
Mr. D.L. Stout, Vice Chairman
Mr. Prince Coleman
Mr. Devere Hutchinson
Mr. Dwain Miller
Mr. Frank Stephon, IV
Mr. Kenneth Taylor

Staff Present:

Robbie Cornett, General Manager
Kimberly Harold, Controller
Mark Osborne, Technical Manager
April Helbert, Staff Engineer

Consultants Present:

Randall Hancock, PE, Draper Aden Assoc.
Bobby Lane, PE, The Lane Group.
Kevin Heath, PE, Adams-Heath Engineering

Also Present:

Mr. Mark Lawson, General Counsel
WCSA Employees

3. Approval of the Agenda

With no additions or corrections indicated, Mr. Coleman made the motion to approve the Amended Agenda. Mr. Coleman's motion was seconded by Mr. Stout and was approved by a 7-0-0-0 Board vote.

4. Public Query & Comment

There was no Public Query & Comment.

5. Approval of the Consent Agenda

- Minutes: February 28 Regular Meeting & February 28 Recessed Meeting (Held on 3/21/11).
- Routine Reports for March 2011.
- Financial Statement for March 2011.
- Check Register and General Manager

Financial Report for March 2011.

Mr. Miller made the motion to approve the Consent Agenda. Mr. Miller's motion was seconded by Mr. Hutchinson and was approved by a 7-0-0-0 vote of the Board.

6. Engineer's Report and Update

Mr. Bobby Lane of The Lane Group, Inc. was not yet present; he will report on their projects later in the meeting.

Mr. Kevin Heath of Adams-Heath Engineering reported on the following projects:

• **Whites Mill Road Improvements**

Currently, all three contractors are working. The linework contractor, Tipton Construction, has installed nearly two miles of line as of the last pay request meeting. The tank contractor [Mid-Atlantic] has ordered the tank materials, which should arrive several weeks down the road. The pump station contractor, Sun Contractors, has mobilized and is clearing the site.

Mr. Stephon inquired if Mr. Heath noticed the complimentary letter in the paper. Mr. Heath affirmed he did, but the letter was regarding the Whites Mill Road Contract.

Mr. Randall Hancock of Draper Aden Associates (DAA) reported on the following projects:

• **Route 58 Water Storage Tank**

Both contracts are working. Contract 1 has completed the waterline, is completing flushing and has started the testing on that. Contract 2 (tank contract) has the slab poured, the piping installed and the steel up for the walls.

• **Exit 13, Phase 1 Sewer Project**

They have all regulatory clearance and are working on easements with WCSA Staff and Elliott, Lawson & Minor. They

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

had a meeting together last week.

- **Exit 14 Interceptor**

They continue to work with WCSA Staff to resolve outstanding easement issues.

7. Water & Wastewater Construction Projects Report and Update

In Mr. Canody's absence, Mrs. Helbert referred to the Engineering Report in the Board Books, printed on purple paper. She provided the following updates:

- **Chestnut Mountain Road**

Contract 1 is about 60% complete and Contract 2 is approximately 75% complete. The tank vault is set; they are waiting on the tanks. The contractor has started on the pump station. Although they have had 60 weather days, the project should be completed on time.

- **Rich Valley Road/Litchfield Road/Maiden Creek Road**

Rich Valley Road/Litchfield is complete; they are the completing restoration work. Rich Valley Road/Maiden Creek Road is about 72% complete.

- **Sutherland**

There are two easements outstanding, and one resident is willing to sign.

- **New Johnston Memorial Hospital**

The JMH line has been completed under the interstate. This has increased fire flow rates by 550 gallons/minute from 700 to approximately 1,250 gallons.

6. Engineer's Report and Update (Continued)

Mr. Bobby Lane of The Lane Group, Inc. reported on the following projects:

- **New Raw Water Intake, Raw Waterline and Drinking Water Treatment Plant Expansion (6.6 MGD to 12 MGD)**

The intake contractor has mobilized and is onsite. All three contracts are underway and are moving along with no

problems.

- **Galvanized Line Replacement Project**

Both Classic City Mechanical and Boring Contractors are progressing well with construction. In Glade Spring, 7,700 linear feet of waterline has been replaced. In Lowry Hills, 6,300 linear feet of waterline has been replaced. In the Town of Abingdon, 8,300 linear feet of waterline has been replaced. The numbers were generated early in the month. During the month of March, between the Water Treatment Plant Expansion, the Raw Waterline Project and the Galvanized Line Replacement Project, WCSA has done over \$2 million worth of improvements in Washington County. Including the work being overseen by Draper Aden Associates and Adams-Heath Engineering, the figure for March is closer to \$3 million.

- **Western Washington County Sewer Study**

They issued their final report and made a presentation to the Washington County Industrial Development Authority and the Washington County Board of Supervisors at a Joint Board Meeting this past Thursday.

- **Reedy Creek Road Water Improvements**

They are still seeking permission from VDH to advertise the project for bids. They are working closely with Brian Blankenship and hope to be advertising within the not so distant future.

- **WCSA Administration Building**

Roof bids were received earlier today and will be addressed later in the agenda.

8. General Manager's Report & Update

Mr. Cornett referenced his General Manager's report at the Board's stations.

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

He reported on the following noteworthy WCSA performance & accomplishments from all departments during March:

Water Production

- Produced over 200 million gallons of drinking water.

Distribution

- Coordinated the outside purchase of more than 24 million gallons of drinking water, bringing the total drinking water distributed to our customers to about 7.4 million gallons per day.

Meter Department

- 74 customers were telephoned following unusually high usage.

Customer Service

- More than \$17,000 was abated for 84 customer bills.
- Little more than \$3,900 was written off as bad debt more than three years old.
- 12 water taps and 0 wastewater taps were applied for.
- Managed 169 reconnections/transfer of service requests in the last month.
- Late charges were added to little more than 4,000 accounts.

Maintenance

- Repaired 29 leaks and 1 major break.
- Constructed 38 water taps and 0 wastewater taps.
- Responded to 51 after hour call-outs.

Wastewater

- Treated more than 15 million gallons of wastewater in the last month.

Accounting

- Continues to pursue the Debt Setoff Collection Program. Over \$121,000 has been submitted, to date. Little more than \$16,000 was matched for 144 claims. Through the Debt Set-Off Program, about \$3,800 has officially been collected and about \$1,500 has been paid by customers prior to collection.

Administrative Items

- Mr. Cornett would like to congratulate WCSA's Drinking Water Production Staff for receiving the Virginia Department of Health's 2010

Excellence in Waterworks Operations/ Performance Award. This is the seventh year our Drinking Water Plant Staff has won this award. This is a prestigious award for any Virginia Drinking Water Plant, but it is especially so for a plant that operates 24 hours a day, 7 days a week; they cannot shut down during high turbidity events. Therefore, this achievement is especially noteworthy.

- March resulted in a couple changes to the nonresidential connection fees that are *pending* or *paid* in our water and/or sewer systems for the current fiscal year. Mr. Cornett referenced an attachment, where recently purchased taps (1 in February, 3 in March) have been highlighted. WCSA has provided estimates for more than 87% of the total water capacity in our system and 427% of our sewer capacity. There is more interest in Washington County than we have capacity to meet the needs. Had all the pending requests arrived in Washington County, the subsidy by WCSA customers would have been an excessive \$3 million, as our system fee is not yet paying for all the growth-related costs. When we speak of connection fees and such, we are talking about real dollars. In reference to the lower portion of the attachment, which indicates connections that have actually been made and paid for, WCSA has sold 16% of the total water capacity we will have (via the expansion of the Water Treatment Plant) and if that happens every year, WCSA would be out of capacity within six years. It is good to know that Washington County is growing, but it is also alarming to think that all the money we are spending to make capacity available could be gone very rapidly if that happens. Mr. Cornett referenced the subsidy and the five year phase-in of the system fee as well.
- Mr. Cornett asks that we join him in wishing WCSA's Chief Engineer Doug Canody well as he prepares for the next

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

chapter in his life. After nearly 12 years with WCSA, Mr. Canody has decided to retire. Friday, April 29 will be his last day with WCSA. He is to be commended for his responsibilities, which he has graciously assumed as Chief Engineer. Mr. Canody has been a valued asset to WCSA in many ways, specifically:

- The in-house design of many miles of new waterline that is now providing a safe, dependable supply of drinking water to our customers;
- Managing the outside design of numerous miles of waterline, extension projects, water pumping stations and water storage tanks throughout the WCSA Water Distribution System;
- Managing the outside design of the expansion of the Middle Fork Drinking Water Treatment Plant Expansion from 4.6 to 12.0 million gallons per day;
- Providing valuable input for the development of the proposed water and sewer line extension policy presently being considered by the Board; and
- Providing a great deal of technical assistance to each department.

Mr. Cornett expressed Mr. Canody has been a very valuable member to our team here at WCSA. He will definitely be missed and we wish him very well.

Mr. Chase would like to commend the Water Production Staff. He wishes Mr. Canody had been here to be congratulated. Mr. Cornett affirmed Mr. Canody had wanted to keep things low key, but that he will pass on the Board's kind regards.

9. Consideration of an Engineering Agreement Between WCSA and The Lane Group for the Damascus Wastewater Acquisition Study
Mr. Lane referenced the proposed

agreement under Tab 9 of the Board Books. He expressed that The Lane Group appreciates the opportunity to work with WCSA Staff and the Town of Damascus to present the scope of work and to submit a proposal. Mr. Lane expressed they are proposing to do this work in the same manner The Lane/Olver team has carried out for WCSA in the past through the use of technical memoranda. They believe this project approach provides means for input at several points throughout the study from WCSA and the Town of Damascus so that when the end of the study approaches, everyone has had a part in the study's findings and conclusions. Mr. Lane explained that in a nutshell, they propose to examine the existing conditions within the Town of Damascus Wastewater Treatment Plant, along with the collection and transport system to develop a needs assessment to look at the condition of the system, to evaluate any impact from new or proposed regulations, and to list the assets and liabilities from the Town of Damascus's System. This action will also try and project: future system expansion conditions to serve residents of the Town of Damascus and Washington County, who they will serve, and the cost. There are advantages and disadvantages of: A) the Town of Damascus maintaining ownership of the system, B) WCSA becoming an owner of the system, and C) Interim steps between A & B, such as partial ownership, management, and ways they can assist each other in maintaining the wastewater plant and providing service to the citizens of Washington County.

Mr. Lane noted another important part of the study is to determine the impact of proper operation and maintenance of that

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

plant on WCSA's Middle Fork Drinking Water Plant; the sewer discharge is upstream of the Drinking Water Plant and is important from the standpoint of watershed management. The Lane Group plans to: develop alternatives for improvements and expansion of the system, consider funding sources and make recommendations for developing an implementation plan. They intend to complete the study within 250 days of WCSA's authorization to proceed. The Lane Group finds it important to complete this study within this calendar year, if at all possible, to be in the best position for funding applications and opportunities for the project. The Lane Group has a proposed fee of \$50,000 for completion of this study.

Mrs. Helbert added that WCSA Staff has reviewed the [proposed] contract, scope, and hourly rates. They have made comments, which have adequately been addressed. The Lane Group's contract has met the Town of Damascus' approval, according to Councilmen Greene and Morgan, along with that of Town Manager, Aaron Sizemore. WCSA Staff recommends Board approval of the contract and request authorization for the General Manager [Robbie Cornett] to execute the contract. Mr. Lawson affirmed that Legal Counsel has reviewed the contract and likewise concurs. Mr. Cornett expressed that the proposed contract is fully recommended by WCSA Staff and Legal Counsel. Mr. Hutchinson made the motion to approve the Engineering Agreement between WCSA and The Lane Group for the Damascus Wastewater Acquisition Study for a total cost of \$50,000 (see attached). Mr. Hutchinson's motion seconded by Mr. Stout, and was approved by a Board vote of 7-0-0-0.

10. Consideration of Roof Replacement Bids for the WCSA Administration Building

Mr. Lane explained that Mr. Cornett opened bids for the Roof Replacement Project at 2 PM today; bid tabulations were distributed to the Board. He noted there were two bidders on the work, Inland Construction and CW Denton Construction. Both firms are licensed contractors in the State of Virginia. The work was bid, as requested by WCSA, with a shingle roof base bid (Part A) and an added alternate bid to cover the building with a metal roof was also requested. The low bidder on the base bid belonged to CW Denton for \$41,800; Inland Construction's bid was \$41,880. CW Denton proposes an added alternate bid of \$77,200 for a metal roof; Inland Construction proposes an additional \$97,750. This means that if WCSA proposes or agrees with the metal roof alternative, the low bid from CW Denton is \$119,000 [erroneously listed as \$108,000]. The cost of the shingled roof is lower than what The Lane Group estimated, and the cost of a metal roof is higher than they had estimated.

After the bid opening, the contractors were required to issue a list of references and additional information regarding their credentials for performing the reroofing of the building. At this point in time, The Lane Group has not yet received that information. However, they will receive it in the next couple days and will be reviewing the provided information and references.

Upon a satisfactory review of the abovementioned information, The Lane Group's recommendation is that WCSA would consider awarding the metal roof alternative bid of \$119,000 to CW Denton Construction. Based on brief

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

conversations with the low bidder, Mr. Lane expressed they do believe there are cost saving measures that they may be able to utilize to reduce the total cost. He explained that the recommendation [for the metal roof added alternate bid] is based upon [the Administrative Building's] history; a shingled roof is much cheaper, but WCSA is on its second shingled roof. Mr. Lane noted they are concerned that the slope of the [shingled] roof has not made WCSA successful in preventing leaks in the past. The metal roof option gives WCSA the best roofing system that The Lane Group is aware of and has a warranty for the lifetime of the building. The Lane Group's recommendation is that WCSA should accept the low bidder [for a metal roof], pending The Lane Group and WCSA's review of references and other information provided by the contractor. Mr. Hutchinson inquired if these two estimates include any needed repairs to the roof before the new roof goes down. Mr. Lane affirmed the estimates include removal of the existing shingles and removal of any damaged underlayment. There was an estimated allowance of 640 square feet of underlayment replacement in the bid. The bid also asked that both bidders provide a unit price for any additional underlayment. CW Denton's price was \$1.25 per square foot for any additional underlayment. If WCSA does not need 640 square feet worth of repairs, we would receive a credit of \$1.25 per square foot that is unused. Mr. Lane noted they would work with the contractor if and when they need to provide that service. Mr. Hutchinson also asked if the bid includes titanium underlayment for the metal roof; Mr. Lane affirmed it does. Mr. Chase inquired if more bids were

anticipated; Mr. Lane expressed that yes, they were. They were also hoping that the existing contractor, Trademark, would be bidding. However, they did not. He has not spoke with them yet to see why they did not bid. Four contractors attended the pre-bid conference and they were hoping to get a couple bids from them as well. Mr. Lane affirmed that everyone had ample notice and opportunity to bid, but why some did not, he does not know.

Mr. Stout made the motion to award the [metal roof] bid to [the low bidder] CW Denton for \$119,000. Mr. Stout's motion was seconded by Mr. Stephon.

Mr. Chase asked if there was any additional discussion.

Mr. Taylor asked if Mr. Lane put out the specs and if so, is there a different specification that could have been used? He wanted to know if Mr. Lane's specs were the maximum specs. Mr. Lane expressed he did put out the specifications. He explained that for the metal roof, they did specify a very high quality roof; a roof that [The Lane Group] would be comfortable with recommending to the Authority that would be here and not leak for the life of the building. Mr. Lane does not believe it is the maximum roof WCSA could have, but it is pretty close. Mr. Taylor also wanted to know, if WCSA were to add to the building, would there be a problem adding to the roof? Mr. Lane affirmed there would be no problem. He noted that they took pains to be sure that if and when WCSA had to add to the building, the roofs will match together properly and would not be a problem. Mr. Lane added that if WCSA adds on, we will have to cover part of this roof with a new roof. However, they could not find a way to avoid having to do so;

Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

the roof will match and fit together well. Mr. Taylor inquired how much the bid was over the estimate. Mr. Lane affirmed they estimated the shingle roof at \$55,000 and the metal roof at \$85,000. Their estimates were under on the shingle roof and over on the metal roof. Mr. Hutchinson explained that metal roofing increases the longevity and reduces the heating and cooling costs by about 20%. He has found these statistics to be true in his own experiences with his home. Mr. Hutchinson noted that some of the cost savings could offset the increase in price.

Mr. Stout's motion and Mr. Stephon's second was approved by a Board vote of 7-0-0-0.

11. Closed Meeting: Personnel, Acquisition and Disposition of Property, Investment of Public Funds & Legal Advice

Mr. Stephon moved that the Board adjourn to Closed Meeting in accordance with the Virginia Freedom of Information Act, Code of Virginia § 2.2-3711 Paragraph (A) (1): Personnel, 1. To Discuss and Consider the Interviews of Prospective Candidates for Employment, Assignment, Appointment of the Public Body, Code of Virginia § 2.2-3711 Paragraph (A) (3): Acquisition and Disposition of Property, 3. To Discuss and Consider the Acquisition of Real Property, Code of Virginia § 2.2-3711 Paragraph (A) (6): Investment of Public Funds, 4. To Discuss Various Inter-municipal and Other Agreements, Code of Virginia § 2.2-3711 Paragraph (A) (7): Legal Advice, 5. To Discuss Potential Litigation, 6. To Discuss Various Inter-municipal and Other Agreements, 7. To Discuss Potential Contract Litigation.

In addition to the Board, the presence of Mr. Mark Lawson, WCSA Counsel, and Mr. Robbie Cornett, WCSA General Manager, are requested.

Mr. Stephon's motion was seconded by Mr. Hutchinson and was approved by a 7-0-0-0 vote of the Board. The Board adjourned to Closed meeting at 7:42 PM.

Return to Public Session

Upon a motion by Mr. Hutchinson, a second by Mr. Miller, and a 7-0-0-0 vote of the Commissioners, the Board returned to Public Session at 8:54 PM. Mr. Stephon read the following:

Certification of Closed Meeting

Whereas, the Washington County Service Authority has convened a Closed Meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of the Virginia Freedom of Information Act; And whereas, § 2.2-3712 Paragraph D of the Code of Virginia requires a certification by this Authority that such Closed Meeting was conducted in conformity with Virginia law;

Now, therefore, be it resolved that the Authority hereby certifies that to the best of each member's knowledge, (1) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the Closed Meeting to which this certification resolution applies, and (2) only such public business matters, as were identified in the motion convening the Closed Meeting were heard, discussed or considered by the Authority.

AYE: Mr. Miller, Mr. Hutchinson, Mr. Stephon, Mr. Chase, Mr. Coleman, Mr. Taylor and Mr. Stout.

12. Late Items

There were no Late Items.


Washington County Service Authority Board of Commissioners
April 25, 2011 Regular Meeting Minutes

13. Adjourn or Recess

Mr. Stephon made the motion to adjourn. Mr. Stephon's motion was seconded by Mr. Taylor and was approved by a 7-0-0-0 vote of the Board. The meeting was adjourned at 8:56 PM.



Mr. Joe Chase, Chairman



Amanda Paukovitz, Assistant Secretary



**AGREEMENT BETWEEN THE
WASHINGTON COUNTY SERVICE AUTHORITY (WCSA)
AND
THE LANE GROUP INCORPORATED (ENGINEER)
FOR
PROFESSIONAL ENGINEERING SERVICES
TOWN OF DAMASCUSSEWER SYSTEM EVALUATION**

THIS IS AN AGREEMENT made as of April 25, 2011, between the Washington County Service Authority, with principal offices at 25122 Regal Drive, Abingdon, Virginia 24211-7444, hereinafter referred to as "WCSA" and The Lane Group, Incorporated with offices at 124 Depot Avenue, P.O. Box 1340, Chilhowie, Virginia 24319, hereinafter referred to as "ENGINEER".

The WCSA, in cooperation with the Town of Damascus, Virginia (TOWN), has resolved to study the feasibility and desirability of owning and operating The Town of Damascus Wastewater Collection, Transport and Treatment System (SYSTEM).

To determine this feasibility and desirability, SYSTEM assets and liabilities, both current and future, will be identified, the WCSA's ability to assume this responsibility will be evaluated, and advantages and disadvantages to both the parties will be identified in an Engineering Study performed by the ENGINEER. The study's findings will be assembled in a Preliminary Engineering Report prepared in accordance with applicable funding and regulatory agency standards. The Study and Preliminary Engineering Report is hereinafter referred to as "PROJECT".

WCSA and TOWN have selected ENGINEER in accordance with the requirements of the Virginia Public Procurement Act to provide engineering services in connection with the "PROJECT".

It is understood that the aforementioned procurement allows, if desired, the WCSA and/or TOWN to direct the ENGINEER to perform additional design and construction phase services and the ENGINEER desires to provide such services.

WCSA and ENGINEER, in consideration of their mutual covenants, herein agree in respect of the performance of professional services by ENGINEER and the payment for those services by WCSA as set forth below.

Architects • Engineers • Planners • Environmental Specialists

316 East Fifth Street, South • PO Box 452 • Big Stone Gap, VA 24219
276.523.3771 • 276.523.3568 fax • www.thelane-groupinc.com

PART 1.0--SCOPE OF SERVICES

ENGINEER shall provide the following Scope of Services for the development of a Preliminary Engineering Report addressing the feasibility of the WCSA accepting the SYSTEM from TOWN providing operation and maintenance of the SYSTEM.

1.01 Project Initiation Meeting/Preliminary Engineering Conference

ENGINEER will schedule and attend one (1) project initiation meeting with WCSA in Abingdon, Virginia. This initial meeting would be attended by representatives from the TOWN, WCSA and ENGINEER. The purpose of the meeting would be to:

- Review the scope and schedule for the project;
- Exchange contact information and establish lines of communication;
- Discuss protocols for contact and communication with The Virginia Department of Environmental Quality (DEQ) representatives;
- Set future meeting dates;
- Exchange information and ideas; and
- Obtain background information and data necessary to complete the project (i.e. plans, reports, testing results).

The ENGINEER will meet with representatives from the DEQ and potential funding agencies including USDA Rural Development and the Department of Housing and Community Development. At this meeting, plans and a schedule for development of the project would be shared, DEQ input on technology options would be solicited, and funding agency input on the project would be requested. The format and content of the Preliminary Engineering Report would be reviewed and agreement on the content would be reached.



Scope of Work--Town of Damascus Wastewater System Evaluation
Washington County Service Authority-

04/25/11

2 of 13

Following these meetings, ENGINEER shall summarize the information collected and exchanged during the meetings, and identify follow-up or action items in a meeting summary that would be distributed to all participants. A separate list of identified knowledge gaps (i.e. analytical testing), if any, that must be filled to allow the continued development of the PROJECT will be provided.

1.02 Review and Summarize Existing Conditions

After ENGINEER's collection and review of all available information has been completed, ENGINEER will provide a concise written summary of the existing conditions affecting the PROJECT including the identification of the TOWN's existing SYSTEM assets, liabilities, permits and regulatory requirements, existing sewage flows, historical treatment plant performance, and the condition, capacities, and capabilities and/or limitations of existing facilities that may be evaluated in the project. This work will include an analysis of historical records relating to the operational history of the treatment plant using operational reports and a review of available data regarding inflow and infiltration (I&I) corrective measures that has been accomplished by the Town in the past as well as a review of the existing treatment equipment including tankage as the condition of this equipment relates to operation and maintenance issues. Costs estimates for needed repair and/or replacement of existing treatment plant equipment will be generated.

ENGINEER's review of permit and regulatory requirements will include a summary of permitting requirements, other required regulatory approvals or plans, updated vulnerability assessment, etc. Proposed regulations that may affect other aspects of the treatment process will also be reviewed.

Historical raw sewage flows, raw and treated wastewater test data, and historic treatment plant performance data will be entered into spreadsheets to facilitate

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Scope of Work—Town of Damascus Wastewater System Evaluation

Washington County Service Authority—

04/25/11

3 of 13

presentation in a tabular or graphical format and the unit process parameters will be compared to existing design standards using a tabular format. The condition, historic performance, and capacity of each unit process in the treatment plant will be identified.

A process flow diagram for the treatment plant and a facility site plan will be developed from existing record drawings for report presentation purposes and subsequent alternative analysis. All drawings produced will be in electronic format.

Infiltration and Inflow (I/I) data including existing study data and work performed by the TOWN will be reviewed and summarized. Actual recorded flows to the SYSTEM and rainfall records will be reviewed. Data for any SYSTEM overflows will be collected and reviewed. Water sales to customers connected to the sewer system will be reviewed and a "base line" I/I flow will be estimated. A preliminary analysis of the cost of I/I repair versus I/I treatment will be presented as part of the existing conditions analysis.

Existing financial records of the TOWN will be collected and reviewed including balance sheets SYSTEM budgets, and audits. An evaluation of existing SYSTEM income versus expenses will be performed and the existing financial condition of SYSTEM will be presented. The evaluation will consider the history of SYSTEM rate adjustments, the impact of bad debt and the average customer charge for Damascus sewer customers in comparison to neighboring communities including customers already provided sewer service by WCSA.

Data and information on existing operational and management staffing and staffing costs for the SYSTEM will be collected. This information will reviewed in accordance with State certification requirements and compared to the staffing



Scope of Work-Town of Damascus Wastewater System Evaluation

Washington County Service Authority-

04/25/11

4 of 13

levels of similar systems. Other Operation and Maintenance SYSTEM costs will be collected and reviewed.

At the conclusion of this task, ENGINEER shall submit seven (7) copies of an existing conditions summary in the form of two written Technical Memorandums (TM No. 1 – Introduction & Background and TM No. 2 – Existing Conditions) for WCSA and Town review and written approval. TM No. 2 will present estimates of the current SYSTEM value.

1.03 Develop Data Collection Plan (Treatment Plant, Collection and Transport System)

WCSA and TOWN have compiled a great deal of data with respect to the operation and maintenance of the existing SYSTEM under various situations. However, some gaps in the available data may become clear as the existing conditions are evaluated. Under this Task, ENGINEER will prepare a plan to collect data needed to fill existing knowledge gaps. WCSA will be responsible to review and approve the Data Collection Plan and promptly authorize the ENGINEER to initiate mutually agreed upon data collection.

1.04 Needs Assessment

For the Preliminary Engineering Report to satisfy its intended function it must include a clear definition of SYSTEM needs. It is critical for the ENGINEER to include an evaluation of the WCSA and TOWN needs. Examples of these other project needs could be:

- Repair or replacement of equipment that may be utilized in the project, whether or not performing acceptably;
- Reducing maintenance time for both the treatment plant and collection system;



Scope of Work-Town of Damascus Wastewater System Evaluation
Washington County Service Authority-

04/25/11

- Reducing attendance requirements;
- Improving the safety of system operations based on current risk management parameters and any state and federal mandates.
- Simplifying testing or reporting functions;
- Improvements necessary or desired to improve the comfort, safety and efficiency of the staff's working environment and inspire public confidence in the capabilities of the treatment facility and the collection system.
- Evaluation of the reliability of the electrical power supply at the treatment plant, including the standby power generator.
- Evaluations of compliance with relevant codes and regulations.
- Evaluation of all structural, mechanical, and electrical components of the existing treatment plant and evaluation of the condition of collection and transport facilities.
- Anticipation of changes in required treatment levels by Federal or State Regulatory agencies in the near future and planning for these changes while providing flexibility in design for future improvements.
- Evaluation of future security needs and requirements for the treatment facility,

Within 45 days following the execution of this Contract, WCSA and TOWN shall provide ENGINEER with a comprehensive listing of WCSA's and TOWN's known needs and ENGINEER will supplement this list with ENGINEER's own observations and recommendations following ENGINEER's review of the existing facilities. ENGINEER will then formalize and return this list to the WCSA and Town in the form of a Technical Memorandum (TM No. 3) for review and written approval (with or

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Scope of Work—Town of Damascus Wastewater System Evaluation
Washington County Service Authority—

04/25/11

6 of 13

without comments) by the WCSA and Town. Seven (7) copies of TM No. 3 shall be provided.

1.05 Project and Summarize Future Conditions

Under this task, ENGINEER shall develop any projected SYSTEM expansions (both collection and transportation extensions and plant capacity expansion) needed as the result of increased wastewater flows. Input from the WCSA and the TOWN along with various population growth projections will be utilized to determine the need and feasibility for expansion. The Virginia Department of Health will be contacted to define any areas of septic tank drain-field system failures indicating the need for SYSTEM expansion.

Expected upgrade improvements needed in order for the SYSTEM to meet projected effluent limits resulting from SYSTEM expansion and/or regulatory requirements will be tabulated. Any projected improvements to correct excessive I/I flows will be considered. Capital Costs, Operation and Maintenance Costs and any anticipated new debt repayment costs and reserves resulting from expansion/upgrade will be estimated to develop future SYSTEM financial demands.

The potential impacts of the ownership of the SYSTEM upon the WCSA's South Fork Raw Water Intake including raw water quality and watershed control will be evaluated and cost implications will be estimated.

Potential funding opportunities for the TOWN and/or the WCSA for addressing the costs of expansion and/or upgrade will be evaluated, and recommendations for funding these costs by the WCSA and/or the TOWN will be presented.

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Scope of Work—Town of Damascus Wastewater System Evaluation

Washington County Service Authority—

04/25/11

7 of 13

After funding alternatives are evaluated, the impact on SYSTEM rates will be calculated. This calculation will be performed based upon the SYSTEM remaining under the ownership of the TOWN and also calculated on the basis of the SYSTEM becoming the property of the WCSA.

ENGINEER shall meet with the WCSA and TOWN to discuss the projection of future conditions and the costs and rate impacts as developed. After the meeting and input from the WCSA and TOWN, the ENGINEER will subsequently submit the results of the work and collaboration completed under this task in the form of a written Technical Memorandum (TM No. 4– Future Conditions) for review and written approval by the WCSA and Town. Seven (7) copies of the TM No. 4 will be furnished. The written approval by the WCSA may include conditions which will be addressed in the next Technical Memorandum.

1.06 Alternative Evaluation

Once the future conditions for the project have been identified, ENGINEER shall evaluate and develop advantages and disadvantages for the TOWN if they are to remain the owner of the SYSTEM and advantages and disadvantages for the WCSA if they are to become the owner of the SYSTEM and/or the advantages and disadvantages of transitional or partial ownership.

ENGINEER's work under this Task will include a meeting with the WCSA and TOWN to receive input on their perspective of advantages and disadvantages of SYSTEM ownership. During this session, the ENGINEER's listed possible advantages/disadvantages will be presented and discussed. At the conclusion of this task, ENGINEER shall prepare and submit TM No. 5 (Alternative Evaluation) to the WCSA for review and written approval. The submittal will be in the form of a written memorandum. Seven (7) copies of TM No. 5 will be furnished.



Scope of Work–Town of Damascus Wastewater System Evaluation

Washington County Service Authority–

04/25/11

8 of 13

1.07 Conclusions and Recommendations

Once the advantages and disadvantages of SYSTEM ownership to both the WCSA and the TOWN are presented and discussed, ENGINEER shall prepare a detailed list of conclusions and recommendations to begin implementation of the study's findings. These recommendations and conclusions will include, but not necessarily be limited to:

- Repair/Replacement of equipment and facilities at the existing Treatment Plant.
- Steps necessary to address other existing SYSTEM deficiencies including I/I correction or treatment.
- Development of a strategy to address future conditions.
- A funding strategy to meet future capital outlay requirements with recommendations for which party should apply.
- Recommendations for reducing Operation and Maintenance Costs.
- Recommendations on ownership of the SYSTEM.
- Steps for implementation of any ownership changes recommended.
- Related Permit and Regulatory Issues
- Schedule
- Development of any needed inter-municipal agreements.
- Complexity
 - Need for operational training
 - Identification of staffing needs or requirements

The ENGINEER shall identify and present recommendations and conclusions to the WCSA and Town in the form of a written Technical Memorandum (TM No. 6

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Scope of Work—Town of Damascus Wastewater System Evaluation

Washington County Service Authority—

04/25/11

9 of 13

Conclusions and Recommendations). Seven (7) copies of TM No. 6 will be provided.

1.08 Draft Report

After review modification and approval of TM No. 6, the ENGINEER shall issue ten (10) copies of a Draft Preliminary Engineering Report (PER) for the PROJECT. This report will consist of Technical Memorandums No. 1-6 as applicable (each having been previously reviewed by representatives of the WCSA and Town) incorporated into a single professionally prepared design report in full satisfaction of funding and regulatory requirements.

1.09 Final Progress Meeting

ENGINEER shall schedule and attend one final meeting in Damascus and one meeting in Abingdon Virginia and/or one joint meeting to present the final PER to the respective Boards and Councils and receive comments from the both the WCSA and TOWN representatives. Here, WCSA and TOWN staff will be given a final opportunity to offer comments and input on the report. Given the previous opportunities for review, minimal comments would be expected at this stage. However, if required, ENGINEER shall amend or otherwise modify the report to secure approval of the WCSA.

1.10 Final Report

Within two weeks following the meeting under 1.09, ENGINEER shall furnish WCSA and Town with ten (10) (five (5) copies each) signed and stamped copies of the final PER addressing all comments received. Three additional copies of this report will be prepared and submitted to the DEQ for review and approval.

1.11 Additional Tasks



Scope of Work—Town of Damascus Wastewater System Evaluation
Washington County Service Authority—

04/25/11

10 of 13

The following additional tasks are not part of the proposed scope of work, but may be added after completion of the Conclusions and Recommendation process if ordered by the WCSA or TOWN. Costs for the work will be determined at the time the work is ordered and presented to the entity requesting the work.

Environmental Assessment

If required for funding and ordered by WCSA or TOWN, under this task, ENGINEER will prepare a PROJECT Environmental Assessment for the Recommended Action in conformance with funding agency requirements. This work will be paid for by the ordering entity. Our specific scope will include:

- Identifying project impacts
- Soliciting required agency comments
- Addressing environmental issues and concerns
- Development of necessary mitigation measures
- Completion of an Environmental Assessment Report

ENGINEER will submit the results of our efforts under this task in the form of a stand alone document for review and approval by the WCSA or Town. Should wetlands, endangered species, archaeological resources or other items require the performance of special studies or evaluations, ENGINEER will provide a scope of services and cost breakdown for consideration by WCSA or Town. Similarly, the costs for preparation for and participation in any public hearings or agency meetings will be prepared for consideration by WCSA or Town. WCSA or Town will be responsible for the costs of any public notice advertisements and any related fees. Five (5) copies of the Environmental Assessment will be provided. The scope of the environmental assessment will be in accordance with Rural Development guidelines.

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Scope of Work-Town of Damascus Wastewater System Evaluation

Washington County Service Authority-

04/25/11

11 of 13

Funding Assistance

Under this task ENGINEER shall assist WCSA and/or TOWN in identifying and securing suitable financing for the project. ENGINEER'S work under this task will be billed on an Hourly basis for work performed with reimbursement of expenses.

Examples of services might include:

- Attendance at meetings with Funding Agencies
- Preparation of Financial Analysis Spreadsheets
- Alternative Rate Evaluations & Reviews
- Preparation of Applications to Funding Agencies
- Meeting with local Congressional representatives

PART 2.0--SCHEDULE

The ENGINEER will complete the Work described in Part 1.0 Scope of Services, paragraph 1.01-1.10 in accordance with the following schedule: (Calendar Days are counted from the date the Notice to Proceed with the Work is issued by the WCSA.)

TM No. 1 Intro. and Background & TM No. 2 Existing Conditions	75 Days
TM No. 3 Needs Assessment	90 Days
TM No. 4 Future Conditions	150 Days
TM No. 5 Alternative Evaluation	180 Days
TM No. 6 Conclusions and Recommendations	210 Days
Draft Report	230 Days
Final Report	250 Days

PART 3.0-- PAYMENTS TO ENGINEER

ENGINEER agrees to provide engineering and consulting services for the tasks listed under **Part 1.0 – Scope of Services** for compensation as shown below:

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Scope of Work--Town of Damascus Wastewater System Evaluation
Washington County Service Authority-

04/25/11

12 of 13

ENGINEER shall submit itemized invoices for services completed on a monthly basis. Invoices are due and payable within 30 days of receipt.

TM No. 1 Intro. and Background & TM No. 2 Existing Conditions	\$10,000
TM No. 3 Needs Assessment	\$ 5,000
TM No. 4 Future Conditions	\$15,000
TM No. 5 Alternative Evaluation	\$ 8,000
TM No. 6 Conclusions and Recommendations	\$ 4,000
Draft Report	\$ 4,000
Final Report	<u>\$ 4,000</u>
Total	\$50,000

If the OWNER wishes to stop the study with the submittal of any Technical Memorandum, payment for this TM shall constitute full payment for the work.

SIGNATORY

This Agreement is executed this 25th day of April, 2011.

OWNER
WASHINGTON COUNTY SERVICE
AUTHORITY

ENGINEER
The Lane Group, Incorporated

By: _____

By: _____

Name: Robbie Cornett

Name: Bobby R. Lane, PE

Title: General Manager

Title: President

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Scope of Work-Town of Damascus Wastewater System Evaluation
Washington County Service Authority-

04/25/11

13 of 13