SUSQUEHANNA RIVER BASIN COMMISSION
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Groundwater Withdrawal Application - Summary

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

Source Name: Lake Meade Well 3 **SRBC Pending No.:** 2018-074

1. Project Sponsor:

Company Name:	Lake Meade Municipal Authority		
Address:	59 Curtis Dr.		
City:	East Berlin	**State:** PA	**Zip:** 17316
Contact Person:	Bennett Leas	**Title:**	Operations Supervisor
Telephone:	717-259-9998	**Fax:**	
Mobile:		**E-mail:**	h2olmma@yahoo.com

Facility Location:	
State:	PA
County:	Adams
Municipality:	Reading Township
Subbasin:	Lower Susquehanna
Date operations will begin:	
Date project sponsor began operation:	01/01/1995

4. Project Water Requirements:

Water Use:	**Past**	**Existing**	**Projected**
Average:	0.206 (mgd)	0.206 (mgd)	0.206 (mgd)
Maximum:	0 (mgd)	0 (mgd)	0 (mgd)
System Capacity:	0.41 (mgd)	0.41 (mgd)	0.41 (mgd)

5. Requested Use or Withdrawal:

Estimated Hours of Operation:	20
Maximum Instantaneous Withdrawal Rate: (gpm)	175
Peak 24-Hour Day: (mgd)	0.252
Maximum 30 Day Average: (mgd)	0.252

9. Existing Sources of Water (if applicable):

Wells:

Well ID:	Well 1	**Date Drilled:**	1/1/1968
Latitude:		**Longitude:**	
Use:	Domestic Water Supply		
Metered: True	**SRBC Docket Number:** N/A		
Existing Pump Capacity:		142	
Current # of days used during calendar year:		365	

Current Average Daily Withdrawal: 0.103

Wells:

Well ID:	Well 2	**Date Drilled:**	1/1/1968
Latitude:		**Longitude:**	
Use:	Domestic Water Supply		
Metered: True	**SRBC Docket Number:** N/A		
Existing Pump Capacity:		142	
Current # of days used during calendar year:		365	
Current Average Daily Withdrawal:		0.103	

12. Aquifer Test Information:
Application Includes: Results from constant-rate aquifer test plan

14. Source Information:
☑ Well ☐ Spring ☐ Other
Identification No.: Well 3
State ID or Permit No.: unknown

PUBLIC WATER SYSTEM INVENTORY
GENERAL DESCRIPTION

The Lake Meade Municipal Authority water system consists of a total of three wells. The system serves a population of 3,236 customers at 1,107 connections surrounding Lake Meade in Reading and Latimore Townships. Usage averages about 210,000 gallons per day, unfortunately about 23% of that is unaccounted for water.

Wells 1 and 2 are located in the southern portion of the community near the intersection of Lake Meade Drive and Longstreet Drive. Well #1 is inside the locked treatment building and has a 15 hp submersible pump. Well #2 is located just outside of the treatment plant and is enclosed by a concrete manhole for secutity. The concrete lid weighs over 1,000 pounds, to prevent tampering. Well 2 has a 15 hp submersible pump. Both wells are operated simultaneously and are triggered by the level in water tower 3. (66.5 psi kicks wells on; 68.3 psi shuts well pumps off; at 68.7 psi the tank overflows.) They are also metered together. These two wells are disinfected with chlorine gas. A boost pump pulls water from the 6-inch main into a 1-inch line; gas chlorine is added to this line, and this superchlorinated water is then returned to the main to disinfect the water. After chlorination, contact time is achieved in an underground 3,000-gallon contact tank and 4,500 gallon baffled tank in front of the pumphouse. The chlorine gas is stored in a separate room in the treatment building with a separate outside entrance that is kept locked. There are always two tanks on-line with automatic switchover between them, and two full tanks on standby. The chlorine room is checked at least once per day. The chlorine usage and meter reading is recorded daily. The chlorine residual is checked on a daily basis at the waste water treatment plant at the opposite end of the distribution and recorded there. It usually stays around 0.8 mg/L there. For sampling purposes, the fire department across the street from the treatment building is entry point 101. The chlorine residual goal at the EP is 1.0 mg/L.

Well 3 is located along Lake Meade Drive near the intersection with McCandless Drive in the southwestern portion of the community. The wellhead is enclosed by the same type of cement manhole structure as well 2. Treatment is located in the adjacent treatment building and consists of gas chlorine disinfection and aeration for radon removal. This building also has a seperate locked chlorine gas room. Well 3 has not been used at least since the beginning of 2007 as a result of exceeding the uranium MCL. The permit for this well was rescinded November 2010. When it is being used, the submersible well pump is activated by the level in the clearwell, which is a 6,200-gallon contact tank located directly under the pump house. The water from the well is metered and chlorinated and then treated for radon removal priop to entering the clearwell. A booster pump pulls water from the clearwell for distribution. The booster pump is activated by the level in water tower 3. LMMA's engineers are looking at re-permitting this well with Uranium removal.

Water tower 1 is located on Schofield Drive, just south of the main entrance to the Lake Meade community. This is a 438,000- gallon standpipe. This tank is surrounded by a gated and locked fence for security. The overflow pipe is screened; it discharges into a grate at the base of the tank, which diverts water about 25 feet from the tank. This tank floats on the system with one inlet/outlet line off of the main. That one line is split into two in a pit in front of the tank, with a check valve on each line. The inlet line delivers water through a raised pipe about 20 feet from the floor of the tank approximately 1 foot from the side wall, and the outlet line pulls water out of the bottom center of the tank. This was designed in this way to help with cirulation and turnover of water in the tank.

PUBLIC WATER SYSTEM INVENTORY
GENERAL DESCRIPTION

Water tower 3 is located on Sedgwick Drive and is also enclosed by a gate and locked fence. This is a 442,000-gallon standpipe that was newly built in 2001. Like tower 1, this standpipe floats on the system, but with separate inlet and outlet pipes that join together in a pit in front of the tank, for circulation and turnover.

The distribution system consists of 4,400 feet of 8-inch, 27,000 feet of 6-inch and 59,000 feet of 4-inch cement asbestos water mains. Past testing of the distributed water has shown asbestos levels well below the published MCL. All consumptive connections to the distribution system are metered and read for quarterly billing. Distribution system leak detection and leak repairs have lowered the amount of water needed to be withdrawn from the wells greatly.