



**Don Alexander, PE**  
**Senior Civil Engineer**  
**(1997-Present)**

M.S., Water Resources Engineering,  
University of Colorado - Boulder - 2003

B.S., Civil Engineering, University of South  
Carolina - 1998

B.S., Applied Mathematics, Hampden-Sydney  
College - 1996

**Engineering Modeling:**

- SWMM
- IDEAL
- SEDIMOT/SEDPro
- AutoCAD
- HEC-HMS
- HEC-RAS
- HEC-2
- HydroCAD
- GIS (ESRI products)
- Visual Basic
- Microsoft Project



Don Alexander is a Senior Civil Engineer at Dennis Corporation. He has held roles as a project manager, project engineer and responsible civil engineer with more than 17 years of experience in the civil and water resources engineering field. Mr. Alexander also has extensive experience and subject matter expertise in water resource projects and asset management. Projects involved in or managed include: nuclear engineering, large construction engineering, flood protection, NPDES stormwater permit compliance, water quality/LID/BMP modeling and design, hydrologic and hydraulic analysis, watershed planning, water quality monitoring, construction management, software development and implementation, economic and optimization analysis, procurement, and data analysis.

Mr. Alexander's experience with Dennis Corporation includes:

**Springdale Traffic Study:** Mr. Alexander is lead project manager for the Springdale Traffic Study project. This includes collection of necessary traffic volume data covering peak traffic hours, evaluation of intersections with 20 year future traffic count volumes and turning movements, evaluation of land use, safety assessments of roads and intersections, recommendations for traffic control measures, and cost estimating for future traffic implementation control measures.

**Civil Engineering Design:** Mr. Alexander is serving as Senior Civil Engineer on the Richland County Dirt Roads project that is currently ongoing. Over 150 dirt roads are being engineered and designed to be paved in Richland County. This work includes survey, geotechnical review, stormwater analysis, design, and engineering services.

Mr. Alexander's other relative experience includes:

**Oconee Nuclear Station External Flood Protection Project:** Served as Responsible Civil Engineer on this 3-year flood protection project at the Oconee Nuclear Station with responsibilities of development, review, and finalizing all documents needed for construction, including construction drawings and numerous geotechnical and hydraulic/hydrologic calculations and specifications. Responsible engineer for many design change documents (E&DCRs), N&Ds, and RFIs. Performed procurement activities and cost analysis for portions of the project.

**NPDES Stormwater Management:** Served as project manager and engineer for multiple municipal, county, and federal clients, providing NPDES services related to watershed and water resource management. Clients include the City of Charleston, Greenville County, USACE Jacksonville District, Charleston County, SC Department of Transportation, Lexington County, US Army Garrison at Fort Jackson, Town of Mt Pleasant, City of Raleigh, City of Rock Hill, and City of Fairfax, VA. Services included various inventory projects (outfalls, control facilities, utilities, sanitary sewer evaluations, industrial pollution prevention),

monitoring for TMDL compliance, ordinance and design manual development, training related to plan review, site inspection, and enforcement, and software development for internal tracking of local government projects (e.g., public works asset management and private construction projects).

**General Civil Engineering Design:** Served as project manager and engineer for small and large water resource planning and infrastructure projects that include conveyance upgrades/extensions, watershed system modeling, floodplain management, and construction administration. Engineering aspects included the design (and associated modeling) of roads, water, sewer, and stormwater systems, grading, construction document development, bidding, and specification writing. Work was performed for private and government (local and federal) clients. Most recent projects involved stormwater best management practices (BMP) retrofits for TMDL compliance and drainage system upgrades for flood reduction (City of Norfolk, VA, City of Chesapeake, VA, City of Virginia Beach, VA).

#### Water Resource Software Development:

**StormOps:** Served as Product Manager for the development of two software products, IDEAL and SEDPro, which are water quality models for evaluating stormwater BMPs. Developed and implemented efforts to manage these software products from startup to present, including testing, training, ecommerce webpage implementation, marketing materials, and sales. Also actively involved in algorithm development, including a bacteria loading routine and BMP validation efforts for bioswales, bioretention cells, and engineering devices.

**Permit Tracking and Asset Management:** Served as designer and manager of multiple projects to assist government clients in tracking NPDES related activities, including construction projects, management of assets (utilities, roads, etc), workflow, and work order requests.

**RIVERWARE:** A part of graduate studies, worked on the CADWES team to develop water resource algorithms for the USBR and USACE, including the conversion of the USACE's SUPER model into the RIVERWARE framework. Work included programming, training, and documentation.

#### Research:

**Comparison of Conventional vs. Low-Impact Development Wet-Weather Designs—University of Colorado:** Modeled and compared a conventionally designed land development project with a Low-Impact Development (LID) approach. Purpose of study was to evaluate if LID can continue to provide equivalent control of storm events as conventional systems, while improving water quality, at a comparable cost. In addition, developed and optimization model for extended detention facilities using a continuous simulation to determine the optimal design parameters (geometry), life-cycle costs (construction and O & M), and pollutant and volume capture efficiency.