

TO: Kurt Hodgen, City Manager  
FROM: Mike Collins, Director Public Utilities  
DATE: September 19, 2016  
RE: Funding for South Fork Shenandoah River Project and Dry River Project

**Summary:** Mike Collins, Harrisonburg Director of Public Utilities, has updated the goals and details of the City's pursuit for a sustainable long term water supply. The "Raw Water Supply Management Plan" (RWSMP) document, originally presented to City Council in January, 2016 is now compatible with Virginia Water Withdrawal Permit #16-0730 as finalized July 28, 2016.

**Background:** Along with the 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 while retaining the ability to withdrawal 5.5 MGD from North River. New Permit #16-0730 allows 9.1 MGD withdrawal during the lowest stream flows on record from the South Fork Shenandoah River but restricts the use of North River to 1.3 MGD under the same conditions. Harrisonburg can achieve its ultimate goal by harmonizing the RWSMP and the VWWP #16-0730 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 recommends that City Council make the decision to complete the Shenandoah River Project and to also consider partial enhancement of its Dry River source.

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

**Fiscal Impact:** Approximately \$21.5M to \$27.5M in bond funding estimated to require an annual debt payment of 1.24 to \$1.59M (4%@30yrs) pending selection of options. Funding would require a rate increase of \$0.59 to \$0.77 per 1000 gallons (19%-25%).

**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 consideration of funding for the remainder of the Shenandoah River Project plus other ancillary projects to be discussed.

**Attachments:** Raw Water System Management Plan (RWSMP); September 2016

**Review:**

- Approval required by Mike Collins, Director of Public Utilities
- Approval required by Pamela Ulmer, Acting for City Clerk
- Approval required by Kurt Hodgen, City Manager