THE STATE OF NEW HAMPSHIRE

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July 23, 2012

Debra A. Howland, Executive Director
N.H. Public Utilities Commission
21 South Fruit Street, Suite 10
Concord, NH 03301

Re: DA 12-166, Bedford Waste Services, Inc.
Affiliate Agreement
Staff Recommendation to Accept Filing and Close Docket

Dear Ms. Howland:

Bedford Waste Services, Inc. (Bedford) is a regulated sewer utility pursuant to RSA 362 and provides service to 78 customers in a limited area in the Town of Bedford. On June 11, 2012 and pursuant to RSA 366, Bedford filed with the Commission an agreement with Summit Excavating, Inc. (Summit). Summit is an affiliate of Bedford through common ownership. Summit was one of three entities to respond to a Request for Proposals for rejuvenation of leach fields in Bedford's franchise area. Summit was the low bidder for the work. Staff has reviewed the agreement and submitted data requests to Bedford. The company's responses are attached to this letter, which include copies of the three bids Bedford received.

Staff has reviewed the agreement and Bedford's responses to data requests, and recommends the Commission accept the agreement for filing and close this docket. Pursuant to RSA 366:5, the Commission can review the costs arising from this contract in any rate proceeding in the future.

Sincerely,

Mark A. Naylor
Director, Gas & Water Division

Enclosure
cc: Docket Related Service List

Bedford Waste Services Corp.
Affiliate Agreement
DA 12-166
Staff Data Requests – Set 1

Data Request Received: June 21, 2012 Date of Response: June 27, 2012
Request No. Staff 1-1 Witness: Stephen P. St. Cyr

a) Please provide a copy of the RFP for the proposed work.
b) To the extent not evident from the RFP, to what extent were bidders prequalified (for example, experience rejuvenating Presby systems)?
c) Please provide copies of the bids.

Response:
a) See attached RFP.
b) The Company talked with a technical advisor with Presby and obtained a list of Certified Enviro-Septic Designers & Installers. It then specifically sought entities that were both designers & installers in the Bedford area. It requested 5 entities to respond and 3 submitted responses including Summit Excavating.
c) See attached copies from the 2 other entities.

Bedford Waste Services Corp.
P. O. Box 2400
Biddeford, Me. 04005
603-668-5788

General

Bedford Waste Services Corp. ("Bedford") is a public utility, regulated by the Public Utilities Commission of the State of New Hampshire. Bedford provides sewer service to 78 homes in the development known as Bedford Three Corners in Bedford, N. H. Each of the homes has a septic tank with pump chamber that is connected to one of five common leach fields in the neighborhood. The leach fields were constructed in 1995 and 1996. The septic tanks are pumped every two years. Pumps are repaired / replaced as needed.

Leach Field Assessment

In 2011 Bedford engaged The H. L. Turner Group Inc. to conduct an assessment of the 5 common leach fields. 4 of the 5 common leach fields are in good condition. 1 leach field is in poor / fair condition (Common Area E Phase V). Common Area E, Phase V is proprietary system consisting of two leaching beds constructed with Envoroseptic pipes.

Common Area E, Phase V EDA

The Phase V EDA was granted operational approval in 1996. Located on Common Area E along Pulpit Road midway between its two intersections with Mountain Road, this disposal area is design to accommodate 18 single family, three bedroom houses. Its two beds are constructed with 12-inch diameter fabric-wrapped plastic Enviroseptic pipes, surrounded by a bed of coarse sand. Each of the two beds is composed of 30 rows of 95-foot long Enviroseptic pipes, laid out at 24-inches on center. The effluent collected from the 18 houses is pumped trough dual force mains to a shared, vented, splitter box. The splitter box is designed to reduce the velocity of the pimped effluent and discharge it evenly to the two distribution boxes, one to fed each leach bed. The thirty Enviroseptic pipes at each bed are divided into ten groups of three pipe lengths, connected in series from the distribution box outlet. Neither bed is externally vented, nor were they proposed to be on the approved construction plans. The one existing vent is designed to ventilate the sewer force main, and is connected to the splitter box. The approved plans state that the design requires a total of 5,427 linear feet of Enviroseptic pipe, and 5,700 linear feet should be installed equally divided between Leach Bed 1 and Leach Bed 2, which both have overall footprints of 6,208 square feet. Common Area E, Phase V EDA in need of rejuvenation, starting with leach bed 1.

Scope of Service

Leach Bed 1

a. Locate splitter box and distribution boxes. The splitter box outlet to the bed must be plug to prohibit flow. The location of these structures must be recorded and marked to allow for ease of future access.
b. Locate and inspect the distribution box of the bed. Ensure it sits level and that flow is being distributed equally to all the outlet pipes. Install equalizers if there are none currently installed.
c. Uncover the ends of each pipe in the bed and remove all end caps. Drain and/or pump the pipes dry and allow them to sit open to the air, with no inflow of effluent for 72 hours (minimum).
d. Replace the end caps. Install differential vent pipes to ensure air flow throughout all pipe lengths in the bed, per Enviroseptic Design & Installation manual.
e. Backfill the system with proper material.
f. Restore flow from the splitter box.

Leach Bed 2

a. Locate splitter box and distribution boxes. The splitter box outlet to the bed must be plug to prohibit flow. The location of these structures must be recorded and marked to allow for ease of future access.
b. Locate and inspect the distribution box of the bed. Ensure it sits level and that flow is being distributed equally to all the outlet pipes. Install equalizers if there are none currently installed.
c. Uncover the ends of each pipe in the bed and remove all end caps. Drain and/or pump the pipes dry and allow them to sit open to the air, with no inflow of effluent for 72 hours (minimum).
d. Replace the end caps. Install differential vent pipes to ensure air flow throughout all pipe lengths in the bed, per Enviroseptic Design & Installation manual.
e. Backfill the system with proper material.
f. Restore flow from the splitter box.

Also, raise the spitter box vent pipe to establish 3-foot minimum separation from the ground and make determination of whether an additional vent pipe is needed / required and if so, install. In addition, identify and meet all regulatory requirements, i.e., NHDES, Town of Bedford, etc. Finally, develop timeline to complete work.

Costs

Please provide fixed costs for service.

Payment Arrangement

Bedford will pay full amount 30 days after completion of the work and receipt of the invoice for such work.

Response Period

Please provide response ASAP but no later than April 6, 2012. Please email response to stephenpstcyr@yahoo.com. If you have any questions or comments, please email Stephen P. St. Cyr at stephenpstcyr@yahoo.com or call Stephen P. St. Cyr at 207-282-5222.

SPSt. Cyr
3/20/12

Grant N. Jones Services

A-1 Paving
238 County Road
Bedford, NH 03110
P. 603 624-2717 C. 603 494-7525

Bedford Waste Services Corp.
P. O. Box 2400
Biddeford, ME 04005
603-668-5788

April 3, 2012

Re: Bedford 2012 RFP
Rejuvenation of Common Area E
Phase V EDA
Bedford 3 Corners Bedford, NH 03110

Dear Steve,

We are pleased to provide you with the following quote:

To furnish materials, tools, labor and equipment to perform the Rejuvenation of Common Area E Phase V EDA. My quote is based on your scope of service dated 3/20/2012 for leach bed #1 and leach bed #2. My price does not include any differential venting for the remaining four leach beds. Although, I do recommend you take it into consideration to vent the remaining beds to prolong their life. I would also recommend raising the splitter box vent to ten feet instead of three feet. In addition to installing differential venting into a manifold. For a total of four vents per bed. Based on one four inch vent, required for every one thousand feet of pipe. This will ensure the proper high and low vents according to the Enviro-Septic Design and Installation Manual, (Presby Environmental, section J, page 33, 2003 Edition). My price also includes pumping the 1850 gallon septic tank one time per day, while each bed is out of service for a maximum of 3 times per bed. To alleviate pressure on the opposite bed. Also to prevent back up at the tank and possibly sounding the pump alarm. My final recommendation is to have notices posted and passed out to all the affected 18 houses. At least one week prior to start date to inform homeowners of process and for them to limit use of water. To once again avoid back up and pump failure. My quoted price is good for 30 days from this date, April 6, 2012. My price is as follows.

Quoted Price of;
$ 32,500.00

If you have any additional questions please do not hesitate to call. Thank you and we are looking forward to working with you on this project.

Sincerely,
Tim Hersey
Superintendent/ Estimator

Grant N. Jones Services

A-1 Paving
238 County Road
Bedford, NH 03110
P. 603 624-2717 C. 603 494-7525

Estimated Schedule of Process

Minimum of 1 week prior to start date-Post notices of description, process and limit of water to homeowners of 18 affected houses.

Week 1-Leachbed #1

a. Day 1- Locate splitter box and distribution boxes. Plug splitter box outlet to prohibit flow. Record and mark location of structures for future access. Locate and inspect the distribution box of the bed. Ensure it sits level and that flow is being distributed equally to all the outlet pipes. Install equalizers if there are none currently installed. Pump 1850 gallon septic tank. Uncover the ends of each pipe in the bed and remove all end caps drain and/or pump the pipes dry and allow them to sit open to the air, with no inflow of effluent for 72 hours (minimum). (I recommend 120 hours)
b. Day 2- Pump septic tank and leave pipes open to air for rejuvenation.
c. Day 3- Pump Septic tank and leave pipes open to air for rejuvenation.
d. Day 4- Pump Septic tank and leave pipes open to air for rejuvenation.
e. Day 5- Reinstall end caps. Install differential venting with four vents total. Each vent shall be three feet above finish grade. Back fill with proper material and restore disturbed area. Restore flow from splitter box.

Week 2-Leachbed #2

a. Day 8- Plug splitter outlet to prohibit flow. Pump 1850 septic tank. Uncover the ends of each pipe in the bed and remove all end caps drain and/or pump the pipes dry and allow them to sit open to the air, with no inflow of effluent for 72 hours (minimum). (I recommend 120 hours)
b. Day 9- Pump septic tank and leave pipes open to air for rejuvenation.
c. Day 10- Pump Septic tank and leave pipes open to air for rejuvenation.
d. Day 11- Pump Septic tank and leave pipes open to air for rejuvenation.
e. Day 12- Reinstall end caps. Install differential venting with four vents total. Each vent shall be three feet above finish grade. Raise splitter box vent to ten feet. Back fill with proper material and restore disturbed area. Restore flow from splitter box.

SEPTIC DESIGNS of NH, LLC

Licensed Designer, Installer, and Certified Septic Evaluator

9 April 2012

Dear Stephen St. Cyr,

This letter is a proposal for three different solutions with Pros and Cons regarding the failing leachfield at Common Area E Phase V; Pulpit Rd. in Bedford, NH. The first solution is for the RFP received, The second is a more in-depth rejuvenation of the leachbeds, and the third is for a greater rejuvenation and a solution for the force mains. Please see below for a detailed explanation:

a) Bedford RFP Rejuvenation

a. Work Requested:

Leach Bed 1

a. Locate splitter box and distribution boxes. The splitter box outlet to the bed must be plug to prohibit flow. The location of these structures must be recorded and marked to allow for ease of future access.
b. Locate and inspect the distribution box of the bed. Ensure it sits level and that flow is being distributed equally to all the outlet pipes. Install equalizers if there are none currently installed.
c. Uncover the ends of each pipe in the bed and remove all end caps. Drain and/or pump the pipes dry and allow them to sit open to the air, with no inflow of effluent for 72 hours (minimum).
d. Replace the end caps. Install differential vent pipes to ensure air flow throughout all pipe lengths in the bed, per Enviroseptic Design & Installation manual.
e. Backfill the system with proper material.
f. Restore flow from the splitter box.

Leach Bed 2

a. Locate splitter box and distribution boxes. The splitter box outlet to the bed must be plug to prohibit flow. The location of these structures must be recorded and marked to allow for ease of future access.
b. Locate and inspect the distribution box of the bed. Ensure it sits level and that flow is being distributed equally to all the outlet pipes. Install equalizers if there are none currently installed.
c. Uncover the ends of each pipe in the bed and remove all end caps. Drain and/or pump the pipes dry and allow them to sit open to the air, with no inflow of effluent for 72 hours (minimum).
d. Replace the end caps. Install differential vent pipes to ensure air flow throughout all pipe lengths in the bed, per Enviroseptic Design & Installation manual.
e. Backfill the system with proper material.
f. Restore flow from the splitter box.

P.O. 8045 Nashua, NH 03060
Phone: (603)714-8550
www.septicsdesignsofnh.com

g. Also, raise the spitter box vent pipe to establish 3-foot minimum separation from the ground and make determination of whether an additional vent pipe is needed / required and if so, install.

b. Time Line for Completion:
Work Shall be completed within 4 weeks from start date. Because of the size of the leachfield and that it is a serial distribution it is recommended that each field be left open for a minimum of 1 -1 1/2 weeks to get the oxygen in the tubes and dry them out. Anything less than this amount of time would not be beneficial. 72 hours is the minimum recommended timeline for a residential system from past experience. The more severe leachbed could need an additional 1/2 week (this is why the suggested timeline is 4 weeks to allow for this potential buffer.)

c. Fixed Cost for Completion
Cost includes material and labor: $20,000

d. Pros and Cons
- **i. Pros**
  1. Cheapest
  2. Adding Ventilation
- **ii. Cons**
  1. Short Term Solution
  2. Being commercial this fix will only last a couple years at best

b) Septic Designs of NH Option 1

a. Work Proposed
- **i. Bedford Waste Water RFP** - This is a needed option as it will allow oxygen into the tubes and dry them out. This option also calls for venting which is imperative for the success of this type of leachfield.
- **ii. Installation of a SludgeHammer Rejuvenation System** - This system has been proven to rejuvenate failed leachfields and puts extra oxygen into the system as well as bacteria that eats the biomat that is clogging the leachbed up and stopping it from leaching properly. The requirements for this system would be to install a 4,000 gallon septic tank after the splitter box if possible, a small housing to store the air pumps, and run electrical from the street. If the tank cannot be installed after the splitter box a 2 compartment 4,500 gallon tank will be installed to replace the splitter box.

b. Time Line for Completion:
Work Shall be completed within 4 weeks from start date. Because of the size of the leachfield and that it is a serial distribution it is recommended that each field be left open for a minimum of 1 -1 1/2 weeks to get the oxygen in the tubes and dry them out. Anything less than this amount of time would not be beneficial. 72 hours is the minimum recommended timeline for a residential system from past experience. The more severe leachbed could need an additional 1/2 week (this is why the suggested timeline is 4 weeks to allow for this potential buffer.) The installation of the tank and system will be completed while the leachbed tube covers have been removed so no additional time will be required.

c. Fixed Cost for Completion
Cost includes material and labor: $49,000

d. Pros and Cons

i. **Pros**
   1. Adding Ventilation
   2. Last longer than RFP
   3. Rejuvenate Leachbeds

ii. **Cons**
   1. Cost More
   2. Electrical would be a cost to the association (not very expensive)
   3. Small fee for yearly maintenance

c) Septic Designs of NH Option 2

a. Work Proposed

i. **Bedford Waste Water RFP** - This is a needed option as it will allow oxygen into the tubes and dry them out. This option also calls for venting which is imperative for the success of this type of leachfield.

ii. **Installation of a SludgeHammer Rejuvenation System for each house**- Instead of installing larger tanks, possibly replacing the splitter box and running electrical from the street. Smaller rejuvenation systems are installed in each residences septic tank, risers are installed to bring them to grade, and effluent filters are installed to help keep solids in the tanks.

SEPTIC DESIGNS of NH, LLC

Licensed Designer, Installer, and Certified Septic Evaluator

b. Time Line for Completion:

Work Shall be completed within 4 weeks from start date. Because of the size of the leachfield and that it is a serial distribution it is recommended that each field be left open for a minimum of 1 -1 1/2 weeks to get the oxygen in the tubes and dry them out. Anything less than this amount of time would not be beneficial. 72 hours is the minimum recommended timeline for a residential system from past experience. The more severe leachbed could need an additional 1/2 week (this is why the suggested timeline is 4 weeks to allow for this potential buffer.) The installation of the individual units will be completed while the leachbed tube covers have been removed so no additional time will be required.

c. Fixed Cost for Completion

Cost includes material and labor: $105,000

d. Pros and Cons

i. Pros

1. Adding Ventilation
2. Longest lasting solution for the situation
3. Rejuvenate Leachbeds
4. When systems are installed in the septic tanks they will also clear the force mains. This will result in fewer pumps being burned out from restrictive lines.
5. Estimated cost for design, fees, removal of contaminated soil/material and install of a new leachbed of this size would be over $200,000; cost savings of at least 50%
6. Because the bacteria eat the solids in the tanks, the individual septic tanks do not have to be pumped out yearly or every two years. Pumping can be every 5-8 years which saves money on pumping fees.
7. Power is tied in with homeowners electrical so they pay as part of their electrical bill saving the association on costs.

ii. Cons

1. Most Costly
2. Small fee per household for yearly maintenance (1/4 of the cost for average pumping fee)
3. because the system is installed at the house it will take a little longer to rejuvenate the leachfields. The bacteria will clean the force mains first to allow for better and less restrictive flow. Because of this the bacteria will take a little longer to get to the leachfield.

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d) **Additional Consideration:** It was noticed during the initial evaluation of the leachbed that the area above the leachfields was not properly maintained and on one of the leachbeds there were pricker bushes that have encroached several feet unto the edge of the leachbeds. Speaking with someone in the area she thought the grass was only cut twice a year over the leachfields. It is recommended to remove the pricker bushes and keep the grass trimmed a little better as the roots from the bushes as well as over grown grass can cause lots of damage to leachbeds once the roots start getting into them. This can cause faster failure of a leachfield.

If you have any questions regarding the proposals, please call me at your earliest convenience.

Thank you,

Micah R. Denner
Owner

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Phone: (603)714-8550
www.septicsdesignsofnh.com

Bedford Waste Services Corp.
Affiliate Agreement
DA 12-166
Staff Data Requests – Set 1

Data Request Received: June 21, 2012 Date of Response: June 27, 2012
Request No. Staff 1-2 Witness: Stephen P. St. Cyr

Regarding impacts to customers:

a) To what extend have customers been aware of the proposed work and its timing?
b) Will the leach field be rejuvenated one bed at a time to minimize disruption to customers? If not, please explain.
c) What if any restrictions will be imposed on customers while the work is being done?
d) To what extent will inclement weather impact the work or its duration?

Response

a) All customers were notified by letter of the assessment that took place, the request for proposals and the selection of Summit Excavating, the hiring of Turner for construction administrative services, the work and the timing. The Company has also regularly communicated with a two individuals from the homeowners association.
b) Yes.
c) No restrictions are being imposed. The Company asked customers to be conservative with their water use.
d) It is possible that inclement weather could delay the work and /or slow down the drying out of the system and thus increase the duration of the job.