



## SUSQUEHANNA RIVER BASIN COMMISSION

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### Groundwater Withdrawal Application Summary

**Source Name:** Well Field 5

**SRBC Pending No.:** 2018-116

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: State College Borough Water Authority

Mailing Address Line 1: 1201 West Branch Road

Mailing Address Line 2:

City: State College

State: PA

ZIP Code: 16801

#### Contact Person:

First Name: Brian

Last Name: Heiser

Title: Executive Director

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#### 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:

2033

Total Project Water Usage	Existing Usage (mgd)	Projected Usage For Design Year (mgd):
Maximum 30-day Average Water Demand :	0.478	0.49
Maximum Daily Water Demand :	0.598	0.49
System Capacity :	1.008	0.49

#### 1.4 Requested Withdrawal Amount:

Estimated Daily Hours of Operation per Day (Ex. = 5): 12

Maximum Instantaneous Withdrawal Rate (gpm): 340

Maximum 24-Hour Day (mgd): 0.49

Maximum 30-Day Average (mgd): 0.49

# AQUALITH TECHNOLOGIES, LLC

## State College Borough Water Authority Well 57 Project Facility Description

The SCBWA constructed and tested Wellfield 5 (also known as the Circleville Wellfield), which includes Wells 55 and 57, during February through September 1988. Subsequently on May 11, 1989, Wellfield 5 was permitted for groundwater withdrawals by the SRBC per Docket No. 19850404 at a combined rate of 1.008 million gallons per day (MGD). The intent of this document is to waive Well 57's constant-rate aquifer testing by demonstrating this existing production well's safe yield through historic operational data to allow its continued use as a key groundwater source in the SCBWA's public water supply system. During the most recent five years of operation (2012-2016) the maximum 30-day average daily demand of water from Well 57 was 0.478 MGD, with a maximum daily demand of 0.598 MGD, which both occurred in 2012. SCBWA seeks a maximum 30-day average and maximum daily withdrawal volume from Well 57 of 0.49 MGD. SCBWA does not intend to seek a groundwater withdrawal permit for Well 55 at this time, however will use it as a monitoring well in the near term.

Well 57 was originally installed as a test well and was converted into a production well during June 1988. As summarized in the 1988 Nittany Geoscience *Wellfield 5 Hydrogeologic Report* (see attached supplemental information), aquifer testing on Well 57 was conducted for 71 hours during June 27-30, 1988 in combination with Well 55. Subsequently, Well 57 was pumped at a constant rate of 405 gallons per minute (GPM) for the majority of the original 48-hour test, starting at 420 GPM for the for 45 minutes, 415 GPM for the next 18 hours, and 405 GPM until 48 hours, and then 300 GPM for one additional hour prior to recovery (48-hour average pumping rate of 409 GPM). Well 57 currently has a submersible pump set at 260 feet below casing with the capacity to be pumped at 340 gallons per minute, or approximately 489,600 gallons per day, which is the desired rate for permitting purposes.



The SCBWA has a combined water supply system consisting of seven wellfields (Wellfields 1 through 7) with a combined 23 wells, and one reservoir (Shingletown Reservoir). The SCBWA system is limited to a system-wide groundwater withdrawal of 9.1 MGD by the Susquehanna River Basin Commission. The system's typical average daily demand is approximately 5 MGD with a peak daily demand of 6 MGD. The SCBWA serves approximately 75,000 customers, maintains over 15,000 metered services, 270 miles of water mains, a 6 MGD water treatment plant, and thirteen water storage tanks with 15.75 MGD storage capacity. The University Area Joint Authority receives 98.3% of the area's wastewater for treatment and discharge into Spring Creek. The remaining 1.7% of wastewater is collected by Spring Benner Walker Joint Authority, which discharges into the Bellefonte Treatment Plant, which also discharges into Spring Creek.

