



CITY OF [NAME OF CITY/COUNTY]
 Department of [NAME OF DEPARTMENT]
20% REDUCTION WATER USE
WORKSHEET WS-2



To demonstrate the 20% reduction in overall use of potable water in accordance with Method 2 of Sections 4.303.1 or 5.303.2 of the CALGreen Code, use worksheet WS-1 to calculate the baseline water use and this worksheet WS-2 to specify the schedule of plumbing fixtures and fixture fittings that will meet this reduction. Incorporated these worksheets onto the construction documents.

20% REDUCTION WATER USE CALCULATION TABLE									
FIXTURE TYPE	FLOW RATE ²		DURATION		DAILY USES		OCCUPANTS ^{3,4}		GALLONS PER DAY
Showerheads		X	5 min.	X	1	X		=	
Showerheads residential		X	8 min.	X	1	X		=	
Lavatory faucets residential		X	.25 min.	X	3	X		=	
Lavatory faucets nonresidential		X	.25 min.	X	3	X		=	
Kitchen faucets		X	4 min.	X	1	X		=	
Replacement aerators		X		X		X		=	
Wash fountains		X		X		X		=	
Metering faucets		X	.25 min.	X	3	X		=	
Metering faucets for wash fountains		X	.25 min.	X		X		=	
Gravity tank type water closets		X	1 flush	X	1 male ¹ 3 female	X		=	
HET ⁵ High-efficient toilet	1.28 ⁶	X	1 flush	X	1 male ¹ 3 female	X		=	
Flushometer tank water closets		X	1 flush	X	1 male ¹ 3 female	X		=	
Flushometer valve water closets		X	1 flush	X	1 male ¹ 3 female	X		=	
Electromechanical hydraulic water closets		X	1 flush	X	1 male ¹ 3 female	X		=	
Urinals		X	1 flush	X	2 male	X		=	
Urinals nonwater supplied	0.0 ⁶	X	1 flush	X	2 male	X		=	
Proposed water use								=	
Proposed water use ≤ Allowable water use = _____ (BWU from WS-1) X 0.80									

FOOTNOTES:

1. The daily use number shall be increased to three if urinals are not installed in the room.
2. The flow rate is from the CEC Appliance Efficiency Standards, Title 20 *California Code of Regulations*; where a conflict occurs, the CEC standards shall apply.
3. For low-rise residential occupancies, the number of occupants shall be based on two persons for the first bedroom, plus one additional person for each additional bedroom. In addition, the calculation shall be limited to the following plumbing fixture and fitting types: water closets, urinals, lavatory faucets and showerheads.
4. For nonresidential occupancies, refer to Table A, Chapter 4, 2010 *California Plumbing Code*, for occupant load factors.
5. Includes single and dual flush water closets with an effective flush of 1.28 gallons or less.
 Single Flush Toilets – The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume when tested in accordance with ASME A 112.19.233.2.
 Dual Flush Toilets – The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush. Flush volumes will be tested in accordance with ASME A 112.19.2 and ASME A 112.19.14.
6. Gallon per minute.