

*Learning to LEED: Day 2*  
*Water Efficiency Quiz*

1. Number of Prerequisites in the Water Efficiency category: \_\_\_\_\_  
Number of Credits in the Water Efficiency category: \_\_\_\_\_  
Number of Points in the Water Efficiency category: \_\_\_\_\_
  
2. Within the Water Efficiency category, which of the following sets of credits can be submitted during the design phase of the project? (Choose one.)
  - a. WE Credit 1, Water Efficient Landscaping
  - b. WE Credit 2, Innovative Wastewater Technologies
  - c. WE Credit 3, Water Use Reduction
  - d. WE Credit 2, Innovative Wastewater Technologies; WE Credit 3, Water Use Reduction
  - e. WE Credit 1, Water Efficient Landscaping; WE Credit 2, Innovative Wastewater Technologies; WE Credit 3, Water Use Reduction
  
3. According to the U.S. Green Building Council, how many more billions of gallons of water do Americans extract than they return to the natural water system each year? (Choose 1.)
  - a. 3,700
  - b. 2,100
  - c. 4,600
  - d. 3,300
  
4. Which figures are necessary to make calculations contributing to the achievement of WE Credit 1, Water Efficient Landscaping? (Choose 4.)
  - a. Species factor
  - b. Density factor
  - c. Microclimate factor
  - d. Topographic factor
  - e. Landscape coefficient
  
5. Which of the following fixtures are counted in the process of determining building water use, according to WE Credit 3, Water Use Reduction? (Choose 3.)
  - a. Urinals
  - b. Sprinklers
  - c. Kitchen sinks
  - d. Laboratory sinks
  - e. Lavatory faucets

6. A landscaping company, in designing their new building in South Florida, is extremely aware of water issues. Their new headquarters will, thus, not only incorporate a creative xeriscaping plan to minimize the need for irrigation, but also use rainwater harvesting and graywater treated to secondary standards in a constructed wetland on the site to fulfill all remaining irrigation needs.

For which credits might the building be eligible? (Choose 1.)

- a. WE Credit 2, Innovative Wastewater Technologies
  - b. WE Credit 1, Water Efficient Landscaping
  - c. WE Credit 3, Water Use Reduction
  - d. WE Credit 1, Water Efficient Landscaping; WE Credit 2, Innovative Wastewater Technologies
7. What is the only standard referenced for the Water Efficiency category? (Choose 1.)
- a. Energy Performance Act of 1992 (EPAAct)
  - b. Energy Policy Act of 1992 (EPAAct)
  - c. America Rainwater Catchment Systems Association Standard
  - d. EPA ENERGY STAR Standard
8. Points are awarded in WE Credit 1.2, Water Efficient Landscaping: No Potable Water Use or No Irrigation, for which of the following? (Choose 1.)
- a. Drawings and a narrative documenting and describing a captured rain system; irrigation use reduced by 100%.
  - b. Cut sheets for high-efficiency irrigation equipment and calculations demonstrating potable water consumption by occupants
  - c. A design narrative of the landscape design and a description of why a permanent landscape irrigation system is not required
  - d. A water budget calculation demonstrating that occupancy-based potable water consumption has been reduced by 30%
9. The highest form of wastewater treatment, which removes of organics, solids, and nutrients in addition to providing biological or chemical polishing, is which of the following? (Choose 1.)
- a. Underground effluence treatment
  - b. Tertiary treatment
  - c. Biological treatment
  - d. Potable system filtering
10. What points might be available for a project that reduces its water use by 50% below the baseline case? (Choose 1.)
- a. WE Credit 3.1
  - b. WE Credit 3.2
  - c. WE Credit 3.1; WE Credit 3.2
  - d. WE Credit 3.1; WE Credit 3.2; ID Credit 1

11. Which Water Efficiency credits are eligible for Innovation in Design points for exemplary performance? (Choose 1.)
- WE Credit 2, Innovative Wastewater Technologies
  - WE Credit 3, Water Use Reduction
  - WE Credit 2, Innovative Wastewater Technologies; WE Credit 3, Water Use Reduction
  - WE Credit 1, Water Efficient Landscaping; WE Credit 2, Innovative Wastewater Technologies; WE Credit 3, Water Use Reduction
12. Which of the following are possible methods to attain WE Credit 1.2, Water Efficient Landscaping: No Potable Water Use or No Irrigation? (Choose 3.)
- Eliminate water use zones on the site
  - Xeriscaping of site vegetation to prevent necessity of irrigation
  - Use of drip irrigation systems with potable water
  - Use of captured rainwater for irrigation
  - Use of recycled graywater for irrigation
13. Which of the following is an example of a dry plumbing fixture that uses advanced hydraulic design and a buoyant fluid instead of water to maintain sanitary conditions? (Choose 1.)
- Composting toilet
  - Waterless urinal
  - Fixture sensor
  - Pneumatic flush toilet
14. Which of the following information is needed to complete calculations for WE Credit 2, Innovative Wastewater Technologies? (Choose 3.)
- Flowrate of sink fixtures
  - Number of full-time occupant-hours
  - Number of part-time occupant-hours
  - Flowrate of toilets and water closets
  - Flowrate of exterior irrigation systems
15. This type of water is wastewater from toilets and kitchen sinks that contains organic material. (Choose 1.)
- Graywater
  - Brownwater
  - Potable Water
  - Blackwater
16. Which of the following data and calculation information would be uploaded to LEED-Online for a project seeking WE Credit 1, Water Efficient Landscaping? (Choose 3.)
- The calculated baseline Total Water Applied
  - The calculated design case Total Water Applied
  - Total potable water supply available for irrigation purposes
  - Total non-potable water supply available for irrigation purposes

17. In order to attain WE Credit 2, Innovative Wastewater Technologies, which of the following requirements might be addressed? (Choose 2.)
- a. Treat 50% of wastewater to tertiary standards on-site
  - b. Treat 50% of wastewater to tertiary standards through a local utility
  - c. Reduce potable water use for building sewage conveyance by 35%
  - d. Reduce potable water use for building sewage conveyance by 50%
18. Which of the following methods might be applied to reduce a project's potable water use for WEc3, Water Use Reduction? (Choose 3.)
- a. Water efficient dishwaters
  - b. Efficient clothes washers
  - c. Installation of low-flow fixtures
  - d. Reuse of roof runoff
  - e. Installation of dry fixtures
19. In determining water usage by building occupants, applicable to fixtures, what is the standard ratio of male to female occupants? (Choose 1.)
- a. Two-to-one
  - b. One-to-two
  - c. One-to-one
  - d. One-to-three
20. All but which of the following are regional issues for a design team to be aware of in implementing a rainwater harvesting system? (Choose 1.)
- a. Native vegetation
  - b. Local precipitation levels throughout the year
  - c. Local health codes
  - d. Supply water quality

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**Answers**

1. 0; 3; 5
2. e
3. a
4. a, b, c, e
5. a, c, e
6. b
7. b
8. a
9. b
10. d
11. c
12. b, d, e
13. b
14. b, c, d
15. d
16. a, b, d
17. a, d
18. c, d, e
19. c
20. a