

## Town of Windsor

### Memorandum

October 8, 2019

**TO:** The Honorable Mayor and Town Council  
**FROM:** Michael Stallings, Town Manager *MS*  
**SUBJECT:** Water System Master Plan

As you know, we have been working with our engineers, Bowman Consulting, to complete the engineering work for a water line project on Duke Street and Virginia Avenue. They have completed their design work and have been working with the respective agencies to get the plans approved.

The Virginia Department of Health is requiring that we provide hydraulic model data for the upgrade as part of their approval process. Currently we do not have a hydraulic model of our system. This was to be part of the water system master planning work that Bowman was going to do for us in the near future.

The first step of our master planning work was to have them update/complete the mapping of our water system. This work has been completed. Attached is a proposal that lays out the remaining work to be done as part of our master planning process. As you can see, the total cost for the hydraulic modeling and development of a master plan for our water system is \$40,000. We had previously budgeted \$50,000 for this work, and those funds are contained within the Unappropriated Fund Balance of the Water Fund.

Due to the need to have this work done before our plan can be approved, I am recommending that we have Bowman proceed with the master planning work, beginning with the development of a hydraulic model of our system. I have attached a resolution that would appropriate these funds and authorize us to start this work.

#### **Recommended Motion**

Move that Council adopt the enclosed resolution entitled:

A Resolution Appropriating The Sum Of \$40,000 From The Unappropriated Fund Balance Of The Water Fund To The 2019-20 Water Fund Operating Budget

## Town of Windsor

### Water Masterplan Outline:

#### Description:

A water masterplan is a document that evaluates the capacity of the existing system from a source, storage and distribution perspective and it also evaluates the system's capacity to support growth within the Town based on the Town's Comprehensive Plan.

#### Step 1:

- a. Identify and evaluate the condition and capacity of the existing water supply sources serving the Town.
- b. Identify and evaluate the condition and capacity of the existing storage tank – Considering domestic demands and fire hydrant demands.
- c. Incorporate the existing water distribution system into a hydraulic model to help evaluate the capacities and pressures in the existing distribution system.
- d. Collect water usage/demands for existing customers.
- e. Conduct a series of hydrant flow tests to assist in calibrating the hydraulic model

#### Step 2.

- a. Review Comprehensive Plan for Town and for Isle of Wight County
- b. Determine where and how much growth will occur over a time horizon of 20, 30 and 40 years.
- c. Coordinate with Isle of Wight on their planned schedule for growth
- d. Translate the growth into water demands.
- e. Evaluate future demands against current conditions and determine where gaps exist, using the hydraulic model. Use the model to determine line sizes needed to support growth.

#### Step 3.

- a. Develop phasing plan for serving the future growth areas.
- b. Develop cost estimates for each phase.
- c. Present Plan to Town.
- d. Present Plan to County, if warranted.

#### **Fee Schedule:**

**Phase 1** – Fee \$25,000, Lump Sum

**Phase 2** – Fee \$7,500, Lump Sum

**Phase 3** – Fee \$7,500, Lump Sum

**Resolution**

A Resolution Appropriating The Sum Of \$40,000 From The Unappropriated Fund Balance Of The Water Fund To The 2019-20 Water Fund Operating Budget

**WHEREAS**, the Town Council set aside \$50,000 in its 2017-18 Water Fund Budget for the purpose of completing a master plan for its water system, and;

**WHEREAS**, the required preliminary steps have been completed in order for us to proceed with the completion of the master planning process, and;

**WHEREAS**, the Town Council must re-appropriate the \$40,000 of these funds from the Water Funds' Fund Balance.

**NOW, THEREFORE BE IT RESOLVED** by the Council of the Town of Windsor, Virginia as follows:

Section 1. That the sum of \$40,000 from the Unappropriated Fund Balance of the Water Fund, be, and the same hereby is, appropriated to the Professional Services item within the Water Fund 2019-20 Operating Budget:

Section 2. The Manager is authorized and directed to do all things necessary to proceed forward with the master planning work with Bowman Consulting.

Section 3. This resolution shall be effective on and after its adoption.

Adopted: October 8, 2019

TESTE:

\_\_\_\_\_  
Town Clerk