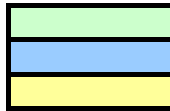


Appendix S-5: Building Water Calculator

B3 Minnesota Sustainable Building Guidelines—VERSION 2.1

KEY:



Green highlighted areas show fixed constants—DO NOT CHANGE

Blue highlighted areas show outputs calculated by the spreadsheet

Yellow highlighted areas show required inputs

FIXTURES: Water Use Calculator

BASE FIXTURES

Flow Fixtures - Based on occupants

	Flow Rate (GPM)	Minutes per use	Uses per day	No. occupants/ persons	Total Uses per day	Gallons per day	Person-days per year	Gallons per year
Lavatory Faucet	2.2	0	0	0	0	0	0	0
Shower	2.5	0	0	0	0	0	0	0
Other						0		0

Flow Fixtures - Based on use per day

	Flow Rate (GPM)	Minutes per use	Uses per day	No. of Fixtures	Total Uses per day	Gallons per day	Person-days per year	Gallons per year
Kitchen Faucet	2.2	0	0	0	0	0	0	0
Laboratory Faucet	2.2			0	0	0	0	0
Other						0		0

Total - Flow Fixtures

0

Flush Fixtures - By gender

	Flow Rate (GPF)	Times per day		No. occupants/ persons	Total Uses per day	Gallons per day	Person-days per year	Gallons per year
Water Closet - Female	1.6	4		0	0	0	0	0
Water Closet - Male	1.6	1		0	0	0	0	0
Urinal - Male	1.0	3		0	0	0	0	0

Total - Flush Fixtures

0

Other equipment *

	Water Use Gallons		Times per day				No. Days used per year	Gallons per year
Dishwasher	15		0				0	0
Clothes Washer	0		0				0	0
Other								0

* No current regulation identified for commercial equipment; Use local codes if applicable.

Total - Other equipment

0

Grand Total - BASE FIXTURES

0

Appendix S-5: Building Water Calculator (Continued)

FIXTURES: Water Use Calculator

Calculator Key

	GREEN - Fixed Variables - Do Not Change
	BLUE - Calculated by model
	YELLOW - User input required (Replace the sample data shown with actual for project)

LOW-FLOW FIXTURES

Flow Fixtures - Based on occupants

	Flow Rate (GPM) Enter actual for final calculation	Minutes per use	Uses per day	No. occupants/ persons	Total Uses per day	Gallons per day	Person-days per year	Gallons per year
Lavatory Faucet	0	0	0	0	0	0	0	0
Shower	0.0	0	0	0	0	0	0	0
Other						0		0

Flow Fixtures - Based on use per day

	Flow Rate (GPM)	Minutes per use	Uses per day	No. of Fixtures	Total Uses per day	Gallons per day	Person-days per year	Gallons per year
Kitchen Faucet	0	0	0	0	0	0	0	0
Laboratory Faucet	0			0	0	0	0	0
Other						0		0

Total - Flow Fixtures

0

Flush Fixtures

	Flow Rate (GPF)	Times per day	No. occupants/ persons	Total Uses per day	Gallons per day	Person-days per year	Gallons per year
Water Closet - Female	0	4	0	0	0	0	0
Water Closet - Male	0	1	0	0	0	0	0
Urinal - Male	0.0	3	0	0	0	0	0

Total - Flush Fixtures

0

Other equipment *

	Water Use Gallons	Times per day	No. Days used per year	Gallons per year
Dishwasher	0	0	0	0
Clothes Washer	0	0	0	0
Other				0

* No current regulation identified for commercial equipment; Use local codes if applicable.

Total - Other equipment

0

Grand Total - LOW FLOW FIXTURES

0

Appendix S-5: Building Water Calculator(Continued)

FIXTURES: Water Use Calculator

For work through phase: _____ As of date: _____

Public Agency _____
 Guideline Manager _____
 Project Engineer _____
 Project Description Sample Results

Project No. _____
 Date _____
 Building _____

BUILDING WATER SAVINGS - SUMMARY

	GALLONS OF WATER			
	Base	Design	Savings	%
Flow Fixtures (<i>from above</i>)	0	0	0	#DIV/0!
Flush Fixtures (<i>from above</i>)	0	0	0	#DIV/0!
Other (<i>from above</i>)	0	0	0	#DIV/0!
OVERALL BUILDING WATER USE *	0	0	0	#DIV/0!

** Use in form P-3 Site and Water Documentation
 Note that Alternatively Sourced Water, also eligible for contributing to compliance of
 Guideline S.8 Building Water Efficiency is documented in form P-3 Site and Water Documentation.*

NOTES:

See the Instruction sheet for more guidance.

1. Water calculator only includes flow and flush fixtures covered by Energy Policy Act of 1992 and dishwashers and clothes washers.
2. Water coolers, water fountains, and other beverage service using water is not included in the water reduction calculation.
3. 240 work days in a year: 52 weeks minus 10 holidays and 2 weeks vacation used in the example calculation for an office. Use an appropriate number of days for your facility.
4. Areas in gray do not change for your calculations for both base and low-flow fixtures.
5. Areas in blue are calculated from input and fixed values.
6. Areas in yellow are required user inputs to complete the calculations.