Vegetated Roofs are roofs that are covered with specialized media and planted with vegetation; this enables the roof to hydrologically perform in a manner similar to vegetated surfaces. The media holds water, which is eventually evapotranspired by the plants. They can be installed on flat and/or pitched roofs with a slope of \(<\leq 30\%\) in a variety of settings.

Vegetated roofs’ primary function in stormwater management is volume reduction. Additional stormwater benefits include water quality improvements and some peak rate control. Environmental benefits beyond stormwater control include building temperature moderation and wildlife habitat.

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<th>BMP Profile</th>
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- **Stormwater Management Benefits**
  - Volume Reduction
  - Water Quality Improvements
  - Peak Rate Control

- **Potential Applications**
  - Residential
  - Commercial
  - Ultra Urban
  - Industrial
  - Retrofit

**Key Considerations for Vegetated Roofs**
- Structural competency must be verified for both dead loads (when dry) and live loads (with rainfall retention)
- Require optimal waterproofing system to protect against biological and root damage
- Should not be fertilized or irrigated in order to achieve maximum benefits
- Performance is improved when coupled with ground infiltration measures
- Internal building drainage should be designed to manage large rainfall events without inundating the cover

This information was adapted from the Pennsylvania Stormwater Best Practices Manual. Check out SPC’s other fact sheets to learn more about specific BMPs, flooding, and more.