



SUSQUEHANNA RIVER BASIN COMMISSION

4423 North Front Street • Harrisburg, Pennsylvania 17110-1788

(717) 238-0423 Phone • (717) 238-2436 Fax

www.srbc.net

Docket No. 20220606

Approval Date: June 16, 2022

Correction Issue Date: October 31, 2022

EAST COCALICO TOWNSHIP AUTHORITY

**Groundwater Withdrawals (30-Day Averages) of 0.081 mgd from Well 11,
1.150 mgd from Well F, and 1.395 mgd from Well M;**

**Combined Withdrawal Limit (30-Day Average) of 1.573 mgd from Wells F and M;
and Total System Withdrawal Limit (30-Day Average) of 1.395 mgd**

Section 1. Approval

After review of the record, including the technical findings of Susquehanna River Basin Commission (Commission) staff, the Commission has determined that no significant adverse impacts are anticipated by the operation of this project as described and conditioned herein, the project is physically feasible, and does not conflict with or adversely affect the Commission's Comprehensive Plan. Accordingly, the Commission hereby approves the renewal of the project described herein in accordance with the conditions set forth below.

Following Commission issuance of this approval, staff discovered that Special Condition 23 erroneously prohibited operation of Well M prior to completing mitigation activities by omitting the phrase "at rates exceeding 267 gpm." The Commission intended to authorize operation of Well M at rates of 267 gallons per minute (gpm) or less and require mitigation activities to be completed before Well M is operated above 267 gpm. Therefore, the error in Special Condition 23 was corrected on October 31, 2022, by clarifying allowable rates of operation and associated mitigation. All other aspects reflect the original approval and should be read based on the date of the original approval.

The project sponsor maintains and operates a public water supply system that includes 13 groundwater sources (Wells 2A, 3A, 4, 5, 6, 7, 8A, 9, 10, 11, 14, F, and M), all of which are incorporated into the total system limit. Based on information provided by the project sponsor, no other sources are operated by the project.

The Commission previously approved the withdrawal of 0.240 million gallons per day (mgd) from Wells 11 and 12 under Commission Docket No. 19920702, and withdrawals of 1.150 mgd from Well F and 1.395 mgd from Well M under Commission Docket No. 20070606. The project sponsor submitted groundwater withdrawal renewal applications requesting approval to withdraw up to 0.081 mgd from Well 11, 1.150 mgd from Well F, and 1.395 mgd from Well M. The project sponsor has not requested renewal of Well 12 because it is not being used and will be abandoned. This approval authorizes withdrawals at the requested rates for Wells 11,

F, and M; establishes a combined withdrawal limit of 1.573 mgd for withdrawals from Wells F and M; and maintains the previously established total system withdrawal limit of 1.395 mgd.

Should demand exceed the total system limit established herein, the project sponsor may submit a minor modification application in accordance with 18 CFR § 806.18(c)(7) to increase the total system limit, as the total system limit established herein is based on the 15-year projected demand.

Commission staff has coordinated with the Pennsylvania Department of Environmental Protection (PADEP) and the Pennsylvania Fish and Boat Commission (PFBC) during review of this project.

Section 2. Project Information

Information concerning the project sponsor, water use type, and location are set forth in the table below.

Project Information	
Project Sponsor:	East Cocalico Township Authority
Approval Type:	Groundwater Withdrawal
Previous Docket Nos.:	19920702 and 20070606
Authorized Water Use Purpose:	Public Water Supply
Municipality:	Brecknock (Well 11), East Cocalico (Well F), and West Cocalico Townships (Well M)
County:	Lancaster County
State:	Pennsylvania

Section 3. Source Information

Information concerning the sources of water from which the withdrawals will be made is set forth in the table below.

Source Information	
Withdrawal Type:	Groundwater
Approved Sources:	Wells 11, F, and M
Subbasin:	Lower Susquehanna
Watershed Boundary Dataset (WBD):	Wells F and M – 0205030609 (Cocalico Creek) Well 11 – 0205030611 (Conestoga River)
Withdrawal Location (degrees)*:	Lat: -- Long: --
Special Flow Protection Required:	No
* Specific location information concerning discrete water-related project features has been withheld for security reasons.	

Section 4. Aquifer Testing

Section 4.1 Well 11

Commission staff determined that sufficient data is available to complete the necessary hydrogeologic evaluation and approved an Alternative Hydrogeologic Evaluation (AHE) for Well 11 on April 11, 2022. In support of the AHE, the project sponsor provided the required groundwater availability analysis, historical withdrawal and water level data, the results of historical aquifer testing, and evaluation of current operational data to historical testing results.

Operational data indicated that frequent lowering of water levels below a water-bearing zone at 352 feet above mean sea level (AMSL) or 82 feet below ground surface (bgs) has been occurring and may have reduced the yield of Well 11. To prevent further loss of well yield and to protect the water-bearing zones at 352 feet AMSL, the project sponsor and Commission staff recommended installing an automatic pump shutoff switch at 358 feet AMSL (76 feet bgs) in accordance with Special Condition 21.

Section 4.2 Wells F and M

Constant-rate aquifer tests in accordance with 18 CFR § 806.12 for the groundwater withdrawals from Wells F and M were completed with prior Commission approval. Hydrogeologic evaluations required by 18 CFR § 806.12 were completed during the prior review and approval. A 49-hour, constant-rate aquifer test of Well F was conducted on November 16 through 18, 2004, pumping at an average rate of 797 gpm. A 65-hour, constant-rate aquifer test of Well M was conducted on December 13 through 16, 2004, pumping at an average rate of 1,095 gpm. Although the project sponsor tested Well M in 2004 at 1.577 mgd and the aquifer testing indicated that the test rate was acceptable, Well M was approved at 1.395 mgd, consistent with the projected demand. Therefore, the project sponsor requested renewal of Well M at the previously approved rate.

Aquifer testing of Well M in 2004 demonstrated that significant adverse impacts to other users at the tested rate were not expected at that time. However, since original approval, two new private supply wells were drilled on a nearby property, identified as primary and backup wells. The aquifer testing data from 2004, which is expected to continue to be a valid characterization of aquifer conditions and responses to pumping Well M, indicates that 20-30 feet of drawdown would be expected in the primary new supply well, which would reduce the available water column by more than 75 percent. Therefore, staff recommends mitigation of the primary new private supply well as prescribed in Special Conditions 22 and 23. Because insufficient information is known about the backup private supply well to evaluate the potential for significant adverse impacts, staff recommends that the project sponsor collect and submit additional well construction information, evaluate mitigation needs for the backup well, and implement mitigation as needed. As described below, Well M cannot be operated at a rate greater than 267 gpm until additional treatment capacity is installed. Because operation of Well M is not expected to cause significant adverse impacts at 267 gpm, staff recommends that mitigation be completed prior to any increase in Well M above 267 gpm.

Wells F and M are in the same groundwater basin and the groundwater availability analysis estimates that 100 percent utilization of the 1-in-10-year drought availability could occur at a combined 30-day average withdrawal rate of 1.573 mgd. Therefore, combined withdrawals from Wells F and M should be limited to 1.573 mgd (30-day average). However, the current and planned treatment capacity is expected to remain lower than the combined withdrawal limitation.

The water treatment plant for Wells F and M was designed for a maximum treatment rate of 800 gpm, but installed treatment capacity is 267 gpm, which is the PADEP-permitted rate. Because Wells F and M were tested at rates higher than current PADEP-permitted treatment allows, staff recommends that withdrawal rates for Wells F and M correspond with the tested rates. However, the project sponsor must comply with all limitations provided by other agencies and staff recommends that the project sponsor, in accordance with Special Condition 24, inform the Commission when increases to the PADEP-permitted rates are approved.

Section 4.3 Findings

Commission staff determined that the withdrawals from Wells 11, F, and M at the requested withdrawal rates should not cause permanent loss of aquifer storage, render competing supplies unreliable, or cause adverse impacts to the water resources of the basin, subject to the conditions set forth below.

Section 5. Approved Withdrawal Quantities and Limitations

The withdrawals approved hereunder are subject to the quantitative limits and restrictions set forth in the table below.

Approved Withdrawal Quantities and Limitations			
	Well 11	Well F	Well M
30-Day Average Withdrawal (mgd):	0.081	1.150	1.395
Maximum Instantaneous Withdrawal Rate (gpm) (Not to Exceed):	180	800	1,095
Peak Day Withdrawal (mgd)	0.260	1.152	1.396
Combined Withdrawal Limit – Wells F and M (30-Day Average) (mgd):	Not Applicable	1.573	
Total System Withdrawal Limit – Wells 2A, 3A, 4, 5, 6, 7, 8A, 9, 10, 11, 14, F, and M (30-Day Average) (mgd):	1.395		

The withdrawals are also subject to all other conditions set forth in this docket approval.

Section 6. Existing Approved Withdrawals

Quantities applicable to the existing approved withdrawals are listed in the table below.

Existing Approved Groundwater Withdrawals			
Source	30-Day Average Withdrawal (mgd)	Commission Docket No.	Docket Expiration Date
Well 2A	0.576	19990901	September 9, 2024
Well 3A	0.059	20160304	March 9, 2031
Well 4	0.023	20160304	March 9, 2031
Well 5	0.056	20160304	March 9, 2031
Well 6	0.022	20160304	March 9, 2031
Well 7	0.046	20160304	March 9, 2031
Well 8A	0.072	20031007	October 9, 2028
Well 9	0.059	20181205	December 31, 2033
Well 10	0.045	20181205	December 31, 2033
Well 14	0.266	19981202	December 3, 2023

Section 7. Grandfathering Determination – Withdrawals and Consumptive Use

All withdrawals used by the project have Commission approval.

Section 8. Standard Conditions

1. The project sponsor shall comply with all Commission regulations, 18 CFR Parts 801, 806, and 808. This project is subject to the Annual Compliance and Monitoring fee as specified in the Commission's Regulatory Program Fee Schedule, which may be modified over the term of the approval.

2. The project sponsor shall adhere to the metering plan reviewed and approved by Commission staff. Any modifications proposed for the metering plan shall be submitted for review and, if appropriate, approval by Commission staff in accordance with 18 CFR § 806.30. Modifications shall not be made until the project sponsor receives written approval of the amended plan.

3. The project sponsor shall maintain the totalizing meter and other flow and volume measuring devices, accurate to within five (5) percent, so as to provide an accurate record of withdrawals, and certify to the Commission once every five (5) years, or as otherwise requested, the accuracy of all measuring devices and methods to within five (5) percent of actual flow.

4. The project sponsor shall adhere to the groundwater elevation monitoring plan reviewed and approved by Commission staff for the sources listed in Sections 3, 5, and 6. The project sponsor shall maintain and monitor the accuracy of the measuring devices in accordance with the manufacturer's specifications.

5. The project sponsor shall keep daily records of the project's withdrawals and groundwater elevations for the sources listed in Sections 3, 5, and 6, and shall report the data to the Commission quarterly, and as otherwise required, in the form and manner as prescribed by Commission staff. Quarterly monitoring reports shall be submitted online and are due within

thirty (30) days after the close of the preceding quarter. Any alternative measuring, monitoring, or accounting procedure, and any modifications proposed for the groundwater elevation monitoring plan, shall be submitted for review and approval by Commission staff in accordance with 18 CFR § 806.30. Modifications shall not be made until the project sponsor receives written approval of the amended plan. All data collected and submitted as required under this approval shall be maintained by the project sponsor for the duration of the approval and all subsequent renewals.

6. The project sponsor or any other person representing the project sponsor shall allow authorized employees or agents of the Commission, without advance notice, at any reasonable time and upon presentation of appropriate credentials, and without delay, to have access to and to inspect all areas where the project is being constructed, operated, or maintained, or otherwise exercise all investigative powers authorized under 18 CFR § 808.12.

7. In accordance with 18 CFR § 806.30(b)(2), the project sponsor shall report violations of any withdrawal limits and any conditions of this approval within five (5) days of such violation or report loss of measuring or recording capabilities required under 18 CFR § 806.30(a)(1) within five (5) days after any such loss.

8. In accordance with 18 CFR § 806.6, if ownership of the project changes or if the project sponsor undergoes a name change, the project sponsor shall submit application for transfer or reissuance of all approvals to the Commission within ninety (90) days of the change in ownership or project sponsor name change.

9. The project sponsor shall comply with the water conservation requirements specified in 18 CFR § 806.25.

10. This approval is conditioned on the project sponsor maintaining legal access to the withdrawal locations for the duration of the approval.

11. The project sponsor shall register with the appropriate agency all groundwater sources described herein, as may be required by regulations of the member jurisdiction.

12. If the project sponsor fails to comply with the provisions of the Susquehanna River Basin Compact or any rule, regulation, or order of the Commission, or any term or condition of this docket, the project sponsor is subject to enforcement actions pursuant to 18 CFR Part 808.

13. Commission approval shall not be construed to exempt the project sponsor from obtaining and maintaining all necessary permits and/or approvals required for the project from other federal, state, or local government agencies having jurisdiction over the project. All such permits and/or approvals shall be obtained prior to the withdrawal of water. The Commission may modify, suspend, or revoke this approval if the project sponsor fails to obtain or maintain such permits and/or approvals.

14. The Commission may at any time reopen any project approval or issue such additional orders, as may be necessary, to mitigate or avoid adverse impacts or otherwise to protect public health, safety, welfare, or the environment, pursuant to 18 CFR § 806.32.

15. Commission approval confers no property rights upon the project sponsor. The securing of all rights necessary and incident to the project sponsor's development and operation of the project shall be the sole and exclusive responsibility of the project sponsor, and this approval shall be subject thereto.

16. This project is approved for inclusion in the Commission's Comprehensive Plan for the Water Resources of the Susquehanna River Basin.

17. The project sponsor is required to apply for and obtain approval prior to any increase in withdrawals that would exceed the amounts listed herein.

18. The project sponsor is required to apply for and obtain approval prior to any increase in the total system withdrawal that would exceed the approved total system withdrawal limits listed herein.

19. If the Commission determines that the operation of the project's groundwater withdrawals adversely affects any existing groundwater or surface water withdrawal, the project sponsor shall be required to provide, at its expense, an alternate water supply or other mitigating measure.

Section 9. Special Conditions

20. Prior to initiation of withdrawal from Well M, the project sponsor shall install and maintain metering on Well M in accordance with 18 CFR § 806.30 and the approved metering plan. The project sponsor shall notify the Commission, in writing, and submit photographs of the meter(s) when installed and certify the accuracy of the measuring device(s) to within five (5) percent of actual flow. Withdrawals from Well M shall not commence until Commission staff has approved the implementation of the approved metering plan and notified the project sponsor of such approval.

21. To avoid the potential for dewatering significant water-bearing zones in Well 11, drawdown in Well 11 shall be limited to 358 feet AMSL or 76 feet bgs. Within ninety (90) days from the date of this approval, the project sponsor shall provide documentation to the Commission that an automatic pump shutoff switch that ceases withdrawals from Well 11 at the prescribed elevation has been installed.

22. Within ninety (90) days from the date of this approval, the project sponsor shall submit a plan for review and, if appropriate, approval by Commission staff to mitigate potential impacts to nearby private water supplies, consisting of a primary well and a backup well. Acceptable mitigation shall include one of the following actions: lowering the pump in the existing well(s), deepening the existing well(s) and pump depth, drilling a suitable replacement well(s), or providing public water supply service to the property. The mitigation plan must include, but is not limited to, the following:

- a. Investigation into additional well construction information for the backup well, including depth to pump and water-bearing zone(s), if available, and evaluation of potential impacts to the backup well caused by Well M;

- b. Detailed description for the proposed mitigation activities for the primary well and, as needed, the backup well; and
- c. Schedule for implementation of the mitigation plan.

The project sponsor shall execute the approved mitigation plan in accordance with the approved plan and schedule.

23. Prior to operating Well M at rates exceeding 267 gpm, the project sponsor shall submit documentation to the Commission confirming that all mitigation activities were completed in accordance with the approved plan. Withdrawals from Well M at rates exceeding 267 gpm shall not commence until the Commission notifies the project sponsor, in writing, that Commission staff concurs with or approves the completed mitigation.

24. The project sponsor shall notify the Commission within thirty (30) days of an increase to the PADEP-permitted rate for Wells F and M.

25. The date of the last meter certification was January 21, 2021; therefore, the next meter certification is due no later than January 21, 2026. Certification of meter accuracy shall be provided to the Commission no less frequent than once every five (5) years from the date of the last certification.

26. Prior to supplying water for any use not authorized pursuant to Section 2 of this approval, the project sponsor shall first submit a minor modification application under 18 CFR § 806.18(c)(4) for such new use to the Executive Director. The project sponsor shall not supply water for such use unless and until such authorization is granted, and pursuant to any supplemental terms and conditions contained in such approval.

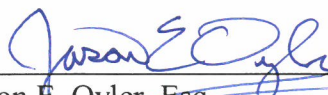
Section 10. Term

27. This approval shall be effective July 1, 2022, and shall remain effective until June 30, 2037. As specified in 18 CFR § 806.31(e), if the project sponsor submits an application on or before December 31, 2036, the project sponsor may continue operation of this project pursuant to the terms and conditions of this approval until such time as the Commission acts on such application, or until otherwise notified by the Executive Director.

28. Commission Docket Nos. 19920702 for Well 11 and 20070606 for Wells F and M shall remain effective through June 30, 2022, whereupon they shall expire.

CERTIFICATION: I, Jason E. Oyler, Secretary to the Susquehanna River Basin Commission, do hereby certify that the foregoing project docket was approved by the Susquehanna River Basin Commission on June 16, 2022, and corrected on October 31, 2022.

Dated: October 31, 2022



Jason E. Oyler, Esq.