



Fitzgerald Environmental Associates, LLC.

Applied Watershed Science & Ecology

Evan P. Fitzgerald

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EDUCATION:

M.S. Aquatic Ecology and Watershed Science, May 2007, University of Vermont, Burlington, VT
Thesis Title: *Linking Urbanization to Stream Geomorphology and Biotic Integrity in the Lake Champlain Basin, Vermont*

Graduate Certificate of Ecological Economics, May 2007, Gund Institute, Burlington, VT
B.S. Environmental Science, 1998, University of New Hampshire, Durham, NH

PROFESSIONAL CERTIFICATIONS:

Certified Professional in Erosion and Sediment Control (# 5051)

PROFESSIONAL EXPERIENCE:

2006 to present, *Principal Watershed Scientist*, Fitzgerald Environmental Associates, LLC. Colchester, VT

Founder of environmental consulting firm specializing in applied fluvial geomorphology, watershed analysis, ecological restoration planning, and applied geospatial sciences. Responsible for managing multi-disciplinary projects ranging from the site-scale to watershed-scale involving extensive field data collection and geodatabase management. Specific areas of expertise and services include fluvial geomorphic assessments and restoration designs, littoral habitat and shoreline stability assessments, hydrologic/hydraulic modeling, stormwater and erosion control permitting, GIS/GPS, remote sensing, wetland delineation/permitting, and expert witness services.

2005 to 2007, *Graduate Research Assistant*, Rubenstein School of Environment and Natural Resources, University of Vermont (UVM), Burlington, VT

Responsible for oversight of data collection and research associated with joint UVM-VTANR study to determine the effects of stormwater runoff on stream geomorphic stability and biotic integrity in the Lake Champlain Basin. Data collection effort included assessment of 9 stormwater-impaired watersheds and 5 attainment watersheds in Chittenden County during spring and summer 2005 using VTANR's Phase 1 and 2 Stream Geomorphic Assessment Protocols. Research using the dataset provided guidance to ANR for implementation of Total Maximum Daily Loads (TMDL) in impaired watersheds.

2002 to 2004, *Peace Corps Volunteer*, U.S. Peace Corps, Rio Limpio, Dominican Republic

Worked in the Dominican Republic's first formal organic agriculture school and training center (founded in 1982), CREAR, located in the mountainous border region. Projects included teaching agricultural science courses; facilitating educational and institutional strengthening workshops; building the center's website; grant writing and project implementation including a project for cross-border training in sustainable agriculture methods for Haitian Nationals; and planning and designing agricultural plots on the center's experimental farm. Also initiated a project that introduced 65 Bio-sand water filters within the community of Rio Limpio to improve water sanitation and health conditions.

1999 to 2002; 2004, *Hydrogeologist*, Pioneer Environmental Associates, LLC. Vergennes, VT

Responsible for field work, data analysis, computer modeling, and report writing associated with studies in watershed management and GIS analysis throughout New England. Areas of focus included stormwater runoff modeling; stormwater treatment system evaluation and design; water surface elevation and flood prediction analysis for channels and bridges; streamflow withdrawal monitoring for snowmaking and bottled-water supply; and stream sampling for indirect wastewater discharge systems. Responsible for initiation and management of the company GIS program and databases. Assisted in public community water supply studies to determine yield and water quality of aquifer wells.

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LANGUAGES:

Fluent Spanish – ETS/ACTFL Superior Rating (August, 2004)

PROFESSIONAL AFFILIATIONS:

Member American Water Resources Association (AWRA); Former President, Local UVM-AWRA Chapter
Member North American Benthological Society
International Erosion Control Association

ADDITIONAL ADVANCED STUDY:

US ARMY CORPS WETLAND DELINEATION REGIONAL SUPPLEMENT TRAINING

September, 2010; Syracuse, NY

SOIL AND WATER ASSESSMENT TOOL (SWAT) TRAINING

November, 2006; Baltimore, MD

VTANR STREAM GEOMORPHIC ASSESSMENT PHASE 2 TRAINING

May 2005; Rochester, VT

ARC VIEW 3.2 GIS SOFTWARE COURSEWORK

Spring 2001; Green Mountain Geographics, Middlebury, VT

SELECTED PUBLICATIONS AND PRESENTED PAPERS:

Fitzgerald, E.P., Bowden, W.B., Kline, M.J. and Parker, S.P. (accepted). Urban impacts on streams are scale-dependent with non-linear influences on their physical and biotic recovery in Vermont, U.S.A. *Journal of the American Water Resources Association*

Taylor, S.L., Whitney, D.H., McIntosh, A., Fitzgerald, E.P., and Kominami, H. (2009). Balancing Ecosystem Services on a Grass-Based Dairy at Shelburne Farms, Vermont, In *Proceedings of American Ecological Engineering Society Annual Meeting*, Corvallis, OR

Whitney, D.H. and Fitzgerald, E.P. (2008). An Advanced Application of a Gravel Wetland for Stormwater Treatment in South Burlington, Vermont, In *Proceedings of American Ecological Engineering Society Annual Meeting*, Blacksburg, VA

Whitney, D.H., Liner, M.O., Fitzgerald, E.P. (2007). Application of Engineered Wetlands in Stormwater Management. *Stormwater*, 9(1)

Fitzgerald, E.P., McBride, M., Clark, J.S., Hannon, J., Pearce, A., Mouser, P. & Newcomb, D. (2006). Stormwater Treatment on a Shoestring Budget: An AWRA Student Chapter's Experience. In *Proceedings of the 2006 Meeting of the American Water Resources Association*. Baltimore, MD

Fitzgerald, E.P., Bowden W.B. & Foley, J.. (2006). Linking Urban Land Use to Stream Geomorphology and Biotic Integrity in the Lake Champlain Basin. In *Proceedings of the 2006 Meeting of the North American Benthological Society*. Anchorage, AK

Fitzgerald, E.P., & Bowden, W.B. (2006). Quantifying Increases in Stream Power and Energy Using Flow Duration Curves for Potash Brook, South Burlington, VT. *Stormwater*, 7(2): 88-94

Fitzgerald, E.P., & Bowden, W.B. (2005). RAN55 -Stormwater BMP Evaluator Tool (Version 1.3). Published on UVM's Redesigning the American Neighborhood website at: <http://www.uvm.edu/~ran/ran/researchers/ran55.php>

AWARDS:

2007 Rubenstein School of Environment and Natural Resources Graduate Student Award for Outstanding Research and Scholarship

2006 North American Benthological Society Student Award for Best Poster Presentation in Applied Research during the Annual Meeting in Anchorage, AK