

JOHN M. WALLACE - CURRICULUM VITAE

Principal Engineering Geologist

Current Address

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Registration

California Professional Geologist, PG 6151, February 8, 1995

California Certified Engineering Geologist, CEG 1923, February 8, 1995

Education

M.S. Geology: San Jose State University, San Jose, California, 1991

B.S. Geology: University of Southern California, Los Angeles, California, 1985

Professional History

Staff to Principal Engineering Geologist, 1990 - Present; Cotton, Shires and Associates, Inc., Los Gatos, California.

Field Geologist, 1986-1988; Electrowatt Engineers/Gibbs and Hill, North Fork Stanislaus Hydroelectric Project, Murphys, California.

Field Geologist, 1986; United States Geological Survey, Denver, Colorado.

Representative Experience

Mr. Wallace has over 24 years of experience in the fields of geology and engineering geology, working on projects in both northern and southern California as well as Colorado, Utah, Hawaii, and North and South Dakota. Mr. Wallace has performed geologic mapping and evaluation of steep rock slopes affecting more than 40 penstocks, 20 dams and powerhouses, and 4 tunnels primarily within PG&E's hydro-generation facilities in the northern, central and southern Sierra Nevada, in addition to extensive experience in hydro-projects such as mapping dam abutments, tunnels and penstock alignments, as well as tunnel, abutment, and portal rock bolting. He has extensive experience in coastal geologic processes, coastal landslide investigation, characterization, and mitigation, and recently performed detailed geologic investigations of coastal bluff properties in San Luis Obispo County, San Mateo County, Santa Cruz County, Mendocino County and Santa Barbara County. In addition, he has recently investigated several large, active landslides that severely distressed roadways and residential areas, including the Sycamore Ranchito Landslide in Santa Barbara, the Northbeach Rockslide in San Francisco, the Ocean Trails Landslide in Rancho Palos Verdes, and the Montellano Landslide in Los Angeles. These projects involved extensive surface and subsurface investigation, instrumentation, and analysis. Mr. Wallace has also been involved with geologic mapping and siting studies for several fault and landslide constrained reservoirs, and recently mapped unstable coastal bluffs in Santa Barbara, San Luis Obispo, Mendocino, Bodega Bay, Capitola, Aptos, Montara and Pacifica. Many of these projects involved using rock climbing techniques to safely access steep rock slopes.

JOHN WALLACE (cont'd)

As a field geologist with Electrowatt/Gibbs and Hill from 1986 to 1988, Mr. Wallace participated in the exploration and construction phases of the North Fork Stanislaus Hydroelectric Project, where he was involved in siting studies for four dam sites (including one thin-arch concrete dam, one concrete-face rockfill dam, and two concrete gravity dams) and over ten miles of pressure tunnel and shafts. His responsibilities included geologic mapping, exploratory drilling and core logging, rock bolt support layout for dam abutments, geotechnical instrumentation installation and monitoring, exploratory trench logging, and extensive tunnel mapping of 10 miles of pressure tunnels and shafts, tunnel rock bolt support layout, and pressure grouting supervision.

Mr. Wallace's current duties include: research and compilation of pertinent geologic data; photogeologic mapping from aerial photographs; large-scale and regional engineering geologic field mapping; coordination, logging, and analysis of subsurface exploration programs, including downhole logging of large-diameter exploratory borings; geologic mapping of precipitous rock slopes using rock climbing techniques; installation and monitoring of slope inclinometers and piezometers; the final preparation of technical reports, maps and cross sections; attendance at and giving technical talks at professional conferences, and expertise witness testimony.

Professional Affiliations

Association of Engineering Geologists
Earthquake Engineering Research Institute

Selected Publications/Abstracts

DETAILED GEOLOGIC MAPPING UNCOVERS PREHISTORIC LANDSLIDE DAM IN THE RIDGE BASIN, CALIFORNIA, 2011, (with JOHNSON, Philip L.), Abstract submitted for the 11th International & 2nd North American Symposium on Landslides, Banff, Canada.

GEOLOGIC ENGINEERING TOUR OF SAN FRANCISCO AND THE SAN FRANCISCO PENINSULA, 2011, (with R. GOODMAN and D. MARCUM) American Rock Mechanics Association, 45th US Rock Mechanics/Geomechanics Symposium, Field Trip Leader and Field Trip Guide Book.

THE HIDDEN COMPLEXITY OF A DEEP-SEATED LANDSLIDE IN RICHMOND, CALIFORNIA, 2011, (with JOHNSON, Philip L.), Abstract submitted for the 11th International & 2nd North American Symposium on Landslides, Banff, Canada.

DEEP ROCK TOPPLING DISTRESS AT BELDEN TUNNEL AND SIPHON, SIERRA NEVADA, CALIFORNIA, 2011, (with D. Marcum), Abstract submitted for the 13th International Conference and Field Trips on Landslides, Kyoto, Japan.

WOODLEAF ROCKFALL, NORTHERN SIERRA NEVADA, CALIFORNIA: KEEPING THE POWERHOUSE OPERATING AFTER A NEAR MISS, 2011, (with D. MARCUM), Abstract submitted for the 13th International Conference and Field Trips on Landslides, Kyoto, Japan.

COMPLEX INTERPLAY BETWEEN TOPPLING, SLIDING, AND STRESS CHANGES ASSOCIATED WITH A MASSIVE LANDSLIDE, SANTA BARBARA, (with SHIRES, Patrick O., DURDELLA, Milton J., SNEDDON, Tim P.), in Program with Abstracts, 2009 Association of Engineering Geologists Annual Convention, South Lake Tahoe.

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UNSTABLE SLOPES IN THE FRANCISCAN COMPLEX TERRANE: LESSONS LEARNED FROM URBAN QUARRY SLOPES IN THE SAN FRANCISCO BAY AREA, 2007, (with Ted M. Sayre), in Program with Abstracts, First North American Landslide Conference, Vail Colorado, Page 81.

GEOLOGIC CHARACTERIZATION OF RANGE-FRONT THRUST FAULTS, WESTERN MARGIN OF SANTA CLARA VALLEY, CALIFORNIA, 2005, (with Ted M. Sayre, Ron S. Rubin), in Abstracts with Programs, Geological Society of America 101st Annual Meeting, Cordilleran Section, Page 43.

CATASTROPHIC DEBRIS FLOW FAILURE OF THE LA CONCHITA HILLSIDE: LESSONS REVISITED, VENTURA COUNTY, CALIFORNIA; 2005 (with William R. Cotton), in Abstracts with Programs, Geological Society of America 101st Annual Meeting, Cordilleran Section, 2005, Page 43.

THE OCEAN TRAILS LANDSLIDE: DEFINING SAFE ZONES ALONG HIGH COASTAL BLUFFS, RANCHO PALOS VERDES, CALIFORNIA; 2005 (with William R. Cotton), in Abstracts with Programs, Geological Society of America 101st Annual Meeting, Cordilleran Section, 2005, Page 43.

ROCKFALL HAZARD EVALUATION AT THE KERN INTAKE, KERN CANYON PENSTOCK, KERN RIVER, SOUTH-CENTRAL CALIFORNIA: 2003 (with William D. Page, Dale R. Marcum and Joseph M Durdella), in Program with Abstracts, Association of Engineering Geologists, 2003, Annual Meeting, Page 70.

INSTABILITY OF AN ABANDONED QUARRY SLOPE: LESSONS LEARNED FROM FRANCISCAN COMPLEX CHERT, SAN FRANCISCO, CALIFORNIA: 2002 (with Dale R. Marcum, and William R. Cotton), in Program with Abstracts, Association of Engineering Geologists, 2002, Annual Meeting, Page 89.

LIVING WITH MOVING GROUND- LANDSLIDES AND COSTAL EROSION IN SAN MATEO COUNTY, CALIFORNIA: 2000 (with W.F. Cole, M.G. Smelser, E. Hay, T. Sayre, J. Van Velsor, T. Whitman, C. Snell and D.S. Kieffer) Association of Engineering Geologist Field Trip Guidebook, 31 pages.

GEOLOGIC AND GEOTECHNICAL CHARACTERIZATION OF THE WEEKS CREEK LANDSLIDE, SAN MATEO COUNTY, CALIFORNIA: 1994 (with William F. Cole and Patrick O. Shires), National Earthquake Hazards Reduction Program, U. S. Geological Survey grant 1434-93-G-2340.

GEOLOGIC INVESTIGATION OF MECHANISMS CAUSING DEFORMATION OF COYOTE LAKE DAM, SANTA CLARA COUNTY, CALIFORNIA: 1994 (with Tim Hall, Michael Angell, and William F. Cole), in Geological Society of America, Cordilleran Section 90th Annual Meeting, March 21-23, 1994, San Bernardino, California, Abstracts with Programs, p. 56.

GEOLOGIC CONSTRAINTS ON THE QUATERNARY TECTONIC HISTORY OF THE NORTHEASTERN MARGIN OF THE CENTRAL SANTA CRUZ MOUNTAINS, CALIFORNIA: 1994 (with William R. Cotton, and William F. Cole), in EOS, Transactions, American Geophysical Union, 1994, Fall Meeting, p. 682.