



State of Utah

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Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF DRINKING WATER
Tim Davis
Director

August 10, 2023

Roy Fox
Skyline Mountain SSD
2201 SMR
Fairview, Utah 84629

Subject: **System-Specific Minimum Sizing Standards**
Skyline Mountain SSD, System #20043, File #13416

Dear Roy Fox:

Based on the water use data submitted to the Division of Water Rights (DWRi), the following system-specific minimum sizing standards have been set for Skyline Mountain SSD:

Peak Day Source Demand (gal/day/ERC) – 415 gal/day/ERC
Average Annual Demand (gal/yr/ERC) – 55,000 gal/yr/ERC
Average Annual Demand (ac-ft/yr/ERC) – 0.17 ac-ft/yr/ERC
Equalization Storage (gal/ERC) – 151 gal/ERC
Fire Storage (gal) – 210,000 gal

These standards are effective as of the date of this letter. A summary of the water use data and calculations used to set the minimum sizing standards are attached for your reference. The Division plans to evaluate these standards every 3 years, or upon request.

Water System Background

Skyline Mountain SSD (the System) is a community water system in Sanpete County, Utah. The System serves a population of about 271 people. There are about 229 residential and 19 commercial connections. Included in the commercial connections are about 484 fill access accounts for those who do not have metered connection but have access to District fill stations. Since the system is less than the required population of 500 to report peak day data, the System decided to submit an engineering study to first set its equalization storage requirement while still using the statewide minimum. A second engineering study was submitted to set the system specific sizing for the peak day.

Minimum Sizing Standard Background

Per Utah Code 19-4-114, the information needed for the Division of Drinking Water (the Division) to set system-specific minimum sizing standards may be based on water use data submitted to the DWRi, or alternatively, a community water system can submit an engineering study to the Division if the water system's water use data is not representative of future use or the water system does not yet have actual water use data.

Actual water use data was partly available through DWRi, and an engineering study was submitted to the Division for review from your consultant, Ridley Griggs, P.E., on June 16, 2023. The Division agreed with the engineering study that proposed to set the annual average and equalization storage for the System and use the statewide minimum while an additional engineering report is being prepared. The second engineering report was received your consultant, Ridley Griggs, P.E. on July 26, 2023, and it proposed to use a peaking factor to find the peak day for Thad's Peak Well. The Division agrees with this methodology and has requested the System continue to use the same methodology for future water use reporting until an upgraded meter is installed at the well. Therefore, the Division is setting the system-specific minimum sizing standard for the System.

Water Use Data Definitions

Peak Day Source Demand is the total flow into a public water system to meet the demand of the water system on the day of the highest water consumption in a calendar year.

Average Annual Demand is the total quantity of drinking water flowing into a public water system within a calendar year.

Total Equivalent Residential Connections (ERCs) term represents the number of residential service connections and the number of equivalent residential connections for non-residential connections (commercial, industrial, institutional connections).

Minimum Equalization Storage requirement is a volume that is equivalent to the amount of water needed to meet the average day culinary demand for public water systems. Equalized storage per ERC is calculated by dividing the Average Annual Demand per ERC data by the number of operational days in a year.

Fire Storage information was received with the second engineering report dated July 26, 2023.

Storage Capacity

Based on your system's storage facilities and the storage minimum sizing requirement established in this letter, your system compliant with the minimum storage capacity requirements.

Roy Fox
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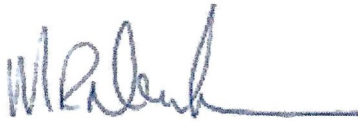
Source Capacity

The Division has documentation of established safe yields for all of your system sources. Using total system-wide safe yields and the source minimum sizing requirement established in this letter indicates your water system is compliant with minimum source capacity requirements.

This resolves the deficiency of S091 due to lacking less than 20% of the required source capacity. This is a minor 15-point deficiency. An updated IPS report is available at <https://waterlink.utah.gov>. Please contact Jennifer Yee at (385) 515-1501 or jyee@utah.gov for questions related to the System's IPS report or deficiencies.

If you have any questions regarding this letter, please contact Dani Zebelean, of this office, at (384) 278-5110, or Michael Newberry, Engineering Manager, at (385) 515-1464.

Sincerely,



Michael Newberry, P.E.
Engineering Manager

DZ/mrn/mdb

Enclosures

1. Utah Department of Environmental Quality Division of Drinking Water Minimum Sizing Standards Summary Report

cc: Eric Larsen, Central Utah Health Department, elarsen@centralutahhealth.org
John Chartier, Central District Engineer, jchartier@utah.gov
Roy Fox, Skyline Mountain SSD, smssd2013@gmail.com
Dani Zebelean, Division of Drinking Water, dzebelean@utah.gov
Jen Yee, Division of Drinking Water, jyee@utah.gov
Ted Black, Office of the State Fire Marshal, tblack@utah.gov

DDW-2023-034730



**Utah Department of Environmental Quality
Division of Drinking Water
Minimum Sizing Standards**

SKYLINE MTN SSD PWS ID: UTAH20043

Admin Name: ROY FOX
Address: 2201 SMR
City, State, Zip: Fairview, UT 84629
Phone: 435-469-1661
Email: SMSSD2013@GMAIL.COM

System Type: Community
Population: 271

MINIMUM SIZING STANDARD

Date Standard Effective: Thu Aug 03 16:48:54 MDT 2023
Peak Day Source Demand per ERC (gal/day): 415^a
Average Annual Demand per ERC (gal/year): 55,000^b
Equalization Storage per ERC (gal): 151^c

Updated to match Engineering Report Dated July 26, 2023
 Updated to match Engineering Report Dated June 16, 2023
 Updated to match Engineering Report Dated June 16, 2023

MINIMUM SIZING STANDARD CALCULATIONS VARIABILITY

Data from these reporting years: 2020, 2021, 2022				
Peak Day Source Demand per ERC (gal/day): 419	x	(1 + 0.0)	=	419
Average Annual Demand per ERC (gal/year): 44,726	x	(1 + 0.0)	=	44,726
Equalization Storage per ERC (gal): 122	x	(1 + 0.0)	=	122

DWRi WATER USE DATA REPORTED

Year	Peak Day Source Demand (gal/day)	Average Annual Demand (gallons)	ERCs	Peak Demand per ERC (gal/day)	Avg Annual Demand per ERC (gal/year)	Equalization Storage per ERC (gal)	OP Days
2022	162,925	17,990,233.71	446	365	40,296	110	365
2021	140,115	16,722,673.32	496	283	33,739	92	365
2020	166,184	17,732,811.42	396	419	44,726	122	366
Variability:			0.253	0.0	0.0	0.0	

Year	Peak Month Average (gal/day)	Peak Month Average per ERD (gal/day)	Ratio of PD/ERC to Peak Month Avg/ERC
2022	53,502	120	3.05
2021	81,136	164	1.73
2020	89,136	225	1.86

CAPACITY CALCULATIONS FOR STORAGE

Equalization per ERC (gal): 151
 Existing Storage (gal): 311,000
 ERCs: 496
 Required Storage w/o Fire Flow: 74,896
 Required Fire Storage (gal): 210,000
 Required Storage w/Fire (gal): 284,896
 Storage Deficiency: 0
 Storage Deficiency (%): 0.0
 No Storage Deficiency

CAPACITY CALCULATIONS FOR SOURCES

Peak Day Source Demand per ERC (gpm): 0.29
 Existing Source Capacity (gpm): 217
 ERCs: 496
 Required Source Capacity (gpm): 144
 Source Deficiency: 0
 Source Deficiency (%): 0.0
 No Source Deficiency

SYSTEM STORAGE AND SOURCE INVENTORY

Storage ID	Storage Name	Effective Volume (GAL)
ST001	SPRINGVIEW TANK	55,000
ST002	THADS PEAK TANK	6,000
ST003	JUNIPER TANK	250,000
Storage Totals: 311,000 GAL		

Source ID	Source Name	Flow Rate (GPM)
WS001	CLUBHOUSE WELL	120
WS002	THADS PEAK WELL	37
WS003	GOLF COURSE WELL	60
Source Totals: 217 GPM		