



SUSQUEHANNA RIVER BASIN COMMISSION

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Web <http://www.srbc.net>

Groundwater Withdrawal Application Summary

Source Name: Well 11

SRBC Pending No.: 2021-128

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

Fax: 717-336-1735

Mobile: 484-256-2673

E-mail: 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): 15

Maximum Instantaneous Withdrawal Rate (gpm): 180

Maximum 24-Hour Day (mgd): 0.24

Maximum 30-Day Average (mgd): 0.081

2.2 Facility Location

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

Street Address: 1705 Dry Tavern Road

State: PA

County: Lancaster

Municipality: Brecknock Township

Zip Code: 17517

Subbasin: Lower Susquehanna

2.1 Project Facility Description – East Cocalico Township Authority Well 11

ECTA owns and operates a public water supply system (Total System) that includes 14 existing 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 mgd is currently approved by the 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. From Well 11 alone, the maximum 30-day average non-drought withdrawal occurred in July 2015 at 0.107 mgd and the maximum 30-day average withdrawal during drought conditions occurred in May 2017 at 0.081 mgd. Well 11 is permitted by the Pennsylvania Department of Environmental Protection (DEP Permit No. 3691505) for a maximum instantaneous withdrawal of 180 gallons per minute (gpm).

With the exception of Wells F and M, each well 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.

Near-term modifications to the ECTA system include the following. ECTA anticipates beginning operation of Well M at the end of 2021. 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.

Well 11, in combination with ECTA Well 12, is currently approved by the Susquehanna River Basin Commission (Commission or SRBC) in Docket No. 19920702 for a combined 30-day average withdrawal of 0.240 mgd. Well 11 was drilled in August 1990 and has been in operation

for the duration of the 30-year docket period. ECTA is requesting approval of a maximum 30-day average withdrawal rate of 0.081 mgd, which is the historical maximum 30-day average withdrawal during drought conditions, and a maximum instantaneous withdrawal rate of 180 gpm, which is equal to the rate permitted by DEP.

Well 11 is drilled into interbedded sandstone and shale of the Hammer Creek Formation. Well 11 is constructed as an eight-inch diameter open rock well to a depth of 450 feet below ground surface and as a six-inch diameter well from 450 feet to 523 feet below ground surface. Eight-inch diameter steel casing extends from above the ground surface to 53 feet below the ground surface. The highest water bearing zone in the open interval of the well is at 61 feet below the ground surface with a reported blown yield of 45 gallons per minute.