PHILADELPHIA WATER DEPARTMENT
STATEMENT NO. 2

BEFORE THE
PHILADELPHIA WATER, SEWER AND STORM WATER RATE BOARD

In the Matter of the Philadelphia Water Department's Proposed Change in Water, Wastewater and Stormwater Rates and Related Charges	Special Rate Filing: Reconciliation Proceeding for Fiscal Year 2023

Direct Testimony

of

Katherine Clupper and Peter Nissen

on behalf of

The Philadelphia Water Department

Dated: January 2022

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q1. PLEASE STATE YOUR NAME AND TITLE.

A1. My name is Katherine Clupper. I am a Managing Director of Public Financial Management ("PFM").

Testifying with me is Peter Nissen, a Managing Director of Acacia Financial Group, Inc. ("Acacia").

Q2. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A2. Together, we are financial advisors for the Philadelphia Water Department ("PWD" or the "Department"). We are submitting this testimony on behalf of the Department.

Q3. WOULD EACH OF YOU PLEASE DESCRIBE YOUR RESPECTIVE EDUCATIONAL BACKGROUND AND RELEVANT WORK EXPERIENCE

A3. Our respective backgrounds and experience are summarized below:

<u>Ms. Clupper</u>

I am a managing director based in PFM's Philadelphia office. My expertise includes financial planning and debt transaction management. I work with a diverse list of issuers in the Mid-Atlantic region. I also assist in the development of non-profit and higher education clients in Pennsylvania, Maryland, New Jersey and Delaware.

I have over 30 years of experience working for investment banking firms, financial advisory firms and as an issue manager in Philadelphia. I was the assistant to the director of finance for the City of Philadelphia where I worked for the city treasurer's office in debt management, acting as issue manager for approximately one billion dollars of securities. I also worked for the Pennsylvania State Legislature.

My resume is attached to our Memorandum (Schedule FA-1).

<u>Mr. Nissen</u>

I am a 27-year veteran of the public finance industry, having worked with other financial advisory firms before founding Acacia in 2006. Prior to founding Acacia, I gained four years of engineering experience with an internationally renowned engineering corporation. I serve as day-to-day advisor to many of Acacia's clients.

I oversee all of the firm's quantitative services including the evaluation of derivative products. I have extensive experience in the preparation and review of financing documentation and in the marketing and pricing negotiation of both taxable and tax-exempt debt on both a competitive and negotiated basis.

My resume is attached to our Memorandum (Schedule FA-1).

Q4. PLEASE DESCRIBE THE PURPOSE OF THIS DIRECT TESTIMONY.

A4. The purpose of our testimony is to highlight our conclusions and recommendations set forth in the attached Financial Memorandum (Schedule FA-1) as additional support for the Department's Financial Plan, related policies and financial metrics in the context of the instant Reconciliation Proceeding.

II. RECONCILIATION REQUEST BY THE DEPARTMENT

Q5. PLEASE HIGHLIGHT THE CONCLUSIONS AND RECOMMENDATIONS OF YOUR MEMORANDUM.

A5. As described more fully in our Memorandum (Schedule FA-1), we advance the following conclusions and recommendations:

- The Department's current credit ratings by Fitch Ratings, S&P Global Ratings and Moody's Investors Service are A+ (stable outlook), A+ (stable outlook) and A1 (stable outlook), respectively.
- These favorable credit ratings allow PWD to access the bond markets on reasonable terms to support its sizable capital program.
- The current credit ratings are tied to PWD either achieving or making incremental progress toward achieving reasonable financial goals or targets (financial metrics) as set forth in the Department's Financial Plan.
- PWD's current financial metrics (cash reserves, debt service coverage, pay-go financing), as incorporated in its Financial Plan and acknowledged in the 2018 Rate Determination, are reasonable targets.
- These metrics in the Department's Financial Plan should be seen as a "floor," especially when viewed in the context of the Department's weaker credit ratings when compared to other peer systems.
- A key financial metric to maintain is the $135 million balance for the Rate Stabilization Fund ("RSF") which is an appropriate "minimal threshold" for financial planning.

- This metric, when compared to actual RSF balance achieved, offers a barometer to measure PWD financial performance in FY 2021.
- The approximate $125 million RSF balance actually achieved in FY 2021 reflects sub-optimal performance (not over performance).
- PWD's financial metrics are, in general, significantly below peer median metrics for water/sewer utilities in similar rating categories and size.
- In addition to this testimony, the Rate Board should also look to PWD Statements 1 and 3 in evaluating the Department's recent financial performance. As stated there, PWD is challenged by a variety of unforeseen events that have occurred since the 2021 General Rate Proceeding (including Hurricane Ida, dramatically higher costs) which will force the Department to draw down its financial reserves in FY 2022-2023.
- The statements of the rating agencies in September 2021 foretelling possible rating downgrade action — if sufficient revenues are not authorized to support PWD operations and its capital program or if key financial metrics fall further below industry thresholds —clearly indicate their concern that rates must be sufficient to sustain PWD operations and maintain financial reserves.
- Given PWD's current financial condition, the lackluster financial performance in FY 2021 and rating agency concerns, we recommend that no reduction in authorized rates and charges for FY 2023 should be made in this proceeding.

Q6. YOU MENTIONED VARIOUS RATING AGENCY STATEMENTS AND CONCERNS. PLEASE PROVIDE A SUMMARY OF RATING AGENCY REPORTS RELATED TO PWD RECENT BOND ISSUES.

A6. The recent (September 2021) rating agency reports can be found at Schedule ML-3. These reports were summarized by Department in Appendix A to the Monthly Report by the Department to the Rate Board (dated November 16, 2021),[1] which is incorporated herein by reference.

In addition, we would emphasize the following points from those September 2021 rating agency reports:

- S&P indicated that it would likely lower the Department's rating – if the balance of the RSF falls below $120 million.
- Based on a survey by Fitch, PWD is below peer and median metrics for water/sewer utilities in similar rating categories and size.
- Fitch and Moody's expressed concern over the Department's ongoing ability to increase rates commensurate with coverage requirements and in line with the Department's internal standards.
- S&P and Moody's raised concerns regarding the extension of the shut-off moratorium and higher than average delinquencies.

Q7. PLEASE EXPLAIN HOW YOUR MEMORANDUM AND ASSOCIATED CONCLUSIONS RELATE TO THE PENDING RECONCILIATION.

A7. Please recall that a specific minimum threshold was not agreed-to as a part of the Joint Settlement Petition which was approved by the Board in its Rate Determination in the 2021 General Rate Proceeding (the "Rate Determination"). We recommend using a balance of $135 million in the RSF as the "minimum threshold" for reconciliation

[1] https://www.phila.gov/media/20211117155430/Rate-Case-Settlement-Progress-Report-October-2021.pdf.

purposes. In order to maintain and strengthen the Department's financial health and viability in FY 2023, the Department should continue to target a $135 million RSF balance. Use of this threshold is consistent with the Department's current policies and is the target level acknowledged in the Rate Board's 2018 Determination.[2] While that goal (and the other metrics) may be difficult to achieve in FY 2023 due to (i) the continued recovery from the COVID-19 pandemic and (ii) the cost pressures and challenges facing the Department (as described in PWD Statement 3), nonetheless it should not be abandoned.

Q8. WHY SHOULD THE "MINIMUM THRESHOLD" FOR THE RSF BALANCE NOT BE LOWER THAN $135 MILLION?

A8. We maintain that the RSF minimum threshold, for purposes of reconciliation, should not be lower than $135 million because this threshold is consistent with PWD policies and metrics in the Financial Plan and has been acknowledged as reasonable by the Rate Board. *See*, 2018 Rate Determination. Moreover, this minimum balance should continue to be used, even if difficult to achieve during the COVID-19 pandemic because it is a reasonable target to achieve PWD longer term financial goals and preserve its current favorable credit rating. It is also important to maintain this threshold and other financial metrics so that the Department does not fall further below peer and median metrics in similar rating categories and size or to even appear to be indifferent to such an outcome. While the S&P ratings report has stated that an RSF balance below $120 million will likely result in a downgrade, it should be recognized that neither S&P, nor Moody's or Fitch, is precluded from effecting a downgrade while the RSF balance is above $120 million. Credit ratings are subjective opinions of the respective agencies, rather than pure

[2] https://www.phila.gov/media/20180713144736/2018-RATE-DETERMINATION-TIMESTAMPED.pdf.

calculations based upon objective metrics. These opinions encompass many current financial statistics, but also consider the trajectory of the rated entity. Diminishing the targeted RSF balance from the $135 million level indicates a downward trajectory which itself could result in downgrades. Further, targeting a lower threshold will make it more difficult for the Department to meet this metric of $135 million in future fiscal years.

As noted in PWD Statement 1, based on the actual FY 2021 financial results, the RSF balance at the end of FY 2021 was approximately $125 million. This falls short of the $135 million RSF target given the financial circumstances presented in the last fiscal year. This is a sub-optimal result — not over-performance. We therefore recommend that the Rate Board reject any proposal that would direct or cause the Department to lower the balance of the RSF below this year-end balance for ratemaking purposes. We are very concerned that the Rate Board's acceptance of a proposal that directs or causes the further depletion of the RSF to provide a rate reduction in FY 2023 will place the Department in financial jeopardy resulting in a rating downgrade by causing the RSF balance to fall below a reasonable threshold. S&P has plainly stated, in its September rating report, that "if the [Department] deplete[s] the RSF below the targeted $120 million indicated in its current projections, we would likely lower the rating."

Q9. WHAT ABOUT THE CHALLENGES FACING PWD IN FY 2023 — HOW ARE THEY RELEVANT TO YOUR CONCLUSIONS?

A9. As noted in PWD Statements 1 and 3, the Department faces numerous pressures and challenges that have arisen since the last general rate proceeding that have already placed demands on the Department and the RSF. These challenges must be acknowledged in reaching a fair reconciliation in this proceeding.

Q10. PLEASE SUMMARIZE YOUR KEY CONCLUSIONS IN THIS PROCEEDING.

A10. Our key conclusions are five in number. First, PWD financial metrics, including the RSF target level of $135 million, are reasonable and should be affirmed in this proceeding. Second, the metrics in the Department's Financial Plan should be seen as a "floor" when viewed in the context of other peer systems. Third, consistent with the first and second recommendations, the RSF metric of $135 million is appropriate as the minimum threshold for purposes of reconciliation. Fourth, the RSF balance of approximately $125 million achieved in FY 2021 reflects sub-optimal performance (not over performance). And fifth, given PWD lackluster financial performance in FY 2021, there is no over-performance benefit to share with ratepayers. In short, Department needs the revenues authorized for FY 2023 to sustain its current operations and support its capital program.

Q11. PLEASE STATE YOUR OVERALL RECOMMENDATION WITH REGARD TO RECONCILIATION.

A11. We strongly recommend that the Rate Board adopt the Department's proposed reconciliation in this proceeding. Rates and charges must be set at sufficient levels to sustain PWD operations and its capital program. Any significant rate reduction for FY 2023 that would cause PWD to fall farther short of established metrics would be imprudent. The language from the rating agencies foretelling rating downgrade action in the circumstances described above should be seen as a clarion call to maintain, without reduction, the rates for FY 2023 as included in the 2021 General Rate Proceeding.

III. CONCLUSION

Q12. DOES THIS CONCLUDE YOUR TESTIMONY?

A12. Yes, it does.

January 2022

Memorandum

TO: City of Philadelphia Water Department
FROM: Katherine Clupper, Managing Director, PFM Financial Advisors, LLC
Peter Nissen, Managing Director, Acacia Financial Group, Inc.
RE: PWD Special Rate Filing (FY 2023) — Discussion of Water Department Financial Plan and Related Policies and Metrics

Introduction: The purpose of this memorandum ("Memorandum") is to provide additional support for the Philadelphia Water Department's ("PWD" or "Department") Financial Plan and the related policies and financial metrics submitted in the above referenced proceeding. This Memorandum is submitted by PFM Financial Advisors, LLC ("PFM") and Acacia Financial Group, Inc. ("Acacia"), as financial advisors to the Department.[1] The recommendations herein are based upon PFM's and Acacia's knowledge of the Department, national water and sewer utility experience, credit agencies published metrics and methodology, comparative information on peer utilities and industry best practices.

The central recommendation of this Memorandum is that the Philadelphia Water, Sewer and Storm Water Rate Board (the "Rate Board" or "Board") should adopt the Department's recommendation to maintain rates at the levels approved in its Rate Determination dated June 16, 2021 in the 2021 general rate case (the "Rate Determination"). In that Rate Determination, the Board approved the settlement of the aforesaid rate case where the parties agreed to a reconciliation/adjustment process (subject to certain terms and conditions set forth in the Joint Settlement Petition) whereby rates could be adjusted (i) in recognition of certain Federal Stimulus Funding directly received by PWD, if any and if in excess of a $2 million threshold amount, on or before December 31, 2021 (and above a $2 million threshold); and/or (ii) if the FY 2021 financial performance results in a balance in the Rate Stabilization Fund ("RSF") that exceed a minimum threshold balance.

The minimum threshold to be utilized in this context is to be determined in this proceeding. We submit that PWD's previously acknowledged financial metrics should be used as a baseline to establish the minimum threshold for reserve funds in this proceeding.[2] As we have discussed in previous submissions, PFM and Acacia believe that it is critical for the Department to maintain and continue to manage to the aforesaid financial metrics, particularly through the recovery of the COVID-19 pandemic. These previously acknowledged metrics are within industry norms and would be considered best practices[3] (December 22,

[1] The resumes of experience of Katherine Clupper, Peter Nissen and their respective firms are attached to this Memorandum and incorporated herein by reference.
[2] See, 2018 Rate Determination (dated July 12, 2018).
[3] See, PWD Statement 2, Schedule ML-6 (Financial Advisors White Paper, dated December 22, 2020) proffered in 2021 general rate case.

2020 Memorandum). This Memorandum addresses the critical reasons for maintaining these financial metrics in order to maintain the financial and operational viability of the Water and Wastewater Systems and to preserve PWD's current credit ratings.

Financial Metrics: The Philadelphia Home Rule Charter (Section 5-801) and the Philadelphia Code (Section 13-101 which is referred to herein as the "Rate Ordinance") establish the regulatory framework governing PWD rate setting. Pursuant to the Rate Ordinance, the Rate Board has and must "recognize the importance of financial stability to customers and fully consider the Water Department's Financial Stability Plan" (Philadelphia Code 13-101 (4)(b)(.1)) in addition to considering "peer utility practices, best management practices and projected impacts on customer rates" (Philadelphia Code 13-101 (4)(b)(.1)). The Department has developed key financial policies as a part of its annual Financial Stability Plan. These policies and related metrics are incorporated in the instant reconciliation filing. Such metrics include (i) managing to a debt service coverage of 1.3 times (slightly higher than the bond documents requirement of 1.2 times but much lower than peer systems), (ii) maintaining minimum combined balances in the RSF and Residual Fund ("RF") of $150 million and (iii) targeting 20% "pay-go" revenues to support PWD's capital improvement program ("CIP") and lower future debt burdens.

Even though these metrics (which are goals) might be difficult to achieve during the recovery from the COVID-19 pandemic, they should not be abandoned. Maintaining reasonable financial metrics is central to preserving PWD's current favorable credit ratings and accessing the bond market on reasonable terms. A key focus of this Memorandum is the review of recent reports of the bond credit agencies noting, as an over-arching consideration, that rate pressures resulting from recent Rate Board rulings are a "credit negative" in assessing PWD's financial health, as PWD is far below peer and median metrics in similar rating categories and size.

Bond Credit Agencies: Moody's, Standard & Poor's and Fitch look to variations of the above metrics in determining the Department's credit worthiness. Notably, the alignment of PWD's respective ratings of "A1/A+/A+" show a conformity of rating views by the rating agencies' assessment of PWD. The recent rating reports for the September 2021 new money issue affirmed these ratings with a stable outlook. However, all rating agencies (i) noted stresses to credit resulting from past rate increases and (ii) indicated uncertainty as to whether future rates would be maintained at sustainable levels. Future rate actions by the Board will be paramount in upcoming rating decisions.

Moody's – Moody's has continued to view municipal water and sewer utilities as stable, driven by the industry's "willingness and ability to raise rates to support operations and healthy debt service coverage" (May 11, 2021, Moody's Sector Profile). This view is tempered by future investment needs in infrastructure, particularly give climate threat and aging infrastructure. In fact, Moody's states in their opinion that "local water and sewer utilities will bear the vast majority of $743 billion in needed infrastructure improvements through 2035" (Sector Profile, May 7, 2021). While the federal government does provide some support, the burden will fall primarily on individual systems and rate payers. Median debt service coverage remains at a healthy 2.2 times; which continues to provide liquidity needed to fund projects with pay-go investments and to build reserves necessary to protect systems by funding maintenance and unexpected projects resulting from climate challenges.

In the context of the Department's most recent credit review, Moody's affirmed the Department's rating of "A1." However, in doing so, Moody's clearly expressed concerns about PWD's rate pressures (i.e. uncertainty of obtaining sufficient rate relief) and specifically noted this as a factor that could lead to a downgrade: "the inability to increase rates commensurate with coverage requirements and in line with the Department's internal standards". (Credit Report September 17, 2021). The rating report specifically credits the Department with conservative financial forecasts and stated that, if forecasts are outperformed, that would be viewed as a credit positive.

Moody's also noted that the Department's continued projections for fairly narrow "legally enacted" debt service coverage was a potential problem. It further identified, as a material concern, the Rate Board's "continued limitations on the Department's revenue raising ability, which serves to materially curtail managements operating flexibility." Please note that at the time of the September credit report, PWD debt service coverage of 1.22 times was projected for FY 2022 — which is far below the sector median of 2.2 times. Taken together, the most recent Moody's report makes it clear that there is growing concern about rate pressures and their impact on the financial health of PWD. It is our opinion that any reduction in authorized revenues for FY 2023 would be considered problematic by Moody's.

Standard & Poor's – S&P also views water and sewer utility sector has having been resilient through the COVID-19 pandemic. This was reflected in the sector outlook revision from negative to stable in early 2021. S&P also affirmed the "A+" rating (with a stable outlook) for the Department in their most recent report (dated September 17, 2021). At the time of the rating, S&P noted the balance of the unrestricted liquidity, including the RSF, to be approximately $200 million as a factor in providing some level of financial flexibility. S&P also clearly stated its concern with the Rate Board's continued hesitancy to implement necessary rate increases. It noted that the Rate Board has historically supported rate increases to maintain ample capacity for the Department's operations and capital needs. However, S&P anticipated future challenges that could place downward pressure on PWD's financial position and impact, most notably, the funding of PWD's large CIP. This is clearly a significant credit downside scenario for PWD. In discussing this downside scenario, S&P states that:

> "If we (S&P) believe that future rate covenant compliance is likely to rely on unplanned additional rate increases to achieve revenue requirements, deplete the RSF below the targeted $120 million indicated in its current projections, or require significant or COA project delays, we would likely lower the rating."

It bears emphasis that the above statement provides a more direct assessment of PWD than communicated in prior reports and extends the S&P analysis to deteriorating "projections" for rating downgrade impetus, rather than relying upon deteriorating actual results (as in past reports). In this context, it is important to note that credit profiles are a reflection of the financial health of a system, considering both current financial position and trajectory. S&P retains the authority (like all rating agencies) to modify the rating at their discretion and timing. The Department should be aware that S&P could take rating action based upon the totality of the financial position, rate actions and stated goals, irrespective of the balance of the RSF breaching a $120 million threshold. Actions that could even potentially cause a breach of this balance could yield a rating action. S&P is communicating its concern that the financial health of PWD is challenged, particularly given the large CIP of $3.5 billion through 2027. The downside scenario stated above signals the possibility of rating declines that would cause increased cost burdens for future rate payers. Our recommendation is that this downside scenario be avoided by maintaining the previously agreed upon rates and charges.

Fitch – Fitch has conducted the most recent and complete peer review post pandemic. The national view is similar to Moody's and S&P, generally water and sewer utilities have held their own during the past few years, largely because many have built sufficient cash reserves needed to absorb any operating pressures. Overall retail systems 2020 medians have 556 days cash on hand, compared to PWD 223 days cash on hand. Additionally, PWD's debt to funds available for debt service is 7.97 times compared to retail medians of 3.8 times. We have included below certain peer comparisons from the Fitch survey, but as previously noted, PWD's medians are consistently below medians and peer systems.

Fitch also affirmed the Department's rating of "A+" with a stable outlook (in its report dated September 16, 2021). It is noted that the rating and outlook assumes that PWD will continue to obtain rate adjustments to maintain its current level of liquidity and leverage. Fitch specifically mentions having leverage ratios increase to over 10 times (from current 8 times) and a failure to secure rate increases sufficient to maintain "current financial profile" as leading to a negative rating action. Leverage ratios will increase, if funds available for debt service do not increase with future debt issuance associated with the Department's CIP. A key financial metric to maintain is the minimum balance of $135 million for the RSF. In this context, further decreasing the RSF is contrary to strengthening the Department's financial health. Any rate reduction will exacerbate this leverage ratio and balance in the RSF.

Conclusion: In order to maintain and strengthen the Department's financial health and viability going forward, rates need to be maintained at a level where metrics such as financial reserves (days cash on hand), debt service coverage and pay-go funding are targeted at the reasonable levels previously acknowledged by the Rate Board and consistent with PWD's current policies. These metrics represent best practices and are reasonable. The same should also be recognized as a floor when viewed in the context of other peer systems. Finally, we observe that rating agencies are voicing their respective concerns that rates and charges must be set at sufficient levels to sustain PWD operations and its capital program. Any significant rate reduction for FY 2023 that would cause PWD to fall farther short of established metrics would be imprudent. The language from the rating agencies foretelling rating downgrade action in the circumstances described above should be viewed as a clarion call to avoid lowering of rates for FY 2023.

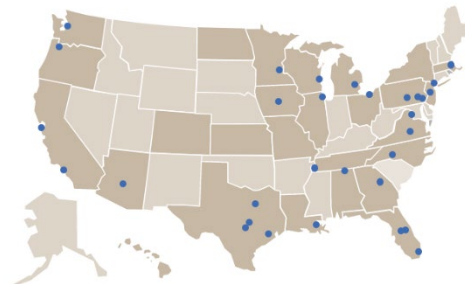
We would therefore strongly recommend that the Rate Board adopt the Department's proposed reconciliation in this proceeding.

FITCH PEER SURVEY; “A” Rated Larger Retail Systems

CWA Authority (IN) - Sewer Revenues	A+	RO:Sta	Midwest	Retail	Large	296,978	1.8	2.1	502	2,161,122	195,047	9.37
Florida Governmental Utility Authority (FL) - Water & Sewer Revenues - Lehigh System	A+	RO:Sta	Southeast	Retail	Large	16,145	3.5	3.5	992	61,908	9,913	3.96
Fresno (CA) - Water Revenues (2nd Lien)	A+	RO:Sta	West	Retail	Large	120,252	2.9	2.9	809	457,486	71,277	4.49
Indianapolis (IN) - Water Revenues (2nd Lien)	A+	RO:Pos	Midwest	Retail	Large	207,593	2.1	2.1	206	934,431	127,670	6.58
Miami-Dade County (FL) - Water & Sewer Revenues	A+	RO:Pos	Southeast	Retail	Large	769,481	1.7	1.7	171	3,423,472	369,277	8.51
Philadelphia (PA) - Water & Sewer Revenues	**A+**	**RO:Sta**	**Northeast**	**Retail**	**Large**	**733,318**	**1.2**	**1.4**	**223**	**2,360,315**	**308,853**	**7.97**
Westlands Water District (CA) - Water Revenues	A+	RO:Sta	West	Retail	Large	212,982	1.5	3.7	246	114,047	106,184	3.80
A+ Rated Median						**92,276**	**1.8**	**2.1**	**502**	**296,354**	**71,185**	**4.49**
Florida Governmental Utility Authority (FL) - Water & Sewer Revenues - Unified Utility System	A	RO:Sta	Southeast	Retail	Large	8,364	2.3	2.3	266	24,453	3,686	5.51
Florida Governmental Utility Authority (FL) - Water & Sewer Revenues - Consolidated Utility System	A	RO:Sta	Southeast	Retail	Large	6,559	1.3	1.3	809	27,194	3,183	6.11
Florida Governmental Utility Authority (FL) - Water & Sewer Revenues - Lake Aqua Utility System	A	RO:Sta	Southeast	Retail	Large	4,132	1.6	1.6	191	16,664	1,826	8.22
A/A– Rated Median						**14,644**	**1.4**	**1.4**	**298**	**58,107**	**6,630**	**7.72**

PFM Financial Advisors LLC

The original practice of PFM was founded over 45 years ago with the mission of providing independent financial advice to state and local governments, governmental agencies, and authorities when bringing their debt to the market, investing funds, or undertaking capital planning and budgeting. PFM Financial Advisors LLC ("PFM" or "PFMFA") has one of the largest financial advisory teams in the public finance industry, maintaining an expansive national presence. PFM Financial Advisors LLC is a registered municipal advisor with the Securities and Exchange Commission ("SEC") and the Municipal Securities Rulemaking Board ("MSRB"). Our SEC Number is 867-02030 and our MSRB ID is K1162. PFM and its affiliates currently have more than 300 personnel, located in 31 offices and locations across the United States (as of 12/7/21).

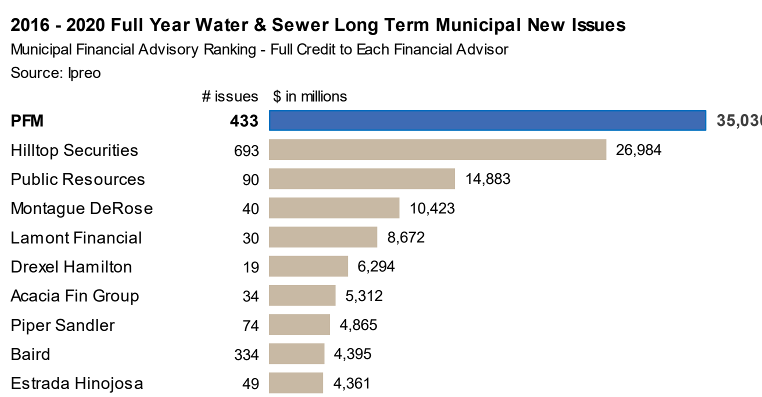


PFM and its affiliates (described below) are wholly owned by its 42 Managing Directors, who set the firm's strategic direction. It is comprised of four affiliates that are indirect, wholly owned subsidiaries of a holding company known as PFM II, LLC. Employees of our affiliates are co-located in PFM's offices across the country.

- ✓ **PFM Financial Advisors LLC:** advises on debt management and portfolio optimization, transaction structuring and execution, capital and financial planning, credit analysis, and policy development, among other services.
- ✓ **PFM Swap Advisors LLC ("PFMSA"):** PFMSA includes professionals dedicated to advising clients on obtaining interest rate swaps, caps, and collars in order to help manage exposure to interest rates.
- ✓ **PFM Group Consulting LLC:** PFM Group Consulting LLC ("MBC") provides a broad range of services, including multi-year financial planning, consolidating and shared-services analysis, operational and program analysis, revenue maximization, fleet management, workforce analysis, and pension and other post-employment benefits (OPEB) review and strategies.
- ✓ **PFM Solutions LLC:** PFM Solutions LLC is our affiliate through which innovative services are developed, such as Synairo, a flexible financial modeling platform designed to produce dynamic, multi-year financial projections to facilitate strategic planning for various industry sector**.**

Water Utility Clients:

PFM is consistently ranked as the top financial advisor in the water and wastewater sector, with Ipreo having ranked PFM's financial advisory business as the top financial advisory firm for water and sewer issues, in terms of overall issues and/or principal amount for 17 of the past 20 years, having advised on 60% more in principal amount than our nearest competitor over that time period. As illustrated in the chart to the right, during the last five years (2016-2020), PFM advised on 433 water and sewer transactions with a total par amount of approximately $35.0 billion.[1] Communities across the country face ever-increasing pressure to meet new and existing environmental quality standards, improve customer service and



[1] *Source: Ipreo, as of December 31, 2021.*

become more efficient, all while maintaining competitive rates. We believe our experience and leadership provides us unique insight into this rapidly evolving sector.

In addition to the bond transactions on which we have advised clients, we regularly assist water and wastewater clients with non-bond financial advisory projects. We routinely advise on strategic matters such as resource acquisitions, rate structures that allow for system growth without penalizing the existing customer base, financial reserve policies and credit matters. Our current advisory relationships with water and wastewater utilities across the country provide us with a comprehensive understanding of the unique financial and environmental considerations facing the region, while the breadth and depth of our national water and wastewater practice give us the national experience to apply it. A list of several of these clients is included below.[2]

- Austin Water and Wastewater Utility (TX)
- Baltimore Water and Wastewater (MD)
- Central Marin Sanitation Agency (CA)
- City of New Orleans, Water & Sewerage Board (LA)
- City of Toledo, Department of Public Utilities (OH)
- Clark County Water Reclamation District (NV)
- Contra Costa Water District (CA)
- DC Water and Sewer Authority (DC)
- Erie County Water Authority (NY)
- Fairfax County Integrated Sewer System (VA)
- Fairfax County Water Authority (VA)
- Great Lakes Water Authority (MI)
- Hampton Roads Sanitation District (VA)
- Kansas City Water Department (MO)
- Las Vegas Valley Water District (NV)
- Los Angeles Department of Water & Power (CA)
- Maryland Water Quality Administration (MD)
- Massachusetts Water Resources Authority (MA)
- Metropolitan Sewer District of Greater Cincinnati (OH)
- Metropolitan St. Louis Sewer District (MO)
- Nassau Sewer and Storm Water Finance Authority (NY)
- New Jersey Environmental Facilities Trust (NJ)
- New Jersey Water Supply Authority (NJ)
- NY State Environmental Facilities Corporation
- Oklahoma City Water Utility Trust (OK)
- Passaic Valley Sewerage Commission (NJ)
- Philadelphia Water Department (PA)
- Portland, Bureau Environment Services (OR)
- Rhode Island Clean Water Finance Agency
- San Antonio Water System (TX)
- San Diego County Water Authority (CA)
- Southern Nevada Water Authority (NV

[2] *Client list is as of June 30, 2021 and is provided for informational purposes only. Client list does not constitute an endorsement or testimonial of services provided by PFM's financial advisory business.*

Katherine Clupper

Managing Director

PFM Financial Advisors LLC

Katherine Clupper is a managing director based in the firm's Philadelphia office. Her expertise is wide ranging, including financial planning and debt transaction management and she works with a diverse list of issuers in the Mid-Atlantic region. She also assists in the development of non-profit and higher education clients in Pennsylvania, Maryland, New Jersey and Delaware.

Katherine brings 30 years of experience working for investment banking firms, financial advisory firms and as an issue manager in Philadelphia. She was the assistant to the director of finance for the City of Philadelphia where she worked for the city treasurer's office in debt management, acting as issue manager for approximately one billion dollars of securities. She also worked for the Pennsylvania State Legislature.

She works with several large state and regional issuers such as the Pennsylvania Industrial Development Authority, City of Philadelphia, Commonwealth Financing Authority and the City of Baltimore. She provides financial advisory services to non-profit and higher education organizations such as Temple University, Drexel University and several secondary schools. Katherine has assisted her clients in successfully entering into the public markets, implementing best practices in managing their debt portfolio, analyzing and developing credit and long-term asset/liability strategies.

Katherine currently serves on the board of directors of the Urban Affairs Coalition and the Committee of 70. She is also serves on the Board of the Forum of Executive Women.

Contact

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Specialties
Financial Advisory

Environmental Utilities, State & Local Governments, Higher Education

Education
B.S.W.
Shippensburg University

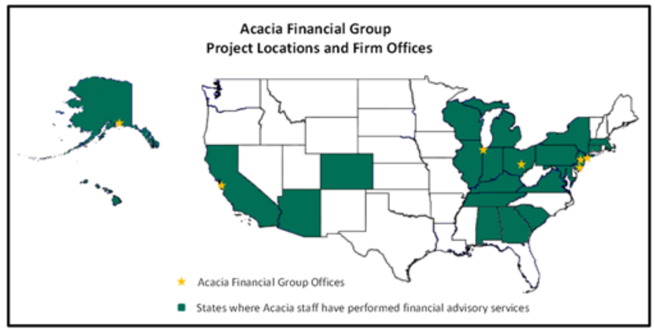
MBA
Temple University

Professional Designations or Licenses
Municipal Advisor Representative (Series 50)

Started with PFM: 2003

Started in the Field: 1987

Acacia Firm Overview



Acacia is an independent, women-owned firm providing comprehensive financial advisory services to governmental entities. The firm has been in business under its current name and management since 2006. Our professionals have the experience and expertise to assist with all of our client's financial advisory needs, including plan of finance development and execution, financial modelling, strategic planning, credit review and rating agency strategy, review of financial documents and the analysis of the long-term implications of various financing options.

Over the past 5 years, Acacia advised on over $66 billion of tax-exempt and taxable financings. The firm's team of professionals has a proven track record of success managing engagements for governmental entities ranging from small local governments to the largest state authorities. Over the past several years, Acacia has priced bonds and notes an average of two to three times a week, keeping the entire team current as to market conditions and innovative financing structures. Acacia is consistently ranked as a top financial advisory firm on a national level, ranking 5th or higher in 2018, 2019, 2020 and through the 3rd quarter of 2021 based on par amount issued.

Acacia's definition of quality financial advisory services extends beyond knowledge of the public finance industry. It encompasses commitment to the client's mission, creativity in developing financial solutions and a demonstrated determination to solve problems and overcome obstacles on an issuer's behalf. In total, the firm has 17 public finance professionals and 3 support staff.

General and Water/Wastewater Experience

Acacia advises a wide variety of governmental clients, ranging from large, complex state agencies to local level issuers. We have provided services in connection with the development and implementation of detailed plans of finance including the execution of traditional financings for new money and refunding transactions, complicated multi-series refunding and restructuring transactions and short and long-term products. Acacia is an expert in the various complexities of negotiated and competitive financings and has tailored our services to best serve our clients. Acacia professionals have developed comprehensive cash-flow, tax impact and user rate models, assisted with the development and compilation of rating agency and investor presentations and provided advice relating to the structuring and financing of long-term debt management plans.

Acacia professionals currently advise on over 25 sewer and water utility clients throughout the country. We have advised these clients on plan of finance development, capital planning, cash flow and rate models, debt capacity, option analysis, rating agency strategies, investment advisory, and the use of federal programs. Among our recent national clients are the City of Chicago, City of Philadelphia Water Department, San Diego County Water Authority, South Central Connecticut Regional Water Authority, Bergen County Utilities Authority (NJ), and Wayne County (MI). Acacia also has extensive experience with State Revolving Fund Loan Programs.

Below is a sampling of the water and wastewater issuers that Acacia has represented in recent years:

- Atlantic County Utilities Authority (NJ)
- Bayshore Sewerage Authority (NJ)
- Bergen County Utilities Authority (NJ)
- Bordentown Sewerage Authority (NJ)
- Brick Township Municipal Utilities Authority (NJ)
- Cape May County Municipal Utilities Authority (NJ)
- Chicago, City of (Water Department) (IL)
- Chester Water Authority (PA)
- DuPage Water Commission (IL)
- Essex County Utilities Authority (NJ)
- Illinois Finance Authority SRF (IL)
- Lacey Township Municipal Utilities Authority (NJ)
- Lambertville Municipal Utilities Authority (NJ)
- Metropolitan Water Reclamation District of Greater Chicago (IL)
- Moorestown Township (NJ)
- New Jersey Water Supply Authority (NJ)
- New York State Environmental Facilities Corporation (NY)
- North Jersey District Water Supply Commission (NJ)
- Old Bridge Municipal Utilities Authority (NJ)
- Philadelphia Water Department, City of (PA)
- San Diego County Water Authority (CA)
- South Central Connecticut Regional Water Authority (CT)
- Toms River Municipal Utilities Authority (NJ)
- Washington Township Municipal Utilities Authority (NJ)
- Wisconsin State (WI)

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Mr. Nissen is a Managing Director and shareholder with Acacia Financial Group, Inc. Mr. Nissen serves as head of quantitative matters for the firm.

Mr. Nissen has 27 years of experience working for both large and small municipal advisory firms. His experience includes general obligation, lease revenue/subject to appropriation, toll roads, airports, solid waste, water and wastewater, higher education, health care, major economic development, not-for-profit (501(c)(3)), MSA tobacco secured, gaming industry, tax lien sales, PILOT bonds and multiple complex refundings. Major clients represented include: States of New Jersey, Ohio, New York, Massachusetts, Alaska, Cities of Philadelphia (City, PAID, PRA, PMA), New York, Los Angeles, Chicago, Philadelphia Water Department, Chester Water Authority (PA), New Jersey EDA, NJ Sports and Exposition Authority, NJ Building Authority, NJ Health Care Facilities Financing Authority, Casino Reinvestment Development Authority, South Jersey Transportation Authority, Delaware River Port Authority, Philadelphia School District, SEPTA, Alaska International Airport Systems and others.

Mr. Nissen has developed complex rate setting, life-cycle and debt capacity analysis for many reveunue secured utilities. Debt structures completed have included fixed rate, synthetic fixed rate, variable rate demand bonds, auction rate securities, private placement and LOC structures. Refunding structures completed have included current and advance fixed rate refundings, synthetic fixed rate refundings (with and without integration), forward refundings (with and without optionality), cross-over refundings, "cinderella" structures. He has made presentations to ratings agencies & bond insurers; negotiated with insurers, LOC banks; provided testimony before local and State level boards and committees. Mr. Nissen has provided reasonableness opinions and valuation opinions on debt issuances and asset transfers.

Mr. Nissen has a BA in Civil Engineering from Drexel University. Mr. Nissen has passed the MSRB Series 50 and 54 Examinations.