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THE HARRISBURG AUTHORITY
RESOURCE RECOVERY FACILITY
FORENSIC INVESTIGATION REPORT

By

Douglas F. Schleicher, Esquire
Glenn A. Weiner, Esquire
Klehr Harrison Harvey Branzburg LLP

David M. Duffus, CPA/ABV/CFF, CFE
James T. O'Brien, CPA/CFF
ParenteBeard LLC

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I. INTRODUCTION

The Harrisburg Authority (the "Authority" or "THA") is a municipal authority created by the City of Harrisburg (the "City"). The Authority provides various utility services to the City and certain surrounding communities. The Authority owns the Harrisburg Resource Recovery Facility (the "RRF" or the "Facility"), a waste-to-energy plant.

The Authority has accumulated more than $300 million in debt and other obligations related to the RRF. The debt on the RRF arises primarily out of the issuance of numerous bonds and notes by the Authority. About two-thirds of the debt was incurred in connection with projects undertaken in 2003 and 2007, both of which were designed to retrofit the RRF to comply with environmental regulations and to increase its efficiency and capacity. (In this report, we sometimes refer to these projects as any combination of the words "project," "projects," "retrofit" or "retrofits.") Despite these projects, the RRF is not generating sufficient net operating revenues to service the debt on the Facility. The Authority's inability to service the debt on the RRF has resulted in the City and Dauphin County (the "County"), and the bond insurer (Assured Guaranty Municipal Corp. ("AGM"), as the successor to the interests of Financial Security Assurance ("FSA")), making debt service payments on the Authority's debt and has been a significant factor in the well-publicized financial distress of the City.

In late 2010, the Authority conducted a public search, through a formal proposal process, for an accounting firm and a law firm to perform "…a forensic audit[1] of certain financings in 2000, 2002, 2003 and 2007, including swap agreements, as well as certain

[1] The term forensic audit reflects the nomenclature chosen by the Authority for use in the Request for Proposal. The term forensic audit has not been defined by the American Institute of Certified Public Accountants ("AICPA"), although the term often is used interchangeably with the terms forensic investigation, forensic accounting and/or forensic examination. The forensic accounting work that has been performed in this matter is based upon the scope of work set forth by the Authority Board and its Solicitor, and the procedures discussed in this report. Further, those forensic procedures have been performed in accordance with the AICPA's consulting standards, not the audit standards. As such, the forensic accounting procedures performed do not constitute a financial statement audit, the objective of which is the expression of an opinion on the fairness with which the financial statements of the entity subject to audit present, in all material respects, the financial position, results of operations and cash flows in conformity with generally accepted accounting principles.

contracts with Barlow Projects and Reynolds Construction. These financings and contracts have resulted in over $282 million in debt[2] which cannot be repaid by the Authority from receipts and revenues at the RRF."[3] Following receipt of written responses to the Authority's requests for proposal and public interviews of responding parties, the Authority selected the law firm of Klehr Harrison Harvey Branzburg LLP ("Klehr Harrison") and the accounting firm of ParenteBeard LLC ("ParenteBeard") to conduct the forensic investigation. The Authority also engaged the financial advisory firm of Public Resources Advisory Group ("PRAG") to consult with, and to provide quantitative analysis and support to, Klehr Harrison and ParenteBeard regarding the plan of finance for the RRF, the debt issued and related swaps entered into by the Authority. These firms were engaged by the Authority in late December 2010 and began work on the investigation in January 2011.

A. INVESTIGATIVE TEAM

Numerous individuals contributed to the overall analyses that were performed. The work was performed under the direction of the following individuals:

Douglas F. Schleicher is a partner with Klehr Harrison and the Chair of the firm's Environmental practice group. Mr. Schleicher has experience with a broad range of environmental matters, including regulatory, transactional and litigation matters.

Glenn A. Weiner is a partner with Klehr Harrison in the firm's Litigation department. Mr. Weiner handles various kinds of complex business issues in litigation matters and has experience in conducting internal investigations for clients and in representing them in connection with investigations by administrative agencies and self-regulatory organizations.

[2] The figure does not include all debt and obligations.
[3] Request for Proposal dated September 28, 2010.

James T. O'Brien is a Certified Public Accountant and is certified in Financial Forensics. He is a Partner with ParenteBeard's Forensic, Litigation & Valuation Services department in Philadelphia, Pennsylvania.

David M. Duffus is a Certified Public Accountant, Accredited in Business Valuation, certified in Financial Forensics, and is a Certified Fraud Examiner. He is a Partner with ParenteBeard, and manages the Pittsburgh Forensic, Litigation & Valuation Services department.

Steven A. Goldfield has been an independent financial advisor for the past six years. He was a Senior Managing Director at PRAG until October 31, 2011, and is currently a Senior Counselor with PRAG. Prior to that, Mr. Goldfield was a bond counsel and underwriters' counsel. Mr. Goldfield is the Principal of Municipal Advisor Solutions, a company formed to assist financial advisors with compliance with the new regulations being promulgated under Dodd-Frank Wall Street Reform Act.[4]

Each member of the investigative team brought a specific set of skills to assist the investigative process. Our observations and findings are presented in combined fashion in this report, and the individual experience each team member brought to the investigative team helps to bring insight to the conclusions that have been drawn. The conclusions presented are based primarily upon the experience of the respective member(s) of the team with relevant background in the subject matter addressed. No member of the team is providing any formal opinion on any matter, nor is any member of the team purporting to advise you, by virtue of providing input into this joint report, on subject matters that are outside of his or its respective area(s) of practice.

[4] Mr. Goldfield and PRAG professionals undertook quantitative analysis and provided insights based upon their experience with respect to certain of the issues reviewed in the investigation and addressed in this report, including among other things, the swaps, caps and plan of finance, as well as structuring of and customary practices involved in municipal finance transactions.

B. THE PARTIES

There were many entities and individuals who were involved with the financings for the RRF and the retrofit projects. To place their involvement into context, the following identifies the key individuals and entities that have been identified in our analysis.

1. The City

The key individuals from the City who had involvement with the RRF were:

- Stephen Reed. Mayor of the City of Harrisburg from 1982[4.5] through 2009.[5]
- Daniel Lispi. Assistant to the Mayor for Special Projects,[6] and later a consultant to the Authority and the City on the project.[7]
- Linda Lingle. Business Administrator.[8]
- John Lukens. Director, Department of Incineration and Steam Generation Materials & Energy Recycling and Recovery Facility.[9]
- Robert Kroboth. Finance Director.[10]
- Linda Thompson. Harrisburg City Council ("City Council") member, Chair of the Public Works Committee,[11] and current Mayor of the City of Harrisburg.

[4.5] http://www.citymayors.com/mayors/harrisburg_mayor.html.
[5] Mayor Linda Thompson was sworn into office in January 2010. http://www.pennlive.com/midstate/index.ssf/2010/01/linda_thompson_sworn_in_as_har.html.
[6] Mr. Lispi's title as stated in the November 19, 2003 letter from Ronald Barmore to Mr. Lispi regarding the "security" package.
[7] Consulting Agreement between DRL Consulting and Development LLC and the City and the Authority dated April 2, 2004.
[8] Ms. Lingle's title was obtained from various e-mail correspondence.
[9] May 30, 2007 Letter from The Harrisburg Authority to Mr. Lukens, among others.
[10] February 6, 2008 letter from Richard Michael to Mr. Kroboth.
[11] August 2, 2007 memo from Carol Cocheres to Ms. Thompson.

2. The County

Because of the limited documents the County provided, our identification of County officials and representatives that had involvement with the RRF was gleaned from documents provided by others.[12] Those individuals include:

- County Commissioner Jeffrey Haste.
- County Commissioner Lowman Henry.
- County Commissioner Anthony Petrucci.[13]

3. The Authority

Individuals affiliated with the Authority who had involvement with the RRF were:

- Thomas Mealy. Executive Director of the Authority through late 2006.[14]
- Robert Ambrose. Executive Director of the Authority in 2007.[15]
- John Keller. Authority Board member from at least 1998[16] to September 2007,[17] serving over that time as Vice-Chairman and subsequently Chairman of the Board of the Authority.
- Fredrick Clark. Authority Board member from at least 1998[18] through August 2007[19] and Chairman of the Board of the Authority in 2006.[20]

[12] The County declined to produce documents to the forensic team, but did provide certain documents directly to the Authority in response to Right-to-Know requests by the Authority staff.
[13] County of Dauphin Ordinance No. 4-2003 dated November 6, 2003.
[14] November 30, 2006 Authority Board Meeting Minutes.
[15] December 22, 2006 Authority Board Meeting Minutes.
[16] General Certificate of the Harrisburg Authority dated August 27, 1998, included in the 1998 A, B, C and D Transcript of Proceedings.
[17] The September 5, 2007 Authority Board Meeting Minutes indicate James Ellison is appointed Chairman. The Authority's Board Minutes evidence no further activity by John Keller after the December 19, 2007 meeting.
[18] General Certificate of the Harrisburg Authority dated August 27, 1998 included in the 1998 A, B, C and D Transcript of Proceedings.
[19] The Authority's Board Minutes evidence no further activity by Fredrick Clark after the August 22, 2007 meeting.
[20] Authority Board Meeting Minutes from February 22, 2006 identifying Mr. Clark as Chairman.

- Michele Torres. Acting Executive Director of the Authority in the fall of 2007.[21] Later, Executive Director. Ms. Torres left the Authority in 2011.
- James Ellison. Chairman of the Board of the Authority from September 2007[22] to March 2010.[23]
- Trent Hargrove. Chairman of the Board of the Authority from at least 1998[24] to June 2004.[25]

4. The Contractors

The following were key contractors on the retrofit project:

- Barlow Projects, Inc. ("Barlow").[26] Hired by the Authority as early as September 2000[27] to assess the feasibility of the retrofit. Later provided project design, bid management and financial analysis services. Ultimately, Barlow served as the lead contractor on the project. Key Barlow representatives were:
  - James Barlow, President;[28] and
  - Ronald Barmore, Senior Vice President.[29]
- Barlow also hired a number of subcontractors to assist with the retrofit contract. We will discuss the subcontractors in more detail during our analysis of the retrofit.

[21] September 26, 2007 Authority Board Meeting Minutes.
[22] The September 5, 2007 Authority Board Meeting Minutes indicate James Ellison is appointed Chairman.
[23] March 31, 2010 Authority Board Meeting Minutes.
[24] General Certificate of the Harrisburg Authority dated August 27, 1998 included in the 1998 A, B, C and D Transcript of Proceedings.
[25] See June 23, 2004 Trent Hargrove resignation letter.
[26] A related Barlow entity, Barlow Projects Harrisburg, LLC, was involved with the project, and was the contracting entity with the Authority for the Amended and Restated Agreement for the Sale and Installation of Equipment. Throughout the report these parties will be referred to collectively as Barlow.
[27] December 13, 2001 memo from Mayor Stephen Reed to Harrisburg City Council regarding the retrofit decision. The memo discusses Barlow's September 2000 preliminary report to the City and Authority.
[28] December 4, 2000 Opinion Letter to the Authority regarding project feasibility.
[29] March 24, 2003 report certifying the self-liquidating status of the 2003 Series A, B and C debt.

- Reynolds Construction Management, Inc. ("Reynolds"). Hired by the Authority on February 16, 2004 to provide pre-construction services[30] and in August 2006 to provide close-out services on the project.[31] Also hired by Barlow on April 1, 2004 to support Barlow with procurement and construction management services.[32] At the time that Reynolds was awarded these contracts and was working on the project, Fredrick Clark, a member of the Authority's Board, was also a Reynolds executive.[33]
- Covanta Energy ("Covanta"). Hired in January 2007 to complete the construction on the RRF and to operate the Facility.[34] Covanta continues to operate the Facility for the Authority.

5. *The Law Firms & Lawyers*

The following law firms and lawyers were involved with the RRF:

- Obermayer, Rebmann, Maxwell & Hippel, LLP ("Obermayer"). Retained by the Authority as early as 1994 regarding the RRF.[35] Key lawyers included:
  - Andrew Giorgione. Lead attorney at Obermayer who advised the Authority and the City on issues related to the RRF and who had a close working relationship with Mayor Reed.[36]
  - Hugh Sutherland. Bond attorney who worked with Mr. Giorgione on RRF-related bond issues in 2003.[37]
- Klett, Rooney, Lieber & Schorling, P.C. ("Klett Rooney"). Mr. Giorgione left Obermayer in 2005 to join Klett Rooney, and brought the client relationships with

[30] Scope of services attached to the February 16, 2004 agreement between the Authority and Reynolds.
[31] August 23, 2006 Agreement between the Authority and Reynolds.
[32] Agreement for Professional Consulting Services between Barlow and Reynolds dated April 1, 2004.
[33] http://www.fclarkresources.com/index.php?option=com_content&task=view&id=29&Itemid=5.
[34] Harrisburg Authority Resolution 2006-031, adopted December 22, 2006.
[35] December 21, 1994 engagement letter between the Authority and Obermayer.
[36] Based upon our observations from the documents produced.
[37] For example, refer to the May 9, 2003 memo from Mr. Sutherland to Andrew Giorgione regarding the Barlow Self-Liquidating Debt Report.

the City and the Authority with him.[38] Klett Rooney later merged with Buchanan Ingersoll, P.C. to become Buchanan Ingersoll & Rooney, P.C. ("Buchanan"). In addition to Mr. Giorgione, Kenneth Luttinger also provided counsel.

- Eckert, Seamans, Cherin & Mellot, LLC ("Eckert"). Eckert attorneys were involved with the RRF in various capacities from 1993, when the Authority acquired the RRF from the City, through 2011. Eckert attorneys were involved in the original acquisition financing; as bond counsel to the Authority for the 1998 refundings;[39] as Note Counsel to the Authority for the 2000 A and B Notes;[40] as Authority Special Counsel and Underwriters' Counsel for the 2002 Variable Rate Notes;[41] as Underwriters' Counsel for the 2003 Note and Bond issues;[42] and as Note Counsel and Special Counsel to the Authority for the 2007 Notes.[43] Further, based upon other documents and information analyzed, the scope of the representation appears to have been broader than these limited roles. Key attorneys at Eckert included:
  - Carol Cocheres.[44]
  - Richard Michael.[45]
- Rhoads & Sinon, LLP. Solicitor for the Authority from 1998[46] to 2004.[47]
- Foreman & Foreman. Solicitor to the Authority from 2004[48] to at least 2007.[49]
- Mette Evans & Woodside ("Mette Evans"). Counsel to the County.[50] Mette Evans attorneys include:

[38] See e-mail correspondence in November 2005, showing Mr. Giorgione was with Klett Rooney. Note that we have identified one engagement letter dated January 6, 2006 between Klett Rooney and the Authority regarding Barlow Contract Matters.
[39] Closing Memorandum for the 1998 A, B, C and D debt.
[40] Official Statement for the 2000 Notes, dated November 16, 2000.
[41] Closing Memorandum for the 2002 A debt.
[42] Closing Memorandum for the 2003 A, B and C debt issues, and Closing Memorandum from the 2003, D, E and F debt issues.
[43] Transcript of Proceedings dated December 26, 2007.
[44] August 2, 2007 memo from Carol Cocheres to Ms. Thompson.
[45] For example, refer to the comments provided by Richard Michael on the March 2003 self-liquidating debt report.
[46] Engagement letter dated September 18, 1998.
[47] Per its engagement letter, Foreman & Foreman was retained as solicitor in August 2004.
[48] Ibid.
[49] March 8, 2007Authority Board Meeting Minutes. The firm is now known as Foreman & Caraciolo, P.C.
[50] Transcript of Proceedings dated December 26, 2007.

- Charles Zwally.
- Thomas Smida.[50.5]

6. Financial Advisors

The following financial advisors were involved with the Facility and its finances during the course of the retrofit projects:

- RBC Dain Rauscher and Royal Bank of Canada (collectively, "RBC"). Investment banking firm involved in performing numerous financial analyses on the RRF and counterparty on swap transactions undertaken by the Authority. We have not observed any engagement letters retaining the firm. The point person for RBC was James Losty.[51]
- Milt Lopus & Associates, Inc. ("Milt Lopus"). Financial advisor to the Authority over the period 1990[52] through summer 2007.[53] The point person for Milt Lopus was Bruce Barnes. Mr. Barnes had previously been employed as a staff person at the City under Mayor Reed.[54]
- Public Financial Management, Inc. ("PFM"). Financial advisory firm retained by the County to provide advice on the bond guarantee fee paid to the County in connection with its guarantee of certain bonds issued by the Authority in 2003, the plan of finance for the retrofit project and the swaps guaranteed by the County in 2003 through 2006.[55] Retained by the Authority in 2007 to provide independent financial advisory services to the Authority in connection with the RRF.[56]

[50.5] December 27, 2007 letter to purchasers of the 2007 C Notes from Mette, Evans & Woodside.
[51] For example, refer to the May 2, 2003 letter from Mr. Losty to Mayor Reed.
[52] Engagement letter between the Authority and Devon Capital Services, Inc., dated October 25, 1990. Devon Capital Services later changed its name to Milt Lopus.
[53] Termination Letter dated November 16, 2007.
[54] Interview conducted with Bruce Barnes on April 7, 2011.
[55] October 21, 2003 Financial Review report for the County.
[56] September 18, 2007 engagement letter between the Authority and PFM.

- Investment Management Advisory Group ("IMAGE"). IMAGE served as co-swap advisor to the Authority and the City[57] and provided a fairness opinion with regard to the pricing on each of the swaps the Authority entered into, and the City and County guaranteed, between 2003 and 2006.[58] IMAGE was retained by the City and Authority to satisfy the requirement under the Local Government Unit Debt Act, 53 Pa. C.S.A. §§ 8001 et seq., that an independent financial advisor certify that the financial terms and conditions under the swaps and caps the Authority entered into were fair and reasonable to the City, County and Authority, and as bidding agent for certain investments of bond proceeds.

7. *Technical/Engineering Consultants*

The following firms provided technical and engineering services in connection with the retrofit:

- DRL Consulting & Development, LLC ("DRL"). Firm founded by Mr. Lispi by at least April 2004. Engaged by the Authority in 2004 to assist with the retrofit.[59]
- Herbert, Rowland & Grubic, Inc. ("HRG"). Engineering firm retained by the County in 2003 to evaluate the technical and financial merits of the RRF retrofit.[60]
- Buchart Horn, Inc. ("Buchart Horn"). Engineering firm retained by City Council in 2003 to evaluate the technical and financial merits of the RRF retrofit.[61]
- HDR Engineering, Inc. ("HDR"). Engineering firm retained by the Authority in October 2007 to, among other things, review key data issues and identify budget gaps.[62]

[57] Closing Memorandum for the 2003 D, E and F debt.
[58] Reaffirmation of Certificate of Independent Financial Advisors signed by IMAGE and Milt Lopus Associates dated December 30, 2003. Certificate and Reaffirmation of Certificate of Independent Financial Advisors signed by IMAGE and Milt Lopus Associates, both dated September 23, 2005. Market Pricing Letter signed by IMAGE dated December 30, 2003 and August 31, 2005.
[59] Consulting Agreement dated April 2, 2004.
[60] October 21, 2003 Assessment Report addressed to Charles Zwally of Mette Evans.
[61] September 18, 2003 Final Report.
[62] Agreement Between the Harrisburg Authority and HDR Engineering, Inc. for Professional Services dated October 10, 2007.

8. Bond Insurer

The bonds issued in connection with the retrofit project were insured by:

- Financial Security Assurance ("FSA"). Bond insurer on the Authority's 1998 Bonds, 2000 Notes, 2002 Notes, and 2003 Bonds and Notes.[63] FSA subsequently was acquired by Assured Guaranty, Ltd. and is now known as Assured Guaranty Municipal Corp.

C. SCOPE OF WORK

Based upon consultation with the Authority's Board and its Solicitor, the law firm of Goldberg Katzman, P.C., work on this matter focused on analyzing certain matters that were believed to be important to understanding the current financial difficulties involving the RRF. The forensic investigation has been focused on documenting and addressing specific issues related to the RRF retrofit projects initiated in 2003 and 2007 and the accumulation of debt and other obligations that currently exist. The issues on which we have focused can be grouped broadly as follows:

- The financial assessment of the retrofit undertaken by Barlow in 2003 (the "Barlow Retrofit"), including the review of Barlow's financial projections and of the contemporaneous assessments of Barlow's projections;
- The Authority's issuance of bonds in 2003, guaranteed by the City and, to a certain extent, the County, and insured by FSA, to finance the Barlow Retrofit;
- Defects in the processes for selecting and contracting with Barlow for the retrofit project and in handling issues regarding security provided by Barlow during the course of the project;
- Negotiations in 2005 and 2006 to sell the RRF to Barlow;

[63] November 21, 2007 letter from FSA to the Authority, the City and the County. Also see the 2000 A and B Note Official Statement dated December 1, 2000.

- The Authority's entry into and termination of swap transactions during 2003 through 2006;
- The Authority's issuance of notes in 2007 to finance further improvements to the RRF and its actions relating to working capital and capitalized interest; and
- Other issues identified by the Authority based upon our analysis of the documents and information produced.[63.5]

The scope of our investigation and analysis necessarily was subject to the Authority's budgetary constraints and the extent to which persons and entities voluntarily cooperated with the investigation. Because of these constraints, our investigation was focused on the issues defined by the Authority's Board and its Solicitor, and employed the procedures and approach discussed below. There may be material information that has not been available to us that could affect our conclusions. Accordingly, we make no representations as to the sufficiency of the procedures we have undertaken for any particular purpose and reserve the right to modify our conclusions if additional material information becomes available and we are asked to consider it.

D. PROCEDURES UNDERTAKEN

In evaluating the issues identified, we reviewed and considered tens of thousands of pages of documents and other information that was provided cooperatively by certain parties who had involvement with the RRF or was obtained from publicly available sources.[64] Because we neither could compel cooperation with our investigation, nor had the resources to review documents from every possible source, documents were requested primarily from public bodies and advisors and contractors of the Authority, who we

[63.5] The Authority asked us to review campaign contributions to Mayor Reed by persons and entities involved in the retrofit projects. A summary of the information obtained from publicly available records is shown at Exhibit J.

[64] We did not obtain any representations as to the completeness of the production of documents in response to our requests from any parties and make no representation here that such productions were complete. In certain instances, we noted what appeared to be gaps in the productions, although we do not have any reason to believe that there was any deliberate destruction or withholding of documents by any cooperating party.

believed owed a duty to provide documents to the Authority. In addition, we conducted interviews with certain cooperating persons. Documents were not sought from other participants in the retrofit who had no obligation to provide documents to the Authority and, in some cases, are in active litigation with the Authority. While not exhaustive, the documents reviewed provide a reasonable basis for our analysis. The parties that have produced information are as follows:

- The Authority;
- The City;[65]
- The County;[66]
- Obermayer;
- Eckert;[67]
- Rhoads & Sinon;
- Daniel Lispi;
- Reynolds; and
- PFM.[68]

[65] The City produced approximately one filing cabinet of documents. Clearly, this does not represent all documents that have been in the City's possession over the course of time relating to the Resource Recovery Facility. We believe the City produced the documents in its possession it was aware of. We believe other documents once in the City's possession exist, but we do not know where they are located. In addition, the City was unable to provide information from before 2010 that is stored on computer files.

[66] As noted previously, the County declined to provide documents to the forensic investigators, but did provide certain documents to Authority staff in response to Right to Know requests.

[67] The request to Eckert was limited to documents related to its representation of the Authority in 2007. We did not request, and Eckert did not produce, documents from prior representations of other parties in connection with RRF matters.

[68] PFM provided documents from its representation of the Authority in 2007. With the exception of a report widely circulated at the time, PFM declined to provide documents from 2003, when it represented the County.

Documents were requested from other sources, including: Buchanan, James Ellison[69] and Milt Lopus;[70] however, to date, those parties have not provided the information requested.[71]

Refer to Exhibit A for the identification of the documents and information analyzed.

Additionally, interviews were conducted with the following individuals:

- Bruce Barnes of Milt Lopus;
- Bernadette Barattini, Esquire of the Pennsylvania Department of Community and Economic Development ("DCED");
- Carol Cocheres, Esquire of Eckert;
- Richard Michael, Esquire (now employed by PFM) with respect to his work at Eckert;
- Glen Williard of PFM; and
- John Frey of PFM.

An interview with Andrew Giorgione, Esquire was requested, but refused.[72] As will be discussed at length in this report, Mr. Giorgione had significant involvement with the retrofit from its inception.

In addition to the interviews noted above, we have spoken informally with other persons who have provided information, including current Authority Board members, the

[69] Mr. Ellison is an attorney with Rhoads & Sinon and, as noted previously, also served as Chairman of the Board of the Authority. Documents were requested from Rhoads & Sinon for Mr. Ellison in his capacity as Chairman of the Authority Board. Further, documents were requested from Mr. Ellison personally. In both cases, no documents were produced.
[70] Mr. Barnes of Milt Lopus told us that relevant documents were lost due to a computer failure some years earlier.
[71] Documents were produced by the City, Mr. Lispi, Reynolds and Rhoads & Sinon to the Authority's Solicitor, who conveyed the documents to us. The Solicitor reviewed Reynolds and Rhoads & Sinon documents and did not provide documents that clearly were not relevant to us. The Solicitor provided all documents from the City and Mr. Lispi without reviewing them first.
[72] Counsel for Mr. Giorgione and Buchanan declined to cooperate with the investigation.

Authority's current Solicitor, Bruce Foreman of Foreman & Caraciolo, P.C., and Daniel Lispi.

There were many other individuals who were involved with many of the critical decisions related to the retrofit of the RRF and the related debt with whom we have not spoken because of limitations of time, cost, cooperation or availability. Additional information and documents could have a direct and material impact on our findings and observations. As a consequence, we reserve the right to amend our analyses and this report if additional or updated information becomes available and the Authority requests that we consider it.

II. SUMMARY OF OBSERVATIONS AND FINDINGS

Based on our review and analyses of information, our observations and findings are as follows:

1. The projections developed by Barlow to support the retrofit left little room for the changes in scope, costs, and timing that are common in such large scale construction projects. These changes were particularly likely here because the retrofit involved new technology that never before had been used on a facility the size of the RRF. Further, the financing that was obtained left no room for error or modification, since typical debt service coverage ratios were not observed. Thus, it was critical to the success of the retrofit that Barlow complete the project on time and at the price agreed upon, and achieve the feasibility assumptions that supported the assertion that all of the RRF debt, both existing and new, would be self-liquidating. Unfortunately, Barlow was unable to achieve any of these goals.

2. Perhaps more fundamental, however, was the lack of an adequate process to evaluate if Barlow had the capability and qualifications to perform the project and whether the project made economic sense. All parties involved, including the Authority, the City, the County, and FSA, should have required a robust,

independent evaluation of the technical and financial feasibility of the project, as well as reviewing alternatives, including not undertaking the retrofit, prior to proceeding with the project or its financing. Such a process was particularly appropriate here given the substantial expense of the retrofit, the consequence to public entities if the retrofit failed, and the risk involved in using new technology not previously used on such a large scale. The documents analyzed to date do not indicate to us that any of the parties, their employees or retained professionals adequately evaluated or assessed the potential risks associated with the RRF retrofit between 1999 and 2003, including the economics of the project. Further, we have not been provided with any evidence of evaluation of any other contractors, alternative technology or other solutions beyond that offered by Barlow. Moreover, there is no evidence to indicate that any of the parties, or their professional advisors, identified or recommended actions to address the conflicts of interest arising from Barlow's multiple roles in assessing the project's feasibility, providing the engineering services that certified that the project debt would be self-liquidating, and constructing the retrofit project.

3. All parties proceeded with the Barlow Retrofit project in 2003 without adequate security in place to ensure Barlow's performance. It was clear that Barlow was unable to obtain a performance bond due to its poor financial condition. The limited "security" that was obtained was inadequate and the retainage held was released prematurely. Barlow's inability to obtain adequate security for its performance should have caused serious questions about proceeding with Barlow as the contractor for the project. Not obtaining adequate security and prematurely releasing the retainage has contributed significantly to the Authority's inability to generate the cash flow from the RRF necessary to make its debt service payments.

4. The outcome of the retrofit, including the current debt crisis related to the City, reflects the accumulated effects of bad decisions on critical project issues, ranging from contractor selection at the outset to the $60 million in debt taken on in 2007

when the Facility was still incomplete and not fully operational. In some cases, the Authority, the City and the County took strained positions on state law regarding municipal debt financing and other issues to allow the retrofit and related financings to proceed. The professionals, consultants and advisors who were paid significant fees to assist the Authority, the City and the County in the decision making process do not appear to have adequately identified or responded to numerous red flags that, if heeded, could have led to a different outcome. As a consequence, the overall financial condition of the RRF is far worse than what existed prior to the retrofit.

5. It is evident that most, if not all, of the parties involved with the RRF knew or should have known that, at a minimum, there was substantial risk that the RRF would not generate revenue sufficient to service the debt being issued, but they proceeded with the retrofit projects and their financings anyway. Proceeding with the Barlow Retrofit and the financings in 2003 enabled the City and FSA to delay having to pay debt service as guarantor or insurer of then-existing Facility debt, and proceeding with the further retrofit project and related financings in 2007 had the same effect for the City, the County and FSA. Both projects and related financings worsened the Authority's financial condition.

6. The City, the County and FSA provided guarantees or insurance on some (as to the County and FSA) or all (as to the City) of the Facility's debt. They received significant guarantee fees or insurance premiums for doing so, knowing the risks associated with default, both in 2003 and even more so in 2007, when all evidence pointed to the RRF's inability to service existing and contemplated debt upon completion. As stated by more than one professional involved in the retrofit financings, the financings were sold based upon the City and, even more so, County guarantees, and not the financial merits of the project. Each of these parties had information available to them in 2003 and again in 2007 sufficient to conclude that, if the RRF did not generate cash flow sufficient to service the debt,

the City would be unable to bear the full burden of the debt service, causing the burden to fall on the County and FSA.

7. The structure of the financial transactions related to the debt issued to fund the retrofit projects, including multiple swaps, was unnecessarily complex, and resulted in the payment of excessive fees, increased risks and the potential for greater financial burden on the Authority. RBC, whose principal representative on the transactions worked closely with Mayor Reed, was given a primary role in the development of the plan of finance, even though RBC's interests were not aligned with those of the Authority, the City or the County in many respects. RBC and IMAGE, the Authority's co-swap advisor, incorporated multiple and complex swap transactions into the plan of finance. It appears at least some of these swaps were entered into and terminated for short-term gains, irrespective of additional risks or negative long-term effects of the transactions. The use of swaps in this manner does not appear to be consistent with prudent management of interest rate risk or costs. From the documents reviewed, the Authority's and the County's independent financial advisors do not appear to have seriously challenged the plan of finance, suggested alternatives to the recommended swap transactions, or expressed concerns to their clients about management of interest rate risk or cost relating to specific transactions or long-term planning.

8. The decisions related to the retrofit and the related financial issues were directed by and vetted through the highest levels of leadership at the City, as Mayor Stephen Reed and his closest advisors, including Andrew Giorgione, Daniel Lispi, and James Losty, were prominently involved in the decision making process. Further, based on our analysis of the documents, many of the professionals who were retained to represent the Authority maintained close ties to the Mayor.

9. Reynolds played numerous and conflicting roles on the retrofit project, including simultaneously working as a contractor for both the Authority and Barlow.

Further, as identified by the Authority's solicitor, former Authority Board member Fredrick Clark had a conflict of interest arising from his dual roles as an Authority Board member and an employee of Reynolds. Despite the identification of the conflict, Mr. Clark did not resign from the Board, and the Authority awarded contracts (a) directly to Reynolds, with Mr. Clark only abstaining from votes involving Reynolds, and (b) indirectly to Reynolds, through Barlow. To our knowledge, none of the contracts or subcontracts awarded to Reynolds was competitively bid.

The bases for our observations and findings are discussed at length in this report.

III. OBSERVATIONS AND FINDINGS

A. PRE-RETROFIT HISTORY OF THE FACILITY

1. The Pre-Retrofit Operating History

The RRF was experiencing operational and regulatory problems at the time that the City sold the Facility to the Authority in December 1993.[73] As early as 1990, the City knew that the RRF required a major retrofit to comply with the requirements of the Federal Clean Air Act, and to address ongoing maintenance problems at the Facility.[74]

In the early 1990's, the RRF experienced reduced waste flow and increased competition. Toward the end of the decade, circumstances began to improve, largely due to restored waste flow from the County. In 1995, the City settled a number of lawsuits with the County and its solid waste authority that resulted in a long term disposal agreement with

[73] 1998 Official Statement.

[74] In 1988, the City entered into Consent Orders and Agreements with the Commonwealth of Pennsylvania's Department of Environmental Resources to assure the Facility's compliance with air quality and solid waste regulations. Major capital repairs were completed in 1990 and 1991 to comply with the 1988 Consent Orders and Agreements and regulations, which enabled the Facility to operate with a reasonable degree of efficiency. 1998 Official Statement.

the County.[75] In addition, to the extent permitted by law, the County and its solid waste authority agreed to assist the City in obtaining a waste stream sufficient to generate revenues to finance a retrofit of the RRF to comply with the Federal Clean Air Act.[76]

In January of 2000, the Dauphin County Commissioners created a task force, comprised of County Commissioner John Payne, Mayor Reed and Mr. Giorgione, to determine whether the County should create an intergovernmental solid waste management office with the City to fulfill the County's municipal waste management duties.[77] Mr. Giorgione, a former City solicitor under Mayor Reed, was then in private practice.[78] Subsequently, the task force recommended that the County create the City/County intergovernmental solid waste management office to carry out jointly the County's responsibilities for solid waste management in the County.[79] The County signed the Intergovernmental Cooperation Agreement on March 20, 2000, with Mr. Giorgione listed as a participant on behalf of the County.[80]

In December 2002, the County approved a revised solid waste management plan. In connection with the revision, in the spring of 2003, the County decided to seek waste combustion capacity, after being urged by County municipalities to address rising landfill costs and to forestall any re-opening and re-permitting of the Dauphin Meadows landfill.[81] The County issued a request for proposal to municipal waste combustion facilities in seven states.[82] The Authority and a facility in Chester, Pennsylvania submitted bids.[83] On September 23, 2003, the County awarded its waste disposal contract

[75] Dauphin County Municipal Waste Management Ordinance 03-2004, page 2.
[76] Ibid, page 3.
[77] Dauphin County Municipal Waste Management Ordinance 03-2004, page 3. January 17, 2000 article authored by Jack Sherzer in the Harrisburg Patriot-News, titled "Cooperative offer appears hard to refuse."
[78] See February 17, 2000 correspondence between Mr. Giorgione and Mayor Reed regarding the Intergovernmental Cooperation Agreement with Dauphin County.
[79] Dauphin County Municipal Waste Management Ordinance 03-2004, page 3.
[80] Intergovernmental Cooperation Agreement between the City and the County dated March 20, 2000, page 10.
[81] Dauphin County Municipal Waste Management Ordinance 03-2004, pages 4 - 5. The County continued its opposition to the Dauphin Meadows landfill. On June 2, 2004, it adopted Resolution 13-2004 opposing a proposed western expansion of the landfill.
[82] Dauphin County Municipal Waste Management Ordinance 03-2004, page 5.
[83] Ibid, page 5.

to the Authority and designated that all regulated waste generated within the County be disposed at the RRF beginning in May, 2006.[84]

2. Development of Retrofit and Selection of Barlow

To be designated the County's sole waste disposal facility, the RRF had to be operational. To be operational, it needed a major makeover. The EPA's requirements under the Clean Air Act limited the volume of materials that could be processed by the RRF, and the RRF could not meet future EPA Clean Air Act mandates.

In 2000, approximately $80 million of debt was outstanding on the RRF; this increased to over $100 million by the summer of 2003. At the same time, the carrying value of the RRF on the Authority's books stood at $18 million.[85] The limited volume of waste the RRF processed was not generating revenues sufficient to repay the RRF debt or cover operating costs. If the RRF was going to continue to operate, the Authority and the City (then the RRF's operator) needed to modify the RRF so that, in addition to complying with EPA's requirements, it would be able to generate net revenues sufficient to repay (i) the existing debt load (approximately $100 million), (ii) the construction and equipment costs of the retrofit (approximately $73 million) and (iii) the working capital required to pay for costs of issuance, capitalized interest during construction and operating expenses while the RRF was not operating during the retrofit construction, and during start-up (approximately $52 million). As projected at the time, the debt load would total approximately $225 million at the completion of the retrofit. This was a significant financial challenge.

As discussed in an extensive article regarding the history of the RRF that the *Harrisburg Patriot-News* published on October 28, 2007, Barlow originally came to the attention of

[84] Ibid, page 6.
[85] The Harrisburg Authority Audited Financial Statements for the year ended December 31, 2002.

Mr. Lispi, then a City employee, in 1999 as a result of an article *Waste Times* published.[86] The *Patriot-News* article reports that Mr. Lispi was intrigued by Barlow's technological approach, which used forced air to churn the trash and to control the burn, instead of the moving grates that the RRF used at the time, which constantly were breaking down.[87] Further, Mr. Lispi thought that a smaller company might be more willing to complete the retrofit at a lower price.[88]

Following an internal City evaluation based upon the *Waste Times* article, in late 1999, Mr. Lispi and Mr. Giorgione traveled to Perham, Minnesota to evaluate a Barlow installation that had the capacity to burn between 50 and 100 tons per day, a fraction of the 800 ton per day capacity contemplated for the RRF.[89] The waste volume contemplated for the RRF was significantly larger than any of the other projects undertaken by Barlow, identified as between 80 and 115 tons per day in a 2003 HRG report prepared for the County.[90] In conjunction with the evaluation of the Perham facility, representatives from Barlow stated that Barlow could complete the Barlow Retrofit project for $45 million to $47 million and that the Barlow technology could be scaled to meet the capacity contemplated for the RRF.[91]

By 2000, the City was evaluating the merits of undertaking the retrofit using Barlow's technology. In a December 13, 2001 memo to the members of City Council, Mayor Reed stated that, in September 2000, Barlow provided the City and the Authority with a preliminary report that proposed a retrofit based upon Barlow's technology.[92] Based upon that report, on November 27, 2000, Barlow and the Authority entered into a Professional Services Agreement, which was designated as exempt from public bidding

[86] Article entitled, "Harrisburg incinerator: History of the project and how taxpayers got saddled with the debt," by John Luciew, originally published October 28, 2007 and published again in the Harrisburg Patriot-News on July 20, 2011. This article contains extensive quotes from Mayor Reed, Mr. Lispi and Mr. Giorgione, among others. As such, it is assumed that they contributed to the article.
[87] Ibid.
[88] Ibid.
[89] Ibid.
[90] October 21, 2003 Assessment Report addressed to Charles Zwally of Mette, Evans.
[91] Second Amended Complaint in the matter The Harrisburg Authority v. Barlow Projects, Inc. et al., paragraphs 17 and 18.
[92] Memo from Mayor Stephen Reed to Members of Harrisburg City Council dated December 13, 2001.

requirements. Under this agreement, Barlow agreed to provide the Authority with a plan to complete the retrofit in a manner that would enable the RRF to meet federal air quality standards. The agreement further stated that Barlow was retained to conduct the specialized technical engineering and design work required to support the retrofit, to obtain pricing on the retrofit's construction, to conduct financial analyses to identify the optimum project sizing and approach, and to prepare various performance calculations.[93]

On December 4, 2000, Barlow provided a report setting forth its technical opinion of the ability of the retrofit project to meet air quality standards based upon a specified retrofit plan and set of equipment. Barlow concluded that the retrofit project would enable the RRF to meet the EPA air quality requirements.[94] While it is not explicitly clear, it is assumed that the specified retrofit plan, as well as the equipment necessary for the retrofit, incorporated the Barlow technology and approach.

On July 25, 2001, Barlow issued its Final Report on the Phase I Retrofit Design Engineering and Feasibility Study (the "Barlow Feasibility Study"), which appears to be the plan contemplated under the Professional Services Agreement. In that report, Barlow provided a detailed cost estimate for the retrofit, by area of contemplated work, which totaled $64.2 million. Further, the report contained financial projections which indicated the Facility had an ability to service existing debt (annual debt service costs projected at approximately $4 million per year), plus the $77.7 million in debt that would be incurred to build and support the project (annual debt service of $5.2 million per year). The report projected that a cumulative cash surplus would be generated by the RRF by the year 2028 of $57.4 million.[95]

In the litigation the Authority filed against Barlow for failing to deliver the project as contemplated, the Authority stated that, following the execution of the Professional

[93] November 27, 2000 Professional Services Agreement between the Authority and Barlow.
[94] Letter from James L. Barlow, P.E. of Barlow to Thomas J. Mealy of the Authority dated December 4, 2000.
[95] Final Report – Phase I Retrofit Design Engineering and Feasibility Study prepared by Barlow Projects, Inc. dated July 25, 2001. This document contains a handwritten note indicating "Draft."

Services Agreement, Barlow worked through 2003 to perform the design and engineering work related to the retrofit.[96] Based on the documents analyzed to date, there is no indication that the City or Authority considered or involved any other potential contractors in this process. Further, the Authority then used Barlow's design and engineering work to support the 2003 bond issues that provided the funding for the retrofit construction that Barlow undertook.[97]

It is not uncommon for the general contractor or construction manager on a project to have involvement prior to the actual construction phase, particularly involvement in connection with developing the overall project cost estimate and bidding. However, the assessment of project feasibility and financial implications typically are handled by other parties, such as architects or consulting engineers. In addition, public projects generally have a robust bidding process, with the public body evaluating bids and selecting the lowest responsible and responsive bidder. The extensive involvement of Barlow in the analysis of the project's feasibility, the planning of the scope of work, the estimating of the costs, and the development of the financial projections is unusual, particularly with no bidding for the work.

More generally, in our analysis of the information produced to date, we have seen no indication that the Authority, the City, or their professionals and advisors performed any meaningful evaluation of any contractors other than Barlow, of any technology other than that offered by Barlow, or of alternatives to the retrofit plans crafted by Barlow. Further, we have seen no documents showing that the Authority, the City, or any of their advisors, performed a serious analysis of not doing the retrofit project and "mothballing" the RRF. Bruce Barnes of Milt Lopus told us that he had performed this kind of analysis prior to issuance of the 2003 bonds. Mr. Barnes stated that he had developed a plan that would have allowed the City to issue general obligation refunding bonds that would "wrap the [incinerator debt] around the City's general obligation bonds," allowing the debt to be

[96] Second Amended Complaint in the matter The Harrisburg Authority v. Barlow Projects, Inc. et al., paragraph 21.
[97] Ibid., paragraph 22.

paid off over the long term, but that the plan ultimately was rejected by the City.[97.5] However, Mr. Barnes was not able to provide us with documentation of his analysis, having stated that he lost any relevant files when his computer failed in 2009. We have not identified such analyses from any other source of documents produced.

Instead, the documents available to date indicate that undertaking the retrofit was not strongly questioned, and that Barlow was identified very early in the retrofit planning process and provided with the sole-source opportunity to certify the viability of the project, report on the feasibility of its technology, and develop projections to support the project's financial feasibility, upon which everyone then relied. After doing so, Barlow was awarded contracts to develop the plans and specifications, manage the project bidding, and conduct the retrofit work. Barlow's significant involvement prior to the formal decision to proceed with the retrofit using the Barlow technology and approach created a conflict in its roles for the Authority. Barlow's poor performance in executing the project, including its failure to complete the project on time, and its poor performance in estimating its financial implications, demonstrate that the decision to allow Barlow to certify the feasibility of its technical approach, to estimate the project's cost and purported financial benefit, and then to obtain the contracts to actually conduct the work, appears questionable at best. There are no indications that the City, the Authority or their advisors identified the conflict or potential problems.

[97.5] Interview conducted with Bruce Barnes on April 17, 2011.

3. The Pre-Retrofit Debt Status

By 2003, there was significant debt on the RRF, and the Facility reflected a retained earnings deficit of more than $44 million, reflecting its history of losses.[98] This posed a challenge to the Authority and the City and their ability to incur substantial new debt to fund the retrofit. The Authority had borrowed a significant portion of its outstanding RRF debt--about 55 percent[99]--to pay for outstanding principal and interest, and current operating expenses. In other words, the Facility had a history of using new borrowing to pay old debt, often at higher rates and with greater expense. Nonetheless, prior to 2007, substantially all of the RRF-related debt issued was certified to the Commonwealth as "self-liquidating," or able to be re-paid out of net operating revenues of the RRF.[100]

a. 1993 Purchase of the Facility

The Authority purchased the RRF from the City for approximately $26.7 million, all funded by debt. At the time of purchase, the Authority borrowed an additional $7.5 million to improve the Facility, making the total cost of acquisition plus improvements approximately $34.2 million.[101] At this time, the County was not sending its waste to the RRF.

b. 1996 and 1997 Financings

In 1996, the Authority issued additional debt of $3.5 million, approximately $2.86 million of which was for working capital and approximately $540,000 for purchasing equipment.[102] "Working capital" signifies money used to pay operating expenses and/or

[98] The Harrisburg Authority Audited Financial Statements for the year ended December 31, 2002.
[99] Based on sources and uses contained in Official Statements for 1993 Bonds, 1998 Bonds, 2000 Notes and 2002 Notes, 2003 A, B and C Bonds and Notes and Federal Tax Certificates for 1996 and 1997 loan transactions.
[100] The 2002 Note, with debt service of approximately $1.6 million per year had not been certified as self-liquidating. See http://dced.state.pa.us/lguda/debt-reports/h.pdf.
[101] See 1993 Official Statement.
[102] Non-Arbitrage Certificate for the 1996 Notes dated November 26, 2006.

debt service coming due within the next 12 months. This is the earliest indication in the information we have reviewed that the RRF could not generate revenues sufficient to pay for all operating expenses and debt service.

Less than one year later, the Authority issued the 1997 A Note, in the amount of $3 million, to refinance the 1996 borrowing. The Authority also issued a 1997 B Note in the amount of approximately $7.9 million to fund capital repairs and additions, and the design, permitting and construction of a transfer station.[103] Capitalized interest and working capital accounted for about $539,000 of this issuance.[104] We have been told in interviews that the City and Authority simultaneously were looking either to sell the RRF, or to expand revenues from transfer station operations and locate additional contracts to improve cash flow.[105]

c. 1998 Refunding

In 1998, the Authority issued debt of approximately $55.8 million to refinance the 1993 and 1997 borrowings. It appears that this refinancing was not to save costs,[106] but was used to create working capital, and resulted in hundreds of thousands of dollars of additional expense. Approximately $1.6 million of the borrowing was used to replenish both the Facility's operating reserve account and its renewal and replacement fund.[107] The operating reserve provides cash during times when the RRF is not generating sufficient revenues. The renewal and replacement fund is required under bond documents to support the renewal and replacement of equipment at the Facility. The Authority's use of funds from the operating reserve account and from the renewal and replacement fund to pay for current operations and maintenance again suggests that the

[103] Authority Resolution 1997-005 dated June 19, 1997 related to the 1997 A Note. Schedule A to the Reimbursement Agreement dated April 10, 1997 related to the 1997 B Note. Schedule of Design, Permitting, and construction costs related to the 1997 B Note related to borrowing from the Pennsylvania Pool Financing Fund.
[104] Schedule A to the Reimbursement Agreement dated April 10, 1997 related to the 1997 B Note.
[105] Interview of Richard Michael, December 1, 2011.
[106] Self-liquidating debt report of HDR Engineering, dated July 27, 1998, Ex. 2, p.2.
[107] 1998 Official Statement.

revenues from Facility operations were not sufficient to pay for these costs. The City guaranteed payment of the 1998 Bonds, and FSA insured the 1998 Bonds.[108]

d. 2000 Notes

The Authority issued additional notes in 2000 in the amount of approximately $25.2 million to restructure some of its existing debt and effectively reimburse itself for prior payment of a portion of existing debt.[109] At this time, the Facility was not generating revenues sufficient to pay debt service on the 1998 Bonds and the new 2000 Notes. Even more problematic was that the Facility faced potential shut-down by EPA for air emissions issues. A derating agreement with DEP and the EPA, reducing the volume of waste the RRF could receive, was the best case scenario at this time (rather than complete shut-down).

As noted in the disclosure to potential note purchasers, while the transfer station was fully authorized, it would not be able to generate revenues sufficient to pay for operations and debt service on both the 1998 Bonds and 2000 Notes.[110] Noteholders further were informed that, "under a number of circumstances the operation of the existing Resource Recovery Facility may be restricted, halted or terminated. In any such case debt service on the 2000 Notes would have to be paid partially or solely to the extent of payments made by the City pursuant to the Guaranty Agreement."[111] A significant portion of the proceeds from this issuance was used to generate working capital and to pay for interest on existing debt, another indication that the Facility was unable to pay for these costs from operating revenues.

[108] Closing Memorandum for the 1998 debt.
[109] According to the Official Statement, the Authority "advance refunded" its 1998B Bonds maturing in 2006 through 2021, the 1998 D Bonds and "advance refunded" all of the 1998 Bond debt service coming due in 2000 and 2001.
[110] Official Statement for 2000 Notes, dated November 16, 2000.
[111] Ibid.

The City provided a guarantee for the 2000 Notes, and FSA insured the 2000 Notes.[112] About $4.2 million of the proceeds were paid to the City as a guarantee fee,[113] which appears to be a disproportionate fee given the size of the debt issuance and the value of the City's credit enhancement. This fee was used to help the City balance its budget.[114]

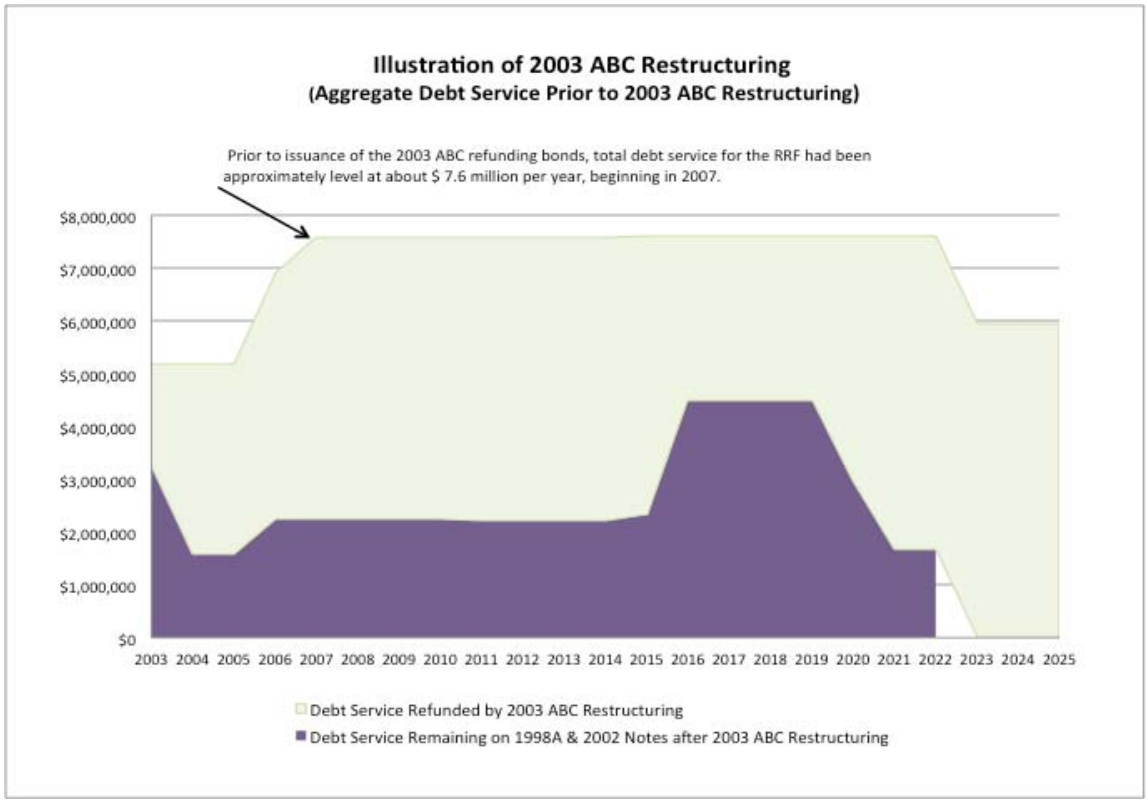
e. 2002 Notes

The Authority issued the 2002 Notes in the original aggregate principal amount of $17 million. Only about $1.9 million of these proceeds were used to fund capital projects (including approximately $400,000 to fund studies related to the retrofit). Over $12 million was used for working capital, and about $1.1 million was used to pay for interest on debt, indicating that the Facility was not servicing its existing debt.[115] The City guaranteed payment of the 2002 Notes, and FSA insured them.[116]

f. 2003 A, B, C Notes

In 2003, the Authority issued its Series 2003 A, B and C Notes in the aggregate principal amount of approximately $75.9 million.[117] This bond issue restructured a large portion of the 1998 Bonds and the 2000 Notes by borrowing to pay the current interest obligation and deferring principal repayment into later years.[118] Below is an illustration of the aggregate debt service outstanding on the RRF prior to issuance of the 2003 A, B and C Notes, and the amount of debt service that was restructured by issuing the 2003 A, B and C Notes.

[112] Ibid.
[113] Ibid.
[114] Ibid.
[115] Official Statement for the 2002 Notes, dated August 2, 2002.
[116] Closing Memorandum for the 2002 debt.
[117] Closing Memorandum for the 2003 A, B, and C debt.
[118] Official Statement for 2002 Notes, dated August 2, 2002.



This financing was used to generate working capital to pay existing expenses, and to fund upcoming principal and interest payments on existing debt with new debt. Ultimately, the aim was to enable the Authority to issue and pay debt service on bonds to be issued to fund the anticipated retrofit of the Facility. It was a very expensive restructuring, resulting in approximately $10 million[119] of additional interest expense. The City guaranteed the 2003 A, B and C Notes, and FSA insured them.[120]

Following the issuance of the 2003 A, B and C Notes, the outstanding debt on the RRF was as follows:

[119] This sum is determined on a present value basis.
[120] Closing Memorandum for the 2003 A, B and C debt.

TABLE 1: SUMMARY OF OUTSTANDING DEBT AFTER 2003 A, B & C ISSUANCE

Issue	Amount
Series A of 1998[121]	$ 11,970,000
Series A of 2002[122]	17,000,000
Series A of 2003[123]	22,555,000
Series B of 2003[124]	29,085,000
Series C of 2003[125]	24,285,000
Total	$104,895,000

The above bond issuances reflect that the RRF was unable to pay operations and debt service during 1996 through 2003. This is not surprising given the reduced operations and problems at the Facility. In addition, as noted above, the City used money derived from Facility operations (in the form of guarantee payments) to help fund the City's budget, further damaging the RRF's ability to pay its operating expenses and debt service.[126]

4. The Pre-Retrofit Insurance Status

FSA was the municipal bond insurer on THA's 1998 Bonds (issued in the original aggregate principal amount of approximately $55.8 million), 2000 Notes (issued in the aggregate principal amount of approximately $25.2 million), and 2002 Notes (issued in the aggregate principal amount of $17.0 million). All of the foregoing was secured by a full faith and credit guarantee of the City of Harrisburg.[127]

In 2003, FSA insured THA's Series 2003 A, B and C Notes, issued in the aggregate principal amount of approximately $75.9 million.[128] FSA did not take on a significant amount of additional exposure with the 2003 A, B and C Notes as it already insured the

[121] Represents the balance after refinancing per the 2003 A, B and C Closing Order and Receipt dated June 4, 2003.
[122] City of Harrisburg Ordinance 15-2002.
[123] Closing Order and Receipt dated June 4, 2003 related to the A, B and C Bonds.
[124] Ibid.
[125] Ibid.
[126] Based on interviews and financial statements of the City included in Official Statements for 2000 Notes and 2002 Notes.
[127] FSA letter to the Authority, County and City dated November 21, 2007.
[128] Closing Memorandum for the 2003 A, B, and C debt.

debt that was being refinanced by that issuance. In addition, FSA presumably was able to take into revenues at that time the premiums previously paid for debt issuances that were refinanced by the 2003 A, B and C Notes, as the liabilities insured were being paid in full by the refunding bonds.[129]

By the time the Barlow Retrofit project was ready to be financed, FSA had made it clear to Mr. Losty of RBC, Underwriter for the 2003 A, B and C Notes and also for the 2003 D, E and F Bonds, that FSA was unwilling to take on more exposure to the RRF and the City's full faith and credit guarantee.[130] Total principal and interest related to the RRF would exceed $446 million after issuance of the 2003 D, E and F Bonds.[131] If the retrofit did not work, it appears that FSA understood that the City would not have the financial capacity to repay the outstanding debt relating to the RRF.

B. FINANCIAL ASSESSMENT OF THE RETROFIT AND THE 2003 RETROFIT BONDS

Barlow's financial projections demonstrated its view that the retrofit project was financially feasible. Barlow presented reports in March 2003 and November 2003[132] that were used to certify the new and refinanced debt in 2003 as self-liquidating and showed that revenues from the retrofitted project would be sufficient to pay for the new and existing debt on the Facility.

Based upon our analysis of the projections, and the circumstances surrounding their development, the projections appear to have been highly dependent on assumptions that

[129] To our understanding, municipal bond insurers count premiums paid at closing on a debt issue as revenues for the insurer on a proportional basis as principal is repaid. When the outstanding principal is paid off entirely, the insurer can count any premium not previously treated as "earned" as revenues at time of the pay off of the debt.
[130] August 27, 2003 memorandum from Mr. Losty to Mayor Reed regarding Harrisburg Resource Recovery Facility Financing Options.
[131] Appendix H to the Official Statement for the 2003 D, E and F Bonds. The figure presented represents the cumulative principal and interest payments. Other references to the debt load in this report pertain only to the principal amount due.
[132] March 24, 2003 Barlow Self-Liquidating Debt Report, including the supplemental report dated May 13, 2003 related to the 2003 A, B and C debt. November 6, 2003 Barlow Self-Liquidating debt Report, including the supplemental report dated November 26, 2003 related to the 2003 D, E and F debt.

the retrofit would be completed on-time and on-budget, with virtually no margin for error. If certain assumptions are adjusted even slightly, the project was not feasible. Because a reasonable cushion for debt service coverage was not built into the structure, the finance professionals, City, County and FSA left no margin for error.

Furthermore, our review of the documentation and information produced to date has not identified meaningful vetting or challenging of the projections, despite their review by multiple sets of professional advisors, including those retained by City Council and the County. Our analysis is set forth below.

1. Critical Assumptions in Projections

From an economic perspective, the retrofit project was a $73 million[133] capital investment project that was supposed to improve the operations of the RRF. Assuming the retrofit was completed in early 2006 as planned, the RRF was supposed to generate cash flow from operations sufficient to repay debt approximately three times the amount of the capital investment. The overall debt load consisted of the more than $100 million in Facility debt that existed prior to the inception of the Barlow Retrofit,[134] plus $125 million in debt that was incurred to fund (a) the retrofit construction, (b) related construction period operating expenses, and (c) debt issuance costs.[135] Table 2 presents the overall debt load on the RRF after the 2003 debt issues.

[133] Under the Amended and Restated Agreement for the Sale of Equipment dated December 31, 2003, Section 3.01, the initial contract price was $45.8 million. Under the Amended and Restated Professional Services Agreement dated December 31, 2003, Section III, the fee for the consulting work was $12.8 million, while the guaranteed maximum price for the separate construction contracts was $14.8 million.
[134] As of December 31, 2002 the existing debt was $80.2 million. The 2003 A, B and C debt issues refinanced a portion of this debt, while adding approximately $20 million in additional debt.
[135] This represents the cumulative total of the 2003 Series D, E and F debt.

TABLE 2: SUMMARY OF OUTSTANDING DEBT AFTER 2003 D, E & F ISSUANCE

Issue	Pre-Retrofit Debt	Retrofit Debt	Total
Series A of 1998[136]	$11,970,000		$ 11,970,000
Series A of 2002[137]	17,000,000		17,000,000
Series A of 2003[138]	22,555,000		22,555,000
Series B of 2003[139]	29,085,000		29,085,000
Series C of 2003[140]	24,285,000		24,285,000
Series D (D1 and D-2) of 2003[141]		$96,480,000	96,480,000
Series E of 2003[142]		14,500,000	14,500,000
Series F of 2003[143]		14,020,000	14,020,000
Total	$104,895,000	$125,000,000	$229,895,000

The November 2003 Barlow projections estimated that the RRF would generate cash flow from operations sufficient to service the existing and retrofit-related debt, and yield a cash surplus of $49.6 million by 2034.[144] However, it should have been clear at the time that small changes to the assumptions underlying the projections would have had a significant impact, evidencing limited margin for error in the execution of the project.

First and foremost, because debt service could increase over time due to the large amount of synthetic variable rate debt, completion of the project on-time and on-budget was critical to allow the RRF to generate the cash surplus needed before the RRF bore the full weight of the annual debt service. As demonstrated in Table 3 below, and in Exhibit B in detail, between 2006 and 2009, the RRF was projected to build up a cash surplus of $10.8 million, reflecting annual debt service payments of between $8.3 million and $13.6 million during those years. Over the period 2010 through 2020, the annual debt service was projected to reach as high as $15.3 million, and the expectation was that there would be four years (2016 through 2019) during which the debt service would exceed net operating income by more than $500,000 per year. As such, the surplus that was

[136] Represents the balance after refinancing per the Closing Order and Receipt dated June 4, 2003 related to the 2003 A, B and C debt.
[137] City of Harrisburg Ordinance 15-2002.
[138] Closing Order and Receipt dated June 4, 2003 related to the 2003 A, B and C debt.
[139] Ibid, page 7.
[140] Ibid.
[141] Closing Order and Receipt dated December 30, 2003 related to the 2003 D, E and F debt.
[142] Ibid.
[143] Ibid.
[144] Projections attached to the December 31, 2003 Equipment Agreement.

projected to be generated in the years 2006 through 2009 was critical to fund the Facility given the limited margin for error in the period 2010 through 2020.

TABLE 3: BARLOW PROJECTION – CASH SURPLUS

Periods	2006 – 2009	2010 – 2020	Cumulative
Net Revenues from Operations[145]	$54,641,000	$157,819,000	$212,460,000
Debt Service Payments	43,832,000	158,297,000	202,129,000
Projected Cash Surplus	$10,809,000	($478,000)	$ 10,331,000

However, if completion of the project went beyond January 2006, as in fact happened, Barlow's projections show that the RRF would struggle financially for many years, assuming all other estimates were accurate. Specifically, using all of the assumptions from the Barlow projections, with the exception that the start-up for the RRF is assumed to be delayed one year (i.e., a start-up date of January 2007, not January 2006), over the period 2006 through 2020, the RRF would generate a cumulative cash deficit of approximately $5.2 million after debt service.[146] Further, with the assumed delay, the RRF would not cover its cumulative debt service until 2027, and then would generate only minimal positive cumulative cash of $242,000 assuming all other Barlow assumptions were correct, which did not happen.[147]

TABLE 4: BARLOW PROJECTION – ADJUSTED CASH SURPLUS (NO 2006 OPERATIONS BUT DEBT SERVICE)

Periods	2006 – 2009	2010 – 2020	Cumulative
Net Revenues from Operations[148]	$40,546,000	$156,399,000	$196,945,000
Debt Service Payments	43,832,000	158,297,000	202,129,000
Projected Cash Deficit	($3,286,000)	($1,898,000)	($5,184,000)

[145] Net Revenues from Operations in the Barlow Projections is equal to total revenues less operating costs.
[146] Interest on the 2003 D Bonds appears to have been capitalized through June 1, 2006. If project completion went beyond that date, there would be no way of paying for debt service on the 1998, 2002 or 2003 Bonds other than by calling on the City Guarantee, the Debt Service Reserve Fund or the County Guarantee. Based on RBC reports contained in Barlow's Self-liquidating Debt Report filed in connection with the 2003 D, E and F proceedings.
[147] Refer to Exhibit C. Moreover, the final debt structure included a significant amount of original issue premium, which generated in excess of $8 million of additional proceeds for the Barlow Retrofit project, but at a cost of higher interest rates on a large portion of the $125 million of debt used in the projections.
[148] Net Revenues from Operations in the Barlow Projections is equal to total revenues less operating costs.

We have not identified any information that suggests that Barlow or anyone else assessed the effect of delays on the projections, even though delays and cost overruns in a large project such as this one with a technology that had never been implemented on this scale would be quite possible, if not expected. It also is important to note that, according to information available to us, the Barlow projections were not updated for the millions of dollars of cost increases that occurred during the construction project, which further strained the Authority's cash position.

Further, the projections were highly sensitive to other small changes in key assumptions. For example, a key assumption driving the projected cash surplus was the expectation that certain revenue categories, including commercial tip fees, tip fees from Dauphin, Cumberland and Perry Counties, and specialty spot market fees all would grow at 2.5 percent per year. In contrast, Barlow assumed that expense categories, including key expense categories such as operations and maintenance, utilities and insurance, APC reagent costs, mandated fees, the capital reserve account, and ash disposal, would grow at only 2.0 percent per year. In other words, revenue growth was projected to exceed the growth in expenses. Without changing any other assumptions, a change in the expense growth rate to mirror the projected rate of growth in revenues reduces the overall projected cash surplus by approximately 24 percent, from $49.6 million to $37.6 million. Refer to Exhibit D.

The projections also are premised on a 29 year operating period. This operating period, however, is inconsistent with Barlow's own estimates of the projected useful life of the Facility. In the December 4, 2000 letter opining on the technical feasibility of the project, James Barlow indicated that the RRF would have a useful life of 25 years beyond its life span at that time.[149]

[149] Letter from James Barlow, P.E. of Barlow to Thomas J. Mealy of the Authority dated December 4, 2000. Given that the RRF was scheduled to close in June 2003 unless it could meet federal air quality standards, it is assumed that the useful life estimate reflected the life after the completion of the retrofit.

A 29 year projection to support the feasibility of the project also is speculative given the inherent unreliability of predicting what will happen so far into the future. The AICPA has recognized this issue, and has provided guidance to accountants with respect to the development of projections. Specifically, the AICPA's Guide for Prospective Financial Information indicates that, ordinarily, to be meaningful to users, the presentation of a financial forecast should include at least one full year of normal operations in addition to any start-up period.[150] However, the degree of uncertainty generally increases with the time span of the forecast and, at some point, the underlying assumptions may become so subjective that a reasonably objective basis may not exist to present a reliable financial forecast.[151] The standard indicates that it ordinarily would be difficult to establish a reasonably objective basis for a financial forecast extending beyond three to five years.[152] Given that much of the projected cash surplus was to be accumulated in the latter years of the projections, the cash surplus Barlow projected through the year 2034 is unreliable and speculative.

The operating period also is inconsistent with the terms of the Dauphin County disposal agreement, which had a 20-year term, with a five year renewal option.[153] The revenue generated from the County waste stream is the single largest revenue line item in the projections, and there is approximately $46.2 million in revenues attributed to County waste in the years following the end of the contract term.

[150] The Securities and Exchange Commission ("SEC") Regulation S-K, § 229.10(b)(2) states that, for certain companies in certain industries, a forecast covering a two or three year period may be reasonable. Other companies may not have a reasonable basis for forecasts beyond the current year. Accordingly, the responsible party generally should select the period most appropriate in the circumstances. AICPA Audit and Accounting Guides – Guide for Prospective Financial Information – Part 2 Guide for Entities that Issue Prospective Financial Statements - Chapter 8 Presentation Guidelines p. 8.33, footnote 15.

[151] AICPA Audit and Accounting Guides – Guide for Prospective Financial Information – Part 2 Guide for Entities that Issue Prospective Financial Statements - Chapter 8 Presentation Guidelines p. 8.33.

[152] Financial forecasts for longer periods may be appropriate, for example, when a long-term lease or other contracts exist that specify the timing and amount of revenues and costs can be controlled within reasonable limits.

[153] Refer to Article I and Article III(b) for the identification of the waste subject to the Waste Agreement. Refer to Article X for the term. The renewal option could be canceled upon three years' prior written notice from the County.

If the projections are terminated in 2030 (i.e., year 25) and the growth rates of revenues and expenses are equalized, the cumulative cash surplus is reduced to $15.1 million, representing a reduction of approximately 70 percent compared to Barlow's original projections.

2. No Meaningful Challenges to the Projections

The reliance on the assumptions contained in the Barlow projections is difficult to understand given that the projections were presented to a number of professional firms that City Council and the County retained in connection with the 2003 retrofit debt issuance. Only one of these firms provided any sort of detailed review, however, and it is not clear how that review was used and how or if the questions it raised were addressed. In fact, it appears that the Authority, City, County, FSA and other interested parties relied on the County's guarantee of the project as the real means of underwriting the deal, rather than a robust analysis of the project itself.

The Barlow projections are referenced in:

- The September 18, 2003 Report from Buchart Horn to City Council;[154]
- The October 21, 2003 Report from the PFM Group to the County;[155] and
- The October 21, 2003 Report from HRG to Mr. Zwally of Mette Evans, counsel to the County.[156]

The Barlow projections received the most thorough review from Buchart Horn. In its report, in addition to developing a "base case," Buchart Horn performed analyses of the cash flows from the project for the year 2006[157] that assessed the "down-side," including a reduction in the tipping fees of 10 percent, a reduction in steam revenues of 50 percent,

[154] See page 11, which references the Barlow economic assessment.
[155] See page 2 in the Executive Summary section.
[156] See page 2, which references the September 2003 pro forma.
[157] Buchart Horn's analysis did not extend beyond 2006; we have seen no testing or analysis of the years beyond 2006 to determine if the Barlow projections for those years were reasonable.

a reduction in power production of 30 percent, an increase in maintenance expenses of 50 percent and an increase in ash disposal costs of $10 per ton.[158] This worst case scenario yielded net income before debt service of $9.78 million, compared to $13.57 million under the base case scenario.[159]

Ultimately, in evaluating the economics, Buchart Horn estimated that the retrofit project would generate 2006 net income before debt service of $13 million, which is consistent with the amount Barlow projected for 2006.[160] Buchart Horn projected that net income before debt service of $13 million was sufficient to service the debt on an assumed $72 million in capital costs on the project, plus the debt service on the existing debt, which was estimated at $6 million per year. However, Buchart Horn stated that the income would not be sufficient to cover the costs associated with financing and transition, which were estimated to reach as high as $53 million.[161] As previously noted, the 2003 D, E and F retrofit bond issues totaled $125 million, equal to the projected capital costs plus the financing and transition costs identified in the Buchart Horn report. As such, Buchart Horn demonstrated in 2003 that the RRF would not be able to generate cash flow sufficient to service all of the debt. Despite this, Buchart Horn's conclusion was that there were no major drawbacks to the project.[162]

In our analysis of the documents and information produced to date, we have seen no indication how, if at all, City Council, or any of the other parties involved in the decision to undertake the Barlow Retrofit, considered Buchart Horn's conclusion with respect to the RRF's inability to service the debt even after the retrofit, or reconciled it with Barlow's more optimistic analysis.

[158] Buchart Horn Final Report Incinerator Study Performed for the City of Harrisburg dated September 18, 2003, pages 12 through 16.
[159] Ibid, Table 2-3.
[160] Exhibit 3 to the November 6, 2003 letter from Ronald Barmore of Barlow to the City and County.
[161] Buchart Horn Final Report Incinerator Study Performed for The City of Harrisburg dated September 18, 2003, Table 3-1 and related discussion on page 17.
[162] Ibid, page 2.

PFM and HRG conducted evaluations that were much more limited than that conducted by Buchart Horn. The PFM report is concerned primarily with an analysis of the financial terms and structure of the 2003 D, E and F bonds to provide the County with guidance with respect to a "reasonable" guarantee fee.[163] With that said, the September 30, 2003 version of the Barlow projections was attached to the PFM report, suggesting that there may have been some level of evaluation. It is not clear whether PFM reached any conclusions with respect to the projections, as the Executive Summary merely states, "While we make no representations as to the reasonableness of the contemplated project, we do find the preliminary debt service schedules and assumptions for the Retrofit Bonds reasonable."[164]

Similarly, HRG's analysis appears to have been limited. Specifically, HRG stated, "We have reviewed the pro forma for pronounced errors and omissions. We have not examined all assumptions in detail but feel that the values and projections given fall within a reasonable range for this project."[165]

In addition to the professionals retained by the City and the County, it appears that the Authority's professionals had access to the projections, although we have observed no information that suggests that they provided any meaningful challenge to what Barlow presented. In fact, in at least one instance, we have identified information where one of the professionals involved with the City and the Authority dismissed a financial analysis of the project as a tool for assessing the reasonableness of buying the 2003 bonds. In a December 18, 2003 e-mail message, Mr. Losty of RBC (the underwriter for the deal) communicated with an individual from TRowePrice, stating, "My only word of advice is if you are trying to evaluate this on a revenue generating basis, you are the only one including the bond insurer. Bottom line is that there is an AA County with a full faith and credit general obligation pledge."[166]

[163] October 21, 2003 report from the PFM Group to the County, pages 2 and 8.
[164] Ibid, page 2. As discussed later, the debt structure changed to 77 percent synthetic variable rate debt after issuance of PFM's report. Refer to the discussion later in this report with respect to the swaps.
[165] October 21 letter from HRG to Charles Zwally of Mette, Evans & Woodside, page 2.
[166] December 18, 2003 e-mail from James Losty to srichter@troweprice.com.

Mr. Losty's position with respect to assessing the financial viability of the project based upon projections appears to be consistent with that taken by underwriters' counsel for the 2003 D, E and F Bonds, Ms. Cocheres of Eckert. In an interview with Ms. Cocheres, she stated that she made it clear in the Official Statement used to offer the bonds that the bondholders should rely on the creditworthiness of the guarantors, not the revenues of the RRF. The views expressed by Mr. Losty and Ms. Cocheres may explain why there was a lack of critical examination of the Barlow projections.

Further, while the Authority's attorneys at Obermayer, and the Underwriters' attorneys at Eckert had access to the projections that were presented in March 2003 and November 2003, we note by way of observation, that it does not appear that the attorneys evaluated the data substantively. Instead, it appears that they largely were concerned with editing the wording of the reports and not in evaluating the substance of the projections. For example, we observed the following:

- An April 11, 2003 fax from Mr. Michael of Eckert to Mr. Barmore of Barlow, Mr. Sutherland of Obermayer, Mr. Losty of RBC Dain Rauscher and Mr. Lispi, who at the time still was employed with the City. Included in the fax was a copy of the March 23, 2003 Barlow Report, with what appear to be Mr. Michael's handwritten comments and changes on formatting and clarifying what is presented.[167]
- Various communications in May 2003 related to a supplement to the Barlow self-liquidating debt report. These communications largely concerned clarifying the overall magnitude of the 2003 debt, and the specific existing debt that would be refinanced.[168]
- In November 2003, DCED raised questions about the projections that were attached to the Barlow report that accompanied the 2003 D, E and F bond package. Specifically, DCED was concerned about whether the debt would be

[167] April 11, 2003 fax from Richard Michael to Ron Barmore.
[168] For example, refer to the May 13, 2003 e-mail from Andrew Giorgione to Dan Lispi, James Losty and Hugh Sutherland, which contained proposed mark-ups to the supplemental letter.

self-liquidating through 2033, since the attached projections covered only the period through 2010. In e-mails involving attorneys from Obermayer, Eckert, and Rhoads & Sinon, along with Messrs. Barmore, Lispi and Losty, the professionals discussed how to modify the report to meet DCED's concerns. Ultimately, Mr. Giorgione of Obermayer indicated that he and Ms. Cocheres of Eckert spoke with DCED personnel and resolved the issue, although we have seen no evidence of what was discussed or how the issue was resolved.[169]

3. Guarantees and Fees – Added Expense, and Knowledge and Acceptance of Risk

The City and the County both provided guarantees on the 2003 bonds and notes. Specifically:

- The City guaranteed the payment of the principal and interest on the 2003 A, B and C notes;[170]
- The City guaranteed the payment of the principal and interest on the 2003 D, E and F bonds;[171] and
- The County provided a secondary guarantee on the 2003 D and E bonds up to an aggregate principal amount of $113 million, plus interest.[172]

The guarantees provided on the 2003 D, E and F bonds enabled the Authority to issue the debt on a more cost effective basis (see discussion below). The Authority paid guarantee

[169] E-mail string containing messages dated November 18, 2003 and November 19, 2003.
[170] City Guaranty Agreement dated June 4, 2003 contained within Volume I of the 2003 Series A, B and C closing documents.
[171] City Guaranty Agreement dated December 1, 2003 contained within Volume II of the 2003 Series D, E and F closing documents.
[172] County Bond Guaranty Agreement dated December 1, 2003 contained within Volume I of the 2003 Series D, E and F closing documents. Also, per County ordinance 04-2003 dated November 6, 2003 contained within Volume I of the 2003 Series D, E and F closing documents.

fees to both the City and the County. In the case of the City, the fee was approximately $2.8 million, while the County received a fee of $1.9 million.[173]

In giving their guarantees and receiving these fees, it is clear that both the City and the County were aware of the risks associated with the 2003 debt and their guarantees. For example, in an e-mail dated September 5, 2003, Mr. Giorgione wrote to Mr. Sutherland, Mr. Lispi, Mr. Losty, Mr. Michael and Ms. Cocheres: "I spoke with Chuck Z[wally, counsel to the County]. He indicated that the County was concerned by the size of the City Guaranty Fee. I explained its a matter of risk and not negotiable."[174]

Further, in October 2003, PFM analyzed the additional costs that the Authority would incur absent the County guarantee, which appears to have been PFM's primary role for the County relating to the 2003 D, E and F Bonds. Under that analysis, PFM projected higher insurance costs for the bond issue under the assumption that the existing bond insurer, FSA, would not insure the debt without the County guarantee, necessitating the use of another AAA rated insurer that would charge more. Further, PFM projected higher interest costs to market the bonds without the County guarantee, presumably reflecting additional perceived risk.[175,176]

Moreover, in a letter dated May 2, 2003 from Mr. Losty to Mayor Reed, with copies to Mr. Mealy, Mr. Kroboth, Mr. Lispi, Mr. Sutherland, Mr. Giorgione, Mr. Michael, Ms. Cocheres and Mr. Barnes, Mr. Losty discussed the contemplated 2003 A, B and C bond issuance and stated:

[173] Costs of Issuance per the Closing Order and Receipt dated December 30, 2003 for the 2003 D, E and F Bonds contained in Volume II of the closing documents.
[174] E-mail from Andrew Giorgione to various individuals dated September 5, 2003.
[175] October 21, 2003 Report from the PFM Group to the County, page 6. The County Guarantee fee paid in connection with this financing is the only guarantee of RRF Debt that took this approach, based upon our review of documents and interviews.
[176] Of note is the fact that the County had not guaranteed any of the stranded debt that related to the Facility, which then was closed down, and would not guarantee any debt related to paying for City staffing of the RRF during the period of construction when the Facility would not be in operation. The County also wanted the 2003 D, E and F Bonds to be issued on a parity basis with the 1998 Bonds. Refer to the September 17, 2003 letter from Andrew Giorgione to Charles Zwally discussing the parity issue.

> …the ever-increasing debt load on the resource recovery facility is rapidly exhausting the City's ability to access the bond market for capital requirements. By any measure, the City's overall debt burden when guaranteed debt is included is extremely high in comparison to other municipalities around the United States. This results in higher costs for credit enhancement and eventually higher borrowing costs if a borrowing is feasible at all. We received a formal commitment for bond insurance for this restructuring issue from FSA this week. Despite the fact that FSA was the insurer of record on the bonds being refunded, the cost of the new policy came in at 100 basis points. This represents an increase of 10 basis points from the last insurance quote for the Series 2002 Resource Recovery Bond Issue. Additionally, the insurer stipulated that no new money is added to the financing above the $2 million approved for working capital. Unfortunately, there are no other options for insurance from the major "AAA" rated insurers.

In that same letter, Mr. Losty also addressed the contemplated debt issuance related to the 2003 D, E and F retrofit bonds. Specifically, Mr. Losty stated:

> Without credit enhancement there will be no cost effective borrowing avenue to fund the retrofit bond issue. While preliminary discussions have begun for credit enhancement providers for the retrofit, there are many issues that yet need to be resolved prior to any enhancer reaching a credit decision. Given the size of the projected retrofit bond issue and the City's existing debt, a sub "AAA" guarantor is probably the most likely candidate.[177]

In this case, the City's financial well-being was tied to the RRF, and it had guaranteed all of the preceding debt issuances with the exception of relatively small ones in 1996 and 1997. The City guaranteed the 2003 retrofit debt.[178]

Similarly, in December 2002, the County had approved a revised Waste Management Plan and in September 2003 awarded its waste disposal contract to the Authority, designating that all regulated waste generated within the County be disposed at the RRF, beginning in May, 2006.[179] By the time of that decision, the County knew the RRF had to

[177] May 2, 2003 letter from James Losty to Mayor Reed.
[178] Closing Memorandum for the 2003 D, E and F debt.
[179] Dauphin County Municipal Waste Management Ordinance 03-2004, page 6.

be retrofit to accommodate the County's requirements. It was important to the County to avoid re-opening and re-permitting the Dauphin Meadows landfill, which was of concern to County municipalities.[180] The County had chosen to rely on the RRF, and needed to support it. FSA required a County guarantee to insure the 2003 D, E and F Bonds.[181] The County agreed to provide a guarantee.

It is our experience that municipalities rarely take fees for guaranteeing bond issuances of their local authorities in connection with utility transactions. A guarantee benefits the Authority by lowering borrowing rates, which, in turn, reduces the costs the host municipality's taxpayers and ratepayers have to pay for services the Authority provides.

Those interviewed, however, confirmed that the City made it a practice of collecting these fees for conduit issues for utilities to generate money for the City's general fund. The City Guarantee fees related to the RRF historically appear to be related to the amount needed to fill a City general fund or RRF budget gap. For example, the City guaranteed the 2000 Notes, issued in the aggregate principal amount of approximately $25.2 million, and received a guarantee fee equal to approximately $4.2 million. The Official Statement for the 2000 Notes includes a statement that proceeds of the 2000 Notes in the amount of approximately $4.7 million were needed to pay utility fees of the RRF that could not otherwise be paid from operating revenues, and other City payables.[182]

When asked why the County insisted on a guarantee fee in connection with the 2003 Bonds, Mr. Williard of PFM indicated that Commissioner Haste wanted a guarantee fee.

[180] Dauphin County Resolution 13-2004 dated June 2, 2004.
[181] Notes in PFM spreadsheets calculating the possible guaranty fees to be paid to the County state that "The assumed insurance premium of 100 basis points was the premium for the 2003 ABC City Guaranteed Resource Recovery Bonds in June 2003. FSA's response, at this time, due to exposure limits to the City of Harrisburg, is that they would not be able to insure an issue guaranteed by the City but not the County." Further, in his memorandum to Mayor Reed dated August 27, 2003, Mr. Losty stated that "Based on meetings held in New York in the last two weeks with major municipal bond insurers, the absence of the County of Dauphin Guarantee would likely eliminate the possibility of a major insurer approving the transaction."
[182] 2000 Official Statement.

His recollection was that Commissioner Haste believed that if the City was going to take such a fee, the County wanted one, as well.

In addition, when the Authority issued approximately $30 million in debt in 2007, about $9.7 million[183] went to repay the City and County for payments they made on behalf of the Authority, even though the Authority paid substantial fees to the City and County for guarantees that both provided on the 2003 D, E and F debt. It appears that, at a minimum, the payment of the guarantee fees was unwarranted to the extent that, when the guarantees were called, the City and County not only were able to place the payment burden back on the Facility, but to do so in a manner that further increased the debt burden and interest cost on the Authority (see later discussion of 2007 debt).

The guarantee fees added more debt on the RRF and more cost to the financings, but provided little, if any, benefit to the retrofit project.

4. Relaxed Contract Requirements Allowed Incurrence of Additional Debt

Normally, the bond insurer, who must pay bondholders if project revenues are not sufficient to pay debt, will impose limitations on the issuer's incurrence of additional debt so that the issuer does not accumulate excessive debt it cannot repay. Sometimes guarantors will impose these conditions, too. These provisions typically are found in the bond indenture in debt service coverage covenants and "additional bonds" tests.

In the case of the RRF, the 1998 Indenture is the senior indenture. It does not place restrictions on incurring additional debt that are typical for a revenue-backed facility, enabling additional debt to be issued more easily than is normally the case. The 1998 Indenture contains the following limitations:

[183] Closing Order and Receipt dated December 27, 2007.

- Debt Service Coverage Ratio – Net annual revenues were only required to be sufficient to pay one hundred percent of actual debt service ("one times" coverage).
- Additional Bonds Test – the Authority could issue additional debt without FSA's approval as long as net revenues equaled annual debt service requirements during twelve of the prior eighteen months, and projected net revenues were equal to the annual debt service requirement for a specified period in the future. The bondholders of the additional debt would have a claim to the receipts and revenues of the RRF equal to that of the 1998 bondholders.
- Limitations on Subordinate Indebtedness – even if it did not meet the Additional Bonds Test, the Authority could issue additional debt without FSA's approval so long as the new debt had a lower priority claim to receipts and revenues from the RRF than do the 1998 bondholders.[184]

Typically, in a revenue-backed project financing for a resource recovery facility, the insurer requires a debt service coverage ratio in excess of 1 (i.e., net revenues must exceed debt service requirements). A range of between 1.15 and 1.30 times net revenues (i.e., the amount of net revenues available to pay debt service is 15 percent to 30 percent more than the annual debt service requirements) would not be unusual, to ensure that money is available to pay debt service. This provides a margin for error in case variable interest rates go up, or there are inefficiencies in operating results. Bond rating agencies look favorably on debt service coverage of about 1.50 times annual net revenues.

In a typical project financing, subordinate debt also is subject to greater limitations than the minimal requirements of the 1998 Indenture. Normally, the insurer requires that net annual revenues be greater than the annual debt service of the subordinate debt, although at a somewhat lower ratio than that required for more senior debt. Net revenues in excess of actual debt service of 10 percent to 15 percent would be a reasonable example.

[184] 1998 Indenture.

Here, FSA, and the City and County, could have imposed more stringent contractual limitations in 1998, 2000, 2002, and 2003, but chose not to do so. Instead, it appears that FSA, and later, the County, considered these financings essentially as general obligation bonds of the City, underwriting them on the strength of the City's ability to repay in case of a default (rather than on the strength of the project being funded by a debt issuance). In 2003, when FSA expressed its concerns about more exposure to the City,[185] it decided to insure based on the creditworthiness of the County.[186]

However, throughout the relevant time period, the RRF could not satisfy even the lax "one times" coverage test. As a result, the Authority undertook a series of subordinate borrowings in 2000, 2002, 2003 and 2007.

The 2003 A, B and C Bonds were issued under a subordinate indenture and, unlike most of the other bond issuances, were not secured by receipts and revenues of the RRF. The disclosure document for this debt issuance states that the bonds will be subordinate to any RRF bonds issued in the future,[187] which put them at a fourth level of priority.[188] FSA insured these bonds and did not require any tightening of the subordinate debt provisions of the 1998 or 2002 Indentures, but did begin to increase the insurance premium it charged.[189]

5. 2003 City Council Fund

When City Council members stood in the way of the project's advance, they were offered the possibility of a "special projects fund." Negotiations surrounding the establishment

[185] May 2, 2003 letter from James Losty to Mayor Reed. August 27, 2003 memo from James Losty to Mayor Reed. December 18, 2003 e-mail from James Losty to srichter@trowprice.om.
[186] Official Statement for 2003 D, E and F Bonds discloses FSA as insurer of timely payment of principal and interest. See previous footnote. Also refer to May 2, 2003 letter from James Losty to Mayor Reed. August 27, 2003 memo from James Losty to Mayor Reed. December 18, 2003 e-mail from James Losty to srichter@trowprice.om.
[187] 2003 Official Statement dated May 27, 2003.
[188] They are lower in priority than the 1998 Bonds, the 2002 Notes and the 2003 D, E and F Bonds.
[189] May 2, 2003 letter from James Losty to Mayor Reed.

of the fund began in October, 2003. In an e-mail dated October 14, 2003, Mr. Giorgione informed Randy King and Mr. Lispi of the issue, stating:

> Boys-
>
> I have heard from Stan Mitchell that the Rick House issues are as follows:
>
> 1. Reynolds (and Freddie) are getting paid $1m and think they can deliver the votes; and
> 2. Council is getting nothing; and
> 3. He is holding the vote until he hears from the Mayor.
>
> I have no clue where this $1m number is coming from. We have not even finalized the deal yet with Reynolds. Also, I understand Council is getting its money. So, the usual crap is flying.
>
> I guess the Mayor has to speak to Richard. We are running out of time. Kroboth says we are going to needs (sic) funds asap.[190]

By late October, the parameters surrounding the account appear to have been developed. In an October 27, 2003 e-mail message from Mr. Giorgione to Richard House, then the President of City Council,[191] with the subject "City Council Special Projects Account," the account was to be funded with $500,000 provided through the Authority. The funds then could be used by City Council for any lawful purpose upon requisition of funding from the Authority.[192]

On October 31, 2003, there were further communications regarding the fund, including input from Mayor Reed on the structure of the fund. In response to a memo drafted by Steven Dade, Acting City Solicitor, Mayor Reed stated:

> If all of you keep this up, you will permanently kill the prospect of the retrofit bonds being adopted by Council. The draft you provided does (sic) even remotely resemble what was agreed to and, unchanged, what

[190] E-mail from Andrew Giorgione to Randy King and Dan Lispi dated October 14, 2003, with the subject "House."
[191] Mr. House was the President of City Council, which approved the Ordinance to authorize the City's guaranty of the 2003 D, E and F debt.
[192] Attachment to the e-mail from Andrew Giorgione to Richard House dated October 27, 2003.

> was drafted would almost certainly trigger a negative reaction. With so little time available to this office, I find myself again having to edit and rewrite staff work products. Send the attached as amended.[193]

Following Mayor Reed's changes, the fund was proposed under one of two alternatives.

- The establishment of a special projects fund in the amount of $500,000 that would be funded from the "settlement and closing cost fee payable to The Harrisburg Authority on the closing of the retrofit bonds," then placed into an Authority special projects account for the exclusive use of designated City Council members. The account could be used for any lawful purpose, subject to requisition to the Authority.
- The $500,000 would be paid by the Authority to the City, and the City would insert the allocation into the 2004 Budget within the Department of General Expenses with the sub-heading of Council Special Projects Fund. Approval for disbursement would be subject to Council resolution, and the City's payment approval process.[194]

Based upon the information produced to date, it is not clear whether this account was established**.**

6. Local Government Unit Debt Act Concerns[195]

a. Self-Liquidating Debt

Given the significant debt load being carried by the Authority and City, it was important to the City to qualify the RRF debt as "self-liquidating." The Local Government Unit

[193] Memo from Steven Dade to Mayor Stephen Reed dated October 31, 2003. Mayor Reed was commenting on a draft of a memo from Mr. Dade to Richard House regarding the City Council Special Projects Funds.
[194] Letter from Steven Richard Dade to Richard K. House dated October 31, 2003.
[195] This report raises concerns about debt incurred by the City and the County. The validity of this debt cannot now be challenged insofar as it relates to bondholders' rights. 53 Pa. C.S.A. § 8209(a).

Debt Act, 53 Pa. C.S.A. §§ 8001 et seq. (the "Debt Act"), provides statutory procedures for the incurrence of debt and imposes debt limits for municipalities, including the City and the County.[196] The borrowing limits of the Debt Act are intended to prevent a municipality from incurring debt it cannot repay given its tax base. Guarantees are considered debt under the Debt Act.

Under the Debt Act, the City and the County each have a limit of debt they may incur (other than debt approved by voters in a general or special election (electoral debt)).[197] If debt is approved as "self-liquidating debt," pursuant to proceedings submitted to DCED, the debt does not count against the limit of debt that a municipality may incur.[198] To qualify as self-liquidating, debt must be payable solely from rents, rates or other charges to the ultimate users of the project that is financed by the debt, or payable solely from special levies or assessments of benefits lawfully earmarked exclusively for that purpose (i.e., the project must generate revenues sufficient to support the debt service, and such debt service must be payable from project charges).[198.5]

A municipality must re-examine whether previously certified self-liquidating debt remains so prior to issuing or incurring any additional debt. Included with the proceedings filed with DCED for new debt is a statement showing the gross outstanding indebtedness of the municipality, and a certification that no decrease in any amounts to be excluded as self-liquidating is required by any change of circumstances, other than as a result of debt payments (a "Clean 8110(b) Certification").[199] If there has been a change in circumstances negatively impacting the previously funded project, such as a decrease in revenues or an increase in debt, then the municipality may not be able to file a Clean 8110(b) Certification, and the amount of gross debt outstanding that is counted against the municipality's debt limit would have to be increased.[200]

[196] 53 Pa. C.S.A. § 8001(b) and (d); § 8002. The Municipal Authorities Act, 53 Pa. C.S.A. §§ 5601 et seq., and not the Debt Act, regulates the issuance of debt by the Authority.
[197] 53 Pa. C.S.A. §§ 8021, 8022.
[198] 53 Pa. C.S.A. § 8026.
[198.5] 53 Pa. C.S.A. §§ 8002(b).
[199] Named for the statutory section requiring the filing of the certification.
[200] 53 Pa. C.S.A. §§ 8110(a) and (b).

The RRF experienced significant changes in circumstances from 1998 to 2003. In 2000, the Facility was derated to address EPA Clean Air Act requirements, substantially reducing its throughput and revenue stream. The Authority had to borrow to pay for operations and debt service in 1998, 2000, 2002 and 2003, meaning that the Facility was not paying for its outstanding debt during those years, and had borrowed at more expensive rates to pay off prior debt. The Facility completely closed down its incinerating operations during 2003 through April 2006 to accomplish the Barlow Retrofit,[201] substantially eliminating its revenue producing capabilities.[202]

The projects that had been funded by Authority bond issuances prior to December 2003 no longer were generating revenues sufficient to pay debt service on the outstanding debt of the RRF. The Barlow Retrofit demolished a significant part of the old Facility and replaced it with a substantially new RRF. The original Facility the Authority purchased in 1993 and improved through the 1990s in large part no longer existed. As a result, it is difficult to understand how the existing debt could continue to be considered self-liquidating in 1998, 2000, 2002 and in December 2003, and how a Clean 8110(b) Certification could have been filed. Nonetheless, the City filed a Clean 8110(b) Certification relating to the 1998 Bonds and 2003 A, B and C Notes in connection with its guarantee of the 2003 D, E and F Bonds.[203]

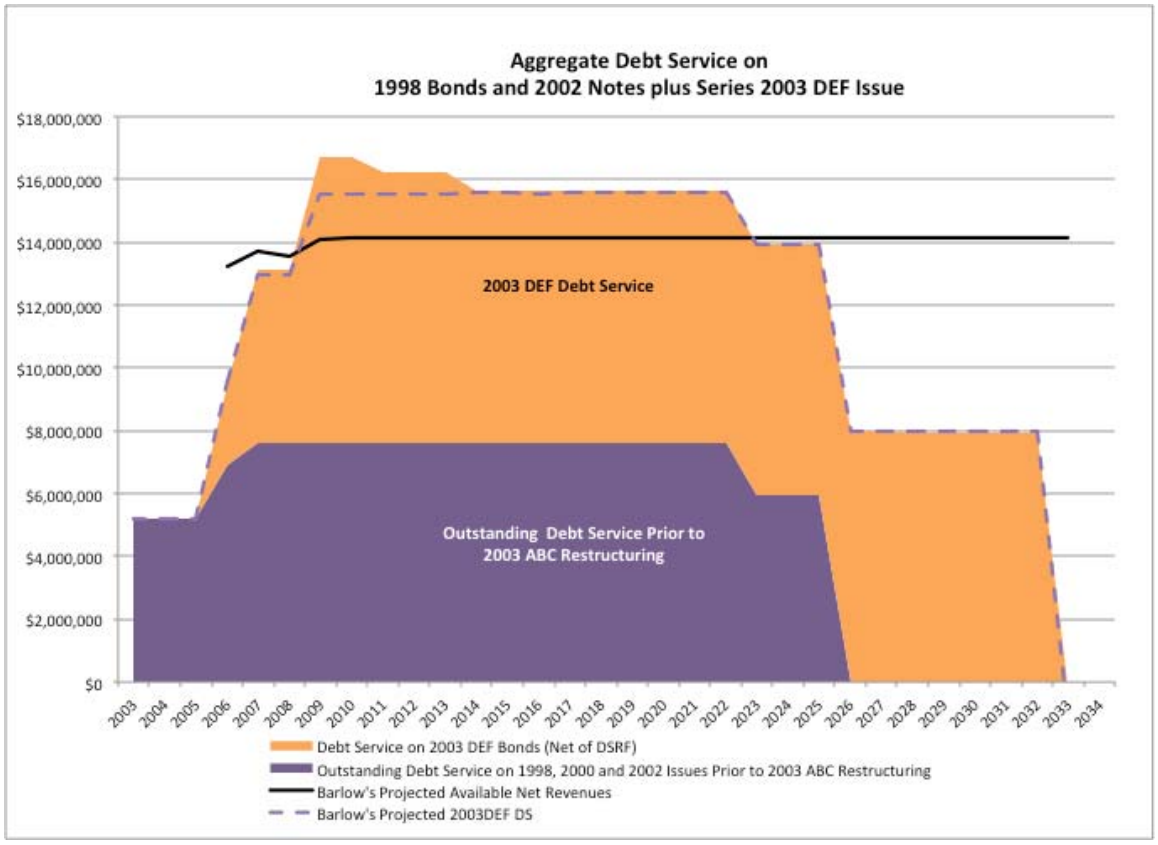
Prior to issuance of the 2003 A, B and C Notes, the City's statutory debt limit was approximately $149.8 million. Of this capacity, according to the proceedings filed by Bond Counsel with DCED, there was approximately $80.7 million of Combined Net Nonelectoral Debt and Net Lease Rental Debt Outstanding (the types of debt that count

[201] Second Amended Complaint in the matter The Harrisburg Authority v. Barlow Projects, Inc., et al, paragraph 59.
[202] Some revenue stream to the Authority continued through the transfer station, albeit at a substantially reduced level.
[203] Borrowing Base Certificate and Debt Statement (including Clean 8110(b) Certificate) signed by the City and filed with DCED on November 7, 2003 related to the 2003 D, E and F debt. Prior to filing the debt statement relating to the 2003 A, B and C Notes, bond counsel for that issuance (and for the 2003 D, E and F Bonds), alerted those involved with the transaction of a duty to notify DCED in conjunction with a future City debt issuance if some of the debt were not then considered self-liquidating. April 11, 2003 memo prepared by Hugh Sutherland.

against the statutory debt limit).[204] Accordingly, the City had a remaining debt limit of approximately $69 million prior to the issuance of the 2003 A, B and C Notes.[205] If the 1998 Bonds no longer were deemed self-liquidating at that time, the City's remaining debt limit would have been approximately $25.9 million[206] and it could not have guaranteed the 2003 A, B and C Notes. Separately, had the 2003 A, B and C Notes not been qualified for self-liquidating status, the Barlow Retrofit project likely would not have been financeable and a self-liquidating debt report probably would not have been capable of being developed that showed revenues sufficient to cover debt service for the first 22 years of operation.[207] Accordingly, the 2003 D, E and F Bonds would not have been issued unless the bond insurer and the County agreed to provide a guarantee without the City (e.g., if the County was the sole guarantor).

The below illustration shows the debt service payments that the Authority would have had if the 2003 D, E and F Bonds had been issued without the restructuring accomplished by the 2003 A, B and C Notes. It shows that Facility revenues after completion of the retrofit—even as projected by Barlow—would not have been sufficient to pay debt service almost from the beginning of the Facility's operations (even if the Barlow Retrofit been completed on time).

[204] Borrowing Base Certificate and Debt Statement filed with DCED signed by the City and filed with DCED on April 16, 2003 related to the 2003 A, B and C debt.
[205] Ibid.
[206] Ibid.
[207] See chart in body of this report titled "Aggregate Debt Service on 1998 Bonds and 2002 Notes plus Series 2003 DEF Issue."



NOTE: In orange, actual debt service is shown for 2007-2011 with assumptions as to variable rate resets of 4.5% beginning in 2012. The illustration does not reflect net payments under the swaps and caps. Net of DSRF means that the Debt Service Reserve Fund was assumed to be released in the year the 2003 D, E and F Bonds matured, in order to pay for debt service in that year.

We also question how the 2003 A, B and C Notes could themselves be self-liquidating as they related to debt that financed the Facility as it was improved through 1997. That Facility closed in 2003 and had not been able to pay for operations and debt service for at least six years prior to that point in time. Moreover, those bonds were not secured by a pledge of receipts and revenues from the Facility. It appears from reviewing the relevant documents that the proceedings filed with DCED took an aggressive position by dismissing the lack of revenue stream from the then-shuttered RRF, and assuming that the City could take into account future revenues of a retrofit that had been discussed for over a decade and certain individuals hoped would be, but had not yet been, financed with the 2003 D, E and F Bonds. The report assumed that the Authority "will obtain contracts from qualified engineers, contractors and equipment suppliers accompanied by appropriate guarantees of performance for the Retrofit for a total cost including

contingencies that does not exceed $81 million…"[208] It also assumed repairs to the steam line, which in fact never occurred.

The RRF continually borrowed working capital and capitalized interest, and undertook more than one expensive restructuring to satisfy debt service obligations. These additional borrowings added debt that did not generate corresponding revenues and added significant expenses, which in and of itself constitutes a change in circumstances that should have been re-examined, resulting in a reduction of the amount of debt that was deemed self-liquidating.

b. Use of Funds for "Costs of a Project"

Under the Debt Act, local government units have the power to issue and guarantee debt to provide funds for the cost of completing a project or combination of projects that the local government unit is authorized to own, acquire, subsidize, operate or lease.[209] Among other things, a "project" includes items of construction, acquisition, extraordinary maintenance or repair; preliminary studies, surveying, planning, testing or design work; lands or rights in land to be acquired; furnishings, machinery, apparatus or equipment normally classified as capital items; funding of all or any portion of a reserve relating to self-insurance; and funding or refunding of debt incurred for any or all of the foregoing purposes.[210]

The "cost of a project" includes the amount of all payments to contractors or for the acquisition of a project or for lands, easements, rights and other appurtenances deemed necessary for the project, fees of architects, engineers, appraisers, consultants, financial advisors and attorneys incurred in connection with the project financing costs, costs of

[208] November 6, 2003 Barlow Self-Liquidating Debt Report. Taking into account revenues from a potential retrofit project in determining if the 2003 A, B and C Notes could be considered self-liquidating may have been based at least in part on a conversation that underwriter's counsel reported occurring between his office and DCED. March 24, 2003 e-mail from Richard Michael to Robert Kroboth, copying various people.
[209] 53 Pa. C.S.A. § 8005(c).
[210] 53 Pa. C.S.A. § 8002(c).

necessary printing and advertising, costs of preliminary feasibility studies and tests, cost estimates and interest on money borrowed to finance the project, if capitalized, to the date of completion of construction and, if deemed necessary, for one year thereafter, amounts to be placed in reserve funds, if any, a reasonable initial working capital for operating the project and a proper allowance for contingencies.[211]

By 2003, the Authority had issued new debt to pay for old debt (both as working capital and capitalized interest) on a number of occasions. When it issued the 2003 D, E and F Bonds, the Authority was committing to a significant amount of demolition and a new incinerator. Included in the 2003 D, E and F Bonds were funds earmarked for debt service for the pre-Barlow Retrofit bonds and notes. However, in the definition of "costs of a project," the Debt Act permits funding only for "a reasonable initial working capital for operating the project" and "cost of … interest on money borrowed to finance the project, if capitalized, to the date of completion of construction and, if deemed necessary, for one year thereafter."[212] The projects funded by the pre-Barlow Retrofit bonds and notes were well past the "initial working capital" stage, and were well past one year after completion of construction; indeed the demolition phase of the pre-retrofit project was commencing. As a result, it is questionable whether, under the Debt Act, the City and County could guarantee debt that the Authority issued to pay for interest on money it borrowed to purchase and improve the original RRF Facility it acquired in 1993.

7. Actual vs. Projected Results

The financial operating results and supporting information produced to date, including audited financial statements, budgets and projections, demonstrates that actual and budgeted operations of the RRF have fallen significantly below the projections that were used to support the assertion that the 2003 debt would be self-liquidating.

[211] 53 Pa. C.S.A. § 8007. (Emphasis added)
[212] Ibid. (Emphasis added)

Table 5 presents the actual and budgeted income before debt service[213] versus what was projected in Barlow's Self-liquidating Debt Report. Exhibit E presents the information in detail.

Table 5: Actual/Budgeted Income Before Debt Service vs. Projections (in millions)

Year	Actual/Budget	Projection	Variance
2006	($2.2)	$13.2	($15.4)
2007	(4.0)	13.7	(17.7)
2008	2.4	13.6	(11.2)
2009	2.1	14.1	(12.0)
2010	.5	14.1	(13.6)
2011	5.6	13.7	(8.1)
Total	$4.40	$82.40	($78.00)

The following sections address the major variances that have been identified. Where possible, we also discuss the reasons for the observed variances, although in some cases explanations have not been identified in the documents produced to date.

a. RRF Revenues

Over the period 2006 through 2009, the actual/budgeted revenues the RRF generated fell below the Barlow projections, including shortfalls of $11.3 million and $10.0 million in 2006 and 2007, respectively. In large part, these revenue shortfalls reflect the delay in the completion of the retrofitted RRF, which did not occur until 2008, versus the projected completion in 2006.

Since 2009, actual/budgeted revenues have approximated or exceeded the projection. However, while the revenue figures are only marginally different, there are significant

[213] For purposes of our analyses, we have used the available actual financial data for the years 2006 through 2008. During the course of our investigation, actual financial statements for the period 2009 forward were not yet available, as such, for that period projections have been analyzed against the approved budgets under the assumption that the budgets represent a reasonable proxy for actual results. We note that the Authority recently issued its 2009 audited financial statement while this report was in preparation, but, because of the timing of its issuance, we have not considered the 2009 audited financial statement. Our analyses may be updated if and when we have the opportunity to review actual financial data for the period 2009 forward, if we are requested to do so.

differences between the actual/budgeted revenue mix and what was projected. For example:

- Tipping fees received from the City and County are approximately $8.8 million higher than what was projected for 2011. This reflects actual tipping fees charged to City residents of $200 per ton,[214] versus a projected figure of $50 per ton.[215] This further reflects actual tipping fees of between $72.60 and $73.95 per ton charged to the County,[216] versus approximately $52.50 per ton in the projection.[217] While the increase in actual revenues versus the projected revenues is generally a positive, in this case, the residents of the City and the County already are paying the price, in part, for the failure of the project via the higher tipping fees.
- Steam sales are $3.2 million below what was projected for 2011, reflecting the complete failure of the steam line, which has not been repaired, depriving the RRF of the ability to sell steam. The loss of steam sales further highlights the questionable nature of the Barlow projections because it should have been known that the steam line needed significant capital improvements to continue operating.
- Electricity sales are $2.1 million below what was projected for 2011. In part, this appears to be a function of lower than projected selling prices for electricity. The budgeted average selling price in the 2011 budget was $.0443/KW.[218] The 2003 projections assumed a rate of $.055/KW.[219] This highlights another incorrect assumption utilized in the Barlow projections to substantiate the self-liquidating nature of the bonds.

[214] Per footnote 1 to the Amended 2011 THA RRF Operating Budget.
[215] Calculated from the Key Assumptions associated with the 2003 Projections.
[216] Per footnote 2 to the Amended 2011 THA RRF Operating Budget.
[217] Calculated from the Key Assumptions associated with the 2003 Projections.
[218] Per footnote 8 to the Amended 2011 THA RRF Operating Budget. THA Web site.
[219] Per item 12 under the Principal Assumptions and Conditions attached to the November 6, 2003 letter from Barlow to the City of Harrisburg and Dauphin County.

b. RRF Expenses

Actual/budgeted expenses have exceeded projected expenses in Barlow's Self-Liquidating Debt Report, often by significant amounts. For example, expenses in 2009 were budgeted at $21.4 million versus a Barlow projection of $11.4 million, a difference of $10 million. The higher than projected expenses can be attributed, in large part, to the following:

- Since 2007, Covanta has been operating the RRF. Over the period 2009 through 2011, Operating and Maintenance Expenses, which include the costs associated with the Management and Professional Services Agreement between the Authority and Covanta (the "Covanta Agreement"), have ranged between $11.8 million and $13.5 million. By way of comparison, Barlow's projected expenses for this category ranged between $6.6 million and $6.9 million. The difference appears to be a function of the magnitude of the fees paid under the Covanta Agreement, which significantly exceed the projected operating costs. We have been unable to conclude whether the operating costs included in the Barlow projection were reasonable at the time; the Authority had little choice but to enter into the Covanta Agreement at a higher price if it wished to operate the RRF and complete the retrofit because of Barlow's failures.
- Utility and Insurance costs have exceeded projections by between $1 million and $2.1 million annually from 2009 through 2011.
- Waste Transfer and Ash Disposal costs have exceeded projections by between $2.6 million and $2.7 million annually from 2009 through 2011.
- Professional Fees, including for legal, engineering, facilities management and audit services, have ranged between $1.4 million and $1.7 million annually between 2009 and 2011. It does not appear that professional fees were included in the 2003 Barlow projection.
- In 2010, the RRF incurred $3.8 million to fund the Indenture Reserve. No such expense is reflected in the 2003 Barlow projection.

8. Conclusions Regarding the 2003 Debt

The projections developed and certified by Barlow, and the circumstances surrounding their development, demonstrate that the projections were highly dependent on assumptions related to on-time and on-budget delivery of the project. Further, when minor adjustments are made to the projections to account for a potential delay, to equalize the rate of growth in revenues and expenses, and to match the projection period with projected useful life of the RRF and contract terms, the projections demonstrate a project that was not feasible. With the benefit of now being able to compare the projections against actual results, it is clear how devastating Barlow's failure to deliver the contemplated project on-time and on-budget has been to the Authority's ability to service the debt. However, even if Barlow had completed the project on time, the significant deficiencies highlighted in the projections would have provided substantial challenges to the Authority's ability to service the debt.

The stakeholders in the project understood that there was substantial risk in undertaking the retrofit. Both the City and the County took significant guarantee fees to compensate for that risk. Further, prior to providing the guarantees on the debt, both City Council and the County undertook due diligence efforts surrounding the financial and technical feasibility of the project. Even though due diligence was performed, we have found no evidence that the consultants retained by either entity provided any meaningful challenge to the Barlow projections, even though one of those consultants, Buchart Horn, indicated that, in its estimation, the project would not be able to generate cash flow sufficient to service all of the debt.

We also have seen no evidence that City Council or the County raised basic concerns to challenge the process. Specifically, we have seen no evidence that any party raised concerns over the lack of a meaningful bidding process, whether the Barlow technology was the best solution or whether other alternative solutions existed that could provide a lower risk given Barlow's lack of a track record for projects of this size. We also have

not seen documents showing that the option of shutting down the Facility was meaningfully considered.

Ultimately, given all of the above faulty steps and other information, it appears that the Barlow financial projections may have been of less concern than normally would be expected because it was the City and County guarantees, as well as FSA's bond insurance, that seem to have been the means used to procure financing and sell the 2003 D, E and F bonds, not the merits of the project.

C. BARLOW CONTRACT ISSUES AND SECURITY FOR PERFORMANCE

As previously noted, Barlow's inability to complete the project on time and within budget is a significant contributing factor to the current fiscal situation. While our scope of work did not include the evaluation of the technical issues associated with Barlow's performance, we have evaluated several related financial issues, including:

- The overall structure of the contracts with Barlow and its subcontractors;
- The lack of a performance bond to support Barlow's performance under the contracts; and
- Certain problems related to the security for Barlow's performance, including the release of the retention.

The following discusses our findings and observations in these areas.

1. The Retrofit Contracts

Barlow's work on the retrofit was split into two separate contracts. The first was the Amended and Restated Agreement for the Sale and Installation of Equipment (the "Sale and Installation Agreement"), which related to the sale, assembly and installation of the

equipment needed to perform the retrofit.[220] While the contract was dated December 31, 2003, the actual closing date of the contract was May 6, 2004, after the 2003 D, E and F Bonds were issued.[221] The contract price for this scope of work initially was approximately $45.8 million,[222] although, subsequent to contract signing, the scope of work ultimately increased the price to approximately $51.3 million.[223] The overall contract price increase is in excess of 10 percent from the original price, and it has contributed to the RRF's inability to pay its outstanding debt.

The second Barlow contract was the Amended and Restated Professional Services Agreement (the "Professional Services Agreement") which, among other things, related to the completion of the project design and development, the completion of the project drawings and specifications, the provision of construction management services, and the provision of start-up testing services.[224] The contract price for this scope of work was approximately $12.8 million.[225] The agreement also provided for a guaranteed maximum construction price of $14.8 million for the turbine island, electrical, HVAC, plumbing, elevator and miscellaneous construction work.[226] Like the Sale and Installation Agreement, the Professional Services Agreement was dated December 31, 2003, although the actual closing date for the contract was May 6, 2004,[227] again, after the date of the issuance of the 2003 D, E and F bonds.

In addition to the contracts with Barlow, the Authority also entered into separate contracts with other contractors, including Reynolds. On February 16, 2004, the Authority hired Reynolds to provide pre-construction services, including construction

[220] Amended and Restated Agreement for the Sale and Installation of Equipment dated December 31, 2003. Contract preamble.
[221] Ibid.
[222] Ibid. Section 3.01.
[223] Amendment No. 4 to the Amended and Restated Agreement for the Sale and Installation of Equipment and Amendment No. 1 to the Non Exclusive Technology Sub-license Agreement. Section 3.01. There was a proposed agreement to further increase the value to $91.3 million in connection with the proposed sale of the RRF to Barlow, although it appears that the increase never was implemented.
[224] Amended and Restated Professional Services Agreement dated December 31, 2003, Section VI.B.
[225] Ibid, Section III.A.
[226] Ibid, Section III.B, and the Division of Responsibilities attachment.
[227] Ibid.

management services in connection with the demolition of the existing building/structure/utilities, permitting and design work related to the steam line, coordination with Barlow on the retrofit design, and development and coordination of the bidding process, including the monitoring of minority and women owned businesses participation.[228] The fee for Reynolds' services in these areas was estimated at $500,000.[229]

At the same time that Reynolds was providing services to the Authority, Barlow also retained Reynolds as a subcontractor. On April 1, 2004, Barlow hired Reynolds to provide procurement and construction management services for a fee of $350,000, plus other fees authorized by work authorization.[230]

The Authority contracted with Reynolds again in August 2006 to provide close-out services on the project.[231] We have seen no evidence that any of Reynolds' contracts were competitively bid.

Based upon our experience with construction contracting, the roles that Reynolds played in working on behalf of the owner and the general contractor on the same project is highly unusual since Reynolds was in the position of having to serve two masters with potentially competing interests. Based upon our analysis of the documents and other information produced to date, with one exception, there is no indication that anyone raised issues with respect to the multiple, and potentially conflicting, roles performed by Reynolds on the project. The unusual nature of this situation is further heightened by the fact that a Reynolds executive, Mr. Clark, was on the Board of the Authority at the time that Reynolds executed its 2004 contracts with the Authority and Barlow.[232]

[228] Scope of services attached to the February 16, 2004 agreement between the Authority and Reynolds.
[229] Ibid, Exhibit B.
[230] Agreement for Professional Consulting Services between Barlow and Reynolds dated April 1, 2004, Articles 1 and 4.
[231] August 23, 2006 Agreement between the Authority and Reynolds.
[232] Mr. Clark was listed as in attendance at the March 24, 2004 Regular Monthly Meeting of the Authority.

The contract structure raises the appearance of a possible conflict of interest, i.e., that a decision to hire Barlow might be influenced by an agreement by Barlow to work with and offer subcontract work to Reynolds. We have not seen any evidence that this in fact happened, but the appearance alone is of concern.

In June 2003, in response to Mr. Clark's expression to the Authority of Reynolds' interest in the project,[233] Rhoads & Sinon, then legal counsel to the Authority, conducted a legal analysis regarding conflicts of interest. They concluded that no member of the Authority could have even an indirect interest in a contract with the Authority, and that doing so would violate the conflict of interest provisions in the Municipal Authorities Act (the "MAA").[234] The Rhoads & Sinon analysis further stated that any contract that was made in violation of the MAA would be void.[235] Given the conclusion reached by Rhoads & Sinon, and our own analysis, Mr. Clark had a conflict of interest and Reynolds should not have been permitted to contract with the Authority. Mr. Clark abstained from certain votes that had an impact on Reynolds; however, abstention does not satisfactorily address the conflict problem under the MAA.[236]

2. Lack of a Performance Bond

On large construction projects for public entities, the prime contractor typically is required to obtain a performance bond from a recognized and suitable surety in favor of the public entity. A performance bond protects the public entity against the contractor failing to deliver the project as promised. Among other things, a bond protects the public entity in case the contractor is financially unstable and, therefore, unable to complete the project.

[233] The Authority Board Minutes dated June 25, 2003 discuss Mr. Clark's request for a meeting with the Authority's Solicitor and Executive Director regarding the participation of Mr. Clark in another role regarding the retrofit project.
[234] 53 Pa. C.S.A. §§ 5601 et seq. June 26, 2003 letter from J. Bruce Walter, Esquire of Rhoads & Sinon to Thomas Mealy of the Authority.
[235] June 26, 2003 letter from J. Bruce Walter, Esquire of Rhoads & Sinon to Thomas Mealy of the Authority.
[236] 53 Pa. C.S.A. § 5614.

In the case of the RRF retrofit, Barlow was unable to obtain a performance bond, because of its tenuous financial condition. Nonetheless, the retrofit moved forward without a bond, based on an "alternative security package." When Barlow failed to complete the retrofit, the lack of a performance bond left the Authority with no meaningful protection, resulting in substantial additional costs being incurred to correct and complete the retrofit.

The documents that have been produced to date indicate that the negotiations surrounding the security package were handled primarily by Mr. Lispi and Mr. Giorgione on behalf of the Authority.[237,238,239] Under the Sale and Installation Agreement, Barlow provided the Authority with a "security package" consisting of the following:

- The Authority's deferred payment of $13 million related to certain equipment, including the APC Technology and Combustion Units, which payment would not be required until the equipment was delivered to the site;
- Approximately $18 million of financial security (payment and performance bonds) posted by Cianbro, a subcontractor, in connection with the delivery and installation of the equipment;
- Approximately $5 million of financial security (equipment bonds) posted by certain equipment manufacturers, including the solids handling system, the non-catalytic reduction system, the refuse crane and instrumentation;
- 20 percent retainage on the contract price; and
- $1 million in warranty security in the form of a bond, cash, letter of credit or other acceptable financial instrument.[240]

[237] November 19, 2003 letter from Ronald Barmore to Daniel Lispi (Barmore identifies proposed structure for security package, which includes mixture of payment and performance bonds on the equipment and Cianbro work, and retention on other components. In the letter, Mr. Lispi is identified as Assistant to the Mayor for Special Projects).
[238] Transcript from the June 21, 2007 Public Works Committee meeting.
[239] Deposition testimony of Mr. Giorgione on December 10, 2008, page 36.
[240] Amended and Restated Agreement for the Sale of Equipment dated December 31, 2003, Section 7.01. Based on the documentation provided to date, we are not aware that the final component ($1 million in warranty security) ever was provided by Barlow.

It appears that the Authority initially sought a performance bond from Barlow for the work under the Sale and Installation Agreement.[241] In early drafts of the Sale and Installation Agreement, including those prepared between June 2003 and October 2003 (during which time the document was entitled a "Facility Modification Agreement"),[242] the requirement for Barlow to provide a performance bond is present as one of the provisions.[243] However, by October 2003, prior to the issue date of the 2003 D, E and F Bonds, Barlow's lawyers had replaced the phrase "performance bond" with "surety bond," and had reduced the bond coverage from 100 percent to $7 million (less than 10 percent of the total contract price).[244]

On November 18, 2003, Barlow's law firm provided a memorandum to Barlow explaining why, in its view, no payment and performance bond was required. It is not clear if this memorandum, or its substance, was conveyed to the Authority at or around that time. In addition, the memorandum states that additional research was going to be performed, although it is not clear whether any additional research was performed.[245] On November 19, 2003, Mr. Barmore, from Barlow Projects, wrote to Mr. Lispi, copying Messrs. Mealy and Giorgione, among others, and proposed an alternative security package, consisting of payment and performance bonds from subcontractors and suppliers, and retainage of approximately $9 million, which he said collectively represented security equal to 91 percent of the value of the installed equipment.[246]

The items identified by Mr. Barmore as security did not provide security that benefited the Authority. Furthermore, retainage is a typical holdback on construction contracts in

[241] For example, various agendas for meetings held regarding the retrofit and the 2003 bond issues reference discussion surrounding performance bonds.
[242] The Facility Modification Agreement covered in one document the work that later was separated into two documents, the Sale and Installation Agreement and the Professional Services Agreement. Dividing the original agreement into two provided an opportunity to claim that no security was needed for the professional services work, and that bidding was not required for either contract. Given our analysis in the text, it appears that bidding may have been required at least for the Sale and Installation Agreement, under the Municipal Authorities Act. 53 Pa. C.S.A. § 5614.
[243] Draft Facility Modification Agreement between the Authority and Barlow dated August 1, 2003. Also refer to draft Facility Modification Agreement between the Authority and Barlow dated August 12, 2003.
[244] Draft Facility Modification Agreement between the Authority and Barlow dated October 4, 2003.
[245] Memorandum from LeBoeuf, Lamb dated November 18, 2003.
[246] November 19, 2003 letter from Ronald Barmore to Daniel Lispi.

addition to proper security and should not be considered as security itself or a replacement for bonding. Subcontractor and supplier payment and performance bonds are commonly obtained by general contractors to protect them (not the project owner) from the performance (or lack thereof) by specific subcontractors and suppliers. Subcontractor and supplier payment and performance bonds should not be considered an alternative security to provide protection to the owner for the general contractor's performance (or lack thereof) on the entire project. Accordingly, Barlow did not offer appropriate security to the Authority in its "alternative security package," which the Authority ultimately accepted and incorporated into the agreement.

In a draft Sale and Installation Agreement with the handwritten date "12/19/03" (still before the 2003 D, E and F Bonds were issued), the relevant contract clause referred to a total of $27 million in bonds, $14 million of which was to be a payment and performance bond. The word "performance" was crossed out with respect to $13 million of bonding and replaced by an "equipment delivery, assembly and installation" bond. The contract amount in the draft contract was approximately $45 million.[247]

By December 23, 2003 (again, before the 2003 D, E and F Bonds were issued), there appeared to be a continuing negotiation about the possibility of a $14 million performance bond, but with the rest of the "security" to be provided by other means.[248]

It seems clear that, at a minimum, the Authority's negotiators, including Messrs. Giorgione and Lispi, and probably Mr. Mealy, were on notice before the 2003 D, E and F Bonds were issued that Barlow did not want or was unable to provide a performance bond at all, and that even if Barlow ultimately did provide a performance bond, it would be for far less than one hundred percent of the contract price. It appears that the Authority's negotiators conceded this latter point before the 2003 D, E and F Bonds were issued. To date, we have not identified any documents in the Authority's files that

[247] Draft Agreement for the Sale and Installation of Equipment between the Authority and Barlow dated December 19, 2003.
[248] Draft Agreement for the Sale and Installation of Equipment between the Authority and Barlow dated December 23, 2003.

demonstrate that the lack of a performance bond was brought to the attention of the Authority's Board.

In his deposition in the litigation between the Authority and CIT, as well as at the June 21, 2007 Public Works Committee meeting, Mr. Giorgione testified that Barlow provided the security package in lieu of a performance bond because Barlow was unable to obtain a bond due to its financial condition.[249] Mr. Giorgione's testimony at both the City Council Public Works Committee meeting and at his deposition suggests that he believed that the security package ultimately obtained was adequate.

The various financial arrangements did not provide enough security to the Authority because Barlow experienced significant financial difficulties, cost overruns and project completion problems. Cianbro, Barlow's subcontractor that was responsible for equipment installation, posted the only performance bond, in the amount of approximately $18 million. Unfortunately, this bond was for the benefit of Barlow, not the Authority. As such, when Cianbro left the project due to non-payment, so did the bond that it posted.[250] Similarly, when the manufacturers of equipment who had provided bonds completed the delivery of their equipment, their $5 million in security was no longer available.[251] By the time it terminated Barlow for performance related issues in late 2006, the Authority had released all of the retainage[252] on work performed through that point on the project in an effort to help fund Barlow's attempts, through overtime, extra workers, and replacement materials, to recapture its poor performance and cost overruns experienced on the project. Barlow did not have funding to pay for these added costs itself.

[249] Deposition testimony of Mr. Giorgione on December 10, 2008, page 36. See also the transcript from the June 21, 2007 Public Works Committee Meeting, page 5.
[250] Transcript from the June 21, 2007 Public Works Committee meeting, page 4.
[251] This is evidenced by the fact that this security was not available to the Authority when Barlow was terminated. Refer to Section 7.01 (b) (ii) of the Amended and Restated Agreement for the Sale and Installation of Equipment between the Authority and Barlow which identifies the equipment subject to this security.
[252] Barlow Monthly Report 26 dated July 20, 2006, page 3.

These facts support our conclusion that the subcontractor/supplier payment and performance bonds obtained by Barlow and the anticipated holdback of 20 percent retainage until completion did not represent adequate security to the Authority. In fact, the 20 percent retainage provision contributed to Barlow's cash flow problems and non-payment to its subcontractors and suppliers during the project.

As a consequence, when it terminated Barlow and hired Covanta to complete the retrofit work, the Authority did not have the protection that is normal for public entities undertaking construction projects. The performance bonding that protects public entities for contractor failures was not in place and, instead, the Authority was forced to borrow additional funds to pay for the remaining construction work. The Authority borrowed up to $25.5 million[253] from Covanta, the contractor that completed retrofitting the RRF, and an additional $34.6 million[254] in debt to fund debt service and other working capital needs until the work was completed. In addition, the Authority has entered into a long term services contract with Covanta to operate the RRF, which has resulted in a significant increase in the operating costs incurred to operate the RRF compared to the Barlow feasibility projections. Moreover, CIT provided an additional $25 million[255] that was used to fund some of Barlow's work. (CIT funds are addressed further below in the 2005 & 2006 Sale Negotiations section.)

Pennsylvania's Public Works Contractors' Bond Law of 1967 requires financial security for contracts above a certain dollar amount entered into by "contracting bodies," which includes the Authority.[256] The statute states:

> (a) Before any contract exceeding ten thousand dollars ($10,000) for the construction, reconstruction, alteration or repair of any public building or other public work or public improvement, including highway work, of any contracting body is awarded to any prime contractor, such contractor shall furnish to the contracting body, the following financial security,

[253] October 12, 2007 Cooperation Agreement between the Authority, the City and the County.
[254] Closing Order and Receipt for the 2007 Series C and D debt. The amount cited is the value at maturity.
[255] Order dated June 14, 2010 in the matter The Harrisburg Authority et al. v. CIT Capital USA., et al.
[256] 8 P.S. § 192(2); 8 P.S. § 193.1(d) and (e).

> which shall become binding upon the awarding of said contract to such contractor:
>
> (1) Any financial security, acceptable to and approved by the contracting body, including but not limited to, Federal or Commonwealth chartered lending institution irrevocable letters of credit and restrictive or escrow accounts in such lending institutions, equal to one hundred percent of the contract amount, conditioned upon the faithful performance of the contract in accordance with the plans, specifications and conditions of the contract. Such financial security shall be solely for the protection of the contracting body which awarded the contract.
>
> * * *
>
> (b) Any bond or other financial security under the provisions of this act shall be executed by one or more surety companies or Federal or Commonwealth chartered lending institutions, chosen by the party posting the financial security and acceptable to the contracting body, legally authorized to do business in the Commonwealth of Pennsylvania.[257]

This statute does not require a "performance bond," but the prime contractor must provide to the contracting body security for one hundred percent of the contract amount, and the security must be executed by one or more surety companies or federal or Commonwealth chartered lending institutions. (As a practical matter, given the size of the contract, it is unlikely that anything other than a performance bond would have been a commercially reasonable form of financial security for the Barlow Sale and Installation Agreement.) The contracting body has discretion as to the form of the security and the institution executing it. Further, the security must be conditioned upon the faithful performance of the contract, and shall be solely for the protection of the contracting body.

In this case, Barlow's security does not meet the requirements of the statute for a number of reasons. First, the security was not executed by one or more surety companies or federal or Pennsylvania chartered lending institutions. Second, some of the security was provided by subcontractors to Barlow, but not to the Authority. For example, the performance bond posted by Cianbro and the financial security posted by the equipment suppliers went to the benefit of Barlow, not the Authority. As a result, security for one hundred percent of the contract amount was not provided to the Authority, and the security was not solely for the protection of the Authority. Further, since some of the

[257] 8 P.S. § 193.1. (Emphases added).

security related to performance of subcontracts, the security was not conditioned upon the faithful performance of Barlow's contract with the Authority.

In a memo dated November 18, 2003, Barlow's law firm suggested Barlow did not need to provide any security, claiming that no bond was required for services other than "construction, reconstruction, alteration or repair," or for materials and supplies, such as patented products. The firm also questioned if Barlow would be considered the "prime contractor."[258] Those assertions are part of an effort to make strained arguments to justify an untenable position.[259]

The RRF retrofit project involved demolition of a large part of the existing Facility, and replacing it with an entirely new resource recovery system. Among other things, Barlow undertook a substantial amount of installation work, and only a part of the cost of the project involved the APC Technology and Combustion Units that incorporated Barlow's unique methodology. The retrofit was a construction project. To suggest that Barlow was not engaging in construction (or reconstruction, alteration or repair) would not be accurate.

3. Release of the Retention

Retention is typically employed on most construction projects, and serves two purposes:

- To provide incentive to the contractor to complete the work in order to be paid the retention upon project completion; and
- To ensure that the work is performed correctly because the retention is not to be released until the final inspections and testing have been completed. In the event

[258] Memo from Michael Klein and Johathan Nase to Ron Barmore, dated November 18, 2003.
[259] Between October and December, 2003, the title of the contract changed from "Facility Modification Agreement" to "Agreement for the Sale and Installation of Equipment." This change appears designed to set up the argument that the contract was solely to provide equipment, not construction services. This simply is not correct. This was not a situation in which Barlow was only dropping off specialized equipment at the site and leaving. It did much more.

that the work is not performed correctly at first, then the retention is available to pay for any required corrective work.

In this case, the retention initially was 20 percent, or $9 million, under the provisions of the Equipment Agreement.[260] It was not held until the end of the contract. Rather, it was released to Barlow early in an attempt to rehabilitate Barlow's performance on the project. The following provides a timeline of the issues relating to the release of the retention to Barlow.

- As early as March 16, 2005, in a meeting between Barlow and Mr. Lispi, Barlow indicated that it was commercially impractical to continue with the project, and that the release of some of the retention held at that point would assist Barlow in dealing with cash flow issues. It appears that the need was driven, in part, by the collapse of Victory, which was the subcontractor Barlow had hired to fabricate the boilers. Victory's collapse was attributed to increases in the cost of steel.[261]
- In a March 17, 2005 meeting, Mr. Lispi advised Barlow that the Authority would consider assistance, including the release of retention.[262]
- On April 20, 2005, the Authority offered to reduce the retainage, along with an increase in the contract price of $2.5 million for increased steel pricing and an additional $200,000 for outstanding change orders.[263]
- On April 27, 2005, the Authority approved Amendment No. 3 to the Sale and Installation Agreement.[264] While we have not received a final copy of the document, we have reviewed a draft, which provided that one-half of the retainage held would be released upon 90 percent completion of major components of the Combustion Units. Thereafter, additional retainage amounts would be released upon the achievement of substantial completion for each of the

[260] Amended and Restated Agreement for the Sale and Installation of Equipment between the Authority and Barlow dated December 31, 2003.
[261] Factual Background outlined in the document entitled "Barlow/City Meeting May 27, 2005 Re: Amendment No. 4 to ESA."
[262] Ibid.
[263] Ibid.
[264] Ibid.

Combustion Units, such that by the time Unit 3 was certified as having achieved substantial completion, all of the retainage would be released.[265]

- Between September 13, 2005 and September 27, 2005, there were a series of meetings involving representatives from the Authority (Mr. Mealy), the City (Ms. Lingle and Mr. Lukens), Barlow (Mr. Barlow and Mr. Barmore), and the Authority's advisors (Mr. Giorgione, Mr. Lispi, and Mr. Foreman). In the handwritten notes memorializing what was discussed, the topic of the release of the retention was identified numerous times.[266]

By July 20, 2006, all of the retention had been released.[267] According to Mr. Giorgione, the Authority made payments from the retention directly to the contractors on the project in an unsuccessful attempt to complete the work.[268] Coupled with the lack of a performance bond or other security, the release of the retention held to fund the work was another factor contributing to the need to obtain additional funds from CIT and to borrow an additional $60 million in 2007 to fund completion of the new resource recovery system.

4. Conclusions Regarding Barlow's Contracts and Security for Performance

Barlow's poor financial condition at the time that the contracts were executed precluded the company from obtaining a performance bond for the project. Despite this obvious red flag, no one challenged the decision to move forward with Barlow. The project proceeded with an alternative security package that proved completely ineffective in providing the Authority protection for the completion of the retrofit when Barlow failed and was terminated. As a consequence, the Authority was forced to borrow $25.5 million from Covanta to fund the project completion and issue $34.6 million in notes to fund

[265] Draft Amendment No. 3 to the Amended and Restated Agreement for Sale and Installation of Equipment. Revisions to section 4.01(g).
[266] Handwritten notes related to meetings that occurred on September 13, 19, 20, 26 and 27. The Authority produced this document to us; however, the author of the notes is unknown.
[267] Barlow Monthly Report 26, dated July 20, 2006, page 3.
[268] Transcript from the June 21, 2007 Public Works Committee meeting, page 5.

operating and debt service costs, plus payments to professionals, due to the delay. This is over and above the $25 million in funding that Barlow obtained from CIT. In addition, the Authority contracted with Covanta to operate the RRF at a cost much greater than that which Barlow projected in 2003, which also directly impacts the Authority's ability to repay its outstanding debt obligations.

The mistake in failing to obtain the legally required financial security was further compounded by the release of the retention to Barlow in an attempt to assist Barlow in dealing with cost overruns and subcontractor issues. By doing so, an additional source of funds to complete the project was taken away.

D. 2005 & 2006 NEGOTIATIONS TO SELL THE RRF

As early as October 2005, the Authority was engaged in discussions to sell the Facility to Barlow. E-mails and other correspondence suggest that the sale was viewed as having no downside for the Authority,[269] and, as Mr. Giorgione said, a mechanism by which to "…clean this mess up…."[270] An initial version of the term sheet for the sale was developed as early as November 10, 2005, and was presented to John Keller, then Chairman of the Authority Board.[271] The terms and conditions set forth in the November 10, 2005 term sheet were further negotiated, culminating in the execution of the Amended and Restated Term Sheet for the Purchase and Sale of the Harrisburg Authority – Waste-to-Energy Facility (the "Restated Term Sheet") dated February 22, 2006. The key provisions of the Restated Term Sheet were as follows:

- The transaction would involve the sale of the RRF, the steam line and other necessary facilities;
- The transaction would involve the sale of all contracts, permits and credits;

[269] Letter from Andrew Giorgione to John Keller, Chairman of the Authority dated November 10, 2005.
[270] E-mail from Andrew Giorgione to various individuals on January 12, 2006.
[271] Letter from Andrew Giorgione to John Keller, Chairman of the Authority dated November 10, 2005.

- The transaction would involve the sale of the transfer station if sufficient funds existed to defease (pay off) the debt, otherwise the Authority would retain the transfer station and lease it to Barlow;
- The purchase price was $258 million, subject to the return of $40 million to Barlow pursuant to Amendment No. 7 to the Sale and Installation Agreement; and
- In the event that the purchase price did not satisfy the existing debt on the Facility, Barlow would make lease payments to the Authority to cover the remaining debt.[272]

During the course of sale negotiations, advisors to the Authority analyzed the defeasance of the existing debt. Between December 2005 and February 2006, Bruce Barnes of Milt Lopus, financial advisor to the Authority, analyzed the total cost of defeasance, assuming that a sale could be consummated at the purchase price set out in the Restated Term Sheet. His analyses demonstrated the following:

- As of December 5, 2005, the estimated total cost to defease the debt was $223.0 million. The cost of defeasance included $241.6 million in net payments due on the outstanding bonds and notes, and $8.2 million in swap termination costs, which were offset by $26.7 million in the various debt service reserve funds.[273] Based upon the net price of $218 million in the February 2006 Restated Term Sheet, there was a $5 million shortfall between the contemplated sale proceeds and the defeasance requirement.
- As of February 14, 2006, the estimated total cost to defease the debt was $224.6 million. The cost of defeasance included $243.2 million in net payments due on the outstanding bonds and notes, and $8.1 million in swap termination costs, which were offset by $26.7 million in the various debt service reserve funds.[274]

[272] Amended and Restated Term Sheet for the Purchase and Sale of the Harrisburg Authority -- Waste-to-Energy Facility dated February 22, 2006, Sections C. 2 and 3.
[273] The Harrisburg Authority Resource Recovery Facility Defeasance Requirement Summary dated December 5, 2005.
[274] The Harrisburg Authority Resource Recovery Facility Defeasance Requirement Summary dated February 14, 2006.

Based upon the net price of $218 million in the February 2006 Restated Term Sheet, there was a shortfall of $6.6 million between the contemplated sale proceeds and the defeasance requirement.[275]

TABLE 6: DEFEASANCE ANALYSES

	12/5/05	2/14/06
Net Payments Due on Bonds/Notes	$241,597,210	$243,182,779
Add: Swap Termination Costs	8,150,000	8,137,161
Total Requirements	249,747,210	251,319,940
Less: Available Funds in DSRF	26,739,221	26,739,221
Net Requirement	223,007,989	224,580,719
Less: Projected Sale Price	218,000,000	218,000,000
Total	$5,007,989	$6,580,719

By March 3, 2006, Mr. Giorgione and Mr. Lispi were aware that the purchase price set out in the Restated Term Sheet was not achievable, and that the actual purchase price would be lower, if a sale could be consummated. In an e-mail to Ms. Lingle and Mr. Lukens from the City, Mr. Mealy from the Authority, Mr. Barnes from Milt Lopus, Mr. Foreman from Foreman & Foreman, Mr. Lispi, Mr. Losty, Beth Gabler and Steve Dade, Mr. Giorgione indicated the following:

- He and Mr. Lispi spoke with RBC regarding whether or not CIT could raise financing sufficient to fund the purchase price of $258 million. RBC's opinion was that it would be highly unlikely CIT could do so.
- A potential equity investor into Barlow had surfaced and was willing to offer a guaranteed purchase price for the RRF of $198 million that would require the Authority to maintain its responsibility for the ash disposal costs. In addition to offering $198 million, the equity investor, Larimar, indicated that it believed that CIT could not get financing at $218 million due to ash disposal and energy issues. (It is presumed that the reference to $218 million reflects the proposed purchase price of $258 million, less the $40 million return of funds to Barlow.)[276]

[275] Ibid.
[276] March 3, 2006 e-mail from Andrew Giorgione to Linda Lingle, John Lukens, Tom Mealy, Bruce Barnes, Bruce Foreman, Dan Lispi, James Losty, Beth Gabler and Steve Dade.

As noted earlier, at a net sale price of $218 million, the proceeds from the sale were not sufficient to defease the existing debt. At a price of $198 million, the shortfall was much greater. In either case, the proposed purchase figures in early 2006 represent (optimistic) indicators of the RRF's perceived value at that time, presumably based upon an assumption of completion. Since the indications of value demonstrated that a sale would not be sufficient to defease the debt that existed, it is questionable whether, by March 2006 at the latest, the claim by the City, the County and their advisors that the RRF debt was fully self-liquidating is justified.[277] While we have observed one legal analysis by Kenneth Luttinger of Klett Rooney that suggests that issues related to the various bond indentures would have to be addressed in a situation where the sale proceeds fell below what it would take to defease the debt,[278] we did not identify any documents that indicate that the parties considered the impact on the self-liquidating status of the debt.

By May 29, 2006, the proposed sale of the Facility to Barlow had fallen through, with Barlow still struggling to obtain financing to fund the cost overruns associated with the project.[279]

Barlow's struggle to obtain additional funding to complete the project is a strong indication that a substantial amount of work remained as of May 2006, particularly since Barlow already had obtained an additional $25 million from CIT in the early part of the year.[280] To support the repayment of the loan, Barlow assigned to an entity owned by CIT the right to collect what was referred to as licensing fees allegedly payable from the Authority for the Barlow Combustion Technology that was identified as being subject to the Nonexclusive Technology Sublicensing Agreement dated December 31, 2003, and

[277] This is based on a valuation method to determine the Authority's ability to cover the debt service. In addition, it is well known that Barlow was in financial crisis, the project was delayed significantly and the Authority was releasing its security protection to help the project move towards completion.
[278] The analysis, which is addressed to Andrew Giorgione, was attached to a February 15, 2006 e-mail from Mr. Giorgione to Kenneth Luttinger, Kenneth Foltz, Bruce Barnes, Beth Gabler, Bruce Foreman, Dan Lispi, James Losty, John Lukens, Linda Lingle, Steve Dade and Tom Mealy.
[279] May 29, 2006 Memo from Dan Lispi to Mayor Stephen Reed.
[280] Amended Complaint in the matter The Harrisburg Authority, et al. v. CIT Capital USA, Inc., et al. paragraph 46.

later the First Amended and Restated Technology Sublicensing Agreement dated January 11, 2006 (the "Restated Technology Sublicensing Agreement").[281]

The obligations of the Authority under the Restated Technology Sublicensing Agreement are currently the subject of a dispute between the Authority, CIT and Aireal Technologies of Harrisburg, LLC ("Aireal"), the CIT entity that received assignment of the Restated Technology Sublicensing Agreement. It is our understanding that the Authority is asserting, among other things, that the Restated Technology Sublicensing Agreement is void and unenforceable.[282] CIT and Aireal have counterclaimed, asserting that the Authority has breached the Restated Technology Sublicense Agreement due to its failure to make payments since March 2007.[283] As of the date of this report, the dispute has not been resolved, but exposes the Authority to further expense and potential liability for the debt issued.

1. Conclusions Regarding Sale Negotiations

By March 2006, it was clear to the City, the Authority and the advisors working on behalf of both that a potential sale of the Facility would not yield proceeds sufficient to defease the existing debt. While there was at least one legal analysis regarding the impact of such a sale on the obligations under the bond indentures, there is no analysis of the impact on the self-liquidating status of the debt. The purchase prices that were discussed in early 2006 provide evidence of the value of the RRF and indicate that a large portion of the debt was not self-liquidating.

E. CITY/AUTHORITY FINANCES DURING 2003-2006

It appears that RBC was the primary architect of the plan of finance for the Barlow Retrofit. The documents we have seen related to the plan of finance for the Barlow

[281] Order dated June 14, 2010 in the matter The Harrisburg Authority, et al. v. CIT Capital USA, Inc., et al. pages 3 and 4.
[282] Ibid., page 4.
[283] Ibid., page 5.

Retrofit project consistently recommended issuance of "multi-modal" bonds,[284] not uncommon for projects of this type. Multi-modal bonds can be offered as variable rate bonds, intermediate term bonds or fixed rate bonds. Among other things, this structure enables the borrower to borrow at variable rates (which often are lower than fixed rates) during construction, then readily convert those bonds to bear interest at a fixed rate once the project has been built and is operating efficiently. Upon enactment of Act 23 in September of 2003, which permitted municipalities to engage in "swap" transactions, the plan of finance included an interest rate cap, a type of swap, to protect the Authority, the City and the County against spikes or extended increases in interest rates.[285]

However, at closing on the 2003 D, E and F Bonds, the parties switched to a structure that included 77 percent synthetic[286] variable rate debt for a term longer than the expected construction period, using two swaps and three interest rate caps. (The City and County guaranteed repayment under the two swaps.) The Authority later entered into three more swap transactions in 2004 through 2006, all relating to the 2003 D Bonds. The swaps and caps added complexity, risk and the potential for additional debt service expense.

Based upon document review and interviews, we have found no explanation for several of the subsequent swap transactions that is consistent with customary and prudent interest rate management for municipalities, and traditional financing alternatives did not appear to have been considered or analyzed. It appears that the decision to enter into several of the transactions may have been driven primarily by the immediate need for money, and may not have been permissible under the Debt Act. In addition, to enter into each of the swaps under the Debt Act, the City and County required, and the Authority received, a certificate from an independent financial advisor that the financial terms and conditions

[284] Memorandum of James Losty dated August 27, 2003 relating to options and Barlow Self-Liquidating Debt Reports related to the 2003 A, B and C debt and D, E and F debt.
[285] Memorandum of James Losty dated August 27, 2003 relating to options, PFM's report to the County dated October 21, 2003 and Barlow Self-Liquidating Debt Reports related to the D, E and F debt, all of which include this plan of finance.
[286] "Synthetic" here refers to a financial instrument that is created by simulating another instrument (here, traditional variable rate debt) with features of other assets.

of the swaps were fair and reasonable.[287] It is not clear that the swaps were fair and reasonable within the overall context of the plan of finance for the Retrofit, particularly when one considers all of the transactions during the three year period.

Below is a summary of the swap transactions the Authority entered into, and the City and County guaranteed, related to the 2003 D Bonds and the questions raised by these transactions.

1. SWAPS

a. Brief Explanation of Swaps and Caps

Swaps are contracts under which parties agree to exchange (or swap) cash flows relating to their financial instruments. For example, a party may agree to pay another party an amount based upon a fixed rate of interest multiplied by an amount of outstanding principal (known as the notional amount) in exchange for receiving a payment based on a variable rate index multiplied by the same notional amount, or vice versa.

Interest rate caps are a version of a swap that requires one party to make payments to the other if a variable rate index exceeds an agreed-upon interest rate, in exchange for a fee. Caps are generally used to hedge (or protect) against variable rates rising above the comfort level of a borrower. Swaps can be a useful tool in a prudent financial plan, but can increase risk and costs if used improperly.

[287] We have been provided with certificates of financial advisors for swaps entered into in 2003 and 2005 only. PFM provided certifications to the County that, other than pricing, the financial terms and conditions of the swaps were fair and reasonable. IMAGE and Milt Lopus provided certifications to the Authority and City that, other than pricing, the financial terms and conditions of the swaps were fair and reasonable. Separately, IMAGE provided certifications to the Authority, City and County as to the pricing being fair and reasonable. We have not found any signed certifications with respect to the 2004 and 2006 transactions. It may be that certifications were needed for these transactions, although they may not have been required based on the relationship of these transactions to earlier swap transactions. At a minimum, we believe it would have been good practice to obtain such certifications on the basis of a robust review by independent financial advisors, to protect the Authority, City and County from entering into transactions that are not prudent, contain unreasonable terms, or are not consistent with their interest rate management plan.

b. Authorization for City and County to Enter Into Swaps.

In September of 2003, the Pennsylvania Legislature enacted Act 23,[288] which amended the Debt Act and, for the first time, expressly authorized local government units like the City and County to directly enter into or guarantee swaps (referred to under the Debt Act as "qualified interest rate management agreements"). After being amended by Act 23, the Debt Act authorized municipalities to enter into swaps for the purpose of managing interest rate risk or interest cost.[289] The Debt Act does not authorize municipalities to enter into swaps to speculate on movements of interest rates or the change in yield curves.[290]

Prior to entering into a qualified interest rate management agreement, a local government unit (here, the City and County) must approve an "interest rate management plan."[291] An interest rate management plan serves the function, among other things, of setting forth the material risks involved in the transaction and in the overall debt structure of the local government unit.[292] The interest rate management plan entered into in connection with the 2003 swaps and caps stated: "The Authority shall review the long-term implications associated with entering into such Agreements, including costs of borrowing, historic interest rate trends, variable rate capacity, credit enhancement capacity, opportunities to refund related debt obligations and other similar considerations."[293]

c. Plan of Finance for Barlow Retrofit Project

In an August 27, 2003 Memorandum by RBC to Mayor Reed and Mr. Lispi, Mr. Losty set forth three options for the Series 2003 D Bonds:

[288] The pertinent substantive provisions of this Act can be found at 53 Pa. C.S.A. §§ 8002 and 8281-8285.
[289] 53 Pa. C.S.A. §§ 8281(a)(1); 8002(c) (definition of "qualified interest rate management agreement").
[290] Ibid.
[291] 53 Pa. C.S.A. § 8281(b)(2).
[292] 53 Pa. C.S.A. § 8002(c).
[293] The Harrisburg Authority Interest Rate Management Plan, adopted December 15, 2003; supplemented June 28, 2005.

- All conventional fixed rate bonds;
- 70 percent conventional fixed rate bonds and 30 percent variable rate bonds; and
- All conventional variable rate bonds with an interest rate cap.[294]

In December, 2003, at closing on the 2003 D, E and F Bonds, the Authority issued the 2003 D Bonds under a multi-modal indenture. Pursuant to RBC's recommendation, the Authority offered the D Bonds as intermediate term (fixed rate for a set period) bonds with initial terms of five and 10 years, respectively.[295]

In particular, the Authority issued $96.48 million 2003 D Bonds, consisting of $31.48 million of 2003 D-1 Bonds and $65 million of 2003 D-2 Bonds. The 2003 D Bonds mature by their terms on December 1, 2033; however, the 2003 D-1 Bonds had a mandatory tender date of December 1, 2008 and the 2003 D-2 Bonds have a mandatory tender date of December 1, 2013.[296] "Mandatory tender" means the bondholders must return the bonds on the date specified, and the Authority will decide at that time what the rate structure will be (fixed or floating, and the term for which that rate will apply) after the mandatory tender date. The bondholders and prospective bondholders may purchase the bonds remarketed under their new terms.

However, at closing, the Authority also entered into two swaps and three interest rate caps, thereby switching to a structure comprised of 77 percent synthetic variable rate debt.[297] We have found no documents or other information explaining this significant change in the plan of finance from that which was contained in the August 27, 2003 RBC memorandum to Mayor Reed, PFM's October 2003 report to the County, or the Barlow Self-liquidating Debt Reports filed with DCED in November of 2003 in connection with approval of the debt proceedings. It is unclear why this new approach was adopted. As explained below, the change contemplated by these swaps and caps committed the

[294] August 27, 2003 Memorandum from James Losty to Mayor Reed.
[295] Official Statement for 2003 D, E and F Bonds.
[296] Ibid.
[297] The principal amount of 2003 D, E and F Bonds was $125 million, of which all of the Series D Bonds ($96,480,000) were converted to bear interest at a synthetic variable rate.

Authority to variable rate debt not just through the construction period, but for an extended period thereafter. The new structure added complexity, risk and potentially significant additional expense if the Authority wanted to convert to a fixed rate of interest upon completion of construction since terminating a swap can result in a large pre-payment known as a settlement or termination amount.

These swaps and interest rate caps are discussed below and a summary is contained in Exhibit I of this report.

d. 2003 "Fixed Receiver" Swaps with Embedded Caps

When it issued the 2003 D Bonds, the Authority also entered into swaps with RBC as its counterparty. In the first swap, the Authority agreed to pay RBC the Bond Market Association Index (or BMA Index, later renamed SIFMA Index), a variable rate, multiplied by the notional amount of the 2003 D-1 Bonds, and receive from RBC a fixed rate of 2.66 percent on that same notional amount. This swap terminated by its terms on December 1, 2008, matching the mandatory tender date for the 2003 D-1 Bonds.[298]

In the second swap, the Authority agreed to pay RBC the BMA Index multiplied by the notional amount of the 2003 D-2 Bonds, and RBC agreed to pay the Authority a fixed rate of 3.37 percent multiplied by the same notional amount. This swap is scheduled to terminate on December 1, 2013, matching the mandatory tender date for the 2003 D-2 Bonds.[299]

These two swaps created "synthetic" variable rate obligations for the Authority. In addition, embedded within these swaps were interest rate caps, so that the Authority would not have to make payments to the extent the BMA Index exceeds twelve percent until June 1, 2006 or six percent thereafter.[300] Instead, RBC would pay the Authority's

[298] See Exhibit I and Swap Confirmations for these transactions dated December 30, 2003.
[299] Ibid.
[300] Ibid.

obligated amount above that level, thus capping the Authority's interest rate risk.[301] The caps cost the Authority a fee of $2 million, paid to RBC out of bond proceeds at closing. Further, in connection with the 2003 "Fixed Receiver" swaps, the Authority paid RBC additional fees (comprised of transactional fees and profits, as described below).[302]

The City and County guaranteed the Fixed Receiver swaps.[303] FSA insured the scheduled payments under these swaps.[304]

Several concerns are raised by these transactions:

i. Variable Rate Debt Exposure

- To use variable rate debt for an extended period of time (until 2008 and 2013), the plan of finance had insufficient cushion against interest rates rising above the rate Barlow projected in its self-liquidating debt report.[305] The plan permitted borrowing against 100 percent of the revenues expected to be available for debt service, rather than against a lower percentage, for example 75 percent of such revenues (a more typical number in this type of situation). Without a cushion, there was a risk that the RRF could not generate revenues sufficient to pay debt service if variable interest rates increased.
- The above concern is more pronounced with a start-up resource recovery facility, because the amount of interest capitalized (set aside from bond proceeds to pay debt service) could prove to be insufficient due to actual rates being higher than

[301] The caps in each swap would extend until the mandatory tender dates of the underlying bonds (December 1, 2008 for the swap relating to the 2003 D-1 Bonds and December 1, 2013 for the swap relating to the 2003 D-2 Bonds).
[302] 2003 D, E, F Official Statement and 2003 Official Statement related to the D, E and F debt.
[303] City and County Swap Guaranty Agreements dated December 1, 2003 related to the 2003 swaps.
[304] 2003 Swap Confirmations.
[305] The plan of finance assumed interest rates and support costs of a little over 4.0%. The exposure to the Authority was if interest rates rose above the amount contained in the Barlow Self-Liquidating Debt Report to 12% during the first period, or to 6.0% thereafter. 2003 Swap Confirmations with embedded caps dated December 30, 2003 and the November 2003 Barlow Self-Liquidating Debt Reports.

those assumed, a delay in construction or a need for additional time for operations to achieve expected capacity.

- After the Authority issued the 2003 D Bonds, 62 percent of its debt of $230 million was variable rate debt and 38 percent was fixed rate.[306] Once the construction period has ended, a capital structure with no more than 10 percent to 25 percent floating rate debt would be usual and customary. The financial advisors we spoke with were unable to clarify why the Authority, City and County were willing to subject themselves to this much interest rate risk after completion of construction.

ii. Synthetic Rate Exposure—Even More Risk

- We have not seen any rationale for a finance structure based on a synthetic floating rate rather than a conventional floating rate (i.e., the Authority could have agreed to issue traditional variable rate bonds). Undertaking a transaction with swaps and caps was more complicated, may have reduced the Authority's flexibility and introduced counterparty risk (the risk of a default or downgrade of the counterparty, RBC in this case) and termination risk (the risk that the swap will terminate as a result of a credit problem or default by the Authority, or that the Authority will want to convert the variable rate bonds to a fixed rate at a time when it would cost a significant amount to terminate), none of which are involved in a traditional floating rate structure.
- All of the structuring numbers that we reviewed and that were prepared by RBC assumed traditional floating rate debt with an interest rate cap. The structuring numbers we reviewed included Mr. Losty's August 27, 2003 memorandum to the City and the Authority presenting three alternative plans of finance, PFM's October 2003 report to the County and the Barlow self-liquidating debt reports which the City filed with DCED in November 2003 to obtain approval of its

[306] Based on calculation prepared by PRAG.

guarantee of the 2003 D Bonds.[307] We did not see any analyses of the synthetic structure which ultimately was adopted.

- We have seen no information suggesting that the Authority could not issue traditional floating rate debt for the 2003 D Bonds.[308]

iii. Embedded Caps

- We have seen no rationale at the time explaining why it would be reasonable for the Authority to spend $2 million (using debt proceeds) to purchase interest rate caps. In late 2003, the BMA Index was approximately 1.00 percent, and had averaged approximately 3.00 percent over the prior 10 year period.[309] Over that period, the BMA Index had only reset at 5.00 percent or higher for eight of the approximately 520 resets and had never gone above 6.00 percent.[310]
- Based on the historical results, it was unlikely the six percent caps would be needed (in fact, they have not been needed), and it was extremely unlikely the 12 percent caps would be needed. These embedded caps added significant additional debt burden and provided questionable benefit to the Authority.

e. 2003 Long-dated Wrap Around Cap

Simultaneously with closing on the 2003 D Bonds and entering into the above swaps and caps, the Authority also entered into a "forward starting" interest rate cap. It is called "forward starting" because it does not take effect until the mandatory tender dates of the 2003 D Bonds (December 1, 2008 for the 2003 D-1 Bonds and December 1, 2013 for the 2003 D-2 Bonds, respectively).

[307] Refer to the Losty memorandum dated August 27, 2003, PFM report dated October 21, 2003 and the November 2003 Barlow Self-Liquidating Debt Reports.
[308] Traditional floating rate debt likely would have required the Authority to obtain a bank liquidity facility, such as a line of credit (known as a standby bond purchase agreement). We see no discussion of this issue in the information we have reviewed, or more importantly, that any comparison between synthetic variable rate and conventional variable rate was considered.
[309] Derived from http://www.sifma.org/research/item.aspx?id=19762.
[310] Ibid.

The cap premium payments were due semi-annually beginning on December 1, 2006. The cost of the Long-dated Wrap Around Cap reduces over time, but at present costs the Authority approximately $500,000 per year.[311] The "strike rate," or rate at which RBC would be required to make cap payments to the Authority, is when the SIFMA Index exceeds six percent.[312] For the Long-dated Wrap Around Cap to be cost-effective, the SIFMA Index would have to exceed approximately 6.97 percent (the cap plus the cost of the cap (estimated to be approximately 97 basis points)), a fairly high rate given market conditions over the prior 10 years.

This was a highly unusual transaction and, within the context of a resource recovery start-up (essentially what the Barlow Retrofit was), almost unheard of. The 2003 Long-dated Wrap Around Cap provided protection (a cap) against an increase in variable rates after the 2003 Embedded Caps expired (i.e., after 2008 and 2013, respectively) and continuing until December 1, 2033.[313] However, the 2003 swaps were scheduled to terminate in 2008 and 2013, respectively, and the Authority would be in a position to decide between variable rate and fixed rate debt at those times.

Several questions are raised by this transaction:

- We are not aware of a thirty-year cap in a project such as this; at a minimum, it is extremely unusual. The cap assumes the Authority will have either variable rates in effect for most if not all of the thirty year cap period (there is no need for the cap with fixed rate debt), or that the Authority will be able to terminate the cap at low or no cost. As noted earlier, more typical is a variable rate structure during the construction period, coupled with the ability to easily and inexpensively convert to a fixed rate for the remaining term of the bonds once construction is complete and the facility is operating at capacity.

[311] The annual premium payment initially was 0.59 percent of $96.48 million, the notional amount of the 2003 D Bonds. The annual premium due begins to decline starting in 2018 as principal on the bonds amortizes. Also see Confirmation for this cap, dated December 30, 2003.
[312] Confirmation for this cap, dated December 30, 2003.
[313] Ibid.

- We have not seen any explanation of the rationale or advantage to entering into the Long-dated Wrap Around Cap.
- It almost certainly would have been more prudent to wait until the mandatory tender dates occurred, and then evaluate whether it made sense to remarket the 2003 D Bonds at a fixed rate.[314]
- These transactions evidence an extremely high level of commitment to variable rate debt. The structure involving the Long-dated Wrap Around Cap incorporates the risk of having to pay a significant cost (estimated in the millions of dollars) to terminate the Long-dated Wrap Around Cap if the Authority wanted to remarket the bonds as traditional fixed rate debt in the future.
- We have not seen evidence that the Authority's or County's financial advisors evaluated the advisability of this cap or why payment for the Long-dated Wrap Around Cap should begin before it became effective.

After the closing on the 2003 D, E and F Bonds and the above-described swaps, the Authority entered into three additional swap transactions, discussed below.

f. Basis Swap on Long-dated Cap

On May 21, 2004, a few months after it entered into the initial swaps and caps, the Authority amended the Long-dated Wrap Around Cap agreement so that the cap would be based upon 68 percent of six month LIBOR (the London Interbank Offering Rate, which is an index of taxable debt instruments), rather than the BMA Index (which is an index of debt instruments that are not taxable), starting on June 1, 2009.[315] The Authority received an upfront payment of $1.1 million for this change.[316]

[314] In fact, when the 2003 D-1 Bonds reached their mandatory tender date in 2008, the bonds were remarketed at a fixed rate.
[315] The only basis as to the Authority's rationale is contained in a draft memorandum from Bruce Barnes to Tom Mealy, dated June 2, 2004, which suggests that it was based upon IMAGE's advice that the changes in volatility in the market could work to the Authority's advantage. Also refer to the 2004 Confirmation, dated May 21, 2004.
[316] 2004 Confirmation, dated May 21, 2004.

We note the following:

- The Authority was still obligated to pay RBC based on the BMA Index on the initial 2003 swaps. While 68 percent of six month LIBOR and BMA have been roughly equivalent from time to time, there is no guarantee that would remain the case. The Authority was subject to the risk that taxable and tax-exempt rates would not change in the same way in response to circumstances beyond their control, such as changes in marginal tax rates or a global market crisis such as the one we just experienced.[317]
- Because the Authority's premium on the Long-dated Wrap Around Cap is paid over time, the amount payable twice a year could have been reduced, making these payments less onerous, instead of the Authority receiving a one-time upfront payment.
- The one-time upfront payment could be viewed as the equivalent of a borrowing, without observing any of the requisite procedures for a borrowing.[318]

[317] Draft Memorandum from Bruce Barnes to Tom Mealy, dated June 2, 2004. Mr. Barnes discusses that i) IMAGE recommended that the Authority revise the cap, and ii) that the only additional risk is if there is a significant difference between BMA and 68% of LIBOR.

[318] We understand from interviews with Richard Michael on December 1, 2011 and Bruce Barnes on April 7, 2011, that the County was not inclined to loan additional funds to the Authority for the RRF or make new guarantees on its behalf. It is not clear that the City's credit backing would have been sufficient to borrow funds at this time, or that the City had additional borrowing capacity under the Debt Act.

Given the decision to receive an up-front payment, the RRF's financial condition at the time that it entered into this transaction shortly after the initial swaps, one could conclude that this swap was recommended to the Authority primarily to raise money in the short term, irrespective of the additional risks assumed or any longer-term financial plan, including its interest rate management plan.[319]

g. 2005 "Fixed Payer" Swap

On August 31, 2005**,** the Authority entered into its seventh swap related to the 2003 D Bonds. On this swap, the Authority agreed to pay RBC a fixed rate of 3.35 percent and receive from RBC a variable payment based on (i) the BMA Index through December 1, 2008, and then (ii) 68 percent of the one-month LIBOR Index after December 1, 2008 up until December 1, 2033. This swap had an effective date of June 1, 2006.[320] This 2005 "Fixed Payer" swap was guaranteed by the City and the County.[321] FSA insured the scheduled payments under the "Fixed Payer" swap.[322]

This swap did two things. First, it effectively reversed the initial synthetic floating swaps the Authority entered into a year and a half earlier when it issued the 2003 D Bonds. It locked in the Authority's swap payment obligations at a fixed rate through December 1,

[319] In a memorandum from Bruce Barnes to Mayor Reed dated April 28, 2006, Mr. Barnes refers to a speculative opportunity that appears to be a reference to a Constant Maturity Swap. This swap was not entered into.

"As a heads up...we are also working with Jim Losty and Dave Eckhart [of IMAGE] on another idea which replaces 1 month LIBOR swaps with a longer term LIBOR swap. When the yield curve returns to a normal (less flat) condition, the City will pick up as much as 50 or 60 basis points. It is an unusual opportunity in the current market and we hope to have some additional information to you next week."

In addition, in his May 29, 2007 "RRF Recovery Plan," Mr. Barnes discusses the use of an off market swap as a means of funding the working capital needs of the RRF. He states, "It is imperative that most of the other financing options in this plan be developed and refined before determining the final structure of either an off market swap or some other method of financing for short term capital needs of the RRF." Bruce Barnes, in his interview, said that he had raised questions about doing an off-market swap in 2007 to generate the needed working capital ($12 million to $15 million) and he indicated that he voiced strong opposition.

[320] Swap Confirmation dated August 31, 2005.

[321] City and County Swap Guaranty Agreements dated September 1, 2005.

[322] Swap Confirmation dated August 31, 2005.

2008 for the $31.48 million swap and through December 1, 2013 for the $65 million swap. On the 2003 D-1 Bonds, the fixed payment was 69 basis points (3.35 percent versus 2.66 percent) of $31.4 million.[323] On the 2003 D-2 Bonds, the Authority would receive from RBC a payment of 2 basis points (3.35 percent versus 3.37 percent) of $65 million.[324]

Second, this transaction obligated the Authority to a synthetic fixed rate after the expiration of the synthetic floating rate swaps (on December 1, 2008 and December 1, 2013, respectively). To have value to the Authority, this structure assumes that the Authority would re-issue the bonds on the mandatory tender dates at variable rates to maturity in 2033 (unless the Authority could terminate the swaps at a time when, under then-prevailing market conditions, RBC would be required to make a payment to the Authority, or the payment to be made by the Authority to RBC was affordable within the overall plan of finance).

This transaction raises the following questions:

[323] The Authority would pay RBC 3.35% under the Fixed Payer Swap, and receive 2.66% under the Fixed Receiver Swap. See Swap Confirmations for the 2003 Fixed Receiver Swaps and the 2005 Fixed Payer Swaps. See also Exhibit I.
[324] The Authority would pay RBC 3.35% under the Fixed Payer Swap, and receive 3.37% under the Fixed Receiver Swap. See Swap Confirmations for the 2003 Fixed Receiver Swaps and the 2005 Fixed Payer Swaps. See also Exhibit I.

- While this swap could be viewed as a hedge against possible increases in future long-term rates, and the Authority would be required to make a termination payment only if interest rates declined, a plan to enter into this swap still should have considered the cost of terminating the Long-dated Wrap Around Cap and the Embedded Caps.[325]
- If the Authority wanted to convert to a fixed rate obligation, it could have done so without entering into a new swap by terminating the Fixed Receiver swaps and the caps. Presumably, the Authority would have been entitled to a refund of a portion of the amount it paid for the Embedded Caps ($2 million,[326] some of which would have been returned in the form of a termination payment). We have seen no evidence that this option was evaluated.
- It does not appear that entering into the Fixed Payer Swap without addressing the caps is consistent with the Authority's Interest Rate Management Plan which states with respect to entering into such agreements:

> The Authority shall review the long-term implications associated with entering into such Agreements, including costs of borrowing, historic interest rate trends, variable rate capacity, credit enhancement capacity, opportunities to refund related debt obligations and other similar considerations.[327]

- It does not make sense that this swap was entered into to create a fixed rate obligation and all of the cap agreements were left in place. There is no need for caps on fixed rate debt (because caps protect against variable interest rate risk).

[325] Indeed, the 2003 D-1 Bonds were not remarketed at a variable rate maturing on 2033, and the cost to terminate the Long-dated Wrap Around Cap was viewed as being too expensive. According to the Authority's Interest Rate Management Plan dated December 15, 2003 and supplemented June 28, 2005 for the 2005 swap:

"In addition, as a result of the Authority effectively fixing the interest rate on their obligations through the use of the 2005 Swap, the Authority will no longer require the Cap originally entered into in December 2003. However, at the present time terminating the Cap would be prohibitively expensive, as such the Authority will need to monitor the termination price of the Cap with the intent to terminate it in the most cost effective manner."

[326] 2003 Swap Confirmations and Official Statement for 2003 D, E and F Bonds.

[327] See Interest Rate Management Plan dated December 15, 2003 and supplemented June 28, 2005 for 2005 swap transaction.

- It is not clear why RBC recommended this swap be effective through 2033, instead of through the mandatory tender dates. This issue is brought to the forefront by the fact that RBC later recommended terminating the Fixed Payer swaps less than a year after recommending the Authority enter into them (see discussion below).
- It appears the Authority chose not to terminate the Long-dated Wrap Around Cap at this time due to the cost,[328] but it does not appear there was any evaluation of the overall expected interest cost associated with both entering into the Fixed Payer swaps and terminating all of the caps (the Embedded Caps and the Long-dated Wrap Around Cap) as a way of determining whether this transaction made sense or fit into the Authority's Interest Rate Management Plan.[329]

h. Termination of Fixed Payer Swaps

Less than a year after it entered into the 2005 Fixed Payer swaps, the Authority switched direction again. In April, 2006, the Authority terminated a portion of the 2005 swap (the portion effective from June 1, 2011 through 2033).[330] The Authority was advised that it would be able to receive a payment of approximately $4 million by terminating all or a portion of the Fixed Payer Swap, based on interest rate changes. The termination option was viewed favorably given the "cash flow and construction issues at the resource recovery facility…to provide a source of funds to meet certain costs or expenses or to keep in reserve."[331]

The April, 2006 discussions about terminating the 2005 Swap included Mr. Losty, Mr. Lispi (consultant to the Authority), Mr. Giorgione (Klett Rooney, identified as bond counsel), Bruce Foreman (Solicitor to the Authority), Mr. Mealy (Executive Director of

[328] The Harrisburg Interest Rate Management Plan Adopted December 15, 2003 and Supplemented June 28, 2005.
[329] Interest Rate Management Plan amended and restated in 2005.
[330] 2006 Swap Termination Confirmation and April 28, 2006 memo from Bruce Barnes to Mayor Reed.
[331] April 19, 2006 James Losty memo to Mr. Mealy, (the Authority), copies to Mr. Lispi, Mr. Giorgione (Klett Rooney), Mr. Barnes (Milt Lopus), Bruce Foreman and David Eckhart (IMAGE), page 4 and related e-mails.

the Authority), Mr. Barnes (Milt Lopus, financial advisor to the Authority), David Eckhart (IMAGE, swap advisor to the Authority) and Mayor Reed, via conversations with Mr. Lispi and Mr. Giorgione.[332] One topic of concern was whether the Authority could "terminate the existing SWAP …without notice to the City (City Council) and the County."[333] A memo was prepared by Klett Rooney outlining that the "Authority is expressly empowered to terminate existing swaps … if it is determined to be financially advantageous."[334] However, the Authority was precluded from terminating the provisions of a swap if it "would in any way increase obligations of the City or County under their respective guarantees" without their prior written consent.[335] As a result, the memorandum recommended that the Authority obtain certificates from the Plan Advisors, IMAGE and Milt Lopus, "demonstrating and concluding that the proposed terminations would in no way increase the obligations of the City or the County under their respective guarantees."[336]

There were subsequent discussions about the provisions of the certification, and if IMAGE and Milt Lopus could make the statements needed in such a certification.[337] On April 20, 2006, Mr. Losty sent an email to Messrs. Giorgione, Foreman, Mealy, Lispi and Barnes in response to Mr. Giorgione's discussion of the risk of future rate increases. Mr. Losty wrote:

> With regard to Andy's reply, I agree with everything he said with the exception of 'the risk of future rate increses (sic) does not exist'. I think he didn't mean to say that and I would not be party to this transaction if that statement is a requirement. No one under any circumstances could reasonably make such a certification…
>
> * * *
>
> …Bottom line is a balance between how important it is to raise funds

[332] Ibid.
[333] April 20, 2006 Bruce Foreman memo to Messrs. Mealy, Giorgione and Lispi.
[334] April 18, 2006 Kenneth Luttinger memo to Mr. Giorgione.
[335] April 18, 2006 Kenneth Luttinger memo to Mr. Giorgione, page 4.
[336] Ibid.
[337] See e-mail string from April 20-24, 2006, involving Mr. Mealy, Mr. Giorgione, Mr. Lispi, Mr. Foreman, Mr. Barnes and Mr. Losty. Also refer to e-mail string from April 20-26 involving the same individuals.

> today for a myriad of uses versus how much interest rate security is sought.[337.5]

In a subsequent email, Mr. Barnes states that he wants to make sure the Board is protected, and that "we should have a certificate."[338] In the afternoon before the Board meeting at which the proposal was to be considered, Mr. Losty replied:

> …there is no 'right' answer nor is there any way to evaluate how 'prudent' this is. It comes down to the need for the termination value today—it is as simple as that.
>
> Additionally, the Mayor has given his direction which is generally how these decisions have been made on similar matters.[339]

We have found unsigned drafts, but have not found a signed certification stating that the terminations would not in any way increase the City's or the County's obligations under their respective guarantees. We have not found any indication that such a certification was signed.

That evening, on April 26, 2006, the Authority issued a resolution approving partial termination of the 2005 Swap, and the termination occurred shortly thereafter.[340] We have no information suggesting that City Council or the County agreed to the termination.

Although the Authority received a payment in excess of $4 million[341] upon termination of the Fixed Payer Swap, it paid substantially more than this amount to RBC during the five years that this swap was in effect because interest rates declined substantially after the

[337.5] April 20, 2006 James Losty e-mail to Mr. Mealy, Mr. Giorgione, Mr. Foreman, Mr. Lispi, copy to Mr. Barnes
[338] April 26, 2006 Bruce Foreman e-mail to Mr. Giorgione, Mr. Mealy, Mr. Lispi, Mr. Losty, copy to Mr. Barnes.
[339] April 26, 2006 James Losty e-mail to Mr. Giorgione, Mr. Foreman, Mr. Mealy and Mr. Lispi, copy to Mr. Barnes.
[340] The Harrisburg Authority Resolution No. 2006-008, dated April 26, 2008; April 28, 2006 Bruce Barnes memo to Mayor Stephen Reed.
[341] 2006 Swap Termination Confirmation.

termination was signed.[342] More importantly, the Authority's purpose in entering into the Fixed Payer Swap presumably was to protect itself from the risk that fixed interest rates would rise. By terminating the swap less than one year later, the Authority no longer had such protection.

i. Swap Pricing

The Authority's payments to RBC to enter into the swaps appear to have been well above market in several instances:[343]

- 2003 Fixed Receiver swap for 2003 D-1 – 18.6 basis points over mid-market.
- 2003 Fixed Receiver swap for 2003 D-2 – 20.2 basis points over mid-market.
- 2004 Basis Trade – 23 basis points over mid-market.

In light of the County Guaranty and FSA insurance, the expected payments from the Authority for these transactions, usually in the form of a percentage of a periodic payment due for a swap or cap, normally would be in the range of three to eight basis points over mid-market, depending on the volatility of the market at the time and whether the swaps were obtained through a competitive or negotiated process.

[342] This result is typical in a fixed payer swap that is used as a hedge against rising variable interest rates.

[343] While we present specific numbers for pricing, they should be understood as reasonable approximations based on certain assumptions, but sufficient to show the magnitude of difference between RBC's pricing and market pricing. In determining the pricing information, we examined the Master ISDA Agreement, the ISDA Schedule and the Confirmation with respect to the Swap Agreements and other such documents that we have deemed necessary to enable us to make the calculations. We have assumed, without having undertaken any independent investigation, that the Swap Agreement and other agreements and documents provided to us are complete and true and correct copies in all respects. We have no reason to believe this is an unfair assumption based on the documents we have reviewed. PRAG used its proprietary model which incorporates a market accepted method described in Governmental Accounting Standards Board Technical Bulletin No. 2003-1 to value the swaps.
It is also important to note that our spreads include not just profit but also hedging and other transactional costs. Therefore, the charge for hedging and other transactional costs would reduce the amount "received" by RBC as compensation.

j. Involvement of Professional Advisors Regarding Swaps

The Authority entered into eight swap transactions over a short period of time all relating to its 2003 Series D Bonds. Taken individually, many of the swaps do not make sense as a means of managing interest costs and/or protecting against rising interest rates. Collectively, the number of swap transactions alone raises questions regarding their relationship to a plan to manage interest rate risk or costs. Further, some of the swaps were inconsistent with each other and with principles of interest rate management. One swap reversed another that had just been entered into a short time earlier. In several instances, it appears the professional advisors were encouraging the Authority to take actions aimed primarily at raising short-term funds irrespective of whether the transaction was prudent or risk was being increased.

From the documents reviewed, it does not appear that the financial advisors for the Authority or the County (Milt Lopus, the Authority's financial advisor; PFM, the County's financial advisor for part of the 2003 bond issuances and all of the swap transactions; and IMAGE, the Authority's independent swap advisor), provided significant guidance to the Authority, the City or the County consistent with managing interest rate risk or interest cost with respect to the use of all of these swaps and caps. Further, the documents reviewed do not show that advisors to the Authority or County challenged RBC or IMAGE to demonstrate how the multiple swaps satisfied the Interest Rate Management Plans (as supplemented) of the Authority, City and County, or were designed to manage interest rate risk or cost. In several instances, it seemed that these advisors allowed transactions to occur with very little analysis of the risk or potential cost. We saw no evidence that FSA questioned any of these transactions.

Based on interviews with Milt Lopus and PFM, we believe that RBC and IMAGE were in charge of recommending the swaps, and that RBC worked directly with Mayor Reed, Mr. Lispi and Mr. Giorgione in determining which swaps to enter into and whether to terminate them. Milt Lopus and PFM personnel said that they did not have meaningful

input, if any, into the overall plan of finance, including the swaps. The documents we reviewed are consistent with their statements.

To enable the City and County to enter into all of the swaps under the Debt Act,[344] PFM, Milt Lopus and IMAGE provided certifications stating that the financial terms and conditions of the 2003 and 2005 swaps were "fair and reasonable."[345] PFM's certificates state that the swaps contained financial terms and conditions which, in its opinion, were fair and reasonable to the County. Milt Lopus and IMAGE issued a similar certificate to the Authority and the City.[346] IMAGE also certified to the Authority and City stating that the pricing of the swaps was fair and reasonable.[347]

While such certifications were issued, we have not seen analyses supporting the conclusion that the financial terms and conditions were fair and reasonable within the context of an overall plan of finance for the retrofit, were consistent with the pertinent Interest Rate Management Plan, or that the pricing of the swaps was fair and reasonable. The basis for the certifications given by PFM, Milt Lopus and IMAGE, and relied on by the Authority, City and County does not appear in any of the documents we were provided, nor was it apparent from any of the interviews conducted.

F. COMPLETING THE FACILITY AND THE 2007 DEBT

1. Terminating Barlow and Financial Difficulties

By the end of 2006, Barlow had failed to deliver the completed retrofit and was in financial distress. On December 31, 2006, the Authority terminated Barlow's

[344] 53 Pa. C.S.A. § 8281(e)(5).
[345] December 12, 2003 PFM Certificate. December 30, 2003 IMAGE and Milt Lopus Reaffirmation Certificate. December 30, 2003 PFM Reaffirmation Certificate. August 31, 2005 PFM Certificate. September 23, 2005 IMAGE and Milt Lopus Certificate. September 23, IMAGE and Milt Lopus Reaffirmation Certificate.
[346] Ibid.
[347] December 30, 2003 IMAGE Certificate. August 31, 2005 IMAGE Certificate.

contracts.[348] Subsequently, on January 2, 2007, the Authority hired Covanta on an interim basis to operate and maintain the RRF, and to design an upgrade to complete the Facility.[349,350]

When the Authority terminated Barlow, the Authority was faced with significant issues regarding the RRF. Those issues included:

- The Barlow Retrofit plan originally contemplated that the RRF would be fully functional by the beginning of 2006. Even as late as January 2008, only two of the three burners were operating,[351] and significant work remained to enable the RRF to operate with three burners at the expected capacity and efficiency.[352] Covanta ultimately estimated the cost of such a project to be as much as approximately $25.5 million.[353]
- There was no money available for the required additional work. The funds provided from the 2003 D, E and F Bonds for construction, working capital and capitalized interest were exhausted. Funds generated through a series of other transactions (i.e., CIT, swaps) also had been spent. Barlow had been paid for its scope of work, even though the firm was unable to deliver a completed and fully functioning RRF. Further, because of the decisions surrounding the performance bond and retainage, there were no funds to call upon to fund the completion and no bonding company to pay for completing the project.
- Debt service and swap payments totaling $13.4 million were due in 2007.[354]

[348] City of Harrisburg Ordinance dated November 28, 2007 per The Harrisburg Authority Series C and D note issuances "Transcript of Proceedings" dated December 26, 2007.
[349] Ibid.
[350] Administrative Services and Interim Operation and Maintenance Agreement dated January 2, 2007.
[351] January 2008 Monthly Operating Report prepared by Covanta Harrisburg, Inc.
[352] A number of documents refer to this work as "completing the retrofit." This nomenclature is questionable as Covanta was required to provide a design for this work, Mr. Ambrose drafted a memo dated May 25, 2007 stating that the Authority would be "undertaking a major construction program to make improvements to all the incinerator units" and we understand that little of the Barlow technology remains in the RRF.
[353] Exhibit B to the Covanta Management and Professional Services Agreement dated May 29, 2007.
[354] 2007 Audited Financial Statements for the Harrisburg Authority.

- The indicators of value the Authority received regarding the RRF as part of the Barlow sale negotiations evidenced that the potential selling price would be insufficient to defease the existing debt.
- Under the Covanta operations and maintenance contract, the Authority was required to pay Covanta approximately $875,000 per month,[355] much more than the City had charged and Barlow had projected. The Authority had little leverage to get a lower rate.

Given the state of the Facility in early 2007, the Mayor undertook efforts to develop a plan that included a number of components, including increasing tipping fees, issuing new debt to complete plant construction and fund working capital needs, refinancing existing debt, and selling the RRF to Covanta at completion of the construction.[356] In support of the plan, the City, the Authority and their advisors began preparing financial projections that modeled the expected operations of the RRF upon completion of construction, and the capacity of the Facility to pay both the existing and planned new debt. As early as May 9, 2007, the Authority prepared projections for the period 2007 through 2011. These projections demonstrated an inability to service existing debt, let alone pay any potential new debt.[357]

In May, the Authority signed a Management and Professional Services Agreement with Covanta, which obligated Covanta not only to manage the RRF, but also to complete Facility construction. Covanta essentially agreed to loan money to the Authority for this construction, doing the work first and then being paid back at a later date. As part of the deal, the Authority gave Covanta a right of first refusal for any transaction to sell, lease, or otherwise dispose of the RRF.[358]

[355] Exhibit G to the May 29, 2007 Management and Professional Services Agreement Between The Harrisburg Authority and Covanta Harrisburg, Inc.
[356] July 25, 2007 memo from Mayor Stephen Reed.
[357] May 9, 2007 Projections.
[358] Management and Professional Services Agreement between the Harrisburg Authority and Covanta Harrisburg, Inc. dated May 29, 2007, pages 28 and 29.

2. Resistance to Request for Additional Funding, and Response

On June 1, 2007, the Authority failed to make a required debt payment, which resulted in a draw on the City's bond guaranty. As a result, the Authority prepared a notice to, among others, FSA, the bond insurer on about $230 million of the RRF's pre-2007 debt.[359] Under the insurance policies it issued, FSA was required to make timely payments of principal and interest to bondholders if the Authority and its guarantors did not.

At this time, the Mayor was discussing his financing plan with key stakeholders. The plan included, among other things, a City guarantee for the Covanta loan, as well as for working capital financing of about $15 million to address the projected deficits in 2007 and 2008.[360] The City guarantee was necessary to enable the Authority to borrow money from Covanta, and the County required a City guarantee as a condition of providing its own guarantee of the working capital loan. City Council expressed significant concern, and identified numerous conditions before it would agree to the guarantee. The conditions included, among other things, reducing the working capital amount, repaying from the working capital loan the June 1 guarantee payment the City had made, terminating all individuals connected with the failed Barlow Retrofit, replacing the Authority Board, and the Authority's agreement to issue a request for proposal for the sale of the Facility on or before July 1, 2009, and to perform an independent forensic audit to provide an analysis of what had gone wrong with the project.[361]

Councilman Dan Miller went further, issuing a press release decrying the City's extreme financial distress and gross debt, which he listed as $441 million and the highest per

[359] E-mail from Carol Cocheres to Howard Spumberg of FSA dated June 8, 2007. Also refer to Table 2 in this report which presents the calculation of $230 million.
[360] July 25, 2007 memorandum from Mayor Stephen Reed. The memorandum does not identify its recipient, although it is cc'd to Linda Lingle, Robert Kroboth, John Lukens and Bruce Barnes. Also refer to memorandum from Carol Cocheres to Stephen Reed dated August 22, 2007 which states that the working capital financing was $15 million.
[361] Memorandum from Linda Thompson, Chair of the City Council Public Works Committee to Carol Cocheres dated July 11, 2007. Also refer to memorandum from Carol Cocheres to Linda Thompson dated August 2, 2007.

capita in Pennsylvania, more than three times that of Philadelphia. He said he would vote against any increase in tipping fees, the working capital loan and the guarantee of the Covanta loan.[362]

Correspondence indicates that Ms. Cocheres from Eckert became the intermediary between the Mayor and the Authority on the one hand, and City Council on the other, to address the conditions that City Council wanted to impose in connection with approval of the City's guarantee.[363] She also became the point person for other interactions. In early July, Ms. Cocheres had a number of phone conversations with Howard Spumberg from FSA to set up meetings to discuss plans for completing the retrofit and the City's and the County's approach and position on payment under their respective guarantees.[364]

In a July 10, 2007 letter, days after the call with Ms. Cocheres, FSA wrote a strongly-worded letter to City Council and the Mayor. FSA started by noting that it has more exposure to the City than any other lender or credit enhancer "in the country." FSA wrote that the RRF has "failed to generate net revenues sufficient to provide adequate debt service coverage for the Bonds." FSA acknowledged that the City currently has its own fiscal concerns. FSA closed by stating it:

> …respectfully urges the City Council to reconsider its rejection of a Facility workout plan proposed by the Authority and its financial advisors. If the City fails to take measures now to provide the necessary support to the Authority and its Bonds, there may be far-reaching repercussions that will affect the City in the future.[365]

Representatives from FSA came to Harrisburg near the end of July for a meeting with representatives of City Council, the City administration, the Authority, Covanta and the

[362] Press Release from Harrisburg City Councilman Dan Miller dated July 3, 2007.
[363] Memo from Carol Cocheres to Linda Thompson dated August 2, 2007.
[364] July 6, 2007 e-mail from Ms. Cocheres to numerous individuals at the City and the Authority, as well as outside professionals.
[365] Letter from Elizabeth Hill, Managing Director of FSA to Mayor Stephen Reed and The Honorable Members of City Council dated July 10, 2007.

County to discuss the debt situation.[366] Before FSA arrived, the Mayor emphasized that FSA should be advised that the steps to solve the current issue are clearly laid out but are being blocked by City Council. He wrote that "FSA needs to lean on City Council in clear terms so that City Council understands, from FSA, that their refusal to act has extremely adverse effects and that the above steps must be allowed to proceed."[367]

Ultimately, the Mayor, the Authority and the County agreed to a number of the requests put forward by City Council.[368] To date, however, we have not observed any documents that could be considered a request for proposal for the sale of the RRF, nor was a forensic investigation conducted, both of which were City Council conditions to which the parties agreed.

The County also sought to impose conditions in connection with its guarantee of proposed new financing. The County, through its counsel, demanded that it receive all amounts past due to it and its professionals from the working capital loan.[369] Similar to the City and FSA (discussed below), the County was exposed to having to make payments on its existing guarantees if the Authority continued to be unable to make debt payments when due, and if the City did not satisfy its existing guarantee obligations. As set forth in a November 14, 2007 letter from Mr. Zwally to Ms. Cocheres, Mr. Zwally stated that the County Commissioners would "look favorably" on a working capital loan that did not exceed $30 million and included reimbursement to the City for the June 2007 and September 2007 debt service payments made by the City on behalf of the Authority.[370] Additionally, the County sought a restructuring of the Covanta loan and the working capital loan before June 30, 2009.[371] To date, the Covanta loan restructuring has not occurred and the County decided in late 2010 to pay off the working capital loan through a general obligation borrowing.

[366] List of attendees for meeting with FSA.
[367] July 25, 2007 memorandum from Mayor Stephen Reed.
[368] Memorandum from Carol Cocheres to Linda Thompson dated August 2, 2007.
[369] Memorandum from Carol Cocheres to Stephen Reed dated August 22, 2007. Also see November 14, 2007 letter from Charles Zwally of Mette, Evans to Carol Cocheres of Eckert.
[370] November 14, 2007 letter from Charles Zwally to Carol Cocheres.
[371] Ibid.

3. Change in Authority Board

At the same time that the City and the Authority were working to obtain additional debt financing, the composition of the Authority Board was in flux. In January 2007, City Council passed Bill Number 36 of 2006 ("Bill Number 36"), which amended the Harrisburg City Code to provide City Council with the authority to appoint members of boards, commissions and authorities.[372] On February 20, 2007, following an override of Mayor Reed's veto, City Council appointed three individuals, Erica Bryce, James Ellison and Eric Papenfuse, to fill vacancies on the Authority Board.[373] On February 22, 2007, Mayor Reed filed a complaint seeking, among other things, preliminary and permanent injunctions against the enforcement of Bill Number 36, prohibiting Council's appointees from serving as members of the Authority's Board.[374] On February 27, 2007, the injunction requested was granted.[375]

Between March and August of 2007, numerous hearings were held with respect to the grant of the preliminary injunction. Further, as noted above, as a condition of the City guarantee on the 2007 debt, City Council sought the resignations of sitting Board members Fredrick Clark, Leonard House and John Keller and the Mayor's consent to the appointment of Ms. Bryce, Mr. Ellison and Mr. Papenfuse to the Authority Board.[376] Ultimately, the Commonwealth Court reversed the preliminary injunction, and that decision was affirmed by the Supreme Court.[377]

[372] Order dated January 10, 2008 in the matter Reed v. The Harrisburg City Council, et al.
[373] Ibid.
[374] Ibid.
[375] Ibid.
[376] Memo from Carol Cocheres to Councilwoman Linda Thompson dated August 2, 2007.
[377] Order dated January 10, 2008 in the matter Reed v. The Harrisburg City Council, et al.

On August 29, 2007, the new members of the Authority Board participated in their first board meeting.[378] The new board, which also included existing board members John Keller and Leonard House,[379] met throughout the fall of 2007.[380]

Almost immediately, Mr. Ellison and Ms. Bryce adopted the view that the Covanta work to complete construction and the "working capital" loan had to occur.[381] Mr. Papenfuse was a notable holdout, opposing any additional funding for the RRF.[382]

With the new Board came a change in some of the Authority's professional advisors. PFM replaced Milt Lopus as the Authority's primary financial advisor. Eckert, which had just started its work for the Authority on the new finance plan a few months earlier, continued its position as bond counsel for the Authority, while Mr. Giorgione became less active. In addition, Mr. Lispi's consulting services had previously been terminated.[383]

[378] Minutes from the August 29, 2007 meeting of the Board of the Authority.
[379] Minutes from the September 26, 2007 meeting of the Board of the Authority.
[380] Litigation surrounding the granting of a permanent injunction continued in Common Pleas Court. On January 10, 2008, Bill Number 36 was declared void, and it was ruled that Mr. Ellison, Ms. Bryce and Mr. Papenfuse could no longer serve on the Board. (Order dated January 10, 2008 in Reed v. The Harrisburg City Council, et al.) By March 2008, a new Board was seated that included Mr. Ellison and Ms. Bryce, along with new members Cathy Hall and Marc Kurowski. (Minutes from the March 5, 2008 meeting of the Board of the Authority). On May 26, 2010, the Supreme Court affirmed the Common Pleas Court opinion with respect to the invalidity of Bill Number 36, and the ineligibility of the members of the Board appointed by City Council. (Supreme Court of Pennsylvania opinion dated May 26, 2010 in the matter The Honorable Stephen R. Reed, et al. v. The Harrisburg City Council, et al.) See also, Minutes from the September 26, 2007 meeting of the Board of the Authority.
[381] Based on documents reviewed in this matter.
[382] Transcript of Public Works meeting dated November 8, 2007.
[383] Correspondence from the Authority to Milt Lopus dated November 16, 2007 notified Milt Lopus that it was terminated at a November 14, 2007 Special Meeting of the Authority's Board. As indicated in correspondence dated January 8, 2007 from the Authority to Mr. Lispi, DRL's contract with the Authority related to the RRF was not renewed when it expired in February 2007. Notably, Mr. Clark, then Chairman of the Authority Board, objected to the decision.

4. Financial Analyses Prepared in 2007 Evidence an Inability to Service Debt

In the documents that have been produced to date, we have identified 17 sets of financial projections that were prepared in 2007, for the period 2007 through 2011. Under all 17 sets of projections, the RRF would not generate income sufficient to service the existing debt and the new debt that was contemplated. The projections we reviewed were prepared by Robert Ambrose (Executive Director of the Authority at the time), Milt Lopus, HDR and PFM.

Further, 14 of the 17 sets of projections indicate that the Facility would not be able to generate income sufficient to service the existing debt, let alone the new debt that was contemplated. Based upon interviews, the professionals engaged on the 2007 C and D Notes and the Covanta loan began substantial work on the matters after Labor Day in 2007. The projections prepared in September through November, the months leading to the issuance of the 2007 debt, reflected analysis and input from the advisors working on behalf of the Authority, including HDR and PFM.[384] The Authority retained HDR on October 10, 2007 to, among other things, review key data issues and identify budget gaps.[385] Under the engagement agreements dated September 18, 2007 and November 14, 2007, PFM was retained to provide, among other things, independent verification and financial consulting services related to third party information provided for the RRF,[386] and to provide financial planning and policy development services, including in connection with projections.[387] We understand that HDR was analyzing operating revenue and operating expense numbers, presumably in consultation with the Authority and Covanta, and PFM was taking these assumptions and adding to them the debt service schedules for the bonds and notes.

[384] For example, there is a November 2, 2007 e-mail exchange involving, among others, Dave Traeger of HDR and Glen Williard of PFM related to a revised budget model.
[385] Agreement Between the Harrisburg Authority and HDR Engineering, Inc. for Professional Services dated October 10, 2007.
[386] Letter from Glen Williard of PFM to James Ellison of the Authority dated September 18, 2007.
[387] Exhibit A to the Public Financial Management, Inc. Agreement for Financial Advisory Services dated November 14, 2007.

The only scenarios that projected available cash after the servicing of the existing debt were prepared in August 2007 by Authority staff, prior to the retention of HDR and PFM. Even these scenarios evidenced the ability of the RRF to service the existing debt only for two years (2010 and 2011). Further, the projected expense levels are $3 million to $6 million lower than the Authority, HDR and Covanta determined a short while later to be the reasonable expense levels for major expense items such as, among other things, utilities and bypass waste disposal. Exhibit F provides a summary of the 2007 projections.

From the correspondence that accompanied the circulation of the projections, it appears that they were shared with multiple parties involved with the Facility and the 2007 financing including:[388]

- Mr. Giorgione;
- Michele Torres (Acting Executive Director of the Authority upon Robert Ambrose's departure);
- Authority Board members (thaboard@aol.com);
- City employees;
- Susquehanna Group Advisors (susgrp.com), which served as the County's financial advisor on the 2007 C and D Notes;[389]
- Ms. Cocheres;
- PFM;
- Mr. Barnes;
- Covanta;
- Mr. Ellison; and
- HDR.

[388] Refer to various e-mail correspondence over the period August through November 2007.
[389] Closing Memorandum for the 2007 C and D debt.

Thus, based on the documents available, it appears that it should have been clear to the Authority, the City, the County and the respective advisors who worked on their behalf that:

- Net revenues would not be sufficient to pay the existing debt on the Facility (i.e., the 1998, 2002 and 2003 issues), and, at best, only a portion of the 1998 and 2003 issues should continue to be characterized as self-liquidating;[390] and
- The RRF had no prospect of generating income from operations sufficient to service the additional $60 million in debt that ultimately was taken on in 2007.

Despite these indications, the Authority issued the 2007 debt, and the City and the County provided guarantees of repayment. The documentation accompanying the issuance of the 2007 C and D Notes acknowledges what was demonstrated in the projections -- repayment was unlikely to come from income generated from the RRF. The 2007 C and D Notes were issued under yet another subordinate financing instrument. Receipts and Revenues from the RRF were not pledged in repayment, but the Notes were expected to be paid solely from proceeds of refinancing bonds or payments under the guarantees.[391]

The documents reviewed indicate that the County should have known at the time that the City would have limited ability to repay the 2007 debt. The City's limited ability to repay the 2007 debt was confirmed in 2010 when the notes matured and the County had to satisfy them. As related to us, the thinking seemed to be that failing to complete construction of the Facility would result in having to sell the RRF at an unacceptably low

[390] We have not assessed in any detail how much, if any, of the 2007 debt the City could have issued had prior debt no longer been considered self-liquidating. However, for a full year of operations in 2011, the Authority budgeted approximately $5.6 million in income available to pay debt service. Using the budgeted results as a proxy, only a little over 40 percent of the debt previously approved as self-liquidating may still have been self-liquidating. Refer to Resolution 2010-018 approving the 2011 budget. See footnote 424.

[391] Term sheet included in the 2007 C and D Note closing documents.

"fire sale" price, but that completing construction would increase its value by more than the cost of the additional debt.[392]

5. *Transactions to Keep Covanta on the Job*

By October of 2007, the Authority was approximately $4.2 million in arrears on its payments to Covanta, and Covanta was threatening to terminate its services.[393] To keep Covanta on the job, on October 5, 2007, the City, the County and the Authority entered into a Tri-Party Interim Funding Agreement that provided, among other things, that the Authority would make a payment of $800,000 to Covanta, the City would make a payment of $225,000 to Covanta and the County would make a payment of $2.25 million to Covanta.[394] The Tri-Party Interim Funding Agreement identified the County's payment as an advance under its guaranty, and that the City and County funds were to be repaid under the 2003 Reimbursement Agreement between the Authority, City and County.[395] The parties intended that the Authority would repay the City and County out of the working capital loan that was part of the financing plan.

It appears that the City and County recognized that at least some of these reimbursement payments from proceeds of the working capital loan were questionable under the existing bond documents, as both requested that FSA consent to the agreement and the related Cooperation Agreement.[396] When FSA initially stated that it did not believe its consent was required for the execution of either agreement,[397] the County noted that "…in light of the planned reimbursement of the County and/or City's advancement of funds from a working capital loan, at the very least we are looking for FSA's acknowledgment or

[392] Interview of Glen Williard, November 18, 2011.
[393] The Harrisburg Authority Resolution 2007-023.
[394] Tri-Party Interim Funding Agreement between The Harrisburg Authority, the City of Harrisburg and Dauphin County dated October 5, 2007, page 4.
[395] Ibid., sections 1 and 3. The 2003 Reimbursement Agreement provides the terms under which the Authority shall repay the City and County for any payments they make under the 2003 Guarantees (related to the 2003 D, E and F Bonds).
[396] Various e-mail correspondence over the period October 1, 2007 to October 3, 2007 involving, among others, Tom Smida, Carol Cocheres, Karen Hoffstein (FSA), and Beth Gabler (City).
[397] October 3, 2007 K. Hofstein e-mail to T. Smida, copies to C. Cocheres, E. Hill.

concurrence that those reimbursements are permissible….[A]ll parties are hesitant to move forward without FSA's sign-off."[398] Indeed, FSA's acknowledgment of the use of funds was a condition precedent to the City's and County's obligations under the Tri-Party Interim Funding Agreement.[399]

FSA provided its written acknowledgement of the use of most of the proceeds from the working capital loan,[400] about two-thirds of which went to pay existing Authority debts, and about one-third of which went to fund debt service to be paid in 2008, all at a greater cost than the existing debt. FSA continued to discuss the transaction with other participants into December, to follow the details of the transaction and confirm it was going to occur. The working capital loan and these payments deferred to another day the requirement that the City, County and FSA make any additional payments under their guarantees.

The Authority's debt problem was raising several novel concerns for the professionals. Glen Williard, a Managing Director at PFM, financial advisor for the Authority, left a voice mail message for Ms. Cocheres about the uncharted waters:

> I've never been through it before where an issuer hit the Reserve Fund…. Strikes me there are two possibilities. One is to hit the Reserve Fund and I just don't know—don't understand where all the bells and whistles go off just because I've never done that before. And then a kind of variant of that plan would be this business of getting everyone to sign up to just release the Debt Service Reserve Fund. I just throw that out and maybe we can discuss it.[401]

[398] October 3, 2007 T. Smida e-mail to K. Hofstein, copies to C. Cocheres, E. Hill.
[399] Tri-Party Interim Funding Agreement, page 6, section 4(i).
[400] A small amount of the loan went to fund project construction, and FSA did not address, and to our knowledge was not asked to address, this use of funds in its letter. FSA letter from Elizabeth Hill to the Authority, City and County.
[401] Transcribed voicemail message from Glen Williard to Carol Cocheres on October 22, 2007.

During the Fall, the size of the working capital loan under discussion increased, at one point exceeding $50 million.[402] Ultimately, the County said it would guarantee $30 million, nothing more. The County insisted that the money it advanced for Covanta, its expenses and its advances for a December 1 debt payment it expected to make, be reimbursed immediately from proceeds of the working capital loan.[403]

By December, the City and the Authority were able to implement elements of the plan, including increasing tipping fees and issuing an additional $60 million in debt, consisting of a $25.5 million loan from Covanta to complete construction and improvement to the Facility,[404] and $34.6 million, representing the maturity cost (the amount borrowed plus accreted or accrued interest) of the 2007 C and D Notes.[405] Most of the so-called "working capital" loan went to pay prior operating expenses paid for by the City and County and existing debt they had guaranteed (and which FSA insured), at higher rates than the existing debt[406] and with additional transaction costs. There is no indication that any other alternatives to this approach were evaluated, such as a workout with the existing bondholders. Instead, it appears that the strategy was to push the issue into the future, primarily focusing on the hope that the RRF could be sold or the debt could be refinanced once the Facility was complete.[407]

In following this course of action, the parties:

[402] A figure of $50 million is mentioned in a November 13, 2007 e-mail from Michele Torres to Carol Cocheres.
[403] In his letter to the Authority's Solicitor on August 16, 2007, on behalf of the County, Mr. Zwally states that, notwithstanding what might be contained in the Reimbursement Agreement with respect to repayment of amounts to the County, the County was not willing to wait for revenues of operations and wanted to be paid from proceeds of the notes. At the time of the letter, the thought was that the working capital loan would close prior to a required payment on December 1, 2007. As it turned out, the loan did not close as expected and, as discussed later, the County advanced amounts required for debt service on that date and asked for this guaranty advance to be paid from the proceeds of the notes that closed shortly thereafter as well.
[404] Proceedings submitted by the Authority to DCED regarding the Covanta loan.
[405] The proceeds from the loan were $30 million. The Harrisburg Authority Series C and D note issuances "Transcript of Proceedings" dated December 26, 2007, schedule entitled Accreted Value at Maturity.
[406] Ibid. The interest rate on the Series C Notes was 4.5% and the interest rate on the Series D Notes was 6%.
[407] Memo from Mayor Stephen Reed dated July 25, 2007.

- Did so knowing that the financial analyses and projections prepared in 2007 consistently indicated an inability of the RRF to generate income from operations sufficient to fund a significant portion of the existing debt, let alone the new debt;
- Ensured that the City and the County were repaid for significant amounts they had paid on behalf of the Authority, despite the fact that both had provided guarantees on the pertinent debt, and that agreements between the parties provided that reimbursement payments were subordinate to the existing debt;
- Enabled the City, the County and FSA to defer having to make further payments on their guarantees or the bond insurance policy until after 2008;
- Ensured that the professionals who advised the Authority, the City and the County were paid; and
- Knew that it was likely that payment on the 2007 debt would have to come from the County under its guarantee, given the Authority's and City's financial conditions.

6. Concerns With 2007 Debt Issuances

As the Authority's financial situation deteriorated, the Authority and the City took actions that made the financial situation worse. At the beginning of 2007, the Authority had signed an operations and maintenance contract with Covanta, the cost of which significantly exceeded the costs previously projected by Barlow. The RRF was unable to pay these fees from the day Covanta's work started. To pay off amounts the Authority owed Covanta, the City and the County advanced funds to the Authority. The Authority agreed to repay these amounts and the debt service payments the City and the County had advanced under their guarantees, within a few months. The Authority agreed to do so using the proceeds of a borrowing with relatively high interest rates and significant other costs due to the Authority's continually worsening fiscal condition.

The 2007 debt issuances are problematic for a number of reasons, each of which is discussed in greater detail below. First, as noted above, the parties no longer should have

considered at least a portion of the existing 1998 and 2003 debt to be self-liquidating. This raises a concern regarding the City's ability to incur the debt evidenced by its Guaranty of the 2007 C and D Notes and Clean 8110(b) Certifications filed by the City and the County relating to 1998 and 2003 debt.[408]

Second, there are questions about the statutory authorization for the City and the County to incur some of the debt evidenced by the 2007 C and D Notes because of the way the proceeds actually were used. Much of the proceeds of the notes were used to pay for expenses that may not qualify as "costs of the project," which we believe was the Covanta construction work that the 2007 C and D Notes were issued to support.

Third, of the approximately $30 million in proceeds from the 2007 C and D Notes, more than $9.6 million[409] went to repay the City and County for payments they made on behalf of the Authority, notwithstanding that the Authority had paid substantial fees to the City and the County for guarantees for just this purpose. The guarantees provided that the City and the County would budget, appropriate and pay amounts required under the guarantees from taxes or revenues of the City and the County, respectively, not from proceeds of another working capital borrowing by the Authority.[410] Reimbursement of

[408] A Clean 8110(b) Certification certifies that no decrease in any amounts to be excluded as self-liquidating is required by any change of circumstances, other than debt payments.

[409] Closing Order and Receipt for the 2007 Series C and D debt.

[410] Pursuant to section 8104 of the Debt Act, the City and the County covenanted in their respective debt ordinances to budget, appropriate and pay, or cause to be paid, debt service on all of the RRF bonds and notes they guaranteed. By June 2006, it was abundantly clear that the RRF would not be completed on time or on budget, and we would have expected the City and the County to include debt service on the RRF bonds and notes they had guaranteed in their 2007 budgets. Issuing a tax and revenue anticipation note ("TRAN") would have been an alternative. We have not found evidence that this topic was discussed, nor are we aware of the basis upon which it was determined not to include debt service on these bonds and notes in the 2007 budgets. Had such amounts been in the City and County budgets, general fund or other revenues of the City and the County would have been used to make the advances to the Trustees under the guarantees for the RRF bonds and notes. The City and the County would not have been permitted to issue debt to make these payments (other than a TRAN) without complying with other specific provisions of the Debt Act.
Instead, the City and the County made advances and had the Authority borrow to replenish their respective general funds. In light of the fact that the City and the County could not borrow directly for these amounts without following specific Debt Act requirements, and the Authority issuance was not secured by a pledge of receipts and revenues of the RRF, the City and the County may have done indirectly what they could not do directly. Moreover, the City sought to characterize its advance as a "loan" to the Authority, but neither the Authority nor the County approved this "loan."

the amounts the City and the County paid under the guarantees was contractually subordinate to payments to bondholders, but the City and the County were promptly reimbursed, without following the procedures in the bond documents, and with at least the tacit approval of FSA.

a. Self-Liquidating Debt

As noted earlier, the Debt Act provides statutory procedures for the incurrence of debt by municipalities, including guarantees by the City and the County.[411] Under the Debt Act, the City and the County each have a limit to the amount of debt it may incur,[412] but debt approved as "self-liquidating" does not count against this limit. Debt that is fully payable from user fees or charges does not affect the financial wherewithal of the guarantor. As discussed earlier, a municipality must re-examine whether previously certified self-liquidating debt continues to be self-liquidating prior to issuing or incurring any additional debt.

The City filed three separate proceedings with DCED near the end of 2007. The City's 2007 A proceedings, filed on November 6, 2007, were to obtain DCED approval of the City's guarantee of the Authority's Note to Covanta for up to $6.5 million of Covanta's fees as operator of the Facility (this Note was incorporated into the 2007 C and D Notes).[413] The City's Covanta Loan proceedings, filed on October 17, 2007, were to obtain DCED approval of the City's guarantee of the Authority's repayment of a $25.5 million construction advance by Covanta to complete the Facility.[414] The City filed its 2007 C and D Note proceedings on November 29, 2007, to obtain DCED approval of the City's guarantee of the Authority's repayment of what was described as the "Working

[411] 53 Pa. C.S.A. §§ 8001(b) and (d), 8002.
[412] 53 Pa. C.S.A. §§ 8021, 8022.
[413] City DCED application dated October 31, 2007.
[414] City DCED application dated October 17, 2007.

Capital Facility," totaling $30 million of additional Authority debt.[415] The County also filed DCED proceedings relating to its guarantee of the 2007 C and D Note issuances.[416]

We have noted above that, when the Authority issued the 2003 D, E and F Bonds in December 2003, the RRF had experienced significant changes in circumstances since 1998 that should have precluded the City from filing a Clean 8110(b) Certification with respect to the 1998 Bonds and the 2003 A, B and C Bonds.[417] Given the additional problems since December, 2003, there were compelling reasons for the City and the County to identify changed circumstances with respect to the 2003 D, E and F Bonds in connection with the 2007 guarantee proceedings filed with DCED as well.

There were additional significant and materially adverse changes after the Authority issued the 2003 D, E, and F Bonds that the City and the County should have recognized in their 2007 DCED filings, but did not. There were substantial problems with Barlow's performance on the project. The Facility was to be completed and fully operational by the beginning of 2006. Instead, at the beginning of 2007, Barlow had been terminated, only two of the three burners were operating, and significant work remained to achieve full capacity.[418] The Authority arguably had incurred significant additional obligations (through the CIT arrangement). The Authority was generating "revenues" to pay for operating costs and construction cost overruns by entering into and terminating swaps. Covanta estimated the cost of the work to complete construction of the Facility at as much as $25.5 million. The Facility was unable to pay for its operations and debt service in 2007 and had to rely on advances by the City and the County, deferral of payments to Covanta, as well as still more working capital borrowing and capitalized interest.

[415] City DCED application dated November 29, 2007.
[416] County DCED application dated November 21, 2007. The County did not guarantee the 2007 A Note or the Covanta loan.
[417] As noted earlier, the City also should have identified these changed circumstances to DCED in proceedings prior to the 2003 D, E and F Bond guarantee proceedings.
[418] January 2008 Monthly Operating Report prepared by Covanta Harrisburg, Inc.

In sum, since at least 1997, ten years earlier, the RRF had been unable to pay for operations and debt service consistently, the Authority had pursued a series of costly restructurings and working capital financings, current principal and interest repayments were made using proceeds of long-term bonds, and revenues were considerably below the projections contained in the 1998 and 2003 self-liquidating debt reports, attributable to delays and cost overruns in construction and completion of the retrofit, and operating costs that exceeded estimations. Yet, despite clearly changed circumstances, counsel prepared and the City and the County included Clean 8110(b) Certifications in the DCED proceedings they filed to guarantee the 2007 C and 2007 D Notes, and the City also did so with respect to the Covanta Loan and the 2007 A Note.

Based on interviews with attorneys at Eckert who had been involved with the RRF since 1993 and who worked on the 2007 DCED proceedings, they took the view that the "project" in 2007 was a continuation of the not-yet-complete Barlow project. Their view was that it is difficult to develop reliable estimates of revenues for a project that was still being constructed. They believed there were many possibilities to assume increased revenues, such as an increase in tipping fees or steam generation fees. They believed that the law provided that they did not need to re-evaluate the self-liquidating debt issue until the Facility was complete and operating fully so that all involved had a better sense of how much revenue the Facility potentially could generate. They added that at least certain projections that they had reviewed supported the assertion that the RRF would be able to generate sufficient revenues to pay for all of the self-liquidating debt. On this basis, the City (and perhaps the County, as well) submitted a Clean 8110(b) Certification.[419]

We have not seen any set of projections, including projections provided by Eckert, that demonstrates that, even with assumed increases in tipping fees, the RRF could generate

[419] Interview with Carol Cocheres, November 10, 2011; interview with Richard Michael, December 1, 2011.

net revenues sufficient for the 1998 Bonds and 2003 Bonds to be considered completely self-liquidating.[420,421]

In addition, in other debt proceedings unrelated to the RRF,[422] based on information provided to us, our understanding is that the County filed several more Clean 8110(b) Certifications with respect to the County-guaranteed RRF bonds; it was not until the end of August, 2011 that it filed debt proceedings that counted the RRF bonds towards the County's gross outstanding debt.[423]

We question how much of the 2007 debt the City could have issued had prior debt no longer been considered self-liquidating, consistent with the above discussion.[424]

[420] Fixes to the steam line, included as a revenue source in certain projections, were abandoned prior to incurrence of the 2007 debt.

[421] Our review included documents provided to us by Eckert in response to our request that it give us revenue projections that supported the claim that the RRF would be able to generate revenues sufficient to pay for all of the debt that continued to be deemed self-liquidating.

[422] A municipality is required to file an "8110(b) certification" each time it issues debt with respect to any self-liquidating debt then outstanding.

[423] In its DCED filing prepared as of August 31, 2011, the County did not de-certify the debt, but stated that it had elected not to use the exclusion in connection with that proceeding.

[424] We have not assessed in any detail how much, if any, of the 2007 debt the City could have issued had prior debt no longer been considered self-liquidating. However, for a full year of operations in 2011, the Authority budgeted approximately $5.6 million in income available to pay debt service. Using the budgeted results as a proxy, only a little more than 40% of the self-liquidating debt may still have been self-liquidating, even taking into account projected rate increases. See Resolution 2010-018.

We are using budgeted results as an indicator only, since the question is what should have been included in a 2007 assessment as part of the DCED proceedings. If the proxy based on 2011 budgeted results is a fair indicator of what reasonably could have been expected in 2007, the City would not have had sufficient capacity to issue the 2007 debt. If the City did not have the power to issue a guarantee on these terms, it is not clear whether the County would have been willing to guarantee the 2007 debt. The County guarantee was very important in order to sell these Notes as described in the disclosure document used by the Placement Agent. See undated Term Sheet, undated, page 4, Transcript of Proceedings for the 2007 C and D Notes.

b. Funding for a "Project" and Use of Funds for "Costs of a Project"

As noted earlier, under the Debt Act, local government units are authorized to issue and guarantee debt, but only for the "cost of or cost of completing" a project.[425] The "cost of a project" includes, among other things, "interest on money borrowed to finance the project, if capitalized, to the date of completion of construction and, if deemed necessary, for one year thereafter," as well as "a reasonable initial working capital for operating the project."[426]

The DCED proceedings for the guarantees of the 2007 C and D Notes provide that the debt will be used only for working capital relating to "the Authority's Resource Recovery Facility . . . pending completion of the retrofit of the Facility."[427] It appears that the "project" was portrayed as the continuing Barlow Retrofit, which started in 2003.[428] We think this characterization may not be appropriate, as there were many fundamental problems since 2003 that changed the nature of the project, including termination of the original contractor (Barlow), a substantial new construction contract with Covanta and significant financial problems. We also understand that much of the system that had been identified as Barlow's proprietary technology did not remain after Covanta's construction work was performed.[429]

More fundamentally, we believe that, under the statute, the "project" should be viewed as the work specifically under consideration by DCED in a given filing, which, in late 2007, was the Covanta completion work. Accordingly, interest on money borrowed to finance the Covanta work, and reasonable working capital related to the Covanta work, would be

[425] 53 Pa. C.S.A. § 8005(c).
[426] 53 Pa. C.S.A. § 8007.
[427] City of Harrisburg Ordinance 24-2007 included in the 2007 Series C and D Notes application for approval filed with the DCED proceedings.
[428] This is consistent with our interviews of Carol Cocheres, November 10, 2001 and Richard Michael, December 1, 2011.
[429] It seems that "completing construction of the Facility" may be a better description of the "project" in 2007, since that was the submission then under consideration by DCED.

justified.[430] However, we question the ability to borrow for interest payments on the 1998, 2002 and 2003 debt as a cost of the 2007 project under the Debt Act.[431]

Further, legal authorization for a number of the uses of proceeds of the 2007 C and D Notes is questionable based on the provisions of the Debt Act. The various uses, shown on Exhibit G, are discussed below.

i. Payment of County System Fees

The Authority paid the County $1.068 million out of the bond proceeds for previously unpaid county system fees for 2006 and 2007.[432] The Authority collected during those two years, but did not remit to the County as required, fees paid by disposers to fund the costs of administering the County waste system. We do not believe these past due sums are properly viewed as "initial working capital" for the 2007 project when they were incurred prior to, and are unrelated to, the Covanta work to complete construction of the Facility (which was the "project" contemplated by the 2007 C and D Notes). Therefore, we question whether they can be considered "costs of a project."[433]

[430] Note, however, that the Covanta loan was structured such that there was no interest during the expected construction period. Refer to Table of Maximum Annual Payments included in the City's DCED application dated October 17, 2007.

[431] If the project is defined as the Barlow Retrofit, we do not see how it is possible to consider working capital issued at the end of 2007 as "initial working capital," or to capitalize interest on the Series 2003 D, E and F Bonds, or on the 1998 Bonds, 2002 Notes, and 2003 A, B and C Bonds yet again for a project that began in 2003, was terminated in 2006, and for which construction was supposed to be complete almost two years before the 2007 C and D Notes that provided the relevant funding.

In a November 14, 2007 e-mail from Mary Tomich, Esquire, counsel to the Placement Agent for the 2007 C and D Notes, to Carol Cocheres, Ms. Tomich expresses her view that some of the uses for this financing are unconventional stating, "…the use of proceeds of this financing has less connection to traditional debt act uses than any of us are accustomed to."

[432] Closing Order and Receipt for the 2007 C and D debt.

[433] This and other usage of proceeds discussed in this "costs of a project" section also raised the question of whether the borrowings indirectly violated the proscription against the City borrowing working capital to pay unfunded debt.

ii. Reimbursements to County and City

The Authority reimbursed the County (a) $2.25 million for a County payment to Covanta on the Authority's behalf in October, 2007 for fees arising under the Interim Operating Agreement and (b) $3.1 million for the County's payment on the Authority's behalf of debt service and swap and cap payments due on or around December 1, 2007 under the 2003 D and E Bonds and the related swaps and caps.[434] Both amounts were advances on behalf of the Authority under the County's guaranty to bondholders, reimbursable to the County under the 2003 Reimbursement Agreement between the Authority, the City and the County.[435]

These reimbursements do not appear to be "project" costs, but rather repayments to the County of amounts it advanced under its Guaranty. The original payments relate to (a) Covanta's past incinerator operating costs and (b) past debt service and swap payments.

Similarly, the Authority reimbursed the City (a) $250,000 for a City payment, on the Authority's behalf, to Covanta for costs arising under the Interim Operating Agreement; (b) $600,000 for a debt service payment due November 1, 2007 that the City made under the Guaranty Agreement; and (c) approximately $3.5 million for June 1, 2007 and September 1, 2007 debt service and swap payments[436] as a guarantor of debt service on the bonds and scheduled payments under the pertinent swaps and caps.[437] As with the payments to reimburse the County, we question whether the foregoing payments qualify as "costs of a project."

[434] First Addendum and Supplement to the Tri-Party Interim Funding Agreement dated November 27, 2007. Also refer to Closing Order and Receipt for the 2007 C and D debt.
[435] The payment of $2.25 million was so characterized in the Tri-Party Interim Funding Agreement dated October 5, 2007. Paragraph 1.
[436] Closing Order and Receipt for the 2007 C and D debt.
[437] Various e-mail correspondence references these payments as payments under the City's guarantee. This includes an October 24, 2007 e-mail from Robert Kroboth to the Authority, a June 8, 2007 e-mail from Carol Cocheres referencing the June 2007 Material Event Disclosure, and a similar e-mail from Ms. Cocheres dated September 6, 2007.

iii. Payments to Commerce Bank, NA, Bank of New York and Manufacturers and Traders Trust Company

The 2007 C and D Notes included a total of approximately $10.5 million to be paid to Commerce Bank, NA ("Commerce Bank"), Bank of New York ("BONY") and Manufacturers and Traders Trust Company ("M&T") for upcoming debt service payments on outstanding debt under prior bond issuances.[438] A plain understanding of the application of these proceeds was that the Authority was capitalizing interest on, among other things, the 1998 Bonds, 2002 Notes, and 2003 Bonds. Interest may be capitalized only for up to one year after the project has been placed in service, and with respect to the 1998 Bonds, 2002 Notes and 2003 Bonds and Notes, this period had long ago expired.

Another characterization of these expenditures would be as a refunding under the Debt Act, 53 Pa. C.S.A. § 8241. If proceeds of a debt issuance are to be used for a refunding, the ordinance authorizing the borrowing, which is submitted to DCED for approval, must expressly identify the project as a refunding and specify the purpose of the refunding under section 8241(b) of the Debt Act. The DCED proceedings for the City and County guarantees did neither.[439]

iv. Payments to Professionals

While professional fees are generally permissible in connection with project financing costs,[440] it appears to some extent that the fees paid from proceeds of the 2007 C and D Notes related to past work for the Authority, the City and/or the County in the prior two to three years, rather than the professional fees incurred related to this debt issuance. To

[438] Closing Order and Receipt for the 2007 C and D debt.
[439] However, the federal tax certificate relating to this transaction identifies the use of funds as a "refunding" for federal tax purposes, and it appears that a significant amount of analysis was undertaken with respect to whether tax-exempt or taxable bond proceeds could be used for certain of the refundings under federal tax law and whether the proceeds were being used for working capital or refunding purposes.
[440] 53 Pa. C.S.A. § 8007.

this extent, there are significant questions about whether such fees are justified as part of the approved debt issuance.

Exhibit G presents the payments by the Authority to various professionals out of the 2007 Note issue. Exhibit H presents the overall payments to selected parties for the period 2003 through 2011.

c. Failure to Comply with Bond Document Requirements

As noted above, the Authority reimbursed the City and the County for operating expenses they paid on behalf of the Authority that were due to Covanta. In addition, the City and the County wanted repayment of their advances on behalf of the Authority for debt service and scheduled payments under the swaps and caps. The City advanced funds for payment due on: the 2003 D Bonds on June 1, 2007; the 1998 A Notes and 2003 C Bonds on September 1, 2007; and the 2002 Notes on November 1, 2007. The County advanced funds for payment on the 2003 D, E and F Bonds related swaps and caps due on December 1, 2007.[441]

After making a payment on behalf of the Authority for debt service due on June 1, 2007, Mr. Kroboth of the City stated that the "City expects to record the $1.6 million draw on the Guaranty Agreement as a short-term loan/advance to THA, as the City anticipates that THA will be reimbursing the City pursuant to terms of the Reimbursement Agreement before the end of the year."[442] In treating the payment under the Guaranty Agreement in this manner, the City appears to have been seeking to recharacterize the nature of the Authority's obligation, moving it from a long-term obligation payable by the Authority on a subordinate basis to the bondholders of all RRF-related bonds and notes, to a short-term obligation payable to the City from proceeds of the 2007 borrowing. We understand

[441] Richard Michael email with attachment sent to John Frey, J. Brockman and Glen Williard, with copy to Carol Cocheres dated December 19, 2007. Also refer to the Authority's Non-Arbitrage Certification dated December 27, 2007, page 2.
[442] June 29, 2007 e-mail from R. Kroboth to B. Gabler, copying L. Lingle, S. Dade, R. Ambrose, B. Foreman, A. Giorgione, C. Cocheres, and B. Barnes.

that the City and perhaps the County applied this rationale to other payments they made on behalf of the Authority.

We understand the theory of such payments is that they were made "voluntarily" as a "loan" to the Authority shortly before a notice would have come from the Trustee calling for payment under a City or County guaranty.[443] The Authority, however, does not appear to have authorized these advances as a loan, nor does it appear that the County approved any such loans under the Reimbursement Agreement. It appears more plausible to us that the payments were made under the applicable guarantees, which would subject them to repayment under the applicable Reimbursement Agreements.

i. Priority of Bonds

The pertinent Trust Indentures, along with the relevant Guaranty and Reimbursement Agreements, provide for the priority of repayment. The City and the County could not amend the requirements of the bond documents without the express written consent of the Trustee and FSA. Under the 2003 Reimbursement Agreement, the parties acknowledged that reimbursement payments by the Authority to the City and the County were subordinate to the Authority's priority payment obligations on all outstanding debt, including bonds issued under the 1998 Indenture.[444]

The 1998 Indenture has priority over all subsequent indentures as to the flow of funds received by the Authority.[445] After debt service payments on the 1998 Bonds, next in priority are payments of debt service on the 2003 D, E and F Bonds.[446] Debt service payments on the 2002 Notes are subordinate to debt service payments on the 2003 D, E

[443] Interview of Carol Cocheres, November 10, 2011.
[444] Reimbursement Agreement dated December 1, 2003, Paragraph 2(d). Trust Indenture Dated as of December 1, 2003, Section 6.01(b).
[445] The 2003 D, E and F Indenture expressly recognizes the priority of the 1998 Indenture, and that the 1998 Indenture controls the flow of funds. Trust Indenture Dated as of December 1, 2003, p. 8 and Section 6.01. The 2003 D, E and F Indenture does not permit creation of a Surplus Fund until the 1998 Bonds are paid in full (defeased), at which time the 1998 Indenture terminates. Trust Indenture Dated as of December 1, 2003, section 6.07B.
[446] Trust Indenture dated as of December 1, 2003, Section 6.01.

and F Bonds, and debt service on the 2003 A, B and C Bonds are subordinate to payment of debt service on the 2002 Notes.[447]

ii. Flow of Funds

The 1998 Indenture grants to the Trustee a security interest in, and pledges unto the Trustee "…the Receipts and Revenues, after payment of the Operating Expenses, together with all cash and investments from time to time held in any fund."[448] The 1998 Indenture defines "Receipts and Revenues" broadly to include, in addition to rates, rents, fees and charges, "all other payments, receipts and revenues of whatever kind or character arising from, the operation or ownership of the Facility by the Authority or any part thereof."[449] The 1998 Indenture creates a Revenue Fund maintained by the Authority into which will flow "all Receipts and Revenues and all other amounts received by the Authority from any source in respect of the Facility."[450]

Under the 1998 Indenture, all monies in the Revenue Fund are first used for Operating Expenses, and then are transferred to the Trustee for disposition under the 1998 Indenture's flow of funds. Unless the funds transferred to the Trustee are used for one of the funds or other purposes specified in the Indenture, the balance of Receipts and Revenues and all other amounts received by the Authority from any source in respect of the Facility, if any, are transferred to the Surplus Fund under the 1998 Indenture.[451]

[447] Ibid, Section 6.01(b).
[448] Cash and investments, if any, in the 1998 Rebate Fund, the 1993 Series A Rebate Fund and the 1998 Tax-Exempt Series Rebate Account were carved out of this security interest and pledge. Trust Indenture dated as of August 1, 1998, p.4.
[449] Trust Indenture dated as of August 1, 1998, Article I. We note that this is a very broad definition and not limited to revenues from operations.
[450] Trust Indenture Dated as of August 1, 1998, § 6.01. In response to our question about this phrase, Ms. Cocheres said that nobody reads it to mean anything more than Receipts and Revenues from operations. If, however, it meant nothing more than Receipts and Revenues, there would be no reason to use the additional words, which must have meaning. Mr. Michael stated that proceeds of the 2007 C and D Notes were not subject to the 1998 Indenture's waterfall because the 2007 C and D Notes were not secured by Receipts and Revenues of the RRF. While the 2007 C and D Notes were not secured by Receipts and Revenues of the Facility, it appears to us that proceeds from the 2007 C and D Notes were subject to the 1998 Indenture's flow of funds.
[451] Trust Indenture Dated as of August 1, 1998, Section 6.07.

Any reimbursements to the City and the County would come from the Surplus Fund associated with the bonds or notes paid by the money they advanced. For example, money to repay the City for its advance to make the September 1 debt payment on the 1998 A Bonds would come from the Surplus Fund created by the 1998 Indenture. Money to repay the City for its advance to make the June 1, 2007 debt payment on the 2003 D Bonds would come from the Surplus Fund created by the 2003 D, E and F Indenture. In each case, money could be released from the applicable Surplus Fund to make repayment if authorized by action of the applicable Trustee after it receives written direction from the Authority as designated by resolution of the Authority.[452]

Under the 2003 Indenture, the 2003 Surplus Fund may not be created until the 1998 Indenture is discharged, which occurs when the 1998 Bonds and all other obligations secured under the 1998 Indenture are paid in full. Reimbursement payments relating to the 2002 Notes and the 2003 A, B and C, Notes could not be made if reimbursement payments relating to the 2003 D, E and F Bonds could not be made. This priority of Surplus Funds protects senior bondholders so that moneys that secure payment to them are not used first to pay others who have a less senior position.

The 2003 D, E and F Reimbursement Agreement governs the Authority's repayment to the City and the County for funds they advance on behalf of the Authority for debt service payments for the 2003 D, E and F Bonds.[453] The agreement states that reimbursement is to be on demand by the City and the County, from moneys generated in connection with the Facility, but that reimbursement is subordinate to all priority obligations under the 1998, 2002 and 2003 bond documents.[454,455]

We believe it would be difficult to argue that the 2007 C and D Note proceeds should not be considered "payments, receipts and revenues of whatever kind or character arising

[452] Ibid.
[453] Trust Indenture Dated as of December 1, 2003, §§ 6.09(d) and 6.10, pp. 97-98.
[454] 2003 DEF Reimbursement Agreement, §§ 2(a), (b) and (d).
[455] The Reimbursement Agreements related to the 1998, 2002 and 2003 A, B and C debt are the same in all material respects.

from the operation or ownership of the Facility by the Authority or any part thereof" or as "other amounts received by the Authority from any source in respect of the Facility" and therefore not subject to the 1998 Indenture. It appears that funds did not flow through the 1998 Indenture waterfall as required. To reimburse the City and County from the 2007 C and D proceeds, if money had flowed as we understand it should have under the 1998 Indenture, we would have expected the 1998 Bonds to have been repaid, the 1998 Indenture to have been discharged, and any excess remaining in the 1998 Surplus Fund to be transferred to the Trustee for the 2003 D, E, and F Bonds, along with a legal opinion authorizing such transfer. We did not find evidence that any of the foregoing occurred.

In addition, to make any reimbursement payments from any of the applicable Surplus Funds, we would have expected to find an Authority resolution authorizing reimbursement payments to the City and/or County in accordance with the applicable Reimbursement Agreement; a letter from the Authority to the applicable Bond Trustee directing payments from the applicable Surplus Funds to the City and/or County; a legal opinion from bond counsel to the applicable Trustee stating that such payments were permitted under the bond documents;[456] an express written consent by the bond insurer (FSA) to release monies to reimburse the City and/or County; and an acknowledgment by the applicable Trustee that it was authorized to make such payments to the City and/or County, based upon its receipt of the foregoing documents. However, we have not seen such documents in the closing binder for the 2007 C and D Notes or elsewhere. Our understanding, based on the above and other documents we have seen, is that money was sent directly to the City and the County without involving any of the Trustees.[457]

Under the 1998 Indenture and the 2003 Indenture, no party may modify either indenture or enter into a contract that could materially adversely impair or prejudice FSA's rights, or the security for or sources of payment for the bonds, without FSA's prior written

[456] Given the state of the Facility's finances, we would have expected the 1998 Trustee to have required a legal opinion of bond counsel confirming its reading of the documents.
[457] Closing Order and Receipt dated December 27, 2007 related to the 2007 C and D debt.

consent.[458] In addition, FSA has the right to direct the exercise of remedies if the Authority fails to make debt service payments when due or to follow any covenant, condition or agreement in the indentures.[459] FSA also has this right if there is any default under any Guaranty Agreement.[460]

The City and the County recognized that funding the reimbursement payments in the manner they planned raised concerns. All parties were hesitant to move forward without FSA's agreement,[461] and the City and the County specified that FSA's acknowledgment of the use of funds was a condition precedent to their obligations under the Tri-Party Interim Funding Agreement.[462]

The City and the County requested and received from FSA a letter acknowledging that the proceeds from the 2007 notes would be used to reimburse the City and the County for certain advances made by each.[463] FSA allowed the transaction to proceed. To our knowledge, it did not provide its written consent to the transaction.

We are not aware that the 1998, 2002, 2003 A, B and C or 2003 D, E and F Trustees received any written notice of the issuance or use of proceeds from the 2007 C and D Notes before they were issued. Indeed, we found no evidence that the Trustees were contacted or informed of this transaction until such time as the capitalized interest was deposited into the debt service funds under the various indentures.

[458] Trust Indenture Dated as of August 1, 1998, §§ 13.04 and 13.05; Trust Indenture Dated as of December 1, 2003, § 13.04.
[459] Trust Indenture Dated as of August 1, 1998, §§ 8.01 (a) and (h), and 8.14; Trust Indenture Dated as of December 1, 2003, §§ 8.01 (a) and (h), and 8.14.
[460] Trust Indenture Dated as of August 1, 1998, §§ 8.01 (a) and (h), and 8.14; Trust Indenture Dated as of December 1, 2003, §§ 8.01 (a) and (h), and 8.14. We note that, in bond counsel's view, the arrangement under the Tri-Party Funding Agreement did not conflict with the Indenture. See Eckert Opinion dated November 26, 2007.
[461] October 3, 2007 T. Smida e-mail to K. Hofstein, copies to C. Cocheres and E. Hill.
[462] Tri-Party Interim Funding Agreement between the Harrisburg Authority, the City of Harrisburg and Dauphin County dated October 5, 2007, page 6, section 4(i).
[463] November 21, 2007 letter from FSA to the Authority, the City and the County Commissioners. THA-ES005186-87.

The net result was that the County and the City advanced funds on the Authority's behalf to pay debt service and other obligations, then obtained repayment from the Authority within months, saddling the Facility with additional debt. The debt was at higher rates than the prior debt due to worsening market access for the Facility, and for a longer term, resulting in compounding of the additional costs. Based on our understanding of the relevant documents and facts, the proceeds from the 2007 C and D Notes should have been used to discharge the 1998 Bonds, then placed in the Surplus Fund of the 2003 Indenture (after any other uses required by the Indentures had been addressed), rather than used to reimburse the City and County for the funds they advanced. FSA acknowledged the flow of funds from this transaction and allowed the transaction to proceed. It did not sign a written consent to the transaction,[464] and did not consent in writing to the Tri-Party Interim Funding Agreement, which appears to conflict with the provisions of the bond documents.

Issuing the debt and using the proceeds to reimburse the City and the County avoided shutdown of the Facility and allowed it to keep operating.[465] By obtaining immediate repayment, the City and the County were able to avoid significant loss at that time (other than loss of interest on the money they paid for the short period of time before they were repaid), and FSA was able to defer exposure on its insurance policies. All three were guaranteed not to suffer any losses until at least 2009, since the 2007 C and D Notes provided funds to pay all debt service for 2008, and the Notes themselves were not payable as to interest until their maturity date.

The participants in the 2007 financing justified the decision to issue the debt and keep the Facility operating on the basis that finishing the Facility would improve its value by more than the cost of the new work and the working capital financing. Even if this were true,

[464]E-mail from FSA to Tom Smida dated October 3, 2007. THA-ES000746.

[465] If the 2007 C and D Notes had not been issued, the debt paid by the proceeds from that borrowing would have been paid, at least in part, from the general funds of the City and/or the County. Therefore, the 2007 borrowing, which was not secured by receipts and revenues of the RRF, looks very much like an unfunded debt issuance, which is a financing of current or past operating expenses of a municipality. It is questionable whether it was permissible to issue the 2007 C and D Notes, because unfunded debt issuance cannot occur without prior court approval under the Debt Act, 53 Pa. C.S.A. § 8130.

which is not clear, relevant laws and contract documents (the Indentures, Guarantees and Reimbursement Agreements) had to be complied with. Based on the information available to us, we question whether there was compliance with applicable requirements.

d. Maturity of the Notes in December 2010

The projections that were prepared in 2007 indicated that the RRF was not able to service existing debt, let alone the $34.6 million payment that was required in December 2010 with the maturity of the 2007 C and D notes. Yet, despite these indications, the City and the County both provided guarantees on the 2007 C and D Notes. As was projected, when the 2007 notes matured, the Authority could not make the payment required. The City also could not make the payment under its Guaranty, resulting in payment by the County.

With the County payment, the 2007 noteholders received payment in advance of the bond/noteholders on the 1998, 2002 and 2003 debt. Such payments and the manner in which they were obtained may be inconsistent with the applicable bond documents and the payment priority they establish.[466]

e. Conclusions – 2007 Debt

The parties interested in the RRF were faced with a difficult situation in 2007. The Barlow Retrofit project was delayed and incomplete, the contractor hired to perform the work had been terminated, and the portion of the RRF that was operating was not generating income sufficient to fund operations and debt service. While there are indications that analyses addressing the situation were conducted, it appears that the analyses were focused solely on taking on additional debt to complete construction, to provide working capital during the completion period, to reimburse the City and the

[466] Reimbursement Agreement dated November 27, 2007.

County, and to pay professionals, rather than on whether the projections supported the RRF's ability to satisfy the debt.

The documents we have reviewed and interviews we conducted indicate to us that, in making the decision to take on the 2007 debt, the parties should have known that the RRF could not generate income from operations sufficient to service the existing debt, let alone the new debt that was to be incurred. It certainly is clear now, and should have been in 2007, that repayment of the 2007 debt could come only through either a refinancing using the credit of the County, or a call on the guarantees. It was clear that the City would not have the financial ability to pay on its guarantee, and that the County would have to provide credit backing, which essentially is what occurred.

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We appreciate the opportunity to submit this report setting forth our findings, observations and conclusions based upon the documentation and information received to date. We welcome the opportunity to discuss the report with the Board.