

In the Tri-Borough area, the Red Lion Municipal Authority (RLMA) supplies water directly to Red Lion residents. In addition, the RLMA provides bulk water connections to the Dallastown-Yoe Water Authority and Windsor Borough Authority. The Dallastown-Yoe Water Authority distributes water to the residents of these two Boroughs. Residents in portions of Chanceford, Windsor and York Townships are also served by the RLMA.

There are two major elements in the provision of water to the Region's residents – supply and distribution and storage.

**Source Water Protection (SWP)**

The RLMA has three surface sources of drinking water. The main source of water is the Cabin Creek reservoir, which is located approximately 2 miles north-northeast of Red Lion Borough. The reservoir and intake are located in Windsor Township on Cabin Creek. The reservoir is an 11-acre lake containing approximately 38 million gallons of water. The watershed area above the intake is 2.77 mi<sup>2</sup>.

The secondary source is the Beaver Creek reservoir, which is located approximately 5 miles to the east-northeast of Red Lion Borough. The reservoir is located in Lower Windsor and Chanceford Townships on Beaver Creek. The facility consists of an impounding dam on Beaver Creek and Fishing Creek. The concrete impoundment contains approximately seven million gallons of water, and acts as a spillway. A minimum conservation release of 0.683 mgd is maintained. The watershed area above the intake is approximately 7 mi<sup>2</sup>.

The third source is an intake on the Susquehanna River, located approximately 10 miles due east of Red Lion Borough. The River intake is used only during periods of drought when water is pumped from the Susquehanna River to Beaver Creek and in turn to Cabin Creek.

The RLMA's Source Water Protection Plan of 2008 lists the following recommended actions to protect and enhance the water quality and quantity available to their customers:

**RECOMMENDED ACTIONS SUMMARY TABLE**

<b>Recommended Actions</b>	<b>Time Period/Priority</b>	<b>Implementing Organization</b>	<b>Brief Description</b>
Expand the Local Steering Committee	Immediately and ongoing/High	SWP Steering Committee	Expansion of the Steering Committee to include other municipal/government and community members.
Education/Outreach Plan	Immediately and ongoing/High	SWP Steering Committee; local school districts	SWP Education in the schools and community is an essential piece to protecting a water supply.
Municipal Actions	Immediately and ongoing/High	SWP Steering Committee; all municipalities in SWP area	One method for protecting your water supply is to review/pass ordinances either protecting the SWP/WHP area or creating more stringent requirements for certain types of development.
Model Ordinances	Immediately and ongoing/Medium	SWP Steering Committee; neighboring municipalities	One method for protecting your water supply is to pass ordinances either protecting the SWP/WHP area or creating more stringent requirements for certain types of development.
Riparian Buffer Prioritization/Restoration	Immediately and ongoing/Medium	SWP Steering Committee; municipalities in SWP area; watershed groups	Riparian buffers are a key to stream water quality and health. Ultimately, a well-buffered watershed leads to clean drinking water and reduced costs to the water supplier.
Encourage Farmland Preservation	2007 and beyond/Medium	SWP Steering Committee; York County Conservation District	Preserving farmland in York County is becoming harder with development pressure. The RLMA is in a situation where focusing on this activity will benefit them greatly long-term.
Update Emergency Response Plan	2007 and every two (2) years after/Medium	Red Lion Municipal Authority	Knowing what to do and who to contact in an emergency situation is vital to protecting your water source.
Update Contaminant Source Inventory	Every 2 Years/High-Medium	SWP Steering Committee	Having knowledge of the potential contaminant sources in a watershed makes it easier to protect your supply. The frequency of updating it will vary on the potential for growth and change in an area.

Recommended Actions	Time Period/Priority	Implementing Organization	Brief Description
Contingency Planning	Immediately after SWP Plan completion	SWP Steering Committee; all other SWP area municipalities	Planning for “what-if” scenarios is an important step to knowing that your water supply is properly protected. This step and Emergency Response Planning should be completed together.
New Sources	Review immediately and consider/Medium	SWP Steering Committee	If a system relies on only one source, some of the sources are sometimes unreliable, or there is the potential for a large amount of growth, it may be necessary to begin looking for new sources of water.

**EXPAND THE LOCAL STEERING COMMITTEE**

In the Source Water Protection Plan, it was recommended to expand the Source Water Protection Steering Committee to include representatives of the following organizations, recognizing some representatives would attend meetings on an “as-needed” basis:

- Windsor Township
- Lower Windsor Township
- York County EMA
- Farm and Natural Land Trust of York County
- Red Lion School District
- Dallastown School District
- Eastern School District
- Windsor Borough
- Dallastown Borough
- Dallastown-Yoe Water Authority

## **EDUCATION/OUTREACH**

Efforts at education about Source Water Protection Planning and the importance of protecting the water supply could be directed at:

- All municipal and planning officials in the drinking water watersheds
- Local school districts, specifically the teachers
- Major industries/chamber of businesses
- Watershed and conservation groups (they may be useful to assist the education efforts as well)
- State and federal agency personnel that may influence the watershed land
- Riparian landowners

In addition, signs can be placed on roads within supply watersheds to identify watershed areas.

### **Municipal Actions**

Municipalities can review their existing ordinances and assess how effective they are at protecting water resources.

Land purchase and conservation easements can be used to acquire land in the watersheds of water supplies.

### **Model Ordinances**

Ordinances for consideration include Wellhead Protection Overlay zones, Riparian Buffer Overlay zones, and Watershed Protection Overlay zones.

### **Riparian Buffer Prioritization/Restoration**

Riparian buffer zones in the Cabin Creek and Beaver Creek Watersheds were investigated, and in most cases a riparian buffer was intact out to 150 feet on both sides of the stream corridors. The next action is to work to preserve the riparian buffers.

### **Encourage Farmland Preservation**

This will involve targeting unprotected parcels in the Cabin and Beaver Creek Watersheds and encouraging the purchase of agricultural conservation easements.

### **Modify/Update Emergency Response Plan (ERP)**

The ERP should be updated every 2-3 years.

### **Update Contaminant Source Inventory**

The listed contaminant sources in the source water area should be updated every 2-3 years.

## **Contingency Planning**

The SWP Steering Committee should discuss “what-if” scenarios at a meeting to make sure they feel that they are adequately covered during most realistic scenarios.

## **New Sources**

The need for new sources can be monitored; however, the RLMA and the Steering Committee believe that looking for new water sources is not necessary at this time. There is enough capacity in Cabin Creek and Beaver Creek to cover most drought scenarios, and if needed, the backup source is the Susquehanna River.

The following actions are considered the highest priority:

- Expand the Steering Committee to include more municipal representation from the SWP area watersheds, local school districts, and the Farm and Natural Land Trust of York County. By doing this, relationships with other local governments and organizations will only improve and the overall health of the Cabin Creek and Beaver Creek watersheds can only get better.
- Focus on land protection in the Cabin Creek and Beaver Creek watersheds. The zoning in these watersheds is still mainly agricultural and the residential areas have been (or are currently being) developed. Now is the time to act and preserve the land uses that can have the most benefit to the RLMA water supply.
- Keep the lines of communication between the neighboring municipalities strong, especially in regards to new development proposals.
- Continue to educate the customers of the RLMA about protection efforts; at the same time, find ways to reach the landowners of the Cabin Creek and Beaver Creek watersheds.

## **Storage and Distribution**

On the distribution side, the RLMA and Dallastown-Yoe Water Authority (DYWA) will continue to improve storage facilities and water mains. The water main replacements programmed in Red Lion are listed in Chapter 9. The DYWA is preparing a list of necessary improvements to storage tanks and water main replacements.

## **Recognition of Municipalities Planning Code**

- Lawful activities such as extraction of minerals impact water supply sources and such activities are governed by statutes regulating mineral extraction that specify replacement and restoration of water supplies affected by such activities.
- Commercial agriculture production impact water supply sources.