



# LEED 2009 for Commercial Interiors

## WE PREREQUISITE 1: WATER USE REDUCTION

### 20% REDUCTION

All fields and uploads are required unless otherwise noted.

## FIXTURES AND FIXTURE FITTINGS

This static sample form has been modified for offline access. All sections of the form are visible. Sample forms are for reference only.

Note: Refer to the additional guidance document in the Credit Resources section of LEED Online for more information about documenting compliance with WEp1 and WEc1.

### Table WEp1-1. Daily Occupancy

Note: For reference only. These values should inform, but not necessarily parallel, the numbers entered in the Table WEp1-2. Fixture Groups Definition.

FTE	Average Transients (Visitors)	Average Retail Customers	Residents	Total

The content highlighted in yellow above is linked to Plf3, SSc1, SSc3.2 & SSc3.3.

Select one of the following:

- ☐ **Tenant Space Fixtures Only.** Fixtures and fixture fittings located only within the tenant space meet the needs of the occupants. Tenant occupants will not use fixtures and fixture fittings located outside the tenant space.
- ☐ **Outside Fixtures Only.** Fixtures and fixture fittings located only outside the tenant space meet the needs of the occupants. There are no fixtures or fixture fittings located inside the tenant space.
- ☐ **Both - Outside Fixtures Included.** Fixture and fixture fittings located both within and outside the tenant space meet the needs of the occupants. The project team is pursuing water use savings for these fixtures and fixture fittings, including those located outside the tenant space whether existing or installed and/or upgraded as part of the project.
- ☐ **Both - Outside Fixtures Excluded.** Fixture and fixture fittings located both within and outside the tenant space meet the needs of the occupants. However the water use savings will exclude the fixtures and fixture fittings located outside the tenant space.

The content highlighted in yellow above is linked to WEc1.

No WEp1 documentation necessary.

*Note: In WE Credit 1, complete the calculations for the fixtures and fixture fittings located OUTSIDE the tenant space that meet the needs of the tenant occupancy.*

Complete the calculations below for the fixtures and fittings located only WITHIN the tenant space.

*Note: In WE Credit 1, no documentation is necessary as this project is not eligible for WEc1.*

Complete the calculations below for the fixtures and fixture fittings located only WITHIN the tenant space.

*Note: In WE Credit 1, complete the calculations for the fixtures and fixture fittings located both WITHIN and OUTSIDE the tenant space that meets the needs of the tenant occupancy.*

## FIXTURE GROUPS INTRODUCTION

Organize project occupants in a way that best represents fixture usage patterns in the project. Occupants may be grouped together or separated into sub-groups. Usage groups must be derived from daily occupancy data for the project building. Accordingly, all project occupants, as documented in the "Occupant Information" section of PI Form 3, must be represented in the Table WEp1-2. Fixture Groups Definition below. All residential occupants should be represented separately from nonresidential occupants

**Table WEp1-2.** Fixture Groups Definition

Group Name	Annual Days of Operation	FTE	Transients (Visitors)	Retail Customers	Residents	% Female	% Male

Briefly describe the inputs in the Table WEp1-2. Fixture Groups Definition. Explain the methodology used to define each fixture group, as well as the derivation of data in each row. Additionally, provide a detailed explanation if the default gender ratio is not used.

**FIXTURE DATA**

**Table WEp1-3.** Flush Fixture Data

Enter flush fixture data for each fixture group defined in Table WEp1-2 above. Click "Calculate" in the summary section of the table to perform the water savings calculations. "Calculate" must be clicked after any or all the data is entered in the table to refresh the calculated values and obtain accurate information.

Fixture Groups							Flush Rate (GPF)		Annual Water Consumption (kGal)	
Select	Display	Fixture ID <sup>1</sup>	Fixture Family	Fixture Type	Default	Total Daily Uses <sup>2</sup>	Baseline	Installed <sup>3</sup>	IPC/UPC Baseline	Performance Case
					<input type="checkbox"/>					
Total calculated flush fixture water use annual volume, baseline case (kGal)										
Total calculated flush fixture water use annual volume, performance case (kGal)										
Percent reduction of water use in flush fixtures (%)										

**Notes:**

1. Define a reference name or descriptor that can be used to identify each fixture family/type.
2. May be modified for special circumstances. Deselect the "Default" checkbox to enter modified Total Daily Uses value. Default assumes urinals are installed. Refer to the additional guidance document in the Credit Resources section which includes information about fixture groups that do not include urinals.
3. To account for dual-flush fixtures, enter a weighted average flush rate.

**Upload WEp1-2.** Provide a narrative and/or daily use calculations to justify any non-default "Total Daily Use" values.

**Table WEp1-4.** Flow Fixture Data

Enter flow fixture data for each fixture group defined in Table WEp1-2 above. Click "Calculate" in the summary section of the table to perform the water savings calculations. "Calculate" must be clicked after any or all the data is entered in the table to refresh the calculated values and obtain accurate information.

Fixture Groups								Flow Rate (GPM / GPC)		Annual Water Consumption (kGal)	
Select	Display	Fixture ID <sup>1</sup>	Fixture Family	Fixture Type	Default	Total Daily Uses <sup>2</sup>	Duration <sup>3</sup> (Secs)	Baseline	Installed <sup>4</sup>	IPC/UPC Baseline	Performance Case
					<input type="checkbox"/>						

Total calculated flow fixture water use annual volume, baseline case (kGal)	
Total calculated flow fixture water use annual volume, performance case (kGal)	
Percent reduction of water use in flow fixtures (%)	

**Notes:**

1. Define a reference name or descriptor that can be used to identify each fixture family/type.
2. May be modified for special circumstances. Deselect the "Default" checkbox in order to insert the modified Total Daily Uses value.
3. May be modified for special circumstances. Provide a narrative in the Special Circumstances section below to justify modifications.
4. For public metering/autocontrol lavatory faucets, convert all flow rates in gallons per minute (GPM) to gallons per cycle (GPC) using a default 12 second duration of flow.

**Upload WEp1-3.** Provide a narrative and/or daily use calculations to justify any non-default "Total Daily Use" values.

**Upload WEp1-4.** Provide a narrative and/or calculations to support the installed flow rate for any metering public lavatory faucets.

Does the project building include pre-rinse spray valve(s)?

☐ Yes ☐ No

Flow rate of the pre-rinse spray valve(s) installed on the project:

GPM

*Note: The flow rate for all pre-rinse spray valves must be less than or equal to 1.6 gpm. If there are multiple fixtures with varying flow rates, insert the highest flow rate.*

## SUMMARY

**Upload WEp1-1.** Provide the plumbing fixture and fitting schedule for the project highlighting flush and flowrates for all applicable plumbing fixtures and fittings within the tenant space that meet the needs of tenant occupancy.

### Table WEp1-5. Flush & Flow Fixtures Summary

Total calculated fixture water use annual volume, baseline case (kGal)	
Total calculated fixture water use annual volume, performance case (kGal)	
Percent reduction of water use in all fixtures (%) <i>Must be 20 to document credit compliance</i>	

*The content highlighted in yellow above is linked to SSs1 & WEc1.*

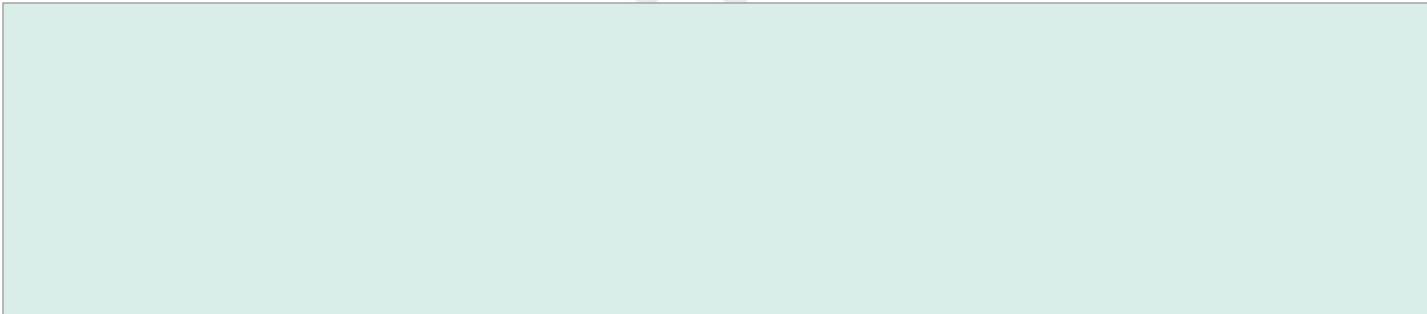
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## ADDITIONAL DETAILS

- ☐ Special circumstances preclude documentation of prerequisite compliance with the submittal requirements outlined in this form.

### SPECIAL CIRCUMSTANCES

Describe the circumstances limiting the project team's ability to provide the submittals required in this form. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.



**Upload WEp1-SC.** Provide any additional documentation that supports the claim to special circumstances. (Optional)

- ☐ The project team is using an alternative compliance approach in lieu of standard submittal paths.

## ALTERNATIVE COMPLIANCE PATH

Describe the alternative compliance path used by the project team. Include justification that this path meets the credit intent and requirements. Be sure to reference what additional documentation has been provided, if any. Non-standard documentation will be considered upon its merits.

**Upload WEp1-ACP.** Provide any additional documents that support the alternative compliance path approach. (Optional)

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## SUMMARY

WE Prerequisite 1: Water Use Reduction - 20% Reduction  
Compliance Documented: