Corrective Action Plan

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City of Tallulah

BONTON ASSOCIATES

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Tallulah Corrective Action Plan Executive Summary

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1.0 Introduction

The Tallulah Water System has been plagued by systemic challenges that have compromised its ability to deliver compliant water quality, maintain stable service continuity, and operate in a fiscally sustainable manner. Years of non-compliance with state and federal water quality standards, coupled with aging infrastructure and operational inefficiencies, led the Louisiana Department of Health (LDH) to place the system under receivership in 2024. This action was initiated to stabilize the system and implement necessary corrective measures to address these critical deficiencies.

This draft Corrective Action Plan (CAP) is central to this effort, providing a comprehensive strategy to stabilize operations and chart a path toward long-term sustainability. The CAP emphasizes immediate emergency measures, governance reforms, and phased infrastructure upgrades designed to achieve compliance with regulatory standards, ensure uninterrupted service, and establish financial sustainability.

Bonton Associates, serving as the Court-Appointed Receiver, is tasked with overseeing the operation, maintenance, and administration of the system in accordance with the Stipulated Consent Judgment and the pertinent requirements, stipulations, and authority of La. R.S. 40:5.9 and La. R.S. 40:5.9.1. Supporting these efforts, WetWork Group provides onsite operations and maintenance support, while EAG contributes critical administrative and governance assessments and develops financial sustainability analyses to guide the CAP's implementation. Burns & McDonnell (BMcD) lends technical expertise, conducting engineering assessments and shaping infrastructure improvement strategies.

The CAP is being developed under a defined timeline established by the receivership. As stipulated, a draft plan must be submitted within 90 days of the receivership's initiation, aligning with the requirements set forth in the Stipulated Consent Judgment and supporting agreements. Following submission, the Louisiana Department of Health (LDH) will review the draft CAP to ensure compliance with public health standards and water quality regulations. Based on LDH's review and feedback, the draft will be finalized to meet the regulatory and operational needs of the Tallulah Water System.

2.0 Limitations and Constraints

The development and implementation of the CAP face several limitations and constraints that must be acknowledged. These challenges could impact the effectiveness and timeline of the plan:

- **Data Reliability**: The accuracy and completeness of historical operational data are limited, making it difficult to establish baseline performance metrics and fully understand the scope of deficiencies.

- **Infrastructure Condition**: The condition of infrastructure not addressed as part of Emergency Stabilization introduces uncertainties about the stability of the current system, complicating long-term planning and operational reliability.
- **Funding Constraints**: Securing sufficient funding to execute all aspects of the CAP remains a challenge. The reliance on state and federal grants, combined with limitations in local revenue generation, creates financial risks.
- **Governance Challenges**: The absence of published ordinances governing the utility, combined with a history of disagreement between the Mayor's Office and the City Council on the path forward, has cBMcDomplicated decision-making processes and delayed progress on key actions required for the system's recovery.
- **Access to Accounting System**: The receiver secured access into the City's accounting system the week of December 30th, delaying the independent review of the water system's revenues and expenditures as required under **La. R.S. 40:5.9**. While an initial review has been completed, it has not yet undergone a comprehensive quality assurance process. The finalized report will be submitted to the Court as soon as this review is complete, ensuring compliance with the statutory mandate for independent financial reporting.

These limitations and constraints have been carefully considered in the development of this draft CAP to ensure that strategies are both realistic and adaptable to existing challenges.

3.0 Documents Requested and Reviewed

The development of the draft CAP involved a comprehensive review of key documents to ensure recommendations were data-driven and aligned with the system's needs. These documents provided critical insights into the operational, financial, and governance challenges facing the Tallulah Water System.

The reviewed materials include technical reports, financial analyses, and governance assessments. Of particular significance are the BMcD *Technical Memorandum in Support of Corrective Actions for Water System Improvements* document, the EAG *Tallulah Water District Receivership Draft Report*, and other supporting documentation compiled during the receivership process. These materials served as the foundation for identifying immediate stabilization needs, developing governance reform strategies, and outlining long-term infrastructure upgrades.

For a complete list of documents reviewed, refer to Appendix A of the BMcD *Technical Memorandum in Support of Corrective Actions for Water System Improvements* document. This appendix details the range of resources consulted to ensure the CAP's recommendations are both comprehensive and actionable.

4.0 Observed Conditions

The observed conditions not only highlight infrastructure and governance challenges but also contribute to significant regulatory violations and frequent boil water advisories, further undermining public trust and compliance.

Upon taking over as the court-appointed receiver, Bonton Associates, together with our partners, conducted a thorough assessment of the Tallulah Water Treatment Plant (WTP) and the utility's governance structure. Significant deficiencies were identified that compromise operational integrity, service reliability, and financial accountability.

Infrastructure Deficiencies:

- **Raw Water Wells:** Wells No. 2 and 4 have not been in regular operation for years, and unknown flows and well conditions of the functioning wells are potentially restricting raw water flows into the plant.
- **Aerators:** Both aerators have exceeded their operational lifespan, resulting in frequent overflows and ruptures that cause significant water loss and diminish treatment efficiency.
- **Clarifiers:** Lime buildup at the chemical injection point obstructs clarifier performance, leading to impaired solids removal and reduced sludge blanket maintenance causing reduced flow and production capacity.
- **Pressure Filters:** Two of the pressure filters are non-operational due to structural damage, while the remaining filters function under hazardous over-pressurized conditions. Lime sludge accumulation further exacerbates their inefficiency and safety risks. Pressure Filter #2 has visible structural integrity issues, including worsening leaks near access hatches, which present operational and safety risks.
- **Pump Stations:** Both low and high service pump stations have experienced multiple failures caused by lime solids accumulation, severely impacting system pressure and operational stability. Temporary diesel pumps are being utilized to maintain functionality while awaiting permanent replacements.
- **Safety Hazards:** Airborne lime deposits, structural instability, and electrical grounding deficiencies in the control room present ongoing safety risks for operators and maintenance staff.
- **Valve Isolation Issues:** Limited valve isolation capabilities have hindered effective maintenance and created challenges in stabilizing system pressure, which is critical for reliable service delivery and fire protection. In addition, non-functional valves create significant backpressure on pumps and pressure filters, reducing efficiency and preventing proper maintenance
- **Leaks in the Distribution System:** A suspected leak in a 6-inch water line near Hwy 65 and Love's Truck Stop has been identified, with further assessments planned to confirm

its presence. Additionally, it is believed that other large, undetected leaks throughout the system are contributing to significant water loss and escalating production costs.

- **Inadequate Water Storage:** Insufficient water production has prevented the full utilization of storage tanks, limiting system flushing and maintenance efforts.

Administrative and Governance Deficiencies:

- **Absence of Utility-Specific Ordinances:** The lack of published ordinances has led to inconsistent policies, particularly in billing adjustments and financial oversight. This absence undermines accountability and legal compliance.
- **Reliance on Informal Practices:** Governance processes, including billing, collections, and expenditure approvals, rely heavily on institutional knowledge and informal workflows, resulting in inefficiencies and errors.
- **Unclear Roles and Responsibilities:** The utility lacks clearly defined roles and escalation protocols, leading to fragmented operations and limited accountability among staff and leadership.
- **Financial Management Weaknesses:** The absence of standardized financial controls, such as automated budgeting and purchase order tracking, has contributed to inconsistencies and poor financial oversight. Additionally, challenges related to water theft and nonpayment exacerbate revenue losses and hinder the system's ability to achieve fiscal stability.

These observed conditions underscore the immediate need for both operational stabilization and foundational governance reforms. The deficiencies documented in this assessment form the basis for targeted interventions outlined in the Emergency Stabilization plan and the broader CAP.

5.0 Correction Action Plan Components

This draft CAP provides a comprehensive framework for stabilizing and improving the Tallulah Water System. This plan includes four interconnected components: 1) Emergency Stabilization, 2) Governance Adjustments, 3) Baseline Reliability Improvements, and 4) Final Sustainability Improvements. Collectively, the following components are designed to address immediate deficiencies, enhance governance, and secure long-term sustainability.

Emergency Stabilization Emergency stabilization efforts were implemented to address critical operational deficiencies and mitigate immediate risks to service delivery. These interventions, funded through a combination of remaining grant funds and existing enterprise funds (to be confirmed), include:

- Repairing and replacing high service and low service pumps to restore system pressure.
- Installing isolation valves to resolve hydraulic backflow issues and enable effective maintenance.

- Welding and stabilizing leaks on pressure filters to restore partial functionality.
- Expanding staffing to manage increased operational demands and support emergency repairs.
- Addressing water leaks in the distribution system to minimize water loss and reduce production costs.

In addition to these completed actions, several planned interventions are scheduled for implementation over the next several weeks. These include the installation of additional isolation valves to enhance system flexibility and the replacement of critical components to further stabilize plant operations.

Governance Adjustments Governance adjustments are critical to ensuring sustainable management and financial accountability. Key initiatives include:

- Developing and adopting utility-specific ordinances to establish a legal framework for operations, rate setting, billing, and financial oversight, including the installation of an independent board to oversee the utility's affairs. This board should adopt best practices such as clearly defined roles and responsibilities, routine public reporting, and regular independent audits to enhance accountability, transparency, and operational efficiency.
- Strengthening financial controls through automated billing systems, expenditure tracking, and standardized procurement protocols.
- Clarifying operational roles and escalation procedures to improve efficiency and accountability.
- Extending the receivership to oversee the implementation of these reforms and ensure compliance.

Phase I - Baseline Reliability Improvements Baseline Reliability Improvements outlined here address critical operational deficiencies and establishes the foundation for future system upgrades. These improvements are essential not only for stabilizing current operations at the Tallulah Water Treatment Plant (WTP) but also for enabling the successful implementation of long-term solutions outlined in Phase II. Each component has been designed to enhance service continuity, reduce inefficiencies, address violations, and align with the requirements of all Phase II options.

- **Supplemental Tie-In with Walnut Bayou Water Association:** Walnut Bayou conducted pressure tests during the week of December 22, 2024, to confirm available pressures for a tie-in with the Tallulah Water System. However, results indicate that existing pressures are insufficient to sustain supplemental flows to Tallulah. Upgrades to Walnut Bayou's infrastructure would be required, with associated costs to be determined before their Board of Directors can approve supplemental flows. While the Phase I cost estimates include the tie-in installation, these conditions must be confirmed and agreed to by the Walnut Bayou Board of Director, estimated 16–24-month duration.

- Rehabilitating the ground storage tank at the WTP to extend its service life and improve reliability, estimated 6–9-month duration.
- Upgrading the high service pump station to enhance pressure management and system efficiency, estimated 6-9-month duration.
- Initiating a leak detection and repair program to address major leaks and reduce water loss, estimated 3-6-month duration.
- Water Meter Replacement Program: Replacement of 3,000 outdated meters to capture missed revenues, reduce water theft, and improve billing accuracy, estimated 24-month minimum duration.
- Plug and abandon Wells #2, #3, and #4 to address multiple open violations associated with Wells #2, #3, and #4, estimated 3-6-month duration (Well #3 work would be performed after installation of Well #7).
- Modifications to Existing Wells #5 and #6 to address multiple open violations associated with Wells #5 and #6, estimated 3-6-month duration (Only for Options 1 or 2).
- Payment of SWDA Admin Fee, estimated 1-month maximum duration.
- Elevated Storage Tank Maintenance Items to address multiple open violations associated with the Elevated Storage Tank, estimated 1-3-month duration.
- City-implemented Corrective Actions to address multiple open violations associated with general items at the WTP, estimated 1-3-month duration.

The total estimated cost for Phase I improvements is $5,687,000. This estimate does not include costs for unknown improvements necessary to provide adequate pressures for supplemental flows to Tallulah. This estimate also does not include recurring costs associated with the wholesale purchase of water from Walnut Bayou.

Phase II - Final System Sustainability Options Phase II presents three options to achieve long-term sustainability for the Tallulah Water System. Each option builds on the foundational improvements completed during Phase I - Baseline Reliability Improvements and offers a distinct approach to addressing the system's operational and financial challenges:

- **Option 1:** Comprehensive rehabilitation of existing facilities, addressing critical infrastructure components such as aerators, clarifiers, and filters. Estimated cost: $29,820,000.
- **Option 2:** Demolition of the existing treatment plant and construction of a new, modern facility. Estimated cost: $24,900,000.
- **Option 3:** Regional integration with the Walnut Bayou Water Association to meet maximum daily demands for the Tallulah system. This option includes the expansion of the supplemental Walnut Bayou tie-in (upon approval by the Board of Directors and mutual agreement) to sustain maximum daily flows through either the wholesale

purchase of water by Tallulah from Walnut Bayou or the consolidation of the Tallulah and Walnut Bayou systems. Both approaches would require significant upgrades to the Walnut Bayou System, including a new well, upgrades to booster stations, and new ground storage.

The receiver has held preliminary discussions with Engineers representing Walnut Bayou regarding the tie-in and necessary improvements to support maximum daily demands. Should the state choose to explore this option further, the Louisiana Department of Health (LDH) would need to engage with the receiver to facilitate continued negotiations between the two systems. Preliminary costs for the required improvements to Walnut Bayou's system to meet Tallulah's maximum daily demands are approximately $17 million, as estimated by Walnut Bayou Engineers. A cost-sharing agreement would need to be incorporated into the negotiation to allocate these costs equitably.

All options involving Walnut Bayou will require approval from their Board of Directors.

Each option outlined in the draft CAP provides a pathway to ensure reliable water service, regulatory compliance, and long-term sustainability for the Tallulah Water System. The Louisiana Department of Health (LDH), under its authority as stipulated in Louisiana Revised Statutes 40:5.9 and 40:5.9.1, will work in close coordination with the court-appointed receiver to evaluate the draft CAP and determine the most effective solution for the Tallulah Water System. LDH's role ensures that the final corrective actions align with public health priorities, regulatory compliance, and long-term sustainability for utilities placed under receivership.

6.0 Project Delivery Strategies

The successful implementation of the CAP for the Tallulah Water System requires a thoughtful and efficient project delivery strategy. Given the urgent need for improvements, both Phase I - Baseline Reliability Improvements and Phase II - Final Sustainability Improvements must be executed with an approach that balances time, cost, and quality considerations.

Phase I - Baseline Reliability Improvements

The Phase I improvements are foundational to stabilizing the Tallulah Water System. These efforts involve upgrades such as the installation of high and low service pumps, valve replacements, and the rehabilitation of critical infrastructure components. Given the pressing need to restore operational reliability, a design-build delivery approach offers significant advantages. By integrating the design and construction phases, this approach ensures expedited timelines, enhanced collaboration between teams, and a streamlined procurement process.

Phase II - Final Sustainability Improvements

Phase II encompasses long-term solutions, including options for rehabilitating existing facilities, constructing a new treatment plant, or integrating with neighboring systems. Each

option represents a complex undertaking requiring seamless coordination and efficient execution. The design-build model allows for flexibility in addressing challenges, such as unknown infrastructure conditions and evolving stakeholder priorities, while minimizing disruptions and maintaining cost control.

Advantages of Design-Build Delivery

The CAP highlights several advantages of adopting a design-build approach over the traditional design-bid-build (DBB) delivery method:

- **Accelerated Project Timelines**: Design-build integrates design and construction activities under a single contract, reducing delays caused by sequential procurement in DBB.
- **Improved Cost Control**: By fostering collaboration between designers and contractors, design-build reduces the risk of change orders and budget overruns.
- **Streamlined Coordination**: A single point of accountability simplifies stakeholder communication and decision-making, ensuring alignment on project goals.
- **Enhanced Flexibility**: Design-build's collaborative structure allows for adaptive responses to unforeseen challenges, such as changes in funding or site conditions.

These benefits are particularly relevant given the urgent need to stabilize operations and achieve regulatory compliance within a constrained budgetary framework.

Louisiana Procurement Laws and Design-Build Delivery

While Louisiana Procurement Laws (LPL) traditionally favor the design-bid-build model, exceptions exist under specific statutory provisions and emergency declarations. For the Tallulah Water System, the emergency nature of the project opens pathways for design-build delivery under laws such as:

- **Governor's Emergency Authority (La. R.S. 29:724(D)(1))**: Allows the suspension of regulatory statutes that hinder necessary actions during emergencies.
- **Parish President's and Municipal Executive's Emergency Authority (La. R.S. 29:727 and 29:737)**: Enable local leaders to take immediate measures, including suspending ordinances, after proper notifications.

Additionally, the Water Sector Program Emergency Subfund (La. R.S. 39:100.56) provides a mechanism for expedited procurement processes. These provisions align with the CAP's goals of achieving rapid stabilization and long-term sustainability through design-build delivery. The collaboration among LDH, state agencies, and local stakeholders will be critical to leveraging these mechanisms and ensuring compliance with procurement laws.

In adopting a design-build strategy for Phases I and II, the Tallulah Water System CAP aligns with best practices for delivering critical infrastructure projects under tight timelines and constrained budgets. This approach leverages collaboration, adaptability, and efficiency to address immediate operational needs while laying the groundwork for long-term sustainability.

As the CAP progresses, this strategy will ensure that resources are deployed effectively, and project objectives are met with precision and accountability.

7.0 Financial Sustainability Insights

Achieving financial sustainability is a cornerstone of the Tallulah Water System's Corrective Action Plan (CAP). The analysis conducted by EAG Gulf Coast evaluates the financial mechanisms required to fund corrective actions while ensuring the utility's ongoing operational, maintenance, and administrative functions meet a Sustainability Factor of 1.15. This benchmark ensures revenues exceed expenses by 15%, providing a financial buffer for unforeseen challenges and promoting long-term stability.

EAG's analysis highlights three corrective action options, each of which includes the Emergency Stabilization, Governance Adjustments, and Phase I - Baseline Reliability Improvements described herein. These foundational improvements are critical to stabilizing operations and establishing a path toward compliance and sustainability.

Financial Mechanisms and Sustainability Challenges

Each corrective action option relies on a combination of financial mechanisms to address funding gaps and operational costs. These mechanisms include rate adjustments, grants, low-interest loans, and cost optimizations. Rate increases, while necessary to align revenues with expenses, present significant affordability challenges for the residents of Tallulah, with projected average monthly bills exceeding the affordability threshold of $68.48, based on the median household income of $32,869.

The funding gaps presented in the analysis account for all known grant and loan proceeds, such as $2.1 million in ARPA funds initially identified to support capital expenditures. Despite these resources, substantial funding gaps remain, requiring further financial strategies to close the shortfalls.

Corrective Action Options

- **Option 1 - Rehabilitation of the existing plant** offers a path to extend the service life of the existing infrastructure through comprehensive repairs and upgrades. This option requires a 57% rate increase and additional funding of $32.65 million by FY2026 to achieve sustainability. While the improvements address water loss and operational inefficiencies, the projected average monthly water bill of $125.33 significantly exceeds the affordability threshold, presenting long-term challenges for residents.
- **Option 2 - Constructing a new plant** involves demolishing the existing plant and constructing a modern facility. This approach reduces long-term maintenance and operational costs through efficiency gains, but it requires a 49% rate increase and additional funding of $8.1 million by FY2025 and $30.6 million by FY2026. Although the projected average monthly bill of $118.94 is slightly lower than that for Rehabilitation in Place, it remains unaffordable for most residents.

- **Option 3 - Tie-In with Walnut Bayou** establishes a connection to the Walnut Bayou system to source treated water. While this option significantly reduces operational risks and costs associated with treating water locally, it requires a 124% rate increase and additional funding of $6 million in FY2025 and $11.6 million in FY2026. The projected average monthly bill of $178.79 far exceeds the affordability threshold, posing a significant challenge to household budgets.

Projected Cost Efficiencies

EAG's analysis identifies opportunities to reduce costs across all options. Addressing water loss, currently estimated at 44%, and bringing it in line with the EPA standard of 16%, is expected to decrease operational expenses, including energy and chemical costs. New Construction offers additional savings by modernizing infrastructure, while the Walnut Bayou Tie-In reduces local treatment costs but introduces ongoing expenses for purchasing treated water.

The financial analysis emphasizes the need for a balanced approach that combines rate increases, alternative funding mechanisms, and operational efficiencies. While each corrective action option presents unique trade-offs, the affordability challenges highlight the critical importance of securing supplemental funding to minimize the financial burden on residents. These insights will inform decision-making and ensure the Tallulah Water System achieves long-term financial and operational sustainability.

8.0 Next Steps

The draft Tallulah Water System CAP outlines a comprehensive pathway toward achieving compliance, operational reliability, and financial sustainability. Moving forward, the next steps prioritize immediate stabilization efforts, collaboration with key stakeholders, and preparation for the phased implementation of long-term solutions.

The immediate focus will remain on completing the planned interventions identified as part of Emergency Stabilization efforts. These actions are critical to mitigating current risks and restoring basic operational reliability. Key priorities include replacing isolation valves throughout the system and installing adequate standby and duty pumps at both the high and low service pump stations at the treatment plant.

Bonton Associates and our partners will continue to play a central role in ensuring the success of these efforts. Coordination with the Louisiana Department of Health (LDH) will be critical to finalize and execute a contract amendment extending the oversight and corrective action implementation services for the remainder of the initial six-month receivership period. This coordination will ensure that resources and strategies are effectively aligned with regulatory and operational priorities.

To maintain momentum, the draft CAP Executive Summary and accompanying memoranda will be reviewed collaboratively with LDH and other stakeholders. Feedback received during this process will inform the finalization of the CAP, ensuring its recommendations and strategies are both comprehensive and actionable. Once LDH selects the final corrective action strategy, the

CAP will be formally submitted to LDH, the City of Tallulah, and the Court, marking the transition from planning to implementation.

As the CAP moves forward, confirming Bonton Associates' and our partners' role in implementing the plan will be essential. This will involve coordinating with LDH to define specific responsibilities and preparing a contract amendment that formalizes this role. This step will ensure continuity and accountability as the focus shifts toward executing the corrective measures outlined in the plan.

Addressing funding gaps will be another critical element of the CAP's implementation. Collaborative efforts with LDH, the City of Tallulah, and other stakeholders will aim to identify and secure the financial resources needed to support the CAP's initiatives. Potential strategies include evaluating rate adjustments and debt restructuring, seeking modifications to existing grant awards, and exploring funding opportunities through programs such as the Drinking Water State Revolving Loan Fund, Louisiana Water Sector Fund, and other applicable grants.

Finally, the phased implementation of the CAP will be finalized based on the availability of funding and prioritization of critical needs. This will include immediate planning and execution of Governance Adjustments and Phase I - Baseline Reliability Improvements, laying the foundation for future stability and growth.

By following these steps, the Tallulah Water System will be positioned to address its longstanding challenges effectively. Continued collaboration among stakeholders, coupled with a commitment to executing the CAP with precision and focus, will be instrumental in achieving the long-term goals of regulatory compliance, operational resilience, and financial sustainability.