



# LEED 2009 for Core and Shell Development

## WE PREREQUISITE 1: WATER USE REDUCTION

### 20% REDUCTION

All fields and uploads are required unless otherwise noted.

## ALL OPTIONS

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

Compliance with the prerequisite/credit requirements must be documented for the entire project building and associated grounds, including both the Core & Shell AND tenant-occupied spaces.

Select one of the following:

- ☐ **In Scope:** The Core & Shell project scope includes the performance improvements for the entire project building, including tenant-occupied spaces.
- ☐ **Tenant Work:** It is anticipated that there will be additional tenant work beyond the Core & Shell project scope.

## IN SCOPE

## TENANT WORK

Select one of the following:

- ☐ **Tenant Sales and/or Lease Agreement:** Performance calculations will indicate performance data as specified in the tenant sales and/or lease agreement for all the anticipated water fixtures and fittings for the tenant-occupied spaces.
- ☐ **Tenant Neutral:** Performance calculations will indicate performance data as neutral for all anticipated water fixtures and fittings for the tenant-occupied spaces.

### Tenant Sales and/or Lease Agreement:

- ☐ The tenant sales and/or lease agreement(s) contains binding language specifying maximum water usage rates of all fixture and fitting types, that may contribute to water use reduction when installed, and do not exceed the LEED 2009 baseline water usage rates claimed in the performance calculations.

**Upload L-6.** Provide the legally binding document (lease, sales agreement, tenant construction requirements, etc.) associated with the project, signed by both the developer and the tenant, explicitly stating the performance requirements for the tenant work.

Page/Reference number(s) of language relating to declaration(s) above:

Complete the following documentation assuming all tenant work has been completed and conforms to the requirements of the tenant sales and/or lease agreement. For required uploads, provide all available documentation pertaining to the Core & Shell project scope and anticipated tenant work.

For spaces where the LEED Core & Shell project scope includes the installation of water fixtures and fittings, use actual water usage rates to document the design case. For spaces where efficiencies of tenant-installed water fixtures and fittings will not exceed the LEED 2009 baseline water usage rates, document the design case using the anticipated water usage rates in those spaces.

**TENANT NEUTRAL**

Complete the following performance calculations. For spaces where the LEED Core & Shell project scope includes the installation of water fixtures and fittings, use actual water usage rates to document the design case. For spaces where the project team anticipates that tenants will install additional water fixtures and fittings, document the design case using the LEED 2009 baseline water usage rates.

**PERFORMANCE CALCULATION**

The Table. Daily Occupancy below is a linked submittal from PI Form 3: Occupant and Usage Data to be used for reference only. PI Form 3 must be completed before values will display in WE Prerequisite 1. These values should inform, but not necessarily parallel, the numbers entered in the Table. Fixture Groups Definition.

**Table.** Daily Occupancy

FTE	Average Transients (Student/ Visitor)	Average Retail Customers	Residents	Total

**Fixture Groups Introduction:**  
This table allows for project occupants to be organized in a way that best represents fixture usage patterns in the project. Occupants can be grouped together or separated into sub-groups at the option of the project team. The usage groups defined must be derived from daily occupancy data for the project building. Accordingly, all project occupants, as recorded in the Daily Occupancy tables from PI Form 3: Occupant and Usage Data must be represented in the Table. Fixture Groups Definition below. All residential occupants should be represented separately from non-residential occupants. Refer to the additional guidance document in the Credit Resources section.

**Table.** Fixture Groups Definition

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

Briefly describe the inputs in the Table. 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.

**Table.** Flush Fixture Data

Enter flush fixture data for each fixture group defined in the Table. Fixture Groups Definition.

*Note: Click "Calculate" placed next to the Add and Delete to perform the calculations in the table. "Calculate" must be run after any or all the data is entered in the table to obtain the values in the summary section, the Baseline Flush Rate, IPC/UPC Baseline and the Performance Case. "Calculate" needs to be run to perform Water Savings Calculation and document Credit compliance.*

Fixture Groups						Flush Rate (GPF)		Annual Water Consumption (kGal)	
Select	Display	Fixture ID <sup>1</sup>	Fixture Family	Fixture Type	Total Daily Uses <sup>2</sup>	Base-line	In-stalled <sup>3</sup>	IPC/UPC Baseline	Performance Case
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 (%)									

<sup>1</sup> Define a reference name or descriptor that can be used to identify each fixture family/type. For projects including tenant work also use the Fixture ID to indicate base building or tenant scope for each fixture.

<sup>2</sup> May be modified for special circumstances. Provide a narrative and upload daily use calculations to justify modifications. Refer to the additional guidance document in the Credit Resources section.

<sup>3</sup> To account for dual-flush fixtures, enter a weighted average flush rate.

## Table. Flow Fixture Data

Enter flow fixture data for each fixture group defined in the Table. Fixture Groups Definition.

Note: Click "Calculate" placed next to the Add and Delete to perform the calculations in the table. "Calculate" must be run after any or all the data is entered in the table to obtain the values in the summary section, the Baseine Flush Rate, IPC/UPC Baseline and the Performance Case. "Calculate" needs to be run to perform Water Savings Calculation and document Credit compliance.

Fixture Groups							Flow Rate (GPM / GPC)		Annual Water Consumption (kGal)	
Select	Display	Fixture ID <sup>1</sup>	Fixture Family	Fixture Type	Total Daily Uses <sup>2</sup>	Duration (Secs) <sup>2</sup>	Base-line	In-stalled <sup>3</sup>	IPC/ UPC Base-line	Performance Case
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 (%)										

<sup>1</sup> Define a reference name or descriptor that can be used to identify each fixture family/type. For projects including tenant work also use the Fixture ID to indicate base building or tenant scope for each fixture.

<sup>2</sup> May be modified for special circumstances. Also, a reasonable estimate MUST be provided for pre-rinse spray valves when selected in the table above. In either case, provide a narrative and upload calculations to justify modifications. Refer to the Additional Guidance document in the Credit Resources section.

<sup>3</sup> 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. Provide a narrative or calculations to support the installed flow rate. The "Duration" is not applicable and therefore should not be modified.

**Upload WEp1-1.** Provide the plumbing fixture and fitting schedule for the project highlighting flush and flow rates for all applicable plumbing fixtures and fittings within the project building.

## Table. Flush & Flow Fixtures Summary Statistics

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 (%)	

A 20% reduction of water use in fixtures is required to document compliance with WE Prerequisite 1.

## ADDITIONAL DETAILS

- ☐ Special circumstances preclude documentation of credit 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:

REFERENCE ONLY