



# SUSQUEHANNA RIVER BASIN COMMISSION

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## Groundwater Withdrawal Application Summary

**Source Name:** Well M

**SRBC Pending No.:** 2021-130

This summary is only a portion of the application materials and is meant to provide general information about the proposed project.

### 1.1 Project Sponsor

Company Name: East Cocalico Township Authority  
Mailing Address Line 1: 102 Hill Road  
Mailing Address Line 2:  
City: Denver  
State: PA  
ZIP Code: 17517

#### Contact Person:

First Name: Scott  
Last Name: Carl, Sr.  
Title: Authority Administrator  
Telephone: 717-336-1731  
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Mobile: 484-256-2673  
**E-mail:** [scarl@ecocalicotwpauth.com](mailto:scarl@ecocalicotwpauth.com)

### 1.3 Existing and Projected Facility Water Use

The usage should be entered in million gallons per day (mgd) and rounded off to the nearest one thousand gallons (three decimal places).

Projected Design Year:  
2038

Total Project Water Usage	Existing Usage (mgd)	Projected Usage For Design Year (mgd):
Maximum 30-day Average Water Demand :	0.8	1.395
Maximum Daily Water Demand :	1.152	1.395
System Capacity :	1.395	1.395

### 1.4 Requested Withdrawal Amount:

Estimated Daily Hours of Operation per Day (Ex. = 5): 24  
Maximum Instantaneous Withdrawal Rate (gpm): 969  
Maximum 24-Hour Day (mgd): 1.395  
Maximum 30-Day Average (mgd): 1.395

### 2.2 Facility Location

Please enter the address of the parcel where the Project Facility is located.

Street Address: 90 Short Road, Stevens

State: PA

County: Lancaster

Municipality: West Cocalico Township

Zip Code: 17578

Subbasin: Lower Susquehanna

## 2.1 Project Facility Description - East Cocalico Township Authority Well M

The East Cocalico Township Authority (ECTA) owns and operates a public water supply system (Total System) that includes 14 wells (Wells 2A, 3A, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, F and M, with Well M not currently operating). Water usage in East Cocalico Township (Township) includes industrial use and domestic use for households and businesses. ECTA also supplies water to 12 connections in neighboring West Cocalico Township and to two connections in Ephrata Township. A Total System withdrawal limit (maximum 30-day average) of 1.395 million gallons per day (mgd) is currently approved by the Susquehanna River Basin Commission in Docket No. 20160304. The recent maximum 30-day average water demand of the Total System was 0.800 mgd, which occurred in July 2020, and is projected to be 1.395 mgd in 15 years. The recent maximum daily water demand (peak day) was 1.152 mgd on July 22, 2019. ECTA does not have an interconnection with other water systems and does not purchase water from other providers.

Well M is approved by the Susquehanna River Basin Commission (Commission or SRBC) in Docket No. 20070606 for a 30-day average withdrawal of 1.395 mgd. As of October 2021, Well M has not been used. The ECTA anticipates beginning operation of Well M at the end of 2021 or in early 2022. The well will undergo permitting through the Pennsylvania Department of Environmental Protection (DEP) and renewal of withdrawal approval by the SRBC. Wells F and M will eventually be used as the primary sources for the System. Docket No. 20070606 expires on June 13, 2022, and this ground water withdrawal application is being submitted to the Commission for renewal at the current rates. Well M will provide suitable yield, and therefore, the Authority does not intend to seek renewal of the withdrawal approval for low-yielding Well 12 when SRBC Docket No. 19920702 expires on July 9, 2022.

With the exception of Wells F and M, each well in the system has 4-log treatment associated with the individual well. A water treatment plant is currently used to treat water from Well F and will be used for Well M when it begins operating. 4-log treatment for viruses also is employed at the treatment plant mainly through CL-2 disinfection and retention time. The water treatment plant is approved by the Pennsylvania Department of Environmental Protection (DEP) to treat 267 gallons per minute (384,480 gallons per day) at the present time. As demand increases during the 15-year SRBC approval period for Wells F and M, the ECTA intends to increase the treatment capacity of the plant by adding additional “treatment banks” at the existing plant. Increases in treatment capacity at the plant also will be needed as ECTA begins to retire some of the lower yielding wells in the system that are treated at their individual well houses and not at the treatment plant. As the treatment capacity increases, the ECTA intends to increase withdrawals from Wells F and M.

ECTA maintains four storage tanks throughout the Township, with a combined storage capacity of 4.7 million gallons. ECTA does not utilize any surface water impoundments.

The majority (approximately 92 to 97 percent) of the East Cocalico Township’s wastewater is treated by Ephrata Borough’s Wastewater Treatment Plant #2 located at 43 Springhouse Road, Ephrata, Pennsylvania, where treated water is discharged to Cocalico Creek. Approximately three to eight percent of the township’s water is sent to the Adamstown Treatment Plant located at 235 East Swartzville Road, Denver, Pennsylvania where water is discharged to the Little Muddy Creek.

There also is discharge to on-lot septic systems for several residences within the water supply area.

The drilling of Well M was completed in October 2004 in West Cocalico Township, Lancaster County, Pennsylvania. The well was drilled in limestone of the Stonehenge Formation near the contact with the Epler Formation. These formations are composed predominantly of limestone and dolomite, and tend to form karst solution features. Well M is constructed with 117 feet of 12-inch casing with an open bore diameter of 12 inches to a depth of 195 feet and an open bore diameter of 6 inches from 195 feet to 399 feet below the ground surface. The upper water bearing zone below the casing occurs at an interval between 141 feet and 151 feet below the ground surface with a yield of approximately 1,500 gpm. The blown well yield at the conclusion of drilling was greater than 1,500 gallons per minute (gpm).

For the docket renewal for Well M, ECTA is requesting a maximum 30-day average withdrawal rate of 1.395 mgd and a maximum instantaneous withdrawal rate of 1,095 gpm, which are the currently approved rates by the SRBC. The current treatment plant limitations and the associated DEP permit limits preclude the use of Well M at the requested rate at the present time. However, renewal of the currently approved rates are being requested because ECTA intends to upgrade the treatment facility prior to expiration of the new SRBC docket. Well M can yield the requested rates as indicated by aquifer testing performed in December 2004.