SUSQUEHANNA RIVER BASIN COMMISSION
4423 North Front Street • Harrisburg, Pennsylvania 17110-1788
Phone (717) 238-0423 • Fax (717) 238-2436
Web http://www.srbc.net

Surface Water Withdrawal Application
Tioga River
Project Summary

SRBC Pending No.: 2024-053

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

Project Sponsor

Company Name:	JKLM Energy LLC		
Address:	2200 Georgetown Drive		
	Suite 500	**State:**	PA
City:	Sewickley	**Zip Code:**	15143
Contact Person:	Joseph Harrick	**Title:**	General Manager EHS
Telephone:	1-724-935-2426	**Fax:**	
Mobile:	1-304-607-7110	**Email:**	jharrick@jklmenergy.com

Requested Surface Water Withdrawal Quantity

Projected Design Year:	2029
Existing Withdrawal Quantity:	0.75(mgd)
Requested Withdrawal Quantity:	1.8(mgd)
Maximum Instantaneous Withdrawal Rate:	1250(gpm)
Estimated Daily Operation:	24(hours/day)

Requested Consumptive Use Quantity - No

Existing Consumptive Use:	0(mgd)
Requested Consumptive Use:	0(gpm)
Pre-Compact/Grandfathered CU:	0

Facility Location

Street Address: Tioga River Road
State: PA
County: Tioga
Municipality: Lawrenceville Borough
Zip Code: 16929

Surface Water Withdrawal Source Information

Source Name: Tioga River
Source Type: stream
Subbasin: Chemung

2.1 Project Facility Description

JKLM Energy, LLC (JKLM) is proposing to modify an existing surface water withdrawal facility in Lawrenceville Borough, Tioga County, Pennsylvania. The LDG Innovation Withdrawal facility currently consists of a submerged intake structure within the Tioga River, a 120,000-gallon fresh water aboveground storage tank, four truck loading stations, and associated pumps and piping. Specifically, JKLM is seeking an increase to the approved maximum average daily withdrawal volume from 0.75 million gallons per day (mgd) to 1.8 mgd. Similarly, JKLM is seeking to increase the approved maximum instantaneous withdrawal rate from 925 gallons per minute (gpm) to 1,250 gallons per minute. Based on the design of the facility and supporting calculations, the increased rates can be obtained without modifying the existing intake structure, pumps, piping, or other on-site infrastructure. In addition, JKLM is proposing to transfer the vast majority of water withdrawn from the facility via pipelines, rather than over-the-road truck transport. As such, no changes are anticipated to the existing traffic patterns at the facility as a result of the increased rates. The facility modifications are tentatively scheduled for implementation in late 2024, following receipt of necessary permits and agency approvals.

The surface water withdrawal facility will be used to provide fresh water for the development and completion of natural gas wells targeting deep shale formations in Pennsylvania. JKLM's natural gas development projects involve transferring water from multiple sources via pipeline (or tanker trucks) to well sites for use in well drilling, development, and completion. Water is stored in freshwater impoundments or on each well pad in aboveground storage tanks or frac tanks. Water used for fracture stimulation (or hydrofracing) of natural gas production wells must be available on-site prior to hydrofracing, and may be stored for a month or more during the setup period. It is possible water from a particular source may be delivered to several well sites during any one day.

During hydrofracing, highly pressurized fresh water (that may be blended with flowback water) and sand are injected into isolated sections (stages) of the boreholes to fracture the shale and maintain open, interconnected fractures to promote gas movement. The fracing fluid that flows back to the surface is pumped to on-site tanks for temporary storage until reused in the hydrofracing process, or pumped into tanker trucks for transport to a wastewater treatment or processing facility.

The proposed natural gas development projects in Tioga County will primarily consist of horizontal wells, with accompanying fracture stimulation and completion activities at each well. Estimates provided by JKLM indicate that, during the drilling of a horizontal well, approximately 75,000 to 100,000 gallons of water is used. Once the borehole is completed, the well is stimulated by hydrofracing, which typically requires an additional 10 million gallons per well.