

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In the Matter of:

Winner Water Services, Inc.	:	Mine Influenced Water
32 West State Street	:	Sykesville
Sharon, PA 16146	:	Jefferson County
	:	

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement is entered into this 18th day of March, 2014, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection (hereinafter "Department"), and Winner Water Services, Inc. (hereinafter "Winner Water").

The Department has found and determined the following:

A. The Department is the agency vested with the duty and authority to administer and enforce the Surface Mining Conservation and Reclamation Act, Act of May 31, 1945, P.L. 1198, as amended, 52 P.S. §1396.1 et seq., ("Surface Mining Act"); The Clean Streams Law, Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §691.1 et seq., ("Clean Streams Law"); the Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, P.L. 31, 52 P.S. §§ 1406.1 et seq., ("Subsidence Act"); the Coal Refuse Disposal Control Act, Act of September 24, 1968, P.L. 1040, as amended, 52 P.S. §30.51 et seq., ("Coal Refuse Disposal Act"); Section 1917-A of the Administrative Code of 1929, Act of April 9, 1929, P.L. 177, as amended, 71 P.S. §510-17, ("Administrative Code"), and the Rules and Regulations promulgated thereunder. The Department has been delegated the authority to administer and enforce Title V of the Federal Surface Mining Control and Reclamation Act, 30 U.S.C. § 1201 et seq. ("SMCRA") through its approved primacy program and implements SMCRA's Title IV program for the reclamation and restoration of abandoned mine lands through its approved Abandoned Mine Reclamation Plan ("AMR Plan").

B. Winner Water is a Delaware corporation with a principal place of business and mailing address at 32 West State Street, Sharon, Pennsylvania 16146 whose business includes water management solutions for the oil and gas and mining industries.

C. In 2013, the Department announced the availability of a document known as "White Paper: Utilization of Mine Influenced Water for Natural Gas Extraction Activities" (hereinafter "MIW White Paper"). The

MIW White Paper facilitates the treatment of mine influenced water by enabling the use of such water for natural gas extraction. The MIW White Paper establishes a process for evaluating the proposed use of mine influenced water for natural gas extraction and addresses potential solutions to long-term liability issues. One option provided in the MIW White Paper for addressing long-term liability issues is to use a consent order and agreement to limit liability for the use of mine influenced water for natural gas extraction activities. Winner Water proposed the consent order and agreement option identified in the MIW White Paper to limit liability for the long-term treatment of mine influenced water emanating from the site.

D. In 2005, the Upper Mahoning Creek Watershed Association and two local civic groups met with the Jefferson County Conservation District (hereinafter "JCCD") to discuss the possibility of treating a large volume of mine influenced water (hereinafter "MIW") that was being discharged from the Sugar Camp Run Air Shaft located along Sugar Camp Run, north of the corporate boundary of Sykesville, Pennsylvania (hereinafter "Sykesville Property"). The deep mine discharge produced high flows in close proximity to a local elementary school and the town of Sykesville and contributed substantial iron loadings into Sugar Camp Run, and subsequently to Stump Creek, and on to Mahoning Creek.

E. In 2008, with funding from a PA Growing Greener grant, the JCCD investigated and assessed the mine pool and concluded that relocation of the shaft discharge would both improve water quality and lower the mine pool. The study concluded that the discharges might eventually serve as a municipal water supply for Winslow Township and Sykesville Borough.

F. In October 2010, with funding and direction from the Department, the JCCD drilled several boreholes on the Sykesville Property into the Big Soldier abandoned mine pool and constructed a mine drainage treatment system to treat the MIW discharging from the boreholes.

G. Water discharging from the Big Soldier abandoned mine pool and other abandoned mine discharges within the watershed has significantly impaired Stump Creek.

H. The overall purpose of the projects were to consolidate existing mine drainage discharge points by lowering the mine pool and creating a new discharge on the Sykesville Property that would facilitate treatment. The long term goal of JCCD is the utilization of the mine water in order to economically offset and justify treatment with the ultimate end goal being utilization of the mine water as a new public water supply for Sykesville and the environmental restoration of Stump Creek.

I. The Big Soldier mine was abandoned in 1934. The mines listed in Exhibit 1 are connected to the Big Soldier mine. For purposes of this Consent Order and Agreement, all of the mines and the water associated and/or hydraulically connected with them are included in the terms “Big Soldier mine” and “Big Soldier mine pool.”

J. The existing passive mine drainage treatment system consists of three impoundments and a Maelstrom Oxidizer (which is not currently being used). The mine drainage is diverted through the inoperative Maelstrom Oxidizer and into a post-aeration pond. Water from the post-aeration pond flows into a settling pond and then flows into a final pond. The final pond serves as a holding storage pond and a water withdrawal point. A graveled parking area abuts the holding pond and provides access for water trucks to withdraw water from the holding pond. Water overflowing from the holding pond is conveyed by a channel into Stump Creek.

K. Water discharging from the Big Soldier abandoned mine pool and other abandoned mine discharges within the watershed has significantly impaired Stump Creek. The discharge is alkaline but has a significant iron load which harms the benthic macro-invertebrate community because the iron is coating the stream bottom.

L. On November 22, 2013, the Commonwealth Financing Authority awarded JCCD a grant in the amount of \$916,167 to upgrade the mine drainage treatment system on the Sykesville Property by increasing retention times required to settle iron and ensure consistent water quality with the goal of facilitating beneficial use of MIW by the oil and gas industry.

M. In October, 2010, Sykesville leased to Winner Water for a term of 15 years the water rights for the treatment, use, and sale of water discharging from the boreholes drilled into the Big Soldier mine pool. The lease provides an option for renewal every five years thereafter.

N. Since October 2010, Winner Water has paid Sykesville annual rent of \$18,000 and has spent \$375,000 in leasehold improvements and in-kind technical assistance on the project. Among these activities were the construction of the last pond in the treatment system and the conveyance channel to Stump Creek.

O. Winner Water proposes to facilitate the treatment of the MIW at the mine drainage treatment system on the Sykesville Property. Winner Water’s activities in addition to the work done using funds awarded to the JCCD through the Commonwealth Financing Authority grant has the potential to improve water quality in Stump Creek.

P. By approval dated September 19, 2013, the Susquehanna River Basin Commission (“SRBC”)

authorized Winner Water to divert water from the mine drainage treatment facility on the Sykesville Property into the Susquehanna River Basin for use in unconventional natural gas development activity. SRBC coordinated with the Department and the Pennsylvania Fish and Boat Commission (PFBC) in reviewing the project and finding that the project will have no adverse impacts, will not conflict with or adversely affect the Commission's Comprehensive Plan, and will not adversely influence the present or future use and development of the water resources of the Susquehanna River Basin.

Q. Pursuant to its lease with Sykesville and the SRBC approval, Winner Water has sold MIW diverted into the mine drainage treatment system on the Sykesville Property from the boreholes drilled into the Big Soldier abandoned mine pool to two natural gas well operators and proposes to continue to market and sell MIW to these and other operators. MIW collects in the holding pond that is part of the mine drainage treatment system that serves as the withdrawal point for purchasers of the water.

R. Winner Water's efforts to market the beneficial use of MIW from the Sykesville Property have been impeded by concerns expressed by potential purchasers of the MIW about potential liability to the Department under the Clean Streams law that might arise from: (i) the purchase and use of MIW for use in natural gas extraction; and (ii) the storage of MIW in their on-site fresh water pits which do not meet all of the design requirements of 25 Pa. Code § 78.56, such as on-site pits not more than 20" above the seasonal high groundwater table, as required by 25 Pa. Code § 78.56(a)(4). The Department told Winner Water that it could not extend the limitation of liability set forth in Paragraph 5 below to non-signatories to the Consent Order and Agreement. The Department also told Winner Water that the Department did not believe that it could not impose liability upon the customers and would not do so even if it could.

S. No known viable party, including without limitation, Winner Water, is responsible for the collection and treatment of the Big Soldier mine pool.

T. Winner Water is not and has not been a related party to the previous operators or owners of the Big Soldier mine. Also, neither Winner Water nor any of its agents, associates, affiliates, subsidiaries, partners, owns property from which any of the mine drainage emanates. Neither Winner Water nor any of its agents, associates, affiliates, subsidiaries, partners have a prior nexus or connection to the Big Soldier mine and have not created the Big Soldier mine pool or its discharges.

U. Winner Water has proposed to provide the Department with valuable information regarding the

water quality of the Big Soldier mine pool as well as relevant geologic and hydrogeologic data and information concerning the Big Soldier mine pool.

V. Among other things, this Consent Order and Agreement provides Winner Water with the limitation of liability set forth in Paragraph 5 below.

W. After the date of this Consent Order and Agreement, Winner Water intends to continue to provide expert advice and technical consulting to the JCCD and to Sykesville. These activities include, but are not limited to, improvements to the treatment system, identification of future use of the water, assistance on the implementation of future plans and activities, and services in connection with the operation and maintenance of the treatment system.

X. Winner Water shall implement the Water Management Plan (8000-PM-OOGM0087), which is attached hereto as Exhibit with appropriate detail.

Y. The activities proposed by Winner Water herein are in the interest of the environment and the public. The proposed activities benefit the environment and public by utilizing an impaired water to substitute for, and thereby reduce the demand for, fresh water resources. The proposed transfer of water quality information is expected to assist the Department in improving the water quality in and around the Big Soldier mine pool.

Z. Winner Water is authorized to treat, store, withdraw and sell water from the mine drainage treatment system on the Sykesville Property and purchasers of such water may store such water as fresh water in centralized impoundments authorized by 25 Pa. Code Chapter 105 or in on-site fresh water pits as authorized by 25 Pa. Code Chapter 78.

AA. Prior to taking final action, the Department intends to provide public notice of the proposed project in a newspaper of general circulation, published in the locality of the proposed project, once a week for four consecutive weeks, and shall give public notice in the Pennsylvania Bulletin.

After full and complete negotiation of all matters set forth in this Consent Order and Agreement and upon mutual exchange of covenants contained herein, the parties, desiring to be legally bound hereby, AGREE and the Department so ORDERS Winner Water as follows that:

1. **Authority.** This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Section 5 of The Clean Streams Law, 35 P.S. § 691.5; and Section 1917-A of the Administrative

Code, supra.

2. **Findings.** Winner Water agrees that the findings in Paragraphs A through AA are true and correct and, in any matter or proceeding involving Winner Water and the Department, Winner Water shall not challenge the accuracy or validity of these findings.

3. **Water Management Plan Implementation.**

a. Winner Water may continue to market, sell, and allow the withdrawal of water from the mine drainage treatment system on the Sykesville Property. Within thirty (30) days of the effective date of the Consent Order and Agreement Winner Water shall implement the Water Management Plan attached hereto as Exhibit 2.

b. Commensurate with commencement of the operations proposed by Winner Water on the Sykesville Property, Winner Water shall undertake the monitoring and other water management requirements identified by the Water Management Plan.

c. Within 14 days of receipt of the water quality and quantity data collected in accordance with Paragraph 3.b., Winner Water shall submit copies of any such data to the Department.

4. **Continued Involvement with JCCD and Sykesville.** Winner Water shall continue to cooperate with JCCD and Sykesville in connection with the operation and maintenance of the treatment system and with planning for future uses of the water, provided that its continued involvement in the project is economically sustainable based upon the sale of MIW from the Sykesville Property.

5. **Liability of Winner Water.**

a. The Department will not assert in any forum or proceeding that Winner Water is responsible for treatment of the water emanating from the Big Soldier mine pool.

b. The Department will not require Winner Water to pay for or otherwise fund the treatment of the water emanating from the Big Soldier mine pool.

c. The Department will not assert that Winner Water is an “operator of a mine” or an “occupier of land” under Section 315 or 316 of the Clean Streams Law, 35 P.S. §§ 691.315 or 691.316 or the Surface Mining Act or any regulations promulgated thereunder.

d. The limitations on liability afforded to Winner Water in this Paragraph are also

intended to extend fully to Winner Water's parents, subsidiaries, affiliates, members, directors, officers, managers, authorized persons, contractors, representatives, agents.

e. The limitation of liability afforded to Winner Water in this paragraph is not diminished or in any way affected by Winner Water's activities described in Paragraph 3 and 4 above.

6. **Correspondence with the Department.**

Eric Cavazza
Director
Bureau of Abandoned Mines
Cambria District Mining Office
286 Industrial Road
Ebensburg, PA 15931

7. **Correspondence with Winner Water.**

Dr. John Ontiveros
President and CEO
Winner Water Services
32 W. State St
Sharon, PA 16146

Service of any notice or any legal process for any purpose under this Consent Order and Agreement, including its enforcement, may be made by mailing a copy by first class mail to the above address.

8. **Severability.** The paragraphs of this Consent Order and Agreement shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

9. **Entire Agreement.** This Consent Order and Agreement shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communication or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

10. **Attorney Fees.** The parties shall bear their respective attorneys' fees, expenses, and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement.

11. **Modifications.** No changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

12. **Titles.** A title used at the beginning of any paragraph of this Consent Order and Agreement may

be used to aid in the construction of that paragraph, but shall not be treated as controlling.

13. **Counterparts.** This Consent Order and Agreement or amendments thereto may be executed in multiple counterparts, each of which shall be deemed an original agreement, and all of which shall constitute one agreement between the parties.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of Winner Water certify under penalty of law, as provided by 18 Pa. C.S. §4904, that they are authorized to execute this Consent Order and Agreement on behalf of Winner Water and that Winner Water consents to the entry of this Consent Order and Agreement as final ORDER of the Department.


Signature by Winner Water's attorney certifies only that the agreement has been signed after consulting with counsel.

FOR
WINNER WATER SERVICES, INC.


John Ontiveros
President
Winner Water Services, Inc.

Peter J. Fontaine
Cozen O'Connor
Counsel for Winner Water Services, Inc.

FOR
THE COMMONWEALTH OF
PENNSYLVANIA, DEPARTMENT OF
ENVIRONMENTAL PROTECTION:



John Stefanko
Deputy Secretary
Active and Abandoned Mines



Martin H. Sokolow, Jr.
Senior Counsel for Special Projects

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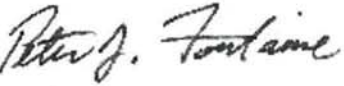
FOR
WINNER WATER SERVICES, INC.



John Ontiveros
President
Winner Water Services, Inc.

FOR
THE COMMONWEALTH OF
PENNSYLVANIA, DEPARTMENT OF
ENVIRONMENTAL PROTECTION:

Eric Cavazza
Director
Bureau of Abandoned Mines



Peter J. Fontaine
Cozen O'Connor
Counsel for Winner Water Services, Inc.

Martin H. Sokolow, Jr.
Senior Counsel for Special Projects

EXHIBIT 1

Mine

Soldier Mine
Eleanora #2
Eleanora #3
Kramer Shaft
Sykesville Mine
Hamilton Mine
Helvetia Mine
Eriton Mine
Dubois Shaft No. 1
Dubois Shaft No. 2
Trout Run Mines

Company

Northwestern Mining & Exchange Co.
Northwestern Mining & Exchange Co.
Northwestern Mining & Exchange Co.
Northwestern Mining & Exchange Co.
Elmer Fye Coal Co.
Rochester & Pittsburgh Coal Co.
Northwestern Mining/Rochester & Pittsburgh Coal Co.
Northwestern Mining & Exchange Co.
Buffalo & Susquehanna Coal Co.
Buffalo & Susquehanna Coal Co.
Jefferson & Clearfield Coal & Iron

EXHIBIT 2



WATER MANAGEMENT PLAN FOR MARCELLUS SHALE GAS WELL DEVELOPMENT EXAMPLE FORMAT

Operator and Plan Coverage Information:

Well Operator Winner Water Services, Inc	DEP ID# NA	Address 32 West State St Sharon, PA 16146
Contact Name/Title Todd Beers, COO	Contract Phone (814) 590-4323	Contact E-mail beerst@winnerh2o.com
Area Covered; This Water Management Plan applies to wells located in the following counties: Jefferson, Clearfield, Elk, Clarion, Armstrong, Indiana		

General Water Source Information:

Section A. List of Water Sources

	Source Name	Location			Amount		Type of Source (check)			
		Municipality / County	Watershed HUC 8 Code	Major River Basin*	Average Daily Quantity (gpd)	Max. Withdrawal Rate (gpm)	Surface Water	Groundwater	Wastewater, Mine Water, Cooling Water Discharge	Public Water Supply
1	Sykesville Mine Drainage Treatment Facility	Sykesville	05010005	Ohio	1,000,000	695	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* Major River Basins = (1) Delaware; (2) Great Lakes (including Genesee River Basin; (3) Ohio; (4) Potomac; or (5) Susquehanna

Section B. Water Source and Use Monitoring / Act 220 Water Use Registration and Reporting

For sources in Susquehanna River Basin, refer to a water withdrawal and consumptive use metering and monitoring plan meeting SRBC requirements. For sources in Delaware River Basin, refer to a water withdrawal and use monitoring plan meeting DRBC requirements. ***Water withdrawal and use monitoring plans approved meeting SRBC and DRBC requirements may be incorporated by reference and are accepted by DEP.***

For sources in other basins, provide a water source and use monitoring plan.

Will the total water withdrawn from listed sources and other sources operated by the gas well operator in same watershed exceed an average rate of 10,000 gpd in any 30-day period? If yes, note that an Act 220 registration must be filed within 30 days of initiating a water withdrawal or use.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Section C. Surface Water Sources				
<i>The following types of information would be provided for each surface water source.</i>				
C.1 Source Identification & Notification				
§ A Source #	Name of Stream or Other Surface Water Body	Location of Proposed Withdrawal Point:		
		HUC-8 Code	County	Municipality
				Lat: ____° ____' ____"
				Long: ____° ____' ____"
<i>Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source</i>				
C.2 River Basin Commission Approvals				
If the source is located in the Delaware or Susquehanna River Basin, have you obtained DRBC or SRBC approval <input type="checkbox"/> Yes <input type="checkbox"/> No				
Date application submitted: _____		Anticipated approval date: _____		
SRBC or DRBC Approval No.: _____		Date issued: _____		
C.3 Low Flow Analysis				
a. Drainage area at point of withdrawal (in square miles):		Describe or attach basis of calculation:		
b. Q ₇₋₁₀ low flow at point of withdrawal (in gpd):		Describe or attach basis of calculation (e.g., <i>StreamStats printout</i>)		
c. Average daily flow of stream at point of withdrawal (in gpd):		Describe or attach basis of calculation (e.g., <i>StreamStats printout</i>)		
d. Is proposed maximum rate of withdrawal greater than 10% of Q ₇₋₁₀ at point of withdrawal? <input type="checkbox"/> Yes <input type="checkbox"/> No				
C.4 Stream Classification and Uses				
a. Designated use classification per 25 Pa. Code. Ch. 93:				
b. PaDEP existing use determinations: <i>(if different than designated uses in Ch. 93)</i>				
c. Is the proposed source a special protection water (High Quality or Exceptional Value)? <input type="checkbox"/> Yes <input type="checkbox"/> No				
d. Is stream classified by the Pa. Fish & Boat Commission as a Wild Trout Stream? <input type="checkbox"/> Yes <input type="checkbox"/> No				
If yes, what classification of wild trout stream? <input type="checkbox"/> Class A <input type="checkbox"/> Not Class A If known: <input type="checkbox"/> Class B <input type="checkbox"/> Class C <input type="checkbox"/> Class D				
C.5 PA Natural Diversity Inventory (PNDI)				
Attach results of a PNDI search with respect to the proposed surface water source and supporting documentation of conflict resolution, if applicable.				
C.6 Withdrawal Impacts Analysis				
A narrative withdrawal impact analysis which addresses anticipated impacts on the following items, and describes the methods proposed to avoid or mitigate impacts (such as proposed passby flow conditions). The description of anticipated impacts would indicate impacts anticipated <i>after</i> giving effect to the proposed avoidance or mitigation measures.				
Impact questions:				
a. <i>Attach a plan indicating how the surface water withdrawal intake will be designed and operated to minimize entrainment and impingement of fish and other aquatic life.</i>				
b. <i>Are there any wetlands in the floodplain downstream of the proposed withdrawal where the withdrawal is anticipated to have a material impact on the elevation or duration of water levels in the wetland? If yes, identify the wetlands, describe their functions and values, and the proposed method for avoiding or mitigating such impact on the values or functions of the affected wetlands.</i>				
c. <i>Is the proposed withdrawal anticipated to significantly affect the available habitat of fish species at or below the withdrawal point? (If a passby flow is proposed consistent with SRBC's Guidelines for Determining Passby Flows and Conservation Releases, the impact on fish species is assumed to be acceptable, and further analysis is not required.)</i>				
d. <i>Is the operator aware of any significant downstream wastewater discharges to the stream, where the proposed withdrawal is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding applicable instream water quality standards?</i>				
e. <i>Is the withdrawal from a stream that is listed as being water quality impaired; and would the withdrawal materially exacerbate the water quality conditions leading to the impaired designation?</i>				

C.6 Withdrawal Impacts Analysis (continued)					
<p>f. Is the operator aware of any significant thermal discharge (such as a power plant) that is downstream of the proposed withdrawal where the proposed withdrawal would diminish the capacity to assimilate that discharge without exceeding instream thermal standards?</p> <p>g. If the withdrawal affects a special protection stream (HQ or EV), describe how the withdrawal will be managed to protect existing water quality and uses.</p> <p>h. Is the operator aware of any downstream potable water supply source where the proposed withdrawal is anticipated to impair the amount of water available to meet the demands of such potable water supply?</p> <p>i. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows.</p>					
Section D. Groundwater Sources					
The following types of information would be provided for each groundwater source.					
D.1 Source Identification & Notification					
§ A Source #	Name / Address of Site	Location of proposed withdrawal point			
		HUC-8 Code	County	Municipality	
					Lat: ____° ____' ____"
					Long: ____° ____' ____"
		<i>Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source</i>			
D.2 River Basin Commission Approvals					
If the source is located in the Delaware or Susquehanna River Basin, have you obtains DRBC or SRBC approval? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Date application submitted: _____			Anticipated approval date: _____		
SRBC or DRBC Approval No.: _____			Date issued: _____		
D.3 Stream Impact and Low Flow Analysis					
a. Is the proposed groundwater withdrawal anticipated to affect the low flow of any stream in the vicinity? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, identify the name of the affected stream and complete questions b-e below, and item D.4.</i>					
b. Drainage area at point of withdrawal (in square miles):			Describe or attach basis of calculation:		
c. Q ₇₋₁₀ low flow at point of withdrawal (in gpd):			Describe or attach basis of calculation (e.g., StreamStats printout)		
d. Average daily flow of stream at point of withdrawal (in gpd):			Describe or attach basis of calculation (e.g., StreamStats printout)		
e. To the extent that the groundwater withdrawal affects stream flow, is the proposed maximum rate of stream flow impact greater than 10% of Q ₇₋₁₀ at point of withdrawal? <input type="checkbox"/> Yes <input type="checkbox"/> No					
D.4 Stream Classification and Uses					
a. Designated use classification per 25 Pa. Code. Ch. 93:					
b. PaDEP existing use determinations: <i>(if different than designated uses in Ch. 93)</i>					
c. Is the proposed source a special protection water (High Quality or Exceptional Value)? <input type="checkbox"/> Yes <input type="checkbox"/> No					
d. Is stream classified by the Pa. Fish & Boat Commission as a Wild Trout Stream? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, what classification of wild trout stream: <input type="checkbox"/> Class A <input type="checkbox"/> Not Class A If known: <input type="checkbox"/> Class B <input type="checkbox"/> Class C <input type="checkbox"/> Class D					
D.5 PA Natural Diversity Inventory (PNDI)					
Attach results of PNDI search with respect to the proposed groundwater source site and supporting documentation of conflict resolution, if applicable.					

D.6 Withdrawal Impacts Analysis

A narrative withdrawal impact analysis which addresses the following issues, and describes the methods proposed to avoid or mitigate impacts (such as proposed passby flow conditions). The description of anticipated impacts should indicate impacts anticipated *after* giving effect to the proposed avoidance or mitigation measures.

Impact questions:

- a. Are there any wetlands within the zone of drawdown/influence (> 2' drawdown) of the proposed groundwater withdrawal well? If yes, identify the wetlands, describe their hydrology (supporting source of water) and whether the groundwater withdrawal will affect that hydrology. To the extent that the hydrology of wetlands are affected, identify the wetland's functions and values, and the proposed method for avoiding or mitigating such impact on the values or functions of the affected wetlands.
- b. Describe the extent to which the proposed groundwater withdrawal is anticipated to affect the low flow of streams or other surface bodies of water in the vicinity? (If a passby flow is proposed consistent with SRBC's Guidelines for Determining Passby Flows and Conservation Releases, the impact on fish species is assumed to be acceptable, and further analysis is not required.)
- c. Is the proposed groundwater withdrawal anticipated to significantly affect stream flow and the available habitat of fish species at or below the withdrawal point?
- d. To the extent that the groundwater withdrawal affects streamflow, is the operator aware of any significant downstream wastewater discharges (including thermal discharges) to the stream, where the proposed withdrawal is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding instream water quality standards.
- e. Is the withdrawal from a watershed that is listed as being water quality impaired; and would the withdrawal materially exacerbate the water quality conditions leading to the impaired designation?
- f. Does the proposed groundwater withdrawal involve the diversion of groundwater recharge or spring water from a cold water stream? If yes, how would the withdrawal affect thermal conditions in the stream?
- g. To the extent that the groundwater withdrawal affects streamflow, if the withdrawal affects a special protection watershed (HQ or EV), describe how the withdrawal will be managed to protect existing water quality and uses.
- h. Is the operator aware of any potable water supply source in the vicinity where the proposed groundwater withdrawal is anticipated to impair the amount of water available to meet the demands of such potable water supply?
- i. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows.

Section E. Wastewater, Cooling Water, and Mine Water Diversion Sources

The following types of information would be provided for each source.

E.1 Source Identification & Notification

§ A Source #	Wastewater Discharge Source Name	Location of proposed withdrawal point Sykesville Borough			
		HUC-8 Code	County	Municipality	
1	Sykesville Mine Drainage Treatment Facility	05010005	Jefferson	Sykesville	Lat: 41° 02' 59" Long: 78° 49' 05"
	NPDES Permit No. for Existing Discharge: NA	Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source			
	Receiving stream for existing discharge: Stump Creek				

E.2 River Basin Commission Approvals

If the source is located in the Delaware or Susquehanna River Basin, have you obtained DRBC or SRBC approval? Yes No
 Date application submitted: _____ Anticipated approval date: _____
 SRBC or DRBC Approval No.: 20130915 Date issued: September 19, 2013

E.3 Wastewater, Cooling Water, or Mine Water Diversion Impact Analysis

A narrative impact analysis which addresses the following issues, and describes the methods proposed to avoid or mitigate impacts.

Impact questions:

- a. Does the existing discharge represent a significant portion of the low flow of the receiving stream below the permitted point of discharge? If significant, describe the degree to which the diversion of wastewater would affect the low flow of the receiving stream, and include a discussion addressing the following issues as relevant:

E.3 Wastewater, Cooling Water, or Mine Water Diversion Impact Analysis (continued)

- b. Are there any wetlands in the floodplain downstream of the existing discharge point where the diversion of wastewater, cooling water or mine water is anticipated to have a material impact on the elevation or duration of water levels in the wetland? *If yes, identify the wetlands, describe their functions and values, and the proposed method for avoiding or mitigating such impact on the values or functions of the affected wetlands.*
- c. Is the proposed diversion of wastewater anticipated to significantly affect the available habitat of fish species at or below the withdrawal point?
- d. Is the operator aware of any significant downstream wastewater discharges to the stream, where the proposed diversion of wastewater, cooling water, or mine water from the proposed source is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding applicable instream water quality standards?
- e. Is the source on a stream that is listed as having water quality impaired; and would the proposed diversion of wastewater, cooling water or mine water materially exacerbate the water quality conditions leading to the impaired designation?
- f. Is the proposed diversion upstream of a known significant thermal discharge (such as a power plant), or would the proposed wastewater, cooling water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards?
- g. Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows.

Section F. Public Water Supply Sources

The following types of information would be provided for each source.

F.1 Source Identification

§ A Source #	Public Water Supplier Name and System Name	Location of proposed withdrawal point:			
		HUC-8 Code	County	Municipality	
					Lat: ____° ____' ____" Long: ____° ____' ____"
	PADWIS Identification #:	Attach copy of USGS 7½ Minute Quadrangle map indicating location of proposed source			

Section G. SIGNATURE

I certify under penalty of law that I have the authority to submit this Water Management Plan on behalf of the Operator, and that the information set forth in this plan and all attachments is true and accurate to the best of my knowledge.

John Ontiveros
 Name (type or print legibly)

CEO
 Title


 Signature

17 March 2014
 Date

Applicant's telephone number: (614) 424-4851

Winner Water Services, Inc.
32 West State St
Sharon PA 16146
Phone 724-981-1152

**SECTION E.3 - WASTEWATER, COOLING WATER, OR MINE WATER
DIVERSION IMPACT ANALYSIS**

- a. *Does the existing discharge represent a significant portion of the low flow of the receiving stream below the permitted point of discharge? If significant, describe the degree to which the diversion of wastewater would affect the low flow of the receiving stream, and include a discussion addressing the following issues as relevant:*

The Sykesville Acid Mine Drainage (AMD) boreholes are artesian flowing relief wells discharging from the abandoned Big Soldier Mine at 1600-3000 gallons per minute (gpm). The wells were drilled by the Jefferson County Conservation District under the direction of the Bureau of Abandon Mine Reclamation in October 2010 to relocate a large pollution load to Stump Creek. The AMD water is currently discharging from multiple 10-inch boreholes via a lined channel to a lined settling impoundment. The size of the impoundment is 105,000 gallons and the overflow discharges to Stump Creek.

Low flow stream discharge rates for Stump Creek below the existing mine discharge of the Big Soldier Mine near Sykesville, PA were computed using the U.S. Geological Survey StreamStats website at: <http://streamstats.usgs.gov/pastreamstats/index.asp> (Appendix B). The Q HO low flow near the discharge of the AMD is 237.8 gallons per minute (gpm) (0.53 cubic feet per second (cfs)) and the average daily flow (ADF) is approximately 11,890,000 gallons per day (gpd) (18.4 cfs).

Winner Water proposes to withdraw the Big Soldier Mine drainage water at a rate of 695 gpm (1,000,000 gpd) from the settling impoundment before the overflow discharge to Stump Creek. For use in the Ohio River basin, volumes removed will be measured by the number of trucks per day times their respective volume. For into basin transfer in the SRB, volumes will be measured via a meter as directed by the SRBC. No water will be withdrawn from Stump Creek.

The existing flow from the Sykesville acid mine drainage boreholes is approximately 3000 gpm. While this potentially represents a significant portion of the low flow of Stump Creek, the mine discharge is of impaired quality leading to the impaired quality classification of Stump Creek. Reducing the loadings of metals and sediment discharging to Stump Creek will allow for the overall quality of the stream to improve and will help enable Stump Creek to meet its classified use of Cold Water Fishery.

- b. *Are there any wetlands in the floodplain downstream of the exiting discharge point where the diversion of wastewater, cooling water or mine water is anticipated to have a material impact on the elevation or duration of water levels in the wetland? If yes, identify the wetlands, describe their functions and values and the proposed method for avoiding or mitigating such impact on the value or functions of the affected wetlands.*

Impacts to wetlands are not anticipated as a result of this proposed diversion of mine water. Universal Pegasus International (UPI) conducted wetland review at the proposed Big Soldier Mine Discharge site on August 8, 2011. The wetland identification was based on UPI's professional judgment and interpretation of the technical criteria presented in the *1987 U.S. Army Corps of Engineers Wetlands Delineation Manual* and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region*. During the field visit, no wetlands were identified within the immediate vicinity of the proposed site.

- c. *Is the proposed diversion of wastewater anticipated to significantly affect the available habitat of fish species at or below the withdrawal point?*

The mine water will be collected prior to it discharging to Stump Creek. No water will be withdrawn from Stump Creek. The withdrawn water is of generally poor quality, the reduction of mine water discharging to Stump Creek is expected to improve the available habitat of fish species.

- d. *Is the operator aware of any significant downstream wastewater discharges to the stream, where the proposed diversion of wastewater, cooling water or mine water from the proposed source is anticipated to reduce the assimilative capacity of the stream to accept those discharges without exceeding applicable instream water quality standards?*

After a review of information from PADEP's eMap, there is a municipal wastewater

discharge outfall downstream of this mine water discharge to Stump Creek. The Sykesville Sewage Treatment discharge is located approximately one-half mile downstream of this location. As stated below, Stump Creek is listed as having impaired water quality due to acid mine drainage discharges. Therefore, the reduction of this polluted mine water discharging to Stump Creek is expected to increase the assimilative capacity of Stump Creek to accept those sewage discharges without exceeding applicable instream water quality standards.

e. *Is the source on a stream that is listed as being water quality impaired; and would the proposed diversion of wastewater, cooling water or mine water materially exacerbate the water quality conditions leading to the impaired designation?*

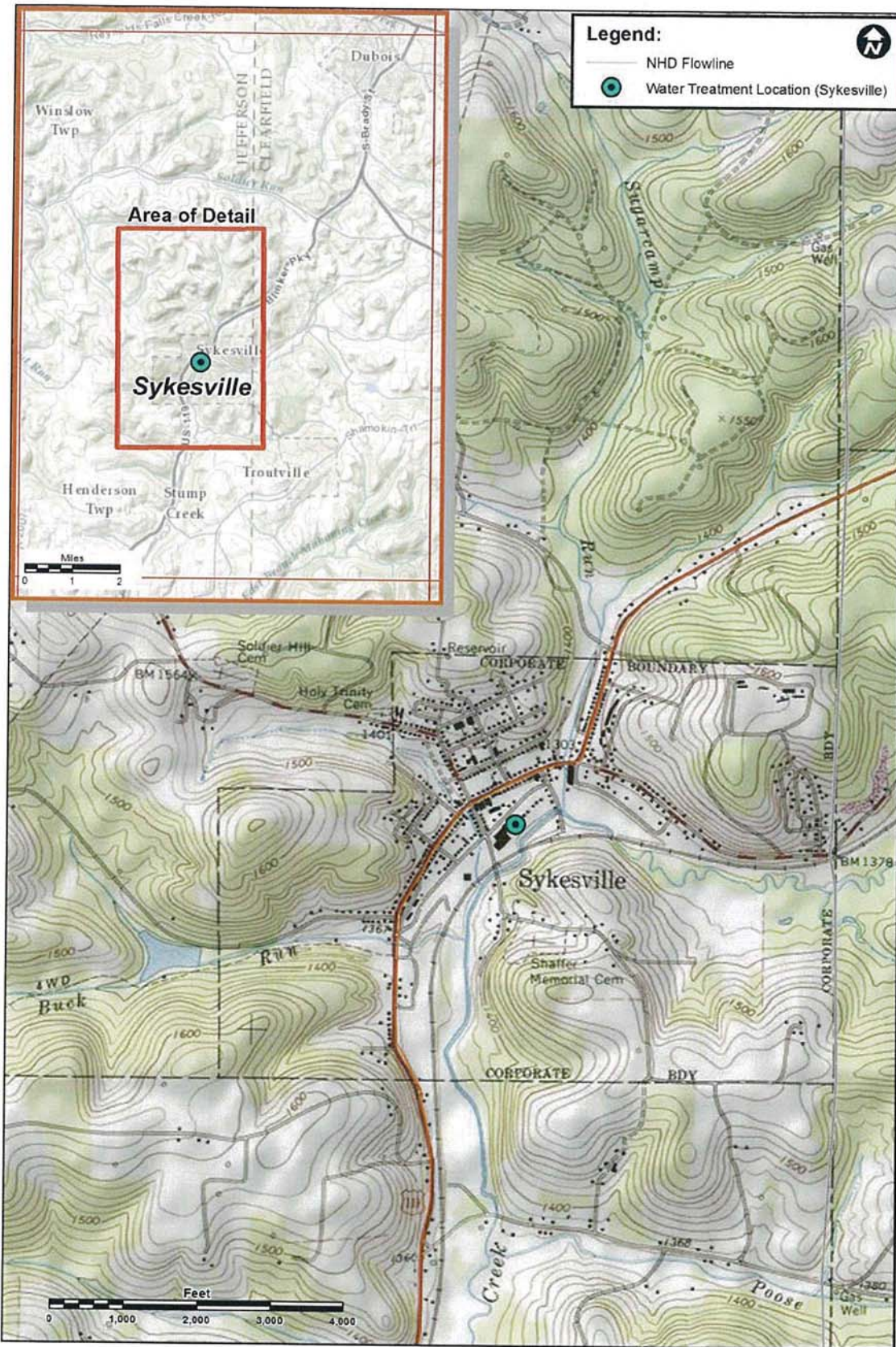
The Big Soldier Mine Drainage discharges to Stump Creek. Stump Creek is listed as a Cold Water Fishery upstream of the mine discharge, but is listed as impaired water quality for aquatic life due to acid mine drainage and siltation downstream of the Sykesville discharge. This stream is identified on the Section 303(d) listing as an impaired waterway and Total Maximum Daily Loads have been established for the Stump Creek watershed. Winner Water's use of the Big Soldier Mine water will reduce the loading of sediment and metals and reduce the impact of those pollutants discharging to Stump Creek.

f. *Is the proposed diversion upstream of a known thermal discharge (such as a power plant) or would the proposed wastewater, cooling water or mine water diversion diminish the capacity to assimilate that discharge without exceeding instream thermal standards?*

A review of PA DEP's eMap was conducted by UPI and no significant thermal discharges were noted downstream of the proposed mine water discharge to Stump Creek.

g. *Describe any impact avoidance or mitigation plans you are proposing, such as seasonal withdrawals or passby flows.*

No impact avoidance or mitigation plans are proposed.





SUSQUEHANNA RIVER BASIN COMMISSION

4423 North Front Street • Harrisburg, Pennsylvania 17110-1788

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Docket No. 20130915

Approval Date: September 19, 2013

WINNER WATER SERVICES, INC.

Into-Basin Diversion (Peak Day) of up to 1.000 mgd from Sykesville Mine Drainage Treatment Facility Discharge in the Ohio River Basin

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, does not conflict with or adversely affect the Commission's Comprehensive Plan, and does not adversely influence the present or future use and development of the water resources of the basin. Accordingly, the Commission hereby approves the project described herein in accordance with the conditions set forth below.

The project involves the diversion of water from a mine drainage treatment facility in Sykesville, Jefferson County, into the Susquehanna River Basin for use in unconventional natural gas development activity.

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:	Winner Water Services, Inc.
Approval Type:	Into-Basin Diversion from the Ohio River Basin
Authorized Water Use Purpose:	Hydrofracture Stimulation Associated with Unconventional Natural Gas Development*
Municipality:	Borough of Sykesville
County:	Jefferson County
State:	Pennsylvania
* Authorized water use purpose is further subject to the limitations and requirements of Special Condition 17.	

Section 3. Source Information

Information concerning the source of water from which the into-basin diversion will be made is set forth in the table below.

Source Information	
Approved Source:	Sykesville Mine Drainage Treatment Facility Discharge
Basin:	Ohio River Basin
Watershed Boundary Dataset (WBD):	0501000607 (Mahoning Creek)
Withdrawal Location (degrees):	Lat: 41.04940556 N Long: 78.81383889 W
Impairment:	Treated Mine Pool Discharge

Section 4. Approved Into-Basin Diversion Quantities and Limitations

The into-basin diversion approved hereunder is subject to the quantitative limits and restrictions set forth in the table below.

Approved Into-Basin Diversion Quantities and Limitations	
Peak Day Diversion Amount (mgd):	1.000 (Not to Exceed)
mgd – million gallons per day	

The into-basin diversion 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. Within sixty (60) days from the date of this approval, the project sponsor shall submit a metering plan to the Commission for review and approval by Commission staff that accounts for all water diverted into the Susquehanna River Basin.

3. The project sponsor shall notify the Commission, in writing, and submit digital photographs of the meter when it has been installed and certify the accuracy of the measuring device to within five (5) percent of actual flow. Diversions shall not commence until Commission staff has approved the implementation of the metering plan and notified the project sponsor of such approval.

4. The project sponsor shall maintain the totalizing meter and other measuring devices, accurate to within five (5) percent, so as to provide an accurate record of diversions, and certify to the Commission once every two (2) 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 keep daily records of the project's diversion 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 on-line 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, approved by Commission staff prior to implementing or modifying existing equipment or procedures.

6. The project sponsor shall comply with the water conservation requirements specified in Commission Regulation 18 CFR §806.25(b).

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

8. 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.

9. 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 §808.

10. Commission approval shall not be construed to exempt the project sponsor from obtaining 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 diversion of water. The Commission reserves the right to modify, suspend, or revoke this action if the project sponsor fails to obtain or maintain such approvals.

11. The Commission reserves the right to reopen any project docket 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.

12. 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.

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

14. The project sponsor has a period of three (3) years from the date of this approval to commence the diversion or this approval will automatically expire, unless an extension is requested by the project sponsor and approved by the Commission as provided in Commission Regulation 18 CFR §806.31(b). Likewise, 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 unless a renewal is requested by the project sponsor and approved by the Commission.

15. Should the project's anticipated diversion be expected to exceed the amounts listed herein, the project sponsor is required to make application for modification to this approval.

16. This approval is effective until September 18, 2017. As specified in Commission Regulation 18 CFR §806.31(e), if the project sponsor submits an application on or before March 18, 2017, 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.

Section 6. Special Conditions

17. Except as authorized pursuant to Special Condition 19, the project sponsor shall only supply water for use in hydrofracture stimulation associated with unconventional natural gas development, provided it is managed in containment systems isolated from the waters of the basin, the project sponsor and recipient water user meet all applicable standards and requirements of the host member jurisdiction, and the recipient water user has properly registered this approval pursuant to Commission Regulation 18 CFR §806.22(f)(12).


18. 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 19, including daily quantities supplied.

19. 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.

20. 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.

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 September 19, 2013.

Dated: September 20, 2013


Stephanie L. Richardson