LEED v4 Building Design and Construction

**ANSWERS**

Quiz #5

WE

1. What resource is used to calculate a project’s landscape water requirement (LWR) for WE Prerequisite Outdoor Water Use Reduction?
2. ENERGY STAR
3. California 2011 Water Efficiency for Commercial Projects
4. EPA WaterSense Water Budget Data Finder
5. CEE Tier 3A
6. NPDES
7. For WE Prerequisite Outdoor Water Use Reduction what information is needed to calculate a project’s baseline landscape water requirement (LWR) to determine the site’s potential irrigation needs?  
   [Choose three]
8. Average monthly precipitation data
9. Zip Code where the project is located
10. Average monthly evapotranspiration rates (ETo)
11. Landscaped area (sq ft) of each plant type or feature
12. Average Relative Humidity (RH)
13. Average monthly temperatures
14. For outdoor water use what is the best strategy for selecting plant types and coverage to balance water use efficiency with the area’s intended function?
15. Using turf for groundcover
16. Using Native and adaptive plants
17. Using more trees than shrubs
18. Planting a food garden
19. Open-grid pavers for walkways and parking lots
20. The landscape water allowance for a project was calculated to be 43,980 gallons per month. What is the maximum total water the project could use for landscape irrigation and achieve the requirement for WE Prerequisite Outdoor Water use Reduction?
21. 35,184 gallons per month
22. 30,786 gallons per month
23. 21,990 gallons per month
24. 15,939 gallons per month
25. For WE Prerequisite Indoor Water use Reduction what is the baseline water consumption for water closets and urinals?
26. 1.28 gpf and 0.5 gpf
27. 0.8 gpf and 0.5 gpf
28. 1.6 gpf and 1.0 gpf
29. 1.6 gpf and 0.8 gpf
30. For WE Prerequisite Indoor Water use Reduction what is the baseline water consumption for public lavatory (restroom) faucets?
31. 1.0 gpm
32. 2.2 gpm
33. 0.5 gpm
34. 2.5 gpm
35. For WE Prerequisite Indoor Water use Reduction residential clothes washers and dishwashers must meet what standard?
36. WaterSense
37. CEE Tier 3A
38. ENERGY STAR
39. ASHRAE
40. For WE Prerequisite Indoor Water use Reduction LEED BD+C: Schools what kitchen equipment must comply with the standards? [Choose three]
41. Dishwasher
42. Food Steamer
43. Combination Oven
44. Food waste disposer
45. Which of these fixture types are not labeled by WaterSense? [Choose two]
46. Private lavatory faucet
47. Waterless urinal
48. Public lavatory faucet
49. Showerhead
50. Tank-type toilet
51. For WE Prerequisite Indoor Water Use Reduction Compliance Path 1 Prescriptive achievement what is the maximum installed flush rate for toilets and urinals?
52. 1.6 gpf and 1.0 gpf
53. 1.28 gpf and 0.5 gpf
54. 1.6 gpf and 0.8 gpf
55. 1.5 gpf and 0.4 gpf
56. A project following WE Prerequisite Indoor Water Use Reduction Compliance Path 2 Usage-Based Calculation what information is required for the indoor water use calculator? [Choose four]
57. Fixture types in the project
58. Project occupancy
59. Gender Ratio
60. Project location
61. Days of operation
62. A project has an annual baseline indoor volume potable water consumption of 213,525 gallons and an annual design case water consumption of 152,753 gallons. The project has designed a rainwater capture system to use to supplement the water used for toilet and urinal flushing that will reduce the annual design case water consumption an additional 38,690 gallons. What is the percentage indoor water-use reduction achieved for WE Prerequisite Indoor Water Use Reduction?
63. 47%
64. 20%
65. 28%
66. 72%
67. How must lavatory faucets be classified? [Choose two]
68. ENERGY STAR
69. WaterSense
70. Low Flow
71. Public
72. Private
73. What is the federal standard flow rate for a public lavatory faucet at 60 pounds per square inch?
74. 1.28 gpm
75. 1.0 gpm
76. 2.2 gpm
77. 0.5 gpm
78. What is the federal standard flow rate for a private lavatory faucet at 60 pounds per square inch?
79. 1.28 gpm
80. 1.0 gpm
81. 2.2 gpm
82. 0.5 gpm
83. A LEED BD+C: Core and Shell project has not installed any eligible plumbing fixtures, appliances, or process water equipment. Which of these applies to the project for WE Prerequisite Indoor Water Use Reduction?
84. Project team must estimate the design case indoor water use
85. Project is ineligible for LEED certification
86. Project must submit an alternative compliance narrative
87. Project automatically achieves the prerequisite
88. To comply with WE Prerequisite Building-Level Water Metering how often must the total potable water use of the building be measured and complied?
89. Daily
90. Monthly
91. Annually
92. Monthly and Annual Summaries
93. Every Five Years
94. A LEED BD+C: Retail project is designing the landscape irrigation to achieve WE Credit Outdoor Water Use Reduction. After meeting WE Prerequisite Outdoor Water Use Reduction what additional strategies could help them to achieve the credit? [Choose two]
95. Alternative water sources
96. Smart scheduling technologies
97. Native and Adaptive vegetation
98. Minimize turf areas
99. A project has installed irrigation controls whose smart-sensor technology meets the credit criteria. What additional percentage reduction can the project team take from the baseline for WE Credit Outdoor Water Use Reduction?
100. 15% of baseline LWR
101. 15% of design LWR
102. 5% of baseline LWR
103. 5% of design LWR
104. Which of these alternative water sources may contain salinity levels precluding use for irrigation?  
     [Choose two]
105. Steam system condensate
106. Fire pump test water
107. Ice machine condensate
108. Cooling tower condensate
109. Blowdown
110. The landscape water allowance for a project was calculated to be 43,980 gallons per month. The total LWR for the site’s design is 15,939 gallons. How many points does the project earn for WE Credit Outdoor Water use Reduction?
111. 0
112. 1 point
113. 2 points
114. 2 points - 1 for the credit and 1 exemplary performance point
115. A LEED BD+C: Data Centers project has further reduced fixture and fitting water use by 48% from the calculated baseline in WE Prerequisite Indoor Water Use Reduction. 12% of the water savings was accomplished using automatic sensors on lavatory faucets and 36% from a graywater system for toilet and urinal flushing. How many points does the project earn for WE Credit Indoor Water Use Reduction?
116. 1 point
117. 2 points
118. 3 points
119. 4 points
120. 5 points
121. 6 points
122. 7 – 6 points for the credit and 1 exemplary performance point
123. How can a LEED BD+C: Core and Shell project earn WE Credit Indoor Water Use Reduction for the efficiency of not-yet-installed future plumbing fixtures?
124. Legally binding tenant sales or lease agreement signed by the owner
125. Legally binding tenant sales or lease agreement signed by the owner and tenant
126. Legally binding tenant sales or lease agreement signed by the owner and tenant, stating maximum flush and flow rates and WaterSense label as required by the credit
127. Legally binding tenant sales or lease agreement signed by the owner and tenant, stating maximum flush and flow rates and WaterSense label as required by the credit and a fully executed lease agreement
128. What percentage reduction must LEED BD+C projects achieve in order to earn exemplary performance for WE Credit Indoor Water Use Reduction?
129. 45%
130. 50%
131. 55%
132. 60%
133. 100%
134. What is IgCC?
135. Rejected water from reverse osmosis systems
136. International Green Construction Code
137. Cooling tower blowdown water
138. Collected and Captured Rainwater
139. Which of these parameters must be tested for cooling towers and evaporative condensers for WE Credit Cooling Tower Water Use? [Choose two]
140. VOC
141. PPM
142. Ca
143. Total Alkalinity
144. CO
145. What is the maximum number of cooling tower cycles allowed to earn WE Credit Cooling Tower Water use?
146. 0
147. 5
148. 10
149. 20
150. What is the purpose of a cooling tower blowdown?
151. Prevent heat loss
152. Prevent buildup of deposits
153. Increase energy efficiency
154. Reduce potable water use
155. What is cooling tower scaling?
156. Chloride ions
157. Total Dissolved Solids (TDS)
158. Mineral-laden water
159. Size of the evaporator needed for cooling the building
160. Deposits that reduce the efficiency
161. Height of the cooling tower
162. Which of these alternative water sources have a lower mineral content making them more suitable for use in a cooling tower? [Choose two]
163. Runoff from roof gutters
164. Graywater from laundry
165. Air-conditioning condensate
166. Stormwater runoff from the ground
167. A LEED BD+C: New Construction project would like to earn WE Credit Water Metering. Which of these strategies could help the project to earn the credit? [Choose two]
168. 80% of the irrigated landscaped area has a permanent water meter for the irrigation water
169. 80% of the irrigated landscaped area has a permanent water meter for the irrigation water and a permanent water meter is installed to meter 50% of domestic hot water use.
170. 80% of the irrigated landscaped area has a permanent water meter for the irrigation water and a permanent water meter is installed to meter all reclaimed water.
171. 80% of the irrigated landscaped area has a permanent water meter for the irrigation water and a permanent water meter is installed to meter all cooling tower potable water use
172. Which of these are subsystems that use process water? [Choose two]
173. Irrigation
174. Domestic Hot Water
175. Swimming pools
176. Clothes washers