



Founded in 1992, Bioengineering Group has been a pioneer in the field of ecological restoration and the application of sustainability principles to site planning, development, and stormwater management. We provide a full range of scientific, engineering, landscape planning and design, and construction management services.

Distinguished by our interdisciplinary staff of ecologists, earth scientists, engineers, and landscape design professionals, Bioengineering Group is uniquely positioned to guide large-scale site planning, development, and ecosystem restoration projects toward sustainable outcomes. As a WBE/DBE, Bioengineering Group has worked with many municipalities, states, and government agencies to provide innovative site engineering and landscape architectural design; parks and greenways planning and design; stormwater management assessment and design; stream and shoreline restoration; as well as plan review, environmental permitting and remediation, and ordinance development.

We are highly skilled at integrating environmental and cultural objectives on a range of scales and project types. Our work ranges from the creation of urban stormwater wetlands for water quality improvement and habitat restoration to a regional-scale plan integrating commercial transportation corridors, recreational pathways, public open space, and ecological restoration of wetlands and salt marshes.

Today, communities and regulatory authorities are placing increased emphasis on sustainability and land use impacts and the need for regionally appropriate solutions that meet watershed management objectives. Bioengineering Group has been employing green principles, bioengineering design, and low-maintenance solutions since 1992 to provide site development outcomes that are cost-effective, compliant with applicable regulations, and protect or restore the environment and water quality. Sustainable solutions do not have to cost more; in fact, sustainable approaches can generate revenue. We know; we've been doing it since 1992. We incorporate state-of-the-art methods, Low-Impact Design and Best Management Practices such as green roofs, porous pavements, bioengineered detention facilities, and constructed wetlands into our design work. We find this facilitates stakeholder approval and permitting in addition to providing cost-effective long-term operations.

Using a three-phase, interdisciplinary approach, Bioengineering Group integrates ecology, earth science, engineering, and design in all projects.

1. **Ecology Phase** - establishes clear goals and objectives by identifying the ecological constraints and opportunities for every project.
2. **Earth Science Phase** - integrates stable landforms, healthy soils, and balanced hydrology by using applied earth science to develop conceptual design.
3. **Engineering / Design Phase** - ensures excellence in design and execution through sound engineering and landscape architectural practice, emphasizing green solutions.

For some projects, the first step is a **feasibility study** to characterize and document problems, identify restoration and treatment options, and estimate costs. Team members from each branch are involved in the site assessment and design processes. This phase of work typically includes concept-level designs and renderings to encourage buy-in from the various stakeholders.

Bioengineering Group offers full service **planning and design services**, including construction drawings, written specifications, cost estimates, bid documents, and permit/license applications. With capabilities to produce drawings in both AutoCAD and Microstation formats, cost estimates and specifications, we are able to provide seamless work products to municipal, state, and private clients.

Without adequate **construction management**, even the best design will fail if improperly installed, resulting in frustration, unnecessary expense, and potentially causing the very kind of ecological damage the project was designed to solve. Implementation support ranges from periodic monitoring of the installation process to full turn-key contracts in collaboration with experienced site work contractors.