Water Use

Positive

Credit: 25

Points: 6

Outcome

The building has low water use.

Criteria

Minimum Expectation	**Nil**	• The building installs efficient water fixtures. or • The building uses 15% (10% for buildings where the sleeping area >=50% of the NLA) less potable water compared to a reference building.
Credit Achievement	**1 Point**	In conjunction with the *Minimum Expectation*: • The building uses 25% (20% for buildings where the sleeping area >=50% of the NLA) less potable water compared to a reference building.
	2 points	In conjunction with the *Minimum Expectation*: • The building uses 35% (30% for buildings where the sleeping area >=50% of the NLA) less potable water compared to a reference building.
Exceptional Performance	**3 points**	In conjunction with the *Credit Achievement*: • The building uses 60% (55% for buildings where the sleeping area >=50% of the NLA) less potable water compared to a reference building.

Additional information

Stage implementation

Strategy | Brief | Concept | **Design** | **Tender** | **Construction** | Handover | **Use**

Synergies with other credits

- Operations Resilience

Sustainable Development Goals

- Goal 11 (Sustainable Cities and Communities)
- Goal 12 (Responsible Consumption and Production)

Relevant reporting initiatives

- Dow jones Sustainability Index (DSJI)

Requirements

Minimum Expectation

The project must comply with **one** of the following criteria:

- Sanitary Fixture and Appliance Efficiency
- Reducing Water Use

In addition, for all multi story buildings, fire protection systems must be provided with individual isolation valves for each floor to reduce water use during drain down.

Sanitary Fixture and Appliance Efficiency

All fixtures and water-using appliances installed within the project's scope must, at a minimum, meet the following WELS ratings:

Fixture type	WELS rating
Taps	5 star
Urinals	5 star
Toilets	4 star
Showers	3 star
Clothes washing machine	4 star
Dishwashers	5 star

Reducing Water Use

The building uses 15% less potable water compared to a reference building.

Buildings where sleeping areas are >= 50% of the building NLA use 10% less potable water compared to a reference building.

The NZGBC's *Water Use calculator* assists in calculating how much more efficient a building is compared to a reference building. It considers fixtures, appliances, and water reuse systems. The *Water Use calculator* must be used alongside the *Water Use calculation guide*.

Credit Achievement

In conjunction with the *Minimum Expectation*, the project must comply with **both** of the following criteria:

- Reducing Water Use
- Recycled Water Infrastructure

Reducing Water Use

The building uses less potable water compared to a reference building - 25% for one point and 35% for two points.

Buildings where sleeping areas are >= 50% of the building NLA use less potable water compared to a reference building - 20% for one point and 30% for two points.

The GBCA's *Water Use calculator* assists in calculating how much more efficient a building is compared to a reference building. It considers fixtures, appliances, and water reuse systems. The *Water Use calculator* must be used alongside the *Water Use calculation guide*.

Exceptional Performance

In conjunction with the *Credit Achievement*, the project must comply with the following criteria:

- Reducing Water Use

Reducing Water Use

The building uses 60% less potable water compared to a reference building.

Buildings where sleeping areas are >= 50% of the building NLA use 55% less potable water compared to a reference building.

The NZGBC's *Water Use calculator* assists in calculating how much more efficient a building is compared to a reference building. It considers fixtures, appliances, and water reuse systems. The *Water Use calculator* must be used alongside the *Water Use calculation guide*.

Submission content

Submissions for this credit must contain:

- **Submission form**
- **Water Use** calculator
- **Evidence** to support claims made in the submission

Recommended evidence:

- WELS certificates
- Manufacturer's data
- Drawing(s) for each typical floor showing isolation valves for floor-by-floor testing of the fire sprinkler system, and drawings of the water storage and re-use system(s)
- Drawing(s) clearly showing the location of all heat rejection equipment installed on the project
- Drawings showing the landscape design and the irrigation system, listing the name, location, and plant species zone as it appears in the calculator
- Manufacturer's information showing that the application efficiency for the landscape irrigation system
- Manufacturer's information including backwash volume and frequency of filter cleaning
- Drawing(s) of process cooling water usage loops
- Drawings and specifications of grey water infrastructure

Alternate documentation can also be used by project teams to demonstrate compliance.

The recommended evidence listed above is applicable to the as built submission. See the *Design Assessment* section in the Introduction for more information on submitting evidence for the Design assessment.

The key requirement is that evidence is provided to support each claim made within the Submission form.

Guidance

Shared services

This credit rewards projects for reduction in potable water usage due to the use of reclaimed water from on-site rainwater, greywater, blackwater, stormwater or supplied reclaimed water. Bore water is not a suitable replacement for potable water. The *Water Use calculator* allows for the inclusion of the amount of non-potable water that is available from a central or shared service for use within the building.

Excluded fixtures

The following fixtures may be excluded, as the water consumption will not be altered significantly by reducing the water flow: bath taps, laboratory taps, and taps dedicated to cleaning and facility management. Kitchen or café tap ware, where the primary use is for pot fill and container filling. Kitchen/ Café Chilled, Boiling and Sparkling tap ware which are used to fill cups.

Definitions

Blackwater

Blackwater is water from kitchen sinks and toilets that is contaminated with human waste or food.

Greywater

Greywater can be recovered from sinks and showers, washing machines, cooling towers and other water sources that do not contain food or human waste.

Rainwater

Rainwater refers to the water that arrives on the site through rain events, falling on roofs within the site boundary and captured through various types of systems.

Stormwater

Stormwater refers to the water that arrives on the site through rain events, falling on hard surfaces other than roofs within the site boundary.

Reclaimed water

Reclaimed water refers to water that is recaptured, treated to some degree, and reused within a building.

Recycled water

Recycled water refers to water that is treated at a centralized wastewater treatment plant and then made available for reuse, often through "purple pipe" systems.

Supporting information

The following resources support this credit:

- Green Star Water Use calculator
- Green Star Water Use calculation guide