

STEPHEN G. WILLIAMS M.S., GISP

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SUMMARY

Senior Environmental Scientist with over 18 years of professional experience in the fields of Environmental Science, Regulatory Compliance, Computer Networking, and Geographic Information Systems (GIS). Recognized by the federal court system as an expert witness in the fields of Environmental Science, Hydrology and Hydraulics, Computer Modeling, and Spatial Data analysis.

EXPERIENCE

THE EARTHWORKS GROUP – *Senior Environmental Scientist & Project Manager*

02/2002 to Present

The Earthworks Group's primary Environmental Scientist for more than a decade, responsible for training, project managing, and development of numerous staff.

CAREER HIGHLIGHTS

- Project manager for a 35,000 acre 200 million dollar landmark legal case involving flooding along the lower Santee River. Assessed wetlands and hydrology reintroduced by the St. Stephens Rediversion Project. Developed a forensic geomorphologic methodology to map wetland recession using 27,000 GPS points, remotely sensed data, and LiDAR using a Maximum Likelihood Classified spectral analysis
- Responsible for the design, development, and implementation of the 462.87 acres Congaree-Carton Mitigation Bank in Charleston County SC providing compensatory mitigation through hydrologic and vegetative enhancement and restoration
- Murrells Inlet Watershed Management Plan Project Manager and Steering Committee member, investigating and developing solutions for fecal coliform impairments. Coordinated over a yearlong iterative process between the stakeholders as part of a Section 319 grant to provide a detailed analysis of historical water quality and other environmental stressors to identify sources and develop solutions
- Project manager for environmental impact assessments of the Turkey Creek watershed in Gulfport MS, associated with proposed development plans. The development was occurring in an environmentally damaging fashion and not being properly regulated. The resulting reports became the cornerstone for the community's legal defense
- Primary Environmental Professional conducting over fifty ASTM E1527 Phase I Site Assessments throughout South Carolina with respect to the range of contaminants within the scope of CERCLA (42 U.S.C. 9601) and petroleum products allowing numerous financial institutions and private development clients to claim innocent landowner protections
- Project manager for an Environmental Impact Statement (EIS) for the Calabash Marina in North Carolina as required by NC Division of Coastal Management to satisfy concerns over potential environmental issues and areas of controversy related to physical, hydrological, historical, environmental, and biological issues
- Project manager for 42 sq. mi watershed remodel to obtain a FEMA Letter of Map Revisions (LOMR). Compiled Baseline using GIS to delineate 20 sub-basins using DTM data and developing engineering properties. The study was successfully completed within a year and a half and is featured on www.streamnologies.com

CORE COMPETENCIES

Environmental Science

Scientific & technical writing • Environmental Site Assessments • NEPA • Hydrologic Modeling using: HEC-RAS, HEC-HMS, HEC2, TR-55, Water quality assessment using: STEPL, IDEAL • Environmental Permitting: NWP, Docks, Wetlands • FEMA services (e.g. LOMA, LOMR-F) • Environmental Impact Statements • Wetland Mitigation Banking • Sampling & Analysis • Environmental Audits • Statistical analysis

Geographic Information Systems

ESRI ArcGIS • Geodatabase development & maintenance • Spectral image processing & rectification • Cadastral data creation & maintenance • Stormwater mapping & data collection • Mobile GIS/GPS systems • LiDAR & DTM processing, analysis, & management • Watershed delineation • ArcIMS data extrapolation & integration • AutoCAD Civil 3D drafting & data migration • Mobile GIS training

Marketing & Business Development

Request for Proposals/Qualification (RFP/RFQ) preparation • Contract preparations • Environmental outreach groups (e.g. Coastal Training Program) • Create and deliver presentations for outreach groups, engineers, & scientists • Prepared renderings using Adobe Photoshop coupled with CAD & GIS data • website development & maintenance • Develop Statement of Qualifications

THE EARTHWORKS GROUP – *Network & Systems Administrator*

02/2002 to Present

The Earthworks Group's primary Network & IT Administrator for over a decade managing support staff and ensuring problem free daily operations.

CORE COMPETENCIES

Server & Network Administration

Server experience: WinNT, Server 2000, Server 2003, & Server 2008 R2 • Daily log auditing • Storage consistency, protection, & backup operations • SQL database administration • Active Directory • System network audits & traffic monitoring • Network schema for multiple firm offices • CCTV & ProTech alarm system administration • Budgeting • Asset depreciation auditing • Purchasing

Enterprise Software Implementation and Company Initiatives

MS Project Server, Exchange Server, & SQL Server • AutoDesk Vault • BillQuick 2005-2014 • QuickBooks SQL • Symantec Antivirus Corporate • Paperless (PDF) office Implementation and digital project filing system • Migrated MS Exchange to Google Apps for Business

Hardware Implementation and Maintenance

Reconfiguring laptops, workstations, & servers for maintenance • Hardware upgrades • Ironport anti-spam installation & configuration • Nortel Phone Systems • Manage networked wide-format plotters, scanners, & multi-function • Setup & Manage wide-format plotters & small-format printers

DDC ENGINEERS, INC. – Environmental Scientist & GIS Analyst

07/2000 to 01/2002

The primary Environmental Scientist and GIS Analyst involved in numerous site assessments and mapping projects. The following sections highlight duties performed:

Scientific & technical reporting • Environmental Permitting • Hydrologic Modeling using WMS, EPA BASINS, & HSPF • Wetland Mitigation Banking • Sampling & Analysis • Environmental site assessments • Environmental auditing • GPS and Survey data collection & processing • Spatial data analysis utilizing ESRI ArcView • Database development • Statistical analysis • Spectral imaging & rectification • Parcel mapping • Stormwater mapping & data collection • watershed delineation • AutoCAD Land Development Desktop drafting & GIS data migration

RADFORD UNIVERSITY – Graduate Teaching Fellow

08/1998 to 05/2000

Provided instruction for the laboratory component of Geology Department courses. Prepared and administered coursework and testing. Taught the lecture component of courses during professor absences. Courses included: Introductory Geology • Historical Geology • Environmental Geology • Petrology (Lab Assistant) • Computer Applications in Geology (Lab Assistant)

EDUCATION

RADFORD UNIVERSITY, Radford Virginia

Master of Science, Environmental & Engineering Geoscience, 2000, *Magna cum laude*

RADFORD UNIVERSITY, Radford Virginia

Bachelor of Science, Geology, 1998, *cum laude (major)*

ASSOCIATIONS & COMMITTEES

Murrells Inlet 2020 Member of the Board of Directors, Chair of the Program Committee

2014 to Present

Murrells Inlet Watershed Based Plan, Steering Committee

2012 to Present

Horry Georgetown GIS Users Group Member

2001 to Present

Grand Strand Scene Young Professionals Group

2008 to 2013

Horry Georgetown GIS Users Group Recording Officer

2001 to 2012

Association of Engineering Geologists

1997 to 2000

Sigma Gamma Epsilon – Honors Fraternity

1997 to 2000

CERTIFICATIONS

REGISTERED LAND SURVEYOR (GEOGRAPHIC INFORMATION SYSTEM SPECIALTY)

South Carolina LLR · License: 24316

GEOGRAPHIC INFORMATION SYSTEM PROFESSIONAL (GISP) 02 / 2009 to 02 / 2019

GISCI · License: 00061608

CERTIFIED EROSION PREVENTION & SEDIMENT CONTROL INSPECTOR (CEPSCI) 06 / 2016 to 06 / 2021

CEPSCI · License: 11702

HONORS & AWARDS

General Engineering Developing a Curriculum (DACUM) Panelist - Horry Georgetown Technical College

03/2012

National Map/Plat Competition (2nd Place Miscellaneous Maps) - ACSM/NSPS

02/2007

Outstanding Graduate Student Award - Radford University

05/2000

Best Research Thesis Award - Radford University

05/2001

PUBLICATIONS

Williams, S., Newquist, D., Libes, S., & Strickland, S. (2014). Watershed Management Planning for the Murrells Inlet Estuary using GIS: Delineation, Assessment, Identification, and Solutions for Fecal Coliform Loading. *Clemson University Restoration Institute: Center for Watershed Excellence*. <https://ensemble.clemson.edu/Watch/5nQ1o4o-VkOMIR7-HmlVMw> (Presentation: 30 minute mark)

Williams, S., Strickland, S., & Bell, E. (2012). Historic Wetland Signature Determination Using ESRI ArcGIS to Correlate Spectral Signature to LiDAR in Relation to Hydrologic Change Within the Lower Santee River Watershed to Support Federal Litigation Involving Riverine Flooding.

Clemson University Restoration Institute: Center for Watershed Excellence.

<http://media.clemson.edu/public/restoration/scwrc/2012/proceedings/track1/s4/WilliamsS-2012SCWRCpaper.pdf>

Williams, S., & Strickland, S. (2010). Beyond Pipe and Pond - Local Case Study: Moss Park Constructed Wetlands. *North Inlet–Winyah Bay National Estuarine Research Reserve*. <http://www.northinlet.sc.edu/training/media/2010/080510BeyondPipePond/08-05-10%20EARTHWORKS%20Moss%20Park%20Wetlands.pdf>

Williams, S., & Strickland, S. (2009). Town of Surfside Beach: Issues, Solutions, & Strategies for Stormwater Management. *North Inlet–Winyah Bay National Estuarine Research Reserve*. <http://www.northinlet.sc.edu/training/media/2009/02-24-09%20Surfside%20Beach/02-24-09%20Strickland%20Surfside%20Stormwater%20Eng.pdf>

Williams, S., & Strickland, S. (2008). Innovative Development Approaches for Wetland Protection Working Within the Regulatory Framework. *North Inlet–Winyah Bay National Estuarine Research Reserve*. <http://www.northinlet.sc.edu/training/media/2008/07-17-08%20Wetlands/07-17-08%20Strickland%20Innovative%20Development%20Approaches.pdf>