

RESUME of ALLEN W. HATHEWAY

EDUCATION

A.B., 1961, Geology
M.S., 1966, Geological Engineering; Minor in Civil Engineering
Ph.D., 1971, Geological Engineering; Minor in Civil Engineering
Professional Degree, 1982, Geological Engineering

UCLA
University of Arizona
University of Arizona
University of Arizona

PROFESSIONAL REGISTRATION

Geological Engineer:	Arizona	Geologist:	California, Maine, Missouri
Engineering Geologist:	California	Civil Engineer:	California, Massachusetts

EXPERIENCE

From 2000: **International Consultant** on Site Characterization, Mitigation, Environmental Remediation, Geotechnical Trouble-Shooting, & General Forensics; particularly former manufactured gas plants and other coal-tar sites.

1981-2000: **Tenured Full Professor, Geological Engineering**, School of Mines & Metallurgy, University of Missouri-Rolla (now Missouri University of Science & Technology, 2008)

Planning, guidance and expert consultation and testimony on site & waste characterization and environmental management and cleanup of uncontrolled and brownfield sites, seismic risk assessment; hazards mitigation; rock engineering and underground construction (predicting geologic conditions and development of variable site-condition clauses for full geotechnical disclosure); critical facility siting; expert testimony, trouble shooting, and elements of professional practice. Particular specialties include industrial waste processes, waste disposal, laws and conformance regulations; generic specialties in manufactured gas and coke sites, explosives and munitions, heavy metals, PCBs and dioxin; PAHs and SVOCs and historic waste management practices in general.

Has technical specialties to include solid, special and hazardous waste management and cleanup, tunnels and underground openings, dams, reservoirs, highways, transmission lines and canals, nuclear and coal-fired power stations, mines, industrial plants, and urban geologic development projects in general, and all manner of failures due to geologic constraints.

Fifty years of professional experience, including field mapping, photogeologic, and site exploration programs in 20 states, Canada, the Caribbean, South America, Southeast Asia, Korea, Persian Gulf, Turkey, Southern Africa, Norway, and Western Europe.

1976 - 1981: **Vice President & Chief Geologist**, Haley & Aldrich, Inc., Cambridge, Massachusetts

Directed professional geologic staff; project management and technical guidance for hydrogeologic studies, waste management facility siting, rock structural evaluation, seismic risk assessment, and environmental service support for the full range of the firm's activities. From 1979 to 1981 also Adjunct Associate Professor of Geology, Boston University.

1969-1976: **Practiced in Los Angeles and San Francisco**, California

Geological Engineer in Los Angeles; positions with LeRoy Crandall & Associates (now MACTEC; staff engineer), Geotechnical and Materials Engineering Branch, U.S. Forest Service, Region 5 (project engineer), Woodward-Clyde Consultants (now URS; senior engineer), and FUGRO, Inc. (now Earth Tech; senior engineer & asst. to President). In San Francisco, as project geologist with Shannon & Wilson, Inc. From 1971 to 1974, taught geotechnical engineering at the University of Southern California, as Adjunct Assistant Professor of Civil Engineering.

1961-1991 - **Colonel, Corps of Engineers** (Retired, Army of The United States; TS Clearance); Terminal assignment as Chief of Staff (Mobilization), Ohio River Division (Cincinnati), and as one of ten Adjunct Faculty, National Defense University, Washington, DC. Also conceptor (1985) and former member of the U.S. Army Quick-Response Water-Finding Team for Rapid-Deployment Force operations, worldwide.

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1961-1969: Practiced in Arizona and in Washington State

1961-1963: Field Artillery Officer and Aerial Observer, 4th Infantry Division, U.S. Army. In 1964, soil laboratory technician (Arizona Highway Department) and engineering aide in rock mechanics instrumentation (U.S. Bur. Mines; San Manuel copper mine). 1965 to 1969, field mapping/drilling (Bear Creek, New Jersey Zinc Co., and Texas Gulf Sulfur) in south-central Arizona and southern New Mexico.

PROFESSIONAL SOCIETY MEMBERSHIPS

American Geophysical Union (Life Member)	Geological Society of London (1976; Fellow)
American Society of Civil Engineers (Fellow/Life Mem)	International Association for Engr. Geology
Association of Engineering Geologists (Honorary Mem)	International Society of Soil Mechanics &
Treasurer, 1982-1983; VP, 1984; President, 1985	Foundation Engineering
Association of Ground Water Scientists and Engineers	Montana Society of Professional Engineers
Association for Industrial Archaeology (Great Britain)	National Society of Professional Engineers
Council of California Historical Societies	Petroleum History Institute (Life Member)
Council for British Archaeology	Society of American Military Engineers (Life Member)
Geological Society of America (Since 1963; Fellow)	Society for Industrial Archaeology
Chairman, Engineering Geology Div., 1980	Society for Mining, Metallurgy & Exploration
Member, History of Geology Div.	(Formerly Soc. of Mining Engrs)
	Society of Environmental Journalists

PROFESSIONAL COMMITTEE ACTIVITIES

1977- 1982: ASCE Solid Waste Legislative Review Committee, Environmental Engineering Div.
 1979 - 1988: ASCE Committee on Environmental Concerns, Geotechnical Engineering Div.
 1980 - 2001: AEG Seismic Safety Committee
 1980 - Present: *Environmental & Engineering Geosciences* Editor and Creator: "Cities of The World Series"
 1980 - 1986: National Sanitation Foundation Comm. (B32); Flexible Membrane Liners
 1981 - Charter member, U.S. National Committee for Engineering Geology; 1985-1986
 1981 - 1986: ASCE Geotechnical Engineering Division Publications Committee
 1983 - Chairman, Publications Committee, Engineering Geology Division, GSA
 1983 - 1984: ASCE Environmental Engineering Div. Planner
 1983 - 1986: Member, U.S. National Committee on Tunneling Technology, National Research Council
 1983 - 1989: ASCE Hazardous Waste Committee (Environmental Engineering Div.)
 1983 - 2006: Member of Editorial Board, *Engineering Geology*, Amsterdam
 1984 - 1985: American Geological Institute, Board of Directors
 1985 - Panel Member, USEPA Science Advisory Board, Committee on Environmental Engineering
 1985 - 1986: Chairman, ASCE Environmental Engineering Div. Committee on Ground Water Quality
 1986 - Chairman, Awards Committee, Engineering Geology Division, Geological Society of America
 1987 - 1989: Member, 15-person Board on Earth Sciences, National Academy of Sciences
 1988 - Chairman, GSA, Engineering Geology Division Centennial Awards Committee
 1988 - 1989: USNRC Comm. on Solid-Earth Sciences; Chairman, Geology, Land Utilization & Environment
 1988 - 1993: Council on Health & Environmental Safety of Soils (CHESS); Chairman, Remedial Options
 1989 - ASCE, Environmental Engr Division, Subcommittee on Ground-Water Modeling (Manual of Practice)
 1989 - U.S. NRC Working Party; Preservation of Sphinx 1989 - 1991: Assoc. Ed., *Bulletin*, Geol. Soc of America
 1989 - Present: Creator and author, AEG *News* quarterly opinion column, *Perspectives*
 1990 - Member, AEG Committee on Ethics & Professional Practice
 1991 - 2001: Creator & Director, AEG *Archives*
 1991 - 1993 - Presidential Advisory Board, AEG
 1993 - 1995: Member ASCE Geotechnical Engr. Div., Subcommittee on Determination of Soil/Rock Permeability
 1995 - Present: Editorial Board, *Quarterly Journal of Engineering Geology*; Geological Society of London
 1995 - 2005 - Creator and Senior Author; Annual Report on Engineering Geology; *Engineering Geology*
 2003 - Present: Chairman, Joint Task Force on Areas of Practice for Engineers & Geologists (ASCE/AEG/AIPG)
 2010 - Founder and Manager of AEG Geoscience Library of Applied Technology -- www.geoscilibrary.org

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PUBLICATIONS

Remediation of Former Manufactured Gas Plants and other Coal-Tar Sites (2011); *Perspectives on Engineering Geology* (436 p., AEG, CD ROM, 2005); *Geology and Engineering*, 3d. ed., 1988, with the late Robert F. Legget; editor and major author of the 1988 AASHTO (American Association of State Highway & Transportation Officials) *Manual on Subsurface Investigations*; author, 1991 Corps of Engineers *Geotechnical Field Handbook; Geophysical Methods for Hazardous Waste Site Characterization* (1992, with G.L. Hempen as Special Publication No. 3, AEG; *Engineering Geology for Geologists* (ed. with A.F. Geiger, American Geol. Inst., 1982); *Geology in the Siting of Nuclear Power Plants*, 1979; AEG *Bulletin* series *Cities of The World* (now 22 papers); More than 280 published papers and abstracts in engineering geology, environmental geology, hydrogeology, environmental engineering, technical/regulatory history of waste management, waste management facility siting/design/cleanup, remediation of manufactured gas plants, geotechnical engineering, rock engineering, tunneling, seismic risk, critical-facility siting, and professional practice. Lead editor for *Engineering Geology in Missouri; a Compendium Survey of the Breadth & Depth of Its Practice* (launched Feb, 2008).

HONORS & AWARDS

1966 - Sigma Gamma Epsilon, National Earth Science Honorary
 1973 - California's Outstanding Young Civil Engineer; American Society of Civil Engineers
 1973 - Society of The Sigma Xi, National Science and Engineering Honorary Society
 1975 - Daniel W. Mead Prize; American Society of Civil Engineers
 1977-1981 - Sophomore Honors Lecturer, Geosciences, Harvard University, Cambridge, Massachusetts
 1981 - E.B. Burwell Memorial Award, Geological Society of America (Nuclear Plant Geology for Siting)
 1988 - Meritorious Service Medal, U.S. Army (North Korean Invasion Tunnel Detection)
 1989 - Certificate of Appreciation, MO Governor Ashcroft (Earthquake Readiness Improvement, Natl Guard)
 1989 - Meritorious Service Medal, U.S. Army, 1st Oak Leaf Cluster (New Madrid Earthquake Response)
 1992 - Meritorious Service Medal, U.S. Army, 2nd Oak Leaf Cluster, (SUPERFUND; Corps of Engrs. Start-Up)
 1994 - Floyd T. Johnston Award for Exceptional Service, Association of Engineering Geologists
 2000 - Richard H. Jahns Distinguished National Lecturer on Excellence in Engineering Geology (70 Lectures)
 2002 - Life Member, American Society of Civil Engineers (1965-1981, Associate Member; 1982 - Fellow)
 2002 - Elected Honorary Member, Association of Environmental & Engineering Geologists
 2002 - Distinguished Practice Award, Engineering Geology Division, The Geological Society of America
 2007 - Meritorious Service Award; Engineering Geology Division. The Geological Society of America
 2009 - Claire P. Holdredge Award (Best Publication of the Year) – AEG – for *Perspectives* (CDR book, 2005)

SPECIAL STUDIES and COURSES COMPLETED

1961 - U.S. Army Field Artillery Officer Basic Course, Ft. Sill, OK (Graduate)
 1962 - U.S. Army Aviation Crew Training, Aerial Observer, Ft. Lewis, WA
 1963 - U.S. Army Special Warfare Course, Special Forces Orientation, Ft. Bragg, NC
 1965 - U.S. Army Military Intelligence Officer Basic Course, Ft. Holabird, MD (Graduate)
 1976 - ASFE Institute of Professional Practice, for Design Professionals (Graduate)
 1976 - U.S. Army Command & General Staff College, Ft. Leavenworth, KS (Graduate)
 1977 - U.S. Army Engineer Officer Advanced Course, Ft. Belvoir, VA (Graduate)
 1980 - U.S. Army War College, Carlisle Barracks, PA (Graduate)
 1985 - U.S. EPA Hazardous Waste Health & Safety Training
 1993 - U.S. OSHA 40-hour Hazardous Waste Health & Safety Training (yearly refreshers through 1999)
 1993 - General Employee Radiation Training (8 hr.), Weldon Spring (MO) Site Remedial Action Project

TECHNICAL SHORT COURSES DIRECTED or TAUGHT

1971 - U.S. Forest Service, Region 5; 5-week Geotechnical Course, Geologists & Engineers; Officer-in-Charge
 1978 - Engineering Geology for Geologists, Two-day short course, co-director/co-editor of published notes.
 1982 - Symposium on Hazardous & Special Waste Management, St. Louis, co-director, for St. Louis Sec., AEG
 1982 - Corps of Engineers Basic Course in Engineering Geology, deputy director, 12 wk. (summer) UMR
 1983 - Corps of Engineers Advanced Course in Engineering Geology, deputy director, Fall Semester, UMR
 1985 - 1987: Office of Surface Mining, Field Engineering; co-director/instructor; 12 occasions, for 26 State Offices
 1985 - 1987: USEPA national lecturer on Remedial Engineering at Hazardous Waste Cleanup Sites
 1988 - Corps of Engineers Basic Course in Engineering Geology, Deputy Director, 12 weeks (summer), UMR.
 1988 - U.S. Army Corps of Engineers Environmental Law and Regulation, Co-Director and Principal Instructor.
 1989 - Allied-Signal Corp., Kansas City, MO, Environmental Regulation, Director and Principal Instructor.
 1993 - National Science Foundation - Environmental Geology for University Faculty (2-week course Instructor).

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