

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. 20150603 Approval Date: June 4, 2015

CARRIZO (MARCELLUS), LLC

Surface Water Withdrawal (Peak Day), Variable, of up to 0.648 mgd from the Unnamed Tributary to Middle Branch Wyalusing Creek

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 adverse impacts are anticipated by the operation of this project, and that the project is physically feasible and does not conflict with or adversely affect the Commission's Comprehensive Plan. Accordingly, the Commission hereby approves renewal of the project described herein in accordance with the conditions set forth below.

This approval is a renewal of Commission Docket No. 20110605 that was originally approved June 23, 2011, and modified March 15, 2012, as Commission Docket No. 20110605-1. The project sponsor has not requested any changes to the project. Commission staff recommended that special flow protection requirements continue to be required to reflect current policy. This approval incorporates those recommendations.

Commission staff has coordinated with the Pennsylvania Department of Environmental Protection (PADEP), the Department of Conservation and Natural Resources (DCNR), 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:	Carrizo (Marcellus), LLC				
Approval Type:	Surface Water Withdrawal				
Original Docket No.:	20110605				
Authorized Water Use Purpose:	Hydrocarbon Development and Related Incidental Uses				
Municipality:	Forest Lake Township				
County:	Susquehanna County				
State:	Pennsylvania				

Section 3. Source Information

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

Source Information						
Approved Source:	Unnamed Tributary to Middle Branch Wyalusing					
	Creek					
Subbasin:	Middle Susquehanna					
Watershed Boundary Dataset (WBD):	0205010607 (Wyalusing Creek)					
Water Use Designation:	Cold Water Fishery (CWF)					
Withdrawal Location (degrees):	Lat: 41.869267 N Long: 75.998322 W					
Site Flow Statistics (cfs):	Q7-10 = 0.2; Average Daily Flow = 5.8					
Drainage Area (square miles):	5.1					
Aquatic Resource Class*:	1					
Special Flow Protection Required:	Yes					
cfs – cubic feet per second						
*Refer to Commission Policy No. 2012-01 (Low Flow Protection Policy Related to Withdrawal Approvals)						

Section 4. Approved Withdrawal Quantities and Limitations

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

Approved Withdrawal Quantities and Limitations						
Peak Day Withdrawal Amount (mgd):		Not to Exceed Values Contained in the				
		"Withdrawal and Passby Schedule," When				
			Availab	Available		
Maximum Instantaneous Withdrawal		Not to Exceed Values Contained in the				
Rate (gpm):		"Withdrawal and Passby Schedule," When				
			Available			
Flow Protection Type: Seasonal passby expressed as monthly val			d as monthly values			
Method for Monitoring Flow Protection:			Off-site monitoring of USGS Real-Time Gage			
		01534000;Tunkhannock Creek near				
	Tunk			hannock, Pennsylvania		
Withdrawal and Passby Schedule:						
	Peak Day	Maximum		On-Site Flow	Off-Site Monitoring	
	Withdrawal	Instantaneous		Protection	Threshold for Flow	
Month	(mgd)	Withdrawal (gpm)		Rate (cfs)	Protection (cfs)*	
January	0.432	300		2.7	320	
February	0.504	350		3.2	373	
March	0.648	450		4.0	479	

Approved Withdrawal Quantities and Limitations (continued)						
Withdrawal and Passby Schedule:						
	Peak Day	Maximum	On-Site Flow	Off-Site Monitoring		
	Withdrawal	Instantaneous	Protection	Threshold for Flow		
Month	(mgd)	Withdrawal (gpm)	Rate (cfs)	Protection (cfs)*		
April	0.648	450	4.0	479		
May	0.504	350	3.2	373		
June	0.288	200	1.8	213		
July	0.288	200	1.8	213		
August	0.288	200	1.8	213		
September	0.288	200	1.8	213		
October	0.288	200	1.8	213		
November	0.432	300	2.7	320		
December	0.504	350	3.2	373		
mgd - million gallons per dayUSGS - U.S. Geological Survey1 cfs = 448.8 gallons per minute (gpm)* Flow Protection Threshold						

The withdrawal is also subject to all other conditions set forth in this docket approval.

Section 5. 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 Commission Regulation 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 metering on the withdrawal in accordance with Commission Regulation 18 CFR §806.30.

4. 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.

5. The project sponsor shall adhere to the intake design reviewed and approved by Commission staff. Any modifications proposed by the project sponsor for the permitted intake structure shall be submitted for review and, if appropriate, approval by Commission staff in

accordance with Commission Regulations 18 CFR §806.21 and §806.23 prior to undertaking such modification(s).

6. The project sponsor shall keep daily records of the project's withdrawal 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 requested by the project sponsor shall be submitted for review and, if appropriate, approval by Commission staff prior to implementing or modifying existing equipment or procedures. 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.

7. Within sixty (60) days from notice of this approval, the project sponsor shall post an updated sign that meets Commission specifications and displays required project description information. Signage specifications can be found at the Commission's website (www.srbc.net), along with example sign templates for reference. The sign shall be maintained for the duration of the approval. Such sign shall be posted at the point of entry or access to the project facility from a public right-of-way. If there is any restriction to access at such point that would prevent an interested person from legibly viewing such sign, then the project sponsor shall post the sign at the nearest location to such point, along the route of ingress and egress to same, where an interested person would have unrestricted access to legibly view such sign. The project sponsor shall submit photographs as proof of installation of the updated sign.

8. 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 Commission Regulation 18 CFR §808.12.

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

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

11. The project sponsor shall register with the appropriate agency all surface water 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 Commission Regulation 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 Commission Regulation 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. In accordance with Commission Regulation 18 CFR §806.31(d), if the project is discontinued for such a time and under such circumstances that an abandonment of the project may be reasonably inferred, the Commission may rescind the approval of the project.

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

Section 6. Special Conditions

19. Effective July 1, 2015, the project sponsor shall cease all withdrawals from the approved source when streamflow, as measured at the U.S. Geological Survey stream gage specified in Section 4, is less than the applicable flow protection threshold specified in Section 4, and shall not reinstate withdrawals until the streamflow has remained above such flow protection threshold for 48 hours.

20. The project sponsor shall, on a daily basis, collect and record streamflow as measured at the U.S. Geological Survey stream gage specified in Section 4, 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. The project sponsor may propose alternative flow monitoring to the Commission for staff review and, if appropriate, approval.

21. The date of the last meter certification was July 19, 2012; therefore, the next meter certification is due no later than July 19, 2017. 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.

22. Except as authorized pursuant to Special Condition 24, the project sponsor shall only supply water for use in hydrocarbon development to persons who have properly registered this approval pursuant to Commission Regulation 18 CFR §806.22(f)(12).

23. The project sponsor shall keep daily records, and shall report the same to the Commission upon request, of all persons supplied water from the project for use in hydrocarbon development, including daily quantities supplied. The project sponsor also shall keep daily records, and shall report the same to the Commission upon request, of all persons supplied water from the project for uses other than hydrocarbon development authorized pursuant to Special Condition 24, including daily quantities supplied.

24. Prior to supplying water for any use not authorized pursuant to Section 2 of this approval, the project sponsor shall first submit a request for authorization 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.

25. The project sponsor shall demonstrate to the satisfaction of the Commission that appropriate controls and treatment to prevent the spread of aquatic nuisance species are employed at the water withdrawal site.

Section 7. Term

26. This approval shall be effective July 1, 2015, and shall remain effective until June 30, 2019. As specified in Commission Regulation 18 CFR §806.31(e), if the project sponsor submits an application on or before December 31, 2018, 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.

27. Commission Docket Nos. 20110605 and 20110605-1 shall remain effective through June 30, 2015, whereupon they shall expire.

CERTIFICATION: I, Stephanie L. Richardson, 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 4, 2015.

Dated: June 5, 2015

Stephanee L. Richardson Stephanie L. Richardson