SUSQUEHANNA RIVER BASIN COMMISSION
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Groundwater Withdrawal Application Summary

Source Name: WTWA Hecla Well - Well No. 1 **SRBC Pending No.:** 2020-178

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

1.1 Project Sponsor

Company Name:	Walker Township Water Association
Mailing Address Line 1:	250 Nittany Valley Drive
Mailing Address Line 2:	
City:	Bellefonte
State:	PA
ZIP Code:	16823

Contact Person:

First Name:	Tina
Last Name:	O'Hara
Title:	Business Office Manager
Telephone:	8143839955
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E-mail:	info@walkertownshipwater.org

1.3 Existing and Projected Facility Water Use

The usage should be entered in million gallons per day (mgd) and rounded off to the nearest one thousand gallons (three decimal places).

Projected Design Year:
2035

Total Project Water Usage	**Existing Usage (mgd)**	**Projected Usage For Design Year (mgd):**
Maximum 30-day Average Water Demand :	0.666	1.129
Maximum Daily Water Demand :	0.92	1.275
System Capacity :	1.123	1.275

1.4 Requested Withdrawal Amount:

Estimated Daily Hours of Operation per Day (Ex. = 5):	22
Maximum Instantaneous Withdrawal Rate (gpm):	220
Maximum 24-Hour Day (mgd):	0.32
Maximum 30-Day Average (mgd):	0.32

PROJECT FACILITY DESCRIPTION

Walker Township Water Association
Well No. 1 / Hecla Well – SRBC Docket No. 19910302
Groundwater Withdrawal Application

SYSTEM HISTORY

The Walker Township Water Association (WTWA) owns the public water supply system that currently serves approximately 1,541 connections across Marion, Spring, and Walker Townships in Centre County, Pennsylvania.

Construction of the water system began in 1957, and the system was placed into operation in 1958. At that time, Guy Shaffer was hired to operate the system, which consisted of a surface water reservoir fed by Little Fishing Creek and approximately 27 miles of water line, and served around 130 connections.

Population growth in the Walker Township area led the WTWA to develop its first groundwater source, known as the Hecla Well, in the early 1980s. As a result of the Surface Water Treatment Rule, the WTWA developed a second groundwater source, the Zion Well, in the mid-1990s, and then the surface water reservoir was abandoned. After continued growth and increasing water demand in the area, the WTWA developed a third groundwater source, known as the Snydertown Well, which was placed into operation in 2009.

The water system now consists of approximately 53 miles of distribution piping and three finished water storage tanks which provide safe drinking water and fire protection to more than 4,500 people in the WTWA service area. Currently, the WTWA subcontracts operation and maintenance of the water system to Shaffer Electric Company, located in Zion, Pennsylvania. However, the Shaffer's are transitioning into retirement from the position. In anticipation of this major changeover, the WTWA has trained new system operators and plans to retain a 2-3 full time staff members.

SYSTEM CAPACITIES

The WTWA currently utilizes three groundwater sources to meet the current water demand, listed in the following table.

Table 2.1.A: Summary of Raw Water Sources

Water Source	SRBC Docket	Approved Withdrawal	PWS Permit	Permitted Capacity
Hecla Well	19910302	0.320 MGD	1484502	220 gpm
Zion Well[1]	19950906	0.600 MGD	1495502	300 gpm
Snydertown Well	20070905-1	0.523 MGD	1407503	475 gpm

[1]A groundwater withdrawal renewal application was submitted for the Zion Well on March 12, 2020.

A mechanical/electrical building is located adjacent to each of the groundwater wells. Liquid sodium hypochlorite is used for disinfection at the Hecla Well source, while gas chlorine is utilized for both the Zion and Snydertown Well sources. Nearby each of the wells and buildings is a finished water storage tank, listed in the following table.

Table 2.1.B: Summary of Finished Water Storage

Storage Tank	Volume	Year Constructed	Height	Construction Type
Hecla Tank	0.250 MG	1983	25 ft	Epoxy Coated Welded Steel
Zion Tank	0.500 MG	1983	25 ft	Epoxy Coated Welded Steel
Snydertown Tank	0.256 MG	2006	33 ft	Glass Lined Bolted Steel

The distribution system also includes three pressure reducing valves (PRVs); the Forest Avenue PRV, the Deitrich Road PRV, and the Snydertown PRV. The WTWA is broken down into four pressure zones in order to provide suitable water service. The separate pressure zones are known as:

- Hecla/Zion Pressure Zone
- Forest Avenue Pressure Zone
- Snydertown Pressure Zone
- Hublersburg Pressure Zone

The Hecla/Zion Pressure Zone serves the majority of the distribution system in Walker and Spring Townships. Water is supplied to this pressure zone through use of the Hecla and Zion Wells in conjunction with the Hecla and Zion Storage Tanks.

The Forest Avenue Pressure Zone serves only a small number of customers, and is supplied through use of the Hecla and Zion Wells in conjunction with the Hecla and Zion Storage Tanks and the Forest Avenue PRV.

The Snydertown Pressure Zone serves the portion of the distribution system in Marion Township as well as a portion in Walker Township. Water is supplied to this pressure zone through use of the Snydertown Well and Snydertown Storage Tank.

The Hublersburg Pressure Zone is located between the Deitrich Road PRV and the Snydertown PRV, and generally serves the customers within and surrounding Hublersburg. Water can be supplied to this pressure zone through use of either the Hecla and Zion facilities or the Snydertown facilities.

HECLA WELL

The WTWA's existing groundwater approval for the Hecla Well, SRBC Docket No. 19910302, expires March 14, 2021. Therefore, the WTWA is submitting an application for renewal of the groundwater approval, which is due by September 14, 2020.

The Hecla Well was originally drilled in February 1981 by Oscar L. DeArmit Drilling & Pump Company. The WTWA began operation of the well in 1984 under PA DEP Public Water Supply (PWS) Permit No. 1484502, which limits the pumping rate to a maximum of 220 gpm in order to ensure adequate chlorine contact time.

The Hecla Well is located within a below ground vault which also houses the pump controls, flow metering equipment, and a sodium hypochlorite disinfection skid. The disinfection skid is comprised of a sodium hypochlorite solution tank, a diaphragm chlorine injection pump, an injection quill and associated piping.

The submersible deep well pump conveys source water to the Hecla Booster Station, Entry Point 100, through a dedicated pipe for contact time. The Hecla Booster Station then conveys potable water either into the distribution to meet water demand or to the Hecla Tank for storage.

Based on the maximum pumping rate as limited by the PWS Permit and on historical water demand/operational data, the requested Maximum Instantaneous Withdrawal Rate from the Hecla Well is 220 gpm and the requested Maximum 30-Day Average Withdrawal is 0.320 MGD.