

Water Resource Product Testing and Performance Evaluation

CEC provides product testing and performance evaluation of water resource best management practices (BMPs), flood mitigation practices, and surface water treatment technologies using bench- and full-scale testing protocols.

CEC's research and development of proprietary stormwater BMPs and flood mitigation technologies facilitates product assessment, product enhancement, and both long- and short-term field performance testing. Implementation of bench-scale and full-scale testing in laboratory and field settings enables CEC to establish product-specific performance data.

CEC has extensive experience with construction and urban stormwater BMP design, application performance, and stormwater regulations, and can assess a product's strengths and identify potential modifications to broaden a product's applications. CEC has also served the manufacturing community as a Research and Development (R&D) team for product development. Testing services include:

PRODUCT PERFORMANCE ASSESSMENT

- Urban stormwater and construction BMP product performance testing
- Pre- versus post-BMP water quality assessments
- Green infrastructure product infiltration studies
- Development of empirically derived NRCS Curve Numbers (CNs) for pervious pavements and other surface features
- MS4 certification testing
- Long-term product performance analyses, including water quality treatment efficacy, structural integrity, and maintenance requirements
- Performance testing for Qualified Products List (QPL)
- Large-scale testing coordination at private and public facilities
- Identification of private and public entities to host field-scale test sites
- Development of non-standard testing protocols
- Assessment of BMPs as a system
- Technical peer review and validation of test results from other test facilities
- Flood control performance and stability analyses
- Coordination of particle and geosynthesics testing and interpretation of results

PRODUCT DEVELOPMENT AND SPECIFICATIONS

- R&D for water quality treatment technologies
- Assistance in generating new product ideas and assimilating product focus group data
- Product enhancements relative to fabrication, assembly techniques, installation, and maintenance
- Market assessment and application studies
- Development of specifications and technical drawings
- Development of product technical calculations, design procedures, and models
- Assistance with applications/liason requirements to obtain agency approvals for product use (including application packages for QPL approvals)
- Identification of low-impact, green infrastructure practices and applications
- Ecology applications, including stream mitigation, wetland restoration, and bank stabilization implementation
- Research regarding vegetation establishment practices for stabilization

