

Gary S. Crouch, PE **Vice President of Engineering**

Mr. Crouch supervises a variety of civil and environmental engineering projects. His work has included the planning, design, and construction administration of conventional and innovative wastewater treatment facilities, water treatment and storage facilities, commercial development, landfills, and mined land reclamation.

Since Mr. Crouch's early years as an engineer, he has been concerned with the environment and how to incorporate engineering into sensitive environmental conditions. Although he has experience in all aspects of civil engineering, it is the environmental side which inspires him. He is experienced with conventional wastewater treatment technology, but his concern for water quality has also led to innovative approaches to treating wastewater and has brought much attention to the firm.

One of his most innovative systems was designed for the Craig-New Castle Public Service Authority. This small community was faced with an unaffordable cost of providing and operating a conventional wastewater treatment plant. The final design used fish in the treatment process and used only 16% of the energy of conventional treatment alternatives.

A second system was designed to serve the low income residents of the Henderson Store Community, in Nelson County, to alleviate this area's wastewater disposal problems. The system includes a constructed wetland where plants remove the nutrients from the wastewater prior to chlorination and discharge into a nearby stream. The system is simple to operate and has minimal maintenance costs which greatly benefits this rural community.

A third system is at Mountain Lake Resort, in Giles County, located adjacent to one of the two natural lakes in Virginia, high on a mountain top and in the heart of the Mountain Lake Wilderness Area. The resort needed a new wastewater treatment system but wanted to preserve the ecological balance of the wilderness area at the same time. With Mr. Crouch's guidance, A&A developed a system that treats the wastewater, stores it, and then releases it into the soil in a remote part of the forest. The soil then acts as a living filter to clean the water and return it to the wilderness area.

Mr. Crouch's other experience includes: wastewater treatment facilities, water distribution systems, water treatment and storage facilities, commercial development, landfills, and mined land reclamation. He has experience in performing environmental assessments for water and wastewater projects, site development, coal mine reclamation projects, and stone quarry operations. He has also performed wetland impact assessments and designed mitigation measures. He also provided services to Virginia Division of Fisheries and emergency damage control and cleanup for ARCO Oil Company.



Environmental Expertise

**B.S.
Civil Engineering,
Virginia Tech, 1974**

*“concerned with
the
environment
and how to
incorporate
engineering into
sensitive
environmental
conditions”*

**Active
Registration**
**1978- Professional
Engineer, VA,
#10288**
**1991- Professional
Engineer, NC**
**1996- Professional
Engineer, WVA**
**1996- Professional
Engineer, TN**

