

To: Randall Skigen, Chairman, Board of Representatives Fiscal Committee

From: George H. Stadel, III, Chairman, Stamford Taxpayers Political Action Committee

Re: Rebuttal to Ben Barnes letter of May 1 on the Waste-to-Energy project.

We only recently became aware of Ben Barnes' letter of May 1 answering points I had previously raised regarding the SWPCA pellet plant. Although the original reason for my first letter has passed, we believe it is important to rebut his misleading statements in detail, both because the Waste to Energy project will surely come before the Board of Representatives again and because we think you should understand the fluid nature of Mr. Barnes' "facts". Attached are my original letter and Mr. Barnes' answers of May 1.

The quotes in italics are from Mr. Barnes' letter.

Point 1.

"The use of natural gas has risen because of the dryer now in operation, but more significantly because of the odor control systems in place there now."

Mr. Barnes implies that there is an odor control system exclusive of the dryer (pelletizer). The only odor control system of which we are aware is the regenerative thermal oxidizer (RTO), an integral part of the dryer. Natural gas usage was zero in 2007 before the dryer was put in service, and \$600,000 in 2008. The RTO does not use much of the natural gas. The Synagro Service Contract, Appendix I, p. 7 & 8, states that the RTO is 95% efficient and recovers most of the heat it produces. A 2008 Arcadis CH2M Hill study for the Western Wake Project shows that for the Andritz DDS 40 dryer that Stamford uses, 1500 btu's of energy are needed to evaporate 1 lb. of water from the sludge. The CH2M Hill Design/Build Agreement with the SWPCA states that 1650 btu/lb are used by the dryer including the RTO. That might indicate that about 10% of total natural is used by the RTO, and that too would not be used if there were no pelletizer.

"trading a volatile and rising haulaway expense for a stable budget of debt service and natural gas was a good deal for rate payers"

Natural gas prices are not stable. The average monthly price to commercial users in Connecticut in 2008 alone varied from \$12.27 per 1000 ft³ in February to \$18.13 in July. With the push to replace more oil with natural gas, in the long run the price will rise faster than the rate of inflation.

“the new approach would be more expensive for a few years, but would be cheaper later, as shown on the attached pro-forma from 2006”

The pro-forma from 2007, extrapolated to 20 years, shows losses for 18 years. See Exhibits A, C.

“there would be no budgetary savings from discontinuing our sludge pelletization process, since debt service would remain, haulaway costs would increase, and the staffing costs for the dewatering process would also remain.”

If debt service continues after shutting down pelletization, and using 3% for haulaway escalation, the savings of pelletizing over hauling wet cake is only \$2,000,000 over a twenty year period. See exhibits B & C. Staffing costs for the dewatering process remain whether they pelletize or not. The Pro-Forma savings/(loss) for the proposed pelletizer plant compared to hauling wet cake shows a cumulative loss for the first 18 years and a small savings of only \$2.7 million over the twenty year period. See Point 6 below. No private company would proceed with such a profit with these projected financial results.

“A \$2.5million reduction to the WPCA budget, as suggested by Mr. Stadel, would likely result in a default of our indenture obligations, our DEP permits, and our mission to treat sewage in a safe and environmentally responsible manner.”

Stamford is the only municipality in Connecticut that dries and pelletizes its sludge; the DEP doesn't prevent other cities and towns from hauling away their wet cake. Are they all using unsafe and environmentally irresponsible practices?

Point 2.

“The Board is very concerned with even a small (rate) increase, but also realizes that the plant must be operated and maintained and that the cost of spare parts and equipment are constantly increasing. We had considered the possibility of mailing four bills per year rather than two in order to ease the burden of sewer bills on rate-payers.”

Everyone in Stamford knows that SWPCA rates are ever rising, by 30% since 2007. They will rise even faster if the “Waste to Energy” project is built. The following is an excerpt from Mayor Malloy's Feb. 4, 2009 letter to the Board of Representatives:

“To date, the WPCA has used all of their 2003 and 2006 Bond funds and the City has been supporting the additional WPCA debt to date. The implementation schedule for the WPCA projects over this calendar year indicates that WPCA expenses will be in an amount which is more than the City can easily address with available cash.”

I stand by my direct quote from the January 7, 2009 SWPCA Board meeting: “it would be easier to make increases in the WPCA budget and customers would be more likely to tolerate higher rates if they were billed in four installments.”

Point 3.

No revenue from sludge pellets: *“During contract negotiations with Synagro, the WPCA opted to have a lower annual operating fee rather than rely on revenue from the pellets.”*

There is and will be no revenue from pellets. The following is an excerpt from a transcription of a March 25 Board of Finance meeting:

Tim Abbazia: *“Would you charge to bring in the pellets?”*

Jeanette Brown: *“Yes, you would charge a significant amount of money, which is a revenue source.”*

If other municipalities would pay Stamford to take their pellets, pellets have a negative value.

Point 4.

“The pelletizing facility uses natural gas to dry the sludge and also for odor control with the majority going to odor control.”

Not true. See Point 1, paragraph 1 above.

“There are CO₂ emissions from the odor control process but those emissions have been permitted by the State of Connecticut DEP. The former method of disposal had much more greenhouse gas emission.”

Not true. Burning 1.65 ft.³ of natural gas per lb. of water evaporated, 40 million ft³ per year, releases much more green house gas than the former method of disposal.

“The sludge incinerator produces much more air pollutants and green house gas than the pelletizing odor control system.”

Nonsense; Mr. Barnes seems obsessed with the “odor control system”. The natural gas burned by the entire dryer, plus some CO₂ from the sludge, determines the amount of CO₂ produced by the drying process. The SWPCA intends to gasify the pellets in a “waste to energy” plant. All of the carbon molecules in the sludge get converted to CO₂ both in gasification and in incineration.

“there was a significant environmental risk and liability in case any of the trucks were in an accident and the sludge spilled.”

More nonsense; every sewage treatment plant in Connecticut ships their sewage sludge and somehow manages to do it safely.

Point 5.

NO to sewage sludge from the South Bronx: *“The WPCA Board has not approved nor contemplated importation of any sludge or biosolids as described by Mr. Stadel. The Board has contemplated a system in which natural gas is used to supplement syngas from sewage sludge for electricity generation.”*

I don't wish to categorize Mr. Barnes' statement, so here are a few quotations (of many):

Oct. 5, 2004, RFP #342 (to design & build the pelletizer and design the gasifier), Sect. 1.2.C:

"Permissible fuels for energy generation will be the dried biosolids pellets that would be produced by the SWPCA, dried biosolids pellets produced offsite by others, and natural gas."

Oct. 27, 2004, RFP #342, Pre-Proposal Conference, Response to Comments. Response 4:

"Pelletized sludge from other facilities can be brought to the Project. Thickened or dewatered sludge cannot be brought to the Project."

Introduction to Interim Report from SWPCA to DOE, due Mar. 2009:

"- - - building and operating a Waste to Energy (WTE) facility that will convert up to 125 DTPD of biosolid pellets to electricity. The SWPCA will produce 25 DTPD, and up to 100 DTPD of pellets will be imported from other municipalities."

Mar. 25, 2009 meeting of the Board of Finance:

Jeanette Brown: *"Phase I is actually going to be 5 MW."*

Joe Tarzia: *"So that means that with what we have in Stamford you're producing –"*

Jeanette Brown: *"We're producing about one plus (MW)"*

Joe Tarzia: *"OK, we need 5 times more or 4 times more. Where are you going to get this stuff?"*

Jeanette Brown: *"If we wanted to, we could import pellets."*

Tim Abbazia: *"Would you charge to bring in the pellets?"*

Jeanette Brown: *"Yes, you would charge a significant amount of money, which is a revenue source."*

Tim Abbazia: *"So you would get income from bringing it if we choose."*

Ben Barnes: *"We could use other forms of biomass, you could use ground leaves, wood, wood chips and that kind of thing, or ultimately you could use natural gas to drive the generator and to maintain a level of electricity even if the pellet supply ran out."*

May 27, 2009 email from Jeanette Brown:

"Originally we were proposing a much larger project, 15 MW, with the concept of taking in outside sludge. However, we have scaled back to about 2 or 3 MW, whatever we can get from our sludge, so we will not be taking in outside sludge and just working with what we have."

Calculations based on data from Kopf, GmbH (the company from whom the SWPCA plans to buy the technology and equipment for the gasification plant) show only about a 0.3 MW output from the 12 tons per day of dry sewage sludge produced in Stamford and Darien. If Mr. Barnes is correct about using natural gas to supplement syngas and not import pellets, then in a 15MW plant, **98%** of the electrical energy would have to be generated from natural gas. In no way could this be considered a “waste to energy” plant.

Point 6.

No feasibility studies conducted: “That is untrue. The WPCA evaluated the financial viability of the pelletizing plant on a stand-alone basis (see attached pro-forma from August, 2006.) “

The 2006 and 2007 pro-formas are for the pelletizing part of the overall “Waste to Energy” project. No pro-forma exists for the entire project.

See Exhibits A & C showing cumulative Savings/(Loss) from 2007 pro-forma, extrapolated using the same escalation factors as in the original WPCA calculations. The WPCA sustains losses from the pelletizer from Fiscal 07/08 to Fiscal 24/25 and thereafter the cumulative savings in Fiscal 26/27 amount to only \$2.7 million, a much smaller amount than the original cost of the pelletizer plant.

The 2006 & 2007 pro-formas are misleading. The 2006 pro-forma used an annual cost escalation factor of 3% for operation & maintenance and for haulaway in the pelletizer case. However, it used 7.5% escalation for O & M in the case without pelletizing. For haulaway in that case it used 10% every third year and 5% other years. *Of course* the result appears favorable for the pelletizer. Such a discrepancy, particularly in the O & M costs, is difficult to justify. The 2007 pro-forma used an escalation factor of 3% for O & M and haulaway in the pelletizer case, 6% for haulaway in the case without pelletizing. If their escalation assumptions changed that much in one year, the pro-forma is useless to predict future costs. Even so, the 2007 pro-forma projects the pelletizer to be grossly uneconomic.

“With respect to the waste-to-energy project, we have and are continuing to complete our feasibility study. We expect to have the final report completed by the end of May. Attached is the Table of Contents for that report.”

The Table of Contents attached to Mr. Barnes’ letter was for the Final Interim Report described in DOE documents as due the DOE in March, 2009 but never completed. A quote from the introduction to that report is shown under Point 5 above. According to the information we received from a Freedom of Information request of April 4, 2009, only the Table of Contents and Introduction existed at that time. There is no feasibility report apart from that.

RFP's 515 & 516, for independent feasibility reports, state that this report will be supplied to the selected company for review. The proposals responding to the RFP's were submitted May 20. It's now the end of June; where is the feasibility report? To date there still is none.

Point 7.

WPCA Board unqualified: "We have on the Board a very well qualified financial professional, Alan Barnett."

Alan Barnett might be well qualified in finance, but his online biography states that he has an MBA and has been in merchandizing for many years, not in finance.

"Until six months ago, we also had an engineer, Chris Maggio, but he had to resign because of health issues. We expect that position to be filled in the near future."

It is now *eight* months; there is still no engineer; the SWPCA Board is still unqualified under Section 200-17 of the Stamford Code.

Respectfully,

George H. Stadel, III

Stamford Taxpayers Political Action Committee

Attachments:

[Stadel April 27 letter to BOR](#)


[Barnes May 1 letter to BOR](#)

Exhibits [A.xls](#), [B.xls](#), [C.xls](#)



CITY OF STAMFORD
OFFICE OF OPERATIONS
888 WASHINGTON BOULEVARD
P.O. Box 10152
Stamford, CT 06901-2152

May 1, 2009

To: Randall Skigen, Chairman, Board of Representatives Fiscal Committee\
From: Ben Barnes, Director of Operations 
Re: Response to Waste-to-Energy questions

Please see below for responses from the WPCA to the questions raised by Mr. Stadel and the Stamford Taxpayers PAC.

1. **\$1 million in increased utility costs:** Utility costs have indeed risen at the WPCA, as they have for everyone else. This rise is a principal justification in support of the waste-to-energy project in my opinion. The use of natural gas has risen because of the dryer now in operation, but more significantly because of the odor control systems in place there now. The Board of the WPCA decided to pursue the dryer project because of rapidly rising transport and disposal costs for sludge. We believed then, and I still do, that trading a volatile and rising haulaway expense for a stable budget of debt service and natural gas was a good deal for rate payers in the long run. We anticipated that the new approach would be more expensive for a few years, but would be cheaper later, as shown on the attached pro-forma from 2006. While we are “behind” our projection today (see updated pro-forma, also attached,) it would be foolish to abandon the project, pay both debt service AND haulaway costs, and ignore beneficial reuse of our residuals.

Let me be clear, there would be no budgetary savings from discontinuing our sludge pelletization process, since debt service would remain, haulaway costs would increase, and the staffing costs for the dewatering process would also remain. A \$2.5million reduction to the WPCA budget, as suggested by Mr. Stadel, would likely result in a default of our indenture obligations, our DEP permits, and our mission to treat sewage in a safe and environmentally responsible manner.

2. **WPCA planning more rate increases:** This statement was taken out of context. In fact, our Board has worked hard in recent years to balance the operating needs of the agency with the goal of keeping rates as low as possible. They made a significant cut to the budget (about \$250,000) prior to submitting to the Board of Finance and the Board of Representatives. The Board is very concerned with even a small increase, but also realizes that the plant must be operated and maintained and that the cost of spare parts and equipment are constantly increasing. We had considered the possibility of mailing four bills per year rather than two in order to ease the burden of sewer bills on rate-payers.
3. **No revenue from sludge pellets:** During contract negotiations with Synagro, the WPCA opted to have a lower annual operating fee rather than rely on revenue from the pellets. These contract terms were contemplated by the Board when it evaluated the financial merits of the project. The terms on which Synagro disposes of the pellets to end users is beyond the scope of the WPCA's contract with Synagro.
4. **Energy-intensive and environmentally unfriendly:** The pelletizing facility uses natural gas to dry the sludge and also for odor control with the majority going to odor control. There are CO2 emissions from the odor control process but those emissions have been permitted by the State of Connecticut DEP. The former method of disposal had much more greenhouse gas emission. We were hauling up to six trucks per day of wet, unstabilized sludge, considered a hazardous material, anywhere from 90 miles to 300 miles away to either a landfill or an incinerator. The sludge incinerator produces much more air pollutants and green house gas than the pelletizing odor control system. Furthermore, there was a significant environmental risk and liability in case any of those trucks were in an accident and the sludge spilled.
5. **NO to sewage sludge from the South Bronx:** The WPCA Board has not approved nor contemplated importation of any sludge or biosolids as described by Mr. Stadel. The Board has contemplated a system in which natural gas is used to supplement syngas from sewage sludge for electricity generation.
6. **No feasibility studies conducted:** That is untrue. The WPCA evaluated the financial viability of the palletizing plant on a stand-alone basis (see attached pro-forma from August, 2006.) With respect to the waste-to-energy project, we have and are continuing to complete our feasibility study. We expect to have the final report completed by the end of May. Attached is the Table of Contents for that report.
7. **WPCA Board unqualified:** We have on the Board a very well qualified financial professional, Alan Barnet. Until six months ago, we also had an engineer, Chris Maggio, but he had to resign because of health issues. We expect that position to be filled in the near future. In addition, the other at-large members are well qualified with two of them having served on the former Sewer Commission and other City Boards and one being the former Director of Operations, Tim Curtin.

Attachments

cc: Jeanette Brown
WPCA Board of Directors

Sludge Pelletization Pro-Forma, Aug. 7, 2006

Assumptions:

1. As of October 2005, haulaway contracts are bidding at \$90/wet ton. Escalating that at 15%/year, FY 07-08 haulaway would be \$119/wet ton. \$ 2,199,120
2. Use 4620 dry tons @ 25% solids as baseline
3. O&M Costs under the new method are escalated at 7.5% per year.
4. Haulaway costs are escalated at 10 % every third year and 5% on the other years. The 10% is for the years in which the contract would be re-bid.

	<u>Current Method</u>	<u>30-yr Revenue Bond</u> <u>Pelletizing @5%</u>	<u>Net Loss/(Savings)</u>
<u>Fiscal Year 06/07</u>			
Debt service	\$	591,051.25	591,051
O&M Cost (includes salaries, benefits, utilities, chemicals)			-
Administrative			-
Haulaway			-
Total Costs	\$ -	\$ 591,051	591,051
<u>Fiscal Year 07/08</u>			
Debt service	\$ -	\$ 1,246,050	1,246,050
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 570,000	\$ 546,250	(23,750)
Haulaway (Sludge Haulaway with escalation summaries)	\$ 1,649,340	-	(1,649,340)
Total Costs	\$ 2,219,340	\$ 1,792,300	(427,040)
<u>Fiscal Year 08/09</u>			
Debt service	\$ -	\$ 1,243,250	1,243,250
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 612,750	\$ 2,250,550	1,637,800
Haulaway	\$ 2,309,076	-	(2,309,076)
Total Costs	\$ 2,921,826	\$ 3,493,800	571,974
<u>Fiscal Year 09/10</u>			
Debt service	\$ -	\$ 1,244,950	1,244,950
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 658,706	\$ 2,318,067	1,659,360
Haulaway	\$ 2,424,530	-	(2,424,530)
Total Costs	\$ 3,083,236	\$ 3,563,017	479,780
<u>Fiscal Year 10/11</u>			
Debt service	\$ -	\$ 1,241,150	1,241,150
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 708,109	\$ 2,387,608	1,679,499
Haulaway	\$ 2,666,983	-	(2,666,983)
Total Costs	\$ 3,375,092	\$ 3,628,758	253,666
<u>Fiscal Year 11/12</u>			
Debt service	\$ -	\$ 1,241,850	1,241,850
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 761,217	\$ 2,459,237	1,698,019
Haulaway	\$ 2,800,332	-	(2,800,332)
Total Costs	\$ 3,561,549	\$ 3,701,087	139,537
<u>Fiscal Year 12/13</u>			
Debt service	\$ -	\$ 1,241,950	1,241,950
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 818,309	\$ 2,533,014	1,714,705
Haulaway	\$ 2,940,349	-	(2,940,349)
Total Costs	\$ 3,758,657	\$ 3,774,964	16,307
<u>Fiscal Year 13/14</u>			
Debt service	\$ -	\$ 1,241,450	1,241,450
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 879,682	\$ 2,609,004	1,729,322
Haulaway	\$ 3,234,383	-	(3,234,383)
Total Costs	\$ 4,114,065	\$ 3,850,454	(263,611)
<u>Fiscal Year 14/15</u>			
Debt service	\$ -	\$ 1,245,250	1,245,250
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 945,658	\$ 2,687,274	1,741,616
Haulaway	\$ 3,396,103	-	(3,396,103)
Total Costs	\$ 4,341,761	\$ 3,932,524	(409,236)
Grand Total	\$ 27,375,526	\$ 28,327,956	952,429

Sludge Pelletization Pro-Forma, Aug. 8, 2007 and Updated

Assumptions:

1. As of October 2005, haulaway contracts are bidding at \$90/wet ton. Escalating that at 15%/year, FY 07-08 haulaway would be \$119/wet ton.

Pelletizing Pro-Forma, as projected in 2006

\$ 2,199,120 18,480

Pelletizing Pro-Forma, Actuals for Comparison

Using actual of 5000 tons @23% solids 21739

2. Use 4620 dry tons @ 25% solids as baseline
 3. O&M Costs under the new method are escalated at 7.5% per year.
 4. Haulaway costs are escalated at 10 % every third year and 5% on the other years. The 10% is for the years in which the contract would be re-bid.

	Current Method	30-yr Revenue Bond Pelletizing @5%	Net Loss/(Savings)	Haulaway per wet ton	without pelletizing	W/Pelletizing	Net Loss/(Savings)	Haulaway per wet ton
Fiscal Year 07/08								
Debt service	\$ -	\$ 1,246,050	1,246,050		\$ -	\$ 907,585	907,585	
O&M Cost (includes salaries, benefit)	\$ 570,000	\$ 546,250	(23,750)		\$ 206,536	\$ 656,536	450,000	
Haulaway (Sludge Haulaway with es)	\$ 1,649,340	\$ -	(1,649,340)	\$ 89	\$ 1,934,783	\$ 942,142	(992,641)	
Total Costs	\$ 2,219,340	\$ 1,792,300	(427,040)		\$ 2,141,319	\$ 2,506,263	364,944	\$ 89
Fiscal Year 08/09								
Debt service	\$ -	\$ 1,243,250	1,243,250		\$ -	\$ 897,257	897,257	
O&M Cost (includes salaries, benefit)	\$ 612,750	\$ 2,250,550	1,637,800		\$ 217,265	\$ 2,153,271	1,936,006	
Haulaway	\$ 2,309,076	\$ -	(2,309,076)	\$ 125	\$ 2,173,913	\$ 229,208	(1,944,705)	
Total Costs	\$ 2,921,826	\$ 3,493,800	571,974		\$ 2,391,178	\$ 3,279,736	888,558	\$ 100
Fiscal Year 09/10								
Debt service	\$ -	\$ 1,244,950	1,244,950		\$ -	\$ 909,092	909,092	
O&M Cost (includes salaries, benefit)	\$ 658,706	\$ 2,318,067	1,659,360		\$ 333,935	\$ 2,440,997	2,107,062	
Haulaway	\$ 2,424,530	\$ -	(2,424,530)	\$ 131	\$ 2,304,348	\$ 70,000	(2,234,348)	
Total Costs	\$ 3,083,236	\$ 3,563,017	479,780		\$ 2,638,283	\$ 3,420,089	781,806	\$ 106
Fiscal Year 10/11								
Debt service	\$ -	\$ 1,241,150	1,241,150		\$ -	\$ 908,451	908,451	
O&M Cost (includes salaries, benefit)	\$ 708,109	\$ 2,387,608	1,679,499		\$ 343,953	\$ 2,514,227	2,170,274	
Haulaway	\$ 2,666,983	\$ -	(2,666,983)		\$ 2,442,609	\$ 72,100	(2,370,509)	
Total Costs	\$ 3,375,092	\$ 3,628,758	253,666	\$ 183	\$ 2,786,562	\$ 3,494,778	708,217	\$ 112
Fiscal Year 11/12								
Debt service	\$ -	\$ 1,241,850	1,241,850		\$ -	\$ 907,358	907,358	
O&M Cost (includes salaries, benefit)	\$ 761,217	\$ 2,459,237	1,698,019		\$ 354,272	\$ 2,589,654	2,235,382	
Haulaway	\$ 2,800,332	\$ -	(2,800,332)		\$ 2,589,165	\$ 74,263	(2,514,902)	
Total Costs	\$ 3,561,549	\$ 3,701,087	139,537	\$ 193	\$ 2,943,437	\$ 3,571,275	627,838	\$ 119
Fiscal Year 12/13								
Debt service	\$ -	\$ 1,241,950	1,241,950		\$ -	\$ 906,529	906,529	
O&M Cost (includes salaries, benefit)	\$ 818,309	\$ 2,533,014	1,714,705		\$ 364,900	\$ 2,667,343	2,302,444	
Haulaway	\$ 2,940,349	\$ -	(2,940,349)		\$ 2,744,515	\$ 76,491	(2,668,024)	
Total Costs	\$ 3,758,657	\$ 3,774,964	16,307	\$ 203	\$ 3,109,415	\$ 3,650,363	540,948	\$ 126
Fiscal Year 13/14								
Debt service	\$ -	\$ 1,241,450	1,241,450		\$ -	\$ 908,941	908,941	
O&M Cost (includes salaries, benefit)	\$ 879,682	\$ 2,609,004	1,729,322		\$ 375,847	\$ 2,747,364	2,371,517	
Haulaway	\$ 3,234,383	\$ -	(3,234,383)		\$ 2,909,186	\$ 78,786	(2,830,400)	
Total Costs	\$ 4,114,065	\$ 3,850,454	(263,611)	\$ 223	\$ 3,285,033	\$ 3,735,091	450,058	\$ 134
Fiscal Year 14/15								
Debt service	\$ -	\$ 1,245,250	1,245,250		\$ -	\$ 907,057	907,057	
O&M Cost (includes salaries, benefit)	\$ 945,658	\$ 2,687,274	1,741,616		\$ 387,122	\$ 2,829,785	2,442,662	
Haulaway	\$ 3,396,103	\$ -	(3,396,103)		\$ 3,083,737	\$ 81,149	(3,002,588)	
Total Costs	\$ 4,341,761	\$ 3,932,524	(409,236)	\$ 235	\$ 3,470,859	\$ 3,817,991	347,131	\$ 142
Grand Total	\$ 27,375,526	\$ 28,327,956	952,429		\$ 22,766,085	\$ 27,475,585	4,709,500	

Stamford Waste to Energy Final Interim Report

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CITY OF STAMFORD
OFFICE OF OPERATIONS
888 WASHINGTON BOULEVARD
P.O. Box 10152
Stamford, CT 06901-2152

May 1, 2009

To: Randall Skigen, Chairman, Board of Representatives Fiscal Committee\
From: Ben Barnes, Director of Operations 
Re: Response to Waste-to-Energy questions

Please see below for responses from the WPCA to the questions raised by Mr. Stadel and the Stamford Taxpayers PAC.

1. **\$1 million in increased utility costs:** Utility costs have indeed risen at the WPCA, as they have for everyone else. This rise is a principal justification in support of the waste-to-energy project in my opinion. The use of natural gas has risen because of the dryer now in operation, but more significantly because of the odor control systems in place there now. The Board of the WPCA decided to pursue the dryer project because of rapidly rising transport and disposal costs for sludge. We believed then, and I still do, that trading a volatile and rising haulaway expense for a stable budget of debt service and natural gas was a good deal for rate payers in the long run. We anticipated that the new approach would be more expensive for a few years, but would be cheaper later, as shown on the attached pro-forma from 2006. While we are “behind” our projection today (see updated pro-forma, also attached,) it would be foolish to abandon the project, pay both debt service AND haulaway costs, and ignore beneficial reuse of our residuals.

Let me be clear, there would be no budgetary savings from discontinuing our sludge pelletization process, since debt service would remain, haulaway costs would increase, and the staffing costs for the dewatering process would also remain. A \$2.5million reduction to the WPCA budget, as suggested by Mr. Stadel, would likely result in a default of our indenture obligations, our DEP permits, and our mission to treat sewage in a safe and environmentally responsible manner.

2. **WPCA planning more rate increases:** This statement was taken out of context. In fact, our Board has worked hard in recent years to balance the operating needs of the agency with the goal of keeping rates as low as possible. They made a significant cut to the budget (about \$250,000) prior to submitting to the Board of Finance and the Board of Representatives. The Board is very concerned with even a small increase, but also realizes that the plant must be operated and maintained and that the cost of spare parts and equipment are constantly increasing. We had considered the possibility of mailing four bills per year rather than two in order to ease the burden of sewer bills on rate-payers.
3. **No revenue from sludge pellets:** During contract negotiations with Synagro, the WPCA opted to have a lower annual operating fee rather than rely on revenue from the pellets. These contract terms were contemplated by the Board when it evaluated the financial merits of the project. The terms on which Synagro disposes of the pellets to end users is beyond the scope of the WPCA's contract with Synagro.
4. **Energy-intensive and environmentally unfriendly:** The pelletizing facility uses natural gas to dry the sludge and also for odor control with the majority going to odor control. There are CO2 emissions from the odor control process but those emissions have been permitted by the State of Connecticut DEP. The former method of disposal had much more greenhouse gas emission. We were hauling up to six trucks per day of wet, unstabilized sludge, considered a hazardous material, anywhere from 90 miles to 300 miles away to either a landfill or an incinerator. The sludge incinerator produces much more air pollutants and green house gas than the pelletizing odor control system. Furthermore, there was a significant environmental risk and liability in case any of those trucks were in an accident and the sludge spilled.
5. **NO to sewage sludge from the South Bronx:** The WPCA Board has not approved nor contemplated importation of any sludge or biosolids as described by Mr. Stadel. The Board has contemplated a system in which natural gas is used to supplement syngas from sewage sludge for electricity generation.
6. **No feasibility studies conducted:** That is untrue. The WPCA evaluated the financial viability of the palletizing plant on a stand-alone basis (see attached pro-forma from August, 2006.) With respect to the waste-to-energy project, we have and are continuing to complete our feasibility study. We expect to have the final report completed by the end of May. Attached is the Table of Contents for that report.
7. **WPCA Board unqualified:** We have on the Board a very well qualified financial professional, Alan Barnet. Until six months ago, we also had an engineer, Chris Maggio, but he had to resign because of health issues. We expect that position to be filled in the near future. In addition, the other at-large members are well qualified with two of them having served on the former Sewer Commission and other City Boards and one being the former Director of Operations, Tim Curtin.

Attachments

cc: Jeanette Brown
WPCA Board of Directors

Sludge Pelletization Pro-Forma, Aug. 7, 2006

Assumptions:

1. As of October 2005, haulaway contracts are bidding at \$90/wet ton. Escalating that at 15%/year, FY 07-08 haulaway would be \$119/wet ton. \$ 2,199,120
2. Use 4620 dry tons @ 25% solids as baseline
3. O&M Costs under the new method are escalated at 7.5% per year.
4. Haulaway costs are escalated at 10 % every third year and 5% on the other years. The 10% is for the years in which the contract would be re-bid.

	<u>Current Method</u>	<u>30-yr Revenue Bond</u> <u>Pelletizing @5%</u>	<u>Net Loss/(Savings)</u>
<u>Fiscal Year 06/07</u>			
Debt service	\$	591,051.25	591,051
O&M Cost (includes salaries, benefits, utilities, chemicals)			-
Administrative			-
Haulaway			-
Total Costs	\$ -	\$ 591,051	591,051
<u>Fiscal Year 07/08</u>			
Debt service	\$	1,246,050	1,246,050
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 570,000	\$ 546,250	(23,750)
Haulaway (Sludge Haulaway with escalation summaries)	\$ 1,649,340	-	(1,649,340)
Total Costs	\$ 2,219,340	\$ 1,792,300	(427,040)
<u>Fiscal Year 08/09</u>			
Debt service	\$	1,243,250	1,243,250
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 612,750	\$ 2,250,550	1,637,800
Haulaway	\$ 2,309,076	-	(2,309,076)
Total Costs	\$ 2,921,826	\$ 3,493,800	571,974
<u>Fiscal Year 09/10</u>			
Debt service	\$	1,244,950	1,244,950
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 658,706	\$ 2,318,067	1,659,360
Haulaway	\$ 2,424,530	-	(2,424,530)
Total Costs	\$ 3,083,236	\$ 3,563,017	479,780
<u>Fiscal Year 10/11</u>			
Debt service	\$	1,241,150	1,241,150
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 708,109	\$ 2,387,608	1,679,499
Haulaway	\$ 2,666,983	-	(2,666,983)
Total Costs	\$ 3,375,092	\$ 3,628,758	253,666
<u>Fiscal Year 11/12</u>			
Debt service	\$	1,241,850	1,241,850
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 761,217	\$ 2,459,237	1,698,019
Haulaway	\$ 2,800,332	-	(2,800,332)
Total Costs	\$ 3,561,549	\$ 3,701,087	139,537
<u>Fiscal Year 12/13</u>			
Debt service	\$	1,241,950	1,241,950
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 818,309	\$ 2,533,014	1,714,705
Haulaway	\$ 2,940,349	-	(2,940,349)
Total Costs	\$ 3,758,657	\$ 3,774,964	16,307
<u>Fiscal Year 13/14</u>			
Debt service	\$	1,241,450	1,241,450
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 879,682	\$ 2,609,004	1,729,322
Haulaway	\$ 3,234,383	-	(3,234,383)
Total Costs	\$ 4,114,065	\$ 3,850,454	(263,611)
<u>Fiscal Year 14/15</u>			
Debt service	\$	1,245,250	1,245,250
O&M Cost (includes salaries, benefits, utilities, chemicals)	\$ 945,658	\$ 2,687,274	1,741,616
Haulaway	\$ 3,396,103	-	(3,396,103)
Total Costs	\$ 4,341,761	\$ 3,932,524	(409,236)
Grand Total	\$ 27,375,526	\$ 28,327,956	952,429

Sludge Pelletization Pro-Forma, Aug. 8, 2007 and Updated

Assumptions:

1. As of October 2005, haulaway contracts are bidding at \$90/wet ton. Escalating that at 15%/year, FY 07-08 haulaway would be \$119/wet ton.

Pelletizing Pro-Forma, as projected in 2006

\$ 2,199,120 18,480

Pelletizing Pro-Forma, Actuals for Comparison

Using actual of 5000 tons @23% solids 21739

2. Use 4620 dry tons @ 25% solids as baseline
 3. O&M Costs under the new method are escalated at 7.5% per year.
 4. Haulaway costs are escalated at 10 % every third year and 5% on the other years. The 10% is for the years in which the contract would be re-bid.

	Current Method	30-yr Revenue Bond Pelletizing @5%	Net Loss/(Savings)	Haulaway per wet ton	without pelletizing	W/Pelletizing	Net Loss/(Savings)	Haulaway per wet ton
Fiscal Year 07/08								
Debt service	\$ -	\$ 1,246,050	1,246,050		\$ -	\$ 907,585	907,585	
O&M Cost (includes salaries, benefit)	\$ 570,000	\$ 546,250	(23,750)		\$ 206,536	\$ 656,536	450,000	
Haulaway (Sludge Haulaway with es)	\$ 1,649,340	\$ -	(1,649,340)	\$ 89	\$ 1,934,783	\$ 942,142	(992,641)	
Total Costs	\$ 2,219,340	\$ 1,792,300	(427,040)		\$ 2,141,319	\$ 2,506,263	364,944	\$ 89
Fiscal Year 08/09								
Debt service	\$ -	\$ 1,243,250	1,243,250		\$ -	\$ 897,257	897,257	
O&M Cost (includes salaries, benefit)	\$ 612,750	\$ 2,250,550	1,637,800		\$ 217,265	\$ 2,153,271	1,936,006	
Haulaway	\$ 2,309,076	\$ -	(2,309,076)	\$ 125	\$ 2,173,913	\$ 229,208	(1,944,705)	
Total Costs	\$ 2,921,826	\$ 3,493,800	571,974		\$ 2,391,178	\$ 3,279,736	888,558	\$ 100
Fiscal Year 09/10								
Debt service	\$ -	\$ 1,244,950	1,244,950		\$ -	\$ 909,092	909,092	
O&M Cost (includes salaries, benefit)	\$ 658,706	\$ 2,318,067	1,659,360		\$ 333,935	\$ 2,440,997	2,107,062	
Haulaway	\$ 2,424,530	\$ -	(2,424,530)	\$ 131	\$ 2,304,348	\$ 70,000	(2,234,348)	
Total Costs	\$ 3,083,236	\$ 3,563,017	479,780		\$ 2,638,283	\$ 3,420,089	781,806	\$ 106
Fiscal Year 10/11								
Debt service	\$ -	\$ 1,241,150	1,241,150		\$ -	\$ 908,451	908,451	
O&M Cost (includes salaries, benefit)	\$ 708,109	\$ 2,387,608	1,679,499		\$ 343,953	\$ 2,514,227	2,170,274	
Haulaway	\$ 2,666,983	\$ -	(2,666,983)		\$ 2,442,609	\$ 72,100	(2,370,509)	
Total Costs	\$ 3,375,092	\$ 3,628,758	253,666	\$ 183	\$ 2,786,562	\$ 3,494,778	708,217	\$ 112
Fiscal Year 11/12								
Debt service	\$ -	\$ 1,241,850	1,241,850		\$ -	\$ 907,358	907,358	
O&M Cost (includes salaries, benefit)	\$ 761,217	\$ 2,459,237	1,698,019		\$ 354,272	\$ 2,589,654	2,235,382	
Haulaway	\$ 2,800,332	\$ -	(2,800,332)		\$ 2,589,165	\$ 74,263	(2,514,902)	
Total Costs	\$ 3,561,549	\$ 3,701,087	139,537	\$ 193	\$ 2,943,437	\$ 3,571,275	627,838	\$ 119
Fiscal Year 12/13								
Debt service	\$ -	\$ 1,241,950	1,241,950		\$ -	\$ 906,529	906,529	
O&M Cost (includes salaries, benefit)	\$ 818,309	\$ 2,533,014	1,714,705		\$ 364,900	\$ 2,667,343	2,302,444	
Haulaway	\$ 2,940,349	\$ -	(2,940,349)		\$ 2,744,515	\$ 76,491	(2,668,024)	
Total Costs	\$ 3,758,657	\$ 3,774,964	16,307	\$ 203	\$ 3,109,415	\$ 3,650,363	540,948	\$ 126
Fiscal Year 13/14								
Debt service	\$ -	\$ 1,241,450	1,241,450		\$ -	\$ 908,941	908,941	
O&M Cost (includes salaries, benefit)	\$ 879,682	\$ 2,609,004	1,729,322		\$ 375,847	\$ 2,747,364	2,371,517	
Haulaway	\$ 3,234,383	\$ -	(3,234,383)		\$ 2,909,186	\$ 78,786	(2,830,400)	
Total Costs	\$ 4,114,065	\$ 3,850,454	(263,611)	\$ 223	\$ 3,285,033	\$ 3,735,091	450,058	\$ 134
Fiscal Year 14/15								
Debt service	\$ -	\$ 1,245,250	1,245,250		\$ -	\$ 907,057	907,057	
O&M Cost (includes salaries, benefit)	\$ 945,658	\$ 2,687,274	1,741,616		\$ 387,122	\$ 2,829,785	2,442,662	
Haulaway	\$ 3,396,103	\$ -	(3,396,103)		\$ 3,083,737	\$ 81,149	(3,002,588)	
Total Costs	\$ 4,341,761	\$ 3,932,524	(409,236)	\$ 235	\$ 3,470,859	\$ 3,817,991	347,131	\$ 142
Grand Total	\$ 27,375,526	\$ 28,327,956	952,429		\$ 22,766,085	\$ 27,475,585	4,709,500	

Stamford Waste to Energy Final Interim Report

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Exhibit A
Savings from use of Pelletization vs Wet Cake Haulaway
WPCA Pelletization Pro-Forma, Aug. 8, 2007
(Data for Fiscal 15/16 to 26/27 extrapolated from WPCA Pro-Forma using same escalation factors)

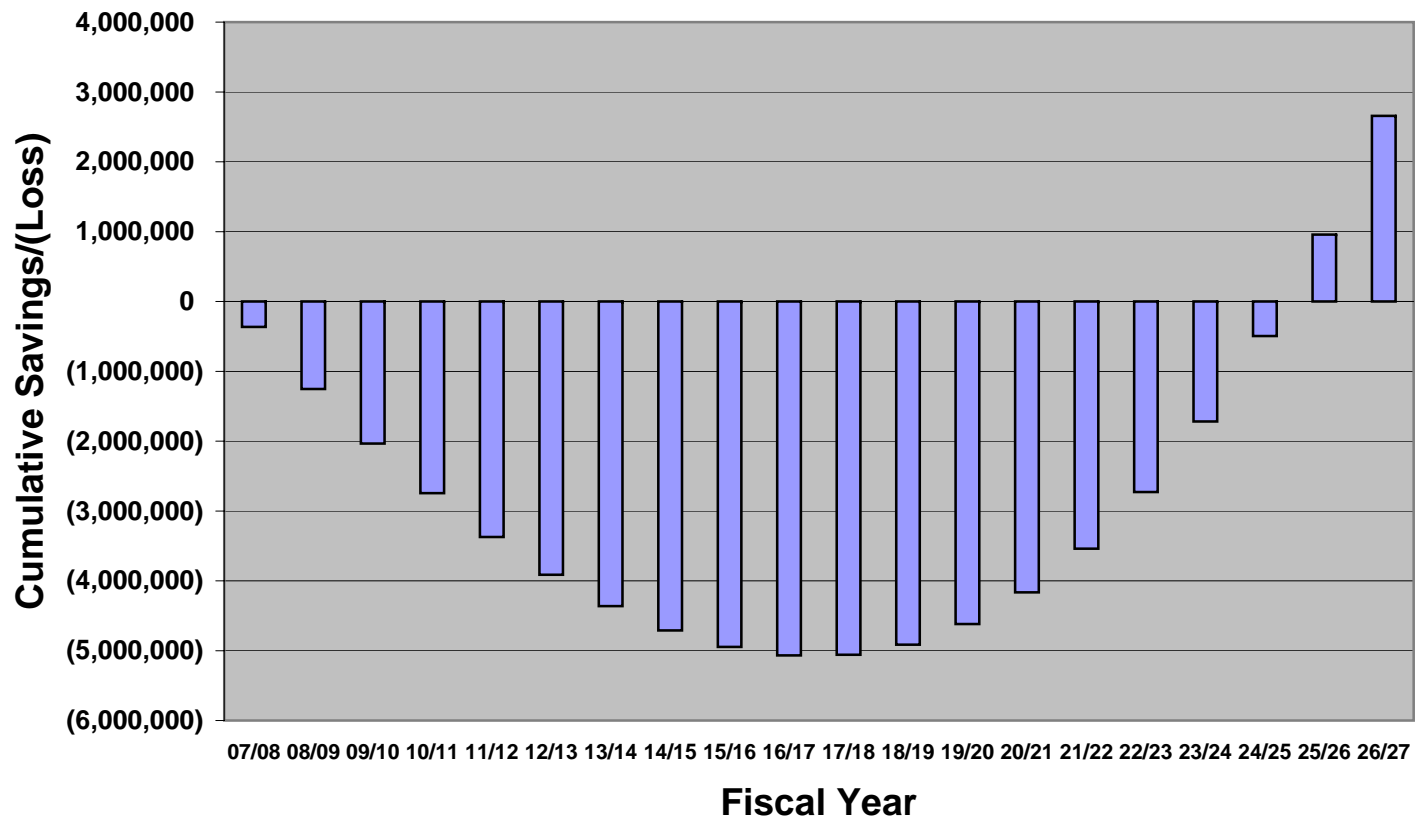


Exhibit B
Savings from use of Pelletization vs Wet Cake Haulaway with Debt Service
WPCA Pelletization Pro-Forma, Aug. 8, 2007
(Data for Fiscal 15/16 to 26/27 extrapolated from WPCA Pro-Forma using 3% for haulaway escalation)

