



BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

In Re: Application of Raftelis Financial Consultant, Inc. to register as a Utility Valuation Expert (UVE) in the Commonwealth of Pennsylvania

Docket No: M-2016-2543193

Check one:

Fee: \$125 fee enclosed

- Initial Application
 Renewal Application

1. Legal Name of the Applicant: Raftelis Financial Consultants, Inc.

Attach proof of compliance with appropriate Pennsylvania Department of State filing requirements.2 See Exhibit 1

2. Trade or Commercial or Fictitious Names Used by Applicant (d/b/a):

- Check this box if the Applicant will not be using a fictitious name.
 Check this box if the Applicant will be using a fictitious name or using a d/b/a (doing business as) another name and identify names below. If more space is needed, list names on the back of this page or append list to completed application.

Raftelis – See Exhibit 2

3. Applicant Address:

Street Name & Number: 40 British American Boulevard, 2nd Floor
Post Office Box: N/A
City: Latham
State: New York
Zip Code: 12110
Telephone Number: (518) 391-8944
Email Address: jmastracchio@raftelis.com
Website Address: www.raftelis.com

2 A copy of any document from the Pennsylvania Department of State (Pa. Dept. of State) documenting the Applicant’s Pa. Dept. of State entity number is adequate. However, the document must indicate that the Applicant’s Pa. Dept. of State registration is “active.” Certified copies of Pa. Dept. of State documents are not required.

Application for Registration as a Utility Valuation Expert (UVE)

4. Point of Contact for this Application:³

Name: John Mastracchio, PE, CFA
Title: Executive Vice President

Complete the following if different than above:

Street Name & Number: Same
Post Office Box: _____
City: _____
State: _____
Zip code: _____
Telephone Number: _____
Email address: _____

5. Parent & Subsidiary Companies & Affiliates:

Parent Name and Contact Information. Provide name and contact information for parent company. Check box if any parent company is currently doing business in Pennsylvania as a UVE or WWDC. If none, do not check the box; insert NONE below.

Parent Name: None
Street Name & Number: _____
Post Office Box: _____
City: _____
State: _____
Zip Code: _____
Telephone Number: _____
Email Address: _____
Website Address: _____

Subsidiaries and Contact Information. Provide name and contact information for all subsidiary companies. Check this box if any subsidiary is currently doing business in Pennsylvania as a UVE or WWDC. If none, do not check the box; insert NONE below.

Subsidiary Name: None
Street Name & Number: _____
Post Office Box: _____
City: _____
State: _____
Zip Code: _____
Telephone Number: _____
Email Address: _____
Website Address: _____

(Copy above information and paste on separate sheet as necessary for additional Subsidiaries)

³ PLEASE NOTE: Upon approval of this application, this Contact Information will be listed on the Commission’s UVE Registry.

Application for Registration as a Utility Valuation Expert (UVE)

Affiliates and Contact Information. Provide name and contact information for all affiliated companies. Check box if any affiliate is currently doing business in Pennsylvania as a UVE or WWDC. If none, do not check the box; insert NONE below.

Affiliate Name: None

Street Name & Number: _____

Post Office Box: _____

City: _____

State: _____

Zip Code: _____

Telephone Number: _____

Email Address: _____

(Copy above information and paste on separate sheet as necessary for additional Affiliates)

6. **Contracts & Business Partnerships:**

Check box if Applicant intends to or has operated under contract with or has partnered with an WWDC within the past five (5) years. Otherwise, insert NONE here: NONE.

Check box if Applicant intends to or has operated under contract, subcontracted or partnered with a UVE within the past five (5) years. Otherwise, insert NONE here: NONE.

If applicable, provide name(s) of WWDC(s) and UVE(s) and contact information for each and briefly describe the nature of business services associated with each contract and/or partnership. Attach additional pages as needed.

7. Identify principal officers (i.e., owners, executives, partners and/or directors, etc.), as appropriate for Applicant’s organizational structure. Provide an organizational chart and the names, titles, business addresses and telephone numbers for each office.

[See Exhibit 3](#)

8. Attach to this Application a brief biography or single page professional resume for all principal officers and management directly responsible for Applicant’s operations.

[See Exhibit 4](#)

9. Provide Applicant’s Federal Employer Identification No. (EIN): 20-1054069

Application for Registration as a Utility Valuation Expert (UVE)


10. Registered Agent

a. If the Applicant does not maintain a principal office in the Commonwealth, the Applicant is required by the Pennsylvania Department of State to designate an approved Registered Agent as its representative in the Commonwealth. Check one of the boxes below, as applicable:

YES, the Applicant has registered its business with the Pennsylvania Department of State. Following is the Name and Contact information for the Applicant’s Registered Agent approved by the Pennsylvania Department of State.

Registered Agent:	CSC
Street Name & Number:	251 Little Falls Drive
Post Office Box:	N/A
City:	Wilmington
State:	Delaware
Zip Code:	19808
Main Telephone Number:	855-212-6198
Email Address:	info@cscglobal.com
Website Address:	cscglobal.com

NO, the Applicant has not registered its business with the Pennsylvania Department of State.

 **STOP**—To avoid denial of your application and forfeiture of your application fee, contact the Pennsylvania Department of State Bureau of Corporations to register as a business entity within the Commonwealth PRIOR TO completion and filing of this application with the Pennsylvania Public Utility Commission.

b. Applicant has registered its business with the Pennsylvania Department of State. Please check appropriate registration type for Applicant as designated with the Department.

- Sole proprietor
- Domestic corporation (none)
- Domestic general partnership
- Domestic limited liability company
- Domestic limited liability partnership
- Foreign corporation
- Foreign general or limited partnership
- Foreign limited liability company
- Foreign limited liability general partnership
- Foreign limited liability limited partnership

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c. If Applicant is not domiciled in the Commonwealth of Pennsylvania and is registered as a "foreign" entity as identified above, please identify all other states where applicant is registered and name the appropriate state department(s):

[See Exhibit 5](#)

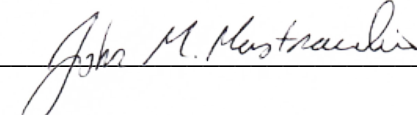
11. Technical Fitness

Attach to this Application a copy of any certification(s) or similar documentation that would demonstrate the technical fitness of Applicant, such as professional licenses, technical certifications, and/or names of current or past clients with a description of dates and types of services provided by Applicant.

[See Exhibit 6](#)

12. Falsification

The Applicant understands that the making of false statement(s) herein may be grounds for denying the Application, or if later discovered, for revoking any authority granted pursuant to the Application. This Application is subject to 18 Pa. C.S. §§4903 and 4904, relating to perjury and falsification in official matters.

Signature of Principal Official: 

Official's Name & Title : John Mastracchio
(Please Print)

Date: 12/27/2023

Application for Registration as a Utility Valuation Expert (UVE)

APPENDIX A

AFFIDAVIT

[Commonwealth/State] of North Carolina :

County of Mecklenburg :

ss.

Peiffer Brandt, Affiant, being duly sworn or affirmed according to law, deposes and says that:

Affiant is the President & CEO (Office of Affiant) of Raftelis Financial Consultants, Inc. (Name of Applicant);

That Affiant is authorized to and does make this affidavit for said Applicant;

That Raftelis Financial Consultants, Inc., the Applicant herein, has the burden of producing information and supporting documentation demonstrating technical fitness to be registered as a Utility Valuation Expert pursuant to Section 1329. 66 Pa. C.S. § 1329.

That Raftelis Financial Consultants, Inc., the Applicant herein, acknowledges that it has answered the questions on the application correctly, truthfully and completely and has provided supporting documentation as required.

That Raftelis Financial Consultants, Inc., the Applicant herein, acknowledges that it is under a duty to update information provided in answer to questions on this application and contained in supporting documents.

That Raftelis Financial Consultants, Inc., the Applicant herein, verifies that neither the UVE nor the UVE's firm, including affiliates, have a conflict of interest that would compromise, or have the appearance of compromising, the UVE's professional judgement and ability to perform the valuation in an unbiased manner.

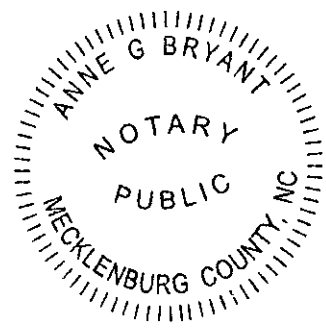
That the facts above set forth are true and correct to the best of Affiant's knowledge, information, and belief, and that Affiant expects said Applicant to be able to prove the same at hearing.

[Handwritten Signature] Signature of Affiant

Sworn and subscribed before me this 29th day of Dec, 20 23.

[Handwritten Signature] Signature of official administering oath

My commission expires: May 2, 2026



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF STATE
BUREAU OF CORPORATIONS AND CHARITABLE ORGANIZATIONS
401 NORTH STREET, ROOM 206
P.O.BOX 8722
HARRISBURG, PA 17105-8722
WWW.CORPORATIONS.PA.GOV

Anne Bryant
227 W. Trade Street Suite 1400
Charlotte NC 28202


Raftelis Financial Consultants, Inc.

THE BUREAU OF CORPORATIONS AND CHARITABLE ORGANIZATIONS IS HAPPY TO SEND YOUR FILED DOCUMENT. THE BUREAU IS HERE TO SERVE YOU AND WE WOULD LIKE TO THANK YOU FOR DOING BUSINESS IN PENNSYLVANIA.

IF YOU HAVE ANY QUESTIONS PERTAINING TO THE BUREAU, PLEASE VISIT OUR WEBSITE AT www.dos.pa.gov/BusinessCharities OR YOU MAY CONTACT US BY TELEPHONE AT (717)787-1057. INFORMATION REGARDING BUSINESS AND UCC FILINGS CAN BE FOUND ON OUR SEARCHABLE DATABASE AT www.corporations.pa.gov/Search/CorpSearch .

ENTITY NUMBER : 6563855

**PENNSYLVANIA DEPARTMENT OF STATE
 BUREAU OF CORPORATIONS AND CHARITABLE ORGANIZATIONS**

<input type="checkbox"/> Return document by mail to: Anne G Bryant <hr/> Name 227 W. Trade Street, Suite 1400 <hr/> Address Charlotte NC 28202 <hr/> City State Zip Code <input type="checkbox"/> Return document by email to: _____	Registration of Fictitious Name DSCB:54-311 (rev.2/2017)  311
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Read all instructions prior to completing. This form may be submitted online at <https://www.corporations.pa.gov/>.

Fee: \$70.00 I qualify for a veteran/reservist-owned small business fee exemption (see instructions)

In compliance with the requirements of 54 Pa.C.S. § 311 (relating to registration), the undersigned entity(ies) desiring to register a fictitious name under 54 Pa.C.S. Ch. 3 (relating to fictitious names), hereby state(s) that:

1. The fictitious name is:

 Raftelis

2. A brief statement of the character or nature of the business or other activity to be carried on under or through the fictitious name is:

 Consulting

3. The address, including number and street, if any, of the principal place of business (P.O. Box alone is not acceptable):

227 West Trade Street, Suite 1400	Charlotte	NC	28202	Out Of State
Number and street	City	State	Zip	County

4. The name and address, including number and street, if any, of each individual interested in the business is:

Name	Number and Street	City	State	Zip
Peiffer A Brandt	227 West Trade Street, Suite 1400 , Suite 1400 ,	Charlotte ,	Out Of State	
	, NC , United States ,	28202		
William G Stannard	3013 Main Street ,	Kansas City ,	Out Of State ,	MO , United States ,
	64108			
Matthew R Jackson	227 West Trade Street ,	Suite 1400 ,	Charlotte ,	Out Of State ,
	United States ,	28202		

5. Each entity, other than an individual, interested in such business is (are):

Name	Form of Organization	Organizing Jurisdiction
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Principal Office Address

PA Registered Office, if any

6. The applicant is familiar with the provisions of 54 Pa.C.S. § 332 (relating to effect of registration) and understands that filing under the Fictitious Names Act does not create any exclusive or other right in the fictitious name.

7. (Optional): The name(s) of the agent(s), if any, any one of whom is authorized to execute amendments to, withdrawals from or cancellation of this registration in behalf of all then existing parties to the registration, is (are):

IN TESTIMONY WHEREOF, the undersigned has caused this Application for Registration of Fictitious Name to be executed this

12th day of December, 2019.

Peiffer A Brandt

Individual Signature

Matthew R Jackson

Individual Signature

William G Stannard

Individual Signature

Exhibit A – Officers

Stacey Aukamp (Vice President)- 2693 Crooked Stick Lane

Mount Pleasant, SC 29466 803-413-1455

Tom Beckley (Vice President)- 215 W. Pershing Road, Suite 406

Kansas City, MO 64108 816-285-9024

Thierry Boveri (Vice President)- 341 N. Maitland Avenue, Suite 300

Maitland, FL 32751 407-628-2600

Peiffer Brandt (President and CEO) - 227 W. Trade Street, Suite 1400

Charlotte, NC 28202 704-936-4433

Mike Burton (Executive Vice President)-341 N. Maitland Avenue, Suite 300

Maitland, FL 32751 904-923-1466

Elaine Conti (Executive Vice President) - 227 W. Trade Street, Suite 1400

Charlotte, NC 28202 704-936-4436

Rocky Craley (Vice President)- 442 Wilson Mill Rd

New Wilmington, PA 16142 412-348-8225

Joe Crea (Vice President) -19 Garfield Place, Suite 500

Cincinnati, OH 45202 513-818-4145

Jon Davis (Executive Vice President) - 227 W. Trade Street, Suite 1400

Charlotte, NC 28202 704-936-4434

Melissa Elliott (Executive Vice President)- 383 N. Corona Street

Denver, CO 80218 303-305-1141

Michelle Ferguson (Vice President)- 807 East Main Street, Suite 6-050

Durham, NC 27701 828-777-6588

Dave Fox (Vice President)- 24 Superior Drive, Suite 107

Natick, MA 01760 774-243-0619

Steve Gagnon (Vice President)- 445 S. Figueroa Street, Suite 1925

Los Angeles, CA 90071 213-262-9308

Tony Hairston (Vice President) 341 N. Maitland Avenue, Suite 300

Maitland, FL 32751 407-960-1811

Murray Hamilton (Vice President)-341 N. Maitland Avenue, Suite 300

Maitland, FL 32751 407-493-8468

Bart Kreps (Vice President) - 227 W. Trade Street, Suite 1400

Charlotte, NC 28202 704-936-4438

Melissa Levin (Vice President) - 227 W. Trade Street, Suite 1400

Charlotte, NC 28202 704-936-4441

Henrietta Locklear (Vice President)- 1009 Burchwood Ave

Nashville, TN 37216 901-410-3300

John Mastracchio (Executive Vice President)- 40 British American Boulevard, 2nd Floor, Latham, NY 12110 518-310-6330

Chris McPhee (Vice President)- 21 Bellwether Way, Suite 410
Bellingham, WA 98225 360-576-8189

Julia Novak (Executive Vice President)- 19 Garfield Place, Suite 500
Cincinnati, OH 45202 513-221-0500

Rob Ori (Executive Vice President)-341 N. Maitland Avenue, Suite 300
Maitland, FL 32751 407-628-2600

Sudhir Pardiwala (Executive Vice President)- 642 Aster Trail
San Antonio, TX 78256 626-583-1894

Keith Readling (Executive Vice President)- 807 East Main Street, Suite 6-050
Durham, NC 27701 984-201-6240

Harold Smith (Vice President)- 383 N. Corona Street
Denver, CO 80218 704-936-4440

Doug Spiers (Vice President)- 1064 Terracina Drive
El Dorado Hills, CA 95762 916-807-3028

William Stannard (Executive Vice President)- 215 W. Pershing Road, Suite 406
Kansas City, MO 64108 816-285-9022

Darin Thomas (Vice President)- 822 N. Elm Street, Suite 104
Greensboro, NC 27401 336-209-1347

Henry Thomas (Vice President)- 341 N. Maitland Avenue, Suite 300
Maitland, FL 32751 407-628-2600

Catherine Tuck Parrish (Vice President)-19 Garfield Place, Suite 500
Cincinnati, OH 45202 240-832-1778

John Mastracchio ASA, CFA, PE

*ADD PROJECT ROLE

Executive Vice President

ROLE

*Add Description of Role

PROFILE

John is an Executive Vice President serving in a national role and leading the Northeastern practice of Raftelis. He has more than 28 years of experience as a financial and management consultant serving the utility, governmental, and private sectors. His extensive experience includes over 250 financial projects covering technical areas including valuation, financial planning and rate setting, capital financing, asset management, regionalization, litigation support, and transactional consulting, and spans several utility sectors including water, wastewater, electric, solid waste, and stormwater, along with consulting for the federal government and municipal general governments, transportation agencies, and ports.

<For business valuation assignments only>

John's affordability analysis experience includes completing numerous financial capability assessments to support Long-Term Control Plan development, Water Quality Standard variance negotiations, bond feasibility studies, development of low-income customer assistance programs, to support overall utility financial planning and rate setting, and for litigation support.

John's utility valuation experience includes appraisals for mergers and acquisitions, reorganizations, eminent domain condemnation, and litigation support. He has provided acquisition and transactional advisory services to equity investors, business owners, and government officials on deals ranging in size from \$50 million to \$2.5 billion. His other valuation-related experience includes due diligence investigations, development of financial projections, remaining useful life analyses, customer and supplier contracts, strategic investment decision-making, and deal structuring support.

John has earned the Chartered Financial Analyst (CFA) designation, is a Series 50 Municipal Advisor Representative, and is also a Licensed Professional Engineer. He is the Immediate Past Chair of the Finance, Accounting and Management Controls committee and a member of the Rates and Charges committee of the American Water Works Association (AWWA).

John has co-authored manuals of practice and utility industry papers on valuation, infrastructure investment, capital financing, financial management practices, and rate-setting, including AWWA's *Manual of*



Specialties

- Financial analysis & modeling
- Financial planning, cost of service, rate design
- Bond feasibility studies
- Transactional due diligence support
- Government consolidation/regionalization
- Public-private partnerships
- Inter-municipal agreement support
- Valuation assessments
- Expert witness & litigation support
- Benchmarking
- Capital financing & project planning
- Business process improvement
- Asset management/business case evaluations
- Transactional due diligence support
- Valuation and appraisals

Professional History

- Raftelis: Executive Vice President (2022-present); Vice President (2017-2021)
- Arcadis, U.S., Inc. (2003-2017)
- Arthur Andersen (2001-2002)
- Parsons Corporation (1994-2000)

Education

- Master of Business Administration, Finance - Cornell University (2001)
- Master of Science, Civil & Environmental Engineering - Clarkson University (1994)
- Bachelor of Arts - State University of New York, College at Geneseo (1993)

Certifications

- Accredited Senior Appraiser (ASA)
- Chartered Financial Analyst (CFA)
- Professional Engineer (PA)
- Lean Six Sigma
- Series 50 Municipal Advisor Representative

Professional Memberships

- American Society of Appraisers
- AWWA: Immediate Past Chair of Finance, Accounting, & Management Controls Committee & Member of Rates & Charges Committee
- Chartered Financial Analyst Institute
- Water Environment Federation

Practice M1, Principles of Water Rates, Fees, and Charges; Water Rates, Fees, and the Legal Environment; Manual of Practice M29, Water Capital Financing; and Financial Management for Water Utilities: Principles of Finance, Accounting, and Management Controls, along with the textbook *The Effective Water Professional: Leadership, Communication, Management, Finance, and Governance*, published by the Water Environment Federation (WEF).

KEY PROJECT EXPERIENCE

American Water Works Association, National Association of Clean Water Agencies, and Water Environment Federation: Affordability and Financial Capability Assessment

John led the development of a recommended new framework for measuring household affordability and financial capability assessment in the water sector intended to be a resource used by the EPA to replace their existing Financial Capability Assessment guidance document. He researched affordability measurement methods used in the water sector and in other utility sectors both within and outside of the U.S. to identify potential options implementable by the EPA. John facilitated stakeholder outreach with EPA and other agencies to identify pertinent affordability measurement and threshold criteria, developed a new proposed financial capability assessment methodology, and prepared a report and guidance document for implementation and use of the new recommended affordability methodology. John also met with legislators on Capitol Hill to assist in conveying the issues with the existing affordability methodology and to advocate for the adoption of the new proposed methodology.

City of Albany (NY): Stormwater Feasibility Study

John completed a feasibility study for the implementation of a regional stormwater credit banking and in-lieu fee program to assist six municipalities in the Albany area address the green infrastructure portion of a regional wastewater long-term control plan. The project consisted of conducting research on credit banking and in-lieu fee programs that are in existence around the country, facilitating workshops with the six Albany municipalities to assess how such a program could be implemented on a regional basis, assessed the advantages and disadvantages of such a program, evaluated governance alternatives, and prepared a feasibility and action plan report.

Albany County Sewer District/Saratoga County Sewer District (NY): Biosolids Governance, Economic and Risk Evaluation

John led effort to evaluate governance, economic and risk evaluation of developing a regional biosolids handling facility to manage biosolids for both the Albany County Sewer District and the Saratoga County Sewer District. The project consisted of evaluating multiple alternatives for addressing biosolids associated with each District, including a regional biosolids handling facility that will include solids handling, energy recovery, and provide a long-term solution for both sewer districts to address their municipal wastewater sludge disposal. Identified and evaluated various governance structure alternatives to support ownership, operation, maintenance, and funding of the facility. Governance alternatives that were considered included establishing a separate independent regional authority to own, operate, and manage the biosolids handling facility, and entering into an inter-municipal agreement to jointly or cooperatively operate and maintain the joint facility. Evaluated advantages and disadvantages of the alternatives. Prepared an evaluation report and presented recommendations to District staff.

Albany Pool Communities (NY): Financial Analysis and Affordability Study

John completed a financial analysis and affordability study to assist the cities of Albany, Troy, Rensselaer, Cohoes, and Watervliet, and the Village of Green Island (the Albany Pool Communities) in completing a joint, collaborative long-term control plan. Specifically, John led the assessment of the financial capability of affording the capital projects associated with the CSO long-term control plan for six municipalities in the Capital Region.

Appomattox River Water Authority (VA): Valuation Assessment

John led the completion of a valuation and governance and ownership assessment to help the Appomattox River Water Authority and its Board of Directors assess the value of its water system and evaluate potential changes or enhancements to its governance and ownership structure. The valuation assessment considered four approaches to determining the system value: the Cost Approach, the Income Approach, the Sales Comparison Approach, and the Rate Base Approach.

AWWA and AMWA: Financial Impact of COVID-19 on U.S. Drinking Water Utilities

John was the project manager and principal investigator in preparing a 2020 report estimating the financial impact that COVID-19 would have on water utilities in the U.S. The intent of the report was to aid AWWA and AMWA in advocating for securing federal funding for the drinking water sector to help deal with the crisis and to provide their membership with information regarding the anticipated aggregate financial impact on the sector.

Capital Region Water (PA): Financial Consulting Services

John provided financial consulting services including preparation of affordability analyses, cost of service modeling to justify rates charged to outside jurisdictional customers, development of financial plans and rate projections, consisting of demand forecasts, projections of revenues and expenses, modelling fiscal requirements and targets, identification of rate revenue requirements, allocation of costs to both retail and wholesale customers, and calculation of utility rates.

John led efforts to complete a financial capability and affordability assessment for Capital Region Water using the existing EPA FCA guidance document, as well as the new methodology prepared for AWWA, NACWA, and WEF. The financial capability assessment was completed to support wastewater Consent Decree negotiations. In addition, the assessment addressed a significant challenge related to completing affordability analyses where the agency provides retail service to a core urban area and wholesale treatment and conveyance, but not collection, service to more affluent suburban municipalities. The initial strategy including focusing the FCA analysis on the retail service area, however, the EPA requested that the analysis also include the suburban service areas. This required the project team to gather additional socioeconomic information from suburban communities, as well as collection and incorporation of system revenue requirements and capital needs from suburban communities. As a result of completion of thorough financial capability assessment, the EPA considered CRW's financial capability in the "high burden" category, which informed the long-term control plan timeline. The affordability analysis and information were also used by CRW to consider implementation of a more robust customer assistance program.

Cayman Islands Utility Regulation and Competition Office: Water Cost-of-Service Study and Private Utility Rate Case

Served as advisor to the Utility Regulation and Competition Office in the completion of a water cost of service study and private utility rate case. The goal of the project was to recommend cost justified water rates for the Cayman Water Company, including focusing on their revenue requirements and allowable rate of return. The work included research and review of regulatory frameworks for drinking water companies operating in the Caribbean, the U.S., and the U.K., reviewing and analyzing financial and rate information provided by the Company, recommending an economic regulatory framework for use by the Utility Regulation and Competition Office, and documenting recommendations in a comprehensive report.

Central Brown County Water Authority and Green Bay Water Utility (WI): Utility Cooperation & Collaboration Study

Served as project manager for a utility cooperation and collaboration study that identified shared service opportunities among nine community water utilities and one joint local authority in Northeast Wisconsin. Efforts included data gathering as well as in-depth interviews with each participant seeking to understand current water

utility systems, operations, contracts, costs, and service levels. Captured functional information was developed into metrics that were compared both with national benchmarks and across utilities to identify potential areas for improvement through collaboration. Opportunities were then prioritized through workshops for further analysis. Business case evaluations were completed which summarized the key comparative data for each priority function, elaborated upon and scored for shared service alternatives, and made recommendations for next steps. As part of branding efforts engaged during the Study's communication plan development, the work itself and the ongoing program came to be known as the Sustainable Partnership Linking Area Services and H2O or "SPLASH", with key messages highlighting SPLASH's potential to drive local economic development, promote community health, and improve service levels.

Charlotte Water (NC): Water and Sewer Cost-of-Service and Rate Alternatives, Affordability Evaluation

John was the project manager for a study to evaluate and update Charlotte Water's existing water and sewer rate structure, evaluate customer assistance and affordability programs, develop rate structure alternatives, and assist in rate adoption and implementation. He addressed pricing objectives including inter- and intra-class equity, water conservation, revenue stability, low-income affordability, and economic development. Completed cost of service studies to determine the cost responsibility of customer classes. He evaluated customer affordability at various income levels and household sizes within the service area. He facilitated a public input process by forming a stakeholder advisory group that consisted of representatives of residential customers in various neighborhoods across the service areas, as well as business representatives from the community. He conducted public and stakeholder meetings to obtain customer feedback pertaining to the rate structure. He assisted Charlotte Water obtain Council approval for a modified rate structure methodology that included an enhanced lifeline rate, water conservation incentives, and sewer billing based on average winter consumption.

City of Cleveland (OH): Rate Expert Witness Support

John served as a rate expert in a case involving a contract customer of the City of Cleveland (City). He prepared cost of service and rate evaluations, written expert reports, presented results to the City Council and served as a rate expert in the case providing expert witness testimony.

City of Columbus (OH): Electric Rate Study, Water and Sewer Cost-of-Service Evaluations and Rate, Fee, and Charge Assessments

John led the completion of cost-of-service evaluations and rate, fee, and charge assessments to assist the City generate sufficient revenues to pay for upcoming water and sewer capital improvement and operation and maintenance programs. The project included completing a cost-of-service evaluation to determine the cost responsibility of the City's customers, and a rate structure evaluation to identify water and sewer rate structures that were closely aligned with the cost of providing service and developing rate formulas for the city's future use. Provided input into the City's affordability analysis to support implementation of a long-term control plan. Based on the results of this study, assisted the City in implementing a customer assistance program to address affordability by changing its water rates from a declining block structure to a "lifeline" rate and an inclining block structure for residential customers. Also, assisted the city in implementing a separate charge to customers to pay for its wet weather capital program. This charge recovers the cost of the program based upon the impervious surface area of the City's customers. Presented study results to city staff, city council, and other stakeholders using interactive financial modeling tools that were developed for the client. Reviewed the City's low-income discount programs and evaluated the revenue and rate impacts associated with the enhancement of these programs.

John led the completion of an electric utility rate study for the City of Columbus (City) to assist the City in developing a sustainable financial and rate plan. Evaluated customer electricity usage and demands. Developed projections of revenues from the sale of electricity, and expenses and revenue requirements of the utility. Completed a cost-of-service evaluation to assess the cost responsibility of each type of customer served by the City. Compared

utility rates and rate tariffs of nearby electric utilities to the City's electricity tariff structure. Prepared electricity tariff recommendations based on the results of the cost-of-service evaluation and electricity tariff competitiveness assessment. Evaluated the net revenues of the system and their ability to fund the City's expanding street lighting program. Evaluated the City's purchased power agreements and assisted the City in developing an approach to adjusting its automatic power cost adjustment mechanism as part of their tariff structure to ensure full cost recovery and to pass through unexpected increases of purchase power costs onto its customers.

Confidential Private Water Company (MA): Valuation Study

John served as a technical advisor for the valuation of a private water company operating in Massachusetts. The valuation assessment was completed to inform management's decision regarding the possible sale of the company and to estimate the value of the company in a market transaction. The effort included using standard valuation methods in the drinking water utility industry that can be reasonably applied to the company. The Company provides drinking water, irrigation, and fire protection services to approximately 6,584 people and 2,284 customers.

Confidential Water System (PA): Valuation Study

John served as a technical advisor for the valuation of a wastewater system in Pennsylvania. The valuation assessment was completed to assist an investor-owned utility estimate the value of the system for possible negotiated sale. The effort included using standard valuation methods and approaches.

Town of Darien (CT): Inter-Municipal Wastewater Service Agreement

John assisted the Town of Darien (Town) negotiate a long-term sewer service agreement with the City of Stamford. Developed the sewer user charge pricing provisions included in the agreement, which consisted of a cost allocation process to allocate sewer costs to the Town based on various alternatives, including wastewater flow, billed water consumption, and flat charges for unmetered customers. Supported the WPCA in agreement negotiations with the City.

City of Dayton (OH): Water and Sewer Rate Study, Utility Surveys and Benchmarking Study, Water Efficiency Master Plan

John completed water and sewer rate studies for the City of Dayton (City), consisting of estimation of revenue requirements, development of financial models, facilitating workshops with the City, completion of cost-of-service evaluations, and developing projections of utility rates. Also, prepared utility surveys and benchmarking studies to assess competitiveness of existing and proposed rates and presented results to City staff and officials. John assisted the City in negotiating a long-term water supply contract with a neighboring municipality, and acceptance of a "utility basis" cost of service model that serves as the basis for the cost of purchased water specified in the water supply contract.

John assisted in completing a water efficiency master plan for the City's water system that consisted of developing a long-term strategic business plan to help guide the organization's operation and infrastructure investments. Completed an assessment of current operational efficiency and assisted in identifying areas with the most potential for savings and potential to realize "quick wins," spanning multiple departments and functions.

Delta Diablo Sanitation District (CA): Financial Feasibility Study

John led the completion of a financial feasibility study for the East County Bioenergy Project. The project consisted of wastewater system improvement to accept food waste for the generation of renewable biogas that could be sold to generate additional revenues for the Delta Diablo Sanitation District (District). Developed a financial model and evaluated project risk using Monte Carlo simulation and scenario analysis. Assisted client in negotiating food waste tipping fee that would support a long-term economically viable project. Presented results of the financial model to assist the District in making a project investment decision.

DC Water (DC): Conveyance Cost-of-Service Evaluation

John completed a sewer user charge study to establish a conveyance and treatment rate for DC Water customers that discharge to a large sewer interceptor, the Potomac Interceptor. The study consisted of evaluating the portion of DC Water's costs associated with the Potomac Interceptor and the Blue Plains Wastewater Treatment Plant, developing a cost-based allocation to various municipal and federal customers that discharge to the interceptor, and establishing a multi-year sewer rate. Prepared a detailed sewer user charge report and presented the results to the DC Water board.

Erie County Sewer Districts (NY): Merger Feasibility Study

John managed the evaluation of the feasibility of consolidating three adjacent wastewater systems into Erie County Sewer Districts. Managed the financial evaluation of the impacts of consolidating included potential cost savings and impacts on customer taxes and user fee rates.

City of Glens Falls (NY): Water and Sewer Rate Study

John completed a comprehensive water and sewer rate study for the City of Glen Falls consisting of the development of a financial plan, evaluation of the cost of service to customers, and evaluation of rate structure alternatives. Developed wholesale water rates for future negotiations with neighboring communities, evaluated the unit cost of receiving and treating liquid sludge, septic waste, and industrial wastewater. Evaluated alternative rate structures, including the reduction of the minimum charge, converting the capital charge based on assessed value to a capital charge based on water consumption, and charging wastewater rates based on wintertime water consumption.

Town of Greenburgh Consolidated Water District (NY): Water Rate Study

John prepared a financial plan, financial model and water rate plan to assist the Town of Greenburgh Consolidated Water District (Town) pay for anticipated water system capital improvements. The financial plan and model was prepared to forecast cash flow and revenue requirement needs over a 10 year period. The model included forecasts of customer accounts and water consumption, operations, maintenance, and capital project costs, and capital funding needs over the forecast period, including the cost of purchased water from New York City. The rate study consisted of an allocation of costs to the Town's customers, and an evaluation of rate structure alternatives to provide sufficient revenues to the Town and to ensure an equitable and stable revenue source over time to support the needs of the system. Prepared and provided the Town with financial and rate models and presented rate recommendations to the Town Board and the Water Advisory Committee.

City of Key West (FL): Sewer, Stormwater, Solid Waste, and Marina Rate Studies and Indirect Cost Study

Through various engagements completed since 2008, John has provided consulting support and advice to the City in a variety of areas. He has completed rate and fee studies for the City on an annual basis, involving sewer, stormwater, and solid waste utilities owned and operated by the City. He has developed a financial plan and model for the City's Marina and Cruise Port operations and has helped City staff update this model on an annual basis for planning purposes. He has reviewed and updated the common areal maintenance charges associated with the Key West Bight Management District. This area is a public-private partnership whereby the City owns the commercial areas and marina at Key West Bight, leases commercial space to tenants, and collects lease payments in proportion to the commercial revenue generated at the Bight. He has prepared an indirect cost study and cost allocation plan for the City's General Fund. He has assisted the City in developing a methodology and approach for the General Fund to cost justifiably establish charge backs to the enterprise funds for payment-in-lieu-of taxes, franchise fees, and right-of-way fees. He has completed an impact fee study to assist the City to equitably recover the cost of

growth from new development. He has assisted the City in developing pricing provisions for an intermunicipal agreement with Monroe County for sharing of stormwater pump station capacity.

Lehigh County Authority (PA): Regionalization Study and Bond Feasibility Study

John led efforts to assist Lehigh County Authority (LCA) develop a financial plan for its Act 537 Plan and develop a new cost sharing arrangement with its City and suburban municipal partners. This effort involved developing and modeling new cost allocation alternatives and working with LCA stakeholders to accept and adopt a new cost sharing approach.

John provided technical and financial due diligence services for the Lehigh County Authority (Authority) to support the issuance of revenue bonds to fund the up-front concession payment for the utility assets associated with the concession agreement with the City of Allentown, PA. Reviewed and evaluated financial projections and cash flow forecasts, evaluated upside and downside financial scenarios, supported organizational due diligence, system condition assessment, and provided bond feasibility opinions related to the transaction.

John provided financial support to the Authority in their bid for the City of Allentown's water and wastewater concession. Reviewed and evaluated key financial forecast assumptions and projections supporting the cash flows associated with the concession. Identified key risk factors for consideration during the negotiation process. Developed a financial feasibility report to assist the Authority in issuing \$300 million in debt to finance the concession transaction. Continue to work with the Authority to optimize revenues and costs under the concession agreement.

Town of Mamaroneck, City of New Rochelle, Village of Pelham Manor, Village of Larchmont, and Westchester County (NY): Organization Assessment

John led efforts to identify potential alternative organizational structures available for the consortium members for future regional management of their combined systems. He evaluated the financial, technical, and legal advantages and disadvantages of each governance alternative to allow for the assessment of the feasibility of alternatives. He identified the key decision factors associated with each alternative, including general powers and authority, roles and responsibilities of each party, financing, regulatory compliance, transfer of assets, and liability identification. He facilitated meetings with legal and financial representatives to discuss potential structures. He prepared a report documenting the feasibility of alternatives.

Metropolitan Water District of Southern California (CA): Pure Water Southern California Cost Recovery Alternatives Analysis

John is currently assisting the Metropolitan Water District of Southern California (Metropolitan) develop a cost allocation and funding plan for the Pure Water Southern California program. The Program is a partnership between Metropolitan and the Los Angeles County Sanitation Districts. The program will create a new water supply at an estimated cost of \$8 billion to help meet the region's needs by providing up to 150 million gallons of water daily or 155,000 acre-feet-year, enough for 1.5 million people. The water will replenish groundwater basins, be used by industries, and potentially be integrated into Metropolitan's existing drinking water treatment and delivery system. In support of the development of this project, John is assisting Metropolitan identify and develop cost recovery options that will provide a long-term revenue source to fund the capital and operating cost of the project. John has led financial assessment and cost recovery surveys to help identify revenue recovery alternatives for the project.

City of Mesa (AZ): Economic Evaluation Study

John led the completion of an economic evaluation to support the feasibility assessment of a project to collect high strength waste, such as food waste, fats, oils, and grease, and process this waste that the City of Mesa's (City) Water

Reclamation Plant resulting in the production of biogas. He assessed the economic feasibility excess co-digestion capacity to generate biogas to be used for onsite power generation or treated to pipeline quality for use in the City's Compressed Natural Gas solid waste collection trucks. Developed an economic model to assess the economic viability of seven different process and operational scenarios. Modeled the 20-year life-cycle cost of each scenario, calculated the economic benefits of each scenario considering the net present value, payback period, and equivalent annual annuity. Worked with technical team members to validate key model inputs and assumptions. Completed what-if evaluations and Monte Carlo simulations to quantify project risks and assist the client in making an informed investment decision.

The Metropolitan District (CT): Financial Planning and Valuation Support

John provided financial support on a number of The Metropolitan District (District) projects, including economic and financial analysis associated with the District's Asset Management Program, valuation analysis related to the potential acquisition of water and wastewater systems, calculation of system development charges, economic analysis regarding a biosolids energy project, and financial planning and modeling assistance to support water and wastewater planning. Completed valuations of publicly owned and investor-owned utilities to assist the District in making utility acquisition decisions.

Miami-Dade County (FL): Financial Planning and Bond Consulting Support

John served as the lead financial analyst for the preparation of a Bond Feasibility Report and Certificate in support of the issuance of Seaport Revenue Bonds in accordance with Bond Ordinance requirements. Activities included reviewing revenue characteristics (historical and budget), cargo and cruise contracts, and other documentation provided to support revenue projections; developed comprehensive financial model to project net revenues for a five-year period beyond the bond issuance; prepared a draft and final Consulting Engineer's Report; and supported PortMiami and its entire County Financing Team in the development of the Preliminary Official Statement and Official Statement, as well as participated in presentations to, and discussions with, Rating Agencies and Letter of Credit providers to address questions and run individual scenarios associated with their review of PortMiami's financial condition.

John also updated the County's transportation impact fee manual by reviewing the county's land use policies for urban and non-urban areas of the county, reviewed the County's transit development plan, assessed transportation demand using the Institute of Transportation Engineers' Trip Generation manual and other available demand studies completed in South Florida. Updated the County's methodology for calculating road impact fees and prepared a new impact fee schedule for the County's consideration and adoption. Provided a completely new transportation impact fee manual for the County's future use.

Monroe County Department of Environmental Services (NY): Wastewater Rate Study

John completed a Sewer User Charge Study to assist the Monroe County Department of Environmental Services (MCDES) generate sufficient revenues to pay for operating and capital needs. MCDES rate structure consists of a combination of Ad Valorem taxes for capital cost recovery, and sewer user charges based on billed water consumption for the recovery of operating expenses. He evaluated the costs of provide sewer service to each of the four different districts based on the varying levels of service provided. He developed a detailed excel-based financial model to assist in preparing the financial plan and cost of service evaluation. He assisted the MCDES evaluate various alternative sewer user charge structures. He prepared and provided a user-friendly sewer rate model for MCDES' future use.

Monterey Peninsula Water Management District (CA): Appraisal and Cost-of-Service Study

John completed an appraisal and assisted in the completion of a cost-of-service study for the Monterey Water System owned and operated by the California-American Water Company. The appraisal was completed to assist

the District assess the financial feasibility of acquiring the water system through negotiated sale or condemnation action. He presented results to the District board for decision to move forward with possible condemnation.

National Association of Clean Water Agencies (NACWA): Water Infrastructure Funding Parity Report

The water sector has long thought that federal funding support for water sector infrastructure has not kept pace with other critical infrastructure sectors, such as transportation and energy. John led research that was completed to document the amount of federal infrastructure funding that has been provided to the clean water and drinking water sectors and provide an assessment of how these funding amounts compare to other critical infrastructure sectors. The research report also identified alternative supplemental funding sources that could support clean water agencies and the water sector in the future.

New Castle County (DE): Inter-Municipal Wastewater Agreement Support

John supported New Castle County (County) in negotiating utility rates and a new inter-municipal agreement with a neighboring municipality. He reviewed the cost-of-service justification for the rates that were being charged and assisted the County in establishing more favorable pricing terms. He identified cost of service methodology and approaches that were inconsistent with common industry practice and assisted the County during an arbitration process to establish more acceptable methods of calculating the utility rates. He served as an expert witness in the Arbitration proceedings. He prepared and defended third-party expert reports through a litigation process.

John completed a “value for money” and financial evaluation of a Renewable Energy Biosolds Facility associated with the County and the City of Wilmington’s wastewater treatment plant. This project was procured through a guaranteed energy performance contract with an energy services company, and the facility will recover biogas from the wastewater treatment plant sludge and generate heat to provide for thermal drying sewer sludge and generate electricity to for the wastewater treatment plant. He developed a financial model to evaluate the project’s life-cycle costs and cost savings. He evaluated project risks by analyzing key inputs, such as energy generation, electricity pricing, sludge disposal costs, and other operations and capital costs using Monte Carlo analysis. He reported on the financial feasibility and financial risks of the projects.

City of Norwalk (CT): Wastewater Rate Study, Stormwater Feasibility Assessment, Strategic Plan

John provided annual financial plan, financial modeling, and rate support of the City of Norwalk’s (City) Water Pollution Control Authority. He developed financial plan and model to forecast cash flows and revenue requirements over a 10-year forecast period. He prepared a cost allocation model to evaluate rate structure alternatives to generate sufficient revenues for the Authority and to ensure equitable rates over time. He prepared rate recommendations and presented results to the Authority board.

John completed a sewer user charge and consumption-based billing study to evaluate the feasibility and considerations of changing from a flat rate structure for residential customers that is billed on the real estate tax bill to a consumption-based billing structure. This evaluation included identification and evaluation of potential rate structure alternatives, assessment of the potential impacts on customer bills, evaluation of the technical and administrative feasibility of implementing the change, an evaluation of the potential financial impacts of changing rate structures in terms of billing data acquisition, changes to billing processes, and delinquency rates, and an assessment of the regulatory and legal aspects of the existing rate structure and the rate structure alternatives that were identified.

City of Newburgh (NY): Wastewater Affordability Assessment and Rate Study

John developed a financial plan, financial modeling, and rate plan for the City of Newburgh’s (City) water and sewer utilities to support the capital needs of the system. He developed a financial plan and model to forecast cash flows and revenue requirements over a 10-year forecast period, including a projection of customer accounts, billed

flow, operations, maintenance expenses, capital project costs and funding needs. He allocated costs to City customers and evaluated rate structure alternatives to generate sufficient revenues for the City and to ensure equitable rates over time. He prepared rate recommendations and presented results to City Council.

Northern Will County Water Agency (IL): Appraisal Services

John completed an appraisal review and provided expert testimony regarding the valuation of the American Lake Water Company, a subsidiary of the American Water Company to support condemnation proceedings. The valuation review opinion was prepared including consideration of the asset, income, and market-based valuation methodologies.

Onondaga County Water Authority (NY): Water Rate Study

John led the completion of a water rate study to assist the Onondaga County Water Authority (OCWA) generate sufficient revenues to pay for operating and capital needs and recover costs from customers in an equitable manner. Project included completing a water demand forecast, a financial plan, and a rate design model. He assisted in the design of water rates, and prepared and provided a rate model for OCWA's future use.

Pittsburgh Water and Sewer Authority (PA) – Valuation

John led efforts to value water and wastewater assets owned by municipalities neighboring the PWSA service area. Led the completion of the valuation efforts, and assessment of the financial impacts of PWSA ownership and operation of the water and sewer systems post acquisition. Led the preparation of a financial model to support PWSA's decision to make an offer to the utility owners.

Puerto Rico Aqueduct and Sewer Authority (Puerto Rico): Engineer's Reports, Bond Feasibility Studies, Water and Sewer Cost-of-Service Evaluations, Affordability Analyses, Rate Design Studies

John prepared consulting engineer's reports, bond feasibility studies, water and sewer cost of service evaluations, affordability analyses and rate design studies for the Puerto Rico Aqueduct and Sewer Authority (PRASA). He assisted PRASA in evaluating financial and alternate project delivery options and their impact on PRASA's financial situation. He provided financial support for a comprehensive island-wide energy initiative to improve energy efficiency, reduce energy costs, and minimize pricing volatility associated with PRASA operations.

John assisted in the preparation of financial plans and affordability analyses for PRASA to assist the agency in considering the restructuring of its utility rates and adoption of customer assistance programs. The financial capability assessment included following EPA's guidance report, but also expanding the analysis to include a census track-level affordability assessment and a long-term cash flow forecast to assess future wastewater rates and residential customer bills. The results of the analysis were used to support the Agency's rate planning and to satisfy ongoing disclosure requirements associated with its bond covenants.

John provided financial support for a comprehensive island-wide energy initiative to improve energy efficiency, reduce energy costs, and minimize pricing volatility associated with PRASA operation of over 125 water treatment plants, 60 wastewater treatment plants, 1,500 pump stations, 300 water wells, and 70 buildings. Responsible for the financial aspects of the identification of project opportunities, development of RFQs and RFPs for performance contracting services and power purchase agreements, review of energy services companies that proposed on the work.

John provided consulting services to evaluate financial and alternate project delivery options and their impact on Puerto Rico Aqueduct and Sewer Authority's (PRASA) financial situation, for the Valenciano Regional Aqueduct System (reservoir/dam, water treatment plant and transmission system). The goal of this project was to expand water availability in the East Central Region, provide redundancy and improve potable water quality. Assisted in

the preparation of the Request for Qualifications (RFQ) package for the project, as well as provided support in the preparation of addendums, and in the eventual evaluation of statements of qualification (SOQ) and short-listing of prospective proponents. Assisted in the preparation of the Request for Proposals (RFP).

Region of Peel (Canada): Water and Wastewater Financial Planning Study

John served as the project director for a comprehensive long-term water and wastewater financial planning project for the Region of Peel. This project entailed (1) review of the Regions existing budgeting, capital planning, and financial planning processes to identify gaps and opportunities for improvement, (2) completion of an environmental scan to compare the Region to peer utilities across Canada and beyond from a financial perspective, (3) completing a cost of service evaluation, (4) preparation of rate structure alternatives, (5) the development of a long-term financial plan and model to assist the Region with long-term financial decision-making, and (6) facilitating an extensive stakeholder outreach effort to solicit feedback from customers. The project recommendations, including a new water and wastewater rate structure and financial plan for the Region, were successfully implemented.

City of Stamford (CT): Capacity Fee Expert Witness Support

John provided assessment and connection fee expert witness assistance to the City of Stamford (City) related to litigation with a developer. He prepared an analysis of the cost and benefit provided by the City to the developer associated with the property connected to the City's system, evaluated the merits of the City's assessment, connection, and user fees. He provided an expert report and deposition on the technical justification for the fees and the reasonableness of the fees that are charged. His assistance resulted in the litigation being settled between the parties.

Solid Waste Authority of Central Ohio (OH): Financial Planning Study

John was engaged by the Solid Waste Authority of Central Ohio (SWACO) to provide its board of directors with added confidence in staff's solid waste financial plan and planned fee increases. He reviewed, updated, and delivered an enhanced financial planning model to help staff provide clear and defensible cash flow and revenue requirement projections. He incorporated cost of service evaluation elements into the model to allow SWACO to make decisions regarding tipping fees and waste flow at its multiple transfer stations. He incorporated landfill closure and post-closure financial obligations into recommended cash reserve levels. He prepared a report documenting recommendations and delivered a presentation to SWACO's board of directors. Provided ongoing modeling support to SWACO financial staff.

Suffolk County Department of Environment and Planning (NY)

John led a project to assist Suffolk County develop an implementation plan for the creation of a Water Quality Management District that will provide the administrative and legal structure and funding source to implement the County's long-term plan to address nitrogen pollution throughout the County. This plan was prepared to address that nearly three quarters of the properties in the County are not connected to sewers and utilize on-site cesspools and septic systems, which has contributed to harmful algae blooms and fish kills, degraded marine habitat, and destroyed the coastal marshlands. The project consisted of completing a detailed assessment of recurring revenue alternatives and developing a blueprint for an organizational structure and process for establishment and management of the district. The plan included the development of a recurring revenue stream, governance structure, spatial tools, and legal pathways to success. The project also entailed significant stakeholder engagement across several County departments, as well as local environmental non-profits, the business community, and beyond. Following extensive data gathering and analysis, coupled with monthly workshops, he helped the County design and select a tailored revenue model and governance structure.

City of Virginia Beach (VA): Water and Wastewater Rate Study, Bond Feasibility Support

John served as the project manager for a multi-year financial services contract for the City of Virginia Beach (City) that included completing an economic evaluation to support asset management and CIP plans, true-up evaluation, developing an interactive financial planning model, and completing a cost-of-service evaluation. The true-up evaluation consisted of reviewing the City of Norfolk's cost allocation model for allocating operation and maintenance expenses, reviewing the rate model for allocation of fixed assets, and the rate of return on rate base for reasonableness. This effort saved Virginia Beach more than \$1 million in payments to the City of Norfolk. The cost-of-service evaluation consisted of assessing future capital funding needs for the water and sewer utilities due to aging infrastructure, system expansion, and new regulations, determining revenue requirements over a five to ten year period, and developing rates, fees and charges to meet revenue requirements and other City rate-setting goals and objectives.

Water Research Foundation (CO): Rate Communications Toolkit, Capital Financing Evaluation

John was the principal investigator on a research project to identify and develop communication approaches, messages, and tools that water utilities can use to communicate water rate and pricing changes more effectively to governing board members, and gain support for needed utility rate adjustments. Through this research, identified the factors critical to successful rate case adoptions, identified factors that tend to inhibit successful rate adoption, developed a framework for effective rate communications, and prepared a rate communications toolkit that can be used by utilities to effectively communicate and garner support for rate adjustments.

John was the principal investigator on a research project to identify and evaluate new and emerging capital financing alternatives and capital providers relevant to the water industry. Identified new and emerging capital providers and financing alternatives, evaluated their benefits and limitations. Prepared research report and capital financing evaluation toolkit consisting of a series of case studies and a decision support tool that can be used to evaluate the financing alternatives.

Add:

Dupage Water Commission
Great Barrington
Derby
Joplin
Jaffrey
Alcosan
Little River
North Bend
PREPA
SFPUC
Houston
Colonie
Massanutten
S. Norwalk Electric and Water
Green Bay
Delcora
Lansing
MSD Buncombe
Rockland Co
Watford City

PROJECT LIST

- Albany Water Board (NY) – Business case evaluations to support an asset management program
- Borough of Elmwood Park (NJ) – Water financial plan
- City of Bridgeport (CT) – Wastewater rate study
- Buncombe County MSD (NC) – Merger study
- Chesterfield County (VA) – Capacity fee evaluation and water and wastewater rate study
- City of Darien (CT) – Inter-municipal wastewater service agreement
- DC Water (DC) – Conveyance cost of service evaluation
- Delaware County (OH) – Capacity fee evaluation
- Department of the Public Advocate (NJ) – Valuation assessment
- City of East Providence (RI) – Water and wastewater rate study
- Erie County DEP (NY) – Merger feasibility studies
- City of Evanston (IL) – Water and wastewater rate study
- City of Fort Wayne (IN) – Water and wastewater valuation study
- Town of Greenburgh (NY) – Water rate study
- Greene County (OH) – Wastewater rate study
- City of Harrisburg (PA) – Asset transfer support
- City of Heath (OH) – Water and wastewater rate study
- Henrico County (VA) – Water and wastewater rate studies and capacity fee evaluation
- City of Hopewell (VA) – Wastewater bond feasibility study
- Isle of Wight County (VA) – Water and wastewater rate studies and financial planning
- City of Key West (FL) – Sewer, stormwater, solid waste, and marina rate studies and indirect cost study
- City of Kingston (NY) – Wastewater rate study
- City of Lancaster (OH) – Water and wastewater rate study and financial capability assessment
- City of Lansing (MI) – Wastewater rate study
- Town of Lincoln (RI) – Wastewater rate study
- City of Lorain (OH) – Wastewater regionalization study
- Macomb County (MI) – Wastewater acquisition evaluation and rate studies
- City of Marysville (OH) – Water and Wastewater rate studies and capacity fee analyses
- Metropolitan District Commission (CT) – Financial planning and acquisition support
- Miami-Dade County Seaport Department (FL) – Financial planning and bond consulting support
- City of Miamisburg (OH) – Water and wastewater rate studies and valuation assessment
- Milwaukee Metropolitan Sewer District (WI) – Owner’s agent operations contracting assessment
- Monroe County Department of Environmental Services (NY) – Wastewater rate studies
- Montgomery County (OH) – Water and wastewater rate studies
- New Castle County (DE) – Inter-municipal wastewater agreement support
- City of New London (CT) – Water and wastewater rate study
- City of Newark (NJ) – Water and wastewater rate study
- City of Newark (OH) – Water and wastewater rate study
- Town of Newburgh (NY) – Wastewater affordability assessment and rate study
- City of Norwalk (CT) – Wastewater rate study, stormwater feasibility assessment, and strategic plan
- Onondaga County Water Authority (NY) – Water rate study
- Onslow Water and Sewer Authority (NC) – Water and wastewater rate studies and capacity fee evaluation
- Passaic Valley Sewerage Commission (NJ) – Wastewater cost of service evaluation
- Philadelphia Water Department (PA) – Financial modeling support

- Prince William County Service Authority (VA) – Water and wastewater rate study
- City of San Diego (CA) – Water rate study
- Sanitation District No. 1 of Northern Kentucky (KY) – Wastewater financial modeling
- Saratoga County Water Authority (NY) – Water bond feasibility support
- Solid Waste Authority of Central Ohio (OH) – Financial planning and modeling
- City of Stamford (CT) – Capacity fee expert witness support
- Summit County (OH) – Wastewater rate study
- U.S. Virgin Islands Waste Management Authority (U.S. Virgin Islands) – Sewer and solid waste fee assessment
- Union County (NC) – Water and wastewater rate study and capacity fee assessment
- City of Virginia Beach (VA) – Water and wastewater rate studies and bond feasibility support
- City of Warren (OH) – Inter-municipal agreement support
- Williamsport Sanitary Authority (PA) – Wastewater rate study, nutrient credit support, inter-municipal agreement support

LITIGATION AND RATE CASE EXPERIENCE

City of Bullhead City v. EPCOR Water of Arizona, Inc.

- Fair Market Value Appraisal
- Case No.: CV-2020-265

Daedalus, LLC, Epcon Communities Carolinas, LLC vs. City of Charlotte

- System Development Fees
- Case No.: 18-cvs-21073

Northern Will County Water Agency vs. American Lake Water Company

- Water System Valuation to Support Condemnation
- Case No.: 14 ED 33

City of Stamford vs. Harbor Point Holding Company

- Thomas Cassone (Attorney for the City)
- Sewer Connection Fees

City of Westlake vs. City of Cleveland, OH

- Discontinuation of Wholesale Water Service
- Recovery of Stranded Investment Costs
- Case No. CV-12-782910

Joint Petition of the City of Trenton and New Jersey American Water Company

- Purchase and Sale of the Assets of the Outside Water Utility System of the City of Trenton, NJ
- Water System Valuation
- BPU Docket No. WM08010063.

Arbitration: New Castle County vs. City of Wilmington, DE

- American Arbitration Association
- Wastewater Fee Dispute

Waste Management Authority U.S. Virgin Islands

- Application and Approval of Environmental User Fee and Wastewater User Fee
- Virgin Islands Public Services Commission
- Docket No. 554.

Water Quality Standards and Effluent Limitations for the Chicago Area Waterway System

- Before the Illinois Pollution Control Board (R08-09)

- Economic Assessment for Disinfection Facilities.

Arizona American Water Company Rate Case

- Maricopa Water District (Intervener)
- Pricing Provisions for a Capital Lease of the White Tanks Water Treatment Plant
- Docket No. W-01303A-05-0718.

PUBLICATIONS

- Affordability of Wastewater Service, 2nd Edition, Water Environment Federation, 2022.
- “Thinking Outside the Bill: A Utility Manager’s Guide to Assisting Low-Income Water Customers”, A study sponsored by the AWWA Water Utility Council, Third Edition. 2022.
- “How Much Is It Worth? An Overview of Valuing Water Utilities”, published in the Journal of the American Water Works Association, August 2020.
- “Affordability Assessments: Policy Recommendations for USEPA,” published in the Journal of the American Water Works Association, June 2020.
- “The Financial Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities,” prepared for the American Water Works Association and the Association of Metropolitan Water Agencies, April 14, 2020.
- “Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector,” prepared for the American Water Works Association, National Association of Clean Water Agencies, and the Water Environment Federation, April 17, 2020.
- "Principles of Water Rates, Fees, and Charges," Manual of Water Supply Practice M1, 7th Edition, 2017
- "Financing and Charges for Wastewater Systems," Manual of Practice M27, 4th Edition, 2017
- “New and Emerging Capital Providers for Infrastructure Funding, Project #4617,” Water Research Foundation
- “Rate Approval Process Communication Strategy and Toolkit, Project #4455,” Water Research Foundation, 2016
- “The Effective Water Professional: Leadership, Communication, Management, Finance, and Governance,” Water Environment Federation, 2015
- "Water Capital Financing, Manual of Practice M29," Led the subcommittee involved in updating and publishing a new edition of the M29 Manual
- "Developing Rates for Small Systems M54," Chapter author involved in updating and publishing a new edition of the M54 Manual
- “Financial Management for Water Utilities: Principles of Finance, Accounting, and Management Controls,” American Water Works Association, 2nd Edition, 2012
- “Water Rates, Fees, and the Legal Environment,” American Water Works Association, 2nd Edition, 2010
- "Budgeting and Financial Planning," Wastewater Collection System Management, Manual of Practice No. 7, Chapter 8, Water Environment Federation 2009
- "Maintaining Long Term Financial Health," Talk of the Towns, Association of Towns of the State of New York, 2007

PRESENTATIONS

- “Review of EPA Proposed 2022 Financial Capability Assessment Guidance, presented at the Utility CFO Forum, April 2022.

- “Financial Planning and Using ARPA and ILJA Funds for a Transformative Future,” AWWA Webinar, March 16, 2022.
- “Evaluating Revenue and Financing Considerations. Developing a Financing Strategy in Uncertain Times,” the Utility Management Conference. February 22, 2022.
- “Covid-19’s Financial Impact on Water Utilities,” Webinar Sponsored by American Water Works Association, May 2020.
- “Developing a New Framework for Household Affordability and Financial Capability Assessment in the Water Sector,” prepared for the American Water Works Association, National Association of Clean Water Agencies, and the Water Environment Federation, April 17, 2020.
- “A Path Forward on Affordability,” Utility Leaders Plenary Session at WEFTEC, 2019
- “The Nuts and Bolts of the New Affordability Proposal,” River Rally Conference, 2019
- “Evaluating if Water Service is Affordable – Integrated Planning and Beyond,” American Water Works Association Annual Conference, 2019
- “Strategies and Approaches that Small Utilities Can Use to Improve Success in Funding Deferred Capital Needs,” Utility Management Conference, 2019
- “Asset Bundling, Alternative Financing, and Cold Hard Cash,” American Water Works Association Annual Conference, 2018
- “Sustainability and Implications for Utility Management and Financing,” P3 Water Summit, 2018
- “Innovations in Water Infrastructure Financing – Getting the Right Fit, Water Infrastructure Conference, 2017
- “Rate Approval Process Communication Strategy and Toolkit: Results from WRF 4455,” American Water Works Association Annual Conference, 2017
- “New and Emerging Capital Providers for Infrastructure Funding – Addressing the Infrastructure Gap,” American Water Works Association Annual Conference, 2017
- “Rate Approval Process Communication Strategy and Toolkit: Results from WRF 4455,” American Water Works Association Annual Conference, 2017
- “New and Emerging Capital Providers for Infrastructure Funding,” NACWA Conference, 2017
- “Innovations in Water Infrastructure Financing: Addressing the Infrastructure Gap,” Utility Management Conference, 2017
- “New Capital Providers for Water Infrastructure Funding – Overview,” webinar sponsored by the American Water Works Association, 2016
- “Public Financial Management in a Changing Economy – Preparing for Financing,” National Forum for Black Public Administrators, 2016
- “Five Ways to Achieve Long-Term Financial Strength,” Utility Management Conference, 2015
- “Financial Management: Equip Your Utility for Economic Resilience,” American Water Works Association Conference, 2014
- “Rate Approval Triumphs and Challenges: Keys to Successful Governing Board Communications,” American Water Works Association Conference, 2014
- "Financial and Rate Planning, A Strategic Perspective," New York State County Manager’s Association Annual Meeting, 2012
- "Utility to Utility Collaboration: Working Together to Tackle Today's Issues," Annual Conference of the American Water Works Association, New York Section, 2010

- "Economic and Financial Elements of Water Utility Facilities Master Planning," Spring Meeting of the American Water Works Association, New York Section, 2007

REMAINING EXPERIENCE

Bridgeport Water Pollution Control Authority (CT): Sewer User Charge Study

John completed a comprehensive sewer user charge study for the Bridgeport Water Pollution Control Authority (WPCA). The project consisted of development of a financial plan to identify revenue requirements over a multi-year forecast period, evaluation of the cost to serve customer of the system, including customers discharging domestic strength wastewater and high strength wastewater, evaluated sewer user charge structure alternatives to recover the WPCA's cost over time, including fixed charges, volumetric charges, and a wet weather charge based on customer impervious area.

Buffalo Sewer Authority (NY): Energy Procurement Assistance

John assisted the Buffalo Sewer Authority (Authority) procure energy supply contracts with energy suppliers in New York. Evaluated the Authority's base and peak energy demands and assisted in identifying a hedging strategy that aligned with the Authority's risk tolerance. He prepared energy procurement RFP documents and solicited pricing bids from several energy suppliers. Evaluated the energy bids and assisted the Authority in identifying the terms of its energy supply contract and selecting a supplier most favorable to the Authority's needs.

Town of Clifton Park (NY): Organization Evaluation

John completed an evaluation of the potential for combining the Town of Clifton Park's (Town) sewer districts into one separate enterprise fund and modifying the existing sewer rate structure to improve ease of administration and maintain rate equity. The Town Sewer Department manages and operates eight sewer districts within the Town. Over several years, the Town has acquired aging sewer systems from developers, each having separate sewer rate structures. As part of this study, evaluated the Towns sewer system organization and funding alternatives, funding approaches used by other sewer districts in New York State, completed sewer rate calculations under several alternative funding options, and prepared recommendations for sewer district consolidation.

Confidential Client (Midwest): Acquisition Study

John assisted a private investor complete review and due diligence for the potential acquisition of several hydroelectric power facilities in the upper Midwest. Validated the investor's financial model and business plan by reviewing and evaluating the electric and other revenues generated by the hydropower facilities, and the annual operations, maintenance, and anticipated future capital needs of the facilities. Provided input regarding the net revenue potential of the facilities and identified and evaluated potential risks to net revenues for the potential investor.

Confidential Client (NY): Acquisition Study

John led the completion of a financial due diligence investigation for the acquisition of a Water Company in the eastern U.S. by an investor. Services included assistance in developing long-term capital improvement plans, reviewing and development of financial modelling assumptions regarding supply and demand, operation and maintenance costs, rate of return, capital expenditures and general rate setting methodology in accordance with each state's rate setting principles and requirements.

Confidential Client (SC): Liability Evaluation Study

John completed a review of the estimates of environmental liability reported to the Securities and Exchange Commission by a publicly traded, national, environmental services company. Reviewed pertinent SEC filings, environmental liability reporting policies and procedures established by the Company, requirements of FASB Statement No. 5 and SFAS Statement No. 143 related to reporting of environmental contingent liabilities and asset retirement obligations. This information was assessed and used to form an opinion about the reasonableness of the

estimates of environmental liability prepared by the Company. Our clients, the investment banking firms, relied on our efforts as underwriters for the bonds to be issued by the Company and as agents and lenders with respect to a credit agreement entered into by the Company. In addition, other lenders participating in the syndicate also relied on our report from a credit agreement perspective.

Confidential Client (TX): Investment Evaluation Study

John led the completion of technical and financial due diligence evaluations for an investor group considering an equity investment in a billion-dollar water public-private partnership. Services included review and evaluation of contractual documentation with the owner, developer, and subcontractors, developed up-side and down-side financial projections and risk scenarios, identification and evaluation of investor risk, review and development of financial modelling assumptions regarding supply and demand, operation and maintenance costs, rate of return, capital expenditures and cost recovery. Efforts assisted equity investors evaluate the public-private partnership deal.

Falls Church Public Schools (VA): Financial Evaluation Study

John completed evaluation of the financial impact to the Falls Church Public Schools (FCCPS) of the development of the Fellows Property, an undeveloped property located within the FCCPS service area. The financial evaluation consisted of estimating the property tax revenue that would be generated as a result of the new development (i.e., subdividing the property into six residential properties) and the estimated educational cost incurred by the FCCPS as a result of serving additional students that would result from the development of the Property.

City of Fort Wayne (IN). Water and Wastewater System Valuation.

Completed a valuation of a private water and wastewater utility regulated by the Indiana Utility Regulatory Commission using industry accepted valuation approaches. Evaluations supported settlement negotiations and possible condemnation proceedings. In preparing the system valuation, reviewed publicly available information related to system assets, and the historical management and operation of the system. Interviewed City staff with knowledge about the system assets and completed a system evaluation. Prepared a valuation report that documented our valuation opinions.

General Services Administration (MD): Financial Services

John was the lead Financial Analyst for evaluating Real Estate disposal alternatives for a vacant office building in Bethesda Maryland owned by the General Services Administration (GSA). Created valuation documentation and cash flow analyses for various redevelopment options and transaction approach scenarios to determine the overall best value to the Federal Government. Support the project team in identifying opportunities for positive total cash flow and return on investment, increasing the potential transaction value in excess of \$37M.

Gloversville-Johnstown Joint Sewer Board (NY): Wastewater Rate Study

John completed a wastewater cost-of-service study to assist the board in equitably recovering wastewater utility costs from residential, commercial and industrial customers. As a result of this engagement, wastewater rates were unanimously approved by the board.

City of Harrisburg and Capital Region Water (PA): Utility Organization Assessment, Bond Feasibility Study, Financial Consulting Services

John assisted the City of Harrisburg (City) and Capital Region Water (CRW) reorganize the operations of its water, wastewater, and stormwater systems as part of the turnaround of the City's financially distressed status under the Municipalities Financial Recovery Act. Led financial analysis efforts to analyze shared services costs between the City and Capital Region Water. Assisted in the planning and execution of the transfer of assets from the City to Capital Region Water, involving asset valuation, revenue and expense projections, and analysis of shared services costs between the City and CRW. Completed a bond feasibility report for the water system consisting of asset condition assessment and the development and projection of capital improvement needs over a five-year forecast period to satisfy trust indenture requirements. Provided financial consulting services to CRW following the

reorganization, including the development of financial plans and rate projections, consisting of demand forecasts, projections of revenues and expenses, modelling fiscal requirements and targets, identification of rate revenue requirements, allocation of costs to both retail and wholesale customers, and calculation of utility rates. Assisted CRW in revising and renegotiating inter-municipal agreements with suburban communities.

Henrico County (VA): Water and Wastewater Rate Studies, Capacity Fee Evaluation

John completed an economic evaluation to support asset management and CIP plans, conducted cost of service evaluation and rate, fee, and charge study to assist Henrico County (County) develop a sustainable financial management plan, determine revenue requirements over the next ten years, and ensure equitable recovery of costs. The study also consisted of completing an impact fee evaluation to ensure that growth pays for itself over the planning period. The financial management plan was developed using an interactive forecast model that allowed alternative scenarios to be easily evaluated. Connection fees, fire protection charges, and local facility fees were established by determining the costs of providing these services and developing fees to equitably recover these costs from customers utilizing the services. Rate, fee, and charge formulas were developed for the County's \$80 million operating budget.

Hill Air Force Base (UT): Financial Analysis Study

John was a Senior Analyst for the financial analysis of a proposed Enhanced Use Lease (EUL) at Hill Air Force Base. The analysis included evaluating real estate market conditions and land sales data, completing a life cycle cost analysis of Air Force office space procurement options and developing valuation models for potential site development scenarios. Other activities included developing the financial portion of the Business Case analysis, supporting presentations to leadership, responding to technical questions and developing potential site development scenarios.

Isle of Wight County (VA): Stormwater Feasibility Study

John completed a stormwater feasibility study to assess the cost of the Isle of Wight County's stormwater program and develop funding alternatives to recover program costs. The funding alternatives considered the recovery of costs through Ad Valorem taxes and stormwater fees.

Inter-American Development Bank (Interagua, Guayaquil, Ecuador): Technical and Financial Assessment Study

John led the completion of technical and financial assessments of the Interagua water and wastewater utility operating in Guayaquil, Ecuador to support financing due diligence for the Inter-American Development Bank. Reviewed the operations and financial condition of the Interagua utility, including projections of revenues from water and wastewater tariffs, planned capital expenditures, and projections of operational expenses and cash flows. Assessed key financial metrics, such as cash reserve levels and current and projected debt service coverage margins. Reviewed customer demand and growth projections and completed sensitivity analysis of key financial model inputs and assumptions. Completed an affordability analysis to assess customer income levels and the ability of customers to pay for water and wastewater services. Prepared a technical and financial feasibility report and presented results to the IADB.

City of Kingston (NY): Wastewater Rate Study

John managed the completion of a wastewater rate study for the City of Kingston's (City) wastewater utility to assist the City generate sufficient revenues to pay for upcoming sewer capital improvement and operation and maintenance programs. An interactive financial planning model was developed to analyze historical and projected revenue requirements, and a five year rate schedule was designed for the City's consideration.

John managed the completion of a utility rate study for the City's wastewater utility to assist the City generate sufficient revenues to pay for upcoming capital improvement needs and operation and maintenance programs. An interactive financial planning model was developed to analyze historical and projected revenue requirements of the system, and a five year rate schedule was prepared to provide sufficient revenues for the City's utility fund.

City of Lancaster (OH): Water and Wastewater Rate Study and Financial Capability Assessment

John was the project manager for a comprehensive water and sewer rate and charge study to support the client's capital investment planning process. Also, led efforts to complete a financial capability assessment to support the City of Lancaster's (City) Long-Term Control Plan update. The project included assessing alternatives for financing water system capital investments and completing a cost-of-service evaluation to equitably recover utility costs from rate payers. In addition, a nonproprietary financial planning and rate design model was developed to assist in the pricing of utility services. Detailed analyses of customer costs, usage characteristics, capital improvement program costs, and neighboring utility rate comparisons were conducted to support the design of the rate components. At the completion of the project, the rate model was delivered to the city for its future use.

Lee County (FL): Financial Capability Assessment

John provided economic and financial support of the Lee County Asset Management program. Facilitated asset valuation and business case evaluation workshops to help develop asset risk prioritization and a capital improvement plan prioritization approach. Developed an interactive financial model to assess the financial implications of funding the capital plan to meet the desired level of service goals.

LS Power (NJ): Economic Assessment Study

John assessed the potential economic impact of the construction and operation of a modern coal-fired power plant in West Deptford Township, NJ. Utilized IMPLAN® software to assess the economic impacts of a 500 MW coal fired power plant on an 11-county region. Examined the direct, indirect, and induced economic benefits to the region, effects of the project on local employment and economic output, during construction and post construction, and evaluated the potential peak economic stimulus. Prepared report that provided information to elected officials and other stakeholders to support a decision to proceed with the project.

Macomb County (MI). Wastewater System Valuation.

Technical lead for the valuation of wastewater treatment plant assets and the evaluation of wastewater treatment plant ownership and joint use options for Macomb County. Completed a financial evaluation of alternatives that provided a projection of future capital and O&M costs, and assessed the future rate implications of each option. Estimated the value of wastewater system assets and evaluated asset transfer pricing that would result in a win-win for all involved parties. Served as a financial and technical resource for assessing asset transfer and deal structure alternatives.

Metropolitan District Commission (CT): Financial Planning and Acquisition Support

John provided economic and financial support of the Metropolitan District Commission's (District) Asset Management program. Facilitated business case evaluation workshop to help develop asset risk prioritization and a capital improvement plan prioritization approach. Prepared business case templates and a capital prioritization approach for the District's capital improvement program. Developed an interactive financial model to assess the financial implications of funding the capital plan to meet the desired level of service goals.

John completed a financial evaluation of a proposed bioenergy facility for the District that would recover methane gas from wastewater sludge and convert to bioenergy using a co-generation facility that would produce electricity and heat that could be utilized by the District to reduce its purchased electricity costs. Prepared a business case evaluation for the project including evaluating the life-cycle costs and benefits of the project, developed a financial

model for the project, incorporated the impact of various funding sources into the financial analysis, including the generation of renewable energy credits and the use of clean renewable energy bonds (CREBs) to fund the project.

Metropolitan Water Reclamation District of Greater Chicago (IL): Financial Analysis Support

The Metropolitan Water Reclamation District of Greater Chicago (District) serves a population of 10.35 million people, and owns and operates one of the world's largest water reclamation plants. Served as the lead financial analyst in completing a comprehensive financial, economic, and environmental analyses of potential effluent disinfection at the District's three largest wastewater reclamation plants. Developed an economic and affordability model and completed an analysis of the impact of funding projects needed to meet the effluent disinfection requirements. Assessed the ability to fund and finance the District's entire capital program, assessed the impact on customer's cost of service, and assessed customers' ability to pay for the proposed improvements. Presented written and oral testimony of evaluation results before the Illinois Pollution Control Board.

Milwaukee Metropolitan Sewerage District (WI): Owner's Agent Operations Contracting Assessment

The Milwaukee Metropolitan Sewerage District (District) provides wastewater collection, conveyance and treatment system services to 28 communities. Assisted the District complete a competitive procurement process for the management, operation, and maintenance of the wastewater collection, conveyance and treatment system. Participated in the preparation of procurement documentation and the financial evaluation of contract and public operations alternatives. Also led the evaluation pertaining to the incremental cost of public operations versus contract operations. The analysis of public versus contract operations focused on the estimated net cost and cost savings as compared to the low best and final offer, and an evaluation of the financial and operating risk between the options.

Nassau County (NY): Regional Study

John assisted in the completion of a regional study to identify the cost savings and operational efficiencies that could be gained from consolidating school districts, fire, police, sanitation, and water services within Nassau County (County). Led the project team involved in assessment of efficiency savings associated with consolidating 52 water systems within the County. Facilitated working groups with project team members and stakeholders, developed a financial model to analyze the potential savings from consolidation of administrative and operational functions associated with each system, developed strategies for consolidation and sharing services among the water systems, prepared the regionalization study report for the water sector, and led outreach efforts to communicate the results of the study to elected officials, staff, and the general public.

City of Newark (NJ): Wastewater Rate Study

John completed a sewer user charge study to assist the City of Newark (City) pay for a capital improvement program to repair its aging infrastructure system and achieve regulatory requirements. The study consisted of preparing a multi-year financial plan, evaluating the cost of providing sewer collection and treatment services, and designing a fair and equitable rate structure for the City's sewer customers. Several sewer user charge structures were identified and discussed with the City, and a financial model was prepared to evaluate a shortlist of alternatives. The sewer user charge recommendations were summarized in a report, and the results were presented to City Council.

City of New London (CT): Water and Wastewater Rate Study

John completed a comprehensive sewer user charge study for the City of New London (City) that consisted of developing an excel-based financial model to forecast the system cash flows, revenues, and expenses over time, completed a cost of service evaluation to determine the cost responsibility of customers, and evaluation of various sewer user charge alternatives to recover the costs. Also, evaluated and updated the City's connection fees for sewer

and water. Results of the study were documented in a report and also presented to the City Council for consideration and adoption.

Passaic Valley Sewerage Commission (NJ): Wastewater Cost-of-Service Evaluation

John completed a wastewater cost of service evaluation to forecast wastewater revenue requirements and develop and recommend updates to the Passaic Valley Sewerage Commission (PVSC) wastewater user charges and excess strength surcharges. Developed a financial planning and cost of service model. Prepared estimates of unit cost of service for establishing unit rates for biological oxygen demand, total suspended solids, and wastewater flow. Prepared and presented financial analysis results and recommendations to PVSC management for adoption.

Pinehills Water Company (MA) - Valuation

John served as a technical advisor for the valuation of the Pinehills Water Company. The valuation assessment was completed to inform management's decision as to whether or not to sell the company and to estimate the value of the company in a market transaction. The effort included using standard valuation methods in the drinking water utility industry that can be reasonably applied to Pinehills. The Company provides drinking water, irrigation, and fire protection services to approximately 6,584 people and 2,284 customers.

City of Prescott (AZ): Development Impact Fees

John was the project manager for the completion of a development impact fee study for the City of Prescott (City). The purpose of the study was to assess whether the City's fees for the various service categories should be continued, and if so, calculate the development impact fees consistent with state statutes. As part of this engagement, development impact fee methods were developed and fees were calculated for Roads, Police, Fire, Library, Parks, Water, Wastewater, and Water Resources.

Regional Municipality of Waterloo (Ontario, Canada): Contract Evaluation

John served as a financial analyst for assisting the Regional Municipality of Waterloo in evaluating whether to continue with contract operations of 13 wastewater treatment plants or return the system back to public operations. Reviewed existing contracts and related performance, financial analysis of options, managed the completion of interviews with other utilities that have returned operations to public, and provided financial analysis information to support a policy decision of the preferred approach.

Saratoga County Water Authority (NY): Water Bond Feasibility Support

John prepared bond feasibility report for the issuance of \$40 million in water system revenue bonds to finance the construction of a 16 mgd water treatment plan, raw water pipeline, pump station, and distribution mains.

SAWS Vista Ridge Regional Supply Project (TX) – Water P3 Transaction Due Diligence

John led the completion of technical and financial due diligence evaluations for an investor group considering an equity investment in a billion-dollar water public-private partnership with the San Antonio Water System. Services included review and evaluation of contractual documentation with the owner, developer, and subcontractors, developed up-side and down-side financial projections and risk scenarios, identification and evaluation of investor risk, review and development of financial modelling assumptions regarding supply and demand, operation and maintenance costs, rate of return, capital expenditures and cost recovery. Efforts assisted equity investors evaluate the public-private partnership deal.

Utilities, Inc (IL): Financial Assessments

John managed the completion of financial assessments, including the projection of performance and business value for more than 90 operating companies of an investor-owned utility. Provided analysis results to the senior leadership team of Utilities, Inc.

U.S. Virgin Islands Public Services Commission (St. Thomas, U.S. Virgin Islands): Sewer and Solid Waste Fee Assessments

John served as a financial and rate expert for the U.S. Virgin Islands Public Services Commission (PSC) regarding the Waste Management Authority's (Authority) solid waste and wastewater utility rate cases. Reviewed financial and rate aspects of the Authority's filings, prepared written testimony, and presented oral testimony before the Public Services Commission. Application involved establishment of new Authority Environmental User Fees and Wastewater User Fees. Technical issues reviewed involved the reasonableness of the rate revenue requirements, fairness and equitability of the rate structure, and affordability issues.

John provided financial consulting and rate calculation support for the Waste Management Authority's wastewater and solid waste utilities. Assisted the Waste Management Authority complete a detailed cost of service evaluation to ensure equitable recovery of costs from various categories of customers. Prepared tariff models and developed rate and fee recommendations. Document results in rate study report that was presented to the Authority and the PSC for approval.

Warren County (OH): Inter-municipal Agreement Support

John assisted Warren County, OH evaluate and update its inter-municipal agreement for providing wastewater service to its municipal customers. Prepared a cost-of-service model to allocate operating and capital costs among retail and wholesale customers. Prepared pricing terms to include in a new inter-municipal agreement.

Wayne County (MI): Organization Review and Comprehensive Master Plan

John assisted in the completion of an organizational review and comprehensive master plan to assess the operational efficiency and identify efficiency improvements for the Wayne County (County) Department of Environmental Services (Department). Led the finance and management work group that focused on the review and analysis of budget, finance, and accounting functions of the Department. Identified organizational savings opportunities and assisted in compiling and prioritizing the opportunities to identify quick wins that could be implemented immediately to build program momentum. Completed benchmarking of organizational efficiency metrics to assess current and potential future efficiency opportunities. Developed public outreach materials describing the master plan, and assisted in presenting the results to County leadership and community stakeholders.

Westchester Joint Water Works (NY): Rate Consulting Support

John provided rate consulting support to the Westchester Joint Water Works (WJWW) including developed projections of rate revenue requirements, completed cost of service studies to ensure costs allocated equitably to each of its customers, and assisted the member municipalities in revising their rate structures. Also assisted the WJWW in evaluating various governance structures, developing annual budgets, and has also assisted the WJWW in revising its rate methodologies associated with its wholesale water customers, changing from a location-specific cost of service approach to an average cost approach. The results of these efforts have improved the fairness and equity of the water rates charged to WJWW's customers.

Williamsport Sanitary Authority (PA): Wastewater Rate Study, Nutrient Credit Support, Inter-municipal Agreement Support

John completed an economic feasibility study to assess the purchase of nutrient credits from a nutrient credit bank versus designing and constructing various capital planning options for nutrient removal. Developed an economic model to evaluate alternatives and assist in decision making. Prepared procurement documents for the pricing of nutrient credits from various sources. Analyzed nutrient credit purchase costs versus capital construction costs as part of completing the economic feasibility study.

Steven McDonald CVA

*ADD PROJECT ROLE

Chief Economist/Valuation Services

ROLE

*Add Description of Role

PROFILE

Steven is an Economist, Researcher, and Strategist with 31 years of experience, almost equally divided between consulting assignments and corporate roles. He specializes in quantitative and qualitative research and analysis to include Business Valuation and Appraisal (CVA©#20639), economic analyses and econometrics, cost-benefit analyses, and short- and long-term financial analyses. Over this time, Steven has developed a high degree of technical expertise balanced with strategic management experience from high-profile, innovative projects, both domestically and internationally, focused on economic and financial issues across a broad range of industries. Altogether, corporate roles and consulting assignments, along with managing work efforts across no less than four business cycles, have provided Steven the opportunity to develop strong expertise in the field of economics and understanding enterprise business value.

Steven strives to maintain active participation as a member of the NACVA and is currently the President of the NACVA Florida North Chapter. In addition, he has served on the NACVA Ethics Oversight Board for three years, one of those years as Chairman. Steven is also an Adjunct Instructor with Webster University's Orlando Campus in Economic Concepts and Managerial Economics.

KEY PROJECT EXPERIENCE

Business Valuation and Appraisal

Business Valuation services have been provided for purposes of insurance, litigation, and purchase and sale transactions (M&A), generally resulting in a detailed, summary, or oral appraisal or value reports. A Business Valuation, as defined by Uniform Standards of Professional Appraisal Practice (USPAP) Standard 9, provides a specific value based on purpose and use of the appraisal or calculation. All valuation services provided conform with the Professional Standards of the NACVA. Professional experience with providing Business Valuation services has included the following:

- California Water Market (Credits) – Asset Transaction
- Pennsylvania Public Utility (Sewer) – IOU Acquisition
- Florida Public Utility (Water) – Asset Transaction
- Florida Public Utility (Water) – Foreclosure
- Florida Public Golf Course – Acquisition
- Florida Public Utility (Water and Wastewater) – Business Damages
- Florida Public Utility (Water and Wastewater) – Acquisition



Specialties

- Business Valuation and Appraisal
- Economic Impact Analysis
- Cost-Benefit Analysis

Professional History

- Raftelis: Chief Economist/Valuation Services (2021-present)
- GAI Consultants (2012-2021)
- The Disney Company (2008-2012)
- RERC (2004–2008)
- Burton & Associates (2002–2004)
- CHEP International (1999–2002)
- The Disney Company (1996–1999)
- Fishkind & Associates (1990–1996)

Education

- Bachelor of Arts in Public Policy – University of Central Florida (1988)
- Master of Arts in Applied Economics – University of Central Florida (1990)

Certifications

- Certified Valuation Analyst - CVA©#20639

Professional Affiliations

- National Association of Certified Valuators and Analysts (NACVA)
- Past Chairman and member of NACVA Ethics Oversight Board (EOB)
- President, NACVA Florida North Chapter
- American Society of Appraisers, Member
- Webster University, Adjunct Instructor

- Florida Public Utility (Chilled Water) – Acquisition
- California Private Discharge Capacity (Wastewater) – Acquisition
- Tennessee Public Utility (Electric) – Acquisition
- Florida IOU (Water-Sewer) – Acquisition
- Florida IOU (Electric) – Tangible Property Tax
- Ohio IOU (Water) – Financing
- Florida Public Utility (Water Storage) – Acquisition
- South Carolina Public Utility (Water) – Acquisition
- Ohio Public Utility (Water-Sewer) – Acquisition
- Mississippi Certificate of Public Conveyance and Necessity (Water) – Acquisition
- Florida IOU (Electric) – Tangible Property Tax
- Florida IOU (Electric) – Acquisition
- Florida Commercial (Real Estate) – Litigation
- Florida Corporate Stock (Private Equity) – Litigation

Timothy Smeltzer CFA, CAIA

*ADD PROJECT ROLE

Senior Consultant

ROLE

*Add Description of Role

PROFILE

Tim is a Senior Consultant with Raftelis, serving out of the Northeast office. He has 10 years of experience in providing financial and valuation services including financial planning, financial analysis, transaction consulting, and utility valuation.

Tim's business valuation experience includes purchase price allocations, business enterprise valuations, impairment testing, and non-compete valuations for clients across several industries, including oil and gas, with deals ranging from \$10 million to \$1.5 billion.

Tim has earned both the Chartered Financial Analyst designation and the Chartered Alternative Investment Analyst designation and is a Series 50 Municipal Advisor Representative. Tim is a member of several industry associations, including the CFA Institute, the CAIA Association, and the American Water Works Association.



Specialties

- Valuation
- Financial analysis & modeling
- Financial planning & budgeting
- Benchmarking

Professional History

- Raftelis: Senior Consultant (2023-present)
- PwC: **Position?** (2021-2023)
- Vanguard: **Position?** (2017-2021)
- Aqua America: **Position?** (2014-2016)

Education

- Master of Business Administration, Finance - La Salle University (2014)
- Bachelor of Science & Business Administration, Accounting - Princeton University (2012)

Certifications

- Chartered Financial Analyst
- Chartered Alternative Investment Analyst
- Financial Modeling and Valuation Analyst

Professional Memberships

- Chartered Financial Analyst Institute
- Chartered Alternative Investment Analyst Association
- American Water Works Association

Exhibit 5

STATE

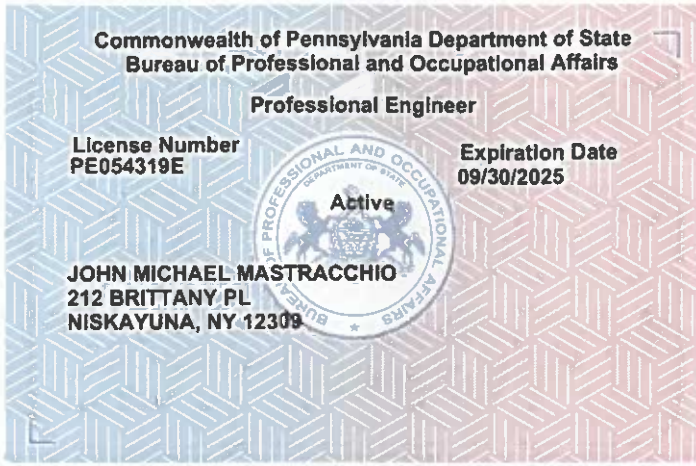
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Virginia
Washington State
Wisconsin

Department Holding Registration

Alabama Secretary of State
Alaska Dept. of Commerce, Community, and Economic Development
Arizona Secretary of State
Arkansas Secretary of State
California Secretary of State
Colorado Secretary of State
Connecticut Secretary of State
Dept. of Consumer & Regulatory Affairs
Florida Secretary of State
Georgia Secretary of State
Dept. of Commerce and Consumer Affairs
Illinois Secretary of State
Indiana Secretary of State
Iowa Secretary of State
Kansas Secretary of State
Kentucky Secretary of State
Louisiana Secretary of State
Maryland Dept. of Assessments and Taxation
Secretary of the Commonwealth of Massachusetts
Dept. of Licensing and Regulatory Affairs (LARA)
Minnesota Secretary of State
Mississippi Secretary of State
Missouri Secretary of State
Dept. of Business and Industry
NJ Dept. of the Treasury
New Mexico Secretary of State
State Department of State
NC Secretary of State
Ohio Secretary of State
Oklahoma Secretary of State
Oregon Dept. of State
Pennsylvania Secretary of State
Puerto Rico Department of State
Rhode Island Secretary of State
South Carolina Secretary of State
Tennessee Secretary of State
Texas Secretary of State
Utah Dept. of Commerce
Vermont Secretary of State
Commonwealth of VA State Corporation Commission
Washington Secretary of State
Wisconsin Dept. of Financial Institutions

Technical Fitness:

Raftelis staff have a set of experience, skills, and education vital to utility valuation. Current Raftelis personnel hold the designations of Professional Engineer (PE) in several states, including Pennsylvania; Certified Public Accounts (CPA); and the Chartered Financial Analyst (CFA) designation. The CFA is an international recognized designation that signifies professional standards in finance, valuation, and investment management. Raftelis has completed more than 40 valuation assessments over the past 10 years. These valuations have been for the purpose of utility sale or acquisition, impact fee development, financial feasibility analysis, and asset management.



OFFICIAL DOCUMENT

READ THE FOLLOWING INFORMATION CAREFULLY CONCERNING YOUR LICENSE:

1. SIGN THE WALLET CARD AND CERTIFICATE WHERE INDICATED.
2. DETACH THE WALLET CARD AND CERTIFICATE AT PERFORATION.

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JOHN MICHAEL MASTRACCHIO
212 BRITTANY PL
NISKAYUNA, NY 12309

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Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO BOX 2649 Harrisburg PA 17105-2649

23 0300949

License Type
Professional Engineer

JOHN MICHAEL MASTRACCHIO
212 BRITTANY PL
NISKAYUNA, NY 12309



License Status
Active

Initial License Date
03/10/1999

License Number
PE054319E

Expiration Date
09/30/2025

Arion R. Claggett

Acting Commissioner Arion R. Claggett

Signature

CFIA Institute

The Board of Governors of CFIA Institute confers the right to use the

Chartered Financial Analyst (CFA)

designation to

John M. Mastrarchio

*for fulfilling all the requirements prescribed for use of this designation
subject to fulfilling the ongoing obligations of a CFA charterholder.*

*This charter is issued at Charlottesville, Virginia,
this fifteenth day of September, 2006.*

Charter Number 86311



*W. Michael
Chair*

*V. J. Dinning
President*



Steven McDonald CVA License #20639

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CFA Institute

*The Board of Governors of CFA Institute confers the right to use the
Chartered Financial Analyst (CFA)*

Designation to

Timothy Edwin Sweltzer

*for fulfilling all the requirements prescribed for use of this designation
subject to fulfilling the ongoing obligations of a CFA charterholder.*

*This charter is issued at Charlottesville, Virginia,
this twenty-sixth day of October 2018.*

(Charter Number: 21282)



Robert E. Bowers
Chair, Board of Governors

Michael J. Cunniff
President and CEO



The Charter Financial Analyst Designation (CFA) in which my member ID is 8248473.
The Chartered Alternative Investment Analyst Designation (CAIA) in which my member ID is 429163.