

KISHIA L. POWELL, P.E.

With expertise in sustainable infrastructure management and utility operations, Kishia Powell has leveraged 17 years of experience to successfully serve municipal clients across the United States and London, England. Ms. Powell's experience includes management of a regional water and wastewater utility serving 1.8 million customers and most recently appointment as the Director of Public Works for the City of Jackson, MS. She has demonstrated leadership and vision while improving service delivery and tackling tough issues like revenue recovery for the water and sewer enterprise, while at the same time providing oversight for the City's Wastewater Consent Decree program, oversight of a \$90M performance contract and develop of an Infrastructure Master Plan.

Education

BS, Civil Engineering
Morgan State University, 1998

Registrations

Registered Professional Engineer
(Civil), Maryland, Virginia and the
District of Columbia
Wastewater Collection Systems
Operator, Class III
Certified Trainer, NASSCO Pipe
Assessment Certification Program
10-Hour OSHA Construction
Safety Training
OSHA Confined Space Entry
Training
NIMS Training

Professional Associations

American Society of Civil Engineers
American Water Works Association
Water Environment Federation
National Forum for Black Public
Administrators

Areas of Expertise

Organization Development/Knowledge
Management
Infrastructure Asset Management
Capital Planning and Prioritization
Program Management
Strategic Planning
Performance Management

CORE COMPETENCIES

Organized and Analytical: Outstanding organizational skills and attention to detail with the ability to resolve big picture issues and participate in problem solving.

Strategic, Long-term Planning: Capacity to evaluate an organization's position, define a direction and develop a strategy to achieve core objectives.

Relationship Management: Exceptional internal and external relationship-building and strong interpersonal skills; ability to leverage relationships.

Communication: Effective and persuasive communication across diverse sets of stakeholders; ability to facilitate effective internal and external communication by listening and being receptive to feedback.

Building and Managing Teams: Identifies critical resources needed to field well rounded results-oriented team; provides inspirational and motivational leadership. Ability to manage conflict, build consensus, and facilitate problem-solving and collaboration.

EXPERIENCE

Public Works and Utility Management

Jackson, MS. In August of 2014, Mayor Tony Yarber appointed Ms. Powell to lead the Public Works Department for the City of Jackson. As Director of Public Works, Ms. Powell is responsible for day to day oversight of eight divisions including Administration, Engineering, Infrastructure Management, Facilities Management, Fleet Management, Solid Waste, Water and Wastewater Operations, and the Water and Sewer Business Administration. Her responsibilities include oversight and strategic direction for regulatory compliance programs including the wastewater

Consent Decree and MS4 Programs; development and technical direction for the City's Municipal Special Sales Tax funded infrastructure improvements program including a street resurfacing initiative (Operation Orange Cone); oversight of a \$90M Water Infrastructure Improvement Program including transition to AMR technology and a new Customer Care and Billing system under a performance contract. Major accomplishments include leading a team to develop revenue recovery strategies for the water and sewer enterprise to meet required coverage ratio and improve fiscal outlook; development of a plan to eliminate over 1700 illegal water connections; and establishing "Greening the Gateways" initiative to align with TIGER grant program objectives to win a \$16.5M TIGER Grant award in October 2015.

Baltimore, MD. As Bureau Head, responsible for management and oversight of a water and wastewater utility serving 1.8 million customers in the Baltimore Metropolitan region including day to day management of operations, maintenance and compliance of water

treatment and distribution (250 MGD of water treatment by three water filtration facilities; finished water distribution through 3100 miles of pipe, 20 pump stations and finished water storage); **wastewater collection and treatment** (wastewater collection through 1500 miles of sewer, eight major pumping stations and treatment of up to 265 MGD by two enhanced wastewater treatment facilities); **surface water management** (52 miles of stream, 1500 miles of storm drain) and **raw water management** (over 90 billion gallons of raw water storage in three reservoirs, over 11,000 acres of reservoir property). Responsible for developing operational performance measures, maintaining levels of service, organizational development to improve service delivery and improvement of utility business processes. Specific responsibilities and examples of work include:

- Preparation of the Bureau's \$301 million annual operating budget using traditional activity based budgeting and an "Outcome-based" budgeting approach, including development of Bureau-wide performance measures and strategies to maintain required levels of service. Budgeting process incorporated review of debt service requirements; and development of water, sewer and industrial surcharge rate increases.
- Responsible for budget oversight including review of consumption records, revenues and expenditures to manage spending and adjust revenue projections throughout the fiscal year.
- Long and short-term capital investment planning to support operations, address regulatory requirements and sustainably manage utility.
- Responsible for development, oversight and technical direction for the Bureau's \$2.2 billion six-year capital improvement plan including enhanced nutrient removal (ENR) upgrades for wastewater treatment to meet anticipated permit requirements; water distribution system rehabilitation and replacement; an estimated \$1 billion wastewater collection system consent decree program; EPA LT2 Rule compliance measures for five finished water reservoirs; study and design of a new water treatment facility; stream restoration and various on-call contracts.
- Oversight of meter operations and utility billing for 410,000 accounts, including administration of a low income and senior citizen discount program for water bill assistance. Assisted in the development of a business plan to improve meter reading and billing accuracy including the use of AMR technology.
- Responsible for 1,900 employees in seven divisions including Engineering, Construction Management and Utility Maintenance; Supervision of 14 direct reports including the seven Division Chiefs, Utility CFO, HR Manager, Emergency/Fleet Manager, Policy Coordinator, Watershed Police Chief and Administrative Staff.
- Developed a Bureau-wide re-organization strategy to achieve operational efficiencies and improve service delivery while establishing the case for compensation reviews. Strategy included a 3-year implementation plan to restructure the Bureau to highlight major service lines including the creation of the Surface Water Management Division; transitioning the Billing division to customer service; reorganization of the Engineering Division to address compensation, staffing and succession planning issues; reorganization of the Utility Maintenance Division to provide for additional crews, improve functionality of existing crews, increase the Division's productivity, meet established performance metrics, decrease overtime, and provide improved service; improvements to the Bureau's administration including the addition of a Chief Financial Officer, Bureau Emergency Manager, and consolidation of human resources staff; and identification and tracking of critical positions throughout the Bureau to improve recruitment efforts.
- Responsible for coordinating and maintaining working relationships with Stakeholders including City Council Members, other City, State and Federal agencies, watershed groups, Regulators, and regional customers/counties. Responsible for maintaining compliance with regional water and sewer agreements including applying cost share formulas and O&M provisions in negotiations.

- Led discussions/negotiations with EPA and MDE on regulatory compliance issues including terms of an Order on Consent for finished water reservoir compliance; corrective action plan approach for the City's 2002 Wastewater Collection System Consent Decree; changes to stormwater management regulations and MS4 permit terms; and funding participation for major improvements. Responsible for determining the impact of State and Federal regulations, including the Water Infrastructure Financing Act, President Obama's Executive Order for the Chesapeake Bay, and MD Stormwater regulations, on Bureau operations, capital investment and long-term financial planning.
- Led creation of Surface Water Management Division in the City of Baltimore, July 2009. Developed comprehensive organization structure merging environmental and storm drain engineering groups, stormwater management and erosion and sediment control engineers, pollution control and inspectors as under on division to leverage funding and resources to meet local, state and federal regulatory requirements. Prepared and delivered presentation to the Mayor and Senior Staff for approval of Division and relocation of staff. Approved funding strategy to offset reductions in Motor Vehicle Revenue and General Funds to staff Division and fill critical vacancies.
- Provided direction in developing cost of service for creation of a Stormwater Utility in the absence of sustainable surface water management funding. Provided input to develop recommendations for rate structure, enabling legislation and incentive programs.
- Key role in developing the City's stormwater management ordinance using a model stormwater ordinance prepared by MDE. Led ordinance and stormwater management program discussions with key stakeholders and in public forums. Responsible for maintaining ordinance development schedule to comply with State regulations. Utilized the Effective Utility Management Primer to achieve operational efficiencies and develop an in-house strategy for performance improvement and stakeholder buy-in. Consolidated Bureau fiscal management staff and required development of a financial plan incorporating performance measures, for consistency and transparency with regional customers and citizens.
- Responsible for development and presentation of the Bureau's bi-weekly CitiStat report to the City's CitiStat panel including the Mayor and/or Deputy Mayors; the report included the status of customer service requests and resolution times, utility and facility maintenance issues, infrastructure asset management concerns, regulatory requirements, fleet management and workforce management issues. Responsible for fielding questions and developing performance improvement strategies in response to the Panel's questions and concerns.
- Responsible for preparing oral and written testimony, presentations, briefings, position statements and decision memorandums for the Mayor, Cabinet members and other elected/appointed officials, and in public forums on issues ranging from water and sewer rate increases; Bureau re-organization strategy; regional Water Summit; regulations; funding requests; enforcement actions; and other matters impacting the Utility.
- Responsible for implementation of the National Incident Management System, Incident Command framework, to lead numerous incident management, recovery and repair efforts for a variety of water and wastewater utility infrastructure failures and service outages including failures of several large diameter PCCP mains. Served as part of the city-wide task force for Homeland Security and as part of the city-wide unified command to lend expertise on matters impacting utility infrastructure.
- In coordination with City of Baltimore DOT, provided oversight of Utility's participation in City-wide winter operations including preparation of facilities, vehicles and equipment; determining staffing levels for winter operations; protection of infrastructure and contingency planning for service outages. Served as part of the City's Unified Command for multiple severe weather events including the 2010 blizzard and tropical storm Hanna. Implemented strategies to improve performance of crews, improve safety and maintain utility service. Responsible for coordination and communication with State Agencies including, MDE, SHA and MEMA.

Danville, VA. Responsible for developing a prioritized water main replacement plan including replacement of an estimated 220,853 feet of water main and installation of 59,510 LF of new main to address distribution system fire flow deficiencies, areas of low pressure, and asset reliability. Planning and prioritization efforts considered city-wide paving program, an ongoing natural gas cast iron, unprotected steel main and service replacement program, budget constraints and resource availability.

Baltimore, MD. Assisted in the continued development of a joint strategy between the City of Baltimore's DOT, Water and Wastewater Utility and other private utilities to effectively plan infrastructure upgrades that would maximize the use of funding sources and minimize damage to utilities and newly upgraded transportation infrastructure.

Baltimore, MD. Responsible for increasing and expediting the Bureau's investment in water distribution system infrastructure to mitigate recurring failures and address system vulnerabilities by initiating a focus on water system asset management. Specific efforts included system-wide leak detection, continuation of the valve and hydrant exercising program, water main condition and criticality assessments, large meter inspections, structural assessment of critical pipelines, and improvements in water utility maintenance practices. Work included short and long-term financial and capital planning.

Baltimore, MD. Management and regulatory compliance oversight of the condition and performance-based asset management program to inventory, inspect, and perform condition and criticality assessment of sanitary sewers from 8-inches in diameter in eight sewersheds, City-wide as part of the \$1 Billion consent decree-driven sanitary sewer overflow elimination wet weather program. Work included performance of sanitary sewer evaluation surveys for each sewershed including inspection, condition and criticality assessment of 33,000 manholes and 1,100 miles of sanitary sewer; development of corrective action plans including prioritization of required repairs, rehabilitation and replacement to address structural and capacity deficiencies; life-cycle cost evaluations, and system-wide performance assessment using flow monitoring, hydraulic modeling and analysis of O&M performance metrics.

The Avenue, Potters Bar, London, UK. Lead Engineer responsible for detailed design and construction of flooding alleviation scheme to comply with level of service requirements of the Thames Water Asset Management Program (AMP4). Designs of a 1200mm diameter pipe jack sewer, associated 5m internal diameter caisson drive shaft, and overflow to existing foul network; designed two replacement surface water tank sewers for flow storage and attenuation. Services included response to contractor RFIs, additional design for field changes, development of traffic management plan, environmental screening assessment, design risk assessment, and development of contract documents and specifications.

Woodside Avenue, Wembley, London, UK. Lead Engineer responsible for detailed design and construction of flooding alleviation scheme to comply with level of service requirements of Thames Water AMP4. Design of 450mm diameter micro-tunneled sewers and 1200mm foul water pipe jack sewer, associated 5m and 2.7m diameter caisson drive shafts, caisson reception shafts and overflow to existing foul network. Construction and design services included response to contractor RFIs, development of traffic management plan, environmental screening assessment, design risk assessment, and development of contract documents and specifications. Coordination of public information and private property issues.

Milton Crescent, Ilford, UK. Project Manager responsible for foul water flooding investigation study including hydraulic modeling analysis to comply with level of service requirements of Thames Water AMP4. Verification of flooding occurrences, review of CCTV and manhole inspections for existing foul sewer network and development of viable alternatives to alleviate flooding. Developed alternatives evaluation report including cost estimates, land ownership discovery, development of environmental screening assessment, and design risk assessment.

Baltimore, MD. Responsible for planning and implementation of a pilot sewershed study, including SSES for 347,000 LF of sewer and 1,700 manholes, to develop protocols for inspections, condition and criticality assessment, data collection and management, and urgent need repair for use in full scale sewershed studies required by the 2002 City of Baltimore SSO consent decree. The pilot study was also used to test the efficacy of O&M programs and practices established as part of the O&M plan developed for Sewer Maintenance. Work included field inspections, training, practice and protocol development, data collection and analysis, hydraulic modeling, flow monitoring, grease and root control.

Baltimore, MD. Assisted the City's Utility Maintenance Division to establish an asset management framework, including use of GIS and the Cityworks computerized maintenance management system (CMMS) to manage and track compliant-driven maintenance requests as well as routine and preventive maintenance activities. Responsibilities included development of SOPs including performance metrics, establishing O&M best practices, assisting in the development of initial CMMS architecture, selection of field equipment and staff training.

Baltimore, MD. Performed geospatial analysis using five years of geocoded customer service request data from the City's CSR system to identify chronic maintenance issues and prioritize areas for sewer system inspections and routine/preventive asset maintenance. Created several data layers showing various maintenance related issues including grease and root issues. Using density analysis and other resources, developed preventive maintenance programs for the control of roots and grease, routine cleaning and inspection.

Gary, IN. Developed and implemented the first GIS mapping initiative (ESRI ArcView) for the Gary Sanitary District to facilitate improved management of the District's wastewater collection system assets. In collaboration with local University staff and the City's emergency management personnel, specified additional hardware and software requirements, and development of basemap layers. Using field collected GPS data, developed shapefiles/attribute data to inventory the wastewater collection system including 360 miles of pipe, manholes, combined sewer overflows, and pump stations. Using newly mapped data, performed spatial analysis for city-wide flooding issues and basement sewage back-ups to provide a basis for repair, rehabilitation, replacement and installation of new infrastructure to alleviate chronic issues.

Gary, IN. Assisted in performing system-wide (WWTP plant and collection system) asset evaluations to determine the condition of process equipment and identify equipment in need of repair, rehabilitation or replacement. Evaluations resulted in the repair of plant flow control valves at the headworks of the plant, cleaning and upgrades to the plant headworks, replacement of pickle liquor pumps, blower replacement/rehabilitation, development of SCADA system master plan and replacement of appurtenances at the sewage pump stations.

Cleveland, OH. Using GIS, developed an inventory of sites with high pollutant loads, flooding and adverse stream conditions as part of a regional plan for sewerage and drainage in Northeast Ohio. Performed GIS-based analysis to determine source of pollutant loadings, drainage concerns and other sewer O&M issues.

Program Management and Construction Management

New Castle County, DE. As Deputy Project Manager responsible for development and evaluation of rehabilitation/replacement alternatives for Governor Printz sewage interceptors to eliminate sewage overflows as part of the County's program for Combined Sewer Overflow mitigation. Oversight of field data collection and analysis; hydraulic modeling; preliminary design; preparation of basis of design report and alternatives evaluation summary. Responsible for project delivery including cost tracking and development of day to day work plans for project staff; budget reviews, project schedule updates, project progress reports and variance summary for invoicing. Project team and sub-consultant coordination, interface with State and Federal agencies (DDOT, AMTRAK) as well as private property owners and other utilities.

Orange, CA. Lead Engineer for multiple task orders under Caltrans on-call stormwater annual engineering services program. Task order work included development of guidance document for design and specification of Gross Solids Removal Devices (GSRDs) for highway storm water management applications; development of GSRD "marketing" literature for mass production; design and specification of a GSRD retrofit including hydraulic analysis and design/construction feasibility analysis; and task order to address wash water for San Francisco Bay area tunnels including budget analysis and project progress reporting.

Baltimore, MD. As Deputy Program Manager for Baltimore City's Wet-Weather Consent Decree Program to eliminate Sanitary Sewer Overflows (SSOs) through rehabilitation and replacement of sanitary sewer infrastructure. Responsible for development of a CMOM-based O&M program for sewer Maintenance; a program to detect and resolve improper clear water connections to the sanitary sewer system; a grant/discount program to assist low/fixed-income citizens with water and sewer charges; standard operating procedures (SOPs) for emergency maintenance activities; and provided required SOP training.

Gary, IN. As Civil Engineer for an O&M contract operation for the Gary Sanitary District's facilities including the 60 MGD wastewater treatment plant, 360 miles of combined sewer, and 28 pump stations, assisted in development of a Nine Minimum Control status report for submission to IDEM, a Stream Reach Characterization Evaluation Study, a Special Report on City Flooding Issues/Resolutions; a Clean Air Fleet Replacement Plan; and IDEM Environmental Audit responses.

Frederick P. Griffith, Jr. WTP, Fairfax County Water Authority, VA. Responsible for coordinating contractor clarifications, review and coordination of shop drawings, development of cost proposals, and coordination of constructability reviews for new 120 MGD water treatment plant construction including vacuum-assisted pressure swing adsorption (VPSA) oxygen generation system facilities, flocculation/sedimentation basins, high rate filters, clarifying basins, finished water pump station and several chemical feed systems.

Water Treatment Plant Expansion, Town of Leesburg, VA. Provided design support and construction site management for water treatment plant expansion from 5 to 10 MGD including construction of new flocculation basins and filters, installation of settling tubes in existing sedimentation basins, clearwell expansion, and replacement of gaseous chlorine with liquid sodium hypochlorite. Responsible for Plant O&M Manual updates to include new chemical feed systems

Steubenville, OH. Assisted in calibration and programming of 23 Sigma flow meters for use in a citywide flow monitoring study. Analyzed dry and wet weather flow data to develop hydraulic model.

Newton Falls, OH. Performed fieldwork to read and remove flow meters for a flow monitoring study. Design of belt filter press system, including appurtenant piping and equipment to replace sludge drying beds at a 0.5 MGD facility.

References furnished upon request.