

# Green Infrastructure

**CEC helps dozens of municipalities and cities nationwide deal with the challenges presented by stormwater runoff and combined sewer overflows.**

CEC's staff includes professionals with the Water Environment Federation's National Green Infrastructure Certification and who meet international best practice standards for the construction, inspection, and maintenance of green infrastructure. Using a toolbox that includes many green infrastructure solutions, such as bioretention, subsurface infiltration, green roofs, permeable pavement, and rainwater harvesting, CEC tailors solutions to fit each unique site's goals and opportunities.

Green infrastructure is often used to capture a storm's "first flush." This refers to an initial depth of rainfall that often picks up high concentrations of pollutants and sediment as it washes over impervious surfaces like roads, sidewalks, and parking lots. With green infrastructure stormwater control measures (SCMs), runoff is sent through natural treatment processes, significantly easing the strain on a sewer system or on a facility's treatment process while improving the quality of water entering a receiving stream, river, or waterbody. Green infrastructure has the capacity to reduce peak flows, decrease downstream flood risk, promote groundwater recharge, and improve site aesthetics.

## CEC'S HOLISTIC APPROACH

CEC's team is skilled at integrating regulatory compliance, stakeholder interest, and public engagement in each project. We consider both structural and non-structural solutions as part of a holistic approach to stormwater management. Where appropriate for the site, CEC promotes an ecological approach that provides multiple ecosystem and community benefits through restoration with native plant species. In other areas, green infrastructure may involve a combination of planted and engineered surfaces to fulfill project goals.

## GREEN INFRASTRUCTURE-RELATED SERVICES

### Site Planning and Permitting

- Stormwater Master Planning
- Sustainability Planning/Design
- Grant Application Preparation
- Regulatory Permitting

### Construction-Related Services

- Design/Build
- Construction Management and Quality Assurance
- Construction Specifications and Bid Packages

### Landscape and Engineering Design

- Stormwater Control Measure Design
- Hydrologic and Hydraulic Modeling
- Site Infrastructure Design, Maintenance, and Retrofitting
- Landscape Design and Planting Plans

### Performance Monitoring

- Rainfall Monitoring
- Water Retention and Infiltration Rate Monitoring
- Remote Sensing
- Biological Monitoring