

Credit	Issue	Comments
Sustainable Sites Credit 7.2, Heat Island Effect: Roof	Option of installing a vegetated roof for at least 50 percent of roof area.	Vegetated roofs have more moisture and constant conditions than typical roofs, making the prevention of water intrusion and condensation problems difficult. Moisture migration and concentration between impermeable membranes is possible.
Energy & Atmosphere (EA) Prerequisite 1, Fundamental Commissioning of the Building Energy Systems, and EA Credit 3, Enhanced Commissioning	Enhanced commissioning addresses only the most forgiving climates.	<ul style="list-style-type: none"> <li>• Typical commissioning design review is not likely to predict the potential for moisture and mold problems.</li> <li>• Reviews normally do not incorporate an analysis of building-envelope performance.</li> </ul>
EA Prerequisite 2, Minimum Energy Performance, and EA Credit 1, Optimize Energy Performance	Increasing energy performance can reduce moisture control in buildings.	<ul style="list-style-type: none"> <li>• Increased thermal insulation changes wall-system performance (dew-point location), with possible condensation in wrong location.</li> <li>• Modifying HVAC control schemes alters equipment run times and impacts moisture control.</li> </ul>
EA Credit 5, Measurement & Verification	Sacrificing adequate relative-humidity control to reduce energy usage.	Energy management must be subservient to moisture control.
Materials & Resources (MR) Credit 1.1, Building Reuse: Maintain 75% of Existing Walls, Floors & Roof, and MR Credit 1.2, Building Reuse: Maintain 95% of Existing Walls, Floors & Roof	Reuse of building-envelope components.	<ul style="list-style-type: none"> <li>• The quality and performance of existing components, such as flashing, rainwater barriers, and air barriers, need to be investigated and possibly tested.</li> <li>• Model both new and re-used components to identify how each will contribute to good moisture control. This includes interaction with the HVAC system.</li> </ul>
MR Credit 1.3, Building Reuse: Maintain 50% of Interior Non-Structural Elements; MR Credit 2.1, Construction Waste Management: Divert 50% From Disposal; MR Credit 2.2, Construction Waste Management: Divert 75% From Disposal; MR Credit 3.1, Materials Reuse: 5%; and MR Credit 3.2, Materials Reuse: 10%	Inadvertent reuse of water-damaged and/or mold-contaminated materials presents increased risk. Handling mold-contaminated materials puts construction workers at risk.	<ul style="list-style-type: none"> <li>• Mold contamination often is not visible in/on the occupied side of materials and generally is not found in construction environments through air testing. Destructive testing and evaluation may be required.</li> <li>• Construction-waste-management plan may need to include section on handling moldy materials.</li> </ul>
MR Credit 6, Rapidly Renewable Materials	Use of rapidly renewable natural building materials and products without an understanding of their water-related properties (permeance, absorption, etc.).	Mixing synthetic and natural materials in a building envelope can increase potential for moisture condensation and entrapment.
Indoor Environmental Quality (EQ) Prerequisite 1, Minimum IAQ Performance; EQ Credit 1, Outdoor Air Delivery Monitoring; and EQ Credit 2, Increased Ventilation	In many parts of the United States, ventilation must be designed carefully to avoid moisture problems.	Ventilation air never should be increased without an overriding control of pressurization and dehumidification.
EQ Credit 3.1, Construction IAQ Management Plan: During Construction	Typical construction sequencing does not always allow credit objectives related to the protection of materials from water damage to be met.	Construction sequencing needs to be reviewed and material-protection measures understood and enforced.
EQ Credit 3.2, Construction IAQ Management Plan: Before Occupancy (and EQ Credit 3.1)	Pre-occupancy flushout.	In many areas, introducing air required for this credit can result in indoor moisture problems.
EQ Credit 5, Indoor Chemical & Pollutant Source Control	Requires significant exhaust rates for source control.	Local exhaust can result in local depressurization and introduction of humid outside air into a building envelope. It also can result in inadvertent pollutant movement within a building.
EQ Credit 6.2, Controllability of Systems: Thermal Comfort	Operable windows can allow untreated humid air or rainwater to enter a building.	If operable windows are installed, consider sensors and automatic overrides.
Innovation & Design Process Credit 1-1.4, Innovation in Design	The inherent risk of using new products with little or no in-field experience.	<ul style="list-style-type: none"> <li>• Somewhat unrealistic to expect a design and construction team to understand the performance characteristics and limitations of new products and the additional risks the products' use might carry.</li> <li>• Particular concern about the application of new products in the areas of a building with the highest moisture risk (i.e., the envelope and HVAC system).</li> </ul>

**TABLE 1. LEED-NC credits most likely to lead to moisture and mold problems.**