

WORKSHEET FOR DEMONSTRATION OF MARGIN OF SAFETY (MOS)

Applicable Regulations:

Regulations of Connecticut State Agencies (RCSA) Section 25-32d-1a (a)(2): “Active source” means a department approved source of supply which meets state and federal water quality standards, with adequate department approved treatment facilities as needed, or for which compliance schedules are in place. An active source is one that is permanently connected to the system and may include, but need not be limited to, a seasonal or standby source of supply that may be used intermittently or on a partial year basis;

RCSA Section 25-32d-1a (a)(4): “Available water” means the maximum amount of water a company can dependably supply, taking into account the following reductions applied to safe yield: any limitations imposed by hydraulics, treatment, well pump capabilities, reductions of well yield due to clogging that can be corrected with redevelopment, transmission mains, permit conditions, source construction limitations, approval limitations, or operational considerations; and the safe yield of active sources and water supplied according to contract, provided that the contract is not subject to cancellation or suspension and assures the availability of water throughout a period of drought and that the supply is reliable.

RCSA Section 25-32d-1a (a)(5): “Average daily demand (ADD)” means the total annual production from all sources of supply divided by the number of days in that calendar year;

RCSA Section 25-32d-1a (a)(22): “Margin of safety (MOS)” means the unitless ratio of available water to demand;

RCSA Section 25-32d-1a (a)(24): “Maximum month demand (MMD)” means the highest water demand in a month calculated by dividing the total production from all sources of supply for each calendar month by the number of days in that month and expressed in gallons per day;

RCSA Section 25-32d-1a (a)(28): “Peak day demand (PDD)” means the annual maximum daily rate of water use measured in gallons per day;

Background:

Water companies required to submit a water supply plan are required to provide an analysis of the relationship between available water and average daily demand as determined for the most recent representative period of record not affected by unusual demand conditions such as drought or a significant temporary increase in demand, maximum month demand and peak day demand and the margin of safety to be maintained by the water company currently and for the five, twenty, and fifty year planning periods; and a demonstration that the margin of safety is sufficient to meet the water company’s current and future needs considering factors such as potential increases or decreases in demand, the time required to bring new sources of supply on line, potential losses of sources of supply or decreased capacities, land area available for development, available interconnections and other factors which may increase or reduce supply or demand per RCSA Sections 25-32d-3(b)(7) & (8). This worksheet will help the public water system calculate the margin of safety for the five, ten, twenty and fifty year planning periods. It is important that accurate and up to date safe yield data and accurate accounting of all system limitations are used to allow for proper planning of new sources to ensure a continuous pure and adequate supply to customers.

Instructions:

Provide the public water system (PWS) name, public water system identification number (PWSID), and primary town the water system is located. In the first column, inactive and emergency sources of supply must not be included since available water calculations only account for active sources of supply that meet the definition of RCSA Section 25-32d-1a(2). In the second column; Average Day Demand (ADD), Maximum Month Demand (MMD) and Peak Day Demand (PDD) should be expressed in gallons per day (GPD), and the Margin of Safety (MOS) for each type of water demand is calculated as a unitless ratio of available water to water demand.

The public water system owner or administrative contact is requested to sign, date and print their name certifying the information submitted for demonstration of margin of safety (MOS) is accurate to the best of their knowledge and was determined in accordance with the applicable Regulations of Connecticut State Agencies.

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

DRINKING WATER SECTION

WORKSHEET FOR DEMONSTRATION OF MARGIN OF SAFETY (MOS)

Public Water System Name: _____
 PWSID: _____
 Town(s): _____

Available Water of all Active Sources & Interconnections (GPD) <i>Based on Worksheet for Demonstration of Available Water</i>	Water Demand Based on Past 5 Years					
	ADD	MOS	MMD	MOS	PDD	MOS

Available Water of all Active Sources & Interconnections (GPD) <i>Based on Worksheet for Demonstration of Available Water</i>	Water Demand Projected for the next 5 Years					
	ADD	MOS	MMD	MOS	PDD	MOS

Available Water of all Active Sources & Interconnections (GPD) <i>Based on Worksheet for Demonstration of Available Water</i>	Water Demand Projected for the next 10 Years					
	ADD	MOS	MMD	MOS	PDD	MOS

Available Water of all Active Sources & Interconnections (GPD) <i>Based on Worksheet for Demonstration of Available Water</i>	Water Demand Projected for the next 20 Years					
	ADD	MOS	MMD	MOS	PDD	MOS

Available Water of all Active Sources & Interconnections (GPD) <i>Based on Worksheet for Demonstration of Available Water</i>	Water Demand Projected for the next 50 Years					
	ADD	MOS	MMD	MOS	PDD	MOS

My signature below certifies that the information provided on this worksheet for demonstration of margin of safety (MOS) for the public water system indicated is accurate to the best of my knowledge and complies with the applicable Regulations of Connecticut State Agencies.

 (Signature of public water system Owner or Administrative contact)

 (Date)

 (Print or type name)