



RICHARD FEDDER, PE

VICE PRESIDENT

Professional Profile

Toby has 25 years of experience in the civil/environmental engineering and financial management industries. He leads Woodard & Curran's utility financial management consulting efforts and presently serves on several professional association committees, specifically, the AWWA's Finance Accounting and Management Controls Committee and the NEWWA Finance Committee, and the WEF Utility Management Committee. He is an instructor at the NEWWA Water Ratemaking Course and a contributing Author and/or Editor on two AWWA Manuals of Practice related to utility financial management. He has completed financial assessments on many utilities, including life-cycle costing, rate setting, capital plan projections and funding plan development.

Related Experience

Puerto Rico Aqueduct and Sewer Authority (PRASA) - Capital Program Evaluation.

As part of a larger strategic review (completed with Raftelis Financial Consultants) of PRASA's organization and direction, Toby led a strategic review and business case evaluation of the Puerto Rico-wide Water & Sewer Authority's five and ten year capital investment programs. The consultation was centered around re-prioritizing and re-ordering over \$4 billion of capital investments to improve the utility's ability to self-fund its operations. Additionally, his work is being used for the Utility's on-going re-negotiation of the \$1.5 Billion Administrative Consent Order issued in 2015 by the U.S. EPA.

Rhode Island Public Utilities Commission - Capital Investment Plan Evaluation.

To ensure that the state's largest utility was planning adequately for future needs, the Rhode Island Public Utilities Commission (RIPUC) hired Woodard & Curran to complete an in-depth examination of the capital investment plans of the Providence Water Supply Board (PWSB). Toby served as the Technical Lead and Project Manager on the review of PWSB's capital plan for its 140MGD Philip J. Holton Purification Works in Scituate, RI. The in-depth review included examination of the capital plan for technical merit and justification, adequacy of funding/finance plans, and the ability of the capital program to comply with existing and foreseeable regulatory requirements. Among the facets of the upgrades which were evaluated were filter under-drain replacement, backwash piping and capacity, and major structural changes to the filter galleries. Based upon our review of the multi-year proposed capital program, Woodard & Curran recommended substantial changes to the upgrades plans and submitted an evaluation of the associated construction costs. This work was performed for the RIPUC.

City of Dunnellon, FL – Utility Valuation and Financial Analysis. As part of municipal efforts to manage the cost of acquisition of three private water and sewer utilities, the City engaged Woodard & Curran to assist in an assessment of their rate structure, a projection of probable future economic drivers for their enterprise funded utilities, and a valuation of the acquired water and sewer assets. As part of the project, the utilities' operating financials were reviewed in depth and guidance was provided for the City to continue its

Education

- Bachelors, Civil / Environmental Engineering, University of New Hampshire

Registrations

Registered Professional Engineer

- Multiple jurisdictions and via NCEES national registry

Professional Associations

- American Water Works Association, Member - FAMC Committee
- WEF, Member – Utility Management Committee
- New England Water Works Association, Member - Financial Management Committee
- UNH Environmental Engineering Program Advisory Board, Member - Vice Chair

Technical Expertise

- Utility Management Consulting
 - Rate Studies and utility financial assessments
 - Capital Funding Plan Development
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efforts towards implementing an optimized capital investment strategy. For the acquired utilities, valuations were provided based upon both a GASB depreciation-based and an enterprise-based methodology.

Confidential Utility – Litigation Support, SDWA Violation. Due to our industry-leading experience in the design, management and operation of regulated utilities, Woodard & Curran was hired to support a utility defending against civil claims due to SDWA violations. Toby served as Technical Lead in the completion of a review of the utility's operations, record-keeping and capital program. Additionally, Toby completed a review of state records which were involved in a water source which had not gone through the proper regulatory approvals but was nevertheless allowed to remain operational by state regulators. Subsequent to the discovery process, wherein our testimony was added to the record, all claimants elected to settle prior to civil trial.

City of Monmouth, IL – Funding Plan Development. Assisted the City of Monmouth with funding through for a U.S. Department of Agriculture (USDA) Rural Development (RD) Water & Waste Disposal Predevelopment Planning Grant (PPG) for the City's Downtown Sewer Replacement Project. The PPG program assists communities with planning and development of applications for the USDA RD Water & Waste Disposal program direct loan/grant programs. W&C assisted the City with program research, compilation of necessary documents, preparation of a project narrative, and submission of the full grant application. The Downtown Sewer Replacement project will renew the City's aging and deteriorating infrastructure in the economically vital Downtown area to prevent service disruptions and reduce the potential for a catastrophic failure of the sewer collection that could result in health safety issues and property damage.

Confidential Client – Arbitration Support, Rate Dispute. Technical lead and project manager on the support of a large industrial client in their pursuit of a rate dispute following a sewer rate change. Woodard & Curran supported our client within the rate dispute process, developing a financial model to mimic the rate study recommendations, thereby understanding the assumptions used in the completion of the rate study. Our client received favorable rulings on 41 of the 43 arbitration questions, resulting in a restitution of earlier rates.

Town of Inglis, FL – Wastewater Master Plan and Funding Assistance. As part of the "Springs" initiative, Woodard & Curran assisted the Town of Inglis in the acquisition of wastewater planning grants to begin the process towards the construction of a municipally owned wastewater collection and treatment system.

Town of Hull, MA – Wastewater Regionalization Support. Technical Lead on the assessment of options and financial impacts associated with regionalizing wastewater services in Eastern Massachusetts. The Town of Hull, which already owned and operated a WWTF, along with several surrounding communities was interested in better understanding the probable financial benefits of entering into multi-community efforts to comply with NPDES requirements.

Town of Cumberland, RI – Water Cost of Service Study. Project Manager for the completion of a Water Cost of Service Study for Fiscal Years 2017 through 2021. The Cost of Service Study includes reviewing the historical performance of the existing water rate structure, projecting the fiscal results of the current rate structure, projecting the budgetary impacts of expected capital upgrades, evaluating the rate impacts debt

Recent Publications and Presentations

- "Is a challenge shared a challenge halved? The current move towards utility regionalization." - NEWWA Spring Conference, 2018.
- "Intelligent and Sustainable Capital Investment: Financial Analysis and Operational Optimization." - Edward C. Tift Water Symposium, 2017.
- "AWWA – M54 Manual: Developing Rates for Small Systems," - Editorial Review Board Member, 2016.
- "AWWA - M29 Manual: Water Utility Capital Financing," - Contributing Author and Editorial Review Board Member, 2015.
- "Working Smarter in Tough Times; Management, Budgeting, and Rates for Smaller Systems," - EPA Region 1 – Small System Conference, October 2014.
- "Strategic Outsourcing for Contract Operations; Boston Water and Sewer Commission, Joint AWWA/WEF Utility Management Conference, May 2013.
- "Revenue Optimization for two Large, Municipal Water Utilities," NEWWA Annual Spring Conference, April 2013.
- "Using an Organizational Approach for Infrastructure Management," NEWWA Annual Winter Conference, January 2013.
- "Utility Management and the Bond Market," Water Utility Infrastructure Management Magazine, July/August 2012.
- "The Path to AMR/AMI & Meter Replacement Project Success" - 2011 NEWWA Annual Conference, Newport, RI, September 2011.
- NEWWA – Water Rate Making Course – Instructor

financing and cash financing the proposed capital upgrades a cost of service rate study, and the construction of a water rate model.

Town of Andover, MA – Comprehensive Water and Sewer Rate Evaluation and Intermunicipal Agreement (IMA)

Negotiation. Project Manager for the completion of water and sewer rate evaluation for Fiscal Years 2017 through 2021. This study included identifying current and future need for water and sewer revenue increases to meet projected operating and capital costs over a five-year planning period. Developing a recommended schedule of water and sewer rates designed to generate adequate revenues and reflect the true cost of providing water and sewer service. Providing a comparison of current water and sewer system costs (operations, capital improvements, bonded debt) against appropriate industry benchmarks and other community systems. Providing an easy-to-use rate model in Excel that can be readily controlled by Town staff to take into account alternative scenarios post-study. Assistance in the negotiation of an agreement in perpetuity for the supply of potable water, and potentially wastewater service, to an adjacent community.

Town of Billerica, MA – Cost of Service Study Water Rate Study. Project Manager to complete a Cost of Service Water Rate Study. The proposed project includes projecting current and future operational and capital expenses for a five year period, establishing a water revenue structure that covers the full cost of the utility including operations, maintenance, capital improvements, water conservation activities, and indirect costs (such as environmental impacts and watershed protection); developing of a water rate schedule based on quarterly billing, which equitably assigns the costs of operation of the utilities to the customers receiving the benefits, including one set of rates using the current 3-tier block structure and another set of rates using an alternate conservation rate structure. The study also includes a review of irrigation meters and recommendations for a separate irrigation rate and recommendations to adopt and enforce a bylaw requiring moisture sensors or similar climate technology on automatic irrigation systems.

City of O'Fallon, MO – Water and Sewer Cost of Service Study. Project Manager for the completion of a water and sewer cost of service study for 2017 through 2021. This study was completed taking into account the City's existing Capital Improvement Plans, incorporating the preliminary recommendations of with a Water System Master Plan Study currently in development. The study examined the recent historical performance of the existing water and sewer rate structures, provided a projection of future operating budgets, including the budgetary impacts of expected capital upgrades, evaluated the rate impacts debt financing and cash financing the proposed capital upgrades, and used both historical consumption and non-consumption revenue data to calculate water and sewer usage charges which generate revenues sufficient to fully fund City's water and sewer operations, make needed capital investments, and maintain adequate reserve fund balances.

City of Somerville, MA – Water and Sewer Cost of Service Study and Rate Model. Project Manager for the completion of a cost of service rate study and rate model for the City of Somerville. The project included identifying current and future water and sewer revenue increases needed to meet the projected operating and capital costs over a five-year planning period. Recommending water and sewer rates to reflect the true cost of providing water and sewer service. Developing an easy-to-use MS Excel rate model that can be used by City staff to take into account alternative rate scenarios.

City of Quincy, MA – Water Audit and Enterprise Fund Accounting Assistance. Provided Project Management and financial guidance to the City in the completion of an end-to-end water system audit, water and sewer rate setting, and guidance on accounting practices for the City's \$42 million annual water and sewer Enterprise Funds. Significant achievements include reducing the City's unidentified water loss from 30% to 18%, the reassignment of \$5 million in fund indirect expenses, and the identification of significant oversights in metering and billing procedures.

City of Quincy, MA – Financial Management and Capital Improvement Planning Assistance. Project Manager and technical lead in the completion of a comprehensive water and sewer capital plan, including the assessment of current debt service loads and the likely rate impacts associated with different capital improvements projects. Evaluation of the City's financial model allowed for a targeted approach to removing I/I from the collection system to minimize MWRA charge increases. Development of both plans relied heavily on the innovative use of the City's GIS databases and included the delineation of system assessment plans for completion by existing water and sewer department personnel.

City of Waterbury, CT – Water and Wastewater Financial Planning and Capital Improvements Model Development.

In preparation for the start of a series of large capital improvements projects to improve nutrient removal performance, the Waterbury Water Department and WPCA contracted with Woodard & Curran to complete an in-depth cost of service study and capital plan development for the utilities. The goal of the project is to provide the Water Department, the WPCA and the City with a detailed understanding of the budgetary and rate impacts of the required upgrades. Toby is providing both the Project Management and lead technical services for the WPCA in this study. The final deliverable of the project, which was completed in early 2014 was a defensible cost of service study which provides the Water Department and WPCA with their projected rates over the next five fiscal years and a capital planning models which will allow them to assess the financial impacts of different capital investment options.

City of Portland, ME – Combined Wastewater and Stormwater Utility Cost Allocation and Rate Development. The City of Portland is preparing to begin a 15 year construction program of between \$150 and \$200 million dollars of capital improvements. Additionally, they are instituting a new stormwater utility to cover costs of MS4 and CSO requirements, which have traditionally been funded through the City's Sewer Enterprise Fund. To better understand the financial impacts of separating out these costs, Woodard & Curran was contracted to develop a model accounting for sewer/stormwater cost segregation and assist the City in preparing for the practical challenge of issuing bills for the newly created utility. Toby is the technical lead on the financial aspects of this project.

City of Brockton, MA – Water and Sewer Billing System Assessment and Audit. The City had a long standing challenges associated with its billing and metering/accounting systems. Due to our in-depth experience with water and sewer metering and billing systems, Woodard & Curran was hired to assist in the completion of the audit of the billing office, its billing systems, and the standard practices in use in the office. The project was completed in 2011 and culminated in a series of public presentations to the City Council, including presentation of a report which provided the City with a roadmap to regain the public's confidence in the reliability of their water and sewer bills.

City of Enfield, CT – Transition to Volumetric Rates. The City of Enfield has historically paid for the cost of operating and maintaining its wastewater system through ad valorem charges on residents' property taxes. Facing many millions in needed upgrades to its WWTP and collection system, the City asked Woodard & Curran to help develop and institute a volumetric rate based system to fully fund wastewater upgrades and O&M costs. Following a series of public meetings where the concept and practical impacts of such a transition were reviewed, the City voted to adopt a multi-tier wastewater rates recommended through completion of the study.

Town of Milton, MA – Long-term Financial Management and Rate Setting Guidance. The Town of Milton has worked for years with Woodard & Curran on efforts to ensure the ongoing financial sustainability of its water and sewer utilities. In addition to an annual review of the Town multi-tier inclining rate block structure, Woodard & Curran has assisted in evaluating the accuracy of metering systems (both the Town's and the MWRA's), negotiating inter-municipal contracts for water supply, and completing operational and organizational assessments of the Town metering and billing systems. These efforts have allowed the Town to rely on the water and sewer utilities to remain self-funding sub-accounts within the Town, while adequately covering the costs of both operation and capital reinvestment in the infrastructure.

Town of Somers, NY – Utility Management and Ownership Consulting. The Town of Somers was considering acquiring a series of privately held water and sewer utilities located within its municipal boundaries. Toby was the technical lead on the financial and regulatory portions of the assessment into the financial and practical consideration associated with an acquisition of the utilities. These assessments included a characterization of regulatory and operation risks, an enumeration of the fiscal impacts to the Town and school district associated with the removal of taxable plots from the property tax rolls, and reviewing the capacity of existing municipal staff and systems to assume the responsibilities for operation of the facilities. Finally, Toby completed a review of the utility valuation methodologies offered by the current owners and provided the Town with projections of debt service and downstream rate impacts which would be seen by utility customers in the event of an acquisition.