



# City of Harrisonburg, Virginia

Water and Sewer Operations Center

2155 Beery Road

Harrisonburg, Virginia 22801

(540) 434-9959 / Fax (540) 434-9769



TO: Kurt Hodgen, City Manager  
FROM: Mike Collins, Director of Public Utilities  
DATE: January 14, 2016  
RE: Raw Water Supply Management Plan (RWSMP)

**Summary:** Mike Collins, Harrisonburg Director of Public Utilities, has authored a summary that recaptures the goals and details of the City's pursuit for a sustainable long term water supply. The document, entitled "Raw Water System Management Plan (RWSMP)", includes:

- an "Executive Summary Scorecard" section that provides current benchmarks for analysis of the City's progress and future requirements;
- Four sections that articulate the goals of the RWSMP
  - ❖ Forecasting Required Water Supply
  - ❖ Optimizing Future Water Supply
  - ❖ Sustaining Future Water Supply under Drought
  - ❖ Mitigating Future Water Supply Risk
- Appendices that capture many of the advantages, constraints, and history of Harrisonburg's water sources.

**Background:** Along with rapid growth, the City incurred significant water supply shortages in the late 1980s and early 1990s. After implementing an immediate fix by enhancing its water supply from the North River, the City turned its attention to planning for long term solutions. From the early 1990s to 1999, the City evaluated surface water options that included enhancing Dry River Dam to the west and retrofitting its hydroelectric dam as a water intake on the South Fork of the Shenandoah River to the east. The City also evaluated groundwater options to the west along the Route 33 corridor to Switzer Dam and south along its pipe line to Bridgewater. The City also pursued joining Rockingham County in the upgrade of its Three Springs Water Treatment Plant.

In 1999, City Council and Harrisonburg Public Utilities made the decision to pursue its next water source to secure long term water supply. This decision was to pursue the South Fork of the Shenandoah River where the City once operated a hydroelectric power dam. This decision favored a source with significant water volumes such to support a business model for customer growth that might require significant water usage.

The issuance of Virginia Water Withdrawal Permit (VWWP) #98-1672 gave Harrisonburg privileges to withdrawal 8.0 MGD from the South Fork of the Shenandoah River; this was the foundation and initial staple of validity for the City's long term water supply solution. In 2015-2016, the permit is to be reissued under the review of DEQ. With the VAC Local and Regional Water Supply Statute now guiding the review agency, allowable water withdrawals under the original permit are being revisited. In addition to the Shenandoah withdrawal, the draft permit conditions are trending to include the City's other sources as well. The reissuance process is bringing Harrisonburg's water plan under test as the City again approaches the need for greater water supply. Harrisonburg can achieve its ultimate goal by harmonizing the RWSMP and the VWWP #98-1672 and by setting schedule to completion of the Shenandoah Project. The latter must consider timing for the next probable water shortage based on revised growth in water usage.

**Key Issues:** Staff believes that successfully negotiating the reissuance of VWWP #98-1672 is the foremost critical activity to the RWSMP. Thereafter, staff recommends that City Council make the decision to complete the Shenandoah River Project.

**Environmental Impact:** The RWSMP addresses key environmental stewardship on behalf of the City of Harrisonburg.

**Fiscal Impact:** Approximately \$21M in bond funding estimated to require a \$1.07M annual debt payment. Funding would require a rate increase of \$0.53 per 1000 gallons (18%).

**Prior Actions:** 1999 endorsement by City Council and \$13.3M in activities completed by HPU.

**Alternatives:**

- (a) Revisit the target needed water supply
- (b) Revisit past alternatives
- (c) Revisit joint ventures

**Community Engagement:** General stakeholder engagements for making the decision predate 1999. Stakeholders engaged in the agile progression of this project include CIP stakeholders / public comment, regulators, design team, construction team, and individual property owners that have been affected by construction.

**Recommendation:** HPU Director recommends general support of the RWSMP; support to negotiate the reissuance of VWWP#98-1672, and then funding for the remainder of the Shenandoah River Project.

**Attachments:**

- Raw Water System Management Plan (RWSMP)
- Power Point Presentation of RWSMP highlights
- HPU response to draft permit VWWP#98-1672

**Review:**

- Approval required by Mike Collins, Director of Public Utilities
- Approval required by Erica Kann, City Clerk
- Approval required by Kurt Hodgen, City Manager