



AMENDMENT TO THE
BEDFORD COUNTY PUBLIC SERVICE AUTHORITY
WATER AND SEWER MASTER PLAN

Prepared For:
BEDFORD REGIONAL WATER AUTHORITY

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Executive Summary

This document reports the result of a brief 2013 amendment precipitated mainly by the reversion of the City of Bedford to town status and the resulting consolidation of the Bedford Water and Wastewater Department and the Bedford County Public Service Authority (BCPSA) to form the Bedford Regional Water Authority “the Authority”. On July 1, 2013, the Authority completed the consolidation of their separate operations. The original Comprehensive Water and Wastewater Study for Bedford County was prepared in 1994. After significant growth in the 1990’s, an update to the study was completed in 2000. Continued growth in the County led to the 2008 Water and Sewer Master Plan.

The purpose of this Amendment of the 2008 Water and Sewer Master Plan is to capture the essence of the prior studies while taking into account changed planning conditions in the County and its water and sewer infrastructure. Specifically, this amendment incorporates the 2008 BCPSA Water and Sewer Master Plan as prepared by Draper Aden Associates dated February 12, 2009, and the City of Bedford’s Master Plan for Water and Sewer System Improvements prepared by Thompson & Litton dated April 2000, and Amendment dated May 31, 2002, into this update by reference and recognizes the role of the Bedford Regional Water Authority going forward to provide and enhance the water and wastewater services previously provided by the Bedford County Public Service Authority and the Bedford Water and Wastewater Operations Team before the consolidation.

The 2008 Water and Sewer Master Plan documented the existing infrastructure associated with public water and sewer services of the Bedford County Public Service Authority and provided a roadmap of project work likely to be needed to meet the water and sewer demands of County residents and businesses, following its Mission Statement, as growth in the County continued. Since 2008, the Mission Statement for the BCPSA was revised to reflect a desire to remove limitations of service from within the confines of the County, and has since been adopted by the Authority:

The Bedford Regional Water Authority exists to provide its customers with high quality water and wastewater services at rates that are reasonable and just. The Authority shall anticipate the needs of the greater community by continually maintaining responsive, reliable service and through systematic expansion whenever economically possible.

Introduction

Purpose of this Amendment

One of the primary purposes of this amendment is for the Bedford Regional Water Authority to document and update the conclusions and recommendations of the 2008 Water and Sewer Master Plan, thereby communicating the Authority’s intent to derive future benefits from past planning efforts by BCPSA. Similarly, this amendment recommends that previous planning documents prepared for the Bedford Water and Wastewater Operations Team be incorporated into a more comprehensive update of the Water and Sewer Master Plan for the Authority in the future. The consolidation tasked the Authority with providing an interconnection between the BCPSA system and the former City of Bedford system before December, 2016, and this amendment builds on previous planning efforts intended to facilitate such interconnection. The

Authority intends to adopt this amendment to serve as one of the primary planning documents going forward. Most importantly, this document, the 2008 BCPSA Water and Sewer Master Plan, and the City of Bedford's 2002 Amended Master Plan for Water and Sewer System Improvements, which are hereby incorporated by reference, will be used by the Authority for the orderly planning and budgeting of future water and wastewater system improvements. Projects may be added, removed, or rescheduled as the Authority's priorities change.

Background

The Bedford Regional Water Authority ("the Authority") was created pursuant to the Water and Sewer Authorities Act Chapter 28, Title 15.1 code of Virginia of 1950, as amended. In accordance with the Reversion Agreement executed in August, 2012, the Authority was created by the Bedford County Board of Supervisors ("Supervisors") by resolution dated November 14, 2012 and the Bedford City Council ("Council") by resolution dated November 27, 2012.

Three (3) of the initial board members were appointed by the Supervisors on November 14, 2012, and three (3) of the initial board members were appointed by the Council on December 11, 2012. The State Corporation Commission approved the Articles of Incorporation on December 13, 2012. The first board meeting was held on December 18, 2012. On July 1, 2013, the City of Bedford Water and Wastewater Operations Team and the Bedford County Public Service Authority completed the consolidation of their operations.

The original Comprehensive Water and Wastewater Study for Bedford County was prepared in 1994, by Anderson & Associates, Inc., of Blacksburg, Virginia. Due to significant growth in the late 1990's, the study was revisited in the Bedford County Comprehensive Water & Sewer Study 2000 Update, also completed by Anderson & Associates, Inc. Continued growth in the County led to an update to the study in 2008. With each study or update, Bedford County and the Bedford County Public Service Authority (BCPSA) received the benefit of a guidance document to assist them in the planning, funding, engineering, and implementation of water and sewer improvements. Note that many of the projects recommended in these studies have been completed.

The 2008 Water and Sewer Master Plan ("the Plan") was prepared by Draper Aden Associates of Blacksburg, Virginia. The Plan described water and sewer projects intended to respond to population projections and water demand projections. The affected project areas were likely to be future BCPSA service areas or existing BCPSA service areas experiencing significant growth. The projections generally responded to the planning associated with the Bedford 2025 Comprehensive plan, adopted June 25, 2007, and the Region 2000 Water Supply Plan, which was being developed concurrently with the 2008 Plan. Bedford 2025 was updated in 2011 in response to requirements by the Virginia General Assembly for Bedford County to designate Urban Development Areas (UDAs) in the Comprehensive Plan. The Region 2000 Water Supply Plan was completed in 2012 and highlights Bedford's growing water supply demands.

The national economic decline adversely affected growth in Bedford County. The efforts to improve the sustainability of the business of governance yielded a decision in 2011 by the City of Bedford to revert to Town status. Further, efforts to improve the sustainability of the public water and sewer services provided to Bedford County yielded several studies intent on

improving the long term cost effectiveness of water supply, treatment, and distribution. The main studies include:

- Lakes-Bedford-Forest Water Supply Evaluation, 2011.
- Financial Impact Study of Future Capital Projects, 2011
- Bedford Utilities Consolidation Study, 2012.
- Smith Mountain Lake Water Treatment Plant PER, 2013.

When viewed in the context of the 2008 Water and Sewer Master Plan, several conclusions and recommendations from the 2008 plan need to be revised to reflect the findings of these more recent studies.

Conclusions (Water)

The following conclusions amend the conclusions from the 2008 Water and Sewer Master Plan as follows:

1. As part of the City's reversion process, the Authority was tasked with the top priority of creating interconnectivity between the existing water systems.
2. The responsibility for sizing and locating the interconnections was assigned to the Authority.
3. The Authority was asked to take into consideration the long term interconnectivity needs of the entire County.
4. The Lakes-Bedford-Forest Water Supply Evaluation Report reinforced the viability of the Regional Interconnections described in the 2008 Plan and described preliminary sizing and locations of interconnectivity needs.
5. Bedford 2025 has been updated to include planning for Urban Development Areas on the outskirts of Bedford (City) and in the area of Moneta; the Regional Interconnections planning supports the UDA planning efforts.
6. Providing interconnectivity between the Moneta Tank, the Bedford system, and the New London Tank would facilitate water transmission from the Smith Mountain Lake water supply to Bedford (in an emergency) and the Forest system (known as the Jefferson Planning Area in the 2008 Plan). Water production at Smith Mountain Lake is estimated to be more cost effective than currently purchasing water from Lynchburg. Shifting the water supply to Forest to be served from Smith Mountain Lake improves the sustainability of the overall system, allows the Lynchburg system to become more of a secondary source to the Authority, and could provide an emergency supply connection to the Lynchburg system, if desired by the parties.
7. The Authority needs to prepare a more comprehensive update of this amendment of the 2008 Water and Sewer Master Plan to incorporate and build upon the City's previous planning efforts associated with the Authority's consolidated water and sewer systems.

Recommendations (Water)

The following recommendations amend the recommendations from the 2008 Water and Sewer Master Plan as follows:

1. Center Planning Area
 - a. Provide interconnectivity between the Bedford Central water system and the Jefferson and Lakes Planning Areas in support of the Reversion Agreement and Bedford 2025 Comprehensive Plan and to supplement the water demands of the Bedford water system and the said Planning Areas.
2. Jefferson Planning Area
 - a. Provide interconnectivity between the Lakes, Center, and Jefferson Planning Areas to improve the sustainability and efficiency of the Authority's water system.
 - b. Within the term of the existing water agreement with the City of Lynchburg, negotiate to provide possible supplementary water supply and fire protection to portions of the Forest area and the Central Planning Area, and obtain long term commitment for providing water service to meet the needs of the remaining areas of Forest and Boonsboro.
 - c. Transmission mains between the Lakes and Town of Bedford, and from Bedford to Forest should be constructed to serve the long-term needs of the Center and Jefferson Planning Areas, and provide regional cooperation capabilities with Campbell County Utilities and Service Authority and the City of Lynchburg.
 - d. Discuss interconnectivity and supplemental water supply opportunities with Campbell County Utilities and Service Authority.
 - e. Depending on the development of the Lakes Region Water Treatment Plant and construction of the Lakes Region WTP to Bedford and Bedford to Forest (Rt. 460) Interconnects, review opportunities to provide supplemental water to the City of Lynchburg.
3. Lakes Planning Area
 - a. The Smith Mountain Lake water supply should be expanded to serve the Lakes, Blue Ridge, Center, and Jefferson Planning Areas. This will involve the construction of the Lakes Region Water Treatment Plant, and possible upgrades to or removal from service of the High Point water treatment plant, with an ultimate design capacity to service these Planning Areas.
4. System-wide
 - a. Develop an update of this amendment of the Water and Sewer Master Plan incorporating the Town of Bedford's previous planning efforts associated with the Authority's consolidated water and sewer systems.