

The LEED Online credit form offers a useful calculator for this credit that your project should use. The following scenarios are given as general examples of how this credit can play out with fixtures alone.



WEc2: Fixture Design Case Comparisons

Design Criteria

Building Type: Commercial Office, no customers or transients, 100% of male restrooms have urinals
 Staff: Equal split between male and female
 Usage: 260 Weekdays per year

	#	hours/week	FTE
Full-Time Staff	75	40	75
Part-Time Staff	50	20	25
Transients	0	0	0
Total FTE			100

Baseline Case				
Fixture	Flow (gpf)	# Uses	FTE Occupants	Sewage Generation (gal)
Water Closet (male)	1.6	1	50	80
Water Closet (female)	1.6	3	50	240
Urinal (male)	1.0	2	50	100
Total Daily Volume (gal)				420
Annual Work Days				260
Total Annual Volume (gal)				109,200

Design Case 1 - Dual flush (1.6/0.8 GPF) and waterless urinal				
Fixture	Flow (gpf)	# Uses	FTE Occupants	Sewage Generation (gal)
Dual Flush Toilet (male, full flush)	1.6	1	50	80
Dual Flush Toilet (female, full flush)	1.6	1	50	80
Dual Flush Toilet (male, low-flush)	0.8	0	50	0
Dual Flush Toilet (female, low-flush)	0.8	2	50	80
Waterless Urinal (male)	0	2	50	0
Total Daily Volume (gal)				240
Annual Work Days				260
Total Annual Volume (gal)				62,400
Percent Water Savings				43%

Design Case 2 - Dual flush (1.28/0.8 GPF) and pint-urinal				
Fixture	Flow (gpf)	# Uses	FTE Occupants	Sewage Generation (gal)
Dual Flush Toilet (male, full-flush)	1.28	1	50	64
Dual Flush Toilet (female, full-flush)	1.28	1	50	64
Dual Flush Toilet (male, low-flush)	0.8	0	50	0
Dual Flush Toilet (female, low-flush)	0.8	2	50	80
Low Flush Urinal (male)	0.125	2	50	12.5
Total Daily Volume (gal)				220.5
Annual Work Days				260
Total Annual Volume (gal)				57,330
Percent Water Savings				48%

Design Case 3 - Dual flush (1.28/0.8 GPF) and waterless urinal				
Fixture	Flow (gpf)	# Uses	FTE Occupants	Sewage Generation (gal)
Dual Flush Toilet (male, full-flush)	1.28	1	50	64
Dual Flush Toilet (female, full-flush)	1.28	1	50	64
Dual Flush Toilet (male, low-flush)	0.8	0	50	0
Dual Flush Toilet (female, low-flush)	0.8	2	50	80
Waterless Urinal (male)	0	2	50	0
Total Daily Volume (gal)				208
Annual Work Days				260
Total Annual Volume (gal)				54,080
Percent Water Savings				50%

Design Case 4 - Ultra low-flow toilet (1.0 GPF) and waterless urinal				
Fixture	Flow (gpf)	# Uses	FTE Occupants	Sewage Generation (gal)
High Efficiency Toilet (male)	1.0	1	50	50
High Efficiency Toilet (female)	1.0	3	50	150
Waterless Urinal (male)	0	2	50	0
Total Daily Volume (gal)				200
Annual Work Days				260
Total Annual Volume (gal)				52,000
Percent Water Savings				52%