# Raymond de Léon

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**OBJECTIVE**

To apply my environmental planning, science, and GIS experiences to enhance and manage water resources

**EDUCATION**

**Virginia Polytechnic Institute and State University (Virginia Tech)**
Blacksburg, VA

M.S., Urban and Regional Planning, May 2002

B.S., Environmental Science, May 2000
B.S., Biology, May 2000
Minor: Chemistry

**RESEARCH INTEREST**

- Application of geospatial technologies in water resources monitoring and restoration
- Integrating service-learning programs in watershed management applications

**RELATED COURSES**

- Urban Development Studio
- Urban Economy and Public Policy
- Urban Growth Management
- GIS Application in Planning
- Quantitative Tech in Planning
- Land Use Law
- Natural Resource Planning

**COMPUTER SKILLS**

| | | |
|---|---|---|
| ArcView 3.2 | ArcInfo 7-8.1 | ArcIMS |
| IDRISI | ERDAS | PDA/GPS |
| MS Access | HTML | AutoCAD Land Development |

**WORK EXPERIENCES**

**Graduate Assistant**, August 2000 – Present
Virginia Water Resources Research Center, Virginia Tech

- Developed a protocol to assess problem conditions along a stream corridor
- Coordinated the Stroubles Creek Corridor Assessment survey
- Supervise 14 undergraduate students and 20 volunteers
- Integrated geospatial technologies (GPS, PDA and GIS) in stream survey
- Created a web-based database management system
- Initiated the development of an ArcIMS project for the Stroubles Creek watershed
- Worked directly with resource managers, planners, and landowners
- Conduct workshops and presentations on stream corridor assessment

**Research Assistant,** January – August 2000
Virginia Water Resources Research Center, Virginia Tech

- Developed a GIS project to investigate the effect of changing land use applications on the quality and diversity of benthic organisms
- Analyzed stream riparian land use applications through remote sense imagery
- Validated monitoring stations using GPS

- Shared results with local governments, non-profit organizations, and faculties of Virginia Tech to enhance the understanding of urban environment on benthic organisms
- Developed digital maps for publications

**GIS Technician,** January – May 2000
Department of Biology, Virginia Tech

- Supported principal investigators on the Long-Term Ecological Research (LTER) program
- Performed spatial analysis using remote sensing and GIS technologies to determine spatial and temporal changes of landscape with models of stream ecosystems
- Contributed to the design and development of a database management system for the LTER

**Research Assistant,** May – October 1999
Department of Environmental Science, Virginia Tech

- Contributed to the analysis and interpretation of Virginia water quality data to enhance Clean Water Act implementation
- Assessed Discharge Monitoring Record data from regional Department of Environmental Quality offices
- Developed digital maps for analysis, presentation, and interpretation of water quality trends
- Created a GIS database framework for water quality data

**PUBLICATIONS**

- R. de Leon and T. Younos. May 2001. *Integrating Student Service-Learning and University Knowledge into Watershed Management Programs: The Stroubles Creek Watershed Case Study*. Proceedings of the 7th National Watershed Conference, "Small Watershed Program; Past, Present and the Future." Richmond Virginia, 93:101.
- T. Younos T. Younos, F.W. Kaurish, T. Brown, and R. de Leon. April 2001. *Determining the Source of Stream Contamination in a Karst-Water System, Southwest Virginia, USA*. Journal of the American Water Resources Association. Vol. 37, No. 2.
- Virginia Tech Environmental Planning Studio. 2001. *Check Your Success: A guide*
- *to developing indicators for community based environmental projects.* Prepared for the Department of Urban Affairs and Planning, Virginia Tech, in collaboration with the US Environmental Protection Agency. http://www.uap.vt.edu/checkyoursuccess/

**ACKNOWLEDGED WORK**

- C.E. Zipper, G.I. Holtzman, J.J. Gildea, P. Thomas, M. Schneider, P. Darken, R.F. de Leon, and A. Moore. 2000. *Analysis and Interpretation of Water-Quality Data to Enhance Clean Water Act Implementation.* Prepared for U.S. EPA and Virginia Department of Environmental Quality.
- Younos, T., Rosenzweig, M.S., and Walker, J.L., 2000. *Stream Health: Related Stream Biota to Stream Water Quality*. NWQM Conference, Proceedings.
- Friends of the Rappahannock, 1999. *Growing Greener in Your Rappahannock River Watershed.* Prepared for U.S. EPA Region III. Online: www.crrl.org/for/current.htm.

**AWARDS**

- The Cabell Brand Center for International Poverty and Resource Studies Fellowship, funded for project entitled, " Investigation of Land Use Impacts on Benthic Diversity and Quality along the Stroubles Creek Watershed," spring 2000.

- The Cabell Brand Center for International Poverty and Resources Studies Fellowship, funded for project entitled, " Stroubles Creek Watershed Initiative – Database Management and Web Interface Development," summer 2001.

**Extra Curriculum Activities**

- Treasurer for the American Water Resources Association, Virginia Tech Chapter, 2001-2002
- Mentor for the Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS), 1998 –2001
- Member of the Virginia Tech Men's Track and Field Team, 1996 - 1998