

**GRETCHEN L. RUPP**  
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## **EDUCATION**

MS, Civil and Environmental Engineering, Utah State University, 1981  
BA, Biology, Carleton College, 1976, *cum laude*, with departmental honors

## **CURRENT PROFESSIONAL REGISTRATION**

Professional Engineer, Montana, License 10603 PE (1990)  
Professional Civil Engineer, California, License C 38705 (1984)

## **PROFESSIONAL AFFILIATIONS**

Member - American Water Works Association, American Water Resources Association  
President-Elect - National Institutes for Water Resources (2005)  
Board member - Universities Council on Water Resources (2003-2005)

## **EMPLOYMENT HISTORY**

**2000 - present. Director, Montana Water Center, Montana State University.** Responsible for the funding and operation of a research and outreach organization with 25 employees, a fisheries laboratory and an annual budget of \$2-3 million. Principal program areas are fisheries health, aquatic habitat, water quality, and small water systems.

<http://water.montana.edu/mwc/>

**1994 - 2000. Adjunct Associate Professor of Civil Engineering, Montana State University.** Appointment divided among the Montana Water Center, the MSU Extension Service and the Department of Civil Engineering. Served as Water Center Assistant Director and managed the Drinking Water Assistance Program, overseeing full-scale demonstrations of innovative treatment technologies at public water systems. As Extension Specialist, acted as consultant to engineers, public works directors and Montana citizens on issues of water and wastewater treatment, water quality, livestock wastes, air quality, and solid and hazardous wastes. Organized professional training courses, produced educational materials, made presentations, served on oversight committees, responded to requests for information or assistance. As Civil Engineering faculty member, taught environmental engineering and advised MS students.

**1988 - 1994. Independent Environmental Consultant.** Organized workshops on radioactive waste,

soil sampling and hazardous waste characterization, and edited the proceedings; coordinated biological baseline studies for hardrock mining; served as technical advisor to businesses and communities with hazardous-waste-site liability; prepared guidance documents on soil and waste characterization and soil treatability testing at Superfund sites.

**1987 - 1988. Senior Environmental Engineer, MSI Detoxification Inc.** Projects included environmental site assessments, development of site sampling and waste treatment workplans, and managing the vegetation and runoff investigations of the ASARCO East Helena Superfund investigation.

**1981 - 1987. Staff Environmental Engineer, Tetra Tech, Inc.** Collected data, performed technical evaluations and prepared reports concerning wastewater discharge, electric utility solid wastes, leaching of coal fly ash and scrubber sludge, and the environmental impacts of Midgetman missile deployment in Montana. Developed calculation methods for assessing pollutant behavior in the environment; prepared guidance documents; taught water quality assessment workshops. Served as project biologist in evaluating effects of hydropower development on montane fish habitat. Managed the field office and investigations for the Anaconda Smelter Remedial Investigation.

**1978 - 1981. Graduate Research Assistant, Utah Water Research Laboratory, Utah State University.** Examined the influence of benthic periphyton on the geochemistry of montane streams.

**1976 - 1978. Staff Biologist, Bermuda Biological Station.** Planned and conducted studies of the distribution, ecology and physiology of nuisance algae in shallow inshore waters. Participated in studies defining benthic marine communities and water quality, by field sampling, laboratory analysis and data interpretation.

## RESEARCH AND OUTREACH

Recent grant-funded research and outreach have concerned health of aquatic ecosystems (funded by the U.S. Fish & Wildlife Service and U.S. Environmental Protection Agency), small public water systems (funded by the EPA and Midwest Assistance Program), water line corrosion (funded by the International Copper Association), and wastewater treatment training (funded by the Indian Health Service).

## PUBLICATIONS AND EXTENSION BULLETINS

Ford, T., G. Rupp, P. Butterfield and A. Camper. 2005. Protecting Public Health in Small Water Systems: Report of an International Colloquium. In press, January 2005. Montana Water Center, Bozeman, MT. <http://water.montana.edu/colloquium/products/>

Rupp, G.L. and M. D. White (editors). 2004. Proceedings of the 7<sup>th</sup> International Symposium on Fish

Physiology, Toxicology and Water Quality. Tallinn, Estonia, May 12-15, 2003. U.S. Environmental Protection Agency Ecosystems Research Division, Athens, GA. EPA/600/R-04/049. 350 pp. <http://water.montana.edu/symposium/proceedings/>

Rupp, G.L. 2001. The challenges of installing innovative treatment at small water systems. *Journal of Environmental Health* 64(1): 22-25.

Samet, J., M. Araya, S. Baker, H. Dieter, J. Donohue, J. Forslund, K. Hellemann, G. Lagos, G. Rupp. 2000. *Acute Gastrointestinal Effects of Copper in Drinking Water: Methods for Conducting Public Health Investigations*. May, 2000. School of Public Health, Johns Hopkins University, Baltimore, MD. 124 pp.

Abdo, G, B. Keller and G. Rupp. 1999. Ion exchange and flushing for copper corrosion control in small public water systems. Proceedings of the American Water Works Association Annual Conference, Chicago, Illinois, June 22, 1999. AWWA, Denver, CO.

Rupp, G.L. 1997. Rainwater Harvesting Systems for Montana. MontGuide 9707. MSU Extension Service, Bozeman, MT. 5 pp.  
<http://www.montana.edu/wwwpb/pubs/mt9707.html>

Rupp, G.L. 1996. Water Conservation for Montana Communities. MSU Extension Service, Bozeman, MT. 18 pp.

Rupp, G.L. 1996. Pollution Prevention and Pretreatment for Publicly-Owned Treatment Works. Report prepared for US Environmental Protection Agency, Region VIII. MSU Extension Service, Bozeman, MT.

Rupp, G.L. 1995. Onsite Wastewater Management Options for Montana Businesses. MSU Extension Service Bulletin EB 136. Bozeman, MT. 64pp.

Rupp, G. L. (editor). 1994. Characterizing Containerized Mixed Low-Level Waste for Treatment. US EPA Office of Research and Development, US Department of Energy Office of Technology Development. EPA/600/R-94/149. Center for Environmental Research Information, Cincinnati, OH.

Rupp, G. and R. Jones (editors). 1992. Characterizing Heterogeneous Hazardous Wastes: Methods and Recommendations. US EPA Office of Research and Development; US Dept. of Energy. EPA/600/R-92/033, Cincinnati, OH.

Rupp, G.L. 1989. Bench scale fixation of soils from the Tacoma Tar Pits Superfund Site. Final Report. EPA/600/8-89/069. U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, NV.

Rupp, G.L., J.J. Barich, B.J. Mason and K.W. Brown. 1989. Soil stabilization and fixation field methods. Proceedings of the USEPA 5th Annual Waste Testing and Quality Assurance Symposium,

Washington DC, July 24-28, 1989. U.S. Environmental Protection Agency, Cincinnati, OH.

Bowie, G.L., W.B. Mills, D.B. Porcella, C.L. Campbell, J.R. Pagenkopf, G.L. Rupp, K.M. Johnson, P.W.H. Chen, S.A. Gherini, and C.E. Chamberlin. 1985. Rates, constants and kinetics formulations in surface water quality modeling. 2nd edition. EPA-600/3-85/040. U.S. EPA Environmental Research Laboratory, Athens, GA. 455 pp.

Rupp, G.L., K.V. Summers and S.A. Gherini. 1983. Physical-chemical characteristics of utility solid wastes. Electric Power Research Institute, Palo Alto, CA. EPRI EA-3236. 250 pp.

Mills, W.B., J.D. Dean, D.B. Porcella, S.A. Gherini, R.J.M. Hudson, W.E. Frick, G.L. Rupp and G.L. Bowie. 1982. Water quality assessment: a screening procedure for toxic and conventional pollutants in surface waters. U.S. EPA Environmental Research Laboratory, Athens, GA. EPA-600/6-82/004a,b. 983 pp.

Rupp, G.L. 1978. Studies on Bermuda *Cladophora* species. In J. Barnes and B. von Bodungen (editors), The Bermuda Marine Environment. Vol II, pp 79-84. Special Publication No 17. The Bermuda Biological Station, St. Georges= West, Bermuda.

Rupp, G.L. 1978. Ecology of Bermuda seagrasses. Ibid. pp 85-93.